PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

June 6, 2011

Ms. Kirstin Pointin-Hahn, Chief
Bureau of Case Assignment & Initial Notice
Site Remediation Program
New Jersey Department of Environmental Protection
401 East State Street, 5th Floor
Post Office Box 434
Trenton, New Jersey 08625-0434

Re: Preliminary Assessment and Remedial Investigation Reports
SRP PI# 510630, Palmer Industries, Inc.
59-97 Chapel Street Rear, Block 2442, Lot 3
Newark City, Essex County, New Jersey

Dear Chief Hahn:

The referenced are attached for your review. Enclosed are the following items:

1. Annual Remediation Fee Reporting Form with check
2. Preliminary Assessment/Site Investigation Form with PA Report
3. Case Inventory Documents Worksheet
4. Remedial Investigation Report Form with RI Report
5. Appendices (15) with documentation supporting the reports
6. Laboratory data in hard copy and EDI format (EDI on CD-ROM only)
7. CD-ROMs (3) containing all documents in electronic format

This submittal will satisfy the proposed schedule provided in the Remediation Time Frame Extension Request Form for this site which projected compliance by July 1, 2011. The work involved the initial assessment of the entire property and remediation of ancient underground storage tanks. The site has been taken by Essex County under Eminent Domain and the County will be continuing the remediation process. Therefore, this package also contains an LSRP Notification of Retention or Dismissal ending my involvement with the project.

Please feel free to call or e-mail me with any questions or comments you may have.

Very truly yours,
Pennjersey Environmental Consulting, Inc.

Richard J. Katz, M.S., LSRP
President

enc.

[510630_20110527_PALMER INDUSTRIES_PA-RIR}

243421

c: C. Guido, Palmer Industries (electronic copy only)
R. Chambers, Esq. (electronic copy only)
J. Buonocore, Esq. (electronic copy only)
G. Duus, Esq. (electronic copy only)
M. Brogan (electronic copy only)

PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

June 6, 2011

Mr. Christopher Guido, Managing Director
Palmer Industries, Inc.
99 Chapel Street
Newark, New Jersey 07105

Re: Site Remediation Compliance Documents
PI #510630, Palmer Industries, Inc.
59-97 Chapel Street Rear, Block 2442/Lot 3
City of Newark, Essex County, New Jersey

Dear Mr. Guido:

This package contains documents related to the remedial activities conducted at the referenced property. It is suitable for submittal to the New Jersey Department of Environmental Protection (NJDEP) but should be accompanied by a Remedial Action Workplan addressing the additional work planned by Essex County. It is my understanding that the new Licensed Site Remediation Professional (LSRP) to be retained by the County will carry this project forward to conclusion.

Since the ultimate goal is to have the LSRP issue a full facility Response Action Outcome (RAO), this package consists of a Preliminary Assessment Report and Remedial Investigation Report (the latter as specified in the settlement agreement between Palmer Industries and Essex County). Also included are the requisite Site Remediation Reform Act (SRRA) forms and various appendices supporting the reports.

The package also includes a CD-ROM with all reports and previous submittals to be provided to the LSRP as part of his or her RAO issuance.

This concludes our direct involvement with remedial activities at your property. I thank you for the opportunity to have been of assistance to you in this matter and hope to have the opportunity to be of service in the future. Please feel free to call me or e-mail me (pecinc@aol.com) with any questions or comments you may have

Very truly yours,
Pennjersey Environmental Consulting, Inc.

Richard J. Katz. M.S., LSRP
President

enc.

[510630_20110527_PALMER INDUSTRIES_PA-RIR}

c: R. Chambers, Esq. (electronic diskette only)
J. Buonocore, Esq. (electronic diskette only)
G. Duus, Esq. (electronic diskette only)
M. Brogan (electronic diskette only)

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2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM

PI #510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR
CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY

MAY 2011

CONTAINS:

PRELIMINARY ASSESSMENT REPORT
REMEDIAL INVESTIGATION REPORT
RELATED SRRA-LSRP FORMS
PREVIOUS SUBMITTALS TO NJDEP

Prepared for

PALMER INDUSTRIES, INC.
NEWARK, NEW JERSEY

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM

PI# 510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, NEWARK CITY
ESSEX COUNTY, NEW JERSEY

PRELIMINARY ASSESSMENT AND REMEDIAL INVESTIGATION REPORTS, MAY 2011

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SRRA-LSRP FORMS — **SECTION 1**

Annual Remediation Fee Reporting Form (with check)

Preliminary Assessment/Site Investigation Form

Case Inventory Documents Worksheet

Remedial Investigation Report Form

LSRP Notification of Retention or Dismissal Form

PRELIMINARY ASSESSMENT REPORT — **SECTION 2**

PAR Form - Traditional

REMEDIAL INVESTIGATION REPORT — **SECTION 3**

APPENDICES — **SECTION 4**

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2	Site History & Description of Current Operations	2-1
3	Resources Used to Compile Site History	3-1
4	Hazardous Substance/Waste Inventory	4-1
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LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM

PI# 510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, NEWARK CITY
ESSEX COUNTY, NEW JERSEY

PRELIMINARY ASSESSMENT AND REMEDIAL INVESTIGATION REPORTS, MAY 2011

PREVIOUSLY SUBMITTED FORMS AND DOCUMENTS — SECTION 5

LSRP Notification of Retention or Dismissal Form

Confirmed Discharge Notification

Notice of Planned Remedial Activity

Receptor Evaluation Form

Remediation Time Frame Extension Request Form

LABORATORY ANALYTICAL REPORTS — SECTION 6

1. IAL Report E09-11437, "TP" series, 11/09/2009
2. IAL Report E09-12542, "T" series, 12/08/2009
3. IAL Report E09-12676, "SBD" & "ANOME", 12/14/2009
4. IAL Report E09-12828, "L", "T1" & "T2" series,12/16-17/2009
5. IAL Report E09-12828, Addendum, fingerprint analysis
6. IAL Report E10-00176, "MW8 – MW11", 01/07/2010
7. IAL Report E10-01419, "TW1 – TW3", 02/16/2010
8. IAL Report E10-01500, "T" & "L" series delineation samples, 02/17-18/2010
9. IAL Report E10-04018, "P4" & "Z" series, 04/29/2010
10. IAL Report E10-04230, "L8-D2", duplicate for lost sample, 05/05/2010
11. IAL Report E10-05088, "TW-1A" & "TW-3A", 05/22/2010
12. IAL Report E10-09269, "MW12 – MW14", installation soil samples, 09/15/2010
13. IAL Report E10-09270, "TP10A" series, 09/15/2010
14. IAL Report E10-09980, "MW8R" & "MW12 – MW17", 10/05/2010
15. IAL Report E10-12342, "MW8R", "MW12" & "MW14",12/04/2010
16. IAL Report E11-00286, "MW8R", "MW12 – MW14" &"MW-17", 01/11/2011

PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM
PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

PI# 510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

SECTION 1

SRRA-LSRP FORMS

Prepared for

PALMER INDUSTRIES, INC.
NEWARK, NEW JERSEY

New Jersey Department of Environmental Protection
Site Remediation Program

ANNUAL REMEDIATION FEE REPORTING FORM

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Date: 06/01/2011

Site Name: Palmer Industries, Inc.

List all AKAs:

Street Address: 59-97 Chapel Street

Municipality: Newark City (Township, Borough or City)

County: Essex Zip Code: 07105

Mailing Address if different than street address:

Program Interest (PI) Number(s): 510630 Case Tracking Number(s): 09-11-09-1042-09

Date trigger compliance with N.J.A.C. 7:26C-2: 11/09/2009

Check One: First Annual ☐ Renewal ☐

SECTION B. FEE BILLING CONTACT

Business Name: Palmer Industries, Inc. Phone: 9734894400

Contact: Christopher Guido Title: Managing Director

Street Address: 99 Chapel Street

City: Newark State: NJ Zip Code: 07105

SECTION C. APPLICATION CATEGORY FEE

Fee Category	Number of CAOC	Annual Fee
☒ 1	0 to 1	$450.00
☐ 2	2 to 10	$900.00
☐ 3	11 to 20	$5,000.00
☐ 4	> 20	$9,500.00

Note: Regulated UST where remediation is not fully completed and/or regulated heating oil systems are in Category 2
Landfills are in Category 3

Subtotal Fee from Section C: $450.00

SECTION D. CONTAMINATED MEDIA FEE

☒ Ground Water Contamination	$1,400.00
☐ Surface Water Sediment Contamination	$1,400.00
☐ Ground Water Unpermitted Discharge to Surface Water	$1,400.00

Subtotal Fee from Section D: $1,400.00

Total Fee Paid from Section C and Section D: $1,850.00 Check #: 1191

SECTION E. CONTAMINATED AREAS OF CONCERN – List all CAOCs (include existing, new and closed (RAO Filed).

Description of Contaminated Area of Concern	New Since Last Annual Fee Form Submitted? ☒ if "Yes"	RAO Date (if applicable)	Permit Type (if applicable)	Permit ID Number	Permit Date
USTs - fully remediated	☒				
GW contamination to be addressed	☒				
Hitoric fill throughout the site	☒				
	☐				
	☐				
	☐				
	☐				
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	☐				
	☐				
	☐				

SECTION F. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Palmer Industries, Inc.

Representative First Name: Christopher Representative Last Name: Guido

Title: Managing Director

Phone Number: (973) 489-4400 Ext: Fax:

Mailing Address: 99 Chapel St

City/Town: Newark State: NJ Zip Code: 07106

Email Address: cguido@portwide.com

This certification shall be signed by the responsible party who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, and that to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: Date: 5/27/11

Name/Title: Christopher Guido, Managing DIrector **No Changes Since Last Submittal** ☐

SECTION G. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 505618

First Name: RIchard Last Name: Katz

Phone Number: (215) 860-1231 Ext: Fax: (215) 860-9988

Mailing Address: 2034 East Wellington Rd

City/Town: Newtown State: pa Zip Code: 18940

Email Address: pecinc@aol.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

☐ *directly oversaw and supervised all of the referenced remediation, and\or*

☒ *personally reviewed and accepted all of the referenced remediation presented herein.*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: Date: 5/31/2011

LSRP Name/Title: Richard J. Katz, President **No Changes Since Last Submittal** ☒

Company Name: Pennjersey Environmental Consulting, Inc.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

PALMER INDUSTRIES, INC. 1191

REFERENCE NO.	DESCRIPTION	INVOICE DATE	INVOICE AMOUNT	DISCOUNT TAKEN	AMOUNT PAID
	PROFESSIONAL FEES				1,850 00

CHECK DATE	CHECK NO.	PAYEE	DISCOUNTS TAKEN	CHECK AMOUNT
6/1/11	1191	TREASURER STATE OF NEW JERSEY		$1,850 00

ORIGINAL DOCUMENT PRINTED ON CHEMICAL REACTIVE PAPER WITH MICROPRINTED BORDER - SEE REVERSE SIDE FOR COMPLETE SECURITY FEATURES

1191

Commerce Bank America's Most Convenient Bank® 1-800-YES-BANK

PALMER INDUSTRIES, INC.
99 CHAPEL STREET
NEWARK, NEW JERSEY 07105

55-136/312

CHECK NO	DATE	AMOUNT
1191	Jun 1, 2011	$ 1,850.00

Memo: P# 510630

PAY TO THE ORDER OF: One Thousand Eight Hundred Fifty and 00/100 Dollars

TREASURER STATE OF NEW JERSEY

PALMER INDUSTRIES, INC.

MP

FILE COPY

THIS DOCUMENT CONTAINS HEAT SENSITIVE INK - TOUCH OR PRESS HERE - RED IMAGE DISAPPEARS WITH HEAT

[redacted]

New Jersey Department of Environmental Protection
Site Remediation Program

PRELIMINARY ASSESSMENT / SITE INVESTIGATION

☐ Non-LSRP (Existing Cases) ☒ LSRP ☐ Subsurface Evaluator

Date Stamp
(For Department use only)

A Phase I or Phase II is not equivalent to a Preliminary Assessment, therefore, it will not be an acceptable substitution.

SECTION A. SITE NAME AND LOCATION

Site Name: Palmer Industries, Inc.

List all AKAs:

Street Address: 59-97 Chapel Street Rear

Municipality: Newark CIty (Township, Borough or City)

County: Essex Zip Code: 07105

Incident Number(s)/Com. Center Number(s): 09-11-09-1042-09

Program Interest (PI) Number(s): 510630 Case Tracking Number(s): 09-11-09-1042-09

Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2.2 or 2.3(b):

State Plane Coordinates for a central location at the site: Easting: 590953 Northing: 693103

Municipal Block(s) and Lot(s): Block # 2442 Lot # 3

Block # Lot # Block # Lot #

Block # Lot # Block # Lot #

Block # Lot # Block # Lot #

Block # Lot # Block # Lot #

SECTION B. NJDEP CASE MANAGER

Do you have an assigned Case Manager? ..... ☐ Yes ☒ No

If "Yes," please list the Case Manager:

SECTION C. REQUIRED TECHNICAL SUBMITTALS

	Not Applicable	Included in This Submission	Previously Submitted	Date of Submission	Date of Revised Submission
Immediate Environmental Concern Report	☒	☐	☐		
Immediate Response Action Plan	☒	☐	☐		
Preliminary Assessment Report	☐	☒	☐		
Receptor Evaluation	☐	☐	☒	02/26/2011	
Site Investigation Report	☒	☐	☐		
Remedial Investigation/Remedial Action Work Plan	☐	☒	☐		
Feasibility Study Report	☒	☐	☐		
Response Action Outcome Report	☒	☐	☐		

SECTION D. SITE USE

Current Site Use (check all that apply)

☐ Industrial ☐ Agricultural
☐ Residential ☐ Park or recreational use
☒ Commercial ☐ Vacant
☐ School or child care ☐ Government
☐ Other:

Intended Future Site Use, if known (check all that apply)

☐ Industrial ☒ Park or recreational use
☐ Residential ☐ Vacant
☐ Commercial ☐ Government
☐ School or child care ☐ Future site use unknown

SECTION E. CASE TYPE: (check all that apply)

- ☐ Child Care Facility
- ☐ School facility
- ☐ School Development Authority (SDA)
- ☐ UST Grant/Loan
- ☒ Hazardous Discharge Remediation Fund (HDSRF) Grant/Loan
- ☐ Administrative Consent Order (ACO)
- ☐ Remediation Agreement (RA)
- ☐ Brownfield Development Area (BDA)
- ☐ Site is located within an economic development priority area
- ☐ ISRA
- ☒ Regulated Underground Storage Tank (UST)
- ☐ Landfill
- ☐ Federal oversight (RCRA, CERCLA, DOD, TSCA, etc.)
- ☐ Coal Gas
- ☐ Chrome Site (Chromate chemical production waste)
- ☒ Spill Act Discharge
- ☐ Due Diligence with RAO
- ☐ Not Applicable

SECTION F. PUBLIC FUNDS

Did the remediation utilize public funds? ☒ Yes ☐ No

If "Yes," check applicable:

- ☐ UST Grant
- ☐ UST Loan
- ☐ Brownfield Reimbursement Program
- ☒ HDSRF Grant
- ☐ HDSRF Loan
- ☐ Landfill Reimbursement Program
- ☐ Spill Fund
- ☐ Schools Development Authority

SECTION G. GENERAL

1. Was an inspection of the site conducted? ☒ Yes ☐ No ☐ NA
   Date of the inspection 11/09/2009
2. Did the PA identify any areas of concern? ☒ Yes ☐ No ☐ NA
   If "Yes," please complete section H2.
3. What page or appendix is the site map indicating all of the areas of concern located? Appendix @@
4. Did the PA identify any current or historic industrial, commercial, agricultural or residential use at the site dating back to the time the site was naturally vegetated? ☒ Yes ☐ No ☐ NA
   If "Yes," please complete section H1.
5. Prior to this submittal have any NFAs/RAOs been issued for this site? ☐ Yes ☒ No
   a. Does the site currently have a Deed Notice? ☐ Yes ☒ No
   b. Does the site currently have a CEA? ☐ Yes ☒ No
   c. Has an order of magnitude evaluation been performed? ☐ Yes ☒ No
6. Is the ground water at the site classified as a Class I Ground Water? ☐ Yes ☒ No
7. Are there potable wells on-site? ☐ Yes ☒ No
8. Has a well search been conducted pursuant to N.J.A.C. 7:26E-1.17? ☒ Yes ☐ No
   a. If "Yes," are there any potable wells within 200' of the AOCs listed in H2 or within 200' of the site boundary? ☐ Yes ☒ No
9. Is the site investigation complete? ☒ Yes ☐ No

SECTION H. SITE INFORMATION

H1. Current and Historic Operators/Operations (attach additional sheets as necessary)

Name of Operator	Type of Operation – e.g., dry cleaning, electro-plating, residence	Dates of Operation	
		Start	End
See Appendix 1			

H2. Areas of Concern (For PA or PA/SI Report, list each AOC; for SI Report, list only AOCs documented in this submittal.)

	Area of Concern	Currently Exists? ☒ if "Yes"	Formerly Existed? ☒ if "Yes"	Investigation: SI Conducted ☒ if "Yes"	Investigation: RI Proposed ☒ if "Yes"
1	Above ground storage tank and associated piping	☐	☒	☒	☐
2	Area of stressed vegetation	☐	☐	☐	☐
3	Area which receives flood or storm water from potentially contaminated areas	☐	☐	☐	☐
4	Chemical storage cabinet and closet	☐	☐	☐	☐
5	Compressor vent discharge	☐	☐	☐	☐
6	Discharge area pursuant to N.J.A.C. 7:1E	☐	☐	☐	☐
7	Discolored or spill area	☐	☐	☐	☐
8	Drainage swale and culvert	☐	☐	☐	☐
9	Drywell and sump	☐	☒	☒	☐
10	Dumpster	☐	☐	☐	☐
11	Electrical transformer and capacitor	☐	☐	☐	☐
12	Floor drain collection system	☐	☐	☐	☐
13	Former agricultural applied pesticide area	☐	☐	☐	☐
14	Hazardous material storage or handling area	☐	☐	☐	☐
15	Historic fill or any other fill material	☒	☐	☒	☒
16	Hydraulic lift	☐	☐	☐	☐
17	Incinerator	☐	☐	☐	☐
18	Landfill or landfarm	☐	☐	☐	☐
19	Loading and unloading area	☐	☒	☒	☐
20	Non-contact cooling water discharge	☐	☐	☐	☐
21	Open area away from production area	☐	☐	☐	☐
22	Piping, above ground and below ground pumping station, sump and pit	☐	☒	☒	☐
23	Process area sink and piping which receive process waste	☐	☐	☐	☐
24	Rail car	☐	☐	☐	☐
25	Roof leader when process operations vent to the roof	☐	☐	☐	☐
26	Septic system, leachfield or seepage pit	☐	☐	☐	☐
27	Silo	☐	☐	☐	☐
28	Sprayfield	☐	☐	☐	☐
29	Storage pad including drum and/or waste storage	☐	☐	☐	☐
30	Storm sewer and spill containment collection system	☐	☐	☐	☐
31	Storm water detention pond and fire pond	☐	☐	☐	☐
32	Surface impoundment and lagoon	☐	☐	☐	☐
33	Surface water body	☒	☐	☒	☐
34	Underground piping including industrial process sewer	☐	☐	☐	☐
35	Underground storage tank and associated piping	☐	☒	☒	☐
36	Waste pile as defined by N.J.A.C. 7:26	☐	☐	☐	☐
37	Waste water treatment	☐	☐	☐	☐
38	Other: Miscellaneous subsurface anomalies detected by GPR survey	☐	☒	☒	☐

H3. Complete this section only if an ISRA waiver was issued or an ISRA NFA was issued under an expedited review or Limited Site Review.

ISRA Case #	Expedited Review	Limited Site Review	Remediation In Progress Waiver	Regulated UST Waiver	Date	Comments
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		

H4. REGULATED USTs: Complete if any underground storage tanks (USTs) on site are regulated Pursuant to N.J.A.C. 7:14B

a. Have all the regulated USTs on site been registered with the Department? ☒ Yes ☐ No

b. Have all incidents related to regulated USTs been remediated/investigated? ☒ Yes ☐ No

c. Have any USTs been removed on/after September 4, 1990? ☒ Yes ☐ No

d. Including this submittal, has an SI/RI report been submitted for all USTs closed on/after September 4, 1990? ☒ Yes ☐ No

H5. Compliance Check (Complete only if sampling of soil and/or ground water was conducted)

a. Identify the media if impacted above applicable standards/screening levels (check all that apply):

☒ soil ☒ ground water

Type of contamination in soil and ground water above applicable standards/screening levels (check all that apply):

Soil	Ground Water		Soil	Ground Water	
☒	☒	Volatile Organics	☐	☐	PCBs
☒	☐	Polycyclic Aromatic Hydrocarbons(PAHs)	☐	☐	Chromium
☐	☐	Acid Extractables	☐	☐	Dioxin
☐	☐	Base Neutrals (non-PAHs)	☒	☐	Mercury
☒	☒	Metals	☒	☐	Arsenic
☐	☐	Pesticides	☐	☐	Perchlorate, RDX, TNT, etc.
☒	☐	PHC	☐	☒	Other, specify Sodium - saltwater intrusion

b. For all AOCs at which a SI was conducted, but no RI/RA is proposed:

1) Are any soil analytical results greater than the most stringent Direct Contact Soil Remediation Standards (DCSRS)? ☐ Yes ☒ No

2) Are any soil analytical results greater than the default Impact to Ground Water Soil Screening Levels (IGWSSL)? ☒ Yes ☐ No

3) Are any ground water analytical results greater than the Ground Water Quality Standards (GWQS)? ☒ Yes ☐ No ☐ NA

4) Are any Method Detection Limits (MDLs) greater than the applicable soil and/or ground water standards or screening levels? ☒ Yes ☐ No

5) Are any surface water analytical results greater than the most stringent, both human and ecological, Surface Water Quality Standards? ☐ Yes ☐ No ☒ NA

6) Are any sediment analytical results above the screening levels? ☐ Yes ☐ No ☒ NA

7) Are any analytical results above the vapor intrusion screening levels? ☒ Yes ☐ No ☐ NA

8) Did the SI document, via a background investigation, outside the influence of onsite AOCs and operational areas, determine that:

a) contamination is migrating onto this site per N.J.A.C. 7:26E-3.7(g)? ☐ Yes ☐ No ☒ NA

b) contamination is naturally occurring per N.J.A.C. 7:26E-3.10? ☐ Yes ☐ No ☒ NA

9) Contamination is associated with an ongoing ISRA remediation..... ☐ Yes ☐ No ☒ NA

c. Have Alternative Remediation Standards (ARS) been utilized for Inhalation and/or Ingestion/Dermal pathways?..... ☐ Yes ☒ No

d. Have any site specific Impact to Groundwater Soil Remediation Standards (IGWSRS) been established?..... ☐ Yes ☒ No

Note: Complete if "Yes" to question b.) 1-4, c. or d. List affected AOC(s) below; attach additional sheets if necessary.

Area of Concern (from H2. above)	Exceeds DCSRS	Exceeds IGWSSL	Exceeds GWQS	MDLs > Standards	ARS	Site Specific IGWSRS	Comments
Historic Fill	☒	☒	☐	☐	☐	☐	Typical non-chromate historic fill
	☐	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	

SECTION I. ALTERNATIVE REMEDIATION STANDARD / DEVIATIONS

Alternative remediation standard

If proposing an alternative remediation standard pursuant to N.J.A.C. 7:26D-7.4, check here and attach the Alternative Soil Remediation Standard Application Form as an addendum. ☐

Deviation from regulations

If the Licensed Site Remediation Professional has varied from the Technical Rules, provide the citation(s) from which the remediation varied and the page(s) in the attached document where the rationale for the deviation is provided.

N.J.A.C. 7:26E- _____ Page _____

N.J.A.C. 7:26E- _____ Page _____

N.J.A.C. 7:26E- _____ Page _____

SECTION J. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Palmer Industries, Inc.

Representative First Name: Christopher Representative Last Name: Guido

Title: Managing Director Business Affiliation: Palmer Industries, Inc.

Phone Number: (973) 589-4400 Ext: _____ Fax: _____

Mailing Address: 99 Chapel Street

City/Town: Newark State: NJ ZIP Code: 07105

Email Address: cguido@portwide.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: _____ Date: 5/27/11

Name/Title: Christopher Guido, Managint Director **No Changes Since Last Submittal** ☒

SECTION K. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 505618

First Name: Richard Last Name: Katz

Phone Number: (215) 860-1231 Ext: Fax: (215) 860-9988

Mailing Address: 2034 East Wellington Rd

City/Town: Newtown State: PA Zip Code: 18940

Email Address: pecinc@aol.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

☒ *directly oversaw and supervised all of the referenced remediation, and\or*

☒ *personally reviewed and accepted all of the referenced remediation presented herein*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: Date: 5/31/2011

LSRP Name/Title: Richard J. Katz, President **No Changes Since Last Submittal** ☒

Company Name: Pennjersey Environmental Consulting, Inc.

Submit this form to the assigned case manager. If there is no assigned case manager, submit this form to:

Bureau of Case Assignment & Initial Notice
New Jersey Department of Environmental Protection
Site Remediation Program
401 East State Street, PO Box 434
Trenton, NJ 08625

Case Inventory Document

SRP PI # 510630, Palmer Industries, Inc.

I. Area(s) of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Receptors		Current Status/Outcome
				Existing	Potential	
AOC A- ASTs	None	None	None	None	None	Existence of such tanks postulated from the 90-year industrial history of the property prior to Palmer Industries ownership that commenced in 1982. PA found no evidence of supporting structures No specific information on the locations of ASTs was found but the presence of such units can be safely postulated. No visible evidence was identifiable onsite and no anomalies found by a ground penetrating radar survey indicate the former presence of such tanks. No further investigation of this matter is proposed.
AOC B - USTs	Soil, ground water	Benzene, VO TICs	Direct contact	None	None	GPR survey identified a series of anomalies throughout the site. Three of them proved to contain a total of 5 ancient underground tanks - 7,500-gallon #4 oil, 7,500-gallon #6 oil, 1,000-gallon gasoline and two 10,000-gallon #6 oil. All tanks were registered with the UST Billing and Registration Unit, local permits were obtained, the tanks, contents, piping and all affected soil were removed for off-site disposal and final UST Facility Certification Questionnair submitted. Residual ground water contamination in the form of benzene (max 2.49 ug/l) and VO TICs (max 1584 ug/l) remain in the vicinity. This issue is addressed under AOC H, below. No further investigation directly related to the USTs is proposed.
AOC C - Loading-unloading areas	None	None	None	None	None	As in the case of the presumed ASTs discussed above, the 90-year history of industrial operations naturally would have involved these areas. No specific information could be derived from historic sources and none of the GPR anomalies showed any relationship to such activities. No further investigation of this matter is proposed.
AOC D - Sumps and Pits	None	None	None	None	None	The original GPR survey identified 13 subsurface anomalies. Two were excavated and found to be former pits, purpose unknown. TAL/TCL sampling detected elevated levels of only those compounds commonly associated with historic fill. The species and levels were similar to those found in ten test pits installed throughout the site to evaluate the presence of historic fill and these results are attributed to the fill material, rather than the former pits. No further investigation of these pits is proposed.
AOC E - Surface water body	Surface water	Sodium	None	None	Unknown	The Passaic River forms the northern border of the site. It is a tidal marine body at this reach. A tidal study determined that the river causes a diurnal reversal of ground water flow and salt-water intrusion into the underlying ground water. As this matter is outside the control of the party responsible for conducting remediation, no further investigation is proposed.
AOC F - Historic fill	Soil	PAHs, metals	Direct contact	None	Unknown	Historic fill was identified throughout the site during installatino of ten trenches dug for that purpose. Contamination in the form of PAHs and various metals was confirmed through laboratory analysis. Under the most recent appraisal, the highest and best use of the site is for the most recent commercial operation conducted - that is, storage of empty shipping containers. On that basis the current cap, consisting of casual placement of asphalt and gravel, combined with the complete enclosure of the property by fencing would be sufficient for an engineering control to be combined with an institutional control in the form of a deed notice. However, the property has been taken by Essex County through eminent domain and the County plans to convert this property and the two contiguous sites to the west into a recreational facility. Thereofre, compliance with presumptive remedy requirements will be required. As the County is now the property owner, any decisions regarding this matter will be handled by the LSRP retained by the County. No further discussion of this matter is offered.
AOC G - Subsurface anomalies	None	None	None	None	None	The initial GPR survey identified 13 subsurface anomalies. Three were found to be USTs (AOC B), two were pits (AOC E) and the remaining eight were innocuous matters such as buried metal and concrete. No further investigation of this matter is proposed.

Case Inventory Document

SRP PI # 510630, Palmer Industries, Inc.

I. Area(s) of Concern, Receptor and Emergency Response Tracking	*Impacted Media*	*Contaminants of Concern*	*Exposure Route*	*Receptors*		*Current Status/Outcome*
				Existing	*Potential*	
AOC H - Ground water contamination	Ground wat	Benzene, VO TICs, TCE	Direct contact	None	Unknown	The Passic River forms the northern border of the subject site and causes a diurnal reversal of ground water flow. The river has also caused salt-water intrusion through a significant portion of the site. Low residual levels of benzene and VO TICs were identified in the vicinity of former USTs and a low level of TCE from an unknown source was observed on in one well on the eastern side of the site. Given the physical situation, this matter could be addressed through reclassification of the ground water to Class III-B. Alternatively, additional investigation could be conducted to develop a CEA. Since the property has been taken by Essex County, this determination will be made and implemented by the LSRP to be retained by the County.

					11-4-09 Version 1.0

Case Inventory Document

SRP PI # 510630, Palmer Industries, Inc.

II. Other Issues Tracked	*Impacted Media*	*Contaminants of Concern*	*Current Status/Outcome*

New Jersey Department of Environmental Protection
Site Remediation Program

REMEDIAL INVESTIGATION REPORT FORM

☐ Non-LSRP (Existing Cases) ☒ LSRP ☐ Subsurface Evaluator

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Palmer Industries, Inc.

List all AKAs:

Street Address: 59-97 Chapel Street Rear

Municipality: Newark City (Township, Borough or City)

County: Essex Zip Code: 07105

Mailing Address if different than street address:

Program Interest (PI) Number(s): 510630 Case Tracking Number(s): 09-11-09-1042-09

Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2.2 or 2.3(b): 11/09/2009

State Plane Coordinates for a central location at the site: Easting: 590953 Northing: 693103

Municipal Block(s) and Lot(s): Block # 2442 Lot # 3

Block #		Lot #		Block #		Lot #	
Block #		Lot #		Block #		Lot #	
Block #		Lot #		Block #		Lot #	
Block #		Lot #		Block #		Lot #	

SECTION B. REQUIRED TECHNICAL SUBMITTALS

	Not Applicable	Included in this Submission	Previously Submitted	Date of Submission	Date of Revised Submission
Immediate Environmental Concern Report	☒	☐	☐		
Immediate Response Action Plans	☒	☐	☐		
Preliminary Assessment Report	☐	☒	☐		
Receptor Evaluation	☐	☐	☒	02/26/2011	
Site Investigation Report	☒	☐	☐		
Remedial Investigation/Remedial Action Work Plan	☒	☐	☐		
Feasibility Study Report	☒	☐	☐		
Response Action Outcome Report	☒	☐	☐		
Permit Application	☒	☐	☐		

SECTION C. SITE USE

Current Site Use (check all that apply)

☐ Industrial ☐ Agricultural
☐ Residential ☐ Park or recreational use
☒ Commercial ☐ Vacant
☐ School or child care ☐ Government
☐ Other

Intended Future Site Use, if known (check all that apply)

☐ Industrial ☒ Park or recreational use
☐ Residential ☐ Vacant
☐ Commercial ☐ Government
☐ School or child care ☐ Future site use unknown

SECTION D. PUBLIC FUNDS

Did the remediation utilize public funds? ☒ Yes ☐ No

If "Yes," check applicable:

☐ UST Grant ☐ UST Loan ☐ Brownfield Reimbursement Program
☒ HDSRF Grant ☐ HDSRF Loan ☐ Landfill Reimbursement Program
☐ Spill Fund ☐ Schools Development Authority

SECTION E. SCOPE OF THE REMEDIAL INVESTIGATION REPORT

☐ Area(s) of Concern Only (If submitted for specific AOC(s), attach Section H2 of the PA/SI form.)

☒ Entire Site (based on a completed and submitted Preliminary Assessment/Site Investigation)

Is the Remedial Investigation complete?..... ☒ Yes ☐ No

SECTION F. SITE CONDITIONS

1. Check each media-type and highest concentration of contamination currently present above any applicable standards/criteria:

	Soil in ppm						**GW = Ground Water in ppb**						**SW = Surface Water in ppb**						**Sed = Sediment in ppm**				
	Soil ppm	GW ppb	SW ppb	Sed ppm			Soil ppm	GW ppb	SW ppb	Sed ppm			Soil ppm	GW ppb	SW ppb	Sed ppm			Soil ppm	GW ppb	SW ppb	Sed ppm	
*VOCs	☐	☐	☐	☐	<100		☐	☐	☐	☐	100–1,000		☐	☒	☐	☐	>1,000						
*SVOCs	☐	☐	☐	☐	<100		☐	☐	☐	☐	100–1,000		☐	☐	☐	☐	>1,000						
*PAHs	☒	☐	☐	☐	<10		☐	☐	☐	☐	10–100		☐	☐	☐	☐	>100						
*Metals	☐	☐	☐	☐	<100		☐	☐	☐	☐	100–1,000		☒	☒	☐	☐	>1,000						
PCBs	☐	☐	☐	☐	<10		☐	☐	☐	☐	10–100		☐	☐	☐	☐	>100						
*Pesticides	☐	☐	☐	☐	<1		☐	☐	☐	☐	1-10		☐	☐	☐	☐	>10						
Dioxin (ppb)	☐	☐	☐	☐	<1 ppb		☐	☐	☐	☐	1-10 ppb		☐	☐	☐	☐	>10 ppb						
Chromium	☐	☐	☐	☐	<100		☐	☐	☐	☐	100–1,000		☐	☐	☐	☐	>1,000						
Mercury	☐	☐	☐	☐	<100		☐	☐	☐	☐	100–1,000		☐	☐	☐	☐	>1,000						
Arsenic	☐	☐	☐	☐	<10		☐	☐	☐	☐	10–100		☐	☐	☐	☐	>100						
TPHC	☐			☐	<1,700		☐			☐	1,700–5,100		☐			☐	>5,100						

2. For any contaminant group (*) checked above, identify the compound/element with the highest concentration over its applicable remediation standard:

VO TICs | benzo(a)pyrene | Zinc | Sodium | _____

3. Were the laboratory reporting minimum detection limits below applicable remediation standards/ criteria required for the site?..... ☒ Yes ☐ No

4. Are any of the following conditions currently present? (check all that apply)

Groundwater:

- ☒ Contaminated ground water in the overburden aquifer
- ☐ Contaminated ground water in a confined aquifer
- ☐ Contaminated ground water in the bedrock aquifer
- ☐ Contaminated ground water in multiple aquifer units
- ☒ Multiple distinct ground water plumes
- ☐ Contaminated ground water migrating off-site
- ☐ Co-mingled on-site ground water plumes
- ☒ Co-mingled ground water plumes from both on-site and off-site sources
- ☐ Contaminated ground water discharging to surface water
- ☐ Residual or free product
- ☐ Radionuclides

Soil:

- ☐ On-site discharge(s) impacting soil off-site
- ☐ Chromate Production Waste
- ☐ Munitions and explosives of concern
- ☐ Contaminated soil in the saturated zone
- ☐ Historic pesticide impacts to soil
- ☐ Residual or free product
- ☐ Radionuclides
- ☒ Historic Fill
- ☐ Soil contamination due to naturally occurring background conditions

SECTION G. APPLICABLE REMEDIATION STANDARDS

Indicate the Remediation Standards used for all compounds (check all that apply)

☒ Default (check all that apply below)
☒ Direct Contact ☒ Impact to Ground Water Soil Screening Levels ☐ Ecological Screening Levels

☐ Alternate Remediation Standards for the Ingestion/Dermal Pathway

☐ Alternate Remediation Standards for the Inhalation Pathway

☐ Site Specific Standards for the Impact to Ground Water Pathway (check all that apply)
☐ Soil-Water Partitioning Equation ☐ SPLP ☐ Sesoil ☐ Sesoil/AT123D

☐ Ecological Remediation Goals

What is the ground water classification for this site as per N.J.A.C. 7:9C? (check all that apply)

☐ Class I-A
☐ Class I-PL Pinelands Protection Area
☐ Class I-PL Pinelands Preservation Area
☒ Class II-A
☐ Class III-A
☐ Class III-B

SECTION H. BACKGROUND CONDITIONS

1. Have all contaminants found in soil and ground water on site been linked to on-site areas of concern? ☐ Yes ☒ No

2. Did the RI demonstrate via a background investigation, outside the influence of on-site AOCs **and** operational areas, that:

   a. all or any part of the ground water contamination is migrating onto this site per N.J.A.C. 7:26E-3.7(g)? ☒ Yes ☐ No ☐ NA

   b. soil contamination is naturally occurring per N.J.A.C. 7:26E-3.10 ☐ Yes ☐ No ☐ NA

SECTION I. ALTERNATIVE STANDARD / DEVIATIONS

Alternative remediation standard

If proposing an alternative remediation standard pursuant to N.J.A.C. 7:26D-7.4, check here and attach the Alternative Soil Remediation Standard Application Form as an addendum. ☐

Deviation from regulations

If the Licensed Site Remediation Professional has varied from the Technical Rules, provide the citation(s) from which the remediation varied and the page(s) in the attached document where the rationale for the deviation is provided.

N.J.A.C. 7:26E- _____ Page _____

N.J.A.C. 7:26E- _____ Page _____

N.J.A.C. 7:26E- _____ Page _____

SECTION J. HISTORIC FILL

1. The presence of historic fill is supported by (check all that apply):

   ☒ Boring logs ☒ Test Pits ☐ Trenches ☐ Aerial Photos ☐ NJDEP Mapped Areas
   ☐ No historic fill identified at the site. If none, skip to K. below.

2. How was the historic fill characterized pursuant to N.J.A.C. 7:26E-4.6? (check all that apply)
   ☒ Samples were collected outside areas potentially impacted by on-site operations (i.e., AOC(s))
   ☒ Contaminant levels in Table 4.2 at N.J.A.C. 7:26E-4.6

3. Are any other AOCs (i.e., location of discharge and any contaminants that may have migrated from that area) located within the defined boundaries of the historic fill? ☒ Yes ☐ No
   If "No," skip to K. below

4. Have the same contaminant type(s) (e.g., lead, arsenic, and/or benzo(a)pyrene, etc.) characterized as being present in the historic fill been **sampled for** as a contaminant of concern at these co-located AOCs? ☒ Yes ☐ No

SECTION K. GROUND WATER TRIGGER

Was a ground water investigation conducted at all AOCs where a ground water investigation was triggered pursuant to N.J.A.C. 7:26E-4.4 (a)? ☒ Yes ☐ No ☐ NA

SECTION L. GROUND WATER REMEDIAL INVESTIGATION INFORMATION

1. Were any monitor wells installed in unconfined aquifers in which the water table is higher than the top of the well screen? ☐ Yes ☒ No

   If "Yes," identify the affected wells _____

2. If ground water in the bedrock aquifer is contaminated, were bedrock cores collected and/or were geophysical logging methods conducted to characterize the bedrock aquifer pursuant to N.J.A.C. 7:26E-4.4(g)5? ☐ Yes ☐ No ☒ NA

SECTION M. LABORATORY DATA

1. Were all data submitted in the appropriate full and/or reduced formats according to the deliverables defined in N.J.A.C. 7:26E-2? ☒ Yes ☐ No
2. Do all data submitted meet the quality assurance/quality control (QA/QC) requirements incorporated by reference in N.J.A.C. 7:26E-2 for:
   sampling ☒ Yes ☐ No
   analysis ☐ Yes ☒ No
3. How was it determined that the data complied with the QA/QC requirements?
   ☒ Laboratory non-conformance summary/narrative
   ☒ Laboratory correspondence
   ☒ LSRP review
   ☐ Independent contractor review
   ☐ Other: _____
4. Has any data been qualified and used? ☒ Yes ☐ No
5. Has any data been rejected and used? ☐ Yes ☒ No
6. If clean fill has been brought onto the site, has it been analyzed? ☐ Yes ☒ No
7. Comments:

(1) BN SIMs analysis for MW8-MW11 was conducted beyond holding times. Other samples in the same area confirmed the absence of contamination. Overtime data were used only in regard to non-SIMs compounds.
(2) Backfill obtained from virgin quarry and certified by supplier.

SECTION N. MISCELLANEOUS

1. Were any regulated USTs identified during the course of the RI that were not previously known? ☐ Yes ☒ No

   If "Yes," list tank size, contents and registration number(s). _____

2. If "Yes," to item M.1. above and if these USTs were Federally Regulated, was the source/cause of release identified on a Confirmed Discharge Notification form? ☐ Yes ☐ No

   If "No," complete and submit a revised Confirmed Discharge Notification form.

3. Identify Remedial Measures (RMs) conducted during the RI (check all that apply):
   ☒ Soil excavation
   ☐ Potable water supply treatment or replacement
   ☐ Hydraulic containment of source area
   ☐ Soil vapor extraction
   ☐ Enhanced fluid recovery (EFR)
   ☒ UST closure
   ☐ Free product recovery
   ☐ Vapor intrusion mitigation
   ☐ No RMs were conducted during the RI
   ☐ Other(s), specify: _____
4. Did the remedial investigation include sampling to characterize any on-site contaminated media for either on-site or off-site reuse? ☐ Yes ☒ No
5. Has new information (material facts, data or other information) been generated during the RI that corrects or contradicts information, or changes conclusions from, previously submitted reports or information? ☐ Yes ☒ No

   If "Yes," explain: _____

SECTION O. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Palmer Industries, Inc.

Representative First Name: Christopher Representative Last Name: Guido

Title: Managing Director

Phone Number: (973) 489-4400 Ext: Fax:

Mailing Address: 99 Chapel St

City/Town: Newark State: NJ Zip Code: 07105

Email Address: cguido@portwide.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: Date: 5/27/11

Name/Title: Christopher Guido, Managing Director **No Changes Since Last Submittal** ☐

SECTION P. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 505618

First Name: Richard Last Name: Katz

Phone Number: (215) 860-1231 Ext: Fax: (215) 860-9988

Mailing Address: 2034 East Wellington Rd

City/Town: Newtown State: PA Zip Code: 18940

Email Address: pecinc@aol.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

☒ *directly oversaw and supervised all of the referenced remediation, and\or*

☒ *personally reviewed and accepted all of the referenced remediation presented herein*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: Date: 5/31/2011

LSRP Name/Title: Richard J. Katz, President **No Changes Since Last Submittal** ☒

Company Name: Pennjersey Environmental Consulting, Inc.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
New Jersey Department of Environmental Protection
Site Remediation Program
401 East State Street, PO Box 434
Trenton, NJ 08625

New Jersey Department of Environmental Protection
Site Remediation Program

LSRP NOTIFICATION OF RETENTION OR DISMISSAL

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Palmer Industries, Inc.

List all AKAs:

Street Address: 59-97 Chapel Street Rear

Municipality: Newark (Township, Borough or City)

County: New Jersey Zip Code: 07105

Program Interest (PI) Number(s): 510630 Case Tracking Number(s): 09-11-09-1042-09

SECTION B. RETENTION INFORMATION

I was retained by _____ to serve as the licensed site remediation professional for the remediation at the site on _____.

I replaced another LSRP: ☐ Yes ☐ No

Provide name of replaced/released LSRP: _____

I have been hired to address (check one): ☐ an area(s) of concern ☐ a full site

SECTION C. RELEASE INFORMATION

I was released by Palmer Industries, Inc. from service as the licensed site remediation professional for remediation at the site on 05/27/2011.

Note: The release notification is only required if it occurs prior to the issuance of the response action outcome for the site by the LSRP.

SECTION D. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 505618

First Name: Richard Last Name: Katz

Phone Number: (215) 860-1231 Ext: Fax: (215) 860-9988

Mailing Address: 2034 East Wellington Rd

City/Town: Newtown State: PA Zip Code: 18940

Email Address: pecinc@aol.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: Date: June 1, 2011

LSRP Name/Title: Richard J. Katz, President **No Changes Since Last Submittal** ☒

Company Name: Pennjersey Environmental Consulting, Inc.

SECTION E. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Palmer Industires, Inc.

Representative First Name: Christopher Representative Last Name: Guido

Title: Managing Director

Phone Number: (973) 489-4400 Ext: Fax:

Mailing Address: 99 Chapel Street

City/Town: Newark State: NJ Zip Code: 07105

Email Address: cguido@portwide.com

Indicate relationship to the site (check all that apply):

- ☐ ISRA Owner/Operator
- ☐ UST Owner/Operator
- ☐ Spill Act Liable Party
- ☐ Prospective Purchaser
- ☒ Innocent Purchaser pursuant to N.J.S.A. 58:10-23.11gd
- ☐ Child Care Center (☐ Property Owner or ☐ Tenant)

I am taking over remediation from the Department or another party ..... ☐ Yes ☒ No

If "Yes," indicate name of party that was previously conducting remediation:

If "Yes," the party who I am taking over from agrees that I will conduct the remediation. ..... ☐ Yes ☐ No

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, and that to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: Date: 5/27/11

Name/Title: Christopher A. Guido, Managing Director

SECTION F. "OPT IN" REQUEST

Is a Case Manager assigned? ..... ☐ Yes ☐ No

If "Yes," provide name:

Current oversight mechanism:

- ☐ UST Rule
- ☐ ISRA Rule
- ☐ ACO/MOU/RA
- ☐ MOA
- ☐ None

Does the site involve or potentially impact a childcare center, school or residence? ..... ☐ Yes ☐ No

In accordance with N.J.A.C. 7:26C-2.3(b), I hereby request that the Department allow the remediation at the site identified in Section A, above, to be conducted in accordance with N.J.A.C. 7:26C-2.4. I certify that I have paid all invoiced uncontested oversight costs and applicable fees and that, if applicable, my remediation funding source has been established and maintained in an amount that reflects the estimated cost of remediation and that all applicable surcharges have been paid. I further certify that I agree to pay oversight costs incurred by the Department but not yet invoiced and, if applicable, to maintain my remediation funding source in an amount that equals the estimated cost of the remediation and to pay any required surcharge.

I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

I understand that my submittal of this certification provides an automatic approval of this request, provided that I am eligible for approval and that the Department finds the certification to be truthful and accurate.

Signature: Date:

Typed/Printed Name:

Title:

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM
PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

PI# 510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

SECTION 2

PRELIMINARY ASSESSMENT REPORT

Prepared for

PALMER INDUSTRIES, INC.
NEWARK, NEW JERSEY

1/2006

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF REMEDIATION SUPPORT
P.O. Box 435, TRENTON, NJ 08625-0435

PRELIMINARY ASSESSMENT REPORT

Answer all questions. Should you encounter any problems in completing this form, we recommend that you discuss the matter with a representative from the Site Remediation Program. Submitting incorrect or insufficient data may cause processing delays and possible postponement of your transaction

PLEASE PRINT OR TYPE Date: May 2011

Industrial Establishment/Site Name Palmer Industries, Inc.

Address 59-97 Chapel Street Rear

City or Town Newark Zip Code 07105

Municipality Newark County Essex

Block (s) 2442 Lots (s) 3

Site Remediation Program Case Number or EPA Identification Number SRP PI# 510630

1. Present a history of ownership and operations at the industrial establishment, in tabular form, from the time the site was naturally vegetated or utilized as farmland in accordance with N.J.A.C. 7:26E-3.1©1.i. (attach additional sheets as necessary)

Name of Property Owner	From	To
See Appendix 1		

Name of Operator	From	To
See Appendix 1		

2A. In accordance with N.J.A.C. 7:26E-3.1(c) 1.i, provide a clear and concise description of the past industrial/commercial operation(s) conducted on site by each owner and operator. To the extent available the site history shall include an evaluation of the following sources of information:

(1) Sanborn Fire Insurance Maps; (2) MacRae's Industrial Directory, New Jersey Industrial Directory, New Jersey Manufacturers Directory; (3) Title and Deed; (4) Site plans and facility as-built drawings; (5) federal, state, county and local government files; (6) The Department Geographic Information System. (7) and any additional sources which may be available for a specific site.

Site history is frequently an item where preliminary assessments are incomplete. The Licensed Site Remediation Professional Program requires that a diligent inquiry be made, researching the site history back to February 1, 1932. Common answers to this question have included: "Unknown", or "We are only a tenant on the site and have no knowledge of prior site history". Neither of these answers satisfies the requirement for a due diligent inquiry.

To avoid having a PA found incomplete by the Department due to insufficient information, the site history must be researched. The following are ways of obtaining information regarding site history: title searches; contacting the local and county health officials and municipal agencies (for example, local fire and police departments, and local planning, zoning, adjustment boards) requesting any information these public agencies may have on the specific location; and, interviewing long time neighbors of the industrial establishment. Tenants should always request information from the landlord. The applicant should always document any attempts to locate this information to support a claim that a diligent inquiry has been conducted. The Preliminary Assessment report should not be submitted until all parties contacted for information have responded to the request for information and the information obtained has been reviewed. If the prior site history demonstrates that the current building was built on vacant unimproved property, it should be reported as such. If the site has been, or is now the subject of a site remediation, any prior cases should always be referenced.

Provide the page or appendix number where the site history may be found. Appendix 2

Provide a listing of the resources utilized to compile the site history and as appropriate copies of any maps or information, which will assist the Department in evaluating your conclusions.

Name of Resource	Date of document reviewed	Appendix # if providing copies
See Appendix 3		

2B. Include a detailed description of the most recent operations subject to this preliminary assessment.

Provide the page or appendix # where the description of the most recent operations may be found. Appendix 2

3. Hazardous Substance/Waste Inventory: N.J.A.C. 7:26E-3.1(c)1.iii. List all raw materials, finished-products, formulations and hazardous substances, hazardous wastes, hazardous constituents and pollutants, including intermediates and by-products that are or were historically present on the site. Note: If past usage included farming, pesticides may be a concern and should be included in this list. **(Attach additional sheets if necessary).**

Material Name	CAS # if known	Typical annual usage (gallons/lbs.)	Storage method (i.e. Drum, tank, jars)
See Appendix 4			

4 A. In accordance with N.J.A.C. 7:26E-3.1(c)1iv provide a summary of all current and historic wastewater discharges of **Sanitary and/or Industrial Waste** and/or sanitary sludge. Present and past production processes, including dates and their respective water use shall be identified and evaluated, including ultimate and potential discharge and disposal points and how and where materials are or were received on-site. All discharge and disposal points shall be clearly depicted on a scaled site map. Information required under this item is intended to identify potential discharges to any on-site disposal system, such as a septic system or lagoon or drywell. For example to complete the following table information may include: From 1955 To 1960, Discharge Type - Sanitary and Industrial, Discharge Location - On-Site Septic System: From 1960 To Present, Discharge Type - Sanitary and Industrial, Discharge Location - Public Treatments Works.

Site Information

Discharge Period		Discharge Type	Discharge Location
From	To		
1982	Present	None – site undeveloped	None
Pre-1982	1982	Unknown – sewers present but connection status unknown	Presumably POTW

4B. Provide a narrative of disposal processes for all historic and current process waste streams and disposal points. (attach additional sheets if necessary)

See Appendix 2

5. This question requires the applicant to conduct a diligent inquiry into the current and historic operations at the site to identify all of the potential areas of concern, which formerly or currently exists at the industrial establishment as defined in N.J.A.C. 7:26E-1.8.

Diligent inquiry as defined in N.J.A.C.7:26E-1.8 states:

A. Conducting a diligent search of all documents which are reasonably likely to contain information related to the object of the inquiry, which documents are in such person's possession, custody or control, or in the possession, custody or control of any other person from whom the person conducting the search has a legal right to obtain such documents; and

B. Making reasonable inquiries of current and former employees and agents whose duties include or included any responsibility for hazardous substances, hazardous wastes, hazardous constituents, or pollutants, and any other current and former employees or agents who may have knowledge or documents relevant to the inquiry.

In accordance with N.J.A.C. 7:26E3.1(c)1.v., a narrative shall be provided for each area of environmental concern describing the **(A)** Type; **(B)** Age; **(C)** Dimensions of each container/area; **(D)** Chemical Content; **(E V**olume; **(F)** Construction materials; **(G)** Location; **(H)** Integrity (i.e., tank test reports, description of drum storage pad); and **(I)** Inventory control records, unless a Department-approved leak detection system, pursuant to N.J.A.C. 7:1E or 7:14B, has always been in place and there is no discharge history. If sampling is not proposed for any identified area of environmental concern, please explain why it is believed that the area of environmental concern does not contain contaminants above the applicable remediation standards. Submit all necessary documentation to verify this belief. The required narrative need not describe the sampling to be completed; however, it should state that sampling will be completed in accordance with the appropriate section of N.J.A.C.7:26E.

Detailed descriptions of all sampling completed in each area of concern shall be described as part of a Site Investigation Report in accordance with N.J.A.C.7:26E-3.13.

Please indicate if any of the potential areas of environmental concern listed below in #5A through #5G, as defined in N.J.A.C. 7:26E-1.8, formerly or currently exist at the industrial establishment by indicating Yes or No in the appropriate space as provided.

For the Location Reference Keyed to Site Map, use either a unique number or unique letter identification for each area of concern and be consistent throughout each phase of the remediation, referring to the same identification provided herein. Note: If the industrial establishment has multiple locations for one type of area of concern (example: underground storage tanks [UST] are located in 3 separate areas of the facility), each area must be discussed separately and given a separate identification. For example: Area A-1 a 1,000 gallon gasoline UST, Area A-2 a 10,000 gallon heating oil UST and Area A-3 a 500 gallon TCE UST should all be listed on the site maps and have separate narratives provided for each area discussing required information A-I listed above for each UST area.

Provide the required narrative as an appendix to this report. Do not try to provide a narrative in the space provided

I hereby certify that a diligent inquiry has been conducted to identify all current and historical potential areas of environmental concern and based on the diligent inquiry the areas of environmental concern identified below in question 5A through 5G are the only areas of environmental concern believed to exist at the above referenced industrial establishment.

The signatory on the certification page shall initial here. See certification on SRRA PA-SI Form, Section 1

A. Bulk Storage Tanks and Appurtenances, including, without limitation:

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Aboveground storage tanks and associated piping	Yes (formerly)	A	5.A.
Underground storage tanks and associated piping	Yes	B	5.B.
Silos	No		
Rail cars	No		
Loading and unloading areas	No		
Piping, above ground & below ground pumping stations, sumps and pits	Yes	C	5.C.

B. Storage and Staging Areas, including

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Storage pads including drum and/or waste storage	Yes (formerly)	D	5.D.
Surface impoundments and lagoons	No		
Dumpsters	No		
Chemical storage cabinets or closets	No		

C. Drainage systems and areas including without limitation

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Floor drains, trenches & piping and sumps	Yes	C	5.C.
Process area sinks & piping receiving process waste	No		
Roof leaders if process operations vent to roof	No		
Drainage swales & culverts	No		
Storm sewer collection systems	No		
Storm water detention ponds & fire ponds	No		
Surface water bodies	Yes	E	5.E.
Septic systems leach fields or seepage pits	No		
Drywells and sumps	Yes	C	5.C.

D. **Discharge and disposal areas, including, without limitation**:

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Areas of discharge per N.J.A.C. 7:1E	No		
Waste piles as defined by N.J.A.C 7:26	No		
Waste water collection systems including septic systems, seepage pits & dry wells.	No		
Landfills or landfarms	No		
Sprayfields	No		
Incinerators	No		
Historic fill or any other fill material	**Yes**	F	5.F.
Open pipe discharges	**No**		

E. Other areas of concern, including, without limitation:

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Electrical transformers & capacitors	**No**		
Hazardous material storage/handling areas	**No**		
Waste treatment areas	No		
Discolored or spill areas	No		
Open areas away from production areas	No		
Areas of stressed vegetation	No		
Underground piping including industrial process sewers	No		
Compressor vent discharges	**No**		
Non-contact cooling water discharges	No		
Areas which receive flood or storm water from potentially contaminated areas	No		
Active or Inactive production wells	No		

F. Building interior areas with a potential for discharge to the environment, including, without limitation:

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Loading or transfer areas	No		
Waste treatment areas	No		
Boiler rooms	No		
Air vents and ducts	No		
Hazardous material storage/handling areas	No		

G. Any other site-specific area of concern.

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
GPR-located subsurface anomalies (includes USTs)	**Yes**	G	5.G.
Ground Water	**Yes**	H	5.H.

6. If the site area exceeds two acres, an interpretation of the aerial photographic history of the site shall be submitted in accordance with N.J.A.C. 7:26E-3.1(c)1.vi. The interpretation shall focus on the site under review and if any concerns were identified on the site. References to surrounding properties are unnecessary unless a neighboring site is suspected to be directly contributing to environmental factors at the site of concern. The interpretation shall be based on available current and historical color, black and white and infrared aerial photographs (scale 1:18,000 or less) of the site and surrounding area at a frequency that provides the evaluator with a historical perspective of site activities. The photographic history shall date back to 1932 or the earliest photograph available. Aerial photographs are available for review at the New Jersey Department of Environmental Protection, Tidelands Management Program, Aerial Photo Library, 9 Ewing Street, Trenton, New Jersey, (609) 633-7369. Note, the applicant is not required to provide the Department with copies of the aerial photographs reviewed only an interpretation of what was observed in each photograph, which may represent an environmental concern. If photos are submitted please clearly identify the location of the site on each photo

____ Check here if an aerial photo review was not completed and provide a reason.

Provide the appendix number for the air photo review narratives Appendix 6

7. Discharge History of Hazardous Substances and Wastes, N.J.A.C. 7:26E-3.1©1vii :

A. Have there been any known discharges of hazardous substances and wastes at the site?
_____No (Go to question #8) ___X___Yes (Complete Items 7B & 7C)

B. Was the Department notified of the discharge?
___X____Yes _____ No

If yes, provide the Case # 09-11-09-1042-09

C. Was a no-further-action letter, negative-declaration approval or full-compliance letter issued as a result of the cleanup of this discharge?

_____ Yes (Submit a copy of the no-further-action approval) _____

___X__ No (Submit a complete Site Investigation or Remedial Action Report documenting the action taken to address the discharge) See Section 3 of this submittal for RIR

8 In accordance with N.J.A.C.7:26E-3.1 (c) 1.viii, provide a description of any remediation activities previously conducted or currently underway at the site, including dates of discharges, remedial actions taken, and all existing sample results concerning contaminants which remain at the site. Copies of Department or other governmental agency no-further-action approvals should also be provided with a description of the areas to which the no-further-action approvals apply. This information is especially important if the approval was granted for the remediation of a portion of a site or a specific discharge event rather than the entire site subject to this preliminary assessment.

___X____ Check here if this question does not apply.

Provide the appendix number for the required narrative and data summary _____

9. Protectiveness of past remedies N.J.A.C. 7:26E-3.1(c) 1.ix. The owner or operator shall evaluate all remedies previously approved by the Department in a remedial action workplan or equivalent document to determine if the remedy remains protective of public health, safety and the environment. Things to consider as part of this evaluation include but are not limited to; was an engineering control used to cap contamination left on site? If yes, is this cap being maintained? Did the remedy address all of the contamination? Is the remedy working as designed? Have institutional controls been maintained at the local and county level? Please provide a page or appendix number where this written evaluation is included NA.

10. Order of Magnitude Analysis, N.J.A.C. 7:26E, 3.2(a)5

A. Have any areas of concern previously received a No-Further-Action approval from the Department or other equivalent government agency for which no additional remediation is proposed?
___X____ No (go to question #11). _____ Yes (complete 10B).

B. In accordance with N.J.S.A 58:10B-13(e) and N.J.A.C. 7:26E, 3.2(a)5 the following evaluation of the protectiveness of past remedies shall be completed for all areas of concern for which no further action was previously approved by the Department or other equivalent government agency and for which no additional remediation is proposed. All final sampling results shall be evaluated to determine if contaminant levels remaining on site are in compliance with current remediation criteria. The applicant shall complete the following

I hereby certify that the order of magnitude analysis required pursuant to N.J.A.C. 7:26E has been completed, since the issuance of a No-Further-Action approval, negative declaration approval or equivalent remediation approval; and (Check the appropriate statements (1), (2), (3) or (4))

(1) ___The areas of concern listed below contain contaminants above the numerical remediation standard applicable at the time of the comparison, however no further action is required because: (check the appropriate sub statement)

_____ (a) The contaminant concentrations remaining in the areas of concern listed below are less than an order of magnitude (factor of 10) greater than the numerical remediation standard applicable at the time of the comparison;

_____ (b) The areas of concern or the site was remediated using engineering and institutional controls approved by the Department and these controls are still protective of public health, safety and the environment; or

____ (c) The area of concern or the site was remediated to an approved site specific remediation standard and all of the factors and assumptions which are the basis for deriving the site specific remediation standard remain valid for the site.

Please list the areas of concern for which the previous statement applies.

Area of Concern	Location Reference Keyed to the Site Map

Include a separate table comparing the levels of contaminants remaining in each area of concern, the numerical remediation standard approved in the remedial action workplan or at the time of no-further-action approval and the current numerical remediation standards applicable at the time of the comparison. The table shall contain all sampling results, including sample location (depth), sample media, field and laboratory identification numbers, and method detection limits, as necessary, and analytical results for all individual contaminants for each area of concern.

(2) _____ The areas of concern listed below contain contaminants above the numerical remediation standard applicable at the time of the comparison and further remediation is required because: (check the appropriate sub statement)

_____(a) The contaminant concentrations remaining in the areas of concern listed below are more than an order of magnitude (factor of 10) greater than the numerical remediation standard applicable at the time of the comparison;

_____ (b) The areas of concern or the site was remediated using engineering and institutional controls approved by the Department and these controls are no longer protective of public health, safety and the environment; or

_____ (c) The area of concern or the site was remediated to an approved site specific remediation standard and some or all of the factors and assumptions which are the basis for deriving the site specific remediation standard are no longer valid;

Please list the areas of concern for which the previous statement applies.

Area of Concern	Location Reference Keyed to the Site Map

Include a separate table comparing the levels of contaminants remaining in each area of concern, the numerical remediation standard approved in the remedial action workplan or at the time of no-further-action approval and the current numerical remediation standards applicable at the time of the comparison. The table shall contain all sampling results, including sample location (depth), sample media, field and laboratory identification numbers, and method detection limits, as necessary, and analytical results for all individual contaminants for each area of concern.

(3) ____ The areas of concern listed below do not contain contaminants above the numerical remediation standard applicable at the time of the comparison and no further remediation is required.

Please list the areas of concern for which the previous statement applies.

Area of Concern	Location Reference Keyed to the Site Map

Include a separate table comparing the levels of contaminants remaining in each area of concern, the numerical remediation standard approved in the remedial action workplan or at the time of no-further-action approval and the current numerical remediation standards applicable at the time of the comparison. The table shall contain all sampling results, including sample location (depth), sample media, field and laboratory identification numbers, and method detection limits, as necessary, and analytical results for all individual contaminants for each area of concern.

(4) _____ The contaminant concentrations remaining in the below listed areas of concern are more than an order of magnitude greater than the numerical remediation standard applicable at the time of the comparison. However, no further remediation is required by the person conducting this preliminary assessment, because, in accordance with N.J.S.A. 58:10B13(e), that person is not liable for the contamination pursuant to N.J.S.A. 58:10-23.11g

Please list the areas of concern for which the previous statement applies.

Area of Concern	Location Reference Keyed to the Site Map

11. Historical Data on environmental quality at the Industrial Establishment

A. Have any previous sampling results documenting environmental quality of the Industrial Establishment not received a no further action approval from the Department or been denied approval by the Department? (N.J.A.C. 7:26E-3.1©1.viii)

_____ Yes (See Appendix # _____) ___**X**___No (Go to 12)

B. Have there been any known changes in site conditions or new information developed since completion of previous sampling or remediation? If sampling results were obtained, but are not part of this application, please explain below (N.J.A.C. 7:26E-3.1©xi):

_____

_____

_____

_____

12. List all federal, state and local environmental permits at this facility, including permits for all previous and current owners or operators, applied for, received, or both (Attach additional sheets if necessary).

Check here if no permits are involved _____

A. New Jersey Air Pollution Control

Permit Number	Expiration Date	Type of Permitted Unit
None		

B. Underground Storage Tank Registration Number 026488 (Delisted – all tanks removed)

Size of Tank (Gallons)	Tank Contents
7,500	#4 oil
7,500	#6 oil
1,000	gasoline
10,000	#4 oil
10,000	#4 oil

C. New Jersey Pollutant Discharge Elimination System (NJPDES) Permit

Permit Number	Discharge Type	Discharge Location Keyed to Site map	Expiration Date
None			

D. Resource Conservation and Recovery Act (RCRA) permit # None

E. EPA Identification Number None

F. In accordance with N.J.A.C. 7:26E-3.1(c)xii, list all other federal, state, local government environmental permits for all previous and current owners or operators applied for and/or received for the site including :

(1) Name and address of the permitting agency
(2) The reason for the permit
(3) The permit identification number
(4) The application date
(5) The date of approval, denial or status of the application
(6) The name and current address of the permittees
(7) The reason for the denial, revocation or suspension if applicable
(8) The permit expiration date

_X_ Check here if no other environmental permits were applied for or received for this site.

Provide the appendix # for the required listing if other environmental permits exist for this site. _____

13. In accordance with N.J.A.C. 7:26E-3.1(c)xiii, provide a summary of enforcement actions (including but not limited to, Notice of Violations, Court Orders, official notices or directives) for violations of environmental laws or regulations (attach additional sheets if necessary):

A. Check here if no enforcement actions are involved _X_ (Go to 13 otherwise complete 12B)

B. (1) Name and address of agency that initiated the enforcement action

_____

_____

_____

_____

_____

(2) Date of the enforcement action _____

(3) Section of statute, rule or permit allegedly violated _____

_____

(4) Type of enforcement _____

_____

_____

(5) Description of the violation _____

_____

_____.

_____

_____

(6) How was the violation resolved?

14. In accordance with N.J.A.C. 7:26E-3.1(c)xiv, please provide a narrative description of all areas where non-indigenous fill materials were used to replace soil or raise the topographic elevation of the site, including the dates of emplacement. Appendix 5.G. and accompanying RIR

15. A. In accordance with N.J.A.C. 7:26E-3.2(a) 3.i, submit a scaled site plan, detailing the subject lot and block, property and or leasehold boundaries, location of current and former buildings, fill areas, paved and unpaved areas, vegetated areas, and all areas of concern identified above and all active or inactive wells. See Appendix 7

B. Scaled historical site maps and facility as built drawings (if available). See Appendix 7

C. A copy of the United States Geologic Survey (USGS) 7.5 minute topographical quadrangle that includes the site and an area of at least one mile radius around the site. The facility location shall be clearly noted. If a portion of the USGS quadrangle is used, the scale, north arrow, contour interval, longitude and latitude with the name and date of the USGS quadrangle shall be noted on the map. See Appendix 7

16. In accordance with N.J.A.C. 7:26E-3.2, please provide the date that the site visit was completed to verify the findings of the preliminary assessment. 11/09/2009

17. List any other information you are submitting or which has been formerly requested by the Department:

Description	Appendix #
Site photographs	9
GPR Survey Report	10
UST Registration and Delisting Documents	14
Remedial Investigation Report	Section 3 of overall submittal

CERTIFICATION:

The following certification shall be signed by the highest-ranking individual at the site with overall responsibility for that site or activity. Where there is no individual at the site with overall responsibility for that site or activity, this certification shall be signed by the individual having responsibility for the overall operation of the site or activity.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information, and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Typed/Printed Name Christopher Guido Title Managing Director, Palmer Industries, Inc.

Signature See Certification on SRRA PA-SI Form ~~Date~~ _____

~~Sworn to and Subscribed Before Me on this~~

~~_____ day of _____, 2010~~

_____

~~Notary~~

PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM
PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

PI# 510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

SECTION 3

REMEDIAL INVESTIGATION REPORT

Prepared for

PALMER INDUSTRIES, INC.
NEWARK, NEW JERSEY

REMEDIAL INVESTIGATION REPORT, MAY 2011

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SRP PI# 510630
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NEWARK CITY, ESSEX COUNTY, NEW JERSEY
MAY 2011

REMEDIAL INVESTIGATION REPORT

INTRODUCTION

This report details the remedial activities conducted at an undeveloped piece of property along the Passaic River in Newark City, Essex County, New Jersey. The site – known as Palmer Industries, Inc. – is identified on the tax rolls of Newark as Lot 3 in Block 2442 and as 59-97 Chapel Street Rear. The environmental investigation was triggered initially as a matter of general due diligence on the part of the property owner but was since modified based on a taking of the property by Essex County under eminent domain. This is one of three contiguous sites being taken by the County for conversion to a park and recreation area. The agreement regarding compensation was recently completed and, upon submittal of this set of documents, the project will be taken over by a Licensed Site Remediation Professional (LSRP) retained by the County.

Roughly triangular, the site is 3.421 acres and is located behind an apartment complex and is accessible through a small gate on Brill Street, with primary access through a neighboring property at 99 Chapel Street and then by an easement running along the Passaic River. The conjoined properties are full fenced or secured by the river. Although the site saw long-term use as an industrial facility, it has been undeveloped since purchase by the current owner in 1982. During that time, the only operation conducted was the storage of empty shipping containers and trailers.

During the course of this investigation, a number of subsurface anomalies were identified and eliminated as environmental concerns. These included innocuous matters such as buried chunks of concrete as well as five large Underground Storage Tanks (USTs). The only soil issue remaining at the site is the presence of historic fill, which is ubiquitous to the local area. Minor ground water contamination remains in isolated locations within the site in the form of benzene and trichloroethene with minor contamination in the form of heavy metals found related to historic fill that underlies the entire site. No structures lie within 100' of the known or presumed ground water contamination; no vapor intrusion investigation was needed. A tidal study showed that the flow beneath the site reverses completely with each change of tides and the water is adversely affected by salt-water intrusion.

The culmination of this work will involve imposition of a deed notice and either establishment of a Classification Exception Area (CEA) or a reclassification of the ground water due to the salt-water intrusion. Decisions regarding these matters and the ultimate details will be determined by the next LSRP retained.

The sections of this overall package contain the PAR, this RIR, 15 appendices related to the various reports, background LSRP forms and notices and complete laboratory reports for all sampling events in both hard copy and Electronic Data Interchange (EDI) format.

The sections that follow are keyed to N.J.A.C. 7:26E-4.8(b).

1. HISTORIC REVIEW

During the course of this project, extensive investigation has been conducted into the history of the site. Information was requested from federal, state, county and local agencies as well as third party providers such as Environmental Data Resources and Historical Aerial Photographs. The full review is provided in Appendices 1 & 2, Section 4.

The site was first developed sometime prior to 1892. For the next 90 years, it saw use as a zinc and iron smelting facility, an asphalt plant and similar operations. At the time of purchase by the present owners in 1982, the site was undeveloped and it has remained in that state until now. The use through that period has been solely for storage of empty shipping containers and most recently for casual parking of trailers related to container storage operations on the neighboring property.

2. PHYSICAL SETTING

Site layout

The facility is roughly triangular with an area of 3.421 acres. The wider northern edge is formed by the Passaic River, while the rather narrow southern tip lets out onto Brill Street. It is bounded on the west by a former industrial establishment now undergoing cleanup under the Industrial Site Recovery Act (ISRA) and on the east by a housing development. A full description of the site is provided in Appendix 2; figures showing facility location and layout are provided in Appendix 7.

Topography/Surface Drainage

Available regional topographic maps show the subject property to be flat, with elevations ranging from about 15 feet mean sea level at the south and some 8 feet msl at the edge of the Passaic River to the north. Figure 1 in Appendix 7 is an excerpt from the USGS "Elizabeth, N.J.-N.Y." 7.5-Minute Topographic) Quadrangle

No surface water bodies lie within the boundaries of the property but the Passaic River lies immediately to the north. Surface drainage is directly to the Passaic River as there are no sewers serving the site at this time.

Geology

The subject property is located within the Newark Basin. Lower Jurassic and upper Triassic age sandstone beds of the Passaic Formation underlie the subject site. Glacial drift mantles the Passaic Formation. Poorly sorted, unstratified glacial till occurs as ground moraine deposits near the subject site. These glacial deposits consist of unsorted and unstratified, reddish brown clay, sand and gravel derived from the Passaic Formation.

Onsite soils consist of medium-to-fine sand and silt till material present just below the surface with overlying historic fill deposited in the mid-1800s to create the current land. Historic fill is encountered at a depth of 0.5 to 2 feet below grade. Effectively all of the

property is covered by either casually deposited asphalt or gravel. Soil logs documenting subsurface lithology are provided as Appendix 11.

Hydrogeology

The U.S.D.A. Soil Survey, Essex County, New Jersey reports ground water to be as shallow as 3-5 feet below grade. The inferred direction of ground water flow, based on topographic contouring shown on the USGS Topographic Quadrangle (Elizabeth) is to the north, toward the Passaic River. Onsite observations showed depth to ground water to vary from about 5-7 feet below grade. A tidal study conducted onsite (see Appendix 13) showed the ground water to reverse direction diurnally under the tidal influence of the Passaic River and to be impacted by salt-water intrusion from that water body.

The NJDEP classifies the aquifer in the property vicinity as Class IIA. The NJDEP defines the primary designated use of a Class IIA aquifer as a potable water source. However, the documented salt-water intrusion makes this site suitable for reclassification to Class IIIB.

3. TECHNICAL OVERVIEW

a. Data Reliability

Data reliability is documented in the laboratory reports and was found to be acceptable with a single exception.

> SIMS analysis of ground water samples MW8 through MW11 obtained on January 7, 2010 were not conducted until January 22, 2010, or eight days beyond the recommended seven-day holding time. This is not considered a critical matter as all base/neutral extractable compounds identified within the soil were associated with historic fill and the traditional BN analyses under Method 625 showed no excursions, eliminating any gross contamination. Additionally, SIMS data from temporary wells largely co-located with these wells showed no exceedances. Given the propensity for false positives from temporary wells, the overtime analyses are irrelevant. Additionally, since the tidal influence and salt-water intrusion make this water unsuitable for potable use, reclassification to Class IIIB is recommended, which will obviate any concerns over potential BN contamination.

Analytical Data Summary Tables are provided in Appendix 8 and full NJ Reduced Deliverables format reports are provided in Section 6 of this submittal. Laboratory results in Electronic Data Interchange (EDI) format are included on the CDs that contain this full report.

b. Summary of Activities

The overall facility is shown on Figure 3, Appendix 7, Section 4. All AOCs are shown on that figure and a series of separate figures detailing specific matters is provided within that appendix.

1) AOCs Evaluated

a) AOC A – Aboveground storage tanks

This matter was eliminated as a concern in the Preliminary Assessment.

b) AOC B – Underground storage tanks (USTs) and associated piping

The GPR survey identified three anomalies that were interpreted to be USTs. Upon excavation, the three locations were found to hold five USTs, all of which were excavated for off-site disposal:

1 7,500-gallon #4 oil
2 7,500-gallon #6 oil
3 1,000-gallon gasoline
4 10,000-gallon #4 oil
5 10,000-gallon #4 oil

USTs 1 and 2 were side-by-side and removed together.

Tank 1 was a 7,500-gallon #4 oil tank that discharged its contents through open bungs and loose pipe fittings on the top of the tank. There was physical evidence (staining, odor) of oil in the soil and the groundwater. Four post-excavation soil samples around this tank (T1-1 through T1-4) were analyzed for the presence of Total Petroleum Hydrocarbons as Diesel Range Organics (TPH-DRO and polynuclear aromatic hydrocarbons (PAH). DRO levels ranged from 8,810 to 53,700 milligrams per kilogram (mg/kg). Indeno(1,2,3-cd)pyrene was present in one sample (T1-1) above the SRS. See Figure 6, Appendix 7 and Table 1-2, Appendix 8 for details.

Tank 2 was a 7,500-gallon #6 oil tank that released oil through open bungs and loose pipe fittings on the top of the tank as well as through three large corrosion holes. There was evidence of oil in the soil and the groundwater. Soil sampling around this tank (T2-1 through T2-4) showed DRO levels from 349 to 126,000 mg/kg with three of the four samples in excess of the 10,000 mg/kg limit. Benzo(a)anthracene, benzo(b)fluoranthene and benzo(a)pyrene were present in T2-1 above the SRS.

Based on the physical observations and analytical results, delineation samples (T1-2DEL, T2-2DEL and T2-4DEL) were obtained. A heavy sheen observed on the water in the excavation was removed by vacuum truck and sorbent pads. Additional soil removal was conducted to eliminate all affected soil and a ground water investigation was instituted in this area through installation of temporary well TW3. The sample was analyzed for Volatile Organic Substances with a forward library search (VO+10) and base/neutral extractable compounds with a forward library search (BN+15) using the SIMs protocol.

UST 3 was a 1,000-gallon gasoline tank in a separate location and was found to have leaked through corrosion holes. There was evidence of gasoline in the soil and the ground water in the form of staining and odors. Four post-excavation soil samples (T3-1 through T3-4) were analyzed for VO+10 and lead (Pb).

The laboratory (IAL of Randolph, New Jersey was used throughout this project) identified no exceedances of the SRS, although benzene, methylbenzene, xylenes and lead were reported above Impact to Ground Water Soil Screening Levels (IGW). Details are provided on Figure 6, Appendix 7 and Table 1-3, Appendix 8. Additional soil removal guided by odor was conducted in an effort to remove residual levels of benzene in ground water. The affected soil noted above was removed during this process.

Given these results, no further investigation was conducted regarding soil conditions, pending the results of the ground water sampling of temporary well TW1, installed into the excavated area and analyzed for VO+10 and Pb. Those results are discussed under ground water and showed that all soil investigation was completed for this area.

USTs 4 and 5 were also side-by-side and excavated together.

Tank 4 was a 10,000-gallon #4 oil tank that discharged its contents through corrosion holes. The tank showed indications of previous abandonment-in-place but there was ample evidence of oil in the soil and the groundwater. Five post-excavation soil samples (T4-1 thru T4-5) were analyzed for DRO and PAH. They showed no DRO levels above the 10,000 mg/kg limit. Several PAHs, - benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h) anthracene and benzo(a)pyrene – were present in T4-1 above the SRS.

Tank 5 was a 10,000-gallon #4 oil tank with open corrosion holes. There were indications that it had been ineffectively abandoned-in-place and clear evidence of affected ground water. Five post-excavation soil samples (T5-1 thru T5-5) were analyzed for DRO. No DRO levels were above the TPH limit and the contingency PAH analyses were activated for T5-3 and T5-4, the samples with the two highest DRO levels. Indeno(1,2,3-cd)pyrene, benzo(a)anthracene, benzo(b)-fluoranthene, dibenzo(a,h) anthracene and benzo(a)pyrene were present in T5-3 above the SRS, while no PAHs were detected in T5-4.

Ground water in this area was investigated through installation and sampling of temporary well TW2. Analyses were performed for VO+10 and BN+15 using the SIMS protocol.

All soil above applicable standards was removed from each of the tank areas. 460.25 tons of soil were taken to Clean Earth in Carteret, New Jersey for disposal. 4000 gallons of oily water was pumped from the excavation and properly disposed off-site. Disposal and backfill receipts are provided in Appendix 15.

Given the sporadic nature of PAHs and the removal of affected soil, residual PAH in soil is considered to be related to historic fill and all further discussion of this situation is provided under that area of concern. No further investigation of soil related directly to the USTs is proposed.

PIPING found in the area of UST 1, 2, 4 & 5 was a mixture of steam, electrical conduit and product lines. No piping was found near UST 3. All product lines were evaluated. Those containing product or residue were excavated and removed from the site for disposal with samples taken from beneath the pipes and at the open ends. Fifteen piping samples ("L"

and "P" series samples) were obtained and analyzed for DRO. L4, L5 and L8 contained elevated DRO ranging from 18,700 to 90,500 mg/kg and the associated PAH contingency samples were activated. Indeno(1,2,3-cd)pyrene, benzo(a)anthracene, benzo(b)-fluoranthene, dibenzo(a,h) anthracene and benzo(a)pyrene were found variously in these samples at levels similar to those found throughout the site.

Fifteen delineation samples ("L-D" and "P-D" series) were obtained and elevated DRO levels were found in five of these samples (L4-D2, L4-D3, L5-D1, L5-D3 and L5-D4). To evaluate the hypothesis that the PAH compounds were not associated with oil discharges, two "clean" samples, P4-D5 and P4-D6 were analyzed for PAH. Both samples contained the same suite of compounds found throughout the site and at comparable levels.

The expanded excavation area was once again enlarged. An additional 1737.91 tons of soil and 8722 gallons of oily water were removed to offsite disposal and 12 post-excavation samples (Z1-Z12) were taken around the former UST 1 and 2 area for DRO analysis. Additional post-excavation samples were not taken from the areas of tanks 3, 4 and 5, as the earlier samples were all compliant with regulatory levels. Sample locations are shown on Figures 6, 7 & 8, Appendix 7. Analytical summaries are provided on Tables 1-4, 1-5 and 1-6, Appendix 8.

c) AOC C – Loading and unloading areas

This AOC was eliminated during the preliminary assessment.

d) AOC D – Sumps, Pits and Piping

Two of the original GPS subsurface anomalies were found to be underground pits.

(1) Anomaly E

Anomaly E was found to be a catch basin with no apparent outfall. No staining or other evidence of a discharge was noted. A soil sample, ANOME, was obtained from the sediment below the drain. Benzo(a)pyrene, arsenic, manganese and zinc were present above the New Jersey Soil Remediation Standards (SRS). Aluminum, beryllium, cadmium, lead and mercury were found in excess of the New Jersey Impact to Groundwater Soil Screening Levels (IGWSSL). In the absence of any indication of a discharge, these levels have been attributed to the historic fill found throughout the site (see AOC F) and no further investigation of this matter is proposed

(2) Anomaly L

Anomaly L was another catch basin. The interior of the drainage pit was cleaned out with the sediment taken off-site for disposal. Sample SB1 was taken from sediment in the basin and sample SBD was taken at the discharge point. Neither location showed evidence of a discharge of hazardous materials. SB1 contained arsenic, lead, manganese and zinc above the SRS. Beryllium, cadmium, mercury, selenium and silver were present above the IGWSSL. SBD contained no parameters above the New Jersey Soil Remediation Standards. Aluminum and manganese were found in excess

of their IGWSSLs but were discounted as a concern in view of the fact that those values are related to secondary standards (aesthetic rather than health-based).

The similarity of data from the two anomalies, combined with site-wide observations of similar materials representing historic fill indicates that these results are related to historic fill and will be addressed under that area of concern. Anomaly locations are shown on Figure 4 and data regarding the above samples are provided in Table 1-1.

e) AOC E – Surface Water Body

The Passaic River forms the northern border of the property. It is a salt-water, tidal body at this point and has caused salt-water intrusion through a substantial portion of the subject site. A routine reversal of ground water flow due to the proximity of the river was documented during the tidal study provided in Appendix 13. Full details on the ground water investigation that yielded these results are provided under AOC H, below. No further investigation of this matter is proposed.

f) AOC F – Historic/Other Fill

The presence of historic fill was confirmed during the PA/SI phase of work.

g) AOC G – Subsurface Anomalies

The initial investigation of the site involved a GPR survey (see Appendix 10, Section 5) which identified 13 subsurface anomalies. Three of these (Anomalies A, B and K) were determined to be underground storage tanks (AOC B), two others (Anomalies E and L) were pits (AOC C) and the remaining eight were examined through trenching and found to be innocuous: No further investigation of the miscellaneous anomalies is proposed.

h) AOC H – Ground Water Contamination

The initial investigation of ground water consisted of the installation of four monitoring wells – MW8 through MW11. Three of these wells were located along the property line to the west, based on the ongoing remedial activities related to a contaminated industrial establishment. The fourth well, MW11, was located near the Passaic River to evaluate the potential for contaminant contribution from the subject site. All four wells were analyzed for TAL/TCL. See Figure 9, Appendix 7 for well locations and Tables 1-7, 1-8 and 1-9 for summary data related to well installation and sampling.

Within the volatile organic fraction, MW10 – the most southerly and presumed upgradient well – was reported to have a minor exceedance of VO TICs – 534 ug/l versus a GWQS of 500 ug/kg. No semivolatile organics were found in excess of the GWQS but, as noted previously and discussed further in this section, the SIMs portion of the analysis was conducted beyond the holding time specified by the NJDEP.

All wells showed some metals exceedances including aluminum, iron, lead and manganese. Significantly, all wells also contained elevated levels of sodium, although

only MW11, the well closest to the river, exceeded the 50,000 ug/l standard at a level of 215,000 ug/l.

Temporary wells TW1 through TW3 were installed into the former UST excavations with the results as noted in that section, above. TW2 and TW3 were analyzed for BN+15 SIMs with no elevated BN levels identified, eliminating any issues regarding the overtime analyses of the permanent wells. Given the residual benzene and VO TIC levels observed in these wells, TW1A and TW3A were installed into the same locations as TW1 and TW3 some three months later to determine whether there was a noticeable drop in those concentrations. Both showed slightly elevated levels of benzene at 2.49 and 2.19 ug/l and of VO TICs at 1540 and 842 ug/l.

Monitoring wells MW12 through MW17 were installed to delineate the observed ground water contamination and MW8R was installed as a replacement for MW8, which was abandoned properly during the UST excavation work. The Well Abandonment Form is included in Appendix 12.

MW8R, replacing MW8, was moved eastward from the excavation. This well contained an anomalous level of trichloroethene at 2.14 ug/l compared with a GWQS of 1 ug/l.

MW12 was installed into the UST 1 & 2 excavation at the former location of TW3 & TW3A. Odor was noticed in this boring and soil samples were taken from 10.5-11 feet bgs – at the interval with the highest photoionization detector (PID) reading – and at 13.5-14 feet bgs, where the odor and PID levels disappeared. EPH testing of the upper sample resulted in a failure, while no detectable levels were found in the deeper location. This well was analyzed for VO, PAH and Pb due to both the soil sample results and as the immediately downgradient well to the excavation. Benzene was found at 1.49 ug/l compared with a GWQS of 1 ug/l. No other elevated levels were identified and the EPH results are discounted as a potential threat to human health and safety or the environment, although this data point should be included in the eventual site-wide deed notice.

MW13 was installed into the former location of tanks 4 & 5, the 10,000-gallon #4 oil USTs. No elevated VO levels were found.

MW14 was placed into the former gasoline UST location at the same spot as temporary wells TW1 and TW1A. It contained 2.49 ug/l of benzene with no other elevated levels.

MW15 and MW16, set along the western property line based on a review of the NJDEP files on the neighboring site, showed no elevated VO.

MW17, installed between MW12 and MW11, showed no elevated levels of VO.

Based on these results, another round of sampling was conducted to evaluate MW8R, MW12 and MW14 due to the minor exceedances of the GWQS noted. The TCE level in MW8R was effectively unchanged at 2.08 ug/l. Benzene dropped below the GWQS in MW12 and MW14, at 0.695 and 0.790 ug/l, respectively.

Following evaluation of the tidal study, results (see Appendix 13), the final round of ground water samples for this phase of work was conducted. MW8R was analyzed for VO to evaluate the TCE levels found earlier, MW12 & MW14 were sampled to determine if two sampling events would show reduced levels and eliminate benzene as a concern in these wells and MW13 & MW17, along with the above three wells, were analyzed for sodium as an indicator of salt water intrusion.

2) Disposal of materials

Materials removed from the site included underground storage tank carcasses, related piping, tank and piping contents and affected soil and ground water. These were taken to various disposal facilities based on the source and classification. Documentation related to disposal activities is provided in Appendix 15.

3) Backfill

Certified clean backfill was obtained variously from County Concrete Corporation of Kenvil, New Jersey and Tilcon NY of Oxford, New Jersey. All tickets for backfill are provided in Appendix 15.

c. Sampling Procedure

All samples throughout this work were selected based on physical evaluation (odor, staining) and field screening (photoionization detector). They were transported to Integrated Analytical Laboratories, Inc. of Randolph, New Jersey, a New Jersey Certified Laboratory capable of performing all the requisite analyses.

1) Test pit & post-excavation samples

These samples were obtained from the open excavations using disposable plastic trowels that were plastic-wrapped and dedicated to each location, precluding the need for field decontamination. All samples were screened with a PID and then placed in laboratory-prepared jars for the appropriate analyses. All samples were handled in accordance with applicable NJDEP protocols.

In particular, those soil samples intended for VO analyses were obtained using Encore samplers. After sample acquisition, samplers were placed immediately into a cooler with ice to maintain the required 4°C. temperature.

2) Ground water samples, temporary wells

Ground water samples were obtained using temporary wells installed in accordance with the Alternate Ground Water Sampling Technique Guide Method 4.00. A direct-push technology rig was used to open a bore hole to the required depth to ensure that the well screen would cross the ground water table. A narrow-diameter PVC pipe with horizontal slots was then placed into the hole. The well was purged by removing 3 to 5 well volumes and allowed to equilibrate for several hours. The sample was then extracted using a dedicated bailer and

Teflon® cord and decanted into sampling jars with preservatives as prepared by the laboratory.

3) Ground water samples, permanent wells

Wells were purged to obtain a representative sample by removing 3 to 5 well volumes in accordance with the Field Sampling Procedures Manual (FSPM). The sample was then extracted using a dedicated bailer and Teflon® cord and decanted into sampling jars with preservatives as prepared by the laboratory.

d. Sampling Frequency and Analyses

The sampling frequency and analyses for each area investigated is discussed under the associated section.

e. Significant Events

Some delays were encountered regarding access to the subject property caused by the eminent domain proceedings.

f. Baseline Ecological Evaluation

1) Contaminant(s) of ecological concern onsite

No soil contamination warranting active remedial action remains onsite. Minor exceedances of GWQS for benzene, VO TICs and TCE exist in three of ten onsite wells.

2) Environmentally sensitive natural resource(s) on or adjacent to the site

No ecologically sensitive natural resources exist within the boundaries of the property or immediately adjacent to the site. The Passaic River borders the property on the north but is tidal and is a current source of salt-water intrusion, obviating any potential degradation of the water due to the subject site.

3) Potential contaminant migration pathway(s) to natural resources

The only potential pathway for migration from the site is the ground water. Based on the tidal study detailed in Appendix 13, the Passaic River reverses ground water flow throughout much of the site on a diurnal basis, effectively blocking movement from the underlying ground water to the bordering surface water. Given the minor exceedances involved, there are no natural resources within the migratory range of the contaminants.

Based on this evaluation, no further ecological evaluation is proposed.

g. Receptor Evaluation

A receptor evaluation report was submitted to the NJDEP in accordance with the regulatory time frame specified in the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS) rules on February 26, 2011. That report concluded that there

are no endangered receptors related to the onsite conditions and no new evidence to refute that determination has been developed since that time. The full report is included in Section 5 of this submittal.

4. FINDINGS /RECOMMENDATIONS

a. AOCs Evaluated

1) AOC A – Aboveground storage tanks

This AOC was eliminated during the preliminary assessment.

2) AOC B – Underground storage tanks

Final post-excavation samples showed no exceedances of TPH limits and no further investigation of soils related to the USTs is proposed. Various instances of elevated PAH and metals values are a close match in both species and levels to the generic historic fill results found in the initial test pit work All further soil investigation is included under that AOC. No further investigation of soils related to the USTs is proposed.

4) AOC C – Loading/unloading areas

This AOC was eliminated during the preliminary assessment.

5) AOC D – Sumps and pits

The two anomalies – E & L – found to be pits were evaluated through TAL/TCL analyses. All soil contamination identified in these two locations is of the same species and approximate levels as that associated with the historic fill investigation. No further investigation of these pits is proposed.

6) AOC E – Surface water body

The ground water investigation (AOC H) documented that there is no passage from affected ground water to the Passaic River. No further investigation of this matter is proposed.

7) AOC F – Historic fill

Historic fill has been documented throughout the subject site. Final remediation of this matter will require the imposition of engineering and institutional controls. The property has been taken under eminent domain by Essex County, which plans to convert this site along with two contiguous properties into a recreational facility. As such, the ultimate deed notice and cap will be subject to Presumptive Remedies currently under development by the NJDEP. The resulting requirements will be significantly different from those that would be required under the current use.

Upon release of this document, the current LSRP will be dismissed and replaced by an LSRP of the County's choosing. Therefore, specific recommendations related to the needed controls have been left to that party.

8) AOC G – Subsurface anomalies

All anomalies identified by the GPR survey have been eliminated as innocuous or addressed under the specific AOCs into which they were categorized. No further investigation of this matter is proposed.

9) AOC H – Ground water

The final rounds of sampling conducted during this investigation resolved several of the ongoing issues. An initial benzene exceedance at 2.56 ug/l (versus a GWQS of 1 ug/l) in MW14 – installed into the former UST 3 gasoline tank excavation – was eliminated as a concern based on two consecutive samples showing no detectable levels of benzene. MW8R contained low levels of TCE through three consecutive samples, all lying between 2 and 3 ug/l (specifically, 2.14, 2.08 and 2.45 ug/l) compared with the GWQS of 1 ug/l. MW10, located at the southern property boundary showed a minor exceedance of VO TICs at 524 ug/l versus a generic limit of 500 ug/l and MW12 displayed sporadic minor exceedances of benzene interspersed with clean samples. The highest benzene concentrations in MW12 were 1.42 and 1.67 ug/l.

None of these values exceeded the related GWQS by as much as a factor of three.

Metals were also noted during the early sampling of ground water. These were minor excursions and largely involved secondary standards geared towards aesthetics, rather than health concerns. The remaining metals appear to be related to historic fill and, as such, are not the responsibility of Palmer Industries, Inc., the party responsible for conducting remediation under this project, since the site was purchased prior to May 7, 2009.

The most significant ground water analytical results are those for sodium, with the GWQS greatly exceeded in the wells nearest the river (MW11 and MW17 at 215,000 and 519,000, respectively, compared with a GWQS of 50,000 ug/l) and all wells showing significant sodium content. This evidence of salt-water intrusion along with the documented routine reversal of ground water flow beneath the site obviates any need for additional investigation as there is no consistent flow that would define the presence of a plume or any means of addressing such an occurrence.

The options for moving forward with this matter include establishment of a Classification Exception Area to address the residual contamination related to both historic fill and historic onsite operations or reclassification of the underlying ground water based on the documented salt-water intrusion and flow reversal effects from the Passaic River.

Regardless, the same consideration regarding replacement of the LSRP discussed under AOC F – Historic Fill, applies in this matter and no specific recommendations are provided.

b. Alternate Remediation Standards

No alternate remediation standards are required or proposed for this site.

c. Conclusions

1) No soil contamination related to historic site operations remains onsite above the Soil Remediation Standards;

2) Materials found in excess of the Impact to Ground Water Soil Screening Levels were only metals related to historic fill.

3) Historic fill should be addressed through establishment of engineering and institutional controls.

4) Existing ground water contamination may be addressed through either a CEA or a reclassification to Class III-B waters due to salt-water intrusion.

5) The means of proceeding to address remaining soil and ground water contamination will be the choice of the replacement LSRP to be retained by Essex County.

d. Recommendations for Further Work

It will be necessary to address the residual soil and ground water contamination on the site. As these matters will be decided by the replacement LSRP to be retained by Essex County, no specific recommendations are provided.

5. IMPLEMENTATION SCHEDULE

An implementation schedule for proposed work will be submitted by the replacement LSRP to be retained by Essex County.

6. SITE RESTORATION

a) Restoration of test pits was accomplished by replacement and compacting of removed soil.

b) All excavated areas were backfilled to grade using certified clean fill (see Appendix 15)

c) Temporary well bore holes were sealed by replacement of removed material.

d) MW-8 was abandoned in accordance with regulations during the excavation work.

e) The remaining ten monitoring wells have been left in place for the new owner, who will bear the responsibility for abandonment when the wells are no longer needed.

7. COSTS

The total cost of environmental remediation to date – including initial site evaluation, the formal preliminary assessment, site remediation efforts and preparation of documents in support of the this submittal was $516,698. This figure does not include any legal fees, NJDEP or other governmental fees, or cost involved with real estate or property contract matters.

Consulting, contracting and related services	$382,369
Transportation/disposal costs	$127,619
Laboratory fees	$8.710

PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM
PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

PI# 510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

SECTION 4

APPENDICES

Prepared for

PALMER INDUSTRIES, INC.
NEWARK, NEW JERSEY

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM

PI #510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

APPENDIX 1

HISTORY OF OWNERSHIP & OPERATIONS

APPENDIX 1

HISTORY OF OWNERSHIP & OPERATIONS

[SECTION 2A OF PAR FORM]

SUMMARY

The subject site has seen long-term use for industrial purposes. The earliest reference to such use is found in an 1892 Sanborn Fire Insurance Map that shows the New Jersey Zinc Company to be present on the site.

Various other industrial uses are identified in this section for the 90 years between that map and the purchase of the property by Palmer Industries. Since that purchase, the only use of the site was the storage of empty shipping containers. At this time, the property is unused except for occasional parking of empty trailers.

Name of Property Owner	From	To
Palmer Industries, Inc.	1982	Present
Tilcon Minerals, Inc. (aka Tilcon-Warren Minerals Inc. & Warren Properties, Inc.)	1942	1982
Standard Bithulithic Company	1919	1942
The New Jersey Zinc Company	Pre 1892	1919

Name of Operator	Operations Conducted	From	To
Palmer Industries Inc.	Empty shipping container storage & empty trailer parking	1982	present
Tilcon Minerals/ Standard Bithulithic Co.	Asphalt manufacturing	1942	1982
Standard Bithulithic Company	Asphalt manufacturing	1919	1942
The New Jersey Zinc Company (aka NJ Zinc & Iron Co.)	Metal smelting	Pre 1892	1919

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM

PI #510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

APPENDIX 2

SITE HISTORY
&
DESCRIPTION OF CURRENT OPERATIONS

APPENDIX 2

SITE HISTORY & DESCRIPTION OF CURRENT OPERATIONS

[SECTIONS 2A, 2B, 4A & 4B OF PAR FORM]

INTRODUCTION

The property under review is Palmer Industries, Inc. located at 59-97 Chapel Street Rear, Newark City, Essex County, New Jersey. The transaction initiating this review is a taking of the property by Essex County under eminent domain. The County plans to convert this site and the two properties to the west into a park.

SITE HISTORY

The subject site has seen long-term use for industrial purposes. The earliest reference to such use is found in an 1892 Sanborn Fire Insurance Map that shows the New Jersey Zinc Company to be present on the site.

Various other industrial uses are identified in this section for the 90 years between that map and the purchase of the property by Palmer Industries. Since that purchase, the only use of the site was the storage of empty shipping containers. At this time, the property is unused except for occasional parking of tractor trailers.

SITE DESCRIPTION

The site is located at 59-97 Chapel Street Rear in Newark City, Essex County, New Jersey. It is an irregular polygon that is roughly triangular with an area of some 3.5 acres. Site boundaries are formed by the Passaic River to the north, an apartment complex to the east and an industrial facility to the west. It is generally flat with a slight slope to the north with elevations above mean sea level of 15 feet at the southern end and 8 feet msl near the river.

Although there is an access gate at the southern end of the property, it is unused. Access to the otherwise land-locked property is through an easement at the rear of the neighboring property to the east that joins this property to 99 Chapel Street.

The entire property is fenced or secured by a steep river bank and the surface is a mixture of casually spread gravel and asphalt.

CURRENT SITE OPERATIONS

The property is currently undeveloped and vacant. The most recent past use was by Columbia Container, which used it to store empty shipping containers. Hazardous materials were not used on the property, since all maintenance work was conducted on the neighboring property to the east.

Prior operators included a variety of industrial operations dating back to at least 1892. A non-exhaustive list of those operators, as far as could be determined from available historic documents, is provided in Appendix 1.

APPENDIX 3

RESOURCES USED TO COMPILE SITE HISTORY

APPENDIX 3

RESOURCES USED TO COMPILE SITE HISTORY

[SECTION 2A OF PAR FORM]

The following sources were used in the determination of site history and assessment of the environmental conditions of the property addressed in this report:

1. Personal communications:
   Christopher Guido, President, Palmer Industries, Inc.

2. Personal visits, letters and/or telephone calls to government sources to identify the existence and contents of files or other information specific to the subject site:

   USEPA
   FOIA request, USEPA Freedom of Information Office

   NJDEP
   OPRA request, NJDEP Office of the Records Custodian

   Newark City
   OPRA Request, Municipal Clerk

   Essex County
   OPRA request, Custodian of Records
   OPRA request, Essex County Regional Health Department

3. EDR-Sanborn Reference Sources:
   Sanborn Maps
   Historic Topographic Quadrangles
   Aerial Photograph "Decade" Package
   Radius Map
   City Directory Abstract

4. Aerial Viewpoint Aerial Photographs, Spring, TX: Aerial Photographs

5. USGS 7.5-Minute Series (Topographic) Quadrangle, "Paterson, N.J."

6. Web sites: GoogleEarth.com (aerial photograph);
   NJACTB.org (property information);
   NJTaxMaps.com (tax map);

7. NJDEP Case files: None

8. General files held at the offices of the owner and operator.

9. Site visit conducted variously from November 2009 through January 2011.

APPENDIX 4

HAZARDOUS SUBSTANCE/WASTE INVENTORY

APPENDIX 4

HAZARDOUS SUBSTANCES / WASTE INVENTORY

[SECTION 3 OF PAR FORM]

The facility is undeveloped and vacant. The most recent past use of the site was for the storage of empty shipping containers. No hazardous materials were used on this site for those operations. Historic use of underground storage tanks was confirmed during the excavation and off-site disposal of five such units, which are the only materials listed here.

Material Name	*Typical Inventory*	*Units (gal/lb)*	*Storage method (i.e. drum, tank, jar)*	*To remain on site?*
MOST RECENT OPERATIONS involved only the storage of empty shipping containers and empty trailers – no hazardous materials were used, stored, etc. in those activities.				
HISTORIC OPERATIONS				
#4 oil	27,500 (maximum)	Gallons	3 USTs	No
#6 oil	7,500 (maximum)	Gallons	UST	No
Gasoline	1,000 (maximum)	Gallons	UST	No

APPENDIX 5

DISCUSSION OF IDENTIFIED AREAS OF CONCERN

APPENDIX 5

DISCUSSION OF IDENTIFIED AREAS OF CONCERN
[SECTION 5 OF PAR FORM]

A number of generic areas of concern (AOCs) were initially identified at the Palmer Industries, Inc. site. No AOCs are related to the most recent site operations but are remnants from 90 years of industrial operations from 1892-1982. Specific discussions of all listed AOCs are provided below, in the order in which they first appear on the PAR Form. Paragraph letters coincide with the identification of AOCs presented on Figure 3, Appendix 7.

A. Aboveground Storage Tanks (ASTs)

Historic photographs and Sanborn Fire Insurance Company maps identify past use of the property as an asphalt manufacturing plant. No specific information on the locations of ASTs was found but the presence of such units can be safely postulated. No visible evidence was identifiable onsite and no anomalies found by a ground penetrating radar survey indicate the former presence of such tanks. No further investigation of this matter is proposed.

B. Underground Storage Tanks (USTs)

The GPR survey identified three anomalies that were interpreted as USTs. Upon excavation, the three locations were found to hold five USTs: These tanks were never used by Palmer Industries or its tenants, but are ancient tanks left in place by the previous owner when the site was purchased by Palmer in 1982.

1. 7,500-gallon #4 oil
2. 7,500-gallon #6 oil
3. 1,000-gallon gasoline
4. 10,000-gallon #4 oil
5. 10,000-gallon #4 oil

USTs 1 and 2 were side-by-side, as were USTs 4 and 5; UST 3 was in a separate location. All five tanks were duly registered with the NJDEP and excavated for off-site disposal. Discharges were observed in the vicinity of all five tanks. All soil above applicable remediation standards, along with the tanks and their remaining contents, were disposed off-site. Full details of the work involved are provided in the Remedial Investigation Report included in Section 3 of this submittal. Based on the results of that work, no further investigation of this matter is proposed.

C. Loading/unloading areas

As in the case of the presumed ASTs discussed above, the 90-year history of industrial operations naturally would have involved these areas. No specific information could be derived from historic sources and none of the GPR anomalies showed any relationship to such activities. No further investigation of this matter is proposed.

D. Sumps, Pits and Piping

Two of the original GPS subsurface anomalies were caused by the presence of underground pits.

1. Anomaly E

   Anomaly E was found to be a catch basin with no apparent outfall. A soil sample, ANOME, was obtained in the sediment below the drain and analyzed for Target Analyte List / Target Compound List (TAL/TCL) compounds and total petroleum hydrocarbons (TPH) as Diesel Range Organics (DRO). The results (discussed in detail in the accompanying RIR) showed only one BN and several metals in excess of any standards and screening levels.

2. Anomaly L

   Anomaly L was another catch basin. The interior of the drainage pit was cleaned out with the sediment taken off-site for disposal. Sample SB1 was taken from sediment in the basin and sample SBD was taken at the discharge point. SB1 contained arsenic, lead, manganese and zinc above the SRS. Beryllium, cadmium, mercury, selenium and silver were present above the IGWSSL. SBD contained no parameters above the New Jersey Soil Remediation Standards. Aluminum and manganese were found in excess of the IGWSSLs but were discounted as a concern in view of the fact that those values are related to secondary standards (aesthetic- rather than health-based).

The similarity of data from the two anomalies, combined with site-wide observations of similar materials representing historic fill, indicates that these results are related to historic fill and will be addressed under that area of concern.

E. Surface Water Body

The Passaic River forms the northern border of the property. It is a salt-water, tidal body at this point and has caused salt-water intrusion through a substantial portion of the subject site. A routine reversal of ground water flow due to the proximity of the river was documented during the tidal study provided in Appendix 13. No further investigation of this matter is proposed.

F. Historic/Other Fill

Ten test pits were installed throughout the site to evaluate the presence of historic fill. Various items of "typical" historic fill – slag, ash, concrete – were found. Samples obtained from several of the pits also showed the presence of base/neutral extractable compounds and heavy metals commonly associated with historic fill.

Initial sampling of TP10 identified the presence of elevated total petroleum hydrocarbons. When further evaluation of this location was conducted through extractable petroleum hydrocarbons, no exceedance of standards was observed and no further investigation of this matter is proposed.

Historic fill is discussed in detail in the accompanying Remedial Investigation Report (Section 3 of this submittal).

G. Subsurface Anomalies

The initial investigation of the site involved a GPR survey (see Appendix 10) which identified 13 subsurface anomalies. Three of these (Anomalies A, B and K) were determined to be underground storage tanks (AOC B), two others (Anomalies E and L) were pits (AOC C) and the remaining eight were examined through trenching and found to be innocuous:

1. Anomaly C was an old concrete floor and walls.
2. Anomaly D was a buried concrete slab.
3. Anomaly F was a chunk of concrete.
4. Anomaly G was a discarded concrete slab with a metal ring.
5. Anomaly H was an old concrete footing with apparent steam lines.
6. Anomaly I was buried metal pieces.
7. Anomaly J was buried metal items.
8. Anomaly M was a buried brick and concrete structure.

None of these anomalies showed evidence of staining, odor or any other indication of past involvement with, or discharge of, hazardous materials. No further investigation of these items is proposed.

H. Ground Water Contamination

Upon removal of the underground storage tanks, a heavy sheen was observed on the ground water, generally encountered at a depth of 5-7 feet below grade. A ground water sampling program was initiated that found the underlying water to be tidal and to be affected by salt-water intrusion from the bordering Passaic River. Details of this work and recommendations regarding this AOC are provided in the accompanying Remedial Investigation Report (Section 3).

Conclusion

The foregoing analysis identified several AOCs warranting further investigation, specifically, the two catch basins, five underground storage tanks, historic fill and ground water. Sampling of the catch basins showed the related contaminants to be directly related to historic fill and all soil contamination related to the USTs has been removed from the site. The only matters remaining to be dealt with are historic fill and ground water. Work related to these matters is detailed in the accompanying Remedial Investigation Report presented in Section 3.

APPENDIX 6

AERIAL PHOTOGRAPH & HISTORIC MAP REVIEW

APPENDIX 6

HISTORICAL MAP & AERIAL PHOTOGRAPH REVIEW

[SECTION 6 OF PAR FORM]

The following discussion covers information derived from a series of seven Sanborn Fire Insurance Company maps purchased from Environmental Data Resources of Milford, Connecticut and four aerial photographs purchased from Aerial Viewpoint Aerial Photography of Spring, Texas.

Source	Observations
1892 Sanborn	The property is part of the New Jersey Zinc & Iron Company. There are a number of buildings present. A vacant factory and the Passaic Chemical Company are located west of the site. The Morris Canal is directly to the south. The New Jersey Zinc & Iron Company continues to the east with the Passaic River directly north of the site.
1908 Sanborn	The property remains part of the New Jersey Zinc & Iron Company with a number of buildings on-site. The A.P. Smith Manufacturing Company, the Ballantine Company Beer Depot and the Passaic Chemical Company are located west of the site. The remaining site boundaries are unchanged from 1892.
1931 Sanborn	The Standard Bithulithic Company now operates an asphalt plant onsite. There are eight structures and an underground tank shown on the map. Offsite operations to the west and south are not shown. The General Lead Batteries Company, The Stanley Rule & Level Plant and Industrial Welded Alloys, Inc are to the east of the site. The Passaic River forms the northern border of the property.
1940 Aerial	The property continues in use as an asphalt plant operated by Standard Bithulithic. There are two large above ground tanks immediately to the west of the property. This may be part of an Ashland Oil or British Petroleum facility. Buildings are present to the south. Vacant land and buildings lie to the east. The Passaic River is directly north of the site.
1951 Aerial 1952 Sanborn	The appearance of the site remains essentially unchanged and it remains a Standard Bithulithic asphalt plant. Ten structures and a UST are identified on the Sanborn Map. There are three large above ground tanks immediately to the west of the property, still believed to be a large oil company facility. Buildings are present to the south on the aerial, but not shown on the Sanborn. Vacant land, residential housing projects and three industrial operations (Barth Smelting & Refining Co., Inc., Stanley Tools and Industrial Process Engineers) are to the east. The Passaic River is directly north.
1961 Aerial	The property is occupied by the Standard Bithulithic Company and is operating as an asphalt plant. There are five large above ground petroleum tanks immediately to the west of the property. This is believed to be part of an Ashland Oil or British Petroleum site. Buildings are present to the south. Vacant land, residential housing projects and buildings are located to the east. The Passaic River is directly to the north of the site.

1973 Sanborn 1974 Aerial	The property is still in use by the Standard Bithulithic asphalt plant. The number of buildings is 10 and one UST is still shown on the Sanborn. Offsite operations to the west and south are not identified on the Sanborn but five large ASTs are now immediately to the west. The Barth Smelting & Refining Co., Inc., Stanley Tools and Industrial Process Engineers remain east of the site. The Passaic River is north.
Late 1970's Photo	The asphalt plant has ceased operations; five buildings are visible on site. The neighboring property, currently known as National Fuel Oil, Inc/Orfac Property Management LLC, contains large above ground fuel tanks along the property boundary.
1988 Sanborn	The property is now vacant land. There is one structure shown on the map. Offsite operations to the west and south are not shown. The Portwide Cargo Securing Company, AG Ship Maintenance Co., Stanley Tools and Palmer Industries are to the east of the site. The Passaic River is directly to the north.
1994 Sanborn	The property is remains unused, with one structure shown on the map. Offsite operations to the west and south are not shown. The Portwide Cargo Securing Company, AG Ship Maintenance Co., Stanley Tools and Palmer Industries are to the east of the site. The Passaic River is directly to the north of the site.

APPENDIX 7

FIGURES

APPENDIX 7

FIGURES

[SECTION 15 OF PAR FORM]

1 SITE LOCATION

1A TAX MAP

2 CURRENT ADJACENT LAND USE

3 OVERALL VIEW OF AOCS

4 ANOMALY LOCATIONS

5 TEST PIT LOCATIONS

6 UST & POST-EXCAVATION SAMPLE LOCATIONS

7 LINE & PIPING SAMPLE LOCATIONS

8 SOIL CLEANUP POST-EXCAVATION SAMPLE LOCATIONS

9 MONITORING WELL LOCATIONS

10 SANBORN MAPS

1892

1908

1931

1952

1973

1988

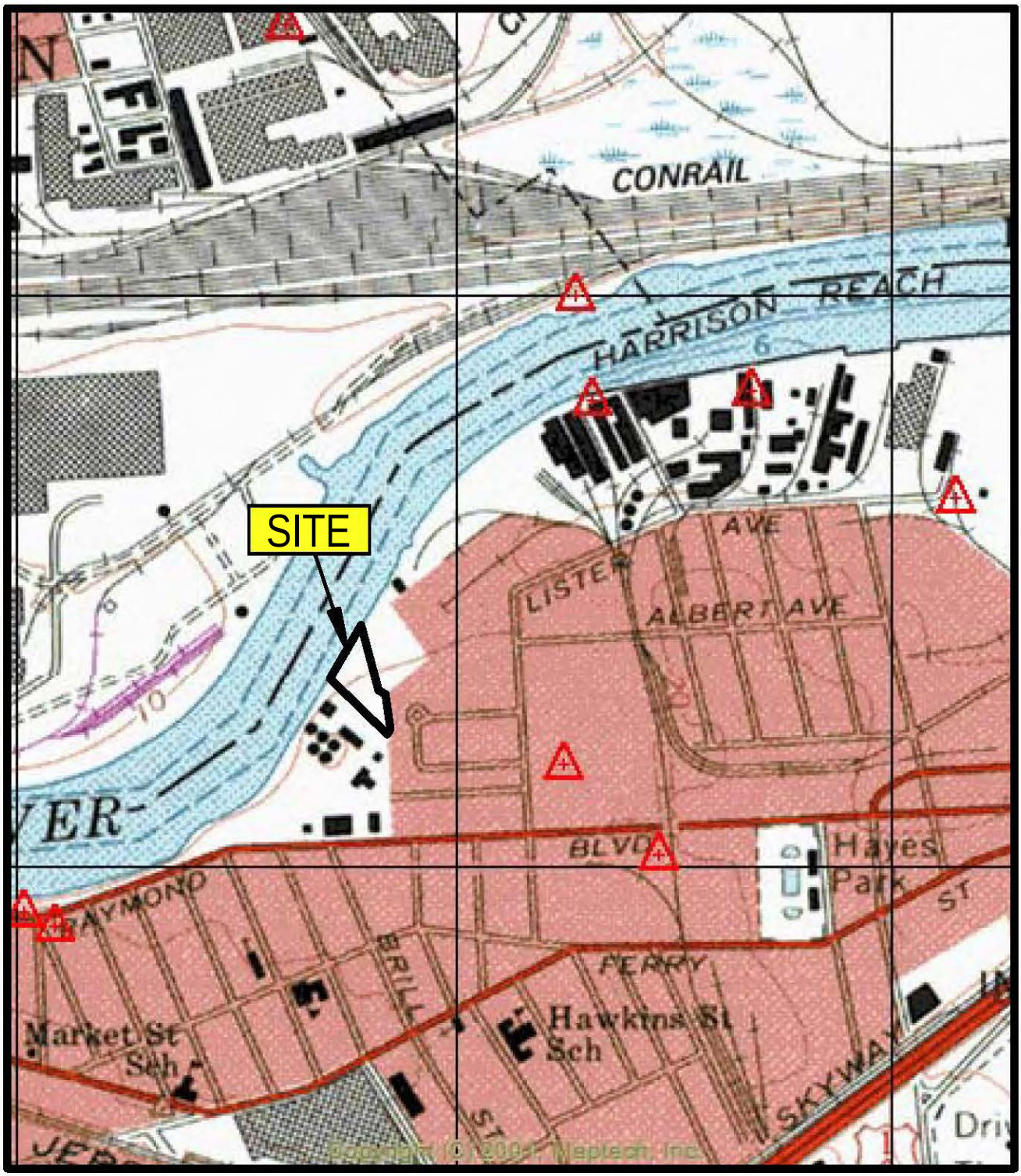
1994

--- SANBORN KEY & LEGEND

11 GW ELEVATION VS TIME, 11/08/2010

12 TIDAL CONTOURS, NOON, 11/08/2010

13 TIDAL CONTOURS, 6 PM, 11/08/2010



Source:
Terrain Navigator Pro
7.5-Min (Topo) Quad
Elizabeth, NJ 1967
photorevised 1981
Contour interval 10 ft

59-97 Chapel St Rear, B 2442, L 3
Newark City, Essex County, NJ
Approximate center of property
Latitude: 40° 44' 08.29"
Longitude: 74° 06' 35.21"
Elevation: ~12 ft msl

NORTH

PEC

Pennjersey Environmental Consulting, Inc.

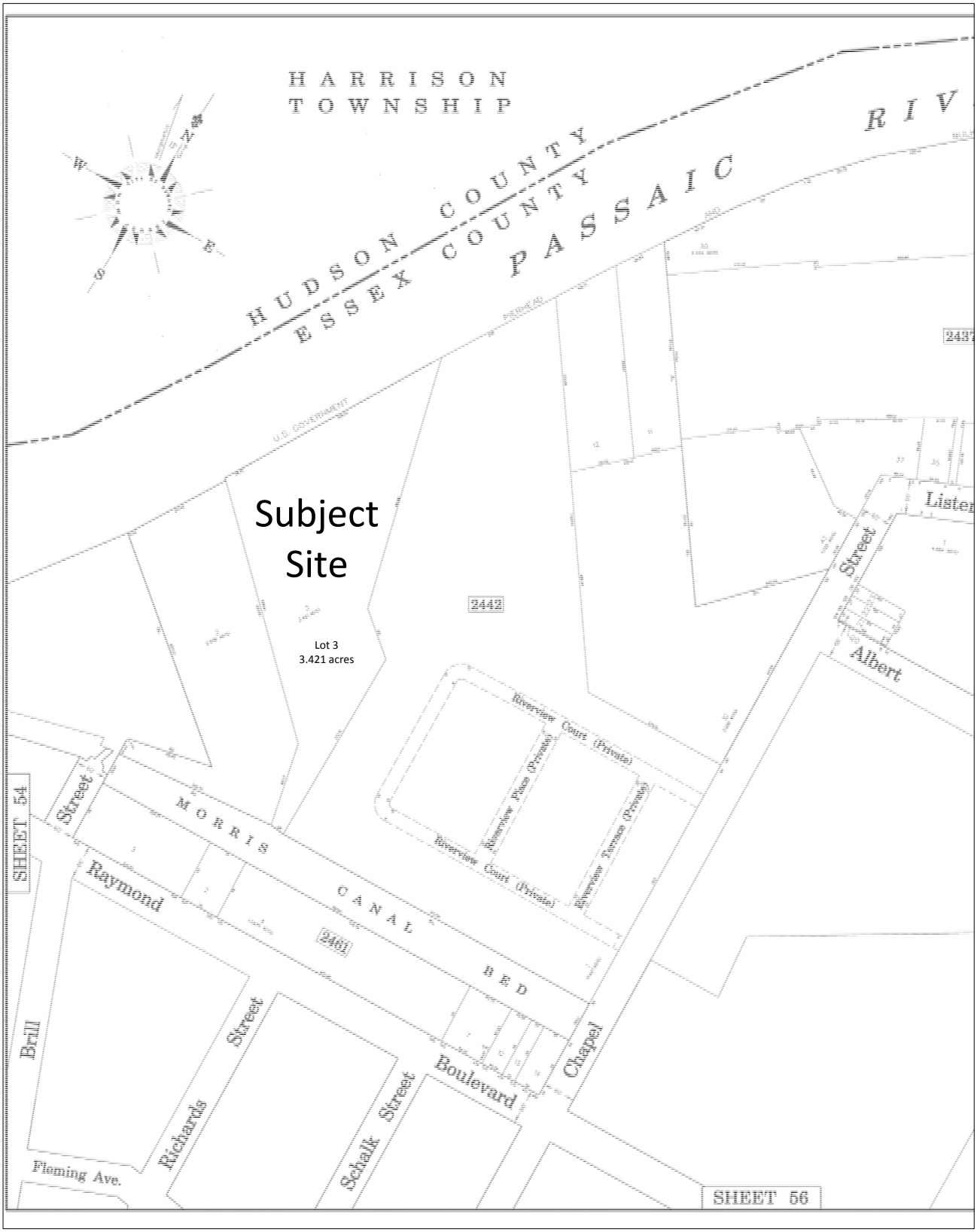
PALMER INDUSTRIES, NEWARK CITY, ESSEX CO, NJ

SITE LOCATION

BY: RJK
DATE: 05/10/11
REV:

SCALE: APPROXIMATE
1000 ft

FIGURE
1



TAX MAP
CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
SCALE : 1" = 100' JANUARY 1, 2001
JOSEPH F. FOX, JR., P.L.S.
920 BROAD STREET NEWARK, N.J. 07102

PEC

Pennjersey Environmental Consulting, Inc.

Palmer Industries, Newark City, Essex Co, NJ

Tax Map

BY: RJK
DATE: 05/10/11
REV:

SCALE: APPROXIMATE
240 ft

FIGURE
1A

Sources:
GoogleEarth Image
Municipal Tax Map
Various Site Visits

NORTH

PEC
Pennjersey Environmental Consulting, Inc.

PALMER INDUSTRIES, NEWARK CITY, ESSEX CO, NJ

CURRENT ADJACENT LAND USE

BY: RJK
DATE: 05/10/11
REV: 05/10/11

SCALE: APPROXIMATE
260 ft

FIGURE
2

PASSAIC RIVER

E

F

G G

F G

F G

F A F

F B1

F B2

G

B4

B3 G

D1

B5 G

F

G

D2

F

ID	AOC Description
A	Aboveground tank (approx)
B	Underground storage tank
C	Loading/unloading area (not shown)
D	Catch basin
E	Surface water body - Passaic River
F	Historic fill - site-wide
G	GPR anomaly - innocuous
H	Site-wide G.W. - tidally influenced

FIGURE 3

PEC
Pennjersey Environmental Consulting, Inc.

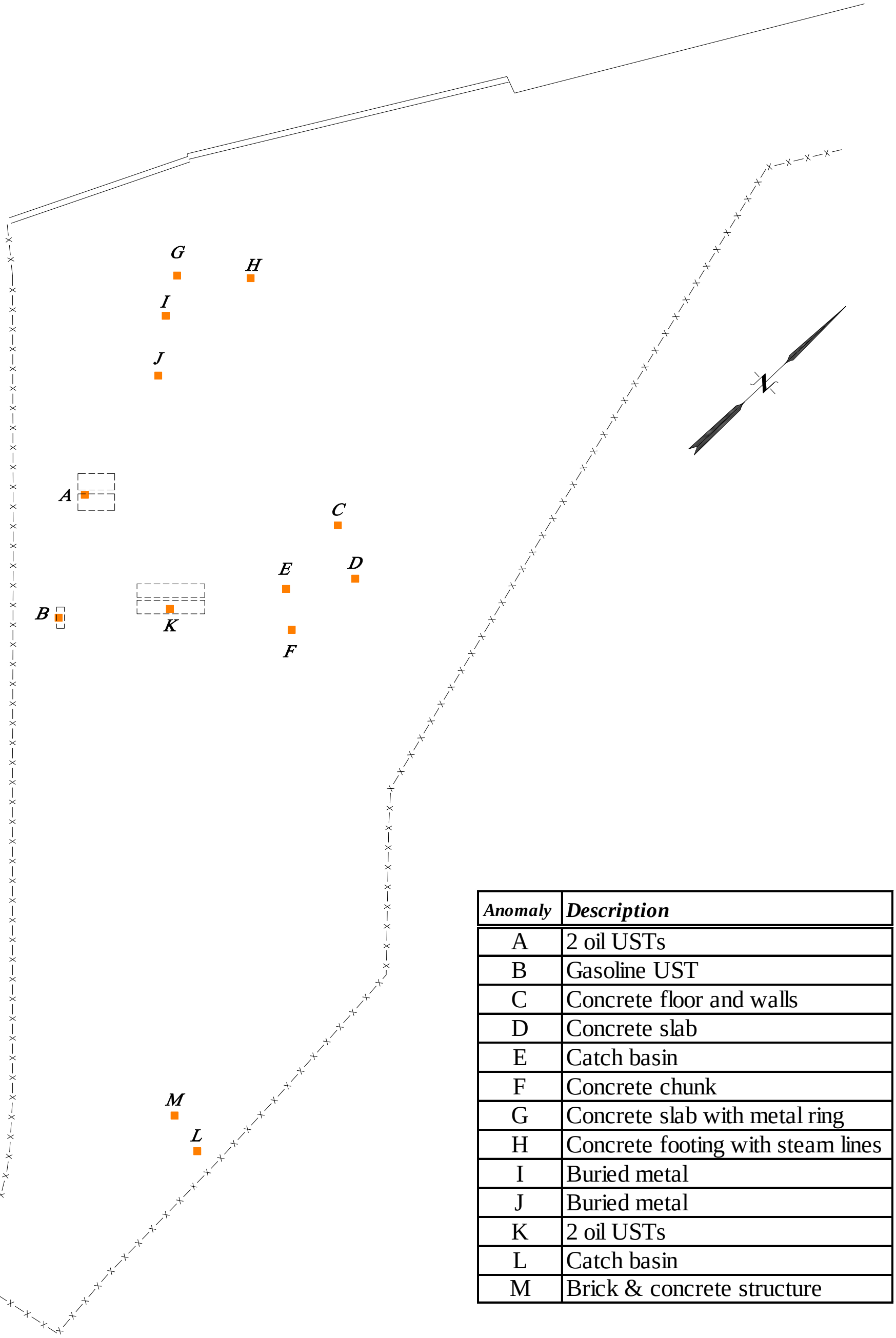
59-97 Chapel St, Newark City, Essex Co., NJ

Site Layout - Overall View of AOCs

by: rjk
date: 06/09/10
rev: 05/12/11

0' 50'

FIG 3



Anomaly	Description
A	2 oil USTs
B	Gasoline UST
C	Concrete floor and walls
D	Concrete slab
E	Catch basin
F	Concrete chunk
G	Concrete slab with metal ring
H	Concrete footing with steam lines
I	Buried metal
J	Buried metal
K	2 oil USTs
L	Catch basin
M	Brick & concrete structure

FIGURE 4

PEC *Pennjersey Environmental Consulting, Inc.*	59-97 Chapel St, Newark City, Essex Co., NJ GPR Anomaly Locations	
	by: rjk date: 06/09/10 rev:	0' 50'
		FIG 4

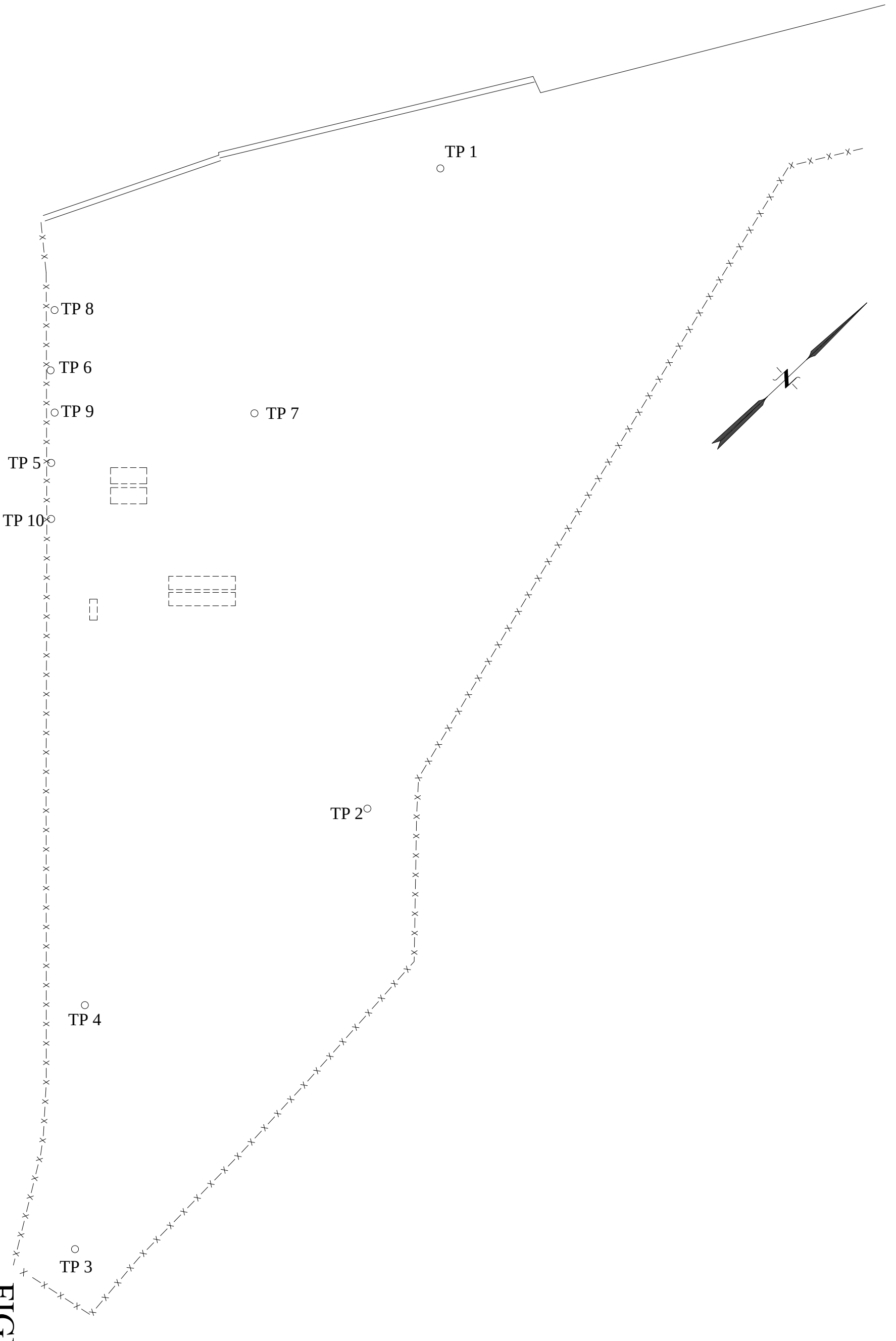


FIGURE 5

PEC *Pennjersey Environmental Consulting, Inc.*	59-97 Chapel St, Newark City, Essex Co., NJ Test Pit Locations	
by: rjk date: 06/09/10 rev:	0' 50'	FIG 5

PASSAIC RIVER

T1-2 DEL
T1-2 T1-3
T1-1 T1-4
T2-1 T2-4
T2-2 T2-3
T2-4 DEL
T2-2 DEL
T4-2 T4-3 T4-4
T4-1 T4-5
T5-1 T5-5
T5-2 T5-3 T5-4
T3-2
T3-1 T3-3
T3-4

T1-2 DEL
T1-2 T1-3
7,500 GAL.
#4 OIL TANK
T1-1 T1-4
T2-1 T2-4
T2-4 DEL
7,500 GAL.
#6 OIL TANK
T2-2 T2-3
T2-2 DEL
1,000 GAL.
GASOLINE TANK
T3-2
T3-1 T3-3
T3-4
T4-2 T4-3 T4-4
T4-1 T4-5
T5-1 T5-5
T5-2 T5-3 T5-4
2 - 10,000 GAL.
#4 OIL TANKS

FIGURE 6

PEC *Pennjersey Environmental Consulting, Inc.*	59-97 Chapel St, Newark City, Essex Co., NJ UST & Sample Locations	
by: rjk date: 06/09/10 **rev:** 05/20/11	0' 50'	FIG 6

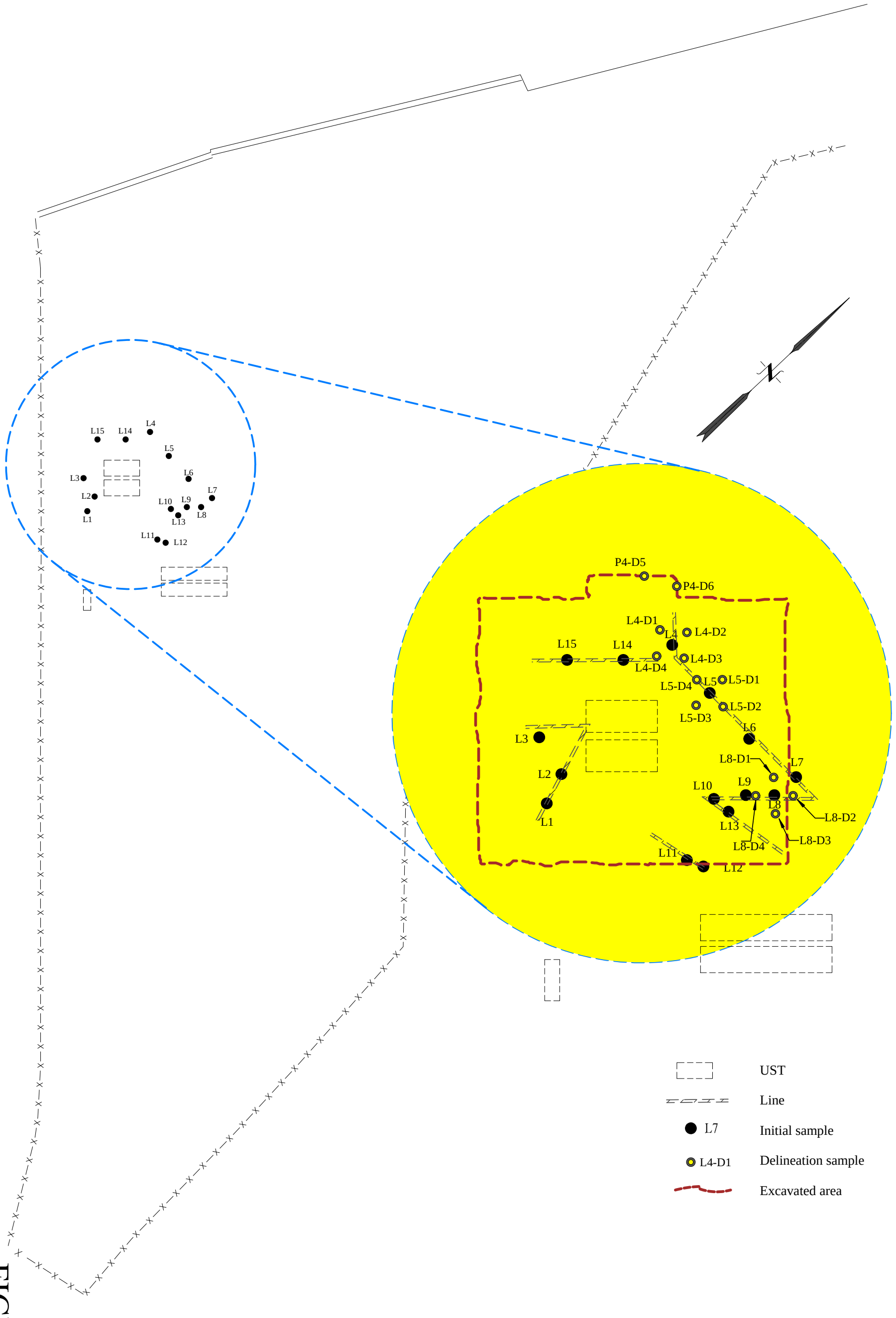


FIGURE 7

PEC *Pennjersey Environmental Consulting, Inc.*	59-97 Chapel St, Newark City, Essex Co., NJ Line Sample Locations	
by: rjk date: 06/09/10 rev: 05/11/11	0' 50'	FIG 7

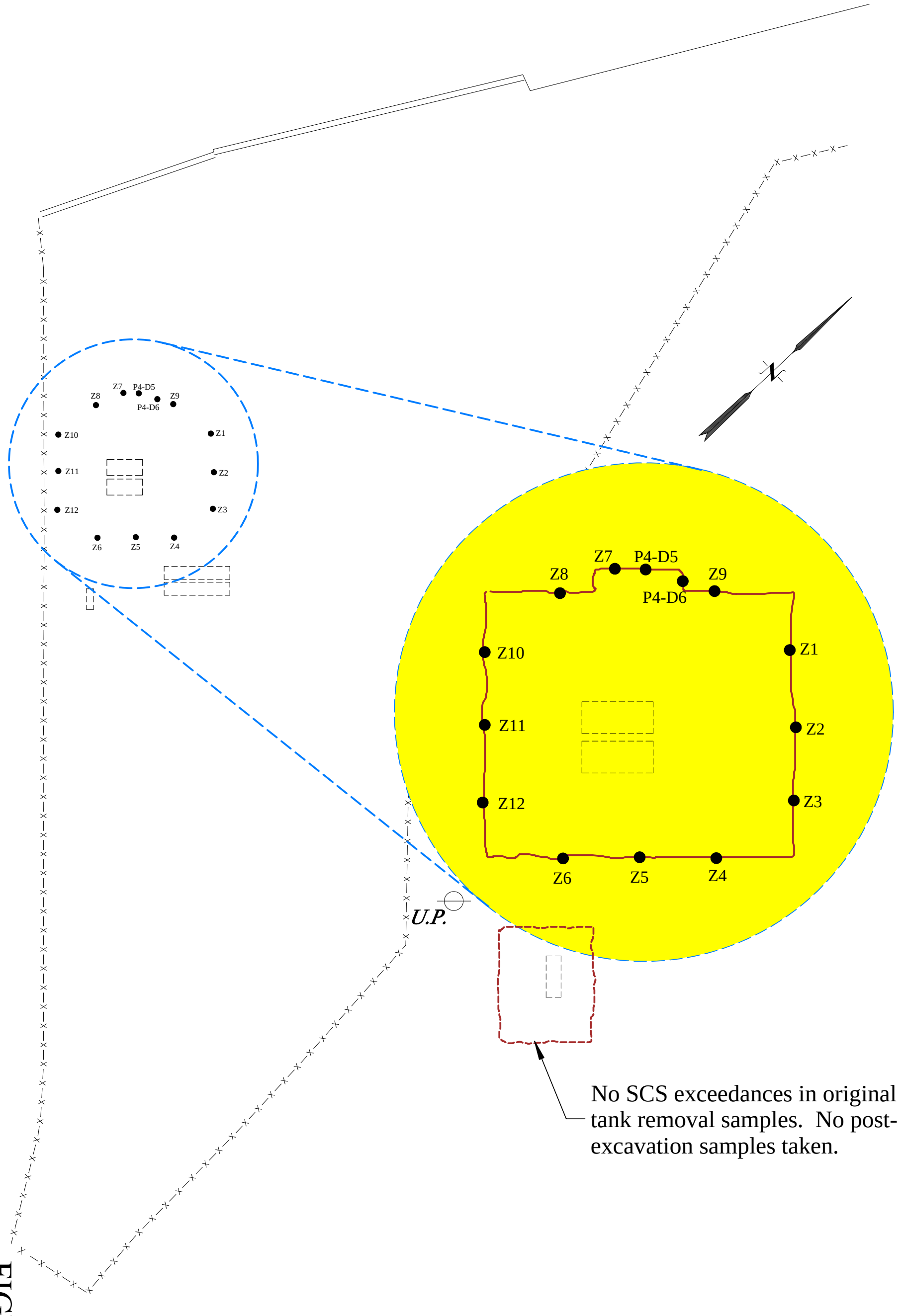


FIGURE 8

PEC *Pennjersey Environmental Consulting, Inc.*	59-97 Chapel St, Newark City, Essex Co., NJ Post-Excavation Sample Locations	
by: rjk date: 06/09/10 rev:	0' 50'	FIG 8

PASSAIC RIVER

MW-11

MW-17

MW-8 removed
during excavation

MW-8
(sealed)

MW-12

TW-3, 3A

MW-8R

MW-14

TW-2

U.P.

MW-13

TW-1, 1A

MW-15

MW-16

MW-9

MW-10

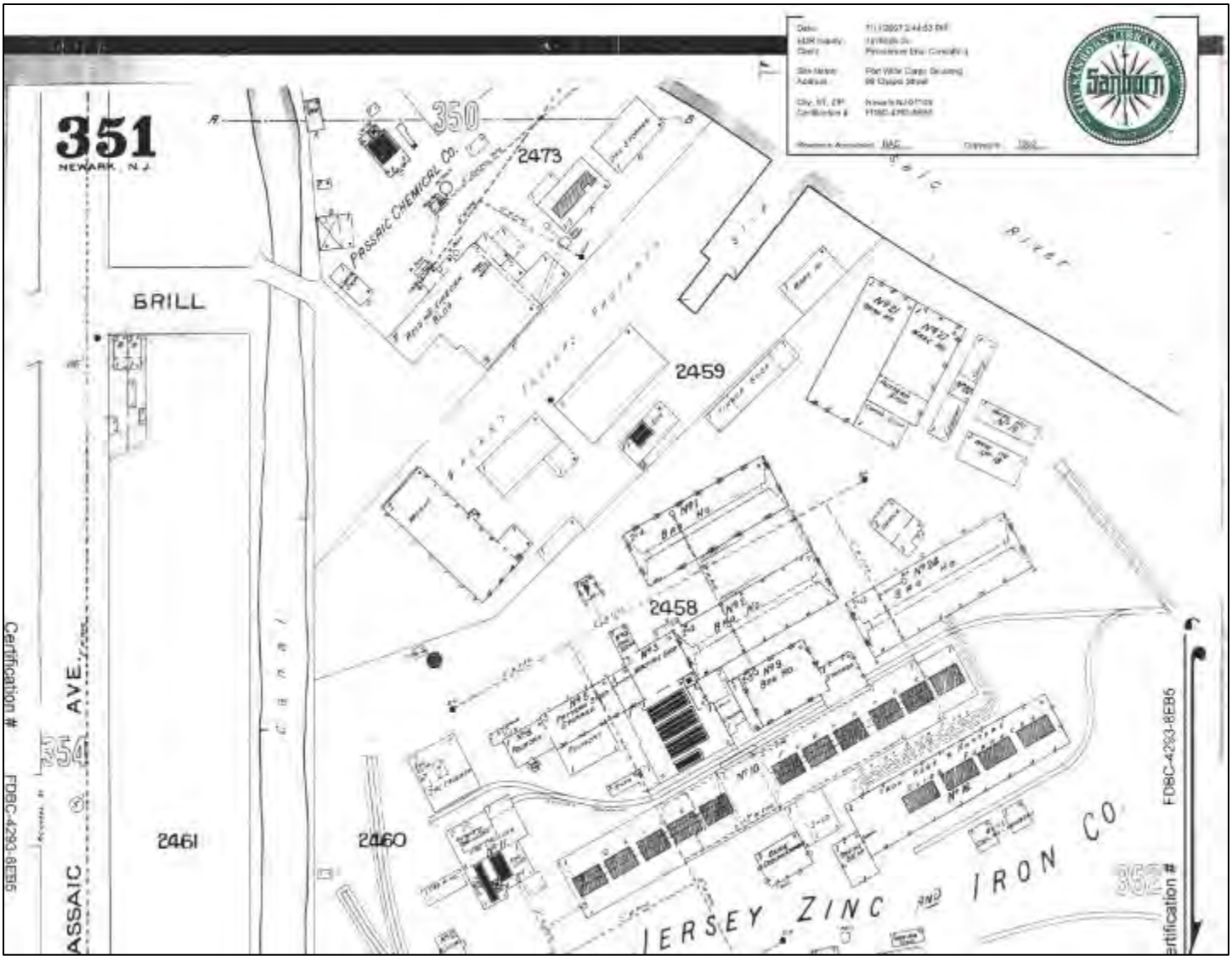
former g.w. sampling location

existing g.w. monitoring well

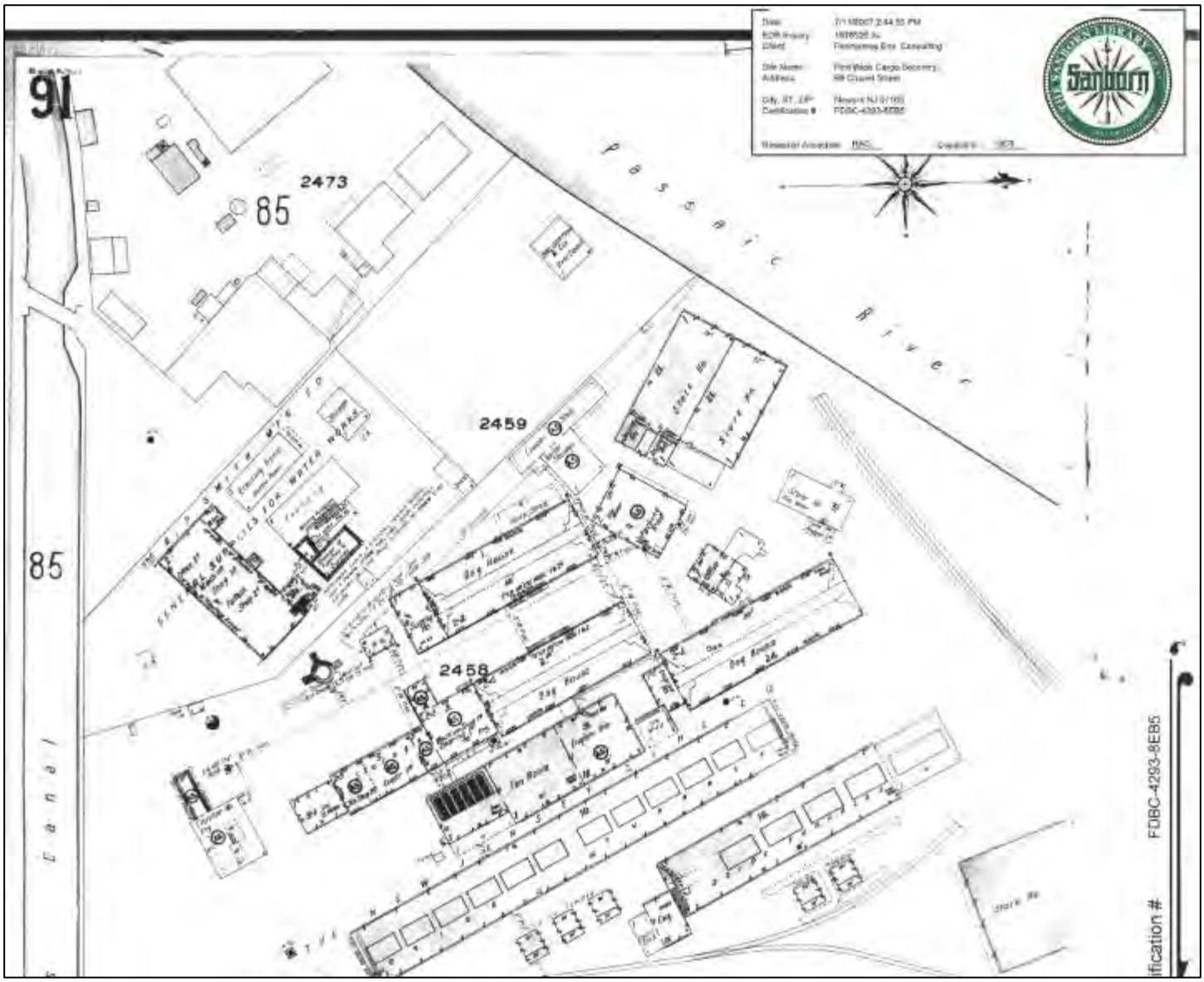
FIGURE 9

PEC *Pennjersey Environmental Consulting, Inc.*	59-97 Chapel St, Newark City, Essex Co., NJ Monitoring Well Locations	
by: rjk date: 06/09/10 rev: 05/20/11	0' 50'	FIG 9

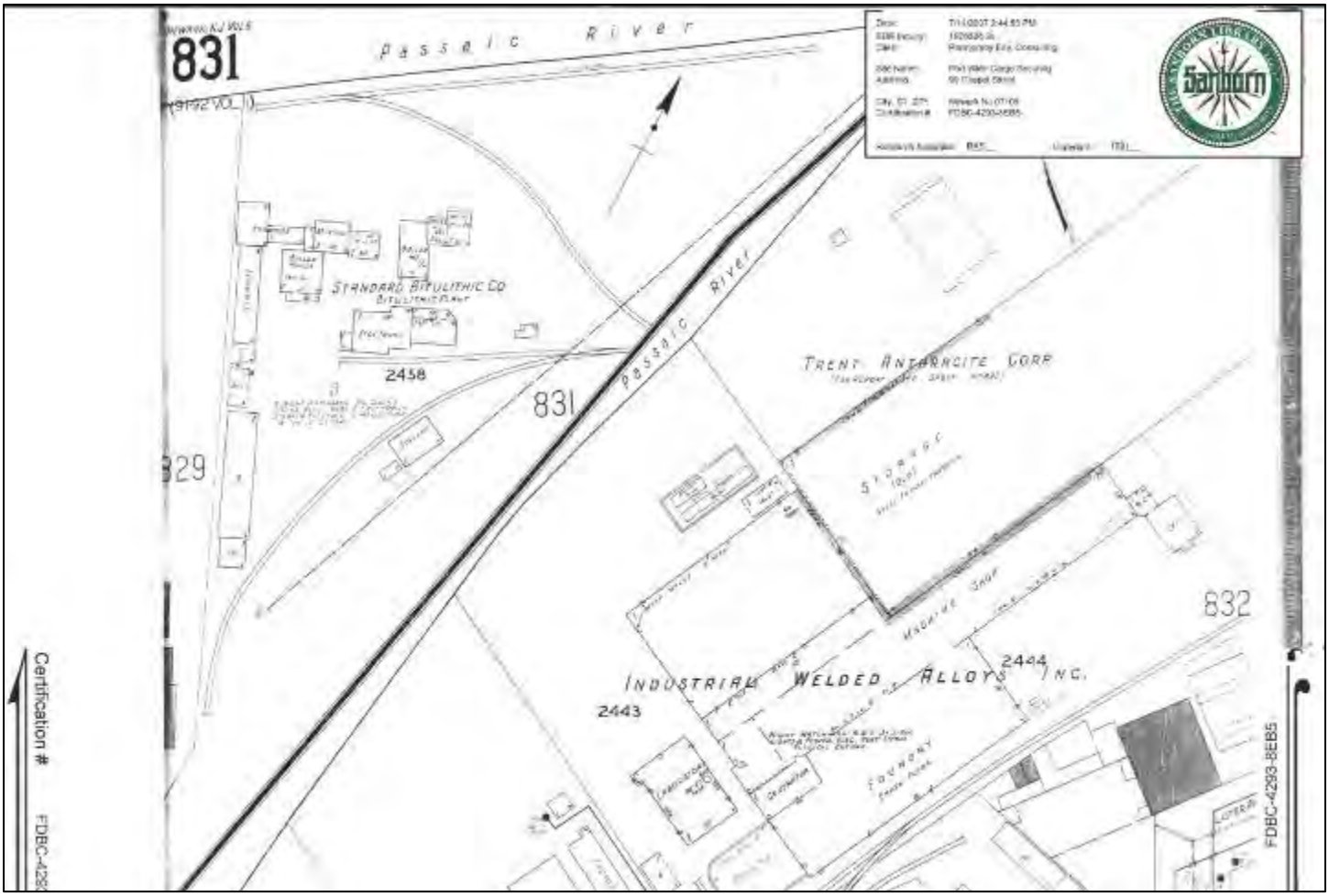
SANBORN FIRE INSURANCE COMPANY MAPS



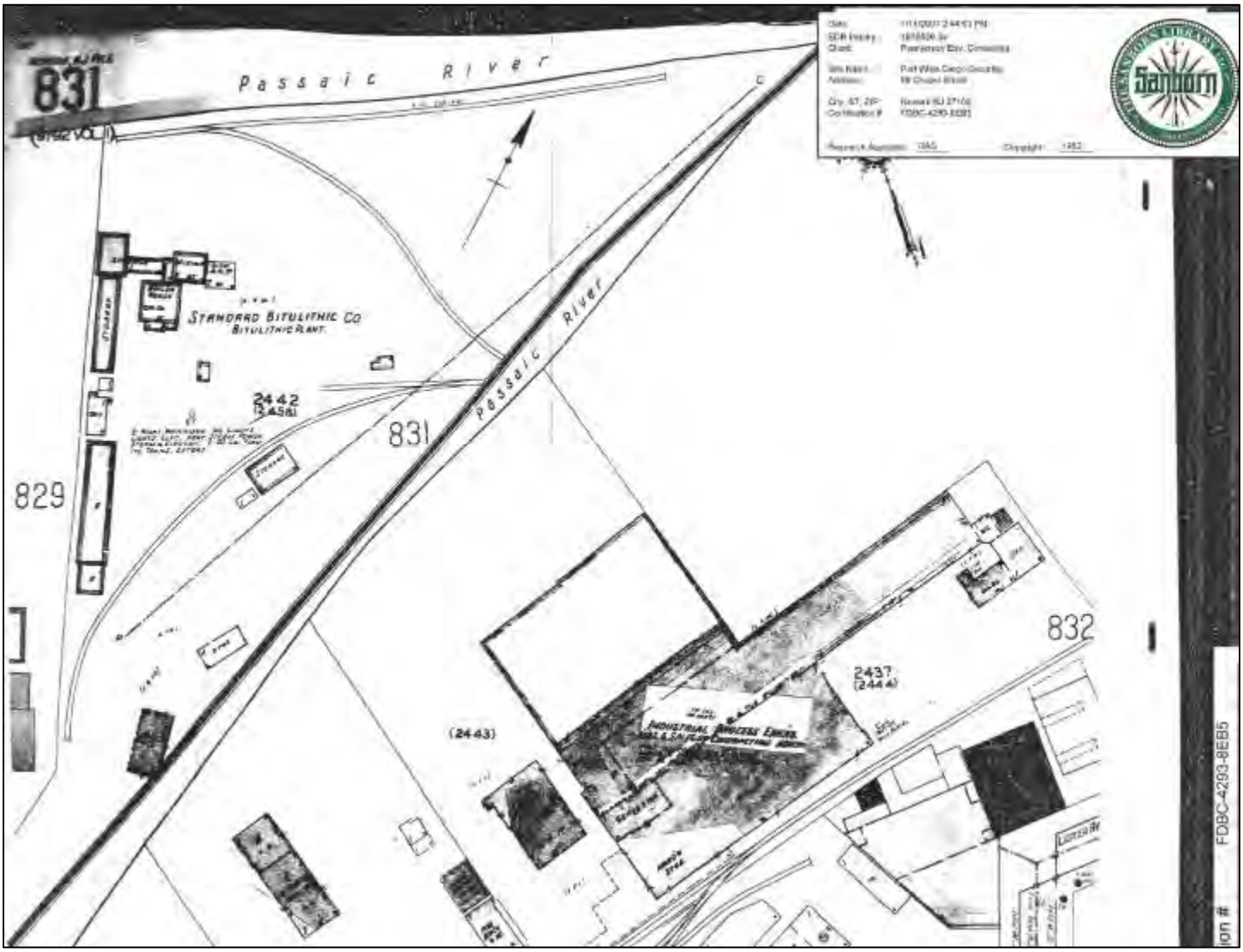
1892 Sanborn Map



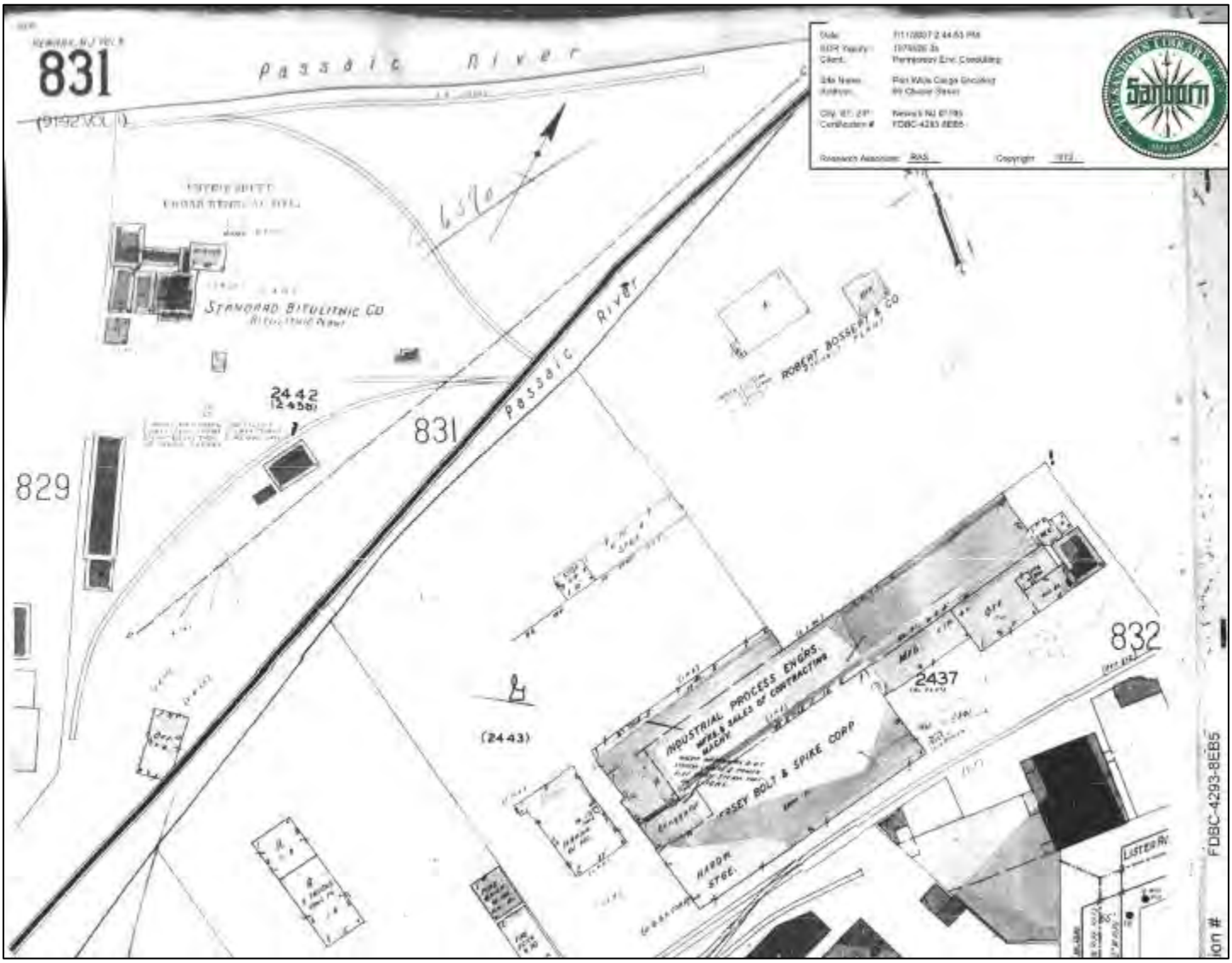
1908 Sanborn Map



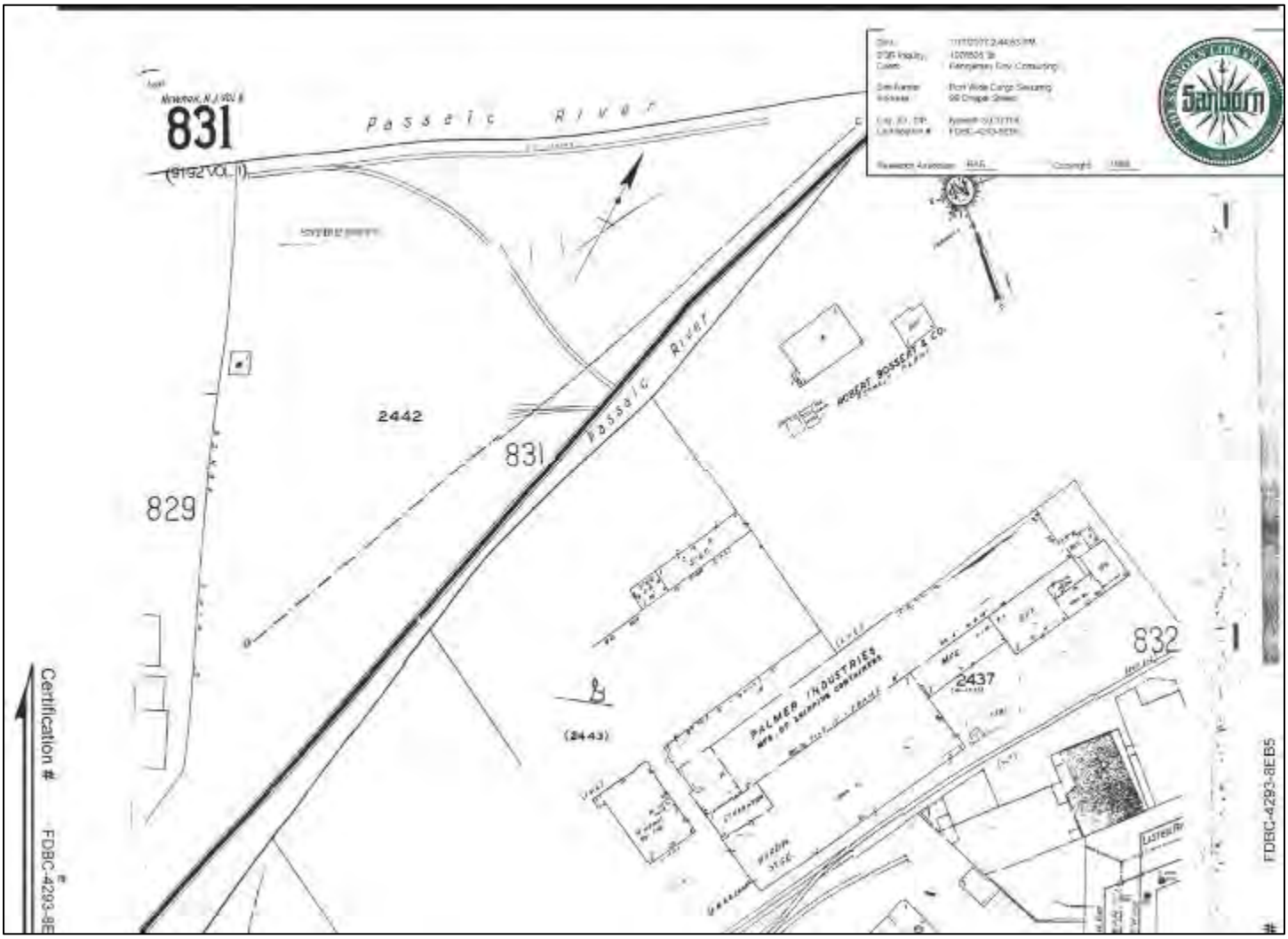
1931 Sanborn Map



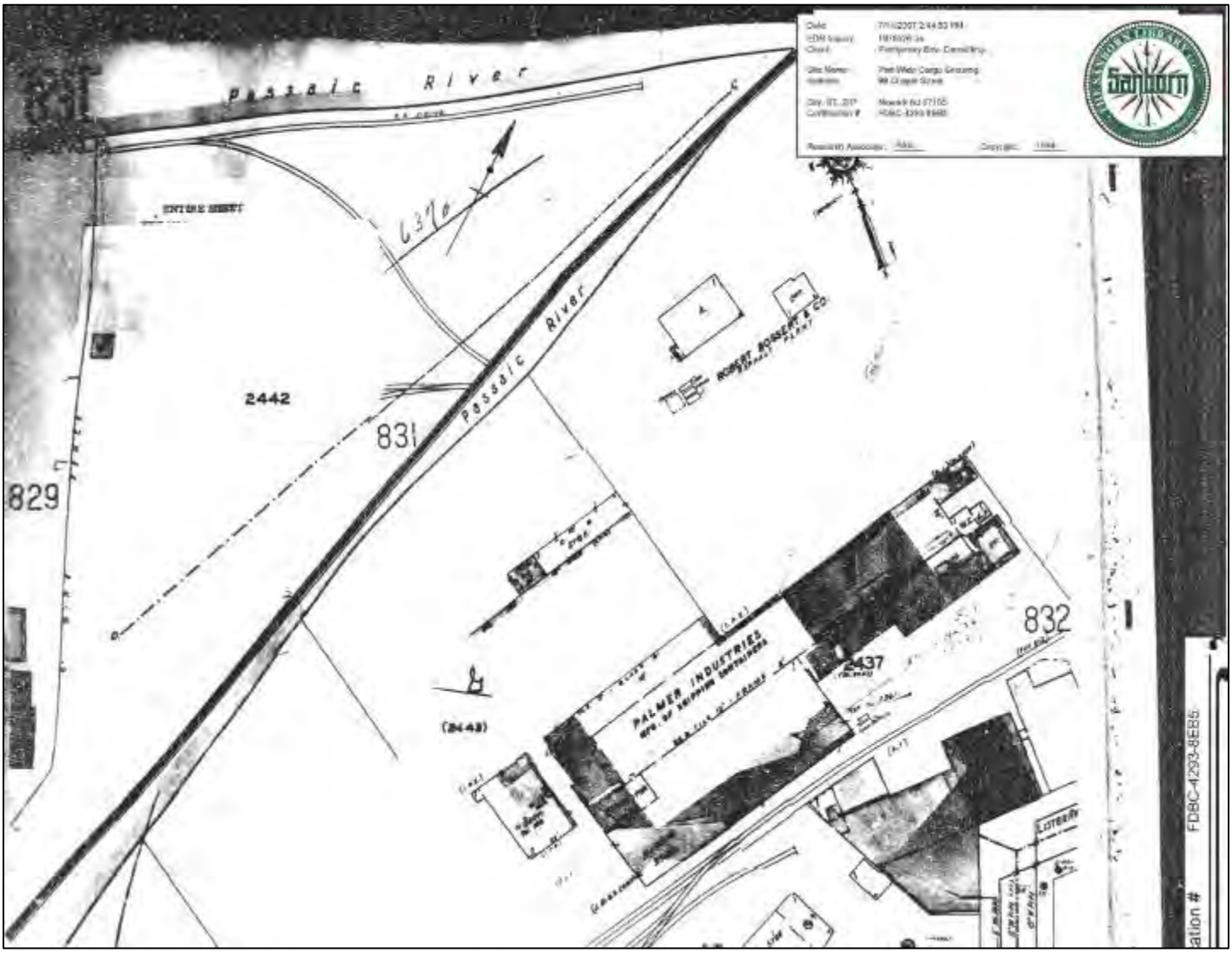
1952 Sanborn Map



1973 Sanborn Map



1988 Sanborn Map



1994 Sanborn Map

SANBORN MAP LEGEND

CODING OF FIRE-RESISTIVE STRUCTURAL UNITS FOR FIREPROOF AND NON-COMBUSTIBLE BUILDINGS

FRAMING

CODE	STRUCTURAL UNIT
A.	Reinforced Concrete Frame.
B.	Reinforced Concrete Joists, Columns, Beams, Trusses, Arches, Masonry Piers.
C.	Protected Steel Frame.
D.	Individually Protected Steel Joists, Columns, Beams, Trusses, Arches.
E.	Indirectly Protected Steel Frame.
F.	Indirectly Protected Steel Joists, Columns, Beams, Trusses, Arches.
G.	Unprotected Steel Frame.
H.	Unprotected Steel Joists, Columns, Beams, Trusses, Arches.
O.	Masonry Bearing Walls only.

FLOORS

CODE	STRUCTURAL UNIT
1.	Reinforced Concrete. Reinforced Concrete with Masonry Units. Pre-cast Concrete or Gypsum Slabs or Planks.
2.	Concrete on Metal Lath, Incombustible Form Boards, Paper-backed Wire Fabric, Steel Deck, or Cellular, Ribbed or Corrugated Steel Units.
3.	Open Steel Deck or Grating.

ROOF

CODE	STRUCTURAL UNIT
a.	Reinforced Concrete. Reinforced Concrete with Masonry Units. Reinforced Gypsum Concrete. Pre-cast Concrete or Gypsum Slabs or Planks.
b.	Concrete or Gypsum on Metal Lath, Incombustible Form Boards, Paper-backed Wire Fabric, Steel Deck, or Cellular, Ribbed or Corrugated Steel Units.
c.	Incombustible Composition Boards with or without Insulation. Masonry or Metal Tiles.
d.	Steel Deck, Corrugated Metal or Asbestos Protected Metal with or without Insulation.

The coding to left, for framing, floor and roof structural units is used in describing the construction of fire-resistive buildings. In addition, reports for fire-resistive buildings will show the date built, wall construction other than brick, and ceilings.

FP - 1962 (CONC.) A-1-a — A fireproof building built in 1962 with concrete walls and reinforced concrete frame, floors and roof.

FPX - 1962 (METAL PANELS) B-2-a (NONCOMB CEILGS) — A fireproof building built in 1962 with metal panel walls, reinforced concrete columns and beams, concrete floors on metal lath and gypsum slab roof; non-combustible ceilings.

NC - 1962 (C.B.) H-2-d — A noncombustible building built in 1962 with concrete block walls; unprotected steel columns, beams and joists; concrete floors on metal lath and steel deck roof.

MASONRY CONSTRUCTION

Important interior and all exterior masonry walls of all non-residential buildings and residential buildings of five or more dwelling units are shown with weighted (——) lines.

Masonry walls of residential buildings of four dwelling units or less are shown with a standard line and the construction is noted on all buildings diagramed after July, 1963.

WALLS

- 8" Brick
- (CONC.) 12" Concrete
- (STONE) 18" & 20" Stone
- (TILE) 12" & 8" Hollow Tile Wall Thicknesses Placed Relative to Respective Floors
- (C.BR) Cinder, Concrete or Cement Brick
- (C.B.) (PLASTD) Hollow Cinder or Concrete Blocks, Pilastered
- (CBBRF) Mixed Construction of Concrete Blocks, Brick Faced
- (CB & BK) Mixed Construction of Concrete Blocks & Brick
- (METAL F) Masonry Walls, Metal Faced
- (ADOBE) Adobe
- (C.B) Hollow Cinder or Concrete Block Interior Wall Basement to Roof
- (TILE) Tile Interior Wall Basement to Roof
- (C.BR) Cement Brick End Wall

PARTITIONS

- Frame
- (TILE TO CEILING) Tile from Foundation to Top Ceiling only
- (CONC 1ST) Concrete 1st Floor only
- (C.B. 1ST) Hollow Cinder or Concrete Block 1st Floor only
- (BR. 2ND) Brick 2nd Floor only
- (TILE 1&3) Tile 1st & 3rd Floors only

OPENINGS

(Interior)

- Wall with No Openings
- Wall with Double Standard Fire Doors 1st Floor
- Wall with Standard Fire Door Basement
- Wall with Substandard Fire Doors 1st & 3rd Floors
- Wall with Metal & Wired Glass Fire Doors all Floors
- Wall with Substandard Fire Doors 1st, 2nd & 3rd Floors & Unprotected Opening 4th Floor
- Wall with Small Unprotected Openings only
- Wall with Unprotected Openings all Floors

(Exterior)

- 1st Floor
- 1st & 2nd Floors
- 3rd Floor
- 1st & 4th Fl. with Metal Shutter 1st.
- 10th & 22nd only
- 10th to 22nd Fl.
- Glass Block
- Wired Glass in Metal Sash 2nd & 3rd Fl.

NON-MASONRY CONSTRUCTION

Non-masonry walls are shown with fine (———) lines.
(Wall construction other than wood and stucco on wood frame is noted)

- Wood & Stucco & Cement Plaster, Etc. on Wood Frame
- (VEND) Brick Veneered on Wood Frame (Other Types of Veneered on Wood Frame Specifically Noted)
- Mixed Masonry & Non-Masonry (Type of Masonry Specifically Noted)
- (BR FILLED) Wood, Brick Lined, Br. Filled or Brick Nogged
- (WOOD & GLASS) Wood Sash & Glass
- (IR & GLASS) Metal Sash & Glass
- (IR. CL.) Metal Clad on Wood Frame
- (IRON) Iron Building
- (IR) (WOOD RF) Iron Building with Wood Roof. (Location of Extensive Wood Areas Specifically noted)
- (ASB CL) Asbestos Clad on Wood Frame, Noted in Non-Residential Structures only.
- (C.B. GLASS ABV) Mixed Wall--0' of CB With Metal Sash Above
- (METAL PANELS) Metal Panels
- (C.B.5') Apron Walls With Wood Sash and Glass
- (M.L. & P. STEEL FR) Stucco, Cement Plaster, Etc. on Steel Frame
- (GUNITE STEEL FR) Gunite on Steel Frame
- (A.P.M.) (STEEL FR) Asphalt and/or Asbestos Protected Metal on Steel Frame
- (A.P.M.) (WOOD FR) Asphalt and/or Asbestos Protected Metal on Wood Frame
- (GLASS PANELS) Glass Panels

FIRE PROTECTION

- Fire Department Connection
- (AS) THRU-OUT — Automatic Sprinklers throughout contiguous sections of single risk
- (AS) Automatic Sprinklers all floors of building
- (AS) 1ST ONLY — Automatic Sprinklers in part of building only (Note under Symbol indicates protected portion of building)
- (NS) Not Sprinklered
- (ACS) Automatic Chemical Sprinklers
- (ACS) Chemical Sprinklers in part of building only (Note under Symbol indicates protected portion of building)
- V.P. HYD. Vertical Pipe or Stand Pipe
- AFA Automatic Fire Alarm
- (WT) Water Tank
- (FE) Outside Vertical Pipe on fire escape
- (FA) Fire Alarm Box Noted "HPFS" on High Pressure Fire Service
- Single Hydrant
- D.H. Double Hydrant
- T.H. Triple Hydrant
- Q.H. H.P.F.S. Quadruple Hydrant of the High Pressure Service
- 20" W.P. (H.P.F.S.) Water Pipes of the High Pressure Service
- 12" Water Pipes of the High Pressure Service as Shown on Key Map
- 6" W.P. / 4" W.P. Public Water Service
- 6" W.P. (PRIV.) Private Water Service

VERTICAL OPENINGS

- Skylight lighting top story only
- (3) Skylight lighting 3 stories
- (WG) Skylight with Wired Glass in Metal Sash
- (E) Open Elevator
- (FE) Frame Enclosed Elevator
- (ET) Frame Enclosed Elevator with Traps
- (ESC) Frame Enclosed Elevator with Self Closing Traps
- (CBET) Concrete Block Enclosed Elevator with Traps
- (TESC) Tile Enclosed Elevator with Self Closing Traps
- (BE) Brick Enclosed Elevator with Wired Glass Door
- (H) Open Hoist
- (HT) Hoist with Traps
- (H B TO 1) Open Hoist Basement to 1st
- Stairs

MISCELLANEOUS

- (MANSARD ROOF) Number of Stories, Height in Feet, Composition Roof Covering
- Parapet 6" above Roof; Frame Cornice; Parapet 12" above Roof
- (W. HO.) Parapet 24" above Roof; Occupied by Warehouse; Metal, Slate, Tile or Asbestos Shingle Roof Covering; Parapet 48" above Roof
- (S. 2B 2-D. A IN B) 2 Stories & Basement; 1st Floor Occupied by Store; 2 Residential Units above 1st; Auto in Basement; Drive or Passageway; Wood Shingle Roof
- IR. CH. Iron Chimney
- IR. CH. S.A. Iron Chimney (with Spark Arrestor)
- Brick Chimney
- GT Gasoline Tank
- V.P.B. Vertical Steam Boiler
- Fire Pump
- Horizontal Steam Boiler
- (CURB LINE 50) Width of Street between Block Lines, not Curb Lines
- (15) Ground Elevation
- House numbers nearest to Buildings are Official or Actually up on Buildings. Old House Numbers are Farthest from Buildings
- 24 Reference to Adjoining Page
- 5 Block Number
- Fire Department as shown on Key Map
- Vac. or V. — Vacant
- Vac. & Op. or V.-O. — Vacant & Open

GLOSSARY

A - B LINES An arbitrary boundary between adjoining sheets.
A. Private garage.
ABV. Above.
A.F.A. Equipped with fire detecting devices which automatically signal a central fire department.
AIR COND. Air cooling system employing ducts through floors.
APRON WALL. A masonry wall extending 5' or less above foundation.
ASSOC. RISK Risk not underwritten by Stock Fire Ins. Companies.
BASEMENT A story having its floor below ground & its ceiling at least 4' above ground.
Cook County, Ill.: A floor of a building next below the first floor. Shown by the symbol B following story height. Sub-basements or sub-cellars, (stories below the 1st basement), are shown by the symbol SB following basement symbol.
CHIMNEYS (Applicable to maps in Rocky Mountain & Pacific Coast States)
- BC. Brick, stone, concrete brick & concrete chimneys.
- C. BL. C. Concrete block chimney.
- C. C. Non-standard concrete chimney.
- T. C. Tile chimney.
- P. C. Patent chimney.
- IR. CH. Iron chimneys.
- S. P. Stove pipe.
- S.P.V. Stove pipe with patent ventilator.

RESIDENTIAL OCCUPANCY SYMBOLS
- D. Single family unit or as qualified by a numeral.
- E. - APTS. A multi-family residential building corresponding with local Rating Bureau definition in family units per floor, story height, & separation of entrance.
- ROOM'G. A residential building normally occupied by a single family but with 10 or more rooms rented for lodging purposes.
  EXCEPTIONS: 6 rooms in Arizona, California, Nevada, Utah & Montana; 5 rooms in Oregon & Washington; 4 rooms in Idaho & Hawaii.

FIRE RESISTIVE CONSTRUCTION SYMBOLS
- F. P. Approved masonry walls, floors & roof, - interior supports of approved masonry, concrete, and/or protected steel.
- F. P. X. F. P. qualifications except inferior or sub-standard walls.
- N. C. Fire resistive with unprotected structural steel units.

HOLLOW WALL. A bonded masonry wall having a continuous air space within.
I. E. P. Independent Electric Plant.
IMPASSABLE Not traversable due to condition of terrain.
LEDGED WALL. A masonry bearing wall with extended ledges to support floors.
LOFT Tenanted by industrial occupancies.
M. L. & P. Concrete or plaster applied to metal lath on wood studdings.
M. S. & G. Metal sash & glass.
NOT OPEN Streets appearing on records but not open on ground.
O. L. Windows overlooking the roof above the corresponding floor of an adjoining building.
O. U. Open between ground and first floor.
PILAST'D. Masonry reinforcing columns in walls.
SKYTS. Skylights.
SL. CL. Slate attached to wood siding.
SM. HO. Smoke House.
STABLE Shown by crossing diagonal lines on diagram.
SUSP'D. Suspended ceilings below floor and/or roof beams.
SYST. System.
TRANSF. Transformer.
WD. Wood.

R	RESIDENTIAL	M	MANUFACTURING
RT	RESIDENTIAL - TRANSIENT	P	PUBLIC OR INSTITUTIONAL
C	COMMERCIAL	U	UTILITY
W	WAREHOUSE	T	TRANSPORTATION

KEY

- TILE (SAT. BRICK (SAT. PYROBAR (SAT. — Fire proof construction. (OR FIRE RESISTIVE CONSTN)
- ADOBE — Adobe building.
- HEIGHT OF BUILDING IN FEET FROM GROUND TO ROOF LINE. — Stone building.
- (C. BR.) — Concrete, lime, cinder or cement brick
- (C. B.) — Hollow concrete or cement block constn
- (CONC.) — Concrete or reinforced concrete constn
- (TILE) — Tile building.
- NUMBER OF STORIES 4 — Brick building with frame cornice.
- TWO STORIES AND BSMT. 22 COMPOSITION ROOF — " " " stone front.
- " " " frame side. (DIVIDED BY FRAME PARTITION)
- SHINGLE ROOF A
- (VENR.) — Brick veneered building.
- BRICK 1ST — " and frame building.
- FRAME, BRICK LINED — Frame building, brick lined.
- F=FLAT S=STORE — " " metal clad.
- D=DWELLING — Frame residential building
- A & B AUTO. IN BSMT — Iron building.
- LOFT — Tenant building occupied by various manufacturing or occupancies
- (ASB. CL.) — Frame building covered with asbestos
- NON-COMBUSTIBLE ROOF COVERING OF METAL, SLATE, TILE OR ASBESTOS SHINGLES — Brick building with brick or metal cornice.
- SKYLIGHT LIGHTING TOP STORY ONLY
- 3 SKYLIGHT LIGHTING THREE STORIES — Fire wall 6 inches above roof.
- WG WIRED GLASS SKYLIGHT — " " 12 " " "
- " " 18 " " "
- " " 36 " " "
- FIRE WALL 4 8 12 16 INCHES ABV. ROOF — Figures 8, 12, 16 indicate thickness of wall in inches.
- Wall without opening and size in inches.
- Wall with openings on floors as designated.
- Opening with single iron or tin clad door.
- " " double iron " " " doors.
- " " standard fire doors.
- WT WATER TANK — Openings with wired glass doors.
- BRICK 1ST — Drive or passage way
- Stable.
- A — Auto. House or private garage.
- (C. B.)
- (C.B. & BR.) — Solid brick with interior walls of C.B. or C.B. and brick mixed.
- (C.B. & BR. CONSTN) — Mixed construction of C.B. and brick with one wall of solid brick.
- (C.B. & BR. CONSTN) (BR. FACED) — Mixed construction of C.B. and brick with one wall faced with 4" brick.
- (C.B. & BR. CONSTN) — Mixed construction of C.B. and brick throughout.

HAMBARO ROOF — DOTS REPRESENT OPENINGS. STEMS INDICATE STORIES, COUNTING FROM LEFT TO RIGHT, LOOKING TOWARD BUILDING.

- Window opening in first story.
- Window openings in second and third stories.
- Window openings in second and fourth stories.
- Windows with wired glass.
- Windows with iron or tin clad shutters.
- 10 12 22 — Window openings tenth to twenty-second stories.

BLOCK — 50 — CURB LINE — CURB LINE — BLOCK LINES — Width of street (BETWEEN BLOCK LINES, NOT CURB LINES.)

- E — Open elevator.
- FE — Frame enclosed elevator.
- ET — " " " with traps.
- ESC — " " " " self closing traps.
- CBET — Concrete block enclosed elevator with traps.
- TESC — Tile enclosed elevator with self closing traps.
- BE — Brick enclosed elev. with wired glass door.

- IRON (WITH SPARK ARRESTOR) IRON (PICKET) — Iron chimney
- Brick chimney.
- (15) Ground elevation.
- V.P.B. — Vertical steam boiler.
- G.T. — Gasoline tank.
- (O.U.) — Open under
- Siamese fire dept. connection
- Single fire dept. connection

- 5 — Block number.
- V.P. — Vertical pipe or stand pipe.
- AFA — Automatic fire alarm.
- IEP — Independent electric plant.
- AS — Automatic sprinklers.
- ACS — Automatic chemical sprinklers.
- AS 1ST ONLY — Automatic sprinklers in part of building only. (NOTE UNDER SYMBOL INDICATES PROTECTED PORTION OF BUILDING)
- MS — Not sprinklered.
- Outside vertical pipe on fire escape.
- FA — Fire alarm box.
- Single hydrant.
- D.H. — Double "
- T.H. — Triple "
- Q.H. HPFS — Quadruple hydrant of the "High Pressure Fire Service"
- FA HPFS — Fire alarm box of the "High Pressure Fire Service"
- 20"W PIPE (HPFS) — Water pipes of the "High Pressure Fire Service"
- + + 12" + + " " and hydrants of the "High Pressure Fire Service" as shown on key map.
- 6"W PIPE — Water pipes and size in inches.
- 6"W PIPE (PRIVATE) — Water pipes of private supply
- 2 D 35 — House numbers shown nearest to buildings are official or actually up on buildings. Old house numbers shown furthest from buildings.

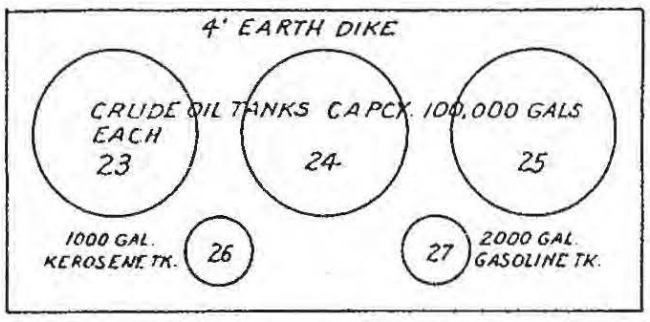
24 — Reference to adjoining page.

- Fire engine house, as shown on key map.
- Fire pump.

(36) — Under page number refers to corresponding page of previous edition.

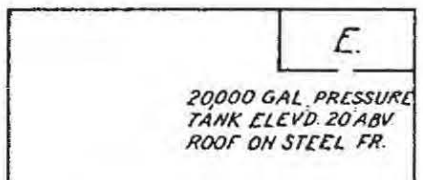
TANKS

G.T. Gasoline Tank



G.T.

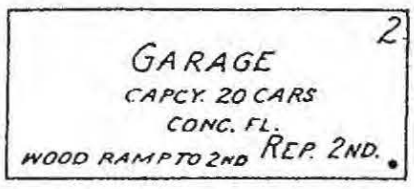
10,000 GAL STEEL W.T. ELEVD. 70 ABV GRD.



FUEL OIL LINE

Fire Cistern

CISTERN



CODING OF STRUCTURAL UNITS FOR FIREPROOF AND NON-COMBUSTIBLE BUILDINGS

FRAMING

CODE	STRUCTURAL UNIT
A.	Reinforced Concrete Frame.
B.	Reinforced Concrete Joists, Columns, Beams, Trusses, Arches, Masonry Piers.
C.	Protected Steel Frame.
D.	Individually Protected Steel Joists, Columns, Beams, Trusses, Arches.
E.	Indirectly Protected Steel Frame.
F.	Indirectly Protected Steel Joists, Columns, Beams, Trusses, Arches.
G.	Unprotected Steel Frame.
H.	Unprotected Steel Joists, Columns, Beams, Trusses, Arches.
O.	Masonry Bearing Walls.

FLOORS

CODE	STRUCTURAL UNIT
1.	Reinforced Concrete. Reinforced Concrete with Masonry Units. Pre-cast Concrete or Gypsum Slabs or Planks.
2.	Concrete on Metal Lath, Incombustible Form Boards, Paper-backed Wire Fabric, Steel Deck, and Cellular, Ribbed or Corrugated Steel Units.
3.	Open Steel Deck or Grating.

LAND USE CODE APPLICABLE TO CHANGES DIAGRAMMED AFTER 5/69

R	RESIDENTIAL	M	MANUFACTURING
RT	RESIDENTIAL TRANSIENT	P	PUBLIC OR INSTITUTIONAL
C	COMMERCIAL	U	UTILITY
W	WAREHOUSE	T	TRANSPORTATION

NUMERICAL PREFIX INDICATES THE NUMBER OF ESTABLISHMENTS IN EACH CATEGORY

ROOF

CODE	STRUCTURAL UNIT
a.	Reinforced Concrete. Reinforced Concrete with Masonry Units. Reinforced Gypsum Concrete. Pre-cast Concrete or Gypsum Slabs or Planks.
b.	Concrete or Gypsum on Metal Lath, Incombustible Form Boards, Paper-backed Wire Fabric, Steel Deck, and Cellular, Ribbed or Corrugated Steel Units.
c.	Incombustible Composition Boards with or without Insulation. Masonry or Metal Tiles.
d.	Steel Deck, Corrugated Metal or Asbestos Protected Metal with or without Insulation.

The coding for framing, floor and roof structural units as shown above is used in describing the construction of fire-resistive buildings. In addition, reports for fire-resistive buildings will show the date built and wall construction when other than brick.

F P buildings have masonry floors and roof; concrete and/or directly or indirectly protected steel framing; and clay brick, stone or poured concrete walls.

F P X buildings are F P buildings with inferior walls such as concrete block, cement brick, metal or glass panels, etc.

N C buildings have unprotected steel framing and fire-resistive but non-masonry floors and roof.

FP-1962 (CONC.) A-1-a — A fire-resistive building built in 1962 with concrete walls and reinforced concrete frame, floors and roof.

FPX-1962 (METAL PANELS) E-2-b NONCOMB CEIL'G — A fire-resistive building built in 1962 with metal panel walls, indirectly protected steel frame, concrete floors and roof on metal lath, noncombustible ceilings.

NC-1962 (C. B.) H-2-d — A noncombustible building built in 1962 with concrete block walls; unprotected steel columns and beams; concrete floors on metal lath and steel deck roof.

5-62

FIGURE 11 - GW Elevation vs Time, 11/08/2010
PI# 510630 - Palmer Industries, Inc.
Remedial Investigation Report, May 2011

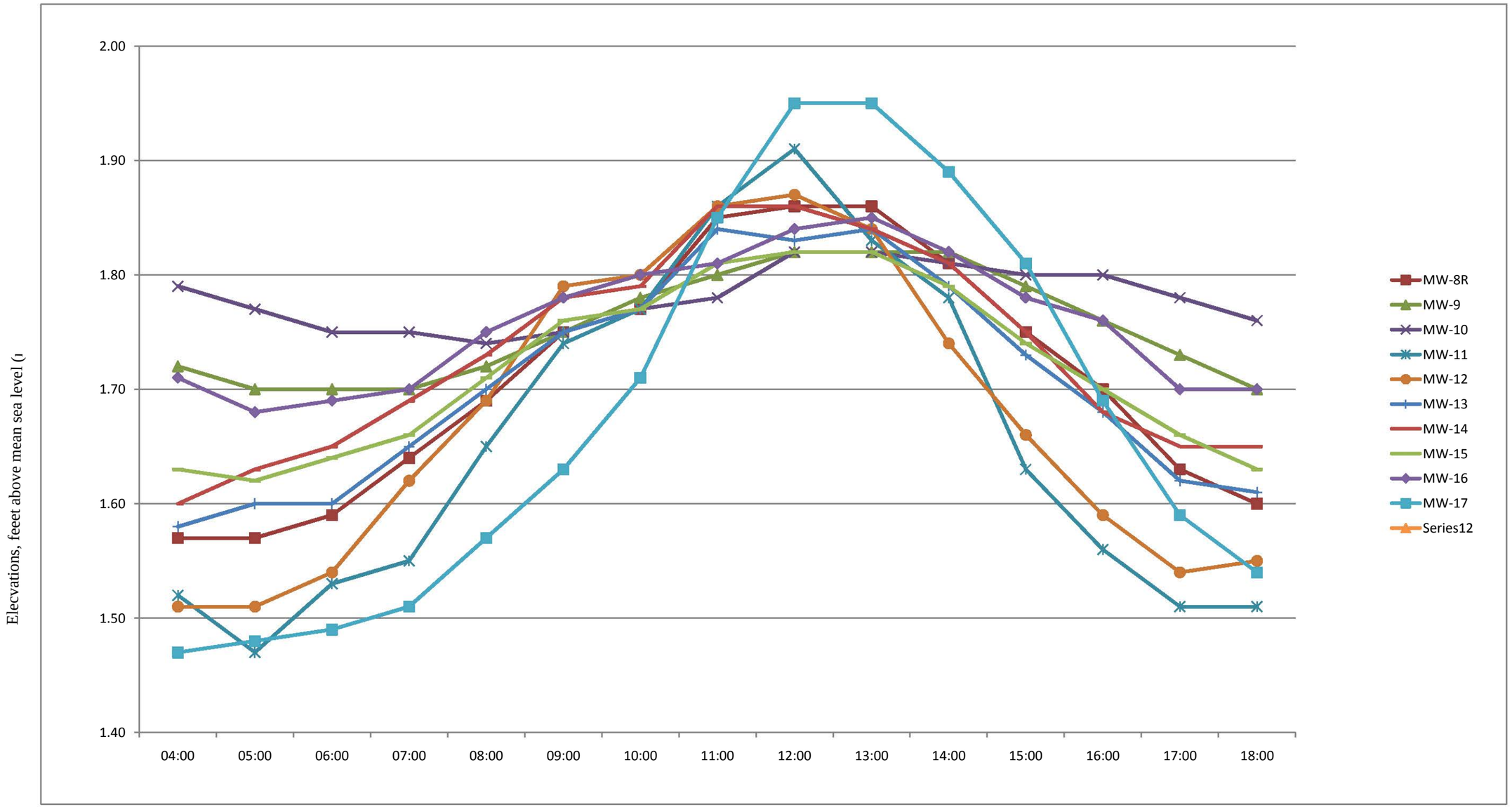
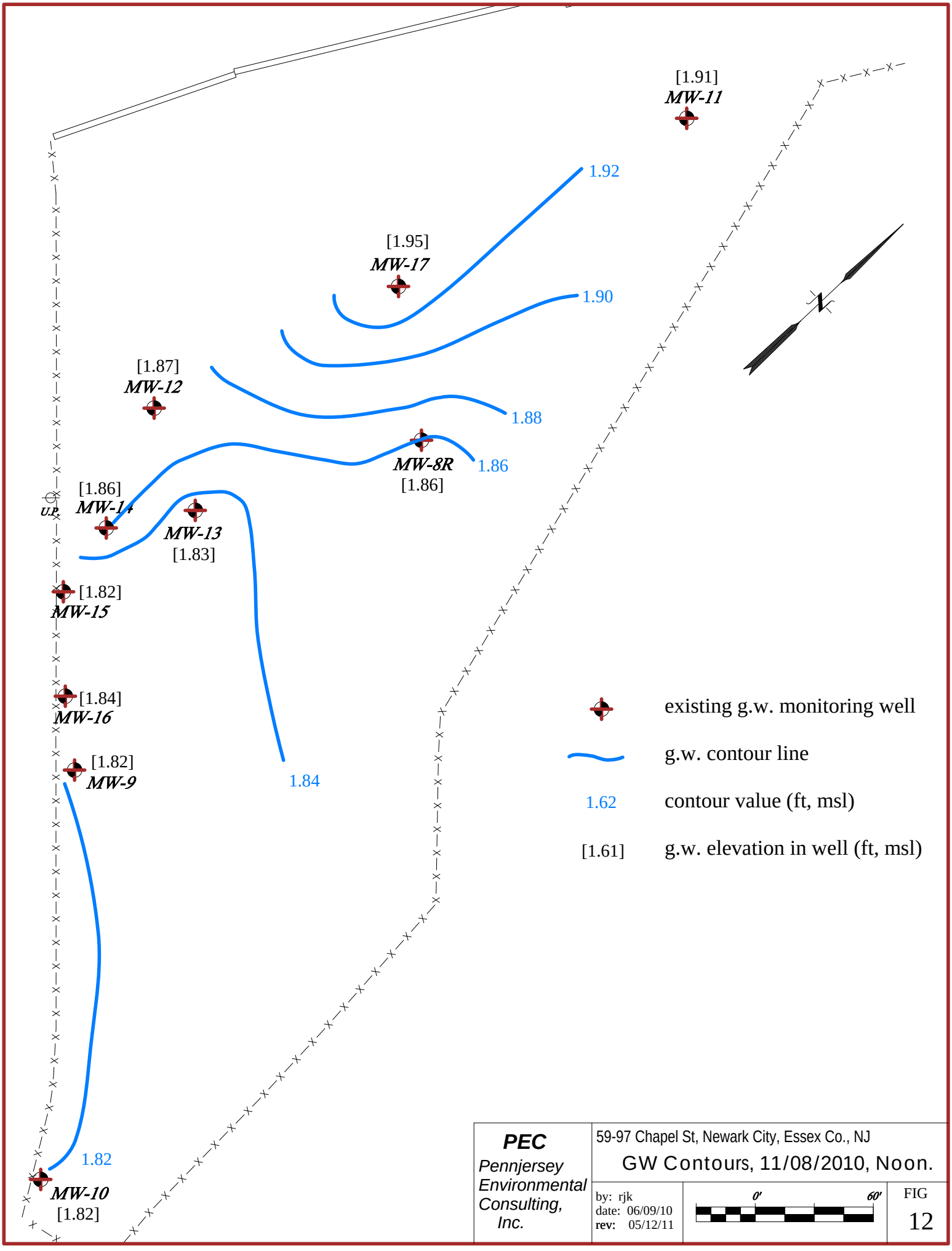
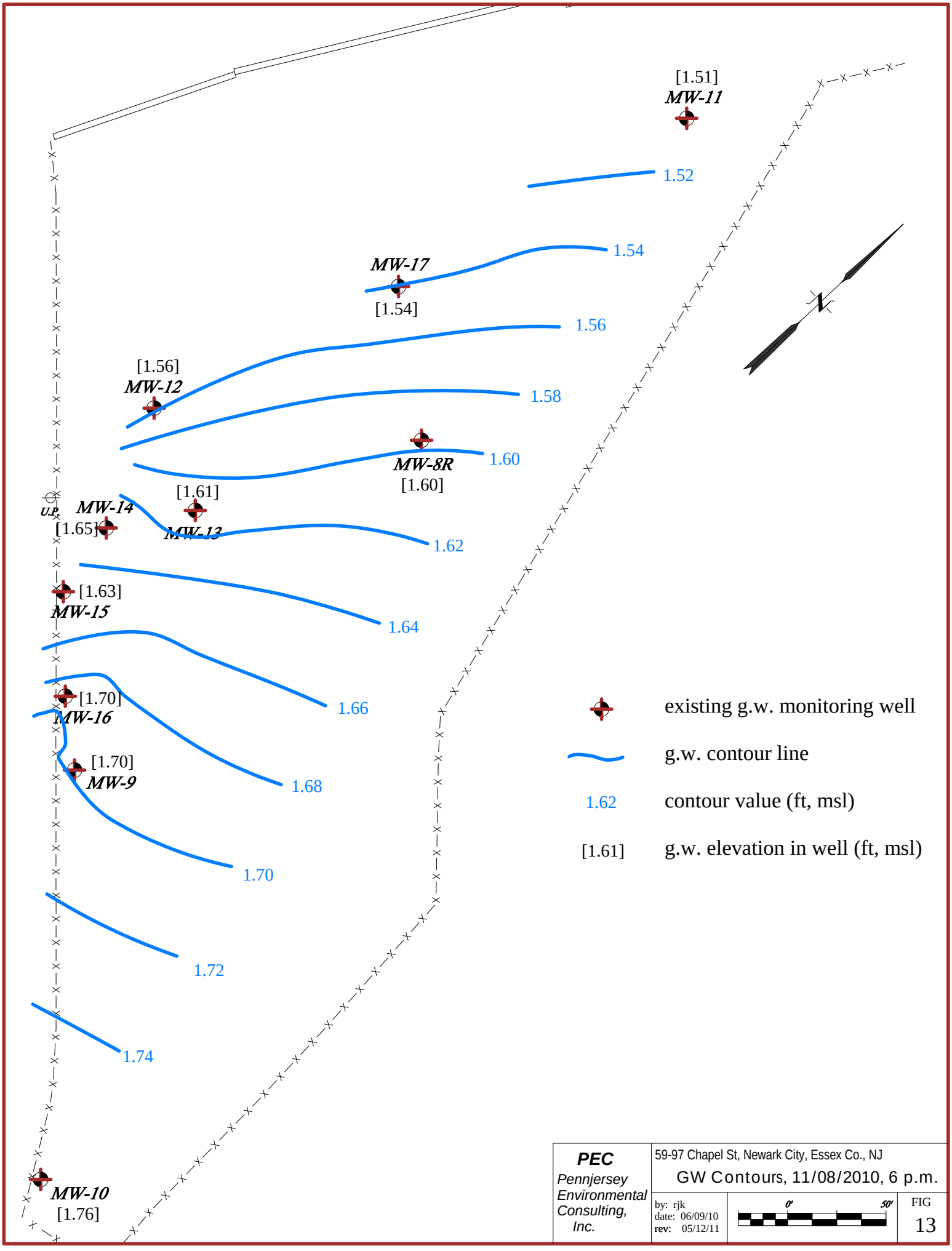


FIGURE 11: GW elevation v. time, 11/8/2010



PEC *Pennjersey Environmental Consulting, Inc.*	59-97 Chapel St, Newark City, Essex Co., NJ GW Contours, 11/08/2010, Noon.	FIG 12
	by: rjk date: 06/09/10 rev: 05/12/11	0' 60'



PEC *Pennjersey Environmental Consulting, Inc.*	59-97 Chapel St, Newark City, Essex Co., NJ GW Contours, 11/08/2010, 6 p.m.	
	by: rjk date: 06/09/10 **rev:** 05/12/11	0' 50'
		FIG 13

APPENDIX 8

TABLES

APPENDIX 8

TABLES

1. ANALYTICAL DATA SUMMARY TABLES
    1. Test Pit & Anomaly Samples
    2. USTs 1 &2, Post-excavation & Delineation Samples
    3. USTs 3, 4 & 5, Post-excavation Samples
    4. UST Piping & Line Samples
    5. Piping & Line Delineation Samples
    6. Final Post-excavation Samples
    7. Monitoring Well Installation Soil Samples
    8. Temporary Well Samples
    9. Ground Water Samples
2. QUALITY ASSURANCE PROJECT PLAN TABLE
3. GROUND WATER SURVEY AND ELEVATION DATA

TABLE 1 - Analytical Results Summary Table - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-1 - Test Pit and Anomaly Samples										
AOC Identification	mg/kg	mg/kg	mg/kg	AOC F - Historic Fill - Test pits										
Field ID	samples with			TP1	TP2-1	TP2-2	TP5-1	TP5-2	TP6	TP7	TP10	TP10A-1	TP10A-2	TP10A-3
Sampling Date	shaded IDs			11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	02/17/10	09/15/10	09/15/10	09/15/10
Depth (ft bgs)	were excavated			4-4.5	2-2.5	3-3.5	3.2-3.7	5.7-6.2	4.6-5.1	4.25-4.75	6.5-7	6.5-7	8-8.5	10-10.5
Total Petroleum Hydrocarbons (TPH)														
Total Extractable PH	5100	5100	nle	---	---	---	---	---	---	---	---	4260	4960	371
TPH	10000	10000	nle	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	127	28400	---	---	---
Volatile Organics (VO+10)														
Dichlorodifluoromethane	490	230000	25	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Chloromethane	4	12	nle	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Vinyl chloride	0.7	2	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Bromomethane	25	59	0.03	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Chloroethane	220	1100	nle	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Trichlorofluoromethane	23000	340000	22	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Acrolein	0.5	1	0.5	---	---	---	---	---	---	---	---	---	---	---
1,1-Dichloroethene	11	150	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Acetone	70000	nle	12	<0.009	<0.008	<0.004	<0.008	<0.009	<0.006	0.018	---	---	---	---
Carbon disulfide	7800	110000	4	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Methylene chloride	34	97	0.007	0.018C	0.008C	0.004C	0.013C	0.014C	.006C	0.004C	---	---	---	---
Acrylonitrile	0.9	3	0.5	---	---	---	---	---	---	---	---	---	---	---
tert-Butyl alcohol (TBA)	1400	11000	0.2	---	---	---	---	---	---	---	---	---	---	---
trans-1,2-Dichloroethene	300	720	0.4	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Methyl tert-butyl ether (MTBE)	110	320	0.2	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,1-Dichloroethane	8	24	0.2	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
cis-1,2-Dichloroethene	230	560	0.2	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
2-Butanone (MEK)	3100	44000	0.6	<0.009	<0.008	<0.004	<0.008	<0.009	<0.006	<0.005	---	---	---	---
Bromochloromethane	1	3	nle	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Chloroform	0.6	2	0.2	0.002J	<0.004	<0.002	<0.008	0.002J	<0.003	<0.002	---	---	---	---
1,1,1-Trichloroethane	290	4200	0.2	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Carbon tetrachloride	0.6	2	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,2-Dichloroethane (EDC)	0.9	3	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Benzene	2	5	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Trichloroethene	7	20	0.007	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,2-Dichloropropane	2	5	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Dibromomethane	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---
1,4-Dioxane	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---
Bromodichloromethane	1	3	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
2-Chloroethyl vinyl ether	nle	nle	100	---	---	---	---	---	---	---	---	---	---	---
cis-1,3-Dichloropropene	2	7	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
4-Methyl-2-pentanone (MIBK)	nle	nle	nle	<0.009	<0.008	<0.004	<0.008	<0.009	<0.006	<0.005	---	---	---	---
Toluene	6300	91000	4	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
trans-1,3-Dichloropropene	2	7	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,1,2-Trichloroethane	2	6	0.01	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Tetrachloroethene	2	5	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
2-Hexanone	nle	nle	nle	<0.009	<0.008	<0.004	<0.008	<0.009	<0.006	<0.005	---	---	---	---
Dibromochloromethane	3	8	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,2-Dibromoethane (EDB)	0.008	0.04	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Chlorobenzene	510	7400	0.4	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Ethylbenzene	7800	110000	8	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Total Xylenes	12000	170000	12	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Styrene	90	260	2	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---

TABLE 1 - Analytical Results Summary Table - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-1 - Test Pit and Anomaly Samples										
AOC Identification	mg/kg	mg/kg	mg/kg	AOC F - Historic Fill - Test pits										
Field ID	samples with			TP1	TP2-1	TP2-2	TP5-1	TP5-2	TP6	TP7	TP10	TP10A-1	TP10A-2	TP10A-3
Sampling Date	shaded IDs			11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	02/17/10	09/15/10	09/15/10	09/15/10
Depth (ft bgs)	were excavated			4-4.5	2-2.5	3-3.5	3.2-3.7	5.7-6.2	4.6-5.1	4.25-4.75	6.5-7	6.5-7	8-8.5	10-10.5
Bromoform	81	280	0.02	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Isopropylbenzene	nle	nle	nle	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,1,2,2-Tetrachloroethane	1	3	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,3-Dichlorobenzene	5300	59000	12	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,4-Dichlorobenzene	5	13	1	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,2-Dichlorobenzene	5300	59000	11	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,2-Dibromo-3-chloropropane	0.08	0.2	0.005	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,2,4-Trichlorobenzene	73	820	0.4	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,2,3-Trichlorobenzene	nle	nle	nle	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
1,1,2-Trichloro-1,2,2-trifluoroethane	nle	nle	nle	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Methyl acetate	78000	nle	14	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Cyclohexane	nle	nle	nle	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Methylcyclohexane	nle	nle	nle	<0.004	<0.004	<0.002	<0.008	<0.004	<0.003	<0.002	---	---	---	---
Total TIC's:	1000	1000	nle	ND	ND	ND	ND	1.63	ND	0.118	---	---	---	---
Semivolatile Organics (BNA+15)														
Benzaldehyde	6100	68000	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Phenol	18000	210000	5	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Bis(2-chloroethyl) ether	0.4	2	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2-Chlorophenol	310	2200	0.5	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2-Methylphenol	310	3400	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Bis(2-chloroisopropyl) ether	23	67	3	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
4-Methylphenol	31	340	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
N-Nitrosodi-n-propylamine	0.2	0.3	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Acetophenone	2	5	2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Hexachloroethane	35	140	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Nitrobenzene	31	340	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Isophorone	510	2000	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2-Nitrophenol	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2,4-Dimethylphenol	1200	14000	0.7	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Bis(2-chloroethoxy) methane	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2,4-Dichlorophenol	180	2100	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Naphthalene	6	17	16	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
4-Chloroaniline	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Hexachlorobutadiene	6	25	0.6	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Caprolactam	31000	340000	8	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
4-Chloro-3-methylphenol	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2-Methylnaphthalene	230	2400	5	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Hexachlorocyclopentadiene	45	110	210	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2,4,6-Trichlorophenol	19	74	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2,4,5-Trichlorophenol	6100	68000	44	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
1,1'-Biphenyl	3100	34000	90	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2-Chloronaphthalene	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2-Nitroaniline	39	23000	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Dimethyl phthalate	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2,6-Dinitrotoluene	0.7	3	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Acenaphthylene	nle	300000	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
3-Nitroaniline	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---

TABLE 1 - Analytical Results Summary Table - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-1 - Test Pit and Anomaly Samples										
AOC Identification	mg/kg	mg/kg	mg/kg	AOC F - Historic Fill - Test pits										
Field ID	samples with			TP1	TP2-1	TP2-2	TP5-1	TP5-2	TP6	TP7	TP10	TP10A-1	TP10A-2	TP10A-3
Sampling Date	shaded IDs			11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	02/17/10	09/15/10	09/15/10	09/15/10
Depth (ft bgs)	were excavated			4-4.5	2-2.5	3-3.5	3.2-3.7	5.7-6.2	4.6-5.1	4.25-4.75	6.5-7	6.5-7	8-8.5	10-10.5
Acenaphthene	3400	37000	74	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2,4-Dinitrophenol	120	1400	0.3	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
4-Nitrophenol	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
2,4-Dinitrotoluene	0.7	3	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Dibenzofuran	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Diethyl phthalate	49000	550000	57	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Fluorene	2300	24000	110	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
4-Chlorophenyl phenyl ether	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
4-Nitroaniline	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
1,2,4,5-Tetrachlorobenzene	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
4,6-Dinitro-2-methylphenol	6	68	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
N-Nitrosodiphenylamine	99	390	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
4-Bromophenyl phenyl ether	nle	nle	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Hexachlorobenzene	0.3	1	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Atrazine	210	2400	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Pentachlorophenol	3	10	0.3	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Phenanthrene	nle	300000	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Anthracene	17000	30000	1500	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Carbazole	24	96	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Di-n-butyl phthalate	6100	68000	620	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Fluoranthene	2300	24000	840	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Pyrene	1700	18000	550	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Butyl benzyl phthalate	1200	14000	150	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
3,3'-Dichlorobenzidine	1	4	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Benzo[a]anthracene	0.6	2	0.5	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Chrysene	62	230	52	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Bis(2-ethylhexyl) phthalate	35	140	790	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Di-n-octyl phthalate	2400	27000	3300	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Benzo[b]fluoranthene	0.6	2	2.0	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Benzo[k]fluoranthene	6	23	16.0	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Benzo[a]pyrene	0.2	0.2	0.2	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Indeno[1,2,3-cd]pyrene	0.6	2	5	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Dibenz[a,h]anthracene	0.2	0.2	0.5	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Benzo[g,h,i]perylene	380000	30000	nle	<0.089	<0.080	<0.077	<0.109	<0.124	<0.083	<0.082	---	---	---	---
Total TIC's:	1000	1000	1000	ND	ND	ND	ND	ND	ND	ND	---	---	---	---
Polychlorinated Biphenyls (PCB)														
Aroclor-1016	0.2	1	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	---	---	---	---
Aroclor-1221	0.2	1	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	---	---	---	---
Aroclor-1232	0.2	1	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	---	---	---	---
Aroclor-1242	0.2	1	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	---	---	---	---
Aroclor-1248	0.2	1	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	---	---	---	---
Aroclor-1254	0.2	1	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	---	---	---	---
Aroclor-1260	0.2	1	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	---	---	---	---
Pesticides														
alpha-BHC	0.1	0.5	0.002	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
beta-BHC	0.4	2	0.002	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
gamma-BHC (Lindane)	0.4	2	0.002	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---

TABLE 1 - Analytical Results Summary Table - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-1 - Test Pit and Anomaly Samples										
AOC Identification	mg/kg	mg/kg	mg/kg	AOC F - Historic Fill - Test pits										
Field ID	samples with			TP1	TP2-1	TP2-2	TP5-1	TP5-2	TP6	TP7	TP10	TP10A-1	TP10A-2	TP10A-3
Sampling Date	shaded IDs			11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	11/09/09	02/17/10	09/15/10	09/15/10	09/15/10
Depth (ft bgs)	were excavated			4-4.5	2-2.5	3-3.5	3.2-3.7	5.7-6.2	4.6-5.1	4.25-4.75	6.5-7	6.5-7	8-8.5	10-10.5
delta-BHC	nle	nle	nle	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Heptachlor	0.1	0.7	0.3	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Aldrin	0.04	0.2	0.1	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Heptachlor epoxide	0.07	0.3	0.009	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Endosulfan I	470	6800	2	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
4,4'-DDE	2	9	12	0.005	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Dieldrin	0.04	0.2	0.003	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Endrin	23	340	0.6	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Endosulfan II	470	6800	2	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
4,4'-DDD	3	13	3	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Endrin aldehyde	nle	nle	nle	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Endosulfan sulfate	470	6800	1	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
4,4'-DDT	2	8	7	0.0017	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Endrin ketone	nle	nle	nle	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Methoxychlor	390	5700	100	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
alpha-Chlordane	0.2	1	0.03	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
gamma-Chlordane	0.2	1	0.03	<0.0002	<0.0002	<0.0002	<0.0003	<0.0003	<0.0002	<0.0002	---	---	---	---
Toxaphene	0.6	3	0.2	<0.0007	<0.0006	<0.0006	<0.0008	<0.0009	<0.0006	<0.0006	---	---	---	---
Metals														
Aluminum	78000	nle	3900	10600	11600	14700	9060	9940	10300	4270	---	---	---	---
Antimony	31	450	6	<1.51	2.08	<1.16	<1.70	<2.01	<1.31	<1.33	---	---	---	---
Arsenic	19	19	19	102	140	2.71	11.9	11.5	15.6	2.10	---	---	---	---
Barium	16000	59000	1300	127	194	40.2	110	118	65.0	53.8	---	---	---	---
Beryllium	16	140	0.5	1.72	1.45	<0.580	<0.849	<1.01	2.68	<0.663	---	---	---	---
Cadmium	78	78	1	4.07	5.10	<0.290	<0.424	<0.503	2.07	<0.332	---	---	---	---
Calcium	nle	nle	nle	7540	9920	1010	184000	194000	4580	1210	---	---	---	---
Chromium	nle	nle	nle	17.6	14.5	17.4	9.37	9.53	11.7	4.84	---	---	---	---
Cobalt	1600	590	59	9.59	8.47	6.59	<3.40	<4.03	7.77	<2.65	---	---	---	---
Copper	3100	45000	7300	35.5	29.8	25.6	97.3	94.3	126	3.58	---	---	---	---
Iron	nle	nle	nle	23700	24500	18700	7320	6140	55700	4860	---	---	---	---
Lead	400	800	59	57.2	63.6	5.98	364	339	20.7	10.8	---	---	---	---
Magnesium	nle	nle	nle	2550	1470	2210	2690	1270	2090	539	---	---	---	---
Manganese	11000	5900	42	16100	10500	353	392	145	11000	41.1	---	---	---	---
Mercury	23	65	0.1	0.053	0.036	0.023	<0.024	<0.028	0.035	0.023	---	---	---	---
Nickel	1600	23000	31	35.6	16.7	13.4	8.60	7.93	14.2	2.48	---	---	---	---
Potassium	nle	nle	nle	686	1070	772	503	454	693	550	---	---	---	---
Selenium	390	5700	7	3.84	5.96	<2.32	<3.40	<4.03	<2.62	<2.65	---	---	---	---
Silver	390	5700	1	<0.755	<0.661	<0.580	<0.849	<1.01	<0.654	<0.663	---	---	---	---
Sodium	nle	nle	nle	1360	838	<116	1610	1760	209	<133	---	---	---	---
Thallium	5	79	3	<0.377	0.443	<0.290	<0.424	<0.503	<0.327	<0.332	---	---	---	---
Vanadium	78	1100	nle	19.8	22.0	28.4	6.65	6.10	24.3	7.07	---	---	---	---
Zinc	23000	110000	600	62500	34800	1620	1330	1330	15200	15.4	---	---	---	---
General Analytical														
Cyanide, Total-ppm	1600	23000	13	1.51	<1.20	<1.16	<1.63	<1.86	<1.25	<1.22	---	---	---	---

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-2 - USTs 1 & 2, Post-Excavation & Delineation Samples										
AOC Identification	mg/kg	mg/kg	mg/kg	AOC B1 - UST 1 -Post-ex samples				AOC B2 - UST 2 -Post-ex samples				AOCs B1 & B2 - Delineation		
Field ID	samples with			T1-1	T1-2	T1-3	T1-4	T2-1	T2-2	T2-3	T2-4	T1-2DEL	T2-2DEL	T2-4DEL
Sampling Date	shaded IDs			12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	02/17/10	02/17/10	02/17/10
Depth (ft bgs)	were excavated			5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5-5.5	6.5-7	7.5-8
Total Petroleum Hydrocarbons (TPH)														
Total Extractable PH	5100	5100	nle	---	---	---	---	---	---	---	---	---	---	---
TPH-QAM25	10000	10000	nle	---	---	---	---	---	---	---	---	---	---	---
TPH-DRO	10000	10000	nle	53700	48100	19700	8810	126000	16800	349	35700	<92.1	<92	1160
Polynucllear Aromatic Hydrocarbons (PAH)														
Naphthalene	6	17	16	0.437 J	~	~	~	1.76	~	~	~	~	~	~
Acenaphthylene	nle	300000	nle	3.34	~	~	~	5.00	~	~	~	~	~	~
Acenaphthene	3400	37000	74	10.7	~	~	~	14.2	~	~	~	~	~	~
Fluorene	2300	24000	110	5.71	~	~	~	11.2	~	~	~	~	~	~
Phenanthrene	nle	300000	nle	1.90	~	~	~	2.15	~	~	~	~	~	~
Anthracene	17000	30000	1500	4.22	~	~	~	1.73	~	~	~	~	~	~
Fluoranthene	2300	24000	840	1.70	~	~	~	3.15	~	~	~	~	~	~
Pyrene	1700	18000	550	4.58	~	~	~	7.10	~	~	~	~	~	~
Benzo[a]anthracene	0.6	2	0.5	<0.626 M	~	~	~	0.856	~	~	~	~	~	~
Chrysene	62	230	52	1.46	~	~	~	1.96	~	~	~	~	~	~
Benzo[b]fluoranthene	0.6	2	2.0	<0.626	~	~	~	0.476 J	~	~	~	~	~	~
Benzo[k]fluoranthene	6	23	16.0	<0.626	~	~	~	<0.644	~	~	~	~	~	~
Benzo[a]pyrene	0.2	0.2	0.2	<0.626 M	~	~	~	0.493 J	~	~	~	~	~	~
Indeno[1,2,3-cd]pyrene	0.6	2	5	0.664	~	~	~	<0.644 M	~	~	~	~	~	~
Dibenz[a,h]anthracene	0.2	0.2	0.5	<0.626 M	~	~	~	<0.644 M	~	~	~	~	~	~
Benzo[g,h,i]perylene	380000	30000	nle	0.677	~	~	~	<0.644	~	~	~	~	~	~

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-3 - USTs 3, 4 & 5, Post-excavation Samples														
AOC Identification	mg/kg	mg/kg	mg/kg	AOC B3 -UST 3				AOC B4 - UST 4					AOC B5 - UST 5				
Field ID	samples with			T3-1	T3-2	T3-3	T3-4	T4-1	T4-2	T4-3	T4-4	T4-5	T5-1	T5-2	T5-3	T5-4	T5-5
Sampling Date	shaded IDs			12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09
Depth (ft bgs)	were excavated			6-6.5	6-6.5	6-6.5	6-6.5	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6
Total Petroleum Hydrocarbons (TPH)																	
Total Extractable PH	5100	5100	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TPH-QAM25	10000	10000	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TPH-DRO	10000	10000	nle	---	---	---	---	8130	394	<68.8	<71.5	<67.4	356	<68.3	6380	598	<70.1
Volatile Organics (VO+10)																	
Dichlorodifluoromethane	490	230000	25	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloromethane	4	12	nle	<0.477	<0.108	<0.531	<0.084	---	---	---	---	---	---	---	---	---	---
Vinyl chloride	0.7	2	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
Bromomethane	25	59	0.03	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
Chloroethane	220	1100	nle	<0.477	<0.108	<0.531	<0.084	---	---	---	---	---	---	---	---	---	---
Trichlorofluoromethane	23000	340000	22	<0.477	<0.108	<0.531	<0.084	---	---	---	---	---	---	---	---	---	---
Acrolein	0.5	1	0.5	<0.477	<0.108	<0.531m	<0.084	---	---	---	---	---	---	---	---	---	---
1,1-Dichloroethene	11	150	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
Acetone	70000	nle	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbon disulfide	7800	110000	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methylene chloride	34	97	0.007	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
Acrylonitrile	0.9	3	0.5	<0.477	<0.108	<0.531m	<0.084	---	---	---	---	---	---	---	---	---	---
tert-Butyl alcohol (TBA)	1400	11000	0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---
trans-1,2-Dichloroethene	300	720	0.4	<0.477m	<0.108	<0.531m	<0.084	---	---	---	---	---	---	---	---	---	---
Methyl tert-butyl ether (MTBE)	110	320	0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1-Dichloroethane	8	24	0.2	<0.477m	<0.108	<0.531m	<0.084	---	---	---	---	---	---	---	---	---	---
cis-1,2-Dichloroethene	230	560	0.2	<0.477m	<0.108	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
2-Butanone (MEK)	3100	44000	0.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bromochloromethane	1	3	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloroform	0.6	2	0.2	<0.477m	<0.108m	<0.531m	<0.084	---	---	---	---	---	---	---	---	---	---
1,1,1-Trichloroethane	290	4200	0.2	<0.477m	<0.108	<0.531m	<0.084	---	---	---	---	---	---	---	---	---	---
Carbon tetrachloride	0.6	2	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
1,2-Dichloroethane (EDC)	0.9	3	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
Benzene	2	5	0.005	1.18	<0.054	<0.266	<0.042	---	---	---	---	---	---	---	---	---	---
Trichloroethene	7	20	0.007	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
1,2-Dichloropropane	2	5	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
Dibromomethane	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,4-Dioxane	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bromodichloromethane	1	3	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
2-Chloroethyl vinyl ether	nle	nle	100	<0.477	<0.108	<0.531	<0.084	---	---	---	---	---	---	---	---	---	---
cis-1,3-Dichloropropene	2	7	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
4-Methyl-2-pentanone (MIBK)	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	6300	91000	4	<0.477	<0.108	<0.531	<0.084	---	---	---	---	---	---	---	---	---	---
trans-1,3-Dichloropropene	2	7	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
1,1,2-Trichloroethane	2	6	0.01	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
Tetrachloroethene	2	5	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
2-Hexanone	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dibromochloromethane	3	8	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---
1,2-Dibromoethane (EDB)	0.008	0.04	0.005	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chlorobenzene	510	7400	0.4	<0.477m	<0.108	<0.531m	<0.084	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	7800	110000	8	*37.5*	<0.108	4.17	0.339	---	---	---	---	---	---	---	---	---	---
Total Xylenes	12000	170000	12	*19.3*	<0.108	<0.531	<0.084	---	---	---	---	---	---	---	---	---	---
Styrene	90	260	2	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-3 - USTs 3, 4 & 5, Post-excavation Samples														
AOC Identification	mg/kg	mg/kg	mg/kg	AOC B3 -UST 3				AOC B4 - UST 4					AOC B5 - UST 5					
Field ID	samples with			T3-1	T3-2	T3-3	T3-4	T4-1	T4-2	T4-3	T4-4	T4-5	T5-1	T5-2	T5-3	T5-4	T5-5	
Sampling Date	shaded IDs			12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	12/08/09	
Depth (ft bgs)	were excavated			6-6.5	6-6.5	6-6.5	6-6.5	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	
Bromoform	81	280	0.02	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---	
Isopropylbenzene	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	1	3	0.005	<0.477m	<0.108m	<0.531m	<0.084m	---	---	---	---	---	---	---	---	---	---	
1,3-Dichlorobenzene	5300	59000	12	<0.477	<0.108	<0.531	<0.084	---	---	---	---	---	---	---	---	---	---	
1,4-Dichlorobenzene	5	13	1	<0.477	<0.108	<0.531	<0.084	---	---	---	---	---	---	---	---	---	---	
1,2-Dichlorobenzene	5300	59000	11	<0.477	<0.108	<0.531	<0.084	---	---	---	---	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	0.08	0.2	0.005	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	73	820	0.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
1,1,2-Trichloro-1,2,2-trifluoroethane	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Methyl acetate	78000	nle	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Cyclohexane	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Methylcyclohexane	nle	nle	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Total TIC's:	1000	1000	nle	719	177	445	137	---	---	---	---	---	---	---	---	---	---	
Polynucllear Aromatic Hydrocarbons (PAH)																		
Naphthalene	6	17	16	---	---	---	---	0.596	---	---	---	---	---	---	<0.028	<0.010	---	
Acenaphthylene	nle	300000	nle	---	---	---	---	1.13	---	---	---	---	---	---	<0.086	<0.032	---	
Acenaphthene	3400	37000	74	---	---	---	---	5.30	---	---	---	---	---	---	<0.0095	<0.004	---	
Fluorene	2300	24000	110	---	---	---	---	6.26	---	---	---	---	---	---	<0.022	<0.008	---	
Phenanthrene	nle	300000	nle	---	---	---	---	21.1	---	---	---	---	---	---	0.205	<0.020	---	
Anthracene	17000	30000	1500	---	---	---	---	3.72	---	---	---	---	---	---	<0.021	<0.008	---	
Fluoranthene	2300	24000	840	---	---	---	---	3.48	---	---	---	---	---	---	1.44	<0.012	---	
Pyrene	1700	18000	550	---	---	---	---	15.6	---	---	---	---	---	---	3.18	<0.012	---	
Benzo[a]anthracene	0.6	2	0.5	---	---	---	---	3.00	---	---	---	---	---	---	1.75	<0.016	---	
Chrysene	62	230	52	---	---	---	---	3.78	---	---	---	---	---	---	1.94	<0.027	---	
Benzo[b]fluoranthene	0.6	2	2.0	---	---	---	---	0.735	---	---	---	---	---	---	1.82	<0.025	---	
Benzo[k]fluoranthene	6	23	16.0	---	---	---	---	0.323	---	---	---	---	---	---	1.75	<0.017	---	
Benzo[a]pyrene	0.2	0.2	0.2	---	---	---	---	2.05	---	---	---	---	---	---	2.22	<0.016	---	
Indeno[1,2,3-cd]pyrene	0.6	2	5	---	---	---	---	0.275	---	---	---	---	---	---	0.872	<0.015	---	
Dibenz[a,h]anthracene	0.2	0.2	0.5	---	---	---	---	0.217	---	---	---	---	---	---	0.342	<0.015	---	
Benzo[g,h,i]perylene	380000	30000	nle	---	---	---	---	0.819	---	---	---	---	---	---	1.02	<0.025	---	
Metals																		
Lead	400	800	59	61.2	3.81	10.9	16.3	---	---	---	---	---	---	---	---	---	---	

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-4 - UST Piping/Line Samples														
AOC Identification	mg/kg	mg/kg	mg/kg	AOC B - USTs														
Field ID	samples with			L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
Sampling Date	shaded IDs			12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/17/09	12/17/09
Depth (ft bgs)	were excavated			3-3.5	2.3-2.8	2.9-3.4	3.2-3.7	2.9-3.4	3.9-4.4	3.8-4.3	2-2.5	2.25-2.75	3.2-3.7	4-4.5	1.9-2.4	1.9-2.4	3-3.5	2.5-3
Total Petroleum Hydrocarbons (TPH)																		
Total Extractable PH	5100	5100	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TPH-QAM25	10000	10000	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TPH-DRO	10000	10000	nle	<87.8	169	641	22600	90500	691	165	18700	5860	522	154	604	3640	1460	294
Polynucllear Aromatic Hydrocarbons (PAH)																		
Naphthalene	6	17	16	---	---	---	1.98	7.63	---	---	0.442	0.217	---	---	---	---	---	---
Acenaphthylene	nle	300000	nle	---	---	---	0.812	4.05	---	---	0.524	0.128 J	---	---	---	---	---	---
Acenaphthene	3400	37000	74	---	---	---	5.72	24.4	---	---	2.05	0.222	---	---	---	---	---	---
Fluorene	2300	24000	110	---	---	---	6.04	31.0	---	---	0.683	0.241	---	---	---	---	---	---
Phenanthrene	nle	300000	nle	---	---	---	14.4	75.7	---	---	1.06	1.47	---	---	---	---	---	---
Anthracene	17000	30000	1500	---	---	---	1.94	7.57	---	---	1.10	0.909	---	---	---	---	---	---
Fluoranthene	2300	24000	840	---	---	---	9.88	5.38	---	---	5.64	7.85	---	---	---	---	---	---
Pyrene	1700	18000	550	---	---	---	11.8	11.3	---	---	5.81	6.90	---	---	---	---	---	---
Benzo[a]anthracene	0.6	2	0.5	---	---	---	3.83	1.97	---	---	2.11	2.94	---	---	---	---	---	---
Chrysene	62	230	52	---	---	---	3.53	3.26	---	---	2.42	2.88	---	---	---	---	---	---
Benzo[b]fluoranthene	0.6	2	2.0	---	---	---	1.92	1.29	---	---	2.26	1.88	---	---	---	---	---	---
Benzo[k]fluoranthene	6	23	16.0	---	---	---	3.16	1.21	---	---	2.21	2.02	---	---	---	---	---	---
Benzo[a]pyrene	0.2	0.2	0.2	---	---	---	2.66	1.39	---	---	1.96	1.50	---	---	---	---	---	---
Indeno[1,2,3-cd]pyrene	0.6	2	5	---	---	---	0.678	0.641 J	---	---	0.581	0.404	---	---	---	---	---	---
Dibenz[a,h]anthracene	0.2	0.2	0.5	---	---	---	<0.408m	<0.755m	---	---	0.127 J	0.203	---	---	---	---	---	---
Benzo[g,h,i]perylene	380000	30000	nle	---	---	---	1.03	0.778	---	---	0.468	0.639	---	---	---	---	---	---

Table 1-4: Pipe/Line initial data

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-5 - Piping/Line Delineation Samples														
AOC Identification	mg/kg	mg/kg	mg/kg	AOC B - USTs														
Field ID	samples with			L4-D1	L4-D2	L4-D3	L4-D4	P4-D5	P4-D6	L5-D1	L5-D2	L5-D3	L5-D4	L8-D1	L8-D2	L8-D2	L8-D3	L8-D4
Sampling Date	shaded IDs			02/18/10	02/18/10	02/18/10	02/18/10	04/23/10	04/23/10	02/18/10	02/18/10	02/18/10	02/18/10	02/18/10	02/18/10	05/05/10	02/18/10	02/18/10
Depth (ft bgs)	were excavated			3.2-3.7	3.2-3.7	3.2-3.7	3.2-3.7	3.2-3.7	3.2-3.7	2.9-3.4	2.9-3.4	2.9-3.4	2.9-3.4	2-2.5	2-2.5	DUP	2-2.5	2-2.5
Total Petroleum Hydrocarbons (TPH)																		
Total Extractable PH	5100	5100	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TPH-QAM25	10000	10000	nle	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TPH-DRO	10000	10000	nle	<83.3	43600	13600	688	4450	6410	15700	1110	15200	22600	8430	6660	---	419	<84
Polynucllear Aromatic Hydrocarbons (PAH)																		
Naphthalene	6	17	16	---	---	---	---	<0.049	0.219	---	---	---	---	---	---	<0.025	---	---
Acenaphthylene	nle	300000	nle	---	---	---	---	<0.063	0.099	---	---	---	---	---	---	<0.032	---	---
Acenaphthene	3400	37000	74	---	---	---	---	<0.056	0.304	---	---	---	---	---	---	<0.028	---	---
Fluorene	2300	24000	110	---	---	---	---	<0.053	0.419	---	---	---	---	---	---	<0.027	---	---
Phenanthrene	nle	300000	nle	---	---	---	---	0.219	0.994	---	---	---	---	---	---	<0.025	---	---
Anthracene	17000	30000	1500	---	---	---	---	0.181	0.302	---	---	---	---	---	---	<0.043	---	---
Fluoranthene	2300	24000	840	---	---	---	---	1.11	1.09	---	---	---	---	---	---	0.080	---	---
Pyrene	1700	18000	550	---	---	---	---	1.87	1.98	---	---	---	---	---	---	0.151	---	---
Benzo[a]anthracene	0.6	2	0.5	---	---	---	---	0.873	0.803	---	---	---	---	---	---	0.078	---	---
Chrysene	62	230	52	---	---	---	---	1.06	1.10	---	---	---	---	---	---	0.083	---	---
Benzo[b]fluoranthene	0.6	2	2.0	---	---	---	---	1.35	1.08	---	---	---	---	---	---	0.075	---	---
Benzo[k]fluoranthene	6	23	16.0	---	---	---	---	1.17	0.955	---	---	---	---	---	---	0.075	---	---
Benzo[a]pyrene	0.2	0.2	0.2	---	---	---	---	1.73	1.05	---	---	---	---	---	---	0.085	---	---
Indeno[1,2,3-cd]pyrene	0.6	2	5	---	---	---	---	1.02	0.470	---	---	---	---	---	---	0.056	---	---
Dibenz[a,h]anthracene	0.2	0.2	0.5	---	---	---	---	0.413	0.195	---	---	---	---	---	---	<0.027	---	---
Benzo[g,h,i]perylene	380000	30000	nle	---	---	---	---	1.46	0.587	---	---	---	---	---	---	0.062	---	---

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-6 - Final Post-excavation Samples											
AOC Identification	mg/kg	mg/kg	mg/kg	AOC B - USTs											
Field ID	samples with			Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12
Sampling Date	shaded IDs			04/23/10	04/23/10	04/23/10	04/23/10	04/23/10	04/23/10	04/23/10	04/23/10	04/23/10	04/23/10	04/23/10	04/23/10
Depth (ft bgs)	were excavated			4.8-5.3	4.8-5.3	4.8-5.3	4.5-5	4.5-5	4.5-5	4.8-5.3	4.8-5.3	4.8-5.3	4.8-5.3	4.8-5.3	4.8-5.3
Total Petroleum Hydrocarbons (TPH)															
Total Extractable PH	5100	5100	nle	---	---	---	---	---	---	---	---	---	---	---	---
TPH-QAM25	10000	10000	nle	---	---	---	---	---	---	---	---	---	---	---	---
TPH-DRO	10000	10000	nle	<87.2	182	3820	<87.2	<136	<143	<91	<88.8	<35.3	<132	<148	<122
Polynucllear Aromatic Hydrocarbons (PAH)															
Naphthalene	6	17	16	~	~	<0.023	~	~	~	~	~	~	~	~	~
Acenaphthylene	nle	300000	nle	~	~	<0.030	~	~	~	~	~	~	~	~	~
Acenaphthene	3400	37000	74	~	~	<0.026	~	~	~	~	~	~	~	~	~
Fluorene	2300	24000	110	~	~	<0.025	~	~	~	~	~	~	~	~	~
Phenanthrene	nle	300000	nle	~	~	<0.023	~	~	~	~	~	~	~	~	~
Anthracene	17000	30000	1500	~	~	<0.041	~	~	~	~	~	~	~	~	~
Fluoranthene	2300	24000	840	~	~	<0.023	~	~	~	~	~	~	~	~	~
Pyrene	1700	18000	550	~	~	<0.025	~	~	~	~	~	~	~	~	~
Benzo[a]anthracene	0.6	2	0.5	~	~	<0.031	~	~	~	~	~	~	~	~	~
Chrysene	62	230	52	~	~	<0.044	~	~	~	~	~	~	~	~	~
Benzo[b]fluoranthene	0.6	2	2.0	~	~	<0.026	~	~	~	~	~	~	~	~	~
Benzo[k]fluoranthene	6	23	16.0	~	~	<0.031	~	~	~	~	~	~	~	~	~
Benzo[a]pyrene	0.2	0.2	0.2	~	~	<0.033	~	~	~	~	~	~	~	~	~
Indeno[1,2,3-cd]pyrene	0.6	2	5	~	~	<0.023	~	~	~	~	~	~	~	~	~
Dibenz[a,h]anthracene	0.2	0.2	0.5	~	~	<0.025	~	~	~	~	~	~	~	~	~
Benzo[g,h,i]perylene	380000	30000	nle	~	~	<0.028	~	~	~	~	~	~	~	~	~

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-7 - Monitoring Well Installation Soil Samples					
AOC Identification	mg/kg	mg/kg	mg/kg	AOC H - Ground Water					
Field ID	samples with			MW13-1	MW13-2	MW14-1	MW14-2	MW12-1	MW12-2
Sampling Date	shaded IDs			09/15/10	09/15/10	09/15/10	09/15/10	09/15/10	09/15/10
Depth (ft bgs)	were excavated			10.5-11	12.5-13	6.7-7.2	11-11.5	10.5-11	13.5-14
Total Petroleum Hydrocarbons (TPH)									
Total Extractable PH	5100	5100	nle	2690	963	---	---	18300	ND
TPH-QAM25	10000	10000	nle	---	---	---	---	---	---
TPH-DRO	10000	10000	nle	---	---	---	---	---	---
Volatile Organics (VO+10)									
Dichlorodifluoromethane	490	230000	25	---	---	<0.366	<0.033	---	---
Chloromethane	4	12	nle	---	---	<0.527	<0.048	---	---
Vinyl chloride	0.7	2	0.005	---	---	<0.527m	<0.048m	---	---
Bromomethane	25	59	0.03	---	---	<0.630m	<0.057m	---	---
Chloroethane	220	1100	nle	---	---	<0.542	<0.049	---	---
Trichlorofluoromethane	23000	340000	22	---	---	<0.498	<0.045	---	---
Acrolein	0.5	1	0.5	---	---	---	---	---	---
1,1-Dichloroethene	11	150	0.005	---	---	<0.542m	<0.049m	---	---
Acetone	70000	nle	12	---	---	<1.03	<0.093	---	---
Carbon disulfide	7800	110000	4	---	---	<0.440	<0.040	---	---
Methylene chloride	34	97	0.007	---	---	<2.90m	<0.262m	---	---
Acrylonitrile	0.9	3	0.5	---	---	---	---	---	---
tert-Butyl alcohol (TBA)	1400	11000	0.2	---	---	---	---	---	---
trans-1,2-Dichloroethene	300	720	0.4	---	---	<0.513m	<0.046	---	---
Methyl tert-butyl ether (MTBE)	110	320	0.2	---	---	<0.249m	<0.023	---	---
1,1-Dichloroethane	8	24	0.2	---	---	<0.498m	<0.045	---	---
cis-1,2-Dichloroethene	230	560	0.2	---	---	<0.396m	<0.036	---	---
2-Butanone (MEK)	3100	44000	0.6	---	---	<0.762m	<0.069	---	---
Bromochloromethane	1	3	nle	---	---	<0.308	<0.028	---	---
Chloroform	0.6	2	0.2	---	---	<0.381m	<0.034	---	---
1,1,1-Trichloroethane	290	4200	0.2	---	---	<0.440m	<0.040	---	---
Carbon tetrachloride	0.6	2	0.005	---	---	<0.396m	<0.036m	---	---
1,2-Dichloroethane (EDC)	0.9	3	0.005	---	---	<0.352m	<0.032m	---	---
Benzene	2	5	0.005	---	---	<0.425m	<0.038m	---	---
Trichloroethene	7	20	0.007	---	---	<0.498m	<0.045m	---	---
1,2-Dichloropropane	2	5	0.005	---	---	<0.410m	<0.037m	---	---
Dibromomethane	nle	nle	nle	---	---	---	---	---	---
1,4-Dioxane	nle	nle	nle	---	---	<28.1	<2.54	---	---
Bromodichloromethane	1	3	0.005	---	---	<0.366m	<0.033m	---	---
2-Chloroethyl vinyl ether	nle	nle	100	---	---	---	---	---	---
cis-1,3-Dichloropropene	2	7	0.005	---	---	<0.308m	<0.028m	---	---
4-Methyl-2-pentanone (MIBK)	nle	nle	nle	---	---	<0.278	<0.025	---	---
Toluene	6300	91000	4	---	---	<0.425	<0.038	---	---
trans-1,3-Dichloropropene	2	7	0.005	---	---	<0.396m	<0.036	---	---
1,1,2-Trichloroethane	2	6	0.01	---	---	<0.381m	<0.034m	---	---
Tetrachloroethene	2	5	0.005	---	---	<0.484m	<0.044m	---	---
2-Hexanone	nle	nle	nle	---	---	<0.366	<0.033	---	---
Dibromochloromethane	3	8	0.005	---	---	<0.322m	<0.029m	---	---
1,2-Dibromoethane (EDB)	0.008	0.04	0.005	---	---	<0.249m	<0.023m	---	---
Chlorobenzene	510	7400	0.4	---	---	<0.308	<0.028	---	---
Ethylbenzene	7800	110000	8	---	---	13.0	<0.041	---	---
Total Xylenes	12000	170000	12	---	---	13.8	<0.108	---	---
Styrene	90	260	2	---	---	<0.322	<0.029	---	---
Bromoform	81	280	0.02	---	---	<0.249m	<0.023m	---	---
Isopropylbenzene	nle	nle	nle	---	---	7.08	<0.024	---	---
1,1,2,2-Tetrachloroethane	1	3	0.005	---	---	<0.366m	<0.025m	---	---
1,3-Dichlorobenzene	5300	59000	12	---	---	<0.352	<0.026	---	---
1,4-Dichlorobenzene	5	13	1	---	---	<0.366	<0.027	---	---
1,2-Dichlorobenzene	5300	59000	11	---	---	<0.308	<0.028	---	---
1,2-Dibromo-3-chloropropane	0.08	0.2	0.005	---	---	<0.777m	<0.029m	---	---
1,2,4-Trichlorobenzene	73	820	0.4	---	---	<0.396	<0.030	---	---

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	RSRS	NSRS	IGW	Table 1-7 - Monitoring Well Installation Soil Samples					
AOC Identification	mg/kg	mg/kg	mg/kg	AOC H - Ground Water					
Field ID	samples with			MW13-1	MW13-2	MW14-1	MW14-2	MW12-1	MW12-2
Sampling Date	shaded IDs			09/15/10	09/15/10	09/15/10	09/15/10	09/15/10	09/15/10
Depth (ft bgs)	were excavated			10.5-11	12.5-13	6.7-7.2	11-11.5	10.5-11	13.5-14
1,2,3-Trichlorobenzene	nle	nle	nle	---	---	<0.498	<0.031	---	---
1,1,2-Trichloro-1,2,2-trifluoroethane	nle	nle	nle	---	---	<0.484	<0.032	---	---
Methyl acetate	78000	nle	14	---	---	<0.586	<0.033	---	---
Cyclohexane	nle	nle	nle	---	---	31.8	<0.034	---	---
Methylcyclohexane	nle	nle	nle	---	---	187	<0.035	---	---
Total TIC's:	1000	1000	nle	---	---	870	<0.036	---	---
Metals									
Lead	400	800	59	---	---	3.67	2.37	---	---

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	GWQS	Table 1-8 - Temporary Well Samples				
AOC Identification	ug/L	AOC H - Ground Water - Post Soil Removal				
Field ID		TW1	TW2	TW3	TW1A	TW3A
Sampling Date		02/16/10	02/16/10	02/16/10	05/27/10	05/27/10
Depth (ft bgs)		---	---	---	---	---
Volatile Organics (VO+10)						
Dichlorodifluoromethane	1000	<0.500	<0.500	<0.500	<0.400	<0.400
Chloromethane	nle	<0.500	<0.500	<0.500	<0.300	<0.300
Vinyl chloride	1	<0.500	<0.500	<0.500	<0.330	<0.330
Bromomethane	10	<0.500	<0.500	<0.500	<0.350	<0.350
Chloroethane	nle	<0.500	<0.500	<0.500	<0.360	<0.360
Trichlorofluoromethane	2000	<0.500	<0.500	<0.500	<0.660	<0.660
Acrolein	10	---	---	---	---	---
1,1-Dichloroethene	1	<0.500	<0.500	<0.500	<0.360	<0.360
Acetone	6000	3.68 J	2.91 J	<5.00	4.78J	4.66J
Carbon disulfide	700	<0.500	<0.500	<0.500	<0.340	<0.340
Methylene chloride	3	<2.00	<2.00	<2.00	<1.99	<1.99
Acrylonitrile	50	---	---	---	---	---
tert-Butyl alcohol (TBA)	100	<2.00	2.31	<2.00	3.22	3.44
trans-1,2-Dichloroethene	100	<0.500	<0.500	<0.500	<0.300	<0.300
Methyl tert-butyl ether (MTBE)	70	<0.500	1.79	<0.500	2.45	0.829
1,1-Dichloroethane	50	0.537	<0.500	<0.500	1.25	<0.260
cis-1,2-Dichloroethene	70	<0.500	<0.500	<0.500	0.284J	<0.210
2-Butanone (MEK)	300	2.34 J	<5.00	<5.00	1.83	1.32
Bromochloromethane	nle	<0.500	<0.500	<0.500	<0.180	<0.180
Chloroform	70	<0.500	<0.500	<0.500	<0.210	<0.210
1,1,1-Trichloroethane	30	<0.500	<0.500	<0.500	<0.290	<0.290
Carbon tetrachloride	1	<0.500	<0.500	<0.500	<0.300	<0.300
1,2-Dichloroethane (EDC)	2	0.299 J	<0.500	<0.500	<0.320	<0.320
Benzene	1	**3.05**	<0.500	0.354 J	**2.49**	**2.19**
Trichloroethene	1	<0.500	<0.500	<0.500	<0.250	<0.250
1,2-Dichloropropane	1	<0.500	<0.500	<0.500	<0.210	<0.210
Dibromomethane	nle	---	---	---	---	---
1,4-Dioxane	nle	---	---	---	---	---
Bromodichloromethane	1	<0.500	<0.500	<0.500	<0.190	<0.190
2-Chloroethyl vinyl ether	100	---	---	---	---	---
cis-1,3-Dichloropropene	1	<0.500	<0.500	<0.500	<0.210	<0.210
4-Methyl-2-pentanone (MIBK)	nle	<5.00	<5.00	<5.00	<0.200	<0.200
Toluene	600	7.24	<0.500	<0.500	<0.190	<0.190
trans-1,3-Dichloropropene	1	<0.500	<0.500	<0.500	<0.220	<0.220
1,1,2-Trichloroethane	3	<0.500	<0.500	<0.500	<0.190	<0.190
Tetrachloroethene	1	<0.500	<0.500	<0.500	<0.230	<0.230
2-Hexanone	nle	<5.00	<5.00	<5.00	<0.360	<0.360
Dibromochloromethane	1	<0.500	<0.500	<0.500	<0.190	<0.190
1,2-Dibromoethane (EDB)	0.03	<0.500	<0.500	<0.500	<0.210	<0.210
Chlorobenzene	50	<0.500	<0.500	63.2	<0.260	47.7
Ethylbenzene	700	0.678	<0.500	0.576	6.1	2.92
Total Xylenes	1000	1.15	<1.00	<1.00	<0.580	1.36
Styrene	100	<0.500	<0.500	<0.500	<0.180	<0.180
Bromoform	4	<0.500	<0.500	<0.500	<0.270	<0.270
Isopropylbenzene	700	33.1	<0.500	0.487 J	38.9	12.4
1,1,2,2-Tetrachloroethane	1	<0.500	<0.500	<0.500	<0.220	<0.220
1,3-Dichlorobenzene	600	<0.500	<0.500	<0.500	<0.210	<0.210
1,4-Dichlorobenzene	75	<0.500	<0.500	5.38	<0.210	<0.210
1,2-Dichlorobenzene	600	<0.500	<0.500	1.07	<0.230	<0.230
1,2-Dibromo-3-chloropropane	0.02	<1.00	<1.00	<1.00	<0.200	<0.200
1,2,4-Trichlorobenzene	9	<0.500	<0.500	<0.500	<0.260	<0.260
1,2,3-Trichlorobenzene	nle	<0.500	<0.500	<0.500	<0.270	<0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	nle	<0.500	<0.500	<0.500	<0.730	<0.730
Methyl acetate	7000	<5.00	<5.00	<5.00	<0.280	<0.280
Cyclohexane	nle	8.81	<1.00	<1.00	13.1	1.09
Methylcyclohexane	nle	<0.500	<0.500	<0.500	<0.410	<0.410

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	GWQS	Table 1-8 - Temporary Well Samples				
AOC Identification	ug/L	AOC H - Ground Water - Post Soil Removal				
Field ID		TW1	TW2	TW3	TW1A	TW3A
Sampling Date		02/16/10	02/16/10	02/16/10	05/27/10	05/27/10
Depth (ft bgs)		---	---	---	---	---
Total TIC's:	500	1340	ND	141	1540	842
Base/Neutral Extractables (BN+15)						
Benzaldehyde	nle	~	<1.00	<1.00	~	~
Bis(2-chloroethyl) ether	7	~	<1.00	<1.00	~	~
Bis(2-chloroisopropyl) ether	300	~	<1.00	<1.00	~	~
N-Nitrosodi-n-propylamine	10	~	<1.00	<1.00	~	~
Acetophenone	700	~	<1.00	<1.00	~	~
Hexachloroethane	7	~	<1.00	<1.00	~	~
Nitrobenzene	6	~	<1.00	<1.00	~	~
Isophorone	40	~	<1.00	<1.00	~	~
Bis(2-chloroethoxy) methane	nle	~	<1.00	<1.00	~	~
Naphthalene	300	~	<1.00	1.52	~	~
4-Chloroaniline	30	~	<1.00	<1.00	~	~
Hexachlorobutadiene	1	~	<1.00	<1.00	~	~
Caprolactam	nle	~	<1.00	<1.00	~	~
2-Methylnaphthalene	nle	~	<1.00	4.67	~	~
Hexachlorocyclopentadiene	40	~	<1.00	<1.00	~	~
1,1'-Biphenyl	400	~	<1.00	<1.00	~	~
2-Chloronaphthalene	600	~	<1.00	<1.00	~	~
2-Nitroaniline	nle	~	<1.00	<1.00	~	~
Dimethyl phthalate	nle	~	<1.00	<1.00	~	~
2,6-Dinitrotoluene	10	~	<1.00	<1.00	~	~
Acenaphthylene	nle	~	<1.00	<1.00	~	~
3-Nitroaniline	nle	~	<1.00	<1.00	~	~
Acenaphthene	400	~	<1.00	1.17	~	~
2,4-Dinitrotoluene	10	~	<1.00	<1.00	~	~
Dibenzofuran	nle	~	<1.00	<1.00	~	~
Diethyl phthalate	6000	~	<1.00	<1.00	~	~
Fluorene	300	~	<1.00	0.921 J	~	~
4-Chlorophenyl phenyl ether	nle	~	<1.00	<1.00	~	~
4-Nitroaniline	nle	~	<1.00	<1.00	~	~
1,2,4,5-Tetrachlorobenzene	nle	~	<1.00	<1.00	~	~
N-Nitrosodiphenylamine	10	~	<1.00	<1.00	~	~
4-Bromophenyl phenyl ether	nle	~	<1.00	<1.00	~	~
Hexachlorobenzene	.02	~	<0.020	<0.020	~	~
Atrazine	3	~	<1.00	<1.00	~	~
Phenanthrene	nle	~	<1.00	0.810 J	~	~
Anthracene	2000	~	<1.00	<1.00	~	~
Carbazole	nle	~	<1.00	<1.00	~	~
Di-n-butyl phthalate	700	~	<1.00	<1.00	~	~
Fluoranthene	300	~	<1.00	<1.00	~	~
Pyrene	200	~	<1.00	<1.00	~	~
Butyl benzyl phthalate	100	~	<1.00	<1.00	~	~
3,3'-Dichlorobenzidine	30	~	<1.00	<1.00	~	~
Benzo[a]anthracene	.1	~	<0.100	<0.100	~	~
Chrysene	5	~	<1.00	<1.00	~	~
Bis(2-ethylhexyl) phthalate	3	~	<1.00	<1.00	~	~
Di-n-octyl phthalate	100	~	<1.00	<1.00	~	~
Benzo[b]fluoranthene	.2	~	<0.100	<0.100	~	~
Benzo[k]fluoranthene	.5	~	<0.100	<0.100	~	~
Benzo[a]pyrene	.1	~	<0.100	<0.100	~	~
Indeno[1,2,3-cd]pyrene	.2	~	<0.100	<0.100	~	~
Dibenz[a,h]anthracene	.3	~	<0.100	<0.100	~	~
Benzo[g,h,i]perylene	nle	~	<1.00	<1.00	~	~
Total TICs	500	~	ND	100	~	~
Metals						
Lead	5	1.86J	~	~	~	~

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	GWQS	Table 1-9 - Ground Water Samples																		
AOC Identification	ug/L	AOC H - GW - Round 1				AOC H - GW - Round 2							AOC H - GW - Round 3			AOC H - GW - Round 4				
Field ID		MW8	MW9	MW10	MW11	MW8R	MW12	MW13	MW14	MW15	MW16	MW17	MW8R	MW12	MW14	MW8R	MW12	MW13	MW14	MW17
Sampling Date		01/07/10	01/07/10	01/07/10	01/07/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	12/04/10	12/04/10	12/04/10	01/11/11	01/11/11	01/11/11	01/11/11	01/11/11
Depth (ft bgs)		5.49	6.29	6.55	4.73	4.74	4.83	4.35	4.77	4.91	5.00	4.72	5.62	5.70	5.56	5.99	6.01	5.53	5.89	6.19
Volatile Organics (VO+10)																				
Dichlorodifluoromethane	1000	<0.500	<0.500	<0.500	<0.500	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Chloromethane	nle	<0.500	<0.500	<0.500	<0.500	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Vinyl chloride	1	<1.00	<1.00	<1.00	<1.00	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Bromomethane	10	<0.500	<0.500	<0.500	<0.500	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Chloroethane	nle	<0.500	<0.500	<0.500	<0.500	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Trichlorofluoromethane	2000	<1.00	0.576 J	<1.00	<1.00	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<1.00	<1.00	<1.00	<1.00	<1.00	---	<1.00	---
Acrolein	10	---	---	---	---	---	---	---	---	---	---	---	<10.0	<10.0	<10.0	---	---	---	---	---
1,1-Dichloroethene	1	<0.500	<0.500	<0.500	<0.500	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Acetone	6000	<1.00	<1.00	2.17	<1.00	<1.26	<1.26	<1.26	<1.26	<1.26	<1.26	<1.26	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	---
Carbon disulfide	700	<0.500	<0.500	<0.500	<0.500	<0.340	<0.340	<0.340	<0.340	<0.340	<0.340	<0.340	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Methylene chloride	3	<2.00	<2.00	<2.00	<2.00	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<2.00	<2.00	<2.00	<2.00	<2.00	---	<2.00	---
Acrylonitrile	50	---	---	---	---	---	---	---	---	---	---	---	<10.0	<10.0	<10.0	---	---	---	---	---
tert-Butyl alcohol (TBA)	100	---	---	---	---	<1.19	2.72	<1.19	2.46	<1.19	<1.19	<1.19	<2.00	<2.00	<2.00	---	---	---	---	---
trans-1,2-Dichloroethene	100	<0.500	<0.500	<0.500	<0.500	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Methyl tert-butyl ether (MTBE)	70	11.1	0.636	<0.500	<0.500	<0.300	0.533	<0.300	3.51	<0.300	<0.300	<0.300	<0.500	1.10	3.66	<0.500	0.709	---	3.35	---
1,1-Dichloroethane	50	0.315 J	<0.500	<0.500	<0.500	<0.260	<0.260	<0.260	1.68	0.421 J	<0.260	<0.260	<0.500	<0.500	1.01	<0.500	<0.500	---	0.858	---
cis-1,2-Dichloroethene	70	0.678	<0.500	<0.500	<0.500	0.235 J	<0.210	<0.210	0.326 J	<0.210	<0.210	0.433 J	0.241 J	<0.500	0.402 J	<0.500	<0.500	---	0.491 J	---
2-Butanone (MEK)	300	<0.500	<0.500	<0.500	<0.500	<0.730	<0.730	<0.730	<0.730	<0.730	<0.730	<0.730	<1.00	<1.00	<1.00	<1.00	<1.00	---	<1.00	---
Bromochloromethane	nle	<0.500	<0.500	<0.500	<0.500	<0.180	<0.180	<0.180	<0.180	<0.180	<0.180	<0.180	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Chloroform	70	<0.500	<0.500	<0.500	<0.500	<0.210	<0.210	<0.210	0.740	3.36	<0.210	<0.210	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
1,1,1-Trichloroethane	30	<0.500	1.83	<0.500	<0.500	<0.290	<0.290	<0.290	1.41	3.58	<0.290	<0.290	<0.500	<0.500	<0.500	<0.500	<0.500	---	0.356 J	---
Carbon tetrachloride	1	<0.500	<0.500	<0.500	<0.500	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
1,2-Dichloroethane (EDC)	2	<0.500	<0.500	<0.500	<0.500	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	<0.320	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Benzene	1	<0.500	<0.500	<0.500	<0.500	<0.250	**1.49**	<0.250	**2.56**	<0.250	<0.250	<0.250	<0.500	0.695	0.790	<0.500	1.67	---	0.319 J	---
Trichloroethene	1	<0.500	<0.500	<0.500	0.345 J	**2.14**	<0.250	<0.250	<0.250	0.744	<0.250	0.855	**2.08**	<0.500	<0.500	2.45	<0.500	---	<0.500	---
1,2-Dichloropropane	1	<0.500	<0.500	<0.500	<0.500	<0.210	<0.210	<0.210	<0.210	<0.210	<0.210	<0.210	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Dibromomethane	nle	---	---	---	---	---	---	---	---	---	---	---	<0.500	<0.500	<0.500	---	---	---	---	---
1,4-Dioxane	nle	---	---	---	---	---	---	---	---	---	---	---	<200	<200	<200	<200	<200	---	<200	---
Bromodichloromethane	1	<0.500	<0.500	<0.500	<0.500	<0.190	<0.190	<0.190	<0.190	<0.190	<0.190	<0.190	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
2-Chloroethyl vinyl ether	100	---	---	---	---	---	---	---	---	---	---	---	<0.500	<0.500	<0.500	---	---	---	---	---
cis-1,3-Dichloropropene	1	<0.500	<0.500	<0.500	<0.500	<0.210	<0.210	<0.210	<0.210	<0.210	<0.210	<0.210	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
4-Methyl-2-pentanone (MIBK)	nle	<0.500	<0.500	<0.500	<0.500	<0.200	0.558	<0.200	<0.200	<0.200	<0.200	<0.200	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Toluene	600	<0.500	<0.500	<0.500	<0.500	<0.190	<0.190	<0.190	<0.190	<0.190	<0.190	<0.190	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
trans-1,3-Dichloropropene	1	<0.500	<0.500	<0.500	<0.500	<0.220	<0.220	<0.220	<0.220	<0.220	<0.220	<0.220	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
1,1,2-Trichloroethane	3	<0.500	<0.500	<0.500	<0.500	<0.190	<0.190	<0.190	<0.190	<0.190	<0.190	<0.190	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Tetrachloroethene	1	<0.500	<0.500	<0.500	<0.500	<0.230	<0.230	<0.230	<0.230	<0.230	<0.230	<0.230	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
2-Hexanone	nle	<0.500	<0.500	<0.500	<0.500	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Dibromochloromethane	1	<0.500	<0.500	<0.500	<0.500	<0.190	<0.190	<0.190	<0.190	<0.190	<0.190	<0.190	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
1,2-Dibromoethane (EDB)	0.03	---	---	---	---	<0.210	<0.210	<0.210	<0.210	<0.210	<0.210	<0.210	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Chlorobenzene	50	<0.500	<0.500	<0.500	<0.500	<0.260	24.2	<0.260	<0.260	<0.260	<0.260	<0.260	<0.500	15.3	<0.500	<0.500	23.9	---	<0.500	---
Ethylbenzene	700	<0.500	<0.500	<0.500	<0.500	<0.210	1.36	<0.210	<0.210	<0.210	<0.210	<0.210	<0.500	0.217 J	<0.500	<0.500	<0.500	---	<0.500	---
Total Xylenes	1000	<1.00	<1.00	<1.00	<1.00	<0.580	0.714 J	<0.580	<0.580	<0.580	<0.580	<0.580	<1.00	0.807 J	<1.00	<1.00	1.42	---	<1.00	---
Styrene	100	<0.500	<0.500	<0.500	<0.500	<0.180	<0.180	<0.180	<0.180	<0.180	<0.180	<0.180	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Bromoform	4	<0.500	<0.500	<0.500	<0.500	<0.270	<0.270	<0.270	<0.270	<0.270	<0.270	<0.270	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Isopropylbenzene	700	<0.500	<0.500	6.40	<0.500	<0.240	4.99	<0.240	9.92	<0.240	<0.240	<0.240	<0.500	5.60	3.50	<0.500	7.60	---	1.31	---
1,1,2,2-Tetrachloroethane	1	<0.500	<0.500	<0.500	<0.500	<0.220	<0.220	<0.220	<0.220	<0.220	<0.220	<0.220	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
1,3-Dichlorobenzene	600	<0.500	<0.500	<0.500	<0.500	<0.210	<0.210	<0.210	<0.210	<0.210	<0.210	<0.210	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
1,4-Dichlorobenzene	75	<0.500	<0.500	<0.500	<0.500	<0.210	1.72	<0.210	<0.210	<0.210	<0.210	<0.210	<0.500	1.10	<0.500	<0.500	1.18	---	<0.500	---

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	GWQS	Table 1-9 - Ground Water Samples																		
AOC Identification	ug/L	AOC H - GW - Round 1				AOC H - GW - Round 2							AOC H - GW - Round 3			AOC H - GW - Round 4				
Field ID		MW8	MW9	MW10	MW11	MW8R	MW12	MW13	MW14	MW15	MW16	MW17	MW8R	MW12	MW14	MW8R	MW12	MW13	MW14	MW17
Sampling Date		01/07/10	01/07/10	01/07/10	01/07/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	12/04/10	12/04/10	12/04/10	01/11/11	01/11/11	01/11/11	01/11/11	01/11/11
Depth (ft bgs)		5.49	6.29	6.55	4.73	4.74	4.83	4.35	4.77	4.91	5.00	4.72	5.62	5.70	5.56	5.99	6.01	5.53	5.89	6.19
1,2-Dichlorobenzene	600	<0.500	<0.500	<0.500	<0.500	<0.230	2.25	<0.230	<0.230	<0.230	<0.230	<0.230	<0.500	2.23	<0.500	<0.500	3.33	---	<0.500	---
1,2-Dibromo-3-chloropropane	0.02	---	---	---	---	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
1,2,4-Trichlorobenzene	9	<0.500	<0.500	<0.500	<0.500	<0.260	<0.260	<0.260	<0.260	<0.260	<0.260	<0.260	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
1,2,3-Trichlorobenzene	nle	<0.500	<0.500	<0.500	<0.500	<0.270	<0.270	<0.270	<0.270	<0.270	<0.270	<0.270	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
1,1,2-Trichloro-1,2,2-trifluoroethane	nle	<1.00	<1.00	<1.00	<1.00	<0.730	<0.730	<0.730	<0.730	<0.730	<0.730	<0.730	<1.00	<1.00	<1.00	<1.00	<1.00	---	<1.00	---
Methyl acetate	7000	<1.00	<1.00	<1.00	<1.00	<0.280	<0.280	<0.280	<0.280	<0.280	<0.280	<0.280	<0.500	<0.500	<0.500	<0.500	<0.500	---	<0.500	---
Cyclohexane	nle	<0.500	<0.500	2.26	<0.500	<0.260	1.57	<0.260	3.84	<0.260	<0.260	<0.260	<1.00	0.828 J	0.912 J	<1.00	1.04	---	0.847 J	---
Methylcyclohexane	nle	<0.500	<0.500	8.40	<0.500	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.500	1.65	<0.500	<0.500	1.82	---	<0.500	---
Total TIC's:	500	4.30	ND	524	ND	ND	329	4.00	316	ND	ND	ND	ND	279	40.3	ND	231	---	11.8	---
Semivolatile Organics (BNA+20)																				
Benzaldehyde	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Phenol	2000	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bis(2-chloroethyl) ether	7	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Chlorophenol	40	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Methylphenol	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bis(2-chloroisopropyl) ether	300	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4-Methylphenol	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
N-Nitrosodi-n-propylamine	10	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Acetophenone	700	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexachloroethane	7	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrobenzene	6	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Isophorone	40	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Nitrophenol	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,4-Dimethylphenol	100	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bis(2-chloroethoxy) methane	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,4-Dichlorophenol	20	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	300	<1.00	<1.00	0.790 J	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4-Chloroaniline	30	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexachlorobutadiene	1	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Caprolactam	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4-Chloro-3-methylphenol	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Methylnaphthalene	nle	<1.00	<1.00	71.9	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexachlorocyclopentadiene	40	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	20	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	700	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1'-Biphenyl	400	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Chloronaphthalene	600	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Nitroaniline	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dimethyl phthalate	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,6-Dinitrotoluene	10	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Acenaphthylene	nle	<1.00	<1.00	0.896 J	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Nitroaniline	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Acenaphthene	400	<1.00	<1.00	4.42	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,4-Dinitrophenol	40	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4-Nitrophenol	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,4-Dinitrotoluene	10	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dibenzofuran	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Diethyl phthalate	6000	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	GWQS	Table 1-9 - Ground Water Samples																		
AOC Identification	ug/L	AOC H - GW - Round 1				AOC H - GW - Round 2							AOC H - GW - Round 3			AOC H - GW - Round 4				
Field ID		MW8	MW9	MW10	MW11	MW8R	MW12	MW13	MW14	MW15	MW16	MW17	MW8R	MW12	MW14	MW8R	MW12	MW13	MW14	MW17
Sampling Date		01/07/10	01/07/10	01/07/10	01/07/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	12/04/10	12/04/10	12/04/10	01/11/11	01/11/11	01/11/11	01/11/11	01/11/11
Depth (ft bgs)		5.49	6.29	6.55	4.73	4.74	4.83	4.35	4.77	4.91	5.00	4.72	5.62	5.70	5.56	5.99	6.01	5.53	5.89	6.19
Fluorene	300	<1.00	<1.00	6.81	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4-Chlorophenyl phenyl ether	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4-Nitroaniline	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,4,5-Tetrachlorobenzene	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4,6-Dinitro-2-methylphenol	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
N-Nitrosodiphenylamine	10	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4-Bromophenyl phenyl ether	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexachlorobenzene	.02	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Atrazine	3	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pentachlorophenol	.3	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	nle	<1.00	<1.00	7.58	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Anthracene	2000	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbazole	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Di-n-butyl phthalate	700	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	300	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pyrene	200	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Butyl benzyl phthalate	100	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3,3'-Dichlorobenzidine	30	<3.00	<3.00	<3.00	<3.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[a]anthracene	.1	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chrysene	5	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bis(2-ethylhexyl) phthalate	3	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Di-n-octyl phthalate	100	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[b]fluoranthene	.2	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[k]fluoranthene	.5	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[a]pyrene	.1	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Indeno[1,2,3-cd]pyrene	.2	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dibenz[a,h]anthracene	.3	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[g,h,i]perylene	nle	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total TIC's:	500	16.2	ND	357	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Polynuclear Aromatic Hydrocarbons (																				
Naphthalene	300	---	---	---	---	---	<0.266	---	---	---	---	---	---	---	---	---	---	---	---	---
Acenaphthylene	nle	---	---	---	---	---	<0.222	---	---	---	---	---	---	---	---	---	---	---	---	---
Acenaphthene	300	---	---	---	---	---	5.72	---	---	---	---	---	---	---	---	---	---	---	---	---
Fluorene	300	---	---	---	---	---	<0.231	---	---	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	nle	---	---	---	---	---	5.80	---	---	---	---	---	---	---	---	---	---	---	---	---
Anthracene	2000	---	---	---	---	---	0.948 J	---	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	300	---	---	---	---	---	0.330 J	---	---	---	---	---	---	---	---	---	---	---	---	---
Pyrene	200	---	---	---	---	---	0.885 J	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[a]anthracene	0.1	---	---	---	---	---	<0.230	---	---	---	---	---	---	---	---	---	---	---	---	---
Chrysene	0.5	---	---	---	---	---	<0.215	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[b]fluoranthene	0.2	---	---	---	---	---	<0.290	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[k]fluoranthene	0.5	---	---	---	---	---	<0.220	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[a]pyrene	0.1	---	---	---	---	---	<0.210	---	---	---	---	---	---	---	---	---	---	---	---	---
Indeno[1,2,3-cd]pyrene	0.2	---	---	---	---	---	<0.260	---	---	---	---	---	---	---	---	---	---	---	---	---
Dibenz[a,h]anthracene	0.3	---	---	---	---	---	<0.220	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[g,h,i]perylene	nle	---	---	---	---	---	<0.218	---	---	---	---	---	---	---	---	---	---	---	---	---

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SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	GWQS	Table 1-9 - Ground Water Samples																		
AOC Identification	ug/L	AOC H - GW - Round 1				AOC H - GW - Round 2							AOC H - GW - Round 3			AOC H - GW - Round 4				
Field ID		MW8	MW9	MW10	MW11	MW8R	MW12	MW13	MW14	MW15	MW16	MW17	MW8R	MW12	MW14	MW8R	MW12	MW13	MW14	MW17
Sampling Date		01/07/10	01/07/10	01/07/10	01/07/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	12/04/10	12/04/10	12/04/10	01/11/11	01/11/11	01/11/11	01/11/11	01/11/11
Depth (ft bgs)		5.49	6.29	6.55	4.73	4.74	4.83	4.35	4.77	4.91	5.00	4.72	5.62	5.70	5.56	5.99	6.01	5.53	5.89	6.19
Semivolatile Organics - Special List																				
Hexachlorobenzene	0.02	<0.020	<0.020	<0.020	<0.020	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[a]anthracene	0.1	<0.100	<0.100	<0.100	<0.100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[b]fluoranthene	0.2	<0.100	<0.100	<0.100	<0.100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[k]fluoranthene	0.5	<0.100	<0.100	<0.100	<0.100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[a]pyrene	0.1	<0.100	<0.100	<0.100	<0.100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Indeno[1,2,3-cd]pyrene	0.2	<0.100	<0.100	<0.100	<0.100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dibenz[a,h]anthracene	0.3	<0.100	<0.100	<0.100	<0.100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pesticides																				
alpha-BHC	0.02	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
beta-BHC	0.04	0.015	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
gamma-BHC (Lindane)	0.03	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
delta-BHC	nle	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Heptachlor epoxide	0.05	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Aldrin	0.04	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Heptachlor epoxide	0.2	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Endosulfan I	40	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4,4'-DDE	0.1	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dieldrin	0.03	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Endrin	2	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Endosulfan II	40	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4,4'-DDD	0.1	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Endrin aldehyde	nle	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Endosulfan sulfate	40	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4,4'-DDT	0.1	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Endrin ketone	nle	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methoxychlor	40	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
alpha-Chlordane	0.5	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
gamma-Chlordane	nle	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toxaphene	2	<0.125	<0.125	<0.125	<0.125	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Polychlorinated Biphenyls (PCB)																				
Aroclor-1016	0.5	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Aroclor-1221	0.5	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Aroclor-1232	0.5	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Aroclor-1242	0.5	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Aroclor-1248	0.5	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Aroclor-1254	0.5	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Aroclor-1260	0.5	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - Analytical Results Summary - Remedial Investigation Report
SRP PI# 510630 - Palmer Industries, Inc., May 2011

Area(s) of Concern	GWQS	Table 1-9 - Ground Water Samples																		
AOC Identification	ug/L	AOC H - GW - Round 1				AOC H - GW - Round 2							AOC H - GW - Round 3			AOC H - GW - Round 4				
Field ID		MW8	MW9	MW10	MW11	MW8R	MW12	MW13	MW14	MW15	MW16	MW17	MW8R	MW12	MW14	MW8R	MW12	MW13	MW14	MW17
Sampling Date		01/07/10	01/07/10	01/07/10	01/07/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	10/05/10	12/04/10	12/04/10	12/04/10	01/11/11	01/11/11	01/11/11	01/11/11	01/11/11
Depth (ft bgs)		5.49	6.29	6.55	4.73	4.74	4.83	4.35	4.77	4.91	5.00	4.72	5.62	5.70	5.56	5.99	6.01	5.53	5.89	6.19
Metals																				
Aluminum	200	149	<40.0	284	204	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Antimony	6	<4.00	<4.00	<4.00	<4.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic	3	<2.00	<2.00	2.18	<2.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Barium	6000	54.2	148	128	<40.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	1	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	4	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Calcium	nle	107000	36300	81200	8350	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	70	<8.00	<8.00	<8.00	<8.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cobalt	nle	<8.00	<8.00	<8.00	<8.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Copper	1300	<8.00	<8.00	<8.00	<8.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron	300	859	<100	15300	216	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Lead	5	6.88	<2.00	<2.00	<2.00	---	0.712 J	---	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	nle	17800	9280	22600	13300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	50	2690	1710	6370	105	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	2	<0.500	<0.500	<0.500	<0.500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nickel	100	<4.00	<4.00	<4.00	<4.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	nle	8380	2610	8410	10300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	40	<8.00	<8.00	<8.00	<8.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silver	40	<2.00	<2.00	<2.00	<2.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sodium	50000	48300	23100	26200	215000	---	---	---	---	---	---	---	---	---	---	18400	43800	29800	43700	519000
Thallium	2	<1.00	<1.00	<1.00	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Vanadium	nle	<8.00	<8.00	<8.00	<8.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Zinc	2000	19.5	152	59.9	35.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Data Table Legend

The following qualifiers apply to the Analytical Data Tables in this section.
A given qualifier may or may not be found in specific tables

Qualifier	Definition
	Soil sample data reported in mg/kg; ground water data in ug/l
*	Samples for VO analysis taken from 18-24" below grade
[a]	Value is trigger to require analyses of other organics (VO+10, BNA+25, PCBs, Pesticides)
[b]	Method SW7471 for mercury; Method SW7196 for ChromiumVI
[4]	Unpublished limit in use by NJDEP.
[5]	Limits are for total value of all xylene isomers (m-, o- & p-).
[6]	Guidance number equated to "no visible product" limitation.
B	Analyte found in lab blank as well as sample. Indicates possible lab contamination.
B (metals)	Reported value is less than the Reporting Limit but greater than the Instrument Detection Limit.
C	Common laboratory contaminant.
D	Diluted sample to bring estimated concentrations within the calibrated range of the instrument and improve the accuracy of the reported value. Some surrogates may not be detected due to the increased method detection limit resulting from the dilution.
E	Estimated concentration, reported results are outside the calibrated range of the instrument.
J	Data indicates the presence of a compound that meets the identification criteria. The result is less htan the quantitation limit but greater than zero. The given concentraiton is an approximate value.
N (metals)	The spiked sample recovery is not within control limits.
U or <	The compound was not detected at the indicated concentration.
d	The compound was not detected at the indicated concentration but the sample was diluted
m	The compound was not detected at the indicated concentration but the method detection limit was in excess of the most stringent limit established for this material in this medium.
ND	Not detected at the specified method detection limit (MDL).
na	Not analyzed in this sample or not applicable to this project.
RSRS	New Jersey Residential Direct Contact Soil Remediation Standard
NSRS	New Jersey Non-residential Direct Contact Soil Remediation Standard.
IGW	New Jersey Impact to Ground Water Soil Screening Level
GWQS	New Jersey Ground Water Quality Standards. The values reflected on any included ground water analyses are taken from those published in the New Jersey Register on November 7, 2005.
SWQS	New Jersey Surface Water Quality Standards.
shaded	Outlined & chased - exceeds one or more remediation standards (SRS or GWQS)
outlined	Outlined, no shading - exceeds IGWSSL
nle	No limit established within this regulatory scheme for this material.
na	Contingency sample; not activated
---	Analysis not ordered or not reported

TABLE 2: Quality Assurance Project Plan
SRP PI # 510630 - Palmer Industries, Inc.
Remedial Investigaiton Report, May 2011

AOC	Matrix	No. of Samples	QA/QC Blanks		Analytical Parameter	Analytical Method	Spikes/ Duplicates		Duplicate Samples		Split Samples		Performanc Samples		Preser-vative	Container		Hold Time (days)
			field	trip			#	type	#	type	#	type	#	type		#	type	
AOCs B1 & B2 Tank 1 #4 Oil and Tank 2 #6 Oil USTs post-ex samples	Soil	25	0	0	TPH-DRO	8015B M	0	na	0	na	0	na	0	na	none	1**	2-oz clear	14
	Soil*	6	0	0	PAH	8270B	0	na	0	na	0	na	0	na	none	1**	2-oz clear	14
	Soil	2	0	0	TPH-EPH	10/8 Rev3	0	na	0	na	0	na	0	na	none	1	2-oz clear	14
AOC B3 - Tank 3 Gasoline UST post-ex samples	Soil	6	0	0	VO+10	8260B	0	na	0	na	0	na	0	na	MeOH	1	40-ml clear	14
															water	2		
	Soil	6	0	0	Lead	6020	0	na	0	na	0	na	0	na	none	1	2-oz clear	180
AOCs B4 & B5 USTs 4 & 5 #4 oil post-ex samples	Soil	10	0	0	TPH-DRO	8015B M	0	na	0	na	0	na	0	na	none	1**	2-oz clear	14
	Soil*	3	0	0	PAH	8270C	0	na	0	na	0	na	0	na	none	1**	2-oz clear	14
	Soil	2	0	0	TPH-EPH	10/ 8Rev3	0	na	0	na	0	na	0	na	none	1	2-oz clear	14
AOC C Underground Lines post-ex & delineation samples	Soil	27	0	0	TPH-DRO	8015B M	0	na	0	na	0	na	0	na	none	1**	2-oz clear	14
	Soil*	4	0	0	PAH	8270B	0	na	0	na	0	na	0	na	none	1**	2-oz clear	14
AOC D1 Anomaly E sample	Soil	1	0	0	TPH-QAM25	QAM-025	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	1	0	0	TCL BNA+20	8270B	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	1	0	0	TCL VO+10	8260B	0	na	0	na	0	na	0	na	MeOH	1	40-ml clear	14
															water	2		
	Soil	1	0	0	TAL Metals	6020/ 7471A	0	na	0	na	0	na	0	na	none	1**	4-oz clear	180
	Soil	1	0	0	PCB	8082	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	1	0	0	Pesticides	8081A	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	1	0	0	Cyanide	9012A	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
AOC D2 Anomaly L samples	Soil	2	0	0	TPH-QAM25	QAM-025	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	2	0	0	TCL BNA+20	8270B	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	2	0	0	TCL VO+10	8260B	0	na	0	na	0	na	0	na	MeOH	1	40-ml clear	14
															water	2		
	Soil	2	0	0	TAL Metals	6020/ 7471A	0	na	0	na	0	na	0	na	none	1**	4-oz clear	180
	Soil	2	0	0	PCB	8082	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	2	0	0	TCL Pesticides	8081A	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	2	0	0	Cyanide	9012A	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14

TABLE 2: Quality Assurance Project Plan
SRP PI # 510630 - Palmer Industries, Inc.
Remedial Investigaiton Report, May 2011

AOC	Matrix	No. of Samples	QA/QC Blanks		Analytical Parameter	Analytical Method	Spikes/ Duplicates		Duplicate Samples		Split Samples		Performanc Samples		Preser-vative	Container		Hold Time (days)
			field	trip			#	type	#	type	#	type	#	type		#	type	
AOC F Historic Fill samples	Soil	7	0	0	TPH-QAM25	QAM-025	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	7	0	0	TCL BNA+20	8270C	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	7	0	1	TCL VO+10	8260B	0	na	0	na	0	na	0	na	MeOH water	1 2	40-ml clear	14
	Soil	7	0	0	TAL Metals	6020/ 7471A	0	na	0	na	0	na	0	na	none	1**	4-oz clear	28/ 180
	Soil	7	0	0	PCB	8082	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	7	0	0	TCL Pesticides	8081A	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	7	0	0	Cyanide	9012A	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	1	0	0	TPH-DRO	8015B M	0	na	0	na	0	na	0	na	none	1**	4-oz clear	14
	Soil	3	0	0	TPH-EPH	10/8 Rev3	0	na	0	na	0	na	0	na	none	1	2-oz clear	14
AOC H Groundwater samples	Water	4	0	0	TCL BNA+20	625	0	na	0	na	0	na	0	na	none	1	32-oz amber	7
	Water	22	0	0	TCL VO+10	624	0	na	0	na	0	na	0	na	HCL	2	40-ml clear	14
	Water	4	0	0	TAL Metals	6020/ 7471A	0	na	0	na	0	na	0	na	HNO3	1	250-ml plastic	28/ 180
	Water	4	0	0	PCB	8082	0	na	0	na	0	na	0	na	none	1	32-oz amber	7
	Water	4	0	0	TCL Pesticides	8081A	0	na	0	na	0	na	0	na	none	1	32-oz amber	7
	Water	4	0	0	Cyanide	335.4	0	na	0	na	0	na	0	na	NaOH	1	250-ml plastic	14
	Water	6	0	0	TCL BNA+15 SIM	8270C SIM	0	na	0	na	0	na	0	na	none	1	32-oz amber	7
	Water	1	0	0	PAH	625	0	na	0	na	0	na	0	na	none	1	32-oz amber	7
	Water	2	0	0	Lead	6020	0	na	0	na	0	na	0	na	HNO3	1	250-ml plastic	180
	Water	5	0	0	Sodium	6020	0	na	0	na	0	na	0	na	HNO3	1	250-ml plastic	180

*Contigency sample

** Same bottle for all analyses

TABLE 3 - Ground Water Depths & Elevation Calculations
PI# 510630 - Palmer Industries, Inc.
Remedial Investigation Report, May 2011

	Land Survey Data			PVC	1/7/2010		10/5/2010		12/4/2010		1/11/2011	
	northing	easting	ground	casing	DTW	gw elev	DTW	gw elev	DTW	gw elev	DTW	gw elev
MW8	693054	590901	7.6	7.18	5.49	1.69	abandoned		abandoned		abandoned	
MW8R	693171	691036	7.7	7.40	not yet installed		4.74	2.66	5.62	1.78	5.99	1.41
MW9	692928	591037	8.4	8.12	6.29	1.83	5.47	2.65	*	*	*	*
MW10	692773	591175	8.9	8.45	6.55	1.90	5.82	2.63	*	*	*	*
MW11	693382	591010	6.5	6.25	4.73	1.52	3.55	2.70	*	*	*	*
MW12	693085	5909.31	7.8	7.37	not yet installed		4.83	2.54	5.70	1.67	6.01	1.36
MW13	693063	590984	7.4	6.94	not yet installed		4.35	2.59	*	*	5.53	1.41
MW14	693024	590959	7.7	7.36	not yet installed		4.77	2.59	5.56	1.80	5.89	1.47
MW15	692986	590967	7.9	7.54	not yet installed		4.92	2.62	*	*	*	*
MW16	692951	591006	8.0	7.80	not yet installed		5.15	2.65	*	*	*	*
MW17	693216	590971	7.7	7.49	not yet installed		4.72	2.77	*	*	6.19	1.30

* Not measured on this date

TABLE 4 - Tidal Effects on Ground Water Flow, 11/08/2010
PI# 510630 - Palmer Property, Inc.
Remedial Investigation Report, May 2011

	04:00	05:00	####	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
MW-8R	1.57	1.57	1.59	1.64	1.69	1.75	1.77	1.85	1.86	1.86	1.81	1.75	1.70	1.63	1.60
MW-9	1.72	1.70	1.70	1.70	1.72	1.75	1.78	1.80	1.82	1.82	1.82	1.79	1.76	1.73	1.70
MW-10	1.79	1.77	1.75	1.75	1.74	1.75	1.77	1.78	1.82	1.82	1.81	1.80	1.80	1.78	1.76
MW-11	1.52	1.47	1.53	1.55	1.65	1.74	1.77	1.86	1.91	1.83	1.78	1.63	1.56	1.51	1.51
MW-12	1.51	1.51	1.54	1.62	1.69	1.79	1.80	1.86	1.87	1.84	1.74	1.66	1.59	1.54	1.55
MW-13	1.58	1.60	1.60	1.65	1.70	1.75	1.77	1.84	1.83	1.84	1.79	1.73	1.68	1.62	1.61
MW-14	1.60	1.63	1.65	1.69	1.73	1.78	1.79	1.86	1.86	1.84	1.81	1.75	1.68	1.65	1.65
MW-15	1.63	1.62	1.64	1.66	1.71	1.76	1.77	1.81	1.82	1.82	1.79	1.74	1.70	1.66	1.63
MW-16	1.71	1.68	1.69	1.70	1.75	1.78	1.80	1.81	1.84	1.85	1.82	1.78	1.76	1.70	1.70
MW-17	1.47	1.48	1.49	1.51	1.57	1.63	1.71	1.85	1.95	1.95	1.89	1.81	1.69	1.59	1.54

Data in feet above mean sea level

PI #510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

APPENDIX 9

PHOTOGRAPHS

APPENDIX 9

PHOTOGRAPHS

[SECTION 17 OF PAR FORM]

Group 1: AERIAL PHOTOGRAPHS

Group 2: ANOMALY PHOTOGRAPHS

Group 3: TEST PIT PHOTOGRAPHS

Group 4: UST & LINE PHOTOGRAPHS

Group 5: SOIL CLEANUP PHOTOGRAPHS

AERIAL PHOTOGRAPHS

1940 Aerial Photograph

1951 Aerial Photograph

1961 Aerial Photograph

1974 Aerial Photograph

PHOTOGRAPHS OF ANOMALIES

Anomaly A1--One 7500-gallon # 4 fuel oil (Tank 1)

Anomaly A2--One 7500-gallon #6 fuel oil (Tank 2)

Anomaly B—1000-gallon gasoline tank (Tank 3)

Anomaly C—Old floor and walls

Anomaly D—Buried concrete

Anomaly E—Old stormdrain

Anomaly E—Old Storm Drain-Brick Walls-No Pipes-No Bottom

Anomaly E—Old Storm Drain-Brick Walls-No Pipes-No Bottom

Anomaly F—Buried concrete

Anomaly G—Buried concrete with metal ring

Anomaly H—Old concrete footing and steel pipes (steam lines?)

Anomaly I—Buried metal

Anomaly I—Buried metal

Anomaly J—Buried metal

Anomaly J—Buried metal

Anomaly K—Two 10000-gallon #4 oil tanks

Anomaly L—Old drainage basin with three lines

Anomaly L—Endpoint of Northwest Incoming Line at Anomaly M

Anomaly L—Endpoint of Southwest Discharge Line

Anomaly L—Endpoint of Northern Incoming Line

Anomaly L—After cleanout

Anomaly M—Buried brick & concrete structure

Test Pit 1

A sample obtained from Test Pit 1 was analyzed for TAL/TCL/QAM25. It contained arsenic, manganese and zinc above the SRS, with methylene chloride, aluminum, beryllium, cadmium and nickel above the IGWSL.

Test Pit 2

TP2-1 & TP2-2 were analyzed for TAL/TCL/QAM25. TP2-1 contained arsenic and zinc above the SRS and aluminum, beryllium, cadmium, lead and manganese above the IGWSL. TP2-2 had no results above the SRS; aluminum and zinc were above the IGWSL

Test Pit 3

Test Pit 3

No photograph is available for Test Pit 4

Test Pit 5

Two samples were obtained from Test Pit 5 (TP5-1 & TP5-2). The samples were analyzed for TAL/TCL/QAM25. TP5-1 contained no parameters above the SCS. Aluminum, lead, manganese and xinc were present above the IGWSL.

TP5-2 showed no exceedances of the SRS. Aluminum, lead, manganese and zinc exceeded their respective IGWSLs.

Test Pit 6

One sample was obtained from Test Pit 6 (TP6) and analyzed for TAL/TCL/QAM25. TP6 contained no parameters above the SRS. Aluminum, beryllium, cadmium, and zinc were present above the IGWSL..

Test Pit 7

One sample was obtained from Test Pit 7 (TP7). Analysis for TAL/TCL/QAM25 showed no parameters above the SRS. Aluminum was present above the IGWSL.

Test Pit 8

Test Pit 9

Test Pit 10

One sample was obtained from Test Pit 10 (TP10). The sample was analyzed for DRO. TP10 contained DRO above the NJ TPH limit. This pit was installed immediately adjacent to the fence on the western border of the property and there is significant evidence that the source is off-site.

PHOTOGRAPHS OF TANKS & LINES

Tank 1- 7500-gallon # 4 fuel oil

Tank 1- 7500-gallon # 4 fuel oil full of oil & water

Tank 1- 7500-gallon # 4 fuel oil cleaned out

Tank 1- Tank 1- 7500-gallon # 4 fuel oil removal

Tank 1- 7500-gallon # 4 fuel oil no corrosion holes

Tank 1- 7500-gallon # 4 fuel oil excavation & groundwater

Tank 1- 7500-gallon # 4 fuel oil groundwater with sorbent pads

Tank 2- 7500-gallon # 6 fuel oil

Tank 2- 7500-gallon # 6 fuel oil

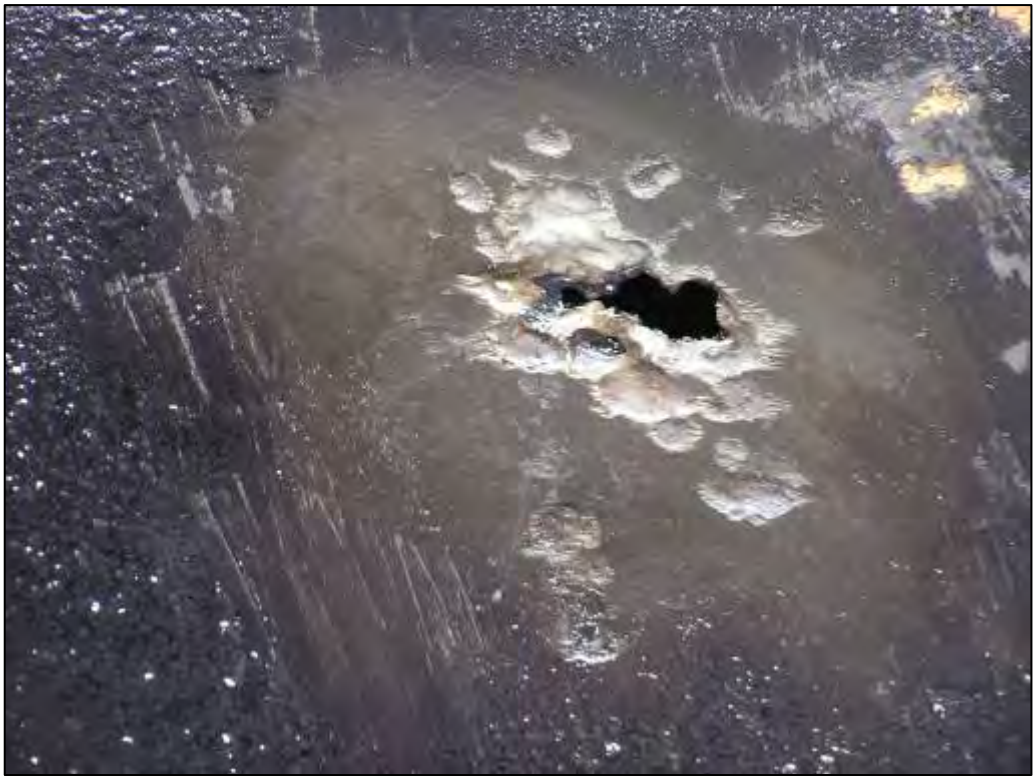
Tank 2- 7500-gallon # 6 fuel oil heating coils

Tank 2- 7500-gallon # 6 fuel oil cleaned out

Tank 2- 7500-gallon # 6 fuel oil heating cleaned out

Tank 2- 7500-gallon # 6 fuel oil removal

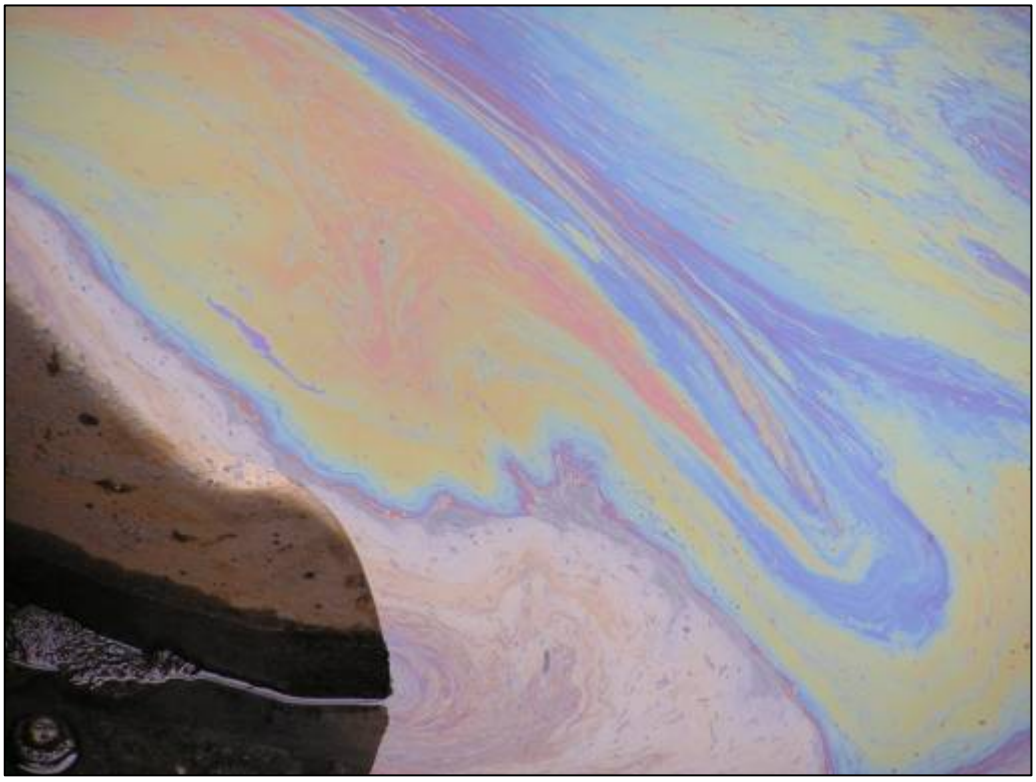
Tank 2- 7500-gallon # 6 fuel oil corrosion hole



Tank 2- 7500-gallon # 6 fuel oil corrosion hole

Tank 2- 7500-gallon # 6 fuel oil corrosion hole

Tank 2- 7500-gallon # 6 fuel oil heating excavation & groundwater



Tanks 1 & 2—Groundwater Sheen

Tanks 1 & 2—Groundwater Skimming

Tanks 1 & 2—Groundwater Skimming

Tank 3- 1000-gallon gasoline tank

Tank 3- 1000-gallon gasoline tank open

Tank 3- 1000-gallon gasoline tank cleaned out (tank was buckled)

Tank 3- 1000-gallon gasoline tank removal

Tank 3- 1000-gallon gasoline tank corrosion holes

Tank 3- 1000-gallon gasoline tank buckled (not related to removal process)

Tank 3- 1000-gallon gasoline tank excavation

Tank 3- 1000-gallon gasoline tank groundwater and sorbent pads

Tanks 4 & 5- 10000-gallon #4 oil tanks filled with debris

Tanks 4 & 5- 10000-gallon #4 oil tanks

Tank 4- 10000-gallon #4 oil tank removed

Tank 5- 10000-gallon #4 oil tank removed

Tanks 4 & 5- Excavation

Tanks 4 & 5- Anchors

Tank 4- 10000-gallon #4 oil corrosion holes

Tank 4- 10000-gallon #4 oil corrosion holes

Tank 5- 10000-gallon #4 oil corrosion holes

Tank 5- 10000-gallon #4 oil corrosion holes

Tanks 4 & 5- Groundwater in excavation

Tanks 4 & 5- Groundwater and sorbent pads

Tanks 4 & 5- Groundwater Skimming

Tanks 4 & 5- Groundwater in excavation after skimming

Tanks 1 & 2- Line Removal

Tanks 1, 2, 3 & 4- Line Removal

Lines

SOIL EXCAVATION PHOTOGRAPHS

Gasoline tank excavation

Gasoline tank excavation with sheen on groundwater

Gasoline tank excavation with sorbent on groundwater

Stockpiled Soil

Gasoline tank excavation with heavy sheen removed

Gasoline tank excavation backfilled

Anomaly L excavation

Anomaly L cleaned out

Anomaly L backfilled

#4/#6 oil tank excavation

#4/#6 oil tank excavation with heavy sheen on groundwater

#4/#6 oil tank excavation with sorbent on groundwater

#4/#6 oil tank excavation with clean water

#4/#6 oil tank excavation backfilled

Soil loadout

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM

PI #510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

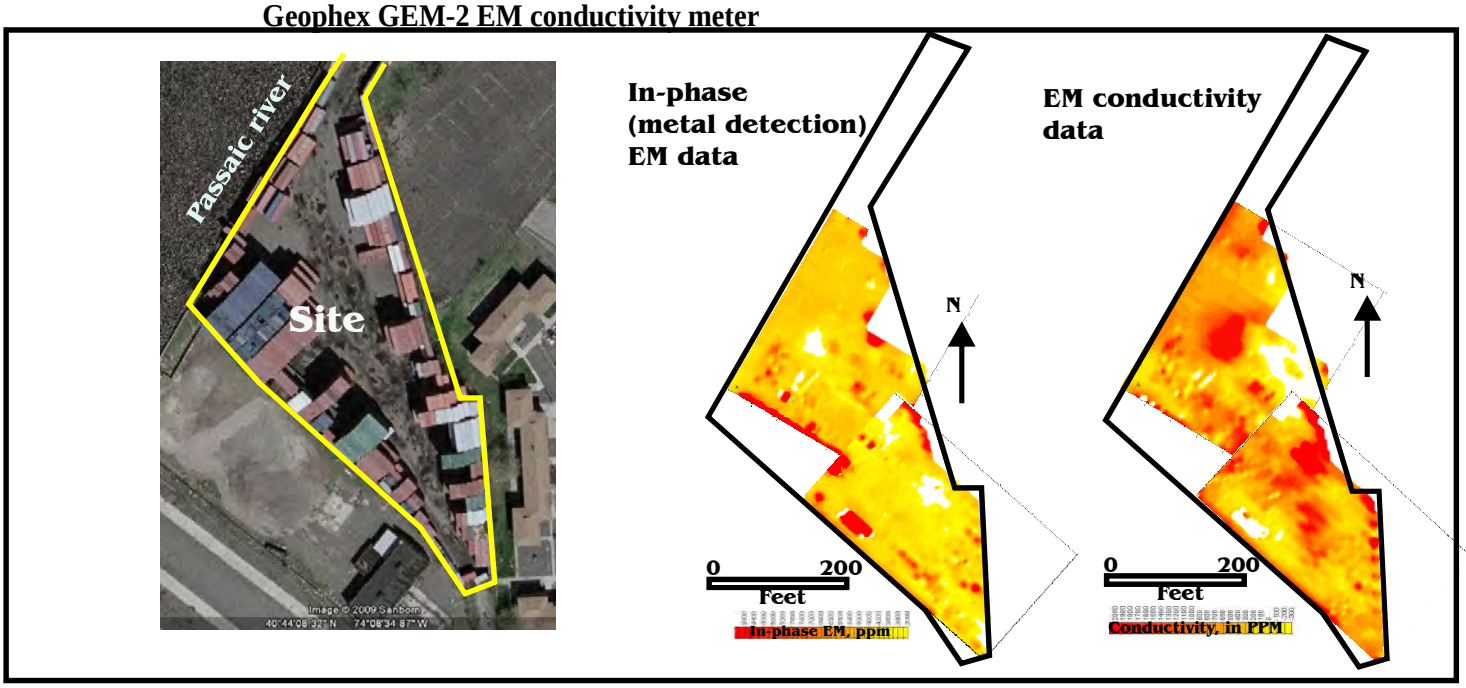
APPENDIX 10

GPR SURVEY REPORT

EnviroPhysics, Inc.
Subsurface Delineation Report

Date	10/29/2009	**Client**	Pennjersey Environmental
Location	99 Chapel St. Newark, NJ	**Geophysicist**	Philip Duran, P.G.

Equipment Used **Fisher TW-6 metal detector, Schoenstadt GA72CD fluxgate magnetometer, GSSI SIR-3000 radar system with 200 mhz antenna ERA radar system with 500 Mhz antenna. Geophex GEM-2 EM conductivity meter**



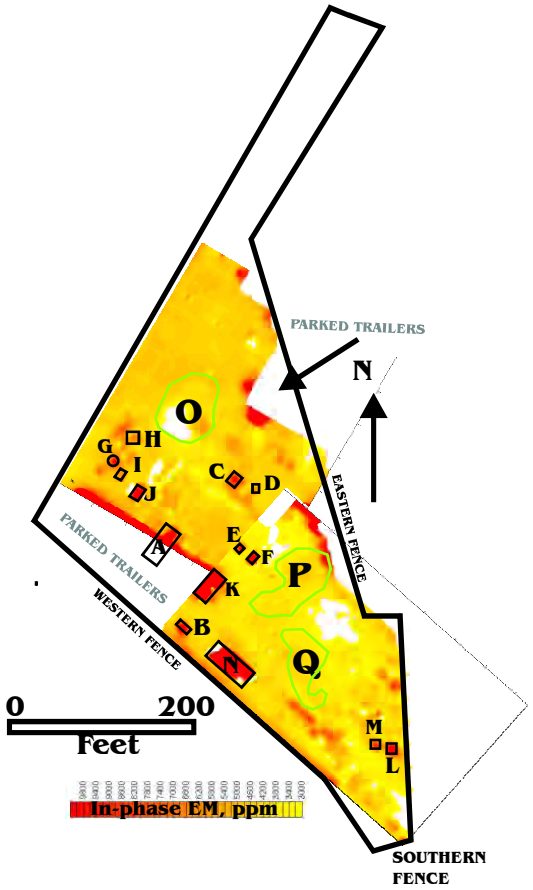
Electromagnetic (EM) metal detection and conductivity data were collected throughout the accessible portions of this site along parallel transects separated by five feet in an effort to detect buried steel fuel tanks and other elec trically conductive anomalies. Parked trailers precluded all areas from being included in the two data-collection grids set up here, but all trailers were eventually moved and all areas were scanned for anomalies. Over a dozen potentially significant areas of buried metal were identified in this manner and subsequently re-surveyed with radar and magnetometry instruments. These anomalies were then marked with spray paint and wire flags and are shown in the photographs on the reverse of this sheet.

Two of these anomalies (A and B) showed radar responses similar to those generally associated with buried tanks, with the response at anomaly A suggesting the possible existence of two side-by side tanks. The only other anomaly which had a possible identification was anomaly G, which shows the type of pattern normally seen for a round steel-reinforced concrete stack (chimney) foundation.

Three relatively large EM conductivity anomalies were also detected, as shown in the illustration above and on the reverse of this sheet. These anomalies may be due to former building foundations, coal piles, ash deposits, or other electrically conductive debris, but they do not suggest the presence of significant amounts of buried metal. Also noted in the conductivity data set were several buried utilities which appear to have been used by previous operations at this site and are now presumed to be abandoned.

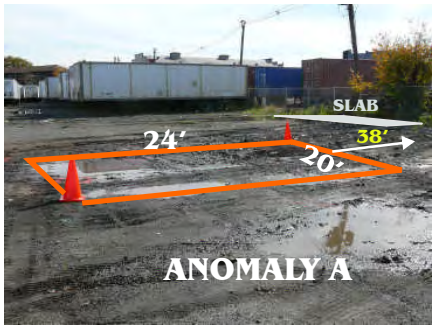
NOTICE: The methods used at this site have been used successfully at many sites to locate buried targets. There can be no guarantee, however, that every target will be detected at a particular site. Sub-surface conditions may prevent some or all geophysical methods from detecting a particular buried target. This is particularly true for non-metallic targets and areas paved with steel-reinforced concrete. Target locations should be considered accurate to one foot on each side for targets defined by radar, and two feet per end for targets defined by other means.

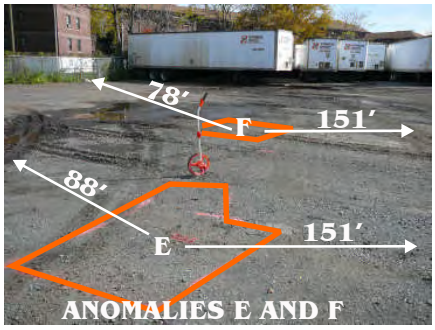
EnviroPhysics, Inc. 546 Keefe Rd. Lawrenceville, NJ 08648 609 844-9844 Fax 844-9845

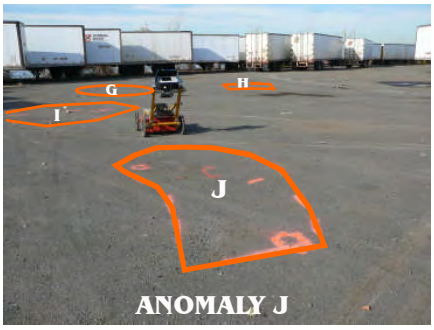


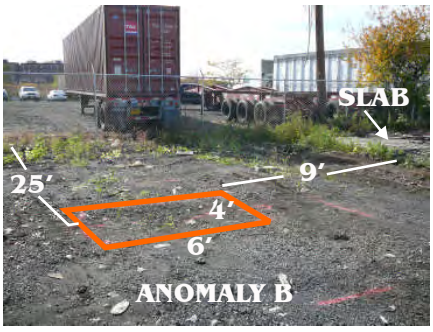
Anomaly	long	lat	notes
A	W74 08 35.29	N40 44 07.76	suspected tanks
B	W74 08 35.73	N40 44 07.49	suspected tank
C	W74 08 35.47	N40 44 09.37	
D	W74 08 35.23	N40 44 09.33	
E	W74 08 35.09	N40 44 07.78	
F	W74 08 34.95	N40 44 07.81	
G	W74 08 36.70	N40 44 09.08	
H	W74 08 36.39	N40 44 09.10	
I	W74 08 36.78	N40 44 08.87	
J	W74 08 36.38	N40 44 08.58	
K	W74 08 35.45	N40 44 08.06	
L	W74 08 33.30	N40 44 08.54	
M	W74 08 33.03	N40 44 08.46	
N	W74 08 35.07	N40 44 07.04	Truck scale (visible)
O	W74 08 35.96	N40 44 09.88	Conductivity anomaly
P	W74 08 34.28	N40 44 07.79	Conductivity anomaly
Q	W74 08 33.73	N40 44 06.78	Conductivity anomaly

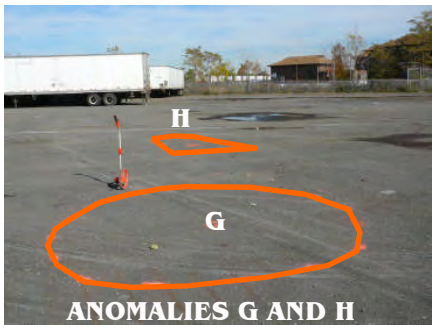
Note: distances shown in the photographs below are from each anomaly to the eastern and western fences (except for L and M which used the southern fence and eastern fence) Distances are not shown for G,H.I and J because they were marked with paint on competent asphalt. All others are in gravel areas.

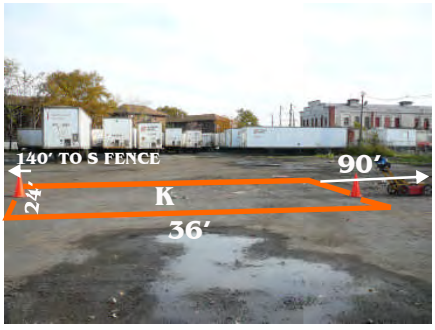


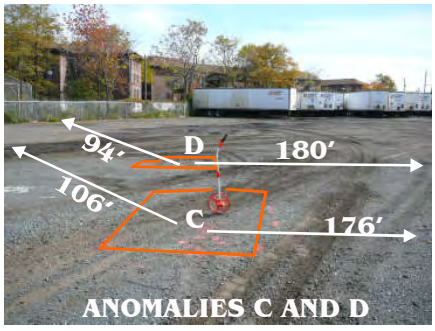


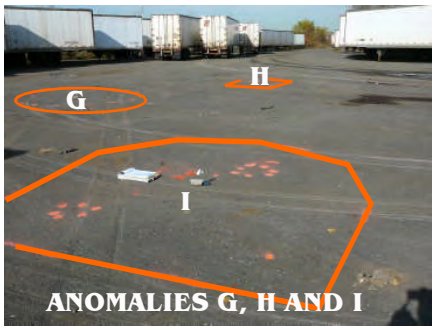


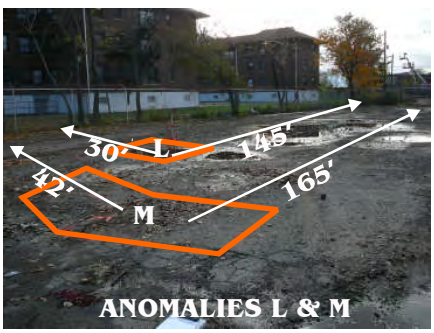












LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM

PI #510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

APPENDIX 11

SUBSURFACE LOGS

APPENDIX 11

SUBSURFACE LOGS

TEST PITS

ANOMALIES

USTS & LINES

DELINEATION AND POST-EXCAVATION

MONITORING WELLS

SUBSURFACE LOG

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 11/9/2009 End Date: 11/9/2009	Depths: water: 6.25' total: 6.25'	Location ID: **Test Pit 1** Method: Excavator

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.25						asphalt
--- 0.25-0.75	0	brown/grey	SAND & GRAVEL			
--- 0.75-1.08	0	grey	fine GRAVEL			
--- 1.08-1.33	**0**	**black**				**coal fragments**
--- 1.33-2	**0**		**GRAVEL**			**some sand**
--- 2-6.25	**0**					**slag, rocks,metal, concrete, fill, sand**
						Sample TP1 at 4-4.5'

Start Date: 11/9/2009 End Date: 11/9/2009	Depths: water: 5.5' total: 5.5'	Location ID: **Test Pit 2** Method: Excavator

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.17						asphalt
--- 0.17-0.42	1.5	brown	SAND			
--- 0.42-0.5	1.6	grey	SAND			
--- 0.5-0.67	1	black				soil & roots
--- 0.67-1.33	1.5		GRAVEL			some sand
--- 1.33-2	**1.8**	**black**				**asphalt & tar (old surface)**
--- 2.0-3.0	**1.2**	**black**				**ash & brick**
--- 3.0-5.5	0.8	orange/brown	sandy SILT			trace clay
						Sample TP2-1 at 2-2.5'
						Sample TP2-2 at 3-3.5'

Start Date: 11/9/2009 End Date: 11/9/2009	Depths: water: 7' total: 7'	Location ID: **Test Pit 3** Method: Excavator

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.25						asphalt
--- 0.25-1.33	**0**	**black**				**ash**
--- 1.33-3.42	**0**					**slag & metal**
--- 3.42-5.0	**0**	**0**	**0**			**sand, rubble, bricks, concrete**
--- 5.0-7.0	0	orange/brown	silty SAND			trace clay

Start Date: 11/9/2009 End Date: 11/9/2009	Depths: water: 6.5' total: 6.5'	Location ID: **Test Pit 4** Method: Excavator

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.25						asphalt
--- 0.25-0.33	0		GRAVEL			
--- 0.33-0.42	0	yellow	SAND			
--- 0.42-2.08	**0**	**black**	**SAND**			**gravel, brick**
--- 2.08-3.42	**0**	**grey/orange**				**ash**
--- 3.42-6.5	0	orange/brown	silty SAND			trace clay

SUBSURFACE LOG

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 11/9/2009 End Date: 11/9/2009	Depths: water: 6' total: 6'	Location ID: **Test Pit 5** Method: Excavator

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.25						asphalt
--- 0.25-0.5	0	yellow	SAND			
--- 0.5-1.75	0	brown	SAND			trace gravel
--- 1.75-2.0	**0**	**black**				**asphalt & tar (old surface)**
--- 2.0-2.5	**0**	**grey**				**ash, some clay**
--- 2.5-3.0	**0**	**black**				**ash, some clay**
--- 3.0-3.17	**0**	**orange**	**SAND**			
--- 3.17-5.67	**0**	**white**				**ash??**
--- 5.67-6.0	**0.8**	**grey**	**sandy SILT**			**some clay, strong odor?**
						Sample TP5-1 at 3.17-3.67'
						Sample TP5-2 at 5.67-6.17'

Start Date: 11/9/2009 End Date: 11/9/2009	Depths: water: 6.08' total: 6.08'	Location ID: **Test Pit 6** Method: Excavator

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.21						asphalt
--- 0.21-0.58	**0**	**brown**	**SAND**			
--- 0.58-1.0	**0**		**GRAVEL**			
--- 1.0-1.17	**0**	**black**				**asphalt & tar (old surface)**
--- 1.17-1.67	**0**	**brown/grey**				**ash& slag**
--- 1.67-1.92	**0**	**white**	**SAND**			
--- 1.92-2.5	**0**	**yellow**	**SAND**			
--- 2.5-3.33	**0**	**black**				**ash & slag**
--- 3.33-3.92	**0**	**grey**				**ash**
--- 3.92-4.17	**0**	**red/pink**	**SAND**			**brick**
--- 4.17-4.83	**0**					**rusty ash & slag**
--- 4.83-6.08	**0**	**red/brown**				**ash**
						Sample TP6 at 4.58-5.08'

Start Date: 11/9/2009 End Date: 11/9/2009	Depths: water: 7.42' total: 7.42'	Location ID: **Test Pit 7** Method: Excavator

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.17						asphalt
--- 0.17-2.0	0		SAND & GRAVEL			
--- 2.0-2.5	0	light brown	SAND			
--- 2.5-3.08	**0**	**black**				**asphalt & tar (old surface)**
--- 3.08-3.17	**0**	**grey**	**SAND**			
--- 3.17-3.58	**0**	**black/brown**	**SAND**			
--- 3.58-3.83	**0**	**grey**	**SAND**			
--- 3.83-4.25	**0**					**coal, gravel, brick**
--- 4.25-4.83	**0**	**grey/black**	**SAND**			**odor?**
--- 4.83-7.42	0	pink/brown	silty SAND			
						Sample TP7 at 4.25-4.75'

SUBSURFACE LOG

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 2/17/2010	Depths: water: 6'	Location ID: **Test Pit 8**
End Date: 2/17/2010	total: 6'	Method: Excavator

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0						asphalt
--- 3.5	**0**	**red & white**				**ash?, no odor**
--- 5	**0**					**ashes?, no odor**
--- 6						GW, no odor

Start Date: 2/17/2010	Depths: water: 7.5'	Location ID: **Test Pit 9**
End Date: 2/17/2010	total: 7.5'	Method: Excavator

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0						concrete
--- 1.5	**0**	**brown**				**fill?**
--- 3	0	grey/black	silty SAND			some gravel, no odor
--- 4.5	**0**	**red**				**ash?, no odor**
--- 7.5						GW, no odor, slight sheen

Start Date: 2/17/2010	Depths: water: 7.5'	Location ID: **Test Pit 10**
End Date: 2/17/2010	total: 7.5'	Method: Excavator

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 6.5-7.0	0	black/brown	silty SAND			organic material, oil odor, sheen on water Sample TP10 at 6.5-7'

Start Date: 9/15/2010	Depths: water: 5'	Location ID: **Test Pit 10 A**
End Date: 9/15/2010	total: 15'	Method: Probe Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 5.0-5.5	0	black/yellow	FILL	5-10'	4.33'	ash, wet, no odor
--- 5.5-5.83	5.5-6'--0	grey	FILL			ash, wet, no odor
--- 5.83-7.5	6-6.5'--0	black	FILL			ash, coal, wet, rotten egg odor 6.08-7.5'
--- 7.5-7.83	6.5-7'--15.8	black	FILL			ash, sand, coal, rotten egg odor
--- 7.83-8	7-7.5'--49.2		ROCK			Soil Sample 6.5-7'
--- 8-8.08	7.5-8'--59.5	brown	SAND			trace silt, coal, rotten egg odor, Soil Sample 8-8.5'
--- 8.08-8.58	8-8.5'--71.3	black	FILL			ash, coal, sand, wet, rotten egg odor
--- 8.58-9.08	8.5-9'--27.4	grey	SAND			ash, coal, wet, rotten egg odor
--- 9.08-9.33	9-9.3'--13.2	brown	SAND			wet, slight odor
--- 10-10.83	0	grey	coarse SAND	10-15'	3.83'	wet, slight odor, Soil Sample 10-10.5'
--- 10.83-12	0	orange/brown	coarse SAND			wet, no odor
--- 12-12.33	0	brown	SILT			some sand, wet, no odor
--- 12.33-13.08	0	brown	silty SAND			wet, no odor
--- 13.08-13.58	0	red/brown	coarse SAND			wet, no odor
--- 13.58-13.83	0.2	red	ROCK			fragments, sand & gravel, wet, no odor

SUBSURFACE LOG

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: NA total: NA	Location ID: **SB1** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- NA ---	0	grey	silty SAND			Sample was taken of sediment in a drainage basin, no odor, wet Anomaly L

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: NA total: 4.5'	Location ID: **SBD** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4-4.5 ---	0	brown	silty SAND			no odor Sample was taken 0-6" below discharge point of drainage basin, Anomaly L

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: NA total: 4'	Location ID: **ANOME** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 3.5-4 ---	0	brown				ash, some silt, sand, gravel, no odor Sample was taken 12-18" below base of the catch basin, Anomaly E

Subsurface Log

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 12/8/2009	Depths: water: 6'	Location ID: **T1-1**
End Date: 12/8/2009	total: 6'	Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	13.1	black/brown	silty SAND			some gravel, oily, petroleum odor, wet

Start Date: 12/8/2009	Depths: water: 6'	Location ID: **T1-2**
End Date: 12/8/2009	total: 6'	Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	30.4	grey	SILT			petroleum odor, wet

Start Date: 12/8/2009	Depths: water: 6'	Location ID: **T1-3**
End Date: 12/8/2009	total: 6'	Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	10.2	brown	sandy SILT			petroleum odor, wet

Start Date: 12/8/2009	Depths: water: 6'	Location ID: **T1-4**
End Date: 12/8/2009	total: 6'	Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0.2	brown	SILT			petroleum odor, wet

Start Date: 12/8/2009	Depths: water: 6'	Location ID: **T2-1**
End Date: 12/8/2009	total: 6'	Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	13.1	black	SAND&GRAVEL			oily, petroleum odor, wet

Start Date: 12/8/2009	Depths: water: 6'	Location ID: **T2-2**
End Date: 12/8/2009	total: 6'	Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	3.5	black	SAND&GRAVEL			oily, petroleum odor, wet

Subsurface Log

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Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6' total: 6'	Location ID: **T2-3** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0.1	brown	SILT			no odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6' total: 6'	Location ID: **T2-4** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	2.6	grey	SILT			no odor, wet

Subsurface Log

Client: **Palmer Industries, Inc.**
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Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T3-1** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-6'						fill
--- 6-6.5	99	grey	SAND			some silt, gasoline odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T3-2** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-6'						fill
--- 6-6.5	13	grey/brown	SAND			some silt, gasoline odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T3-3** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-6'						fill
--- 6-6.5	67	grey/brown	SAND			some gravel, gasoline odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T3-4** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-6'						fill
--- 6-6.5	17	grey/brown	SAND			some silt, gasoline odor, wet

Subsurface Log

Client: **Palmer Industries, Inc.**
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Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T4-1** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0	brown	coarse SAND			some silt, petroleum odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T4-2** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0	brown	silty SAND			no odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T4-3** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0	brown	silty SAND			no odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T4-4** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0	brown	silty SAND			no odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T4-5** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0	brown	silty SAND			no odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T5-1** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0	brown	coarse SAND			some silt, petroleum odor, wet

Subsurface Log

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T5-2** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0	grey/brown	silty SAND			no odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T5-3** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0	grey/brown	silty SAND			no odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T5-4** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0	grey/brown	silty SAND			no odor, wet

Start Date: 12/8/2009 End Date: 12/8/2009	Depths: water: 6.5' total: 6.5'	Location ID: **T5-5** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5.5'						fill
--- 5.5-6	0	grey/brown	silty SAND			no odor, wet

Subsurface Log

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Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 12/16/2009 End Date: 12/16/2009	Depths: water: NA total: 3'	Location ID: **L1** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-2.5						fill
--- 2.5-3	0	brown	SAND			some gravel, trace silt, odor?

Start Date: 12/16/2009 End Date: 12/16/2009	Depths: water: NA total: 2.83'	Location ID: **L2** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-2.33						fill
--- 2.33-2.83	0	brown	SAND			some gravel, trace silt, odor?

Start Date: 12/16/2009 End Date: 12/16/2009	Depths: water: NA total: 3.42'	Location ID: **L3** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-2.92						fill
--- 2.92-3.42	0	brown	silty SAND			some gravel, no odor

Start Date: 12/16/2009 End Date: 12/16/2009	Depths: water: NA total: 3.67'	Location ID: **L4** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-3.17						fill
--- 3.17-3.67	8.9	black	SAND			some silt, sand & gravel, fill, petroleum odor

Start Date: 12/16/2009 End Date: 12/16/2009	Depths: water: NA total: 3.42'	Location ID: **L5** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-2.92						fill
--- 2.92-3.42	14.2	black	SAND			some silt, sand & gravel, fill, petroleum odor

Start Date: 12/16/2009 End Date: 12/16/2009	Depths: water: NA total: 4.42'	Location ID: **L6** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-2.92						fill
--- 2.92-3.92		black				asphalt
--- 3.92-4.42	0.2	brown	silty SAND			no odor

Subsurface Log

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 12/16/2009 | Depths: water: NA | Location ID: **L7**
End Date: 12/16/2009 | total: 4.33' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-2.67						fill
--- 2.67-3.83		black				asphalt
--- 3.83-4.33	0.2	brown	silty SAND			no odor

Start Date: 12/16/2009 | Depths: water: NA | Location ID: **L8**
End Date: 12/16/2009 | total: 2.5' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-2						fill
--- 2-2.5	1.4	varies				fill, sand, gravel, brick, silt, odor?

Start Date: 12/16/2009 | Depths: water: NA | Location ID: **L9**
End Date: 12/16/2009 | total: 2.75' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-2.25						fill
--- 2.25-2.75	1	black	silty SAND			fill, concrete, no odor

Start Date: 12/16/2009 | Depths: water: NA | Location ID: **L10**
End Date: 12/16/2009 | total: 3.67' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-3.17						fill
--- 3.17-3.67	0	brown	silty SAND			no odor

Start Date: 12/16/2009 | Depths: water: NA | Location ID: **L11**
End Date: 12/16/2009 | total: 4.5' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-4'						fill
--- 4-4.5	0	brown	silty SAND			no odor

Start Date: 12/16/2009 | Depths: water: NA | Location ID: **L12**
End Date: 12/16/2009 | total: 2.42' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-1.92'						fill
--- 1.92-2.42	0.1	black				fill, sand, gravel, brick, silt, no odor

Subsurface Log

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 12/16/2009 End Date: 12/16/2009			Depths: water: NA total: 2.42'			Location ID: **L13** Method: Trowel
Depth (feet, bgs)	***PID***	***Color***	***Classification***	***Sample Length***	***Sample Recovery***	***Comments***
--- 0-1.92'						fill
--- 1.92-2.42	0.2	black				fill, sand, gravel, brick, silt, no odor

Start Date: 12/17/2009 End Date: 12/17/2009			Depths: water: NA total: 3.5'			Location ID: **L14** Method: Trowel
Depth (feet, bgs)	***PID***	***Color***	***Classification***	***Sample Length***	***Sample Recovery***	***Comments***
--- 0-3'						fill
--- 3-3.5	0.1	black				fill, oil odor

Start Date: 12/17/2009 End Date: 12/17/2009			Depths: water: NA total: 3'			Location ID: **L15** Method: Trowel
Depth (feet, bgs)	***PID***	***Color***	***Classification***	***Sample Length***	***Sample Recovery***	***Comments***
--- 0-2.5'						fill
--- 2.5-3	0	black				fill, oil odor

Subsurface Log

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 2/17/2010 End Date: 2/17/2010	Depths: water: 5.5' total: 5.5'	Location ID: **T1-2DEL** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 5-5.5						no odor, no sheen

Start Date: 2/17/2010 End Date: 2/17/2010	Depths: water: 7' total: 7'	Location ID: **T2-2DEL** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 6.5-7	0	brown	fine SAND			some silt, no odor, no sheen

Start Date: 2/17/2010 End Date: 2/17/2010	Depths: water: 8' total: 8'	Location ID: **T2-4DEL** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 7.5-8	18	brown/black	silty SAND			slight odor & sheen

Start Date: 2/18/2010 End Date: 2/18/2010	Depths: water: - total: 2.5'	Location ID: **L8-D1** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 2-2.5	7.8	brown/black				fill, odor?

Start Date: 2/18/2010 & 5/5/2010 End Date: 2/18/2010 & 5/5/2010	Depths: water: - total: 2.5'	Location ID: **L8-D2 & DUP** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 2-2.5	5.6	black				fill, odor?

Start Date: 2/18/2010 End Date: 2/18/2010	Depths: water: - total: 2.5'	Location ID: **L8-D3** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 2-2.5	0.4	yellow	SAND			fill? no odor

Subsurface Log

Client: **Palmer Industries, Inc.**
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Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 2/18/2010
End Date: 2/18/2010
Depths: water: -
total: 2.5'
Location ID: **L8-D4**
Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 2-2.5	0.2	black				fill? no odor

Start Date: 2/18/2010
End Date: 2/18/2010
Depths: water: -
total: 3.42'
Location ID: **L5-D1**
Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 2.92-3.42	11.3	black				fill, odor?

Start Date: 2/18/2010
End Date: 2/18/2010
Depths: water: -
total: 3.42'
Location ID: **L5-D2**
Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 2.92-3.42	5.3	black/grey				fill, odor?

Start Date: 2/18/2010
End Date: 2/18/2010
Depths: water: -
total: 3.42'
Location ID: **L5-D3**
Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 2.92-3.42	21.3	black				fill? odor?

Start Date: 2/18/2010
End Date: 2/18/2010
Depths: water: -
total: 3.42'
Location ID: **L5-D4**
Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 2.92-3.42	12.6	black				fill? odor?

Start Date: 2/18/2010
End Date: 2/18/2010
Depths: water: -
total: 3.67'
Location ID: **L4-D1**
Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 3.17-3.67	11.3	black				fill, odor?

Start Date: 2/18/2010
End Date: 2/18/2010
Depths: water: -
total: 3.67'
Location ID: **L4-D2**
Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 3.17-3.67	9.5	black				fill, odor?

Subsurface Log

Client: **Palmer Industries, Inc.**
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Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 2/18/2010 End Date: 2/18/2010	Depths: water: - total: 3.67'	Location ID: **L4-D3** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 3.17-3.67	18.3	black				fill? odor?

Start Date: 2/18/2010 End Date: 2/18/2010	Depths: water: - total: 3.67'	Location ID: **L4-D4** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 3.17-3.67	3	black				fill? no odor

Start Date: 4/29/2010 End Date: 4/29/2010	Depths: water: 5.33' total: 5.33'	Location ID: **Z1** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.83-5.33	0.2	brown	silty SAND			moist, no odor

Start Date: 4/29/2010 End Date: 4/29/2010	Depths: water: 5.33' total: 5.33'	Location ID: **Z2** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.83-5.33	0	dark brown	silty SAND			moist, no odor

Start Date: 4/29/2010 End Date: 4/29/2010	Depths: water: 5.33' total: 5.33'	Location ID: **Z3** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.83-5.33	0.3	grey/brown	silty SAND			moist, odor?

Start Date: 4/29/2010 End Date: 4/29/2010	Depths: water: 5' total: 5'	Location ID: **Z4** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.5-5	0.1	brown	SAND			some silt, moist, no odor

Start Date: 4/29/2010 End Date: 4/29/2010	Depths: water: 5' total: 5'	Location ID: **Z5** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.5-5	0.1	white				ash?, moist, no odor

Subsurface Log

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 4/29/2010 | Depths: water: 5' | Location ID: **Z6**
End Date: 4/29/2010 | total: 5' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.5-5	0.1	light brown				ash?, moist, no odor

Start Date: 4/29/2010 | Depths: water: 5.33' | Location ID: **Z7**
End Date: 4/29/2010 | total: 5.33' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.83-5.33	0	dark brown	SAND			some silt, moist, no odor

Start Date: 4/29/2010 | Depths: water: 5.33' | Location ID: **Z8**
End Date: 4/29/2010 | total: 5.33' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.83-5.33	0.2	orange/brown	SAND			some silt, moist, no odor

Start Date: 4/29/2010 | Depths: water: 5.33' | Location ID: **Z9**
End Date: 4/29/2010 | total: 5.33' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.83-5.33	0.2	dark brown	silty SAND			moist, odor?

Start Date: 4/29/2010 | Depths: water: 5.33' | Location ID: **Z10**
End Date: 4/29/2010 | total: 5.33' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.83-5.33	0.1	white				ash?, moist, no odor

Start Date: 4/29/2010 | Depths: water: 5.33' | Location ID: **Z11**
End Date: 4/29/2010 | total: 5.33' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.83-5.33	0.1	white				ash?, moist, no odor

Start Date: 4/29/2010 | Depths: water: 5.33' | Location ID: **Z12**
End Date: 4/29/2010 | total: 5.33' | Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 4.83-5.33	0.1	light brown				ash?, moist, no odor

Subsurface Log

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 4/29/2010 End Date: 4/29/2010	Depths: water: - total: 3.67'	Location ID: **P4-D5** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 3.17-3.67	0.1	brown				ash?, no odor

Start Date: 4/29/2010 End Date: 4/29/2010	Depths: water: - total: 3.67'	Location ID: **P4-D6** Method: Trowel

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 3.17-3.67	0.5	grey				ash?, odor?

Subsurface Log

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 11/23/2009
End Date: 11/23/2009
Depths: water: NA
total: 15'
Location ID: **MW8**
Method: Auger Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.21						asphalt
--- 0.21-0.58	0	brown	SAND			
--- 0.58-1.0	0		GRAVEL			
--- 1.0-1.17	0	black				asphalt & tar (old surface)
--- 1.17-1.67	0	brown/grey				ash& slag
--- 1.67-1.92	0	white	SAND			
--- 1.92-2.5	0	yellow	SAND			
--- 2.5-3.33	0	black				ash & slag
--- 3.33-3.92	0	grey				ash
--- 3.92-4.17	0	red/pink	SAND			brick
--- 4.17-4.83	0					rusty ash & slag
--- 4.83-6.08	0	red/brown				ash
--- 6.08-15.0						No Recovery

Start Date: 11/19/2009
End Date: 11/19/2009
Depths: water: NA
total: 9.5'
Location ID: **MW9**
Method: Probe Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.17						asphalt
--- 0.17-2.0	0		SAND & GRAVEL			
--- 2.0-2.5	0	light brown	SAND			
--- 2.5-3.08	0	black				asphalt & tar (old surface)
--- 3.08-3.17	0	grey	SAND			
--- 3.17-3.58	0	black/brown	SAND			
--- 3.58-3.83	0	grey	SAND			
--- 3.83-4.25	0					coal, gravel, brick
--- 4.25-4.83	0	grey/black	SAND			odor?
--- 4.83-7.42	0	pink/brown	silty SAND			
--- 7.42-15.0						No Recovery

Start Date: 11/19/2009
End Date: 11/19/2009
Depths: water: NA
total: 12'
Location ID: **MW10**
Method: Probe Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.25						asphalt
--- 0.25-1.33	0	black				ash
--- 1.33-3.42	0					slag & metal
--- 3.42-5.0	0					sand, rubble, bricks, concrete
--- 5.0-7.0	0	orange/brown	silty SAND			trace clay
--- 7.0-15.0						No Recovery

SUBSURFACE LOG

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 11/19/2009
End Date: 11/19/2009
Depths: water: NA
total: 13.5
Location ID: **MW11**
Method: Probe Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.25						asphalt
--- 0.25-0.75	0	brown/grey	SAND & GRAVEL			
--- 0.75-1.08	0	grey	fine GRAVEL			
--- 1.08-1.33	0	black				coal fragments
--- 1.33-2	0		GRAVEL			some sand
--- 2-6.25	0					slag, rocks,metal, concrete, fill, sand
--- 10-11'	0	red	SILT			some clay, no odor, wet
--- 15-16'	0	red	SAND			

Start Date: 2/16/2010&5/27/2010
End Date: 2/16/2010
Depths: water: 6.35'
total: 12'
Location ID: **TW1&TW1A**
Method: Probe Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-4						clean fill
--- 4-4.5	5	grey/black	silty SAND			gasoline odor
--- 4.5-5.5	8	brown	SAND			some silt, gasoline odor
--- 8-10'	38	grey/brown	SAND			some silt, gasoline odor
--- 10-10.5	0	brown	SAND			some silt, no odor

Start Date: 2/16/2010
End Date: 2/16/2010
Depths: water: 6'
total: 12'
Location ID: **TW2**
Method: Probe Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-6						clean fill
--- 6-6.5	0	brown	silty SAND			trace clay, no odor, wet
--- 8.0-12.0	0	brown	SAND			some silt, no odor

Start Date: 2/16/2010&5/27/2010
End Date: 2/16/2010
Depths: water: 6'
total: 12'
Location ID: **TW3&TW3A**
Method: Probe Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-6						clean fill
--- 8-8.83	6.4	grey	SAND			some silt, oil odor
--- 8.83-9	0	brown	SAND			some silt, no odor

SUBSURFACE LOG

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 9/13/2010
End Date: 9/13/2010

Depths: water: 6.5'
total: 15'

Location ID: **MW8R**
Method: Auger Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.67	0			0-5'	4.33'	asphalt & gravel
--- 0.67-1.08	0	brown	SAND			some gravel, wood, fill
--- 1.08-1.33	0					asphalt & gravel
--- 1.33-1.42	0	black	Fill			some fine sand
--- 1.42-1.58	0	grey/brown	SAND			some gravel, trace silt
--- 1.58-2.08	0	black	Fill			coal frags, brick, ash
--- 2.08-3.67	0	grey/yellow	Fill			ash
--- 3.67-3.92	0					slag
--- 3.92-4.33	0	white/black				ash
--- 5-5.5	0	black	Fill	5-10'	2.75'	ash, sand, gravel
--- 5.5-5.58	0	grey				rock
--- 5.58-6.08	0	red				rock frags., sand
--- 6.08-6.42	0	grey	SAND			trace silt and gravel, moist
--- 6.42-7.75	0	brown	SAND			trace silt, moist
--- 10-11.67	0	brown	SAND	10-15'	5'	trace silt, wet
--- 11.67-12.67	0	red	SAND			trace silt, wet
--- 12.67-15	0	red	SAND&GRAVEL			trace silt, wet

Start Date: 9/13/2010
End Date: 9/13/2010

Depths: water: 6.5'
total: 15'

Location ID: **MW12**
Method: Auger Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5						No Sample Clean Fill Tank Excavation
--- 5-7.5				5-10'	3.25'	clean backfill
--- 7.5-8.25	16.3	grey	SAND			wet, oil odor
--- 10.0-11.0	28.9-10-10.5' 38.2-10.5-11'	black	SAND	10-15'	4.33'	wet, oil odor, Soil Sample 10.5-11'
--- 11.0-12.0	37.6-11-11.5' 23-11.5-12'	black/grey	silty SAND			wet, oil odor
--- 12-12.42	26.1-12-12.5'	grey	coarse SAND			wet, oil odor
--- 12.42-13.42	7.1-12.5-13'	brown	coarse SAND			wet, oil odor
--- 13.42-13.75	14.2-13-13.5'	grey/brown	SILT			trace sand, wet, oil odor, Soil Sample 13.5-14'
--- 13.75-14.08	0-13.5-14'	brown	coarse SAND			slight odor
--- 14.08-14.33	0-14-14.33'	red				rock frags., some gravel & sand, no odor

SUBSURFACE LOG

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 9/15/2010
End Date: 9/15/2010

Depths: water: 6.5'
total: 15'

Location ID: **MW13**
Method: Auger Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5						No Sample Clean Fill Tank Excavation
--- 5-5.67				5-10'	4'	clean backfill
--- 5.67-5.83	6		SAND			coal frags, slight PHC odor
--- 5.83-9			SAND			trace silt & gravel, no odor
--- 10.0-10.17	3.7-10-10.5'	brown	silty SAND	10-15'	5'	wet, oil odor
	1.7-10.5-11'					
--- 10.17-11	2.4-11-11.5'	red	Rock & SAND			wet, oil odor, Soil Sample 10.5-11'
	7-11.5-12'					
--- 11-11.42	4.8-12-12.5'	brown/grey	SAND			some gravel, trace sand, wet, oil odor
--- 11.42-11.75	0-12.5-13'	grey/brown	SAND			some silt, wet, oil odor
--- 11.75-12.5	0-13-13.5'	brown	SAND			trace gravel & silt, wet, oil odor
--- 12.5-13	0-13.5-14'	brown	coarse SAND			wet, slight oil odor, Soil Sample 12.5-13'
--- 13-13.17	0-14-14.5'	green/brown	SILT			some sand, trace clay, wet, no odor
--- 13.17-13.33	0-14.5-15'	brown	silty SAND			wet, no odor
--- 13.33-13.83		brown	SAND			wet, no odor
--- 13.83-14.25		brown	SAND			wet, no odor
--- 14.25-15		brown	coarse SAND			trace silt, wet, no odor

Start Date: 9/15/2010
End Date: 9/15/2010

Depths: water: 6.5'
total: 15'

Location ID: **MW14**
Method: Auger Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-5						No Sample Clean Fill Tank Excavation
--- 5-6.17				5-10'	3'	clean backfill
--- 6.17-7	71.9-6.17-6.67'	grey	SAND			trace silt, gasoline odor, Soil sample 6.67-7.17'
--- 7-7.08	84-6.67-7.17'	grey	coarse SAND			gasoline odor
--- 7.08-8	61-7.17-7.67'	grey/brown	SAND			trace silt, gasoline odor
	59.5-7.67-8'					
--- 10.0-12.0	18.6-10-10.5'	grey	SAND	10-15'	5'	wet, 10-11' gasoline odor, 11-11.5' slight odor
	14-10.5-11'					11.5-12' no odor, Soil Sample 11-11.5'
--- 12-12.83	0-11-11.5'	brown	SAND			wet, no odor
	0-11.5-12'					
--- 12.83-15	0-12-12.5'	red brown	SAND			wet, no odor
	0-12.5-13'					
	0-13-13.5'					
	0-13.5-14'					
	0-14-14.5'					
	0-14.5-15'					

SUBSURFACE LOG

Client: **Palmer Industries, Inc.**
Site ID: **Palmer Industries, Inc.**
Address: **59-97 Chapel Street Newark NJ**
Logged by: **Michael S. Brogan**
Driller/Excavator: **EMC**

Start Date: 9/13/2010
End Date: 9/13/2010
Depths: water: 6.5'
total: 15'
Location ID: **MW15**
Method: Auger Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.25	0		SAND	0-5'	3.25'	
--- 0.25-1.08	0		Fill			gravel, coal frags., metal frags.
--- 1.08-1.25	0		Fill			ash, coal frags.
--- 1.25-2.67	0	orange	silty SAND			trace clay
--- 2.67-3.25	0	brown	SAND			trace silt
--- 5-6.08	0		SAND & fine GRAVEL	5-10'	3.5'	clean backfill
--- 6.08-7	0	brown	SAND			some fine gravel
--- 7-8.25	0	brown	SAND			trace silt
--- 10.0-14.0	0	brown	SAND	10-15'	5'	trace silt, wet
--- 14.0-15.0	0	red	COBBLES & SAND			rock frags., wet

Start Date: 9/13/2010
End Date: 9/13/2010
Depths: water: 6.5'
total: 15'
Location ID: **MW16**
Method: Auger Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.5	0			0-5'	3.75'	asphalt & gravel
--- 0.5-1.0	0	brown/black	Fill			brick, coal
--- 1.0-1.25	0	brown	Fill			sand, coal
--- 1.25-1.67	0	brown	SAND			some gravel, trace silt
--- 1.67-2.92	0	brown	silty SAND			trace clay
--- 2.92-3.25	0	brown	SAND			trace silt
--- 5-7.67	0	brown	SAND	5-10'	3.17	some cobbles, moist
--- 7.67-8.17	0	brown	SAND			trace silt, moist
--- 10.0-14.47	0	brown	SAND	10-15'	5'	trace silt & gravel, wet
--- 14.47-15.0	0	red brown	Rock Frags.			some sand, trace silt & clay, wet

Start Date: 9/13/2010
End Date: 9/13/2010
Depths: water: 6.5'
total: 15'
Location ID: **MW17**
Method: Auger Rig

Depth (feet, bgs)	PID	Color	Classification	Sample Length	Sample Recovery	Comments
--- 0-0.5	0			0-5'	4.5'	asphalt & gravel
--- 0.5-0.83	0	brown	SAND & GRAVEL			trace silt
--- 0.83-1.0	0					small rock
--- 1.0-1.67	0	brown	SAND & GRAVEL			trace silt
--- 1.67-2.75	0	orange/brown	SAND & GRAVEL			Trace silt, ash, brick
--- 2.75-3.33	0					concrete
--- 3.33-4.5	0	varies	Fill			sand, gravel, coal, ash, green slag
--- 5-5.33	0	black	Fill	5-10'	3.17	coal frags.
--- 5.33-8.17	0	orange/brown	silty SAND			moist
--- 10.0-11.58	0	brown	SAND	10-15'	4.17'	trace silt & gravel, wet
--- 11.58-12.0	0	red brown	SAND			some gravel, trace silt, wet
--- 12.0-13.0	0	red	ROCK FRAGs			some sand, silt & clay, wet
--- 13.0-14.17	0	red	SAND & GRAVEL			some silt, trace clay, wet

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM

PI #510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

APPENDIX 12

MONITORING WELL DOCUMENTS

APPENDIX 12

MONITORING WELL DOCUMENTS

WELL PERMITS

WELL RECORDS

FORMS A

FORMS B

SAMPLING DATA FORMS

MW8 ABAONDONMENT FORM

CONTOUR MAP REPORTING FORMS

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010293

WELL PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: ALAN W CLARK, JOURNEYMAN LICENSE # 0001259

Permit Issued to: ENVIRONMENTAL MANAGEMENT CONSULTANTS

Company Address: 72 COBB ST ROCKAWAY, NJ 07866

PROPERTY OWNER

Name: ROBERT CHAMBERS

Organization: Chapel Street Partners

Address: 99 Chapel Street

City: Newark State: New Jersey Zip Code: 07105

PROPOSED WELL LOCATION

Facility Name: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 590916 Northing (Y): 693079
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-8R

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: MONITORING

Other Use(s):

Diameter (in): 2

Regulatory Program Requiring Wells/Borings:

Depth (ft.): 20

Case ID Number:

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments:

SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: September 1, 2010
Expiration Date: September 1, 2011

Approved by the authority of:
Bob Martin
Commissioner

John Fields, Acting Bureau Chief
Bureau of Water Systems and Well Permitting

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010293

WELL PERMIT

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request. [N.J.A.C. 7:9D-1]
A well record must be submitted by the well driller to the Bureau of Water Systems and Well Permitting. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the well record shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Record: within ninety (90) days after the well is completed.[N.J.A.C. 7:9D-1]
All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1]
For this permit to remain valid, the well approved in this permit shall be constructed within one year of the effective date of the permit [N.J.A.C. 7:9D-1]
If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting. [N.J.A.C. 7:9D-1]
If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval. [N.J.A.C. 7:9D-1]
If you or a future property owner intend to redesignate this well as a Category 1 well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category 1 well per the Well Construction and Abandonment Regulations at N.J.A.C. 7:0D-1 1 et seq. In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed. [N.J.A.C. 7:9D-1.7((a))1i]
In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions [N.J.A.C. 7:9D-1]
In the event that this well is not constructed the well driller shall notify the Bureau of Water Systems and Well Permitting of the permit cancellation. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the Cancellation notification shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Permit Cancellation : by the expiration date of this permit.[N.J.A.C. 7:9D-1]
In the event this well is abandoned, the Owner or Well driller shall assume full responsibility for having the well decommissioned in a manner satisfactory to the New Jersey Department of Environmental Protection in accordance with the provisions of N J A C 7:9D-1 et seq. [N.J.A.C. 7:9D-1]
The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:9D-1]
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application. [N.J.A.C. 7:9D-1]
This permit conveys no rights, either expressed, or implied to divert water. [N.J.A.C. 7:9D-1]
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:9D-1]
This permit is NONTRANSFERABLE [N.J.A.C. 7:9D]
This well shall not be used for the supply of potable / drinking water. [N.J.A.C. 7:9D-1]

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 426 Trenton NJ 08625-0426 Tel: 609-984-6831

Well Permit Number
E201005220

WELL PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: ALAN W CLARK, JOURNEYMAN LICENSE # 0001259

Permit Issued to: ENVIRONMENTAL MANAGEMENT CONSULTANTS

Company Address: 72 COBB ST ROCKAWAY, NJ 07866

PROPERTY OWNER

Name: ROBERT CHAMBERS

Organization: Chapel Street Partners

Address: 99 Chapel Street

City: Newark State: New Jersey Zip Code: 07105

PROPOSED WELL LOCATION

Facility Name: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 590988 Northing (Y): 693040
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-12

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: MONITORING

Other Use(s):

Diameter (in.): 2

Regulatory Program Requiring Wells/Borings:

Depth (ft.): 15

Case ID Number:

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments:

SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: May 21, 2010
Expiration Date: May 21, 2011

Approved by the authority of:
Bob Martin
Commissioner

John Fields, Acting Bureau Chief
Bureau of Water Systems and Well Permitting

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 426 Trenton NJ 08625-0426 Tel: 609-984-6831

Well Permit Number
E201005220

WELL PERMIT

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request.
All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq.
For this permit to remain valid, the well approved in this permit shall be constructed within one year of the effective date of the permit.
If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting.
If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval.
If you or a future property owner intend to redesignate this well as a Category 1 well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category 1 well per the Well Construction and Abandonment Regulations at N J A C 7:0D-1.1 et seq In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed.
In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions
In the event this well is abandoned, the Owner or Well driller shall assume full responsibility for having the well decommissioned in a manner satisfactory to the New Jersey Department of Environmental Protection in accordance with the provisions of N.J A.C 7:9D-1 et seq.
The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property.
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application.
This permit conveys no rights, either expressed, or implied to divert water.
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
This permit is NONTRANSFERABLE
This well shall not be used for the supply of potable / drinking water.

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 426 Trenton NJ 08625-0426 Tel. 609-984-6831

Well Permit Number
E201005221

WELL PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: ALAN W CLARK, JOURNEYMAN LICENSE # 0001259

Permit Issued to: ENVIRONMENTAL MANAGEMENT CONSULTANTS

Company Address: 72 COBB ST ROCKAWAY, NJ 07866

PROPERTY OWNER

Name: ROBERT CHAMBERS

Organization: Chapel Street Partners

Address: 99 Chapel Street

City: Newark State: New Jersey Zip Code: 07105

PROPOSED WELL LOCATION

Facility Name: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 590929 Northing (Y): 693084
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-13

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: MONITORING

Other Use(s):

Diameter (in.): 2

Regulatory Program Requiring Wells/Borings:

Depth (ft): 15

Case ID Number:

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments:

SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: May 21, 2010
Expiration Date: May 21, 2011

Approved by the authority of:
Bob Martin
Commissioner

John Fields, Acting Bureau Chief
Bureau of Water Systems and Well Permitting

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 426 Trenton, NJ 08625-0426 Tel: 609-984-6831

Well Permit Number
E201005221

WELL PERMIT

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request.
All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq.
For this permit to remain valid, the well approved in this permit shall be constructed within one year of the effective date of the permit.
If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting.
If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval.
If you or a future property owner intend to redesignate this well as a Category 1 well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category 1 well per the Well Construction and Abandonment Regulations at N J A C. 7:0D-1 1 et seq In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed.
In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions
In the event this well is abandoned, the Owner or Well driller shall assume full responsibility for having the well decommissioned in a manner satisfactory to the New Jersey Department of Environmental Protection in accordance with the provisions of N J A C. 7:9D-1 et seq.
The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property.
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application.
This permit conveys no rights, either expressed, or implied to divert water.
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
This permit is NONTRANSFERABLE
This well shall not be used for the supply of potable / drinking water.

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010294

WELL PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: ALAN W CLARK, JOURNEYMAN LICENSE # 0001259

Permit Issued to: ENVIRONMENTAL MANAGEMENT CONSULTANTS

Company Address: 72 COBB ST ROCKAWAY, NJ 07866

PROPERTY OWNER

Name: ROBERT CHAMBERS

Organization: Chapel Street Partners

Address: 99 Chapel Street

City: Newark State: New Jersey Zip Code: 07105

PROPOSED WELL LOCATION

Facility Name: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 591016 Northing (Y): 692961
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-14

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: MONITORING

Other Use(s):

Diameter (in.): 2

Regulatory Program Requiring Wells/Borings:

Depth (ft): 20

Case ID Number:

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments:

SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: September 1, 2010
Expiration Date: September 1, 2011

Approved by the authority of:
Bob Martin
Commissioner

John Fields, Acting Bureau Chief
Bureau of Water Systems and Well Permitting

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010294

WELL PERMIT

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request. [N.J.A.C. 7:9D-1]
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In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions [N.J.A.C. 7:9D-1]
In the event that this well is not constructed the well driller shall notify the Bureau of Water Systems and Well Permitting of the permit cancellation. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the Cancellation notification shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Permit Cancellation : by the expiration date of this permit.[N.J.A.C. 7:9D-1]
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The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:9D-1]
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application. [N.J.A.C. 7:9D-1]
This permit conveys no rights, either expressed, or implied to divert water. [N.J.A.C. 7:9D-1]
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:9D-1]
This permit is NONTRANSFERABLE [N.J.A.C. 7:9D]
This well shall not be used for the supply of potable / drinking water. [N.J.A.C. 7:9D-1]

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010295

WELL PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: ALAN W CLARK, JOURNEYMAN LICENSE # 0001259

Permit Issued to: ENVIRONMENTAL MANAGEMENT CONSULTANTS

Company Address: 72 COBB ST ROCKAWAY, NJ 07866

PROPERTY OWNER

Name: ROBERT CHAMBERS

Organization: Chapel Street Partners

Address: 99 Chapel Street

City: Newark State: New Jersey Zip Code: 07105

PROPOSED WELL LOCATION

Facility Name: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 590965 Northing (Y): 692965
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-15

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: MONITORING

Other Use(s):

Diameter (in.): 2

Regulatory Program Requiring Wells/Borings:

Depth (ft): 20

Case ID Number:

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments:

SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: September 1, 2010
Expiration Date: September 1, 2011

Approved by the authority of:
Bob Martin
Commissioner

John Fields, Acting Bureau Chief
Bureau of Water Systems and Well Permitting

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010295

WELL PERMIT

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request. [N.J.A.C. 7:9D-1]
A well record must be submitted by the well driller to the Bureau of Water Systems and Well Permitting. Unless prior written approval is obtained from the Bureau of Water Systems and Well Permitting the well record shall be submitted electronically through the New Jersey Department of Environmental Protection's Regulatory Services Portal Submit Well Record: within ninety (90) days after the well is completed.[N.J.A.C. 7:9D-1]
All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq. [N.J.A.C. 7:9D-1]
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If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting. [N.J.A.C. 7:9D-1]
If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval. [N.J.A.C. 7:9D-1]
If you or a future property owner intend to redesignate this well as a Category 1 well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category 1 well per the Well Construction and Abandonment Regulations at N.J.A.C. 7:0D-1.1 et seq. In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed. [N.J.A.C. 7:9D-1.7((a))1i]
In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions [N.J.A.C. 7:9D-1]
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The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property. [N.J.A.C. 7:9D-1]
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application. [N.J.A.C. 7:9D-1]
This permit conveys no rights, either expressed, or implied to divert water. [N.J.A.C. 7:9D-1]
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:9D-1]
This permit is NONTRANSFERABLE [N.J.A.C. 7:9D]
This well shall not be used for the supply of potable / drinking water. [N.J.A.C. 7:9D-1]

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010296

WELL PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: ALAN W CLARK, JOURNEYMAN LICENSE # 0001259

Permit Issued to: ENVIRONMENTAL MANAGEMENT CONSULTANTS

Company Address: 72 COBB ST ROCKAWAY, NJ 07866

PROPERTY OWNER

Name: ROBERT CHAMBERS

Organization: Chapel Street Partners

Address: 99 Chapel Street

City: Newark State: New Jersey Zip Code: 07105

PROPOSED WELL LOCATION

Facility Name: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 591004 Northing (Y): 692935
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-16

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: MONITORING

Other Use(s):

Diameter (in.): 2

Regulatory Program Requiring Wells/Borings:

Depth (ft.): 20

Case ID Number:

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments:

SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: September 1, 2010
Expiration Date: September 1, 2011

Approved by the authority of:
Bob Martin
Commissioner

John Fields, Acting Bureau Chief
Bureau of Water Systems and Well Permitting

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010296

WELL PERMIT

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request. [N.J.A.C. 7:9D-1]
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This permit conveys no rights, either expressed, or implied to divert water. [N.J.A.C. 7:9D-1]
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained. [N.J.A.C. 7:9D-1]
This permit is NONTRANSFERABLE [N.J.A.C. 7:9D]
This well shall not be used for the supply of potable / drinking water. [N.J.A.C. 7:9D-1]

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010297

WELL PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: ALAN W CLARK, JOURNEYMAN LICENSE # 0001259

Permit Issued to: ENVIRONMENTAL MANAGEMENT CONSULTANTS

Company Address: 72 COBB ST ROCKAWAY, NJ 07866

PROPERTY OWNER

Name: ROBERT CHAMBERS

Organization: Chapel Street Partners

Address: 99 Chapel Street

City: Newark State: New Jersey Zip Code: 07105

PROPOSED WELL LOCATION

Facility Name: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 590936 Northing (Y): 693138
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: MW-17

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: MONITORING

Other Use(s):

Diameter (in): 2

Regulatory Program Requiring Wells/Borings:

Depth (ft.): 20

Case ID Number:

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments:

SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: September 1, 2010
Expiration Date: September 1, 2011

Approved by the authority of:
Bob Martin
Commissioner

John Fields, Acting Bureau Chief
Bureau of Water Systems and Well Permitting

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010297

WELL PERMIT

DEVIATION INFORMATION	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

GENERAL CONDITIONS/REQUIREMENTS
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This permit is NONTRANSFERABLE [N.J.A.C. 7:9D]
This well shall not be used for the supply of potable / drinking water. [N.J.A.C. 7:9D-1]

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010293

MONITORING WELL RECORD

PROPERTY OWNER: ROBERT CHAMBERS

Company/Organization: Chapel Street Partners

Address: 99 Chapel Street Newark, New Jersey 07105

WELL LOCATION: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 591036 Northing (Y): 693171
Coordinate System: NJ State Plane (NAD83) - USFEET

DATE WELL STARTED: September 13, 2010

DATE WELL COMPLETED: September 13, 2010

WELL USE: MONITORING

Other Use(s):

Local ID: MW-8R

WELL CONSTRUCTION

Total Depth Drilled (ft): 15 Finished Well Depth (ft.): 15 Well Surface: Flush Mount

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	0	15	8		
Casing	0.3	3	2	PVC	Schedule 40
Screen	3	15	2	PVC	0.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0.5	2	8	2	2	40	2
Gravel Pack	2	15	8	2	#0 Sand		

Grouting Method: Gravity method Drilling Method: Hollow Stem Augers

ADDITIONAL INFORMATION

Protective Casing: Yes
Static Water Level: 5 ft. below land surface
Water Level Measure Tool: Indicator Probe
Well Development Period: 1 hrs
Method of Development: submersible pump
Pump Type:

Pump Capacity: _ gpm
Total Design Head: _ ft
Drilling Fluid:
Drill Rig: Geoprobe 7822
Health and Safety Plan Submitted? Yes

ATTACHMENTS:

GEOLOGIC LOG
0 - .75: black OT - Other Asphalt
.75 - 6: grey, white, black OT - Other Fill Material
6 - 15: grey to red GM - Silty gravels, gravel-sand-silt mixtures

ADDITIONAL INFORMATION:

Driller of Record: Alan W Clark, JOURNEYMAN LICENSE # 0001259 Company: ENVIRONMENTAL MANAGEMENT CONSULTANTS

Service ID: 125922

This document has not yet been reviewed and approved or denied by the NJ DEP. Deficiencies in submittal information or actual construction may result in denial.

WELL RECORD SUBMITTAL PDF

PROPERTY OWNER: Robert Chambers

Organization: Chapel Street Partners

Address: 99 Chapel Street, Newark (Essex), New Jersey 07105

WELL LOCATION: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark Lot: 3 Block: 2442

Easting(X): 590930 Northing(Y): 693085 Coordinate System: NJ State Plane (NAD83) - USFEET

Method: Survey frm Benchmark Point of Reference: Well

GPS Manufacturer: Surveyor Name: Gerald Degroat

GPS Model: Surveyor License #: 26791

Accuracy: 10 Accuracy units: Feet

WELL USE: Monitoring **DATE WELL STARTED:** 09/13/2010

Other Use(s): **DATE WELL COMPLETED:** 09/13/2010

WELL CONSTRUCTION

Permit Number Total Depth Drilled(ft): 15 Drilling Company:

E201005220 Finished Well Depth(ft): 15 Driller Name: Alan Clark

Local ID: MW-12 Well was finished: Flush Mount License No.: 0001259

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt./Rating/Screen Slot # (lbs/sch no.)
Borehole(s)	0	15	8	N/A	N/A
Casing(s)	0.25	3	2	PVC	Schedule 40
Screen(s)	3	15	2	PVC	0.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in)	Inner Diameter (in)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0.5	2	8	2	2	96	5
Gravel Pack	2	15	8	2	# 0 Sand		

Grouting Method: Gravity method Drilling Method: Hollow Stem Augers

Additional Information:

Attachments:

RECORD OF TEST

Test Date: Depth to Pump: ft. below land surface

Pump Capacity: gpm

APPROVED

Static Water Level: 6 ft. below land surface Total Design Head: _____ ft.

Pumping Water Level: _____ ft. below land surface Pump Horsepower: _____

Water Level Measure Tool: indicator probe If pump tested Discharge Rate: _____ gpm

Pumping Equipment: _____ Duration of Test: _____ hours

Well Yield: _____ gpm Date Boring Decommissioned: _____

PUMPING EQUIPMENT AND ADDITIONAL INFORMATION

Well Development Period: 1 hours

Method of Development: submersible

Installed: _____

Protective Casing: Yes

Installer's Name: _____

Drilling Fluid: _____

Installer's Registration No.: _____

Drill Rig: Geoprobe 7822

Pump Type: _____

Health and Safety Plan: Yes

GEOLOGIC LOG

Depth to Top	Depth to Bottom	Color	USCS	Additional Description
0	7.5	grey	OT - Other	Backfill Material
7.5	15	grey/brown	SP - Poorly graded sands and gravelly sands, little or no fines	

PENDING APPROVAL

Service ID: 125934

This document has not yet been reviewed and approved or denied by the NJ DEP Deficiencies in submittal information or actual construction may result in denial.

WELL RECORD SUBMITTAL PDF

PROPERTY OWNER: Robert Chambers

Organization: Chapel Street Partners

Address: 99 Chapel Street, Newark (Essex), New Jersey 07105

WELL LOCATION: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark Lot: 3 Block: 2442

Easting(X): 590984 Northing(Y): 693063 Coordinate System: NJ State Plane (NAD83) - USFEET

Method: Survey frm Benchmark Point of Reference: Well

GPS Manufacturer: Surveyor Name: Gerald Degroat

GPS Model: Surveyor License #: 26791

Accuracy: 10 Accuracy units: Feet

WELL USE: Monitoring **DATE WELL STARTED:** 09/15/2010

Other Use(s): **DATE WELL COMPLETED:** 09/15/2010

WELL CONSTRUCTION

Permit Number Total Depth Drilled(ft): 15 Drilling Company:

E201005221 Finished Well Depth(ft): 15 Driller Name: Alan Clark

Local ID: MW-13 Well was finished: Flush Mount License No.: 0001259

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt./Rating/Screen Slot # (lbs/sch no.)
Borehole(s)	0	15	8	N/A	N/A
Casing(s)	0.25	3	2	PVC	Schedule 40
Screen(s)	3	15	2	PVC	0.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in)	Inner Diameter (in)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0.5	2	8	2	1	96	5
Gravel Pack	2	15	8	2	#0 Sand		

Grouting Method: Gravity method Drilling Method: Hollow Stem Augers

Additional Information:

Attachments:

RECORD OF TEST

Test Date: Depth to Pump: ft. below land surface

Pump Capacity: gpm

Archive Copy

Static Water Level: 6.5 ft. below land surface Total Design Head: _____ ft.

Pumping Water Level: _____ ft. below land surface Pump Horsepower: _____

Water Level Measure Tool: indicator probe If pump tested Discharge Rate: _____ gpm

Pumping Equipment: _____ Duration of Test: _____ hours

Well Yield: _____ gpm Date Boring Decommissioned: _____

PUMPING EQUIPMENT AND ADDITIONAL INFORMATION

Well Development Period: 1 hours

Method of Development: submersible

Installed: _____ Protective Casing: Yes

Installer's Name: _____ Drilling Fluid: _____

Installer's Registration No.: _____ Drill Rig: Geoprobe 7822

Pump Type: _____ Health and Safety Plan: Yes

GEOLOGIC LOG

Depth to Top	Depth to Bottom	Color	USCS	Additional Description
0	5.5	grey	OT - Other	imported backfill material
5.5	15	grey/brown	SP - Poorly graded sands and gravelly sands, little or no fines	

PENDING APPROVAL

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010294

MONITORING WELL RECORD

PROPERTY OWNER: ROBERT CHAMBERS

Company/Organization: Chapel Street Partners

Address: 99 Chapel Street Newark, New Jersey 07105

WELL LOCATION: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 590931 Northing (Y): 693024
Coordinate System: NJ State Plane (NAD83) - USFEET

DATE WELL STARTED: September 13, 2010

DATE WELL COMPLETED: September 13, 2010

WELL USE: MONITORING

Other Use(s):

Local ID: MW-14

WELL CONSTRUCTION

Total Depth Drilled (ft.): 15 Finished Well Depth (ft.): 15 Well Surface: Flush Mount

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	8	8	2		
Casing	0.01	3	2	PVC	schedule 40
Screen	3	15	2	PVC	0.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0.5	2	8	2	2	60	2
Gravel Pack	2	15	8	2	#0 Sand		

Grouting Method: Gravity method

Drilling Method: Hollow Stem Augers

ADDITIONAL INFORMATION

Protective Casing: Yes
Static Water Level: 5 ft below land surface
Water Level Measure Tool: indicator probe
Well Development Period: 1 hrs.
Method of Development: submersible
Pump Type:

Pump Capacity: _ gpm
Total Design Head: _ ft
Drilling Fluid:
Drill Rig: Geoprobe 7822
Health and Safety Plan Submitted? Yes

ATTACHMENTS:

GEOLOGIC LOG

0 - 6: Brown GW - Well-graded gravels and gravel-sand mixtures, little or no fines Backfill

6 - 15: grey/red SM - Silty sands, sand-silt mixtures Native Material

ADDITIONAL INFORMATION:

Driller of Record: Alan W Clark, JOURNEYMAN LICENSE # 0001259

Company: ENVIRONMENTAL MANAGEMENT CONSULTANTS

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010295

MONITORING WELL RECORD

PROPERTY OWNER: ROBERT CHAMBERS

Company/Organization: Chapel Street Partners

Address: 99 Chapel Street Newark, New Jersey 07105

WELL LOCATION: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 590967 Northing (Y): 692986
Coordinate System: NJ State Plane (NAD83) - USFEET

DATE WELL STARTED: November 13, 2010

DATE WELL COMPLETED: November 13, 2010

WELL USE: MONITORING

Other Use(s):

Local ID: MW-15

WELL CONSTRUCTION

Total Depth Drilled (ft): 15 Finished Well Depth (ft.): 15 Well Surface: Flush Mount

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	0	15	8		
Casing	0.32	3	2	PVC	schedule 40
Screen	3	15	2	PVC	0.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	2	8	2	2	60	2
Gravel Pack	2	15	8	2	#0 Sand		

Grouting Method: Gravity method Drilling Method: Hollow Stem Augers

ADDITIONAL INFORMATION

Protective Casing: Yes
Static Water Level: 5 ft. below land surface
Water Level Measure Tool: indicator probe
Well Development Period: 1 hrs.
Method of Development: submersible
Pump Type:

Pump Capacity: _ gpm
Total Design Head: _ ft
Drilling Fluid:
Drill Rig: Geoprobe 7822
Health and Safety Plan Submitted? Yes

ATTACHMENTS:

GEOLOGIC LOG
0 - 2: black OT - Other coal frags, ash, gravel
2 - 14: brown and red SP - Poorly graded sands and gravelly sands, little or no fines
14 - 15: red OT - Other cobbles and sand

ADDITIONAL INFORMATION:

Driller of Record: Alan W Clark, JOURNEYMAN LICENSE # 0001259 Company: ENVIRONMENTAL MANAGEMENT CONSULTANTS

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010296

MONITORING WELL RECORD

PROPERTY OWNER: ROBERT CHAMBERS

Company/Organization: Chapel Street Partners

Address: 99 Chapel Street Newark, New Jersey 07105

WELL LOCATION: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 591006 Northing (Y): 692951
Coordinate System: NJ State Plane (NAD83) - USFEET

DATE WELL STARTED: September 13, 2010

DATE WELL COMPLETED: September 13, 2010

WELL USE: MONITORING

Other Use(s):

Local ID: MW-16

WELL CONSTRUCTION

Total Depth Drilled (ft.): 15 Finished Well Depth (ft.): 15 Well Surface: Flush Mount

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	0	15	8		
Casing	0.19	3	2	PVC	Schedul 40
Screen	3	15	2	PVC	0.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0.5	2	8	2	1	60	2
Gravel Pack	2	15	8	2	#0 sand		

Grouting Method: Gravity method Drilling Method: Hollow Stem Augers

ADDITIONAL INFORMATION

Protective Casing: Yes
Static Water Level: 5 ft below land surface
Water Level Measure Tool: indicator probe
Well Development Period: 1 hrs
Method of Development: submersible pump
Pump Type:

Pump Capacity: _ gpm
Total Design Head: _ ft
Drilling Fluid:
Drill Rig: geoprobe 7822
Health and Safety Plan Submitted? Yes

ATTACHMENTS:

GEOLOGIC LOG

0 - 2: black/brown OT - Other coal, brick, asphalt, sand

2 - 15: brown to red GM - Silty gravels, gravel-sand-silt mixtures

ADDITIONAL INFORMATION:

Driller of Record: Alan W Clark, JOURNEYMAN LICENSE # 0001259

Company: ENVIRONMENTAL MANAGEMENT CONSULTANTS

New Jersey State Department of Environmental Protection
Bureau of Water Systems and Well Permitting
PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201010297

MONITORING WELL RECORD

PROPERTY OWNER: ROBERT CHAMBERS

Company/Organization: Chapel Street Partners

Address: 99 Chapel Street Newark, New Jersey 07105

WELL LOCATION: Palmer Industries

Address: Chapel Street

County: Essex Municipality: Newark City Lot: 3 Block: 2442

Easting (X): 590971 Northing (Y): 693216
Coordinate System: NJ State Plane (NAD83) - USFEET

DATE WELL STARTED: September 15, 2010

DATE WELL COMPLETED: September 15, 2010

WELL USE: MONITORING

Other Use(s):

Local ID: MW-17

WELL CONSTRUCTION

Total Depth Drilled (ft): 15 Finished Well Depth (ft): 15 Well Surface: Flush Mount

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	0	15	8		
Casing	0.26	3	2	PVC	Schedule 40
Screen	3	15	2	PVC	0.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0.5	2	8	2	2	65	2
Gravel Pack	2	15	8	2	#0 sand		

Grouting Method: Gravity method Drilling Method: Hollow Stem Augers

ADDITIONAL INFORMATION

Protective Casing: Yes
Static Water Level: 5 ft below land surface
Water Level Measure Tool: indicator probe
Well Development Period: 1 hrs
Method of Development: submersible pump
Pump Type:

Pump Capacity: _ gpm
Total Design Head: _ ft
Drilling Fluid:
Drill Rig: geoprobe 7822
Health and Safety Plan Submitted? Yes

ATTACHMENTS:

GEOLOGIC LOG
0 - 5: brown GM - Silty gravels, gravel-sand-silt mixtures some ash and coal fragments
5 - 15: brown/red SM - Silty sands, sand-silt mixtures

ADDITIONAL INFORMATION:

Driller of Record: Alan W Clark, JOURNEYMAN LICENSE # 0001259 Company: ENVIRONMENTAL MANAGEMENT CONSULTANTS

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	P200913760
2. Owner's Well Number (As shown on the application or plans):	MW-8
3. Well Completion Date:	11/23/2009
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.25
5. Total Depth of Well to the nearest ½ foot:	15 .
6. Depth to Top of Screen From Top of Casing (or depth to open hole)	3
To the nearest ½ foot:	12
7. Screen Length (or length of open hole) in feet:	0.010
8. Screen or Slot Size:	PVC
9. Screen or Slot Material:	
10. Casing Material: (PVC, Steel or Other-Specify):	PVC
11. Casing Diameter (inches):	2
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	6
13. Yield (gallons per minute):	NA
14. Development Technique (specify):	Submersible Pump
15. Length of Time Well is Developed/ Pumped or Bailed:	1 Hours 0 Minutes
16. Lithologic Log:	Attach

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name (Type or Print) _____ Signature _____

Seal

Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin

Name (Type or Print) Signature

President

Title

4/26/11

Date

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	E201010293
2. Owner's Well Number (As shown on the application or plans):	MW-8R
3. Well Completion Date:	9/13/2010
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.25
5. Total Depth of Well to the nearest ½ foot:	15 .
6. Depth to Top of Screen From Top of Casing (or depth to open hole) To the nearest ½ foot:	3 12
7. Screen Length (or length of open hole) in feet:	0.010
8. Screen or Slot Size:	PVC
9. Screen or Slot Material:	PVC
10. Casing Material: (PVC, Steel or Other-Specify):	2
11. Casing Diameter (inches):	5
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	NA
13. Yield (gallons per minute):	Submersible Pump
14. Development Technique (specify):	1 Hours 0 Minutes
15. Length of Time Well is Developed/ Pumped or Bailed:	Attach
16. Lithologic Log:	

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name (Type or Print) _____ Signature _____

Seal

Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin
Name (Type or Print)

Signature

President
Title

4/26/11
Date

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	P200913761
2. Owner's Well Number (As shown on the application or plans):	MW-9
3. Well Completion Date:	11/23/2009
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.25
5. Total Depth of Well to the nearest ½ foot:	15 .
6. Depth to Top of Screen From Top of Casing (or depth to open hole) To the nearest ½ foot:	3 12
7. Screen Length (or length of open hole) in feet:	0.010
8. Screen or Slot Size:	PVC
9. Screen or Slot Material:	
10. Casing Material: (PVC, Steel or Other-Specify):	PVC
11. Casing Diameter (inches):	2
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	6
13. Yield (gallons per minute):	NA
14. Development Technique (specify):	Submersible Pump
15. Length of Time Well is Developed/ Pumped or Bailed:	1 Hours 0 Minutes
16. Lithologic Log:	Attach

AUTHENTICATION

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Name (Type or Print) _____ Signature _____

Seal

Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin
Name (Type or Print)

Signature

President
Title

4/26/11
Date

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	P200913762
2. Owner's Well Number (As shown on the application or plans):	MW-10
3. Well Completion Date:	11/23/2009
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.25
5. Total Depth of Well to the nearest ½ foot:	15
6. Depth to Top of Screen From Top of Casing (or depth to open hole) To the nearest ½ foot:	3
7. Screen Length (or length of open hole) in feet:	12
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material: (PVC, Steel or Other-Specify):	PVC
11. Casing Diameter (inches):	2
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	6
13. Yield (gallons per minute):	NA
14. Development Technique (specify):	Submersible Pump
15. Length of Time Well is Developed/ Pumped or Bailed:	1 Hours 0 Minutes
16. Lithologic Log:	Attach

AUTHENTICATION

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Name (Type or Print) _____ Signature _____

Seal

Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin
Name (Type or Print)

Signature

President
Title

4/26/11
Date

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	P200913763
2. Owner's Well Number (As shown on the application or plans):	MW-11
3. Well Completion Date:	11/24/2009
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.25
5. Total Depth of Well to the nearest ½ foot:	15 .
6. Depth to Top of Screen From Top of Casing (or depth to open hole) To the nearest ½ foot:	3
7. Screen Length (or length of open hole) in feet:	12
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material: (PVC, Steel or Other-Specify):	PVC
11. Casing Diameter (inches):	2
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	6
13. Yield (gallons per minute):	NA
14. Development Technique (specify):	Submersible Pump
15. Length of Time Well is Developed/ Pumped or Bailed:	1 Hours 0 Minutes
16. Lithologic Log:	Attach

AUTHENTICATION

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Name (Type or Print) _____ Signature _____

Seal

Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin
Name (Type or Print)

Signature

President
Title

4/26/11
Date

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	E201005220
2. Owner's Well Number (As shown on the application or plans):	MW-12
3. Well Completion Date:	9/13/2010
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.25
5. Total Depth of Well to the nearest ½ foot:	15 .
6. Depth to Top of Screen From Top of Casing (or depth to open hole)	3
To the nearest ½ foot:	12
7. Screen Length (or length of open hole) in feet:	0.010
8. Screen or Slot Size:	PVC
9. Screen or Slot Material:	PVC
10. Casing Material: (PVC, Steel or Other-Specify):	2
11. Casing Diameter (inches):	6
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	NA
13. Yield (gallons per minute):	Submersible Pump
14. Development Technique (specify):	1 Hours 0 Minutes
15. Length of Time Well is Developed/ Pumped or Bailed:	Attach
16. Lithologic Log:	

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name (Type or Print) _____ Signature _____

Seal

Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin
Name (Type or Print)

Signature

President
Title

4/26/11
Date

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	E201005221
2. Owner's Well Number (As shown on the application or plans):	MW-13
3. Well Completion Date:	9/15/2010
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.25
5. Total Depth of Well to the nearest ½ foot:	15 .
6. Depth to Top of Screen From Top of Casing (or depth to open hole) To the nearest ½ foot:	3
7. Screen Length (or length of open hole) in feet:	12
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material: (PVC, Steel or Other-Specify):	PVC
11. Casing Diameter (inches):	2
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	6.5
13. Yield (gallons per minute):	NA
14. Development Technique (specify):	Submersible Pump
15. Length of Time Well is Developed/ Pumped or Bailed:	1 Hours 0 Minutes
16. Lithologic Log:	Attach

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name (Type or Print) _____ Signature _____

Certification or License No. _____ Seal

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin
Name (Type or Print)

Signature

President
Title

4/26/11
Date

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	E201010294
2. Owner's Well Number (As shown on the application or plans):	MW-14
3. Well Completion Date:	9/13/2010
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.01
5. Total Depth of Well to the nearest ½ foot:	15 .
6. Depth to Top of Screen From Top of Casing (or depth to open hole) To the nearest ½ foot:	3 12
7. Screen Length (or length of open hole) in feet:	0.010
8. Screen or Slot Size:	PVC
9. Screen or Slot Material:	PVC
10. Casing Material: (PVC, Steel or Other-Specify):	2
11. Casing Diameter (inches):	5
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	NA
13. Yield (gallons per minute):	Submersible Pump
14. Development Technique (specify):	1 Hours 0 Minutes
15. Length of Time Well is Developed/ Pumped or Bailed:	Attach
16. Lithologic Log:	

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name (Type or Print) _____ Signature _____

Seal

Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin
Name (Type or Print)

Signature

President
Title

4/26/11
Date

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	E201010295
2. Owner's Well Number (As shown on the application or plans):	MW-15
3. Well Completion Date:	9/13/2010
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.32
5. Total Depth of Well to the nearest ½ foot:	15 .
6. Depth to Top of Screen From Top of Casing (or depth to open hole)	3
To the nearest ½ foot:	12
7. Screen Length (or length of open hole) in feet:	0.010
8. Screen or Slot Size:	PVC
9. Screen or Slot Material:	PVC
10. Casing Material: (PVC, Steel or Other-Specify):	2
11. Casing Diameter (inches):	5
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	NA
13. Yield (gallons per minute):	Submersible Pump
14. Development Technique (specify):	1 Hours 0 Minutes
15. Length of Time Well is Developed/ Pumped or Bailed:	Attach
16. Lithologic Log:	

AUTHENTICATION

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Name (Type or Print) _____ Signature _____

Certification or License No. _____ Seal

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin
Name (Type or Print)

Signature

President
Title

4/26/11
Date

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	E201010296
2. Owner's Well Number (As shown on the application or plans):	MW-16
3. Well Completion Date:	9/13/2010
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.19
5. Total Depth of Well to the nearest ½ foot:	15 .
6. Depth to Top of Screen From Top of Casing (or depth to open hole)	3
To the nearest ½ foot:	12
7. Screen Length (or length of open hole) in feet:	0.010
8. Screen or Slot Size:	PVC
9. Screen or Slot Material:	PVC
10. Casing Material: (PVC, Steel or Other-Specify):	2
11. Casing Diameter (inches):	5
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	NA
13. Yield (gallons per minute):	Submersible Pump
14. Development Technique (specify):	1 Hours 0 Minutes
15. Length of Time Well is Developed/ Pumped or Bailed:	Attach
16. Lithologic Log:	

AUTHENTICATION

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Name (Type or Print) _____ Signature _____

Seal

Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin _____

Name (Type or Print) Signature

President 4/26/11

Title Date

MONITORING WELL CERTIFICATION – FORM A – AS-BUILT CERTIFICATION

(One form must be completed for each well)

Name of Permittee: Robert Chambers
Name of Facility: Palmer Industries, Inc.
Location: 99 Chapel Street, Newark City, Essex County, NJ
NJPDES Permit No.:

CERTIFICATION

1. Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	E201010297
2. Owner's Well Number (As shown on the application or plans):	MW-17
3. Well Completion Date:	9/15/2010
4. Distance from Top of Casing (cap off) to ground surface (One-hundredth of a foot):	0.26
5. Total Depth of Well to the nearest ½ foot:	15 .
6. Depth to Top of Screen From Top of Casing (or depth to open hole) To the nearest ½ foot:	3 12
7. Screen Length (or length of open hole) in feet:	0.010
8. Screen or Slot Size:	PVC
9. Screen or Slot Material:	PVC
10. Casing Material: (PVC, Steel or Other-Specify):	2
11. Casing Diameter (inches):	5
12. Static Water Level From Top of Casing at the Time of Installation (One-hundredth of a foot):	NA
13. Yield (gallons per minute):	Submersible Pump
14. Development Technique (specify):	1 Hours 0 Minutes
15. Length of Time Well is Developed/ Pumped or Bailed:	Attach
16. Lithologic Log:	

AUTHENTICATION

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Name (Type or Print) _____ Signature _____

Seal

Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Thomas W. Rankin
Name (Type or Print)

Signature

President
Title

4/26/11
Date

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): P200913760
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'36.76" NAD 83

Latitude (one-hundredth of a second): North 40°44'07.95" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 7.53' NAVD 88

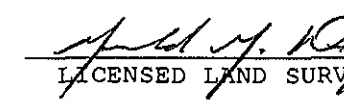
Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 7.18' NAVD 88

Owners Well Number (As shown on the application or plans): MW-8

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.



12/30/09
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S.
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

SEAL

N.J. L.S. NO. 26791
LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): P200913761
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'35.00" NAD 83

Latitude (one-hundredth of a second): North 40°44'06.71" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 8.38' NAVD 88

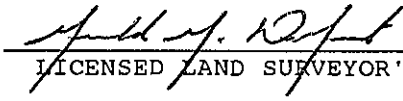
Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 8.12' NAVD 88

Owners Well Number (As shown on the application or plans): MW-9

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.



12/30/09
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S.
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

SEAL

N.J. L.S. NO. 26791
LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): P200913762
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'33.20" NAD 83

Latitude (one-hundredth of a second): North 40°44'05.16" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 8.89' NAVD 88

Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 8.45' NAVD 88

Owners Well Number (As shown on the application or plans): MW-10

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

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12/30/09
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S. SEAL
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

N.J. L.S. NO. 26791
LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): P200913763
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'35.33" NAD 83

Latitude (one-hundredth of a second): North 40°44'11.19" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 6.54' NAVD 88

Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 6.25' NAVD 88

Owners Well Number (As shown on the application or plans): MW-11

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

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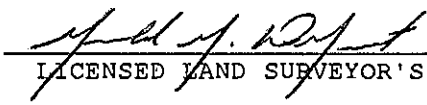

12/30/09
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S.
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

SEAL

N.J. L.S. NO. 26791
LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): E201010293
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'35.00" NAD 83

Latitude (one-hundredth of a second): North 40°44'09.11" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 7.79' NAVD 88

Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 7.40' NAVD 88

Owners Well Number (As shown on the application or plans): MW-8R

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

9/20/10
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S.
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

SEAL

N.J. L.S. NO. 26791
LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): E201005220
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'36.38" NAD 83

Latitude (one-hundredth of a second): North 40°44'08.26" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 7.83' NAVD 88

Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 7.37' NAVD 88

Owners Well Number (As shown on the application or plans): MW-12

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

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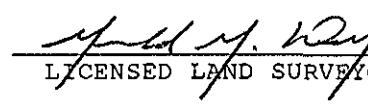

9/20/10
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S.
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

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LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): E201005221
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'35.69" NAD 83

Latitude (one-hundredth of a second): North 40°44'08.04" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 7.33' NAVD 88

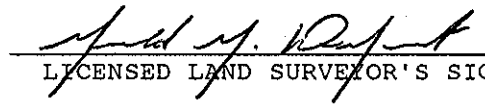
Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 6.94' NAVD 88

Owners Well Number (As shown on the application or plans): MW-13

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.



9/20/10
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S.
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

SEAL

N.J. L.S. NO. 26791
LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): E201010294
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'36.01" NAD 83

Latitude (one-hundredth of a second): North 40°44'07.65" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 7.71' NAVD 88

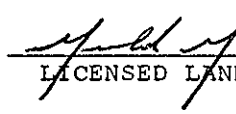
Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 7.36' NAVD 88

Owners Well Number (As shown on the application or plans): MW-14

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.



9/20/10
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S.
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

SEAL

N.J. L.S. NO. 26791
LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): E201010295
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'35.90" NAD 83

Latitude (one-hundredth of a second): North 40°44'07.28" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 7.88' NAVD 88

Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 7.54' NAVD 88

Owners Well Number (As shown on the application or plans): MW-15

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

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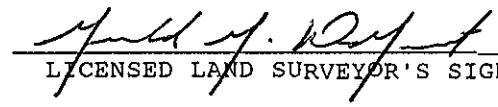

9/20/10
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S.
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

SEAL

N.J. L.S. NO. 26791
LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): E201010296
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'35.40" NAD 83

Latitude (one-hundredth of a second): North 40°44'06.93" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 8.01' NAVD 88

Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 7.80' NAVD 88

Owners Well Number (As shown on the application or plans): MW-16

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

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9/20/10
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S.
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

SEAL

N.J. L.S. NO. 26791
LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: Palmer Industries, Inc.

Name of Facility: Palmer Industries

Location: Rear of 59-97 Chapel St., City of Newark, Essex Co., NJ

NJPDES Number: _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): E201010297
This number must be permanently affixed to the well casing.

Longitude (one-hundredth of a second): West 74°08'35.84" NAD 83

Latitude (one-hundredth of a second): North 40°44'09.55" NAD 83

Elevation of Top of Casing (cap off) (one-hundredth of a foot): 7.73' NAVD 88

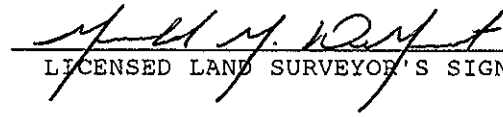
Elevation of Top of PVC or Collar (cap off) (one-hundredth of a foot): 7.49' NAVD 88

Owners Well Number (As shown on the application or plans): MW-17

Bench Mark N.J.G.C.S. DISK 9666-A Elevation 18.93' NAVD 88

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.



9/20/10
LICENSED LAND SURVEYOR'S SIGNATURE

Gerald G. DeGroat, L.S.
LICENSED LAND SURVEYOR'S NAME
(Please print or type)

SEAL

N.J. L.S. NO. 26791
LAND SURVEYOR'S LICENSE #

90 WHERLI ROAD, LONG VALLEY, N.J. 07853
(908) 852-5039

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	1/7/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW8	LOCATION:	Newark NJ
WELL PERMIT #	P200913760	WEATHER:	Sunny, 30s

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	19	*DEPTH TO WATER	5.49
FREE PRODUCT	None	WATER COLUMN HEIGHT	9.51
pH	6.95	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	13.5	GALLONS IN WELL	1.55
SPEC. COND. (us/cm)	0.984	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.04	LOW FLOW PROCEDURES - NO	

WELL EVACUATION

PURGE START	11:53	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	12:13	(check one)					Submersible
PURGING TIME	20	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.25	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	12:13						
pH	7.1						
SPEC. COND. (us/cm)	0.951						
DISSOLVED OXYGEN(mg/l)	0.3						
TEMPERATURE (C)	13.7						
*DEPTH TO WATER	5.49						

SAMPLING:

TIME OF WATER MEASUREMENT:	12:20		
*DEPTH TO WATER (ft)	5.49	pH	7.1
		TEMPERATURE (C)	13.5
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.943
PUMP		DISSOLVED OXYGEN	1.31
BAILER	X	COMMENTS	
SAMPLE START TIME	12:20		
SAMPLE STOP TIME	12:25		
SAMPLE ID #	MW8		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	grayish	PROJECT MANAGER	
ODOR:	swampy, oily	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	1/7/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW9	LOCATION:	Newark NJ
WELL PERMIT #	P200913761	WEATHER:	Sunny, 30s

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	0	*DEPTH TO WATER	6.29
FREE PRODUCT	None	WATER COLUMN HEIGHT	8.71
pH	6.58	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	12.6	GALLONS IN WELL	1.42
SPEC. COND. (us/cm)	0.385	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	1.24	LOW FLOW PROCEDURES - NO	

WELL EVACUATION

PURGE START	10:53	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	11:13	(check one)					Submersible
PURGING TIME	20	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.25	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	11:13						
pH	6.41						
SPEC. COND. (us/cm)	0.377						
DISSOLVED OXYGEN(mg/l)	0.75						
TEMPERATURE (C)	13.4						
*DEPTH TO WATER	6.29						

SAMPLING:

TIME OF WATER MEASUREMENT:	11:20		
*DEPTH TO WATER (ft)	6.29	pH	6.54
		TEMPERATURE (C)	13.2
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.38
PUMP		DISSOLVED OXYGEN	2.13
BAILER	X	COMMENTS	
SAMPLE START TIME	11:20		
SAMPLE STOP TIME	11:25		
SAMPLE ID #	MW9		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	none	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	1/7/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW10	LOCATION:	Newark NJ
WELL PERMIT #	P200913762	WEATHER:	Sunny, 30s

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	135	*DEPTH TO WATER	6.55
FREE PRODUCT	None	WATER COLUMN HEIGHT	8.45
pH	6.89	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	13.5	GALLONS IN WELL	1.37
SPEC. COND. (us/cm)	0.694	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.77	LOW FLOW PROCEDURES - NO	

WELL EVACUATION

PURGE START	1:07	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	1:27	(check one)					Submersible
PURGING TIME	20	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.25	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	1:27						
pH	6.94						
SPEC. COND. (us/cm)	0.71						
DISSOLVED OXYGEN(mg/l)	0.24						
TEMPERATURE (C)	13.7						
*DEPTH TO WATER	6.55						

SAMPLING:

TIME OF WATER MEASUREMENT:	1:35		
*DEPTH TO WATER (ft)	6.55	pH	6.97
		TEMPERATURE (C)	13.5
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.712
PUMP		DISSOLVED OXYGEN	0.55
BAILER	X	COMMENTS	
SAMPLE START TIME	1:35		
SAMPLE STOP TIME	1:40		
SAMPLE ID #	MW10		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	oily	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	1/7/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW11	LOCATION:	Newark NJ
WELL PERMIT #	P200913763	WEATHER:	Sunny, 30s

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	0	*DEPTH TO WATER	4.73
FREE PRODUCT	None	WATER COLUMN HEIGHT	10.27
pH	7.02	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	13	GALLONS IN WELL	1.7
SPEC. COND. (us/cm)	1.38	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	2.3	LOW FLOW PROCEDURES - NO	

WELL EVACUATION

PURGE START	9:30	CONVERSION FACTOR				METHOD (check one)
PURGE STOP	9:50	(check one)				Submersible
PURGING TIME	20	GALS.LINEAR FT.		WELL DIAM	x	**Peristaltic**
PURGE RATE	0.25	0.1632	X	2" =		Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =		Water pump
		1.4688	X	6" =		Other (describe)

TIME:	9:50						
pH	6.87						
SPEC. COND. (us/cm)	1.23						
DISSOLVED OXYGEN(mg/l)	2.32						
TEMPERATURE (C)	13.4						
*DEPTH TO WATER	4.73						

SAMPLING:

TIME OF WATER MEASUREMENT:	9:55		
*DEPTH TO WATER (ft)	4.73	pH	7
		TEMPERATURE (C)	13
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	1.22
PUMP		DISSOLVED OXYGEN	4.02
BAILER	X	COMMENTS	
SAMPLE START TIME	9:55		
SAMPLE STOP TIME	10:00		
SAMPLE ID #	MW11		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	none	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	2/16/2010
JOB #		WELL DIAMETER:	1"
WELL #	TW1	LOCATION:	Newark NJ
WELL PERMIT #	NA	WEATHER:	Snow

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	0
		*TOTAL WELL DEPTH	12
PID	0	*DEPTH TO WATER	6.35
FREE PRODUCT	None	WATER COLUMN HEIGHT	5.65
pH	6.53	CONVERSION FACTOR	0.04
TEMPERATURE (C)	11.7	GALLONS IN WELL	0.226
SPEC. COND. (us/cm)	0.542	TO PURGE (gals.)	1
DISSOLVED OXYGEN (mg/l)	2.13	LOW FLOW PROCEDURES - NO	
SALINITY	0.02		

WELL EVACUATION

PURGE START	1:00	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	1:15	(check one)					Submersible
PURGING TIME	15	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.07	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	1	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	1:15						
pH	6.18						
SPEC. COND. (us/cm)	0.5						
DISSOLVED OXYGEN(mg/l)	1.54						
TEMPERATURE (C)	11.3						
SALINITY	0.02						
*DEPTH TO WATER	6.35						

SAMPLING:

TIME OF WATER MEASUREMENT:	1:25	SALINITY	0.02
*DEPTH TO WATER (ft)	6.35	pH	6.16
		TEMPERATURE (C)	11.3
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.5
PUMP		DISSOLVED OXYGEN	1.05
BAILER	X	COMMENTS	
		slight sheen	
SAMPLE START TIME	1:25		
SAMPLE STOP TIME	1:30		
SAMPLE ID #	TW1		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	gasoline	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	2/16/2010
JOB #		WELL DIAMETER:	1"
WELL #	TW2	LOCATION:	Newark NJ
WELL PERMIT #	NA	WEATHER:	Snow

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	0
		*TOTAL WELL DEPTH	12
PID	0	*DEPTH TO WATER	5.98
FREE PRODUCT	None	WATER COLUMN HEIGHT	6.02
pH	6.34	CONVERSION FACTOR	0.04
TEMPERATURE (C)	10.8	GALLONS IN WELL	0.241
SPEC. COND. (us/cm)	1.37	TO PURGE (gals.)	1
DISSOLVED OXYGEN (mg/l)	0.56	LOW FLOW PROCEDURES - NO	
SALINITY	0.06		

WELL EVACUATION

PURGE START	2:15	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	2:30	(check one)					Submersible
PURGING TIME	15	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.07	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	1	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	2:30						
pH	6.39						
SPEC. COND. (us/cm)	1.4						
DISSOLVED OXYGEN(mg/l)	1.44						
TEMPERATURE (C)	10.3						
SALINITY	0.06						
*DEPTH TO WATER	5.98						

SAMPLING:

TIME OF WATER MEASUREMENT:	2:40	SALINITY	0.06
*DEPTH TO WATER (ft)	5.98	pH	6.44
		TEMPERATURE (C)	9.9
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	1.41
PUMP		DISSOLVED OXYGEN	0.72
BAILER	X	COMMENTS	
SAMPLE START TIME	2:40		
SAMPLE STOP TIME	2:45		
SAMPLE ID #	TW2		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	cloudy	PROJECT MANAGER	
ODOR:	none	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	2/16/2010
JOB #		WELL DIAMETER:	1"
WELL #	TW3	LOCATION:	Newark NJ
WELL PERMIT #	NA	WEATHER:	Snow

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	0
		*TOTAL WELL DEPTH	12
PID	0	*DEPTH TO WATER	5.8
FREE PRODUCT	None	WATER COLUMN HEIGHT	6.2
pH	6.39	CONVERSION FACTOR	0.04
TEMPERATURE (C)	9.1	GALLONS IN WELL	0.248
SPEC. COND. (us/cm)	1.1	TO PURGE (gals.)	1
DISSOLVED OXYGEN (mg/l)	1.67	LOW FLOW PROCEDURES - NO	
SALINITY	0.05		

WELL EVACUATION

PURGE START	3:35	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	3:40	(check one)					Submersible
PURGING TIME	15	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.07	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	1	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	3:40						
pH	6.52						
SPEC. COND. (us/cm)	1.19						
DISSOLVED OXYGEN(mg/l)	2.17						
TEMPERATURE (C)	8.4						
SALINITY	0.05						
*DEPTH TO WATER	5.8						

SAMPLING:

TIME OF WATER MEASUREMENT:	3:50	SALINITY	0.05
*DEPTH TO WATER (ft)	5.8	pH	6.57
		TEMPERATURE (C)	8.1
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	1.19
PUMP		DISSOLVED OXYGEN	2.9
BAILER	X	COMMENTS	
		sheen on water	
SAMPLE START TIME	3:50		
SAMPLE STOP TIME	3:55		
SAMPLE ID #	TW3		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	petroleum	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	5/27/2010
JOB #		WELL DIAMETER:	2"
WELL #	TW1A	LOCATION:	Newark NJ
WELL PERMIT #	NA	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	0
		*TOTAL WELL DEPTH	12
PID	67.1	*DEPTH TO WATER	6.03
FREE PRODUCT	None	WATER COLUMN HEIGHT	5.97
pH	6.59	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	19.3	GALLONS IN WELL	0.97
SPEC. COND. (us/cm)	0.734	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.09	LOW FLOW PROCEDURES - NO	
SALINITY	0.02		

WELL EVACUATION

PURGE START	11:10	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	12:00	(check one)					Submersible
PURGING TIME	50	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.1	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	12:00						
pH	6.74						
SPEC. COND. (us/cm)	0.662						
DISSOLVED OXYGEN(mg/l)	0.28						
TEMPERATURE (C)	15.7						
SALINITY	0.02						
*DEPTH TO WATER	6.03						

SAMPLING:

TIME OF WATER MEASUREMENT:	12:15	SALINITY	0.02
*DEPTH TO WATER (ft)	6.03	pH	6.67
		TEMPERATURE (C)	15.3
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.677
PUMP		DISSOLVED OXYGEN	0.06
BAILER	X	COMMENTS	
		slight sheen	
SAMPLE START TIME	12:15		
SAMPLE STOP TIME	12:20		
SAMPLE ID #	TW1A		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	gasoline	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	5/27/2010
JOB #		WELL DIAMETER:	2"
WELL #	TW3A	LOCATION:	Newark NJ
WELL PERMIT #	NA	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	0
		*TOTAL WELL DEPTH	12
PID	48.7	*DEPTH TO WATER	5.75
FREE PRODUCT	None	WATER COLUMN HEIGHT	6.25
pH	6.6	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	16.9	GALLONS IN WELL	1.02
SPEC. COND. (us/cm)	1.64	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.01	LOW FLOW PROCEDURES - NO	
SALINITY	0.07		

WELL EVACUATION

PURGE START	1:45	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	2:15	(check one)					Submersible
PURGING TIME	30	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.17	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	2:15						
pH	6.36						
SPEC. COND. (us/cm)	2.04						
DISSOLVED OXYGEN(mg/l)	0.58						
TEMPERATURE (C)	17.3						
SALINITY	0.09						
*DEPTH TO WATER	5.75						

SAMPLING:

TIME OF WATER MEASUREMENT:	2:30	SALINITY	0.08
*DEPTH TO WATER (ft)	5.75	pH	6.37
		TEMPERATURE (C)	16.3
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	1.85
PUMP		DISSOLVED OXYGEN	0.18
BAILER	X	COMMENTS	
		sheen on water	
SAMPLE START TIME	2:30		
SAMPLE STOP TIME	2:35		
SAMPLE ID #	TW3A		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	cloudy	PROJECT MANAGER	
ODOR:	petroleum	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	10/5/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW8R	LOCATION:	Newark NJ
WELL PERMIT #	E201010293	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	0.2	*DEPTH TO WATER	4.74
FREE PRODUCT	None	WATER COLUMN HEIGHT	10.26
pH	6.72	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	20	GALLONS IN WELL	1.67
SPEC. COND. (us/cm)	1.24	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.33	LOW FLOW PROCEDURES - NO	
SALINITY	0.05		

WELL EVACUATION

PURGE START	11:12	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	11:35	(check one)					Submersible
PURGING TIME	23	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.22	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	11:35						
pH	6.75						
SPEC. COND. (us/cm)	1.28						
DISSOLVED OXYGEN(mg/l)	0.33						
TEMPERATURE (C)	20.4						
SALINITY	0.05						
*DEPTH TO WATER	4.69						

SAMPLING:

TIME OF WATER MEASUREMENT:	11:45	SALINITY	0.05
*DEPTH TO WATER (ft)	4.74	pH	6.77
		TEMPERATURE (C)	20.5
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	1.27
PUMP		DISSOLVED OXYGEN	0.35
BAILER	X	COMMENTS	
		sheen on water	
SAMPLE START TIME	11:45		
SAMPLE STOP TIME	11:47		
SAMPLE ID #	MW8R		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	slighty cloudy	PROJECT MANAGER	
ODOR:	none	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	10/5/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW12	LOCATION:	Newark NJ
WELL PERMIT #	E201005220	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	33.4	*DEPTH TO WATER	4.83
FREE PRODUCT	None	WATER COLUMN HEIGHT	10.17
pH	6.91	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	19	GALLONS IN WELL	1.66
SPEC. COND. (us/cm)	2.38	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.61	LOW FLOW PROCEDURES - NO	
SALINITY	0.11		

WELL EVACUATION

PURGE START	1:25	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	1:50	(check one)					Submersible
PURGING TIME	25	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.2	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	1:50						
pH	6.99						
SPEC. COND. (us/cm)	2.13						
DISSOLVED OXYGEN(mg/l)	0.64						
TEMPERATURE (C)	19						
SALINITY	0.1						
*DEPTH TO WATER	4.8						

SAMPLING:

TIME OF WATER MEASUREMENT:	2:00	SALINITY	0.09
*DEPTH TO WATER (ft)	4.83	pH	6.98
		TEMPERATURE (C)	19.1
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	2.03
PUMP		DISSOLVED OXYGEN	0.6
BAILER	X	COMMENTS	
SAMPLE START TIME	2:00		
SAMPLE STOP TIME	2:05		
SAMPLE ID #	MW12		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	slight sheen	PROJECT MANAGER	
ODOR:	Swampy/Oily?	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	10/5/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW13	LOCATION:	Newark NJ
WELL PERMIT #	E201005221	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	13.7	*DEPTH TO WATER	4.35
FREE PRODUCT	None	WATER COLUMN HEIGHT	10.65
pH	7.24	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	20.4	GALLONS IN WELL	1.74
SPEC. COND. (us/cm)	0.663	TO PURGE (gals.)	6
DISSOLVED OXYGEN (mg/l)	0.5	LOW FLOW PROCEDURES - NO	
SALINITY	0.03		

WELL EVACUATION

PURGE START	12:19	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	12:43	(check one)					Submersible
PURGING TIME	24	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.25	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	6	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	12:43						
pH	7.27						
SPEC. COND. (us/cm)	0.673						
DISSOLVED OXYGEN(mg/l)	0.51						
TEMPERATURE (C)	20.9						
SALINITY	0.02						
*DEPTH TO WATER	4.3						

SAMPLING:

TIME OF WATER MEASUREMENT:	12:50	SALINITY	0.02
*DEPTH TO WATER (ft)	4.35	pH	7.25
		TEMPERATURE (C)	20.9
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.689
PUMP		DISSOLVED OXYGEN	0.26
BAILER	X	COMMENTS	
SAMPLE START TIME	12:50		
SAMPLE STOP TIME	12:55		
SAMPLE ID #	MW13		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	very slight sheen	PROJECT MANAGER	
ODOR:	Slight oil odor	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	10/5/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW14	LOCATION:	Newark NJ
WELL PERMIT #	E201010294	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	199	*DEPTH TO WATER	4.77
FREE PRODUCT	None	WATER COLUMN HEIGHT	10.23
pH	6.77	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	19.3	GALLONS IN WELL	1.67
SPEC. COND. (us/cm)	0.97	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.6	LOW FLOW PROCEDURES - NO	
SALINITY	0.03		

WELL EVACUATION

PURGE START	12:52	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	1:15	(check one)					Submersible
PURGING TIME	23	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.22	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	1:15						
pH	6.97						
SPEC. COND. (us/cm)	0.903						
DISSOLVED OXYGEN(mg/l)	0.49						
TEMPERATURE (C)	19.3						
SALINITY	0.03						
*DEPTH TO WATER	4.68						

SAMPLING:

TIME OF WATER MEASUREMENT:	1:25	SALINITY	0.03
*DEPTH TO WATER (ft)	4.77	pH	7.03
		TEMPERATURE (C)	19.4
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.887
PUMP		DISSOLVED OXYGEN	0.51
BAILER	X	COMMENTS	
SAMPLE START TIME	1:25		
SAMPLE STOP TIME	1:30		
SAMPLE ID #	MW14		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	Slight gasoline odor	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	10/5/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW15	LOCATION:	Newark NJ
WELL PERMIT #	E201010295	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	0.3	*DEPTH TO WATER	4.92
FREE PRODUCT	None	WATER COLUMN HEIGHT	10.08
pH	6.3	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	19.7	GALLONS IN WELL	1.64
SPEC. COND. (us/cm)	0.402	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.48	LOW FLOW PROCEDURES - NO	
SALINITY	0.01		

WELL EVACUATION

PURGE START	10:34	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	10:56	(check one)					Submersible
PURGING TIME	22	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.23	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	10:56						
pH	6.54						
SPEC. COND. (us/cm)	0.418						
DISSOLVED OXYGEN(mg/l)	0.51						
TEMPERATURE (C)	20						
SALINITY	0.01						
*DEPTH TO WATER	4.89						

SAMPLING:

TIME OF WATER MEASUREMENT:	11:05	SALINITY	0.01
*DEPTH TO WATER (ft)	4.92	pH	6.51
		TEMPERATURE (C)	20
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.42
PUMP		DISSOLVED OXYGEN	0.39
BAILER	X	COMMENTS	
SAMPLE START TIME	11:05		
SAMPLE STOP TIME	11:08		
SAMPLE ID #	MW15		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	swampy	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	10/5/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW16	LOCATION:	Newark NJ
WELL PERMIT #	E201010296	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	0.2	*DEPTH TO WATER	5.15
FREE PRODUCT	None	WATER COLUMN HEIGHT	9.85
pH	6.45	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	19.4	GALLONS IN WELL	1.61
SPEC. COND. (us/cm)	0.647	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.69	LOW FLOW PROCEDURES - NO	

WELL EVACUATION

PURGE START	9:56	CONVERSION FACTOR				METHOD (check one)
PURGE STOP	10:18	(check one)				Submersible
PURGING TIME	22	GALS.LINEAR FT.		WELL DIAM	x	**Peristaltic**
PURGE RATE	0.23	0.1632	X	2" =		Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =		Water pump
		1.4688	X	6" =		Other (describe)

TIME:	10:18						
pH	6.49						
SPEC. COND. (us/cm)	0.59						
DISSOLVED OXYGEN(mg/l)	0.78						
TEMPERATURE (C)	19.6						
*DEPTH TO WATER	5						

SAMPLING:

TIME OF WATER MEASUREMENT:	10:30		
*DEPTH TO WATER (ft)	5.15	pH	6.44
		TEMPERATURE (C)	19.6
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.579
PUMP		DISSOLVED OXYGEN	0.76
BAILER	X	COMMENTS	
SAMPLE START TIME	10:30		
SAMPLE STOP TIME	10:35		
SAMPLE ID #	MW16		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	none	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	10/5/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW17	LOCATION:	Newark NJ
WELL PERMIT #	E201010297	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	0.4	*DEPTH TO WATER	4.72
FREE PRODUCT	None	WATER COLUMN HEIGHT	10.28
pH	6.75	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	20.9	GALLONS IN WELL	1.68
SPEC. COND. (us/cm)	7.4	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.7	LOW FLOW PROCEDURES - NO	
SALINITY	0.4		

WELL EVACUATION

PURGE START	11:48	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	12:11	(check one)					Submersible
PURGING TIME	23	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.22	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	12:11						
pH	6.82						
SPEC. COND. (us/cm)	7.64						
DISSOLVED OXYGEN(mg/l)	1.4						
TEMPERATURE (C)	21						
SALINITY	0.41						
*DEPTH TO WATER	4.69						

SAMPLING:

TIME OF WATER MEASUREMENT:	12:15	SALINITY	0.41
*DEPTH TO WATER (ft)	4.72	pH	6.86
		TEMPERATURE (C)	21
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	7.58
PUMP		DISSOLVED OXYGEN	1.44
BAILER	X	COMMENTS	
SAMPLE START TIME	12:15		
SAMPLE STOP TIME	12:20		
SAMPLE ID #	MW17		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	none	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	12/4/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW8R	LOCATION:	Newark NJ
WELL PERMIT #	E201010293	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	0	*DEPTH TO WATER	5.62
FREE PRODUCT	None	WATER COLUMN HEIGHT	9.38
pH	6.71	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	15.6	GALLONS IN WELL	1.53
SPEC. COND. (us/cm)	0.99	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	1.29	LOW FLOW PROCEDURES - NO	
SALINITY	0.04		

WELL EVACUATION

PURGE START	1:40	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	2:03	(check one)					Submersible
PURGING TIME	23	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.22	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	2:03						
pH	6.69						
SPEC. COND. (us/cm)	1.03						
DISSOLVED OXYGEN(mg/l)	1.84						
TEMPERATURE (C)	14.8						
SALINITY	0.04						
*DEPTH TO WATER	5.62						

SAMPLING:

TIME OF WATER MEASUREMENT:	2:05	SALINITY	0.04
*DEPTH TO WATER (ft)	5.62	pH	6.66
		TEMPERATURE (C)	16.5
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	1.05
PUMP		DISSOLVED OXYGEN	1.73
BAILER	X	COMMENTS	
		sheen on water	
SAMPLE START TIME	2:05		
SAMPLE STOP TIME	2:07		
SAMPLE ID #	MW8R		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	slighty cloudy	PROJECT MANAGER	
ODOR:	none	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	12/4/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW12	LOCATION:	Newark NJ
WELL PERMIT #	E201005220	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	3.9	*DEPTH TO WATER	5.7
FREE PRODUCT	None	WATER COLUMN HEIGHT	9.3
pH	6.77	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	15.8	GALLONS IN WELL	1.52
SPEC. COND. (us/cm)	1.59	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.85	LOW FLOW PROCEDURES - NO	
SALINITY	0.07		

WELL EVACUATION

PURGE START	2:12	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	2:32	(check one)					Submersible
PURGING TIME	30	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.17	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	2:32						
pH	6.89						
SPEC. COND. (us/cm)	1.46						
DISSOLVED OXYGEN(mg/l)	0.75						
TEMPERATURE (C)	17						
SALINITY	0.06						
*DEPTH TO WATER	5.7						

SAMPLING:

TIME OF WATER MEASUREMENT:	2:40	SALINITY	0.06
*DEPTH TO WATER (ft)	5.7	pH	6.91
		TEMPERATURE (C)	17
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	1.44
PUMP		DISSOLVED OXYGEN	0.97
BAILER	X	COMMENTS	
SAMPLE START TIME	2:40		
SAMPLE STOP TIME	2:42		
SAMPLE ID #	MW12		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	slight sheen	PROJECT MANAGER	
ODOR:	Swampy/Oily?	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	12/4/2010
JOB #		WELL DIAMETER:	2"
WELL #	MW14	LOCATION:	Newark NJ
WELL PERMIT #	E201010294	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	10.2	*DEPTH TO WATER	5.56
FREE PRODUCT	None	WATER COLUMN HEIGHT	9.44
pH	6.72	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	16.4	GALLONS IN WELL	1.54
SPEC. COND. (us/cm)	0.856	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.07	LOW FLOW PROCEDURES - NO	
SALINITY	0.03		

WELL EVACUATION

PURGE START	2:34	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	2:55	(check one)					Submersible
PURGING TIME	21	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.24	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	2:55						
pH	6.69						
SPEC. COND. (us/cm)	0.84						
DISSOLVED OXYGEN(mg/l)	0.84						
TEMPERATURE (C)	16.8						
SALINITY	0.03						
*DEPTH TO WATER	5.56						

SAMPLING:

TIME OF WATER MEASUREMENT:	3:00	SALINITY	0.03
*DEPTH TO WATER (ft)	5.56	pH	6.71
		TEMPERATURE (C)	16.8
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.837
PUMP		DISSOLVED OXYGEN	1.19
BAILER	X	COMMENTS	
SAMPLE START TIME	3:00		
SAMPLE STOP TIME	3:02		
SAMPLE ID #	MW14		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	Slight gasoline odor	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	1/11/2011
JOB #		WELL DIAMETER:	2"
WELL #	MW8R	LOCATION:	Newark NJ
WELL PERMIT #	E201010293	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	0	*DEPTH TO WATER	5.99
FREE PRODUCT	None	WATER COLUMN HEIGHT	9.01
pH	7.33	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	15.3	GALLONS IN WELL	1.47
SPEC. COND. (us/cm)	0.838	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.49	LOW FLOW PROCEDURES - NO	
SALINITY	0.03		

WELL EVACUATION

PURGE START	11:30	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	11:55	(check one)					Submersible
PURGING TIME	25	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.2	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	11:55						
pH	6.86						
SPEC. COND. (us/cm)	0.862						
DISSOLVED OXYGEN(mg/l)	0.71						
TEMPERATURE (C)	14.9						
SALINITY	0.03						
*DEPTH TO WATER	5.99						

SAMPLING:

TIME OF WATER MEASUREMENT:	12:05	SALINITY	0.03
*DEPTH TO WATER (ft)	5.99	pH	6.74
		TEMPERATURE (C)	15
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.887
PUMP		DISSOLVED OXYGEN	0.7
BAILER	X	COMMENTS	
		sheen on water	
SAMPLE START TIME	12:05		
SAMPLE STOP TIME	12:08		
SAMPLE ID #	MW8R		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	slighty cloudy	PROJECT MANAGER	
ODOR:	swampy	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	1/11/2011
JOB #		WELL DIAMETER:	2"
WELL #	MW12	LOCATION:	Newark NJ
WELL PERMIT #	E201005220	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	22.7	*DEPTH TO WATER	6.01
FREE PRODUCT	None	WATER COLUMN HEIGHT	9
pH	7	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	14	GALLONS IN WELL	1.47
SPEC. COND. (us/cm)	1.73	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.21	LOW FLOW PROCEDURES - NO	
SALINITY	0.08		

WELL EVACUATION

PURGE START	10:52	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	11:15	(check one)					Submersible
PURGING TIME	23	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.22	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	11:15						
pH	7.07						
SPEC. COND. (us/cm)	1.48						
DISSOLVED OXYGEN(mg/l)	0.7						
TEMPERATURE (C)	14.5						
SALINITY	0.06						
*DEPTH TO WATER	6						

SAMPLING:

TIME OF WATER MEASUREMENT:	11:25	SALINITY	0.06
*DEPTH TO WATER (ft)	6	pH	7.05
		TEMPERATURE (C)	14.5
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	1.49
PUMP		DISSOLVED OXYGEN	0.85
BAILER	X	COMMENTS	
SAMPLE START TIME	11:25		
SAMPLE STOP TIME	11:28		
SAMPLE ID #	MW12		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	cloudy, slight sheen	PROJECT MANAGER	
ODOR:	Swampy/Oily?	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	1/11/2011
JOB #		WELL DIAMETER:	2"
WELL #	MW14	LOCATION:	Newark NJ
WELL PERMIT #	E201010294	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	28.6	*DEPTH TO WATER	5.89
FREE PRODUCT	None	WATER COLUMN HEIGHT	9.11
pH	7.06	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	13.6	GALLONS IN WELL	1.48
SPEC. COND. (us/cm)	0.72	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.84	LOW FLOW PROCEDURES - NO	
SALINITY	0.03		

WELL EVACUATION

PURGE START	10:12	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	10:34	(check one)					Submersible
PURGING TIME	22	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.23	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	10:34						
pH	7.04						
SPEC. COND. (us/cm)	0.752						
DISSOLVED OXYGEN(mg/l)	1.4						
TEMPERATURE (C)	14.7						
SALINITY	0.03						
*DEPTH TO WATER	5.89						

SAMPLING:

TIME OF WATER MEASUREMENT:	10:45	SALINITY	0.03
*DEPTH TO WATER (ft)	5.89	pH	6.99
		TEMPERATURE (C)	14.2
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.751
PUMP		DISSOLVED OXYGEN	1.19
BAILER	X	COMMENTS	
SAMPLE START TIME	10:45		
SAMPLE STOP TIME	10:48		
SAMPLE ID #	MW14		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	Slight gasoline odor	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	1/11/2011
JOB #		WELL DIAMETER:	2"
WELL #	MW13	LOCATION:	Newark NJ
WELL PERMIT #	E201005221	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	1.4	*DEPTH TO WATER	5.53
FREE PRODUCT	None	WATER COLUMN HEIGHT	9.47
pH	7.85	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	13.2	GALLONS IN WELL	1.54
SPEC. COND. (us/cm)	0.767	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.16	LOW FLOW PROCEDURES - NO	
SALINITY	0.03		

WELL EVACUATION

PURGE START	9:45	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	10:05	(check one)					Submersible
PURGING TIME	20	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.25	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	9:45						
pH	7.05						
SPEC. COND. (us/cm)	0.731						
DISSOLVED OXYGEN(mg/l)	1.34						
TEMPERATURE (C)	13.1						
SALINITY	0.03						
*DEPTH TO WATER	5.53						

SAMPLING:

TIME OF WATER MEASUREMENT:	10:10	SALINITY	0.03
*DEPTH TO WATER (ft)	5.53	pH	7.06
		TEMPERATURE (C)	13.1
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	0.732
PUMP		DISSOLVED OXYGEN	2.1
BAILER	X	COMMENTS	
SAMPLE START TIME	10:10		
SAMPLE STOP TIME	10:11		
SAMPLE ID #	MW13		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	very slight sheen	PROJECT MANAGER	
ODOR:	Slight oil odor	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

Well Sampling Data Form

Pennjersey Environmental Consulting, Inc.

GENERAL INFORMATION

PROJECT NAME:	Palmer Industries, Inc.	DATE:	1/11/2011
JOB #		WELL DIAMETER:	2"
WELL #	MW17	LOCATION:	Newark NJ
WELL PERMIT #	E201010297	WEATHER:	cloudy

INITIAL MEASUREMENTS:

		*DEPTH TO WELL SCREEN (ft)	3
		*TOTAL WELL DEPTH	15
PID	0	*DEPTH TO WATER	6.19
FREE PRODUCT	None	WATER COLUMN HEIGHT	8.81
pH	6.82	CONVERSION FACTOR	0.1632
TEMPERATURE (C)	14.2	GALLONS IN WELL	1.44
SPEC. COND. (us/cm)	3.01	TO PURGE (gals.)	5
DISSOLVED OXYGEN (mg/l)	0.71	LOW FLOW PROCEDURES - NO	
SALINITY	0.14		

WELL EVACUATION

PURGE START	8:44	CONVERSION FACTOR					METHOD (check one)
PURGE STOP	9:04	(check one)					Submersible
PURGING TIME	20	GALS.LINEAR FT.		WELL DIAM	x		**Peristaltic**
PURGE RATE	0.25	0.1632	X	2" =			Hand bailer
GALLONS PURGED:	5	0.6528	X	4" =			Water pump
		1.4688	X	6" =			Other (describe)

TIME:	9:04						
pH	6.75						
SPEC. COND. (us/cm)	3.91						
DISSOLVED OXYGEN(mg/l)	1.23						
TEMPERATURE (C)	14.4						
SALINITY	0.19						
*DEPTH TO WATER	6.19						

SAMPLING:

TIME OF WATER MEASUREMENT:	9:21	SALINITY	0.19
*DEPTH TO WATER (ft)	6.19	pH	6.77
		TEMPERATURE (C)	14.7
WITHDRAWAL (check one):		SPEC. COND. (us/cm)	3.96
PUMP		DISSOLVED OXYGEN	1.31
BAILER	X	COMMENTS	
SAMPLE START TIME	9:21		
SAMPLE STOP TIME	9:22		
SAMPLE ID #	MW17		
FIELD/TRIP BLANK #			
NO. OF CONTAINERS		Mike Brogan	
PHYSICAL APPEARANCE:	clear	PROJECT MANAGER	
ODOR:	none	FIELD TECHNICIAN	
REFRIGERATED /TIME			

*depth to groundwater from the surveyed top of casing.

APPLICATION DISPLAY

WELL DECOMMISSIONING SUBMITTAL PDF

PROPERTY OWNER:	Robert Chambers					
Organization:	Palmer Industries, Inc					
Address:	99 Chapel Street, Newark City (Essex), New Jersey 07901					
WELL LOCATION:	Palmer Industries, Inc					
Well Location Description:	04/23/2010					
Address:	CHAPEL STREET MW8					
County:	Essex	Municipality:	Newark	Lot:	3	Block: 2442
Easting(X):	590901	Northing(Y):	693054	Coordinate System:	NJ State Plane (NAD83) - USFEET	
Method:	Survey frm Benchmark			Point of Reference:	Well	
GPS Manufacturer:				Surveyor Name:		
GPS Model:				Surveyor License #:		
Accuracy:	10			Accuracy units:	feet	
WELL USE:	Monitoring			**DATE WELL DECOMMISSIONED:**	04/23/2010	
Other Use(s):						
Reason for Decommissioning:	Site Excavated/Demolished					
Was a New Well Drilled?	Yes	New Well Permit Number:		P201010293		

WELL DECOMMISSIONING INFORMATION

Permit Number:	P200913760		
Local ID:	MW-8	Drilling Company:	ENVIRONMENTAL MANAGEMENT CONSULTANTS
Finished Well Depth (ft.):	15	Address:	72 Cobb Street, Rockaway Boro (Morris), New Jersey 07866
Formation Type:	Unconsolidated	Driller Name and Lic.:	Alan Clark, 0001259
Well Search Completed?	No		

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wt./Rating/Screen Slot # (lbs/sch no.)
Borehole(s)				N/A	N/A
Casing(s)	0.25	3	2	PVC	
Screen(s)	3	15	2		

MATERIALS USED

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in)	Inner Diameter (in)	Bentonite (lbs.)	Material Neat Cement (lbs.)	Water (gal.)
Grout	0	15	2	0	7	225	12
Gravel Pack							
Grouting Method:	Pressure method (Tremie Pipe)						

ADDITIONAL INFORMATION

Obstructions:	No	Authorization Official:	
Obstruction Type:		Authorization Number:	
Alternative Decomm. Method?	No	Authorization Date:	
Method Used:	grout		

ATTACHMENTS:

Return

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Department of Environmental Protection
P.O. Box 402
Trenton, NJ 08625-0402

Last Updated: June 24, 2004

.CONTOUR MAP REPORTING FORM*

[PI 510630 – Palmer Industries, Inc. – RIR Figure 12 – GW Elevations, 11/05/2010, Noon)

This reporting form shall accompany each groundwater contour map submittal. Use additional sheets as necessary.

1. Did any surveyed well casing elevations change from the previous sampling event? Yes... No... If yes, attach new "Well Certification--Form B--Location Certification" as found in the "Guide for the Submission of Remedial Action Workplans" (NJDEP, March 1995) and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.). **NO**

2. Are there any monitor wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? Yes... No... If yes, identify these wells. . **NO**

3. Are there any monitor wells present at the site but omitted from the contour map? Yes... **No.**.. Unless the omission of the well(s) has been previously approved by the Department, justify the omissions.

4. Are there any monitor wells containing separate phase product during this measuring event? Yes... **No.**.. Were any of the monitor wells with separate phase product included in the groundwater contour map? Yes... No... If yes, show the formula used to correct the water table elevation.

5. Has the groundwater flow direction changed more than 45 degrees from the previous groundwater contour map? **Yes**... No... If yes, discuss the reasons for the change. **The site is bounded by the Passaic River, a tidally-influenced body that causes a 180° flow reversal every six hours.**

6. Has groundwater mounding and/or depressions been identified in the groundwater contour map? Yes... **No**... Unless the groundwater mounds and/or depressions are caused by the groundwater remediation system, discuss the reasons for this occurrence.

7. Are all the wells used in the contour map screened in the same water-bearing zone? **Yes**... No... If no, justify inclusion of those wells.

8. Were the groundwater contours computer generated..., computer aided..., or **hand-drawn**...? If computer aided or generated, identify the interpolation method(s) used.

- **Because of the tidal influence and salt-water intrusion effects of the Passaic River, individual contour maps were not produced for all ground water sampling episodes or for each hour of the tidal study that was conducted. Only two such maps were prepared, one for elevations measured at noon on November 5, 2010 and one for 6 p.m. on that date.**

.CONTOUR MAP REPORTING FORM*

[PI 510630 – Palmer Industries, Inc. – RIR Figure 12 – GW Elevations, 11/05/2010, 6 p.m.)

This reporting form shall accompany each groundwater contour map submittal. Use additional sheets as necessary.

1. Did any surveyed well casing elevations change from the previous sampling event? Yes... No... If yes, attach new "Well Certification--Form B--Location Certification" as found in the "Guide for the Submission of Remedial Action Workplans" (NJDEP, March 1995) and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.). **NO**

2. Are there any monitor wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? Yes... No... If yes, identify these wells. . **NO**

3. Are there any monitor wells present at the site but omitted from the contour map? Yes... **No.**.. Unless the omission of the well(s) has been previously approved by the Department, justify the omissions.

4. Are there any monitor wells containing separate phase product during this measuring event? Yes... **No.**.. Were any of the monitor wells with separate phase product included in the groundwater contour map? Yes... No... If yes, show the formula used to correct the water table elevation.

5. Has the groundwater flow direction changed more than 45 degrees from the previous groundwater contour map? **Yes**... No... If yes, discuss the reasons for the change. **The site is bounded by the Passaic River, a tidally-influenced body that causes a 180° flow reversal every six hours.**

6. Has groundwater mounding and/or depressions been identified in the groundwater contour map? Yes... **No**... Unless the groundwater mounds and/or depressions are caused by the groundwater remediation system, discuss the reasons for this occurrence.

7. Are all the wells used in the contour map screened in the same water-bearing zone? **Yes**... No... If no, justify inclusion of those wells.

8. Were the groundwater contours computer generated..., computer aided..., or **hand-drawn**...? If computer aided or generated, identify the interpolation method(s) used.

- **Because of the tidal influence and salt-water intrusion effects of the Passaic River, individual contour maps were not produced for all ground water sampling episodes or for each hour of the tidal study that was conducted. Only two such maps were prepared, one for elevations measured at noon on November 5, 2010 and one for 6 p.m. on that date.**

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM

PI #510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

APPENDIX 13

TIDAL STUDY

APPENDIX 13

TIDAL STUDY

Ground water levels during the initial sampling of monitoring wells were noted to vary significantly during the course of the day. On November 8, 2010, a tidal study was conducted to evaluate whether the Passaic River, a bordering tidal surface water body, was influencing the ground water elevations beneath the site. While ground water flow had been previously shown to move from south to north across the site (towards the river), the presence of elevated sodium levels was a further incentive to determine if ground water flow was altering on a routine basis and resulting in salt-water intrusion.

All wells onsite were gauged hourly for fifteen hours. When the mean sea level elevations were plotted against time, the results were dramatic. As shown in the chart on the following page, ground water flow reverses completely every six hours, with MW11 and MW17, the two wells closest to the river, shifting from upgradient to downgradient status related to the site and MW10, the southernmost well, following a reverse pattern.

This change in ground water flow is also illustrated by the two attached figures, one plotted from data acquired at noon and the other at 6 pm. The actual elevation data are provided on the table that completes this appendix. All figures and tables are also provided in the eponymous appendices.

FIGURE 11 - GW Elevation vs Time, 11/08/2010
PI# 510630 - Palmer Industries, Inc.
Remedial Investigation Report, May 2011

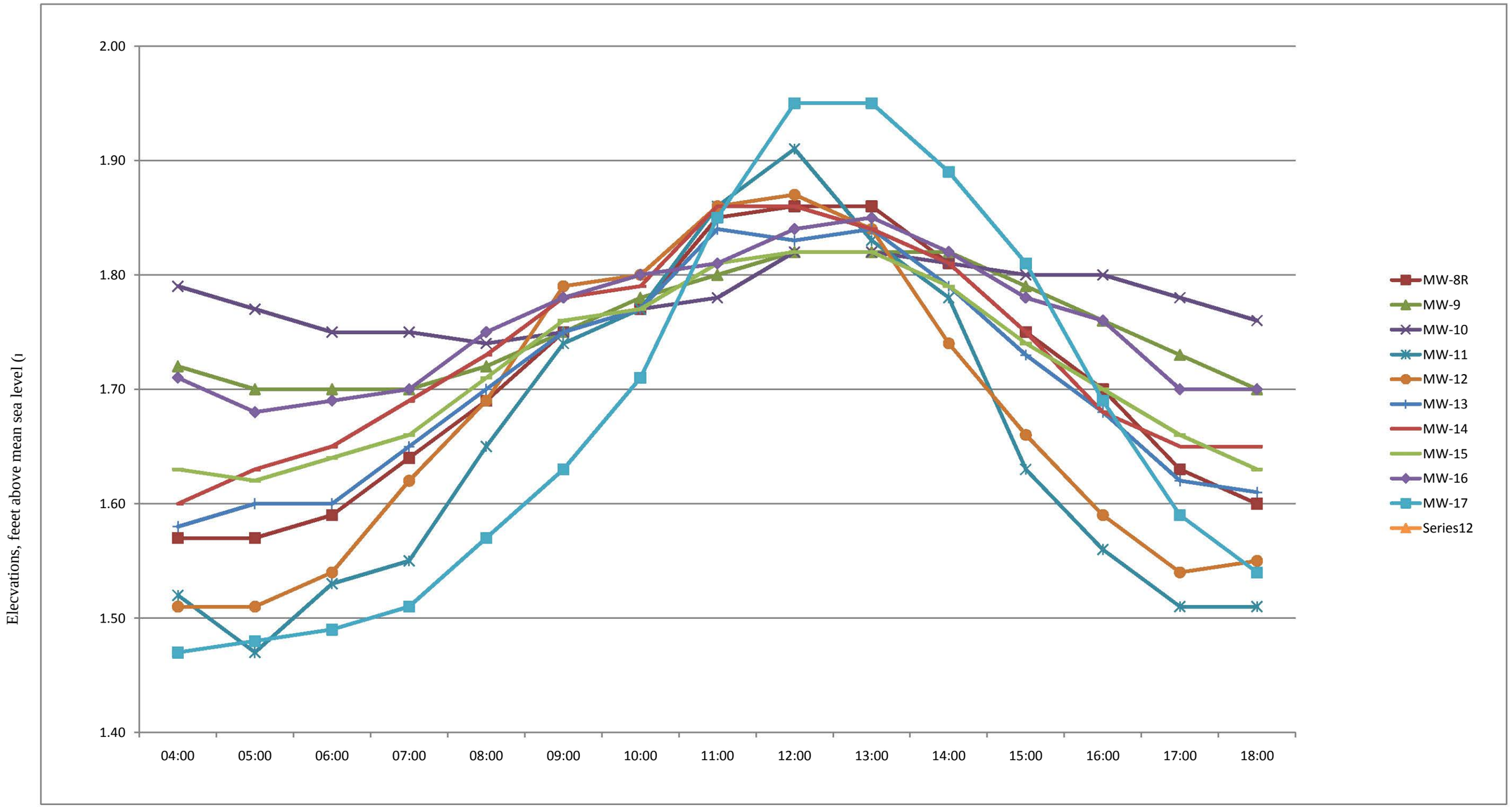
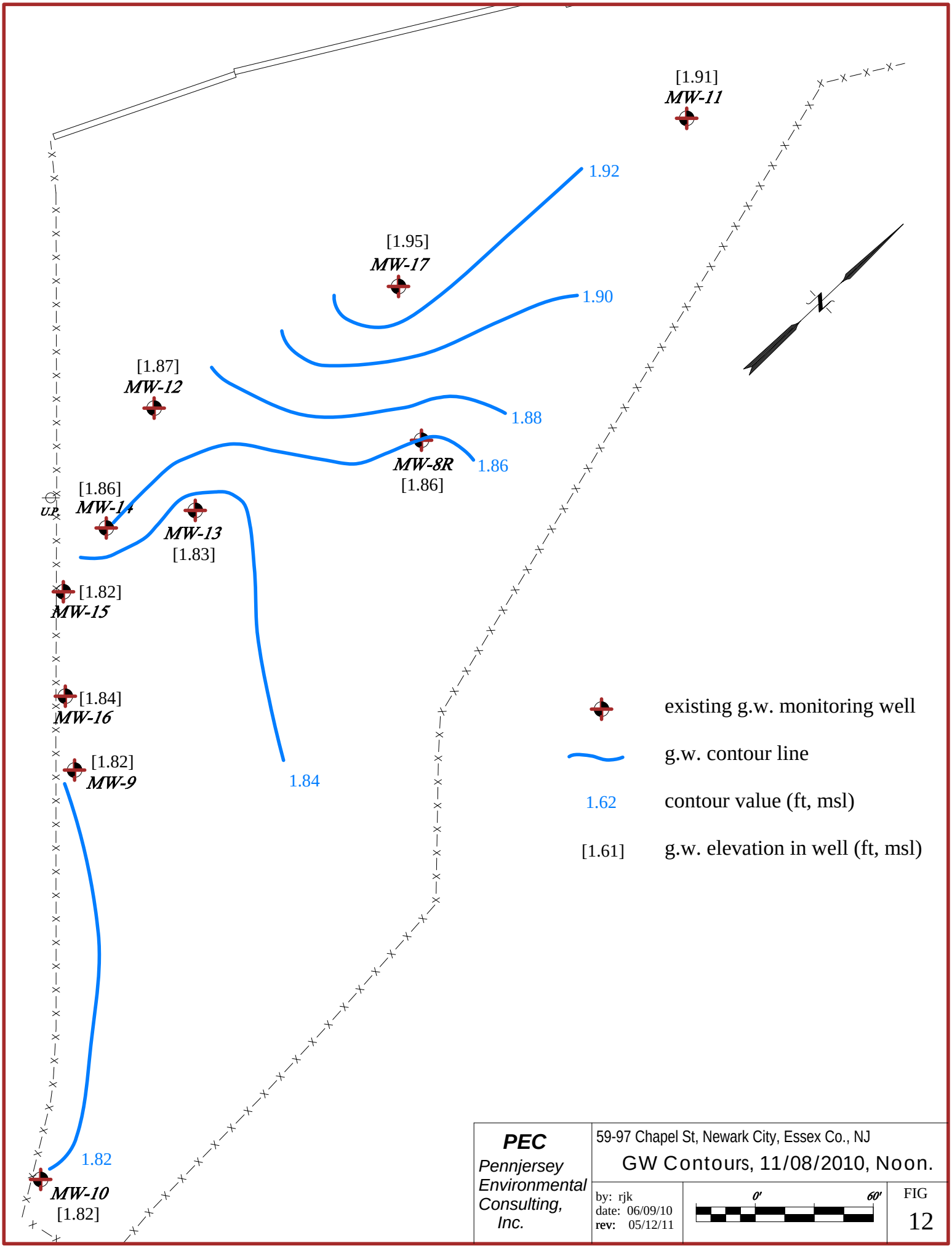
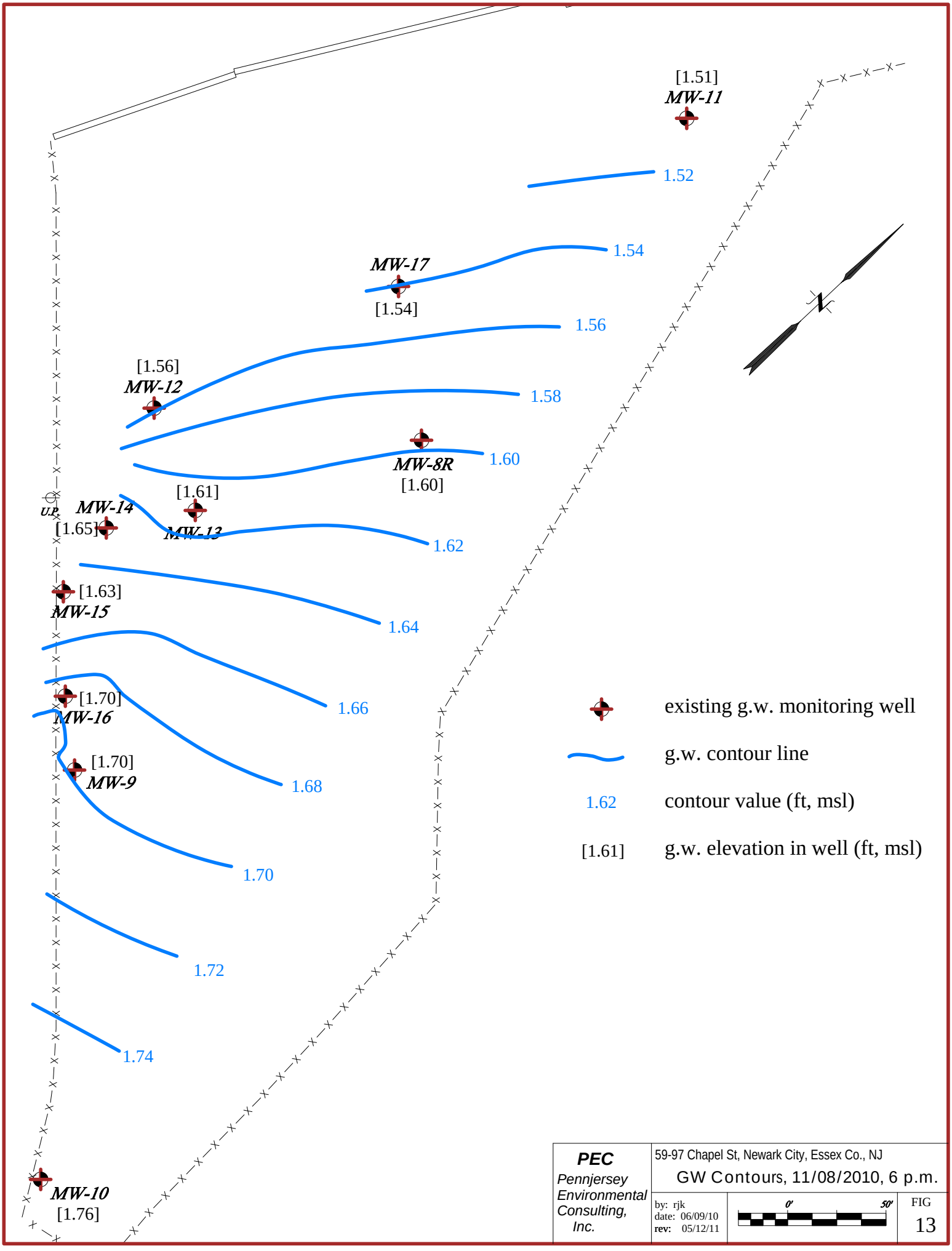


FIGURE 11: GW elevation v. time, 11/8/2010



PEC *Pennjersey Environmental Consulting, Inc.*	59-97 Chapel St, Newark City, Essex Co., NJ GW Contours, 11/08/2010, Noon.	FIG 12
	by: rjk date: 06/09/10 rev: 05/12/11	0' 60'



PEC *Pennjersey Environmental Consulting, Inc.*	59-97 Chapel St, Newark City, Essex Co., NJ GW Contours, 11/08/2010, 6 p.m.	
	by: rjk date: 06/09/10 **rev:** 05/12/11	0' 50'
		FIG 13

TABLE 4 - Tidal Effects on Ground Water Flow, 11/08/2010
PI# 510630 - Palmer Property, Inc.
Remedial Investigation Report, May 2011

	04:00	05:00	####	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
MW-8R	1.57	1.57	1.59	1.64	1.69	1.75	1.77	1.85	1.86	1.86	1.81	1.75	1.70	1.63	1.60
MW-9	1.72	1.70	1.70	1.70	1.72	1.75	1.78	1.80	1.82	1.82	1.82	1.79	1.76	1.73	1.70
MW-10	1.79	1.77	1.75	1.75	1.74	1.75	1.77	1.78	1.82	1.82	1.81	1.80	1.80	1.78	1.76
MW-11	1.52	1.47	1.53	1.55	1.65	1.74	1.77	1.86	1.91	1.83	1.78	1.63	1.56	1.51	1.51
MW-12	1.51	1.51	1.54	1.62	1.69	1.79	1.80	1.86	1.87	1.84	1.74	1.66	1.59	1.54	1.55
MW-13	1.58	1.60	1.60	1.65	1.70	1.75	1.77	1.84	1.83	1.84	1.79	1.73	1.68	1.62	1.61
MW-14	1.60	1.63	1.65	1.69	1.73	1.78	1.79	1.86	1.86	1.84	1.81	1.75	1.68	1.65	1.65
MW-15	1.63	1.62	1.64	1.66	1.71	1.76	1.77	1.81	1.82	1.82	1.79	1.74	1.70	1.66	1.63
MW-16	1.71	1.68	1.69	1.70	1.75	1.78	1.80	1.81	1.84	1.85	1.82	1.78	1.76	1.70	1.70
MW-17	1.47	1.48	1.49	1.51	1.57	1.63	1.71	1.85	1.95	1.95	1.89	1.81	1.69	1.59	1.54

Data in feet above mean sea level

APPENDIX 14

UST REGISTRATION & DELISTING DOCUMENTS

APPENDIX 14

UST REGISTRATION & DELISTING DOCUMENTS

REGISTRATION
(ONLINE – RECEIPT ONLY)

NOTICE OF INTENT

LOCAL DEMOLITION PERMITS

FINAL UST FACILITY CERTIFICATION QUESTIONNAIRE

Underground Storage Tank Initial Registration

Your Payment Has Been Confirmed!

We recommend that you print this page for your records.

Confirmation Number: 05573B

OK

contact dep | privacy notice | legal statement | accessibility statement

department: njdep home | about dep | index by topic | programs/units | dep online
statewide: njhome | citizen | business | government | services A to Z | departments | search

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Department of Environmental Protection
P. O. Box 402
Trenton, NJ 08625-0402

Last Updated: June 24, 2004

PECINC
Version 5.6.7 ID: 510630
Facility Name: PALMER INDUSTRIES INC Help | My Workspace | Logout

-->

New Jersey Department of Environmental Protection
Division of Remediation Support
Bureau of Risk Management, Initial Notice and Case Assignment
PO Box 435
Trenton, NJ 08625-0435
(609)633-0708

CLOSURE - Notice of Intent
Underground Storage Tank System

DEP Received Date: 11/10/2009
Earliest Start of Work Date: 11/24/2009
Expiration Date: 11/10/2010

TMS #: N09-7072 **Facility ID:** 510630
Activity #: UCL090001

Facility Name:
Palmer Industries, Inc.

Facility Address:
Rear of 59-97 Chapel Street
Newark City
Essex County

Decommission, close and conduct a site investigation for the UST(s) and all associated piping specified in this approval in accordance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E.

The management of any excavated soils must follow the requirements listed in N.J.A.C. 7:14B-8.2.

Note: The UNDERGROUND STORAGE TANK SERVICES CERTIFICATION ACT, N.J.S.A. 58:10A-24, requires all services performed on an UST system for the purpose of complying with P.L.1986, c.102 to be performed by or under the immediate on-site supervision of a person certified by the Department for that service. The certified person providing that service must be employed by a business that is also certified by the Department for that service.

Contact Person: Richard J Katz **Telephone #:** (215) 860-1231

This Permit must be displayed at the Site during the Approved Activity and must be made available for inspections at all times.

The above listed facility is hereby granted approval to perform the attached activities in accordance with N.J.A.C. 7:14b-1 et. seq..

12426431

Rafael Rivera, Supervisor
Bureau of Risk Management,
Initial Notice and Case
Assignment

TMS #: N09-7072 **Facility ID:** 510630

The closure of the following:

Tank No.	Length of Piping (ft)	Tank Size (gallons)	Tank Contents
5	None	8000	Heating Oil (No. 2)
4	None	8000	Alcohol Enriched Gasoline
3	None	1000	Alcohol Enriched Gasoline
2	16-50	8000	Alcohol Enriched Gasoline
1	16-50	8000	Alcohol Enriched Gasoline

Return

N.J. DIVISION OF CONSUMER AFFAIRS RULE: N.J.A.C. 13:45A - 16.2(a)10.ii

FOR INSPECTION ON CONSTRUCTION PERMITS FOR:
BUILDING
ELECTRIC
PLUMBING
FIRE PROTECTION
OR
ELEVATOR

Mike
973-733-6421

FINAL PAYMENT TO THE CONTRACTOR IS NOT REQUIRED TO BE MADE BEFORE A FINAL INSPECTION

Date Issued 12/3/09
Control # 97425
Permit # 20093088

CONSTRUCTION PERMIT NOTICE

Block 2442 Lot 3 Qualification Code _____

Work Site Location: 59-97 CHAPEL ST REAR
NEWARK NJ

AUTHORIZED FOR:

- ☑ BUILDING
- ☐ ELECTRICAL
- ☐ PLUMBING
- ☐ FIRE PROTECTION
- ☐ ELEVATOR DEVICES
- ☐ DEMOLITION
- ☐ OTHER _____

Description of Work: REMOVE (3) 8000 GAL UST'S, &
(1) 1000 GAL UST. NJ Mitigation CMTN

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.

City of Newark
920 BROAD STREET
NEWARK, NJ 07102
973 - 733-5632

Permit Number: 20093088
Permit Date: 12/03/2009
Update Number:
Control Number: 97425
Application Date: 11/14/2009

CONSTRUCTION PERMIT

IDENTIFICATION

OWNER/PROPERTY DETAILS

Block: 2442 Lot: 3 Qualification Code:

Work Site Location:	59-97 CHAPEL STREET REAR NEWARK	Contractor:	ENVIRONMENTAL MANAGEMENT, INC
Owner In Fee:	PALMER INDUSTRIES INC	Address:	72 COBB STREET
Address:	99 CHAPEL STREET		ROCKAWAY NJ 07866
	NEWARK NJ 07105	Telephone:	(973) - 983-7733
Telephone:	() -	Lic. No. / Bldrs. Reg. No.:	US 01138
Use Group(s):	S-1	Federal Emp. No.:	22-3544341

is hereby granted permission to perform the following work:

[X]BUILDING [ ]PLUMBING [ ] DEMOLITION
[ ]ELECTRICAL [ ]FIRE PROTECTION [ ] OTHER
[ ]ELEVATOR DEVICES [ ]MECHANICAL
[ ]ASBESTOS ABATEMENT [ ]LEAD HAZARD ABATEMENT

(Subchapter 8 only)

DESCRIPTION OF WORK:

WAREHOUSES / REMOVE 3-8000GAL GASOLINE USTS; 1-8000GAL #2 FUEL UST; 1-1000GAL GASOLINE UST

ESTIMATED COST OF WORK:

Cost of Construction:	0.00
Cost of Rehabilitation:	0.00
Cost of Demolition:	20,000 00
Total Cost:	$20,000 00

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Neil James Midtgard
Construction Official

12/3/09
Date

PAYMENTS (Office Use Only)

Building	$144 00
Electrical	
Plumbing	
Fire Protection	
Elevator Devices	
Mechanical	
VolFee (DCA)	
AltFee (DCA)	
Other Fees	
CO Fee	
CCO Fee	
Minimum Fee	
Total	$144 00
All Fees Waived:	No

Amount to be Paid:	**$144.00**
Check Number:	7712
Check amount:	$144.00

Collected by:	CMN
Receipt No:	
Total Cash Amount:	
Total Check Amount:	$144 00
Total CC Amount:	
Grand Total:	$144.00

Note:

City of Newark

BUILDING SUBCODE TECHNICAL SECTION

Date Received: 11/14/2009
Control #: 97425

Date Issued: 12/03/2009
Permit #: 20093088

A. IDENTIFICATION-APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTOR, NOTIFY THIS OFFICE.

Block: 2442 Lot: 3 Qualification Code:
Work Site Location: 59-97 CHAPEL STREET REAR

Owner Details

Name: PALMER INDUSTRIES INC
Address: 99 CHAPEL STREET

NEWARK NJ 07105

Telephone: -

Contractor Details

Contractor: ENVIRONMENTAL MANAGEMENT
Address: 72 COBB STREET
ROCKAWAY NJ 07866
Telephone: (973) 983-7733
Fax: (973) 983-0056
Lic No. or Bldrs Reg. No.: US 01138
Federal Emp. No: 223544341

B. BUILDING CHARACTERISTICS

Use Group	Present: S-1	Proposed:	
Constr. Class	Present:	Proposed:	
No. of Stories			
Height of Structure	Ft.	**Est. Cost of Bldg. work:**	
Area - Largest Floor	Sq. Ft.	1. New Building	0.00
New Bldg. Area/All Floors	Sq. Ft.	2. Rehabilitation	0.00
Volume of New Structure	Cu. Ft.	3. Demolition	20,000.00
Total Land Area Disturbed	Sq. Ft.	4. Total (1+2+3)	$20,000.00

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Signature

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

WAREHOUSES / REMOVE 3-8000GAL GASOLINE USTS; 1-8000GAL #2 FUEL UST; 1-1000GAL GASOLINE UST

TYPE OF WORK:

[ ] New Building
[ ] Addition
[ ] Rehabilitation
[ ] Roofing
[ ] Siding
[ ] Fence_____ Height (exceeds 6')
[ ] Pylon Sign Sq. Ft.
[ ] Ground or Wall Sign Sq. Ft.
[ ] Pool
[ ] Asbestos Abatement
[ ] Lead Haz. Abatement
[ ] Other 1
[ ] Other 2
[ ] Other 3
[X] Demolition

FEE (Office Use Only)

$144.00

Administrative Surcharge	
Minimum Fee	
State Permit Surcharge Fee	
Total Fee	$144.00

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial
[ ]No Plans Required		
[ ]All		
[ ]Footing		
[ ]Foundation		
[ ]Frame		
[ ]Other		

Joint Plan Review Required:
[ ] Elec. [ ] Plumb. [ ] Fire [ ] Elev.

SUBCODE APPROVAL
[ ] CO [ ] CCO [ ] CA

Date: _____

Approved by: _____

INSPECTIONS Type:	Dates(Month/Day) Failure	Failure	Approval	Initial
Footing				
Footing Bonding				
Foundation				
Slab				
Frame				
Truss Sys./Bracing				
Barrier-Free				
Insulation				
Finishes - Base Layer				
Finishes - Final				
Energy				
Mechanical				
TCO				
Other				
Final				
Barrier-Free				

Applicant: When submitting this form to your local Construction Code Enforcement Office, please provide one original and three photocopies.

BUILDING SUBCODE
TECHNICAL SECTION

Jerry Capanna ASC
11-16-04

Date Received
Control # 99425

Date Issued
Permit #

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 2442 Lot 3 Qualification Code _____

Work Site Location 59-97 Chapel St
Newark

Owner in Fee: Palmer Industries

Tel. ( ) _____ e-mail _____

Address 8 Lister ave, Newark, NJ 07105
street zip code

Contractor: Environmental Mgmt. Inc. Tel. ( )
72 Cobb Street
Rocakway, New Jersey 07866
(973) 983-7733, Fax (973) 983-0056
License # US 01138
Federal ID #: 22-3544341

Address _____

Contractor License No. or Builder Registration No. _____ Exp. Date _____

Home Improvement Contractor Registration No. or Exemption Reason (if applicable): _____

Federal Emp. ID No. _____ FAX: ( ) _____

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial
[ ] No Plans Required		
[ ] All		
[ ] Footing		
[ ] Foundation		
[ ] Frame		
[ ] Other		

Joint Plan Review Required:
[ ] Elec. [ ] Plumb. [ ] Fire [ ] Elevator

SUBCODE APPROVAL
[ ] CO [ ] CCO [ ] CA
Date: _____
Approved by: _____

INSPECTIONS Type:	Dates (Month/Day) Failure	Failure	Approval	Initial
Footing				
Footing Bonding				
Foundation				
Slab				
Frame				
Truss Sys./Bracing				
Barrier-Free				
Insulation				
Finishes -Base Layer				
Finishes -Final				
Energy				
Mechanical				
TCO				
Other				
Final				
Barrier-Free				

B. BUILDING CHARACTERISTICS

Use Group Present _____ Proposed Warehouse

Constr. Class Present _____ Proposed _____

No. of Stories _____

Height of Structure _____ Ft.

Area — Largest Floor _____ Sq. Ft.

New Bldg. Area/All Floors _____ Sq. Ft.

Volume of New Structure _____ Cu. Ft.

Total Land Area Disturbed _____ Sq. Ft.

Est. Cost of Bldg. Work:

1. New Bldg. $ _____
2. Rehabilitation $ _____
3. Total (1+ 2) $ 20,000

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Christine Lackner
Signature

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Removal of 3x8000 gallon gasoline UST'S
1x8000 gallon #2 oil UST
1x1000 gallon gasoline UST.

TYPE OF WORK:

[ ] New Building
[ ] Addition
[ ] Rehabilitation
[ ] Roofing
[ ] Siding
[ ] Fence _____ Height (exceeds 6')
[ ] Sign _____ Sq. Ft.
[ ] Pool
[ ] Retaining Wall _____ Sq. Ft.
[ ] Asbestos Abatement Subchapter 8
[ ] Lead Haz. Abatement NJAC 5:17
[ ] Radon Remediation
[ ] Other _____
[ ] Demolition

FEE (Office Use Only)

$

Administrative Surcharge $
Minimum Fee $
State Permit Surcharge Fee $
TOTAL FEE $

U.C.C. F110
(rev. 7/06)

1 White = Inspector Copy
2 Canary = Office Copy
3 Pink = Office Copy
4 Gold = Applicant Copy

PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

December 24, 2009

Ms. Sarah Mihalik, Principal Tech MIS (Electronic mail & USPS)
New Jersey Department of Environmental Protection
Bureau of Risk Management, Initial Notice and Case Assignment
Registration & Billing Unit
401 East State Street
P.O. Box 028
Trenton, New Jersey 08625-0028

Re: Final UST Facility Certification Questionnaire, Facility ID 510630
Palmer Industries, Inc., 59-97 Chapel Street
Newark City, Essex County, New Jersey

Dear Ms. Mihalik:

The referenced document is attached for your review and action.

The presence of these tanks was unknown to the owner prior to a ground penetrating radar survey and subsequent trenching of the observed anomalies. Based on a review of site history and the GPS survey work, no underground storage tanks remain at this property. Therefore, we request that it be de-listed as a UST facility.

Please feel free to call me with any questions or comments you may have.

Very truly yours,
Pennjersey Environmental Consulting, Inc.

Richard J. Katz, M.S.
President

enc.

c: C. Guido (e-mail only)
R. Chambers (e-mail only)
M. Brogan (e-mail only)

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF REMEDIATION SUPPORT
UST Program • Registration and Billing Unit
PO Box 028, Trenton, N.J. 08625-0028
1-609-633-1464 • www.state.nj.us/dep/srp/bust

STATE USE ONLY
Check In ☐ Yes ☐ No

UNDERGROUND STORAGE TANK FACILITY CERTIFICATION QUESTIONNAIRE

FACILITY UST = (PROGRAM INTEREST ID): 026488

Completion of this Registration Questionnaire will satisfy the registration requirements of the Underground Storage of Hazardous Substances Act, N.J.S.A. 58:10A-21 et seq., and the Underground Storage Tank Rules N.J.A.C. 7:14B et. seq.

Check appropriate box

A. ☐ This is a registration of a proposed or newly installed underground storage tank. (This form must be filed at least 30 days prior to operation)
B. ☐ This is a registration of an existing underground storage tank not presently registered.
C. ☒ This is a correction or amendment to an existing facility registration.
D. ☐ There have been no changes to the facility registration since last submittal. (Go to certification page for signature)

If "C" is checked above, please check the appropriate type of change(s) below

☐ Facility Name and/or Address Change
☐ Owner Name and/or Address Change
☐ Facility Operator and/or Address Change
☐ Owner Contact Person Change
☐ Type of Product{s} Stored
☐ Substantial Modification(s)
☐ Tank{s) and/or Piping Changes
☒ Closure (Complete Section B Questions 1,4,5,11)
☐ Financial Responsibility Change
☐ Sale or Transfer (Complete Section A, Question 4 & Section B, 11H)
☐ Other *(please specify)* _____

SECTION A - GENERAL FACILITY INFORMATION

1. Facility Name: PALMER INDUSTRIES, INC.

2. Facility Location
Address Line 1

Address Line 2

City or Municipality

COUNTY | STATE | ZIP CODE | BLOCK | LOT

3. Facility Operator

ORGANIZAION (if applicable, e.g. COmpany) or INDIVIDUAL

Contact Person

PERSON | TITLE

PHONE NUMBER (INCLUDE AREA CODE & EXT) | E-MAIL ADDRESS

Operator Address (if different than #2)

ADDRESS LINE ! (NUMBER AND STREET)

ADDRESS LINE 2 (e.g. PO BOX, SUITE)

CITY OR MUNICIPALITY | STATE | ZIP CODE

4. Tank Owner (Organizaation)

Contact Person

PERSON | TITLE

PHONE NUMBER (INCLUDE AREA CODE & EXT) | E-MAIL ADDRESS

Tank Owner Address

NUMBER AND STREET

ADDRESS LINE ! (NUMBER AND STREET)

ADDRESS LINE 2 (e.g. PO BOX, SUITE)

CITY OR MUNICIPALITY | STATE | ZIP CODE

5. Billing Address: Check one below

☐ Source or tank owner address listed in A.4. ☐ Same as facility operator address listed in Section A.3 ☐ Other and attach billing address

6. Total number of regulated underground storage tanks at facility [ ][ ][ ]0 (Complete Section B for each tank)

7. Total regulated underground storage tank capacity at facility (gallons) [ ][ ][ ][ ][ ][ ]0

8. Facility Type: A ☐ State C ☐ County/Municipal E ☐ Charitable/Public School G ☐ Farm (as defined in N.J.S.A. 54:4-23.1 et seq.)
B ☐ Commercial/Industrial D ☐ Federal F ☐ Residential

NOTE: The facility site plan must be submitted when registering any underground storage tank pursuant to N.J.A.C. 7:14B-2.2

SECTION B- SPECIFIC TANK INFORMATION

ALL underground tanks, including those taken out of operation (UNLESS THE TANK WAS REMOVED FROM THE GROUND PRIOR TO 9/3/86) must be registered. Report all tank/piping status changes. ***DO NOT MARK SHADED AREAS***

	TANK NO. 0001		TANK NO. 0002		TANK NO. 0003		TANK NO. 0004		TANK NO. 0005	
1. Tank Identification Number										
2. CAS Number (hazardous substances only)										
3. Date Tank Installed										
4. Tank Size (gallons) - Please note that each compartment is considered a separate Tank System	7600		7600		1000		10000		10000	
5. Tank Contents (Mark one "X" for each tank)										
A. Leaded gasoline					x					
B. Unleaded gasoline										
C. Alcohol enriched gasoline										
D. Light diesel fuel (No. 1-D)										
E. Medium diesel fuel (No. 2-D)										
F. Waste OIl										
G. Kerosene (No. 1)										
H. Heating Oil (No. 2) Complete 13c										
I. Heating oil (No. 4) Complete 13c	X						X		X	
J. Heating oil (No. 6) Complete 13c			X							
K. Aviation fuel										
L. Motor oil										
M. Lubricating oil										
N. Automatic Transmission Fluid										
O. Hazardous Waste (Specify ID Number)										
P. Coolant / Antifreeze										
Q. Other (please specify)										
6. Tank & Piping Construction (Mark at least one each for Tank and Piping)	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
A. Bare Steel										
B. Cathodically Protected Metal (Mark SA or IC)										
1. Sacrificial Anode (SA) *Date Impressed Current Installed (Tank Only)	Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year	
2. Impressed Current (IC) *Date Impressed Current Installed (Tank Only)	Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year	
C. Fiberglass-Coated Steel (TANK ONLY)										
D. Fiberglass-Reinforced Plastic										
E. Internally Lined (TANK ONLY) *Date Internal Lining Installed	Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year	
F. Other (please specify) (Include Brand Name)										
7. Piping Operation (Mark one for each tank system)										
G. Pressurized piping (PIPING ONLY)										
H. American Suction Piping (PIPING ONLY)										
I. European Suction Piping (PIPING ONLY)										
8. Tank & Piping Structure (Mark one for each TANK & PIPING)										
A. Single wall										
B. Double wall										
C. Secondary Containment (e.g., Externally Lined)										
9. Type of Monitoring/Detection (Mark all that apply for TANK & PIPING)										
A. Statistical inventory reconciliation Vendor Name & Phone Number										
B. Manual tank gauging (TANK ONLY)										
C. Inventory control (TANK ONLY)										
D. Interstitial										
E. Tightness test										
F. Ground water observation wells										
G. Vapor observation wells										
H. In-Tank (Auto Monitoring Gauge TANK ONLY)										
I. In-Line Electronic Pressure Monitor (PIPING ONLY) See Definition Page 4										
J. Automatic Line Leak Detector (PIPING ONLY) See Definition Page 4										
K. None (TANK & PIPING)										

Tank Identification Number	TANK NO. 0001	TANK NO. 0002	TANK NO. 0003	TANK NO. 0004	TANK NO. 0005
10. Overfill Protection (Mark one X for each tank)					
A. Yes					
B. No					
11. Spill Containment Around Fill Pipe (Mark one X for each tank)					
A. Yes					
B. No					
12. Tank Status (mark all appropriate choices for each tank)					
A. In-use					
B. Out of Service (See Definition Page 4)					
Date Taken Out of Service	Mo Day Year	Mo Day Year	Mo Day Year	Mo Day Year	Mo Day Year
C Closed					
1. Removed	X	X	X	X	X
Date Removed	Mo 12 Day 08 Year 2009	Mo 12 Day 14 Year 2009	Mo 12 Day 08 Year 2009	Mo 12 Day 07 Year 2009	Mo 12 Day 07 Year 2009
Closure #	N09-7072	N09-7072	N09-7072	N09-7072	N09-7072
2. Abandoned In Place (complete 12A)			X		
Date Abandoned In Place	Mo Day Year	Mo Day Year	Mo Day Year	Mo Day Year	Mo Day Year
Closure #					
13. Tank Use Information (Mark if applicable)					
A. Emergency Back-up Generator					
B. Sump (See Definition Page 4)					
C Heating Oil Tanks If you checked H, I or J under item B5 on Page 2, check one of the following					
1. Product for on-site consumption use					
2. Product for sale or distribution					
14. Other Information (Mark if applicable)					
A. Date of sale or transfer	Mo Day Year	Mo Day Year	Mo Day Year	Mo Day Year	Mo Day Year
B. Substantial Modification #					
C. ISRA # (if applicable)					
15. Is the tank within wellhead protection area as defined on pg. 4 (Mark for each tank)					
A. Yes					
B. No	X				

SECTION C - FINANCIAL RESPONSIBILITY

Please note: In addition to new submittals, any change in the Financial Responsibility Assurance Mechanism as per N.J.A.C. 7:14B 2.2 (including policy renewal date) for an existing facility shall be listed below

Type _____ Carrier / Issuing Agency _____

Effective Date _____ Expiration Date _____ Policy Number _____ $ _____ Amount of Aggregate Coverage

SECTION D -GENERAL GUIDANCE

FEE	(if applicable) Please make checks payable to: "Treasurer, State of New Jersey". Registration and Billing Fee Schedule can be found in N.J.A.C. 7:14B-3)
PENALTY:	Failure by owner or operator of a regulated underground storage tank to comply with any requirement of 7:14B et seq. may result in penalties set forth in N.J.S.A. 58:10A-12
EMERGENCY:	If a discharge or spill occurs, the NJDEP Hotline at (877) 927-6337 must be called **IMMEDIATELY** - 24 hours a day.
EXEMPTION	Residential heating oil underground storage tanks are exempt from the rules as per by N.J.S.A. 58:10A-21 et seq. Please see N.J.A.C. 7:14B-1.4(b) for other exemptions
PUBLICATIONS:	Operation and maintenance / record keeping / compliance publications are available on line at www.state.nj.us/dep/srp/bust Suggested Publications: "Underground and Storage Tank Owner's Self-inspection Checklist" and "Tank Care"
QUESTIONNAIRE	Initial facility registrations can be submitted online at www.njdeponline.com (enewal and modifications need prior DEP pin code approval to submit online).
MAILING.	UST Registration Certificates are mailed directly to the facility to be displayed prominently as per N.J.A.C. 7:14B-2.6

SECTION E - CERTIFICATION

Must be signed as follows:

- For a corporation, by a person authorized by resolution of the Board of Directors to sign the document.
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively
- For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.
- For persons other than indicated above, by the person with legal responsibility for the site

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute I am personally liable for the penalties."

Christopher A, Guido
(Typed/Printed Name)

(Signature)

Managing Director
(Title)

12/21/05
(Date)

SECTION F - DEFINITIONS

Section B7 C. **"European" Suction Piping** - Suction Piping which has enough slope so that the product in the pipe can drain back into the tank when the suction is released, and which has only one check valve, located directly beneath the pump in the dispensing unit. Any underground storage tank equipped with "European" Suction Piping has no monitoring detection requirements for piping

Section B9 I. **In-Line Electronic Pressure Monitor** - (Used with pressurized piping only) A monitor which checks for loss of pressure piping when no product is dispensed. This method may be used once every 30 days or every time the dispenser turns off.

Section B9 J. **Automatic Line Leak Detectors** - (Required with pressurized piping - Must be able to detect a 3 gph leak within 1 hour of its occurrence).

1. Flow restrictors and flow shut offs which monitor pressure within piping and when a suspected leak is detected, either restricts the flow of product through the piping well below the 3 gph leak rate it detects, or completely cuts off product flow and shuts down the pump.

2. Continuous alarm systems constantly monitor piping conditions and trigger an audible or visual alarm if a leak is suspected.

Section B12 B. **Out of Service Storage Tank** - Any underground storage tank system in which hazardous substances are contained or have been contained, but from which hazrdous substances are not or have not been introduced or dispensed pending a decision to close the system or begin reuse of the system.

Please Note: Underground storage tank systems which are out of service shall comply with the provisions of N.J.A.C. 7:14B-9.1. The owner or operator of an underground storage tank system which is out of service for a period greater than three months shall follow the guidelines in the current American Petroleum Institute Bulletin #1604. The owner or operator may request that the underground storage tank system remain out of service for a period of more than 12 months without having to permanently close the tank system by complying with the provisions of N.J.A.C. 7:14B-9.1(b) by submitting a Site Investigation (SI) Report at least 30 days before expiration of the 12 month period.

Section B11 C. **Sump** - any underground storage tank used to collect or contain a hazardous substance for no more than 48 hours.

Section B13 Wellhead Protection Area -

1. The area within a 2,000 ft. radius surrounding a public community or public non-community water system well when there is an underground storage tank containing gasoline or non-petroleum hazardous substances located within that area.

2. The area within a 750 ft. radius surrounding a public community or public non-community water system well when there is an underground storage tank containing petroleum products other than gasoline located within that area.

PI #510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

APPENDIX 15

BACKFILL & DISPOSAL RECEIPTS

N99C

WEIGHMASTER CERTIFICATE
TRUCK SCALE

Metal Management Northeast, Inc

Ticket #: TVMID0

Purchased From: CP000P SHIP DATE: 12/09/09
EMC

MTLM-NORTHEAST/NAPORANO-H.S.
P.O. BOX 5158
NEWARK, NJ 07105

Veh # TK ID # WHDP EMC

SHPMNT#	COMMODITY	GROSS	TARE	NET	ADJ	REASON	PD WT	PRICE	TOTAL AMT
TVMID0	UPPD TANKS	29960a	23120b	6840	0		6840	145.0000GT	442.77
TOTALS		29960	23120	6840	0		6840		442.77

ALL WEIGHTS ARE REPORTED IN POUNDS UNLESS OTHERWISE INDICATED. ALL NON-POUND WEIGHTS ARE ASSUMED TO BE MANUAL WEIGHTS

GRS Date 12/09/09	GROSS TONS
GRS Time 13:39	3.0536
TRE Date 12/09/09	
TRE Time 13:52	

(JEFFREY DOMINGOS)

a=SCALE 1 b=SCALE 2 c=SCALE 3 d=SCALE 4 m=MANUAL WEIGHT

**** Total Paid at 12/09/09 1:53pm on Cash Receipt No. 490630 $442.00 ****

N99C

WEIGHMASTER CERTIFICATE
TRUCK SCALE

Metal Management Northeast, Inc

Ticket #: TVMID9

Purchased From: CP000P
EMC

SHIP DATE: 12/09/09

MTLM-NORTHEAST/NAPORANO-H.S.
P.O. BOX 5158
NEWARK, NJ 07105

Veh # TK ID # EMC

SHPMNT#	COMMODITY	GROSS	TARE	NET	ADJ. REASON	PD. WT.	PRICE	TOTAL AMT.
TVMID9	UPPD TANKS	20700m	13860m	6840	-300 DEBRIS	6540	145.0000GT	423.34

ALL WEIGHTS ARE REPORTED IN POUNDS UNLESS OTHERWISE INDICATED. ALL NON-POUND WEIGHTS ARE ASSUMED TO BE MANUAL WEIGHTS

TOTALS	20700	13860	6840	-300	6540	423.34

GRS Date	12/09/09
GRS Time	13:57
TRE Date	12/09/09
TRE Time	13:57
GROSS TONS	2.9196

(JEFFREY DOMINGOS)

a=SCALE 1 b=SCALE 2 c=SCALE 3 d=SCALE 4 m=MANUAL WEIGHT

**** Total Paid at 12/09/09 1:57pm on Cash Receipt No. 490632 $423.00 ****

N99C

WEIGHMASTER CERTIFICATE
TRUCK SCALE

Metal Management Northeast, Inc

Ticket #: TVMIF1

Purchased From: CP000P SHIP DATE: 12/09/09
EMC 1

,

MTLM-NORTHEAST/NAPORANO-H.S.
P.O. BOX 5158
NEWARK, NJ 07105

Veh # TK ID # EMC

SHPMNT#	COMMODITY	GROSS	TARE	NET	ADJ	REASON	PD WT	PRICE	TOTAL AMT
TVMIF1	UPPD TANKS	26560a	23120b	3440	0		3440	145.0000GT	222.68

ALL WEIGHTS ARE REPORTED IN POUNDS UNLESS OTHERWISE INDICATED. ALL NON-POUND WEIGHTS ARE ASSUMED TO BE MANUAL WEIGHTS

TOTALS	26560	23120	3440	0	3440	222.68

GRS Date 12/09/09	GROSS TONS
GRS Time 14:34	1.5357
TRE Date 12/09/09	
TRE Time 14:44	

(JEFFREY DOMINGOS)

a=SCALE 1 b=SCALE 2 c=SCALE 3 d=SCALE 4 m=MANUAL WEIGHT

**** Total Paid at 12/09/09 2:44pm on Cash Receipt No. 490643 $222.00 ****

N99C

WEIGHMASTER CERTIFICATE
TRUCK SCALE

Metal Management Northeast, Inc

Ticket #: TVMIH1

Purchased From: CP000P SHIP DATE: 12/09/09
EMC 1

MTLM-NORTHEAST/NAPORANO-H.S.
P.O. BOX 5158
NEWARK, NJ 07105

,

Veh # TK ID # EMC 1

SHPMNT#	COMMODITY	GROSS	TARE	NET	ADJ	REASON	PD WT	PRICE	TOTAL AMT
TVMIH1	UPPD TANKS	26500a	23140b	3360	0		3360	145.0000GT	217.50

ALL WEIGHTS ARE REPORTED IN POUNDS UNLESS OTHERWISE INDICATED. ALL NON-POUND WEIGHTS ARE ASSUMED TO BE MANUAL WEIGHTS

TOTALS	26500	23140	3360	0	3360	217.50

GRS Date 12/09/09	GROSS TONS
GRS Time 15:17	1.5000
TRE Date 12/09/09	
TRE Time 15:25	

(JEFFREY DOMINGOS)

a=SCALE 1 b=SCALE 2 c=SCALE 3 d=SCALE 4 m=MANUAL WEIGHT

**** Total Paid at 12/09/09 3:25pm on Cash Receipt No. 490656 $217.00 ****

N99C

WEIGHMASTER CERTIFICATE
TRUCK SCALE

Metal Management Northeast, Inc

Ticket #: TVMIH2

Purchased From: CP000P
SCALE/PEDDLER SUPPLIER

SHIP DATE: 12/09/09

MTLM-NORTHEAST/NAPORANO-H.S.
P.O. BOX 5158
NEWARK, NJ 07105

,

Veh # TK ID # EMC 2

SHPMNT#	COMMODITY	GROSS	TARE	NET	ADJ	REASON	PD WT	PRICE	TOTAL AMT
TVMIH2	UPPD TANKS	16580a	13860b	2720	0		2720	145.0000GT	176.07

ALL WEIGHTS ARE REPORTED IN POUNDS UNLESS OTHERWISE INDICATED. ALL NON-POUND WEIGHTS ARE ASSUMED TO BE MANUAL WEIGHTS

TOTALS	16580	13860	2720	0	2720	176.07

GRS Date 12/09/09	GROSS TONS
GRS Time 15:18	1.2143
TRE Date 12/09/09	
TRE Time 15:27	

(JEFFREY DOMINGOS)

a=SCALE 1 b=SCALE 2 c=SCALE 3 d=SCALE 4 m=MANUAL WEIGHT

**** Total Paid at 12/09/09 3:27pm on Cash Receipt No. 490658 $176.00 ****

N99C

WEIGHMASTER CERTIFICATE
TRUCK SCALE

Metal Management Northeast, Inc

Ticket #: TVMIF2

Purchased From: CP000P
EMC 2

SHIP DATE: 12/09/09

MTLM-NORTHEAST/NAPORANO-H.S.
P.O. BOX 5158
NEWARK, NJ 07105

Veh # TK ID # EMC 2

SHPMNT#	COMMODITY	GROSS	TARE	NET	ADJ	REASON	PD WT	PRICE	TOTAL AMT
TVMIF2	UPPD TANKS	16120a	13920b	2200	0		2200	145.0000GT	142.40

ALL WEIGHTS ARE REPORTED IN POUNDS UNLESS OTHERWISE INDICATED. ALL NON-POUND WEIGHTS ARE ASSUMED TO BE MANUAL WEIGHTS

TOTALS	16120	13920	2200	0	2200	142.40

GRS Date 12/09/09	GROSS TONS
GRS Time 14:35	0.9821
TRE Date 12/09/09	
TRE Time 14:44	

(JEFFREY DOMINGOS)

a=SCALE 1 b=SCALE 2 c=SCALE 3 d=SCALE 4 m=MANUAL WEIGHT

**** Total Paid at 12/09/09 2:44pm on Cash Receipt No. 490644 $142.00 ****

IGHMASTER CERTIFICATE
UCK SCALE

Ticket #: TVMNA8

urchased From: CP000P SHIP DATE: 12/15/09
EMC

,

'eh # TK ID # EMC

Metal Management Northeast, Inc

MTLM-NORTHEAST/NAPORANO-H.S.
P.O. BOX 5158
NEWARK, NJ 07105

N99C

HPMNT#	COMMODITY	GROSS	TARE	NET	ADJ	REASON	PD WT	PRICE	TOTAL AMT
TVMNA8	UPPD TANKS	30580a	23140b	7440	0		7440	145.0000GT	481.60

ALL WEIGHTS ARE REPORTED IN POUNDS UNLESS OTHERWISE INDICATED. ALL NON-POUND WEIGHTS ARE ASSUMED TO BE MANUAL WEIGHTS

TOTALS	30580	23140	7440	0		7440		481.60

GRS Date 12/15/09	GROSS TONS
GRS Time 15:35	3.3214
TRE Date 12/15/09	
TRE Time 15:48	

(MICHAEL PIRES)

a=SCALE 1 b=SCALE 2 c=SCALE 3 d=SCALE 4 m=MANUAL WEIGHT

**** Total Paid at 12/15/09 3:49pm on Cash Receipt No. 491351 $481.00 ****

IGHMASTER CERTIFICATE
:UCK SCALE

Metal Management Northeast, Inc

Ticket #: TVMNW4

Purchased From: CP000P SHIP DATE: 12/16/09
EMC

MTLM-NORTHEAST/NAPORANO-H.S.
P.O. BOX 5158
NEWARK, NJ 07105

N99C

Veh # TK ID # WHDP EMC

SHPMNT#	COMMODITY	GROSS	TARE	NET	ADJ	REASON	PD WT	PRICE	TOTAL AMT
TVMNW4	UPPD #1 HMS	19600a	15440b	4160	0		4160	175.0000GT	324.99

ALL WEIGHTS ARE REPORTED IN POUNDS UNLESS OTHERWISE INDICATED. ALL NON-POUND WEIGHTS ARE ASSUMED TO BE MANUAL WEIGHTS

TOTALS		19600	15440	4160	0		4160	324.99

GRS Date 12/16/09	GROSS TONS
GRS Time 14:02	1.8571
TRE Date 12/16/09	
TRE Time 14:09	

(JEFFREY DOMINGOS)

a=SCALE 1 b=SCALE 2 c=SCALE 3 d=SCALE 4 m=MANUAL WEIGHT

**** Total Paid at 12/16/09 2:11pm on Cash Receipt No. 491473 $324.00 ****

CLEANEARTH

Manifest # 409688

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industrial 59-97 Chapel St Newark NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Michael Brogan Title: Agent for Owner

Signature: [signature] Date and Time: 1/14/10 12:45

TRANSPORTER

Company: Fusella Phone Number:

Address: 40 Deforest Ave East Hanover NJ Truck # and License Plate: 48 / AL-157P.

Driver: Nestor Galvis (Type or Print Clearly) SW Haulers Permit #: (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Nestor Galvis Date and Time: 01-14-10 / 12:30 PM

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Nestor Galvis Date and Time:

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: (WB) Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 358547

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of West Virginia
3815 South State Route 2
Friendly, WV 26146
Ph: 304-652-8580

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
PALMER INDUSTRIES 51-97 CLARK ST NEWARK NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Michael S. Brogan Title: Agent for Owner

Signature: [signature] Date and Time: 1/14/10 12:25

TRANSPORTER

Company: Fusella Group Phone Number: 973-884-0255

Address: 40 DeForest Ave Truck # and License Plate: 8 AM560 H

Driver: East Hanover NJ SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 1/14/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 1/14/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 409628

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

X ☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industrial 59-97 Chapel Street Newark, NJ	GROSS WEIGHT: ☐Tons ☐Yards	
	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE: Robert Chambers 973 589 4400	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Michael Brogan Title: Agent for owner

Signature: Date and Time: 1/14/10 12:00

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 40 Deforest Ave Truck # and License Plate: # 60 AK275R

Driver: Carl SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Carl Date and Time: 1/14/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Carl Date and Time: 1/14/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: MB Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 409631

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1B30 70042

Please Check One:

- [X] Clean Earth of Carteret, 24 Middlesex Avenue, Carteret, NJ 07008, Ph: 732-541-8909
- [ ] Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown, MD 21740, Ph: 301-791-6220
- [ ] Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- [ ] Other _____
- [ ] Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia, PA 19153, Ph: 215-724-5520
- [ ] Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- [ ] Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industrial 59-97 Chapel ST Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Michael S. Brogan Title: Agent for Owner

Signature: [signature] Date and Time: 1/14/10 11:45

TRANSPORTER

Company: Fusello Phone Number: _____

Address: E. Hanover Truck # and License Plate: 22

Driver: Tyrone SW Haulers Permit #: _____

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 1/14/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 1/14/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 372171

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- [x] Clean Earth of Carteret, 24 Middlesex Avenue, Carteret, NJ 07008, Ph: 732-541-8909
- [ ] Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown, MD 21740, Ph: 301-791-6220
- [ ] Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- [ ] Other
- [ ] Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia, PA 19153, Ph: 215-724-5520
- [ ] Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- [ ] Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: PALMER INDUSTRIES 59-97 CHAPEL STREET Newark NJ	GROSS WEIGHT: ☐Tons ☐Yards	
	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

Non haz pre tred

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Michael S. Brown Title: Agent for owner

Signature: [signature] Date and Time: 1/14/10 11:15

TRANSPORTER

Company: Fusella Group Phone Number: 908 279 4225

Address: 42 Deforest NJ Truck # and License Plate: AL15 8P #50

Driver: Hugo Nunez (Type or Print Clearly) SW Haulers Permit #: (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 11-14-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 11-14-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 409690

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700092

Please Check One:

☑ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industrial 59-97 Chapel Street Newark NJ	GROSS WEIGHT: ☐Tons ☐Yards
	TARE WEIGHT: ☐Tons ☐Yards
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Michael Morse Title: Asst

Signature: [signature] Date and Time: 1-14-10

TRANSPORTER

Company: Kvella Phone Number:

Address: 40 Forest Ave Lair Haven Truck # and License Plate: 48 - AL

Driver: Nestor Galvis SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Nestor Galvis Date and Time: 1-14-10 / 10:35 Am

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Nestor Galvis Date and Time:

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 358551

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 10307.0042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of West Virginia
3815 South State Route 2
Friendly, WV 26146
Ph: 304-652-8580

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
PALMER INDUSTRIES 59-97 CUSHER STREET NEWARK NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: MICHAEL S. BRAGAN Title: AGENT FOR OWNER

Signature: [signature] Date and Time: 1/14/10 10:30

TRANSPORTER

Company: Fusella Group Phone Number: 973-884-0255

Address: 40 DeGrasse Ave Truck # and License Plate: 8 AM5001

Driver: East Hanover NJ SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 1/14/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 1/14/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 409624

GLOBAL JOB NUMBER: 183241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industrial 59-97 Chapel Street Newark, NJ	GROSS WEIGHT: ☐Tons ☐Yards
	TARE WEIGHT: ☐Tons ☐Yards
GENERATOR'S PHONE: Robert Chambers 973-589-4400	NET WEIGHT: ☐Tons ☐Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Michael Brogan Title: Agent for owner

Signature: Date and Time: 1/14/10 10:15

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 40 Deforest Ave Truck # and License Plate: #60 AK275R

Driver: Cal (Type or Print Clearly) SW Haulers Permit #: (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Cal Date and Time: 1/14/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: Cal Date and Time: 1/14/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: MB Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 409629

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700442

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industrial 59-97 Chapel ST Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Michael S. Brogan Title: Agent for Owner

Signature: [signature] Date and Time: 1/14/10 10:00

TRANSPORTER

Company: Fusello Phone Number:

Address: E Hanover Truck # and License Plate: 22

Driver: Tyrone SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 1/14/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 1/14/10

I hereby certify that the above-named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 372173

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
PALMER INDUSTRIES 59-97 CUSHEL STREET NEWARK NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

Non haz petro Contaminated soil

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: MICHAEL S. BAUGH Title: AGENT FOR OWNER

Signature: [signature] Date and Time: 1/14/10 9:30

TRANSPORTER

Company: Fusella Group Phone Number: 908 279 4275

Address: 42 Delonest Ave Truck # and License Plate: #50 AL158P

Driver: Hugo A Nunez SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 1-14-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 1-14-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 409685

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☑ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industrial 59-97 Chapel Street Newark NJ, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Michael Brogan Title: Agent for Owner

Signature: [signature] Date and Time: 1/14/10 8:15

TRANSPORTER

Company: Fusella Phone Number: 973-390-3022

Address: 40 DeForest Ave East Hanover Truck # and License Plate: 48 –

Driver: Nestor Galvis SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Nestor Galvis Date and Time: 1-14-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Nestor Galvis Date and Time: 1-14-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 358546

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of West Virginia
3815 South State Route 2
Friendly WV 26146
Ph: 304-652-8580

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
PALMER INDUSTRIES		
59-97 CLIPPER STREET	TARE WEIGHT: ☐Tons ☐Yards	
NEWARK NJ		
GENERATOR'S PHONE: 973 589 4400	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

PETROLEUM CONTAMINATED SOIL

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: MICHAEL S. BROGAN Title: AGENT FOR OWNER

Signature: [signature] Date and Time: 1/14/10 7:30

TRANSPORTER

Company: Fusella Group Phone Number: 973-884-0255

Address: 40 Deforest Ave Truck # and License Plate: 8 AM 500 H

Driver: East Hanover, NJ SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Matt Murtagh Date and Time: 1/14/10 7:20 AM

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: Matt Murtagh Date and Time: 1/14/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: WB Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 409623

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industrial 59-97 Chapel Street Newark, NJ	GROSS WEIGHT: ☐Tons ☐Yards
	TARE WEIGHT: ☐Tons ☐Yards
GENERATOR'S PHONE: Robert Chambers 973-589-4400	NET WEIGHT: ☐Tons ☐Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Michael S Brogan Title: Agent for Owner

Signature: [signature] Date and Time: 1/14/10 8:00

TRANSPORTER

Company: FUSELLA Group Phone Number:

Address: 40 Deforest Ave Truck # and License Plate: AK275R #60

Driver: [signature] SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 1/14/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 1/14/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 409630

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700442

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industrial 59-97 Chapel ST Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Michael S. Brogan Title: Agent for owner

Signature: Date and Time: 1/14/10 7:47

TRANSPORTER

Company: Fusello Phone Number:

Address: E. Hanover Truck # and License Plate: 22

Driver: Tyrone SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Date and Time: 1/14/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: Date and Time: 1/14/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: Date and Time: 1/14/10

GENERATOR

CLEANEARTH

Manifest # 410043

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- ☒ Clean Earth of Carteret, 24 Middlesex Avenue, Carteret NJ 07008, Ph: 732-541-8909
- ☐ Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown MD 21740, Ph: 301-791-6220
- ☐ Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- ☐ Other _____
- ☐ Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia PA 19153, Ph: 215-724-5520
- ☐ Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- ☐ Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: PALMER INDUSTRIAL CHAPEL ST -	GROSS WEIGHT: ☐Tons ☐Yards	
	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: MICHAEL S BROGAN Title: AGENT FOR OWNER

Signature: [signature] Date and Time: 4/20/10 1:43 p.m.

TRANSPORTER

Company: FUSELLA GROUP Phone Number: _____

Address: 305 AVENUE P Truck # and License Plate: AL 157 P NJ 48

Driver: GONZALO DE FEO SW Haulers Permit #: _____

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 4-20-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: _____

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/20/10

GENERATOR

CLEANEARTH

Manifest # 368378

GLOBAL JOB NUMBER: 11241 **FACILITY APPROVAL NUMBER:** 102070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer industrial 59-97 Chapel ST Newark NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Miguel S Baez Title: Agent of Owner

Signature: [signature] Date and Time: 4/20/10 1:58 P.M

TRANSPORTER

Company: Fascilla Phone Number:

Address: East Hanover NJ Truck # and License Plate: AM450C #20

Driver: Carlos Guzman SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 4-20-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 4-20-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/20/10

GENERATOR

CLEANEARTH

Manifest # 416044

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700412

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industrial Chapel St Newark NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Michael S. Rng Title: Agent for Owner

Signature: [signature] Date and Time: 4/20/10 2:40

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 305 Av. P. Truck # and License Plate: AM497H NJ #4

Driver: Giovanny SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 4/20/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 4/20/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/20/10

GENERATOR

CLEANEARTH

Manifest # 372435

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

X Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industrial Chapel ST Newark NJ.	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: x Michael S. Brogan Title: x Agent for Owner

Signature: x [signature] Date and Time: x 4/20/10 2:20

TRANSPORTER

Company: Fusella Grp. Phone Number:

Address: 42 Deforest Ave E Hanover Truck # and License Plate: A1990V #54

Driver: Randall Mong (Type or Print Clearly) SW Haulers Permit #: (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 4/20/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 4/20/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 4/20/10

GENERATOR

CLEANEARTH
treating the planet right

Manifest # 199590

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of West Virginia
3815 South State Route 2
Friendly, WV 26146
Ph: 304-652-8580

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 99 Chapel St 57-59 Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brogan Title: Generator Clerk

Signature: Mike Brogan Date and Time: Apr 27 2010 7:33

TRANSPORTER

Company: Fastella Phone Number:

Address: Newark, NJ Truck # and License Plate: AM 450 C #22

Driver: Gus Morales SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 415848

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel St Newark, NJ	GROSS WEIGHT: ☐Tons ☐Yards
	TARE WEIGHT: ☐Tons ☐Yards
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION
Non Haz - Contaminated Soil

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogan Title: Clean Earth generator

Signature: Mike Brogan Date and Time: 4-27-10 7:45

TRANSPORTER

Company: FUSELLA 6 Phone Number: 973-884-0255

Address: 40 DeForest Ave, E Hanover NJ Truck # and License Plate: AK-301D

Driver: E. Mosca SW Haulers Permit #: 16

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Date and Time: 4/27/10.

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Date and Time:

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 372424

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industires 59-97 Chapel ST Newark NJ.	GROSS WEIGHT: ☐Tons ☐Yards
	TARE WEIGHT: ☐Tons ☐Yards
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogee Title: agent for Generator

Signature: Date and Time: 4-27-10 7:55

TRANSPORTER

Company: Fiorilla Group Phone Number:

Address: 40 Defoucit Ave. E. Hanover NJ Truck # and License Plate: A190V H54

Driver: Randall Morgan SW Haulers Permit #:
(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Date and Time: 4/27/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Date and Time: 4/27/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: WB Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 415932

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer 59-97 Chapel st Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: mike Rogan Title: agent for Generator

Signature: [signature] Date and Time: 4-27-10 805

TRANSPORTER

Company: Fusella Phone Number:

Address: Newark NJ Truck # and License Plate: #14 AM492H

Driver: Jorge Pelaez SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/27/10

GENERATOR

CLEANEARTH
treating the planet right

Manifest # 199592

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☒ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of West Virginia
3815 South State Route 2
Friendly, WV 26146
Ph: 304-652-8580

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries		
99 chapel St	TARE WEIGHT: ☐Tons ☐Yards	
Newark, NJ		
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: mike Brogan Title: assist Sec Generator

Signature: mike Brogan Date and Time: 4-27-10 9:05

TRANSPORTER

Company: Fusella Phone Number:

Address: Newark, NJ Truck # and License Plate: AM45DC #22

Driver: Cruz Morales SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 358800

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- ☐ Clean Earth of Carteret, 24 Middlesex Avenue, Carteret, NJ 07008, Ph: 732-541-8909
- ☐ Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown, MD 21740, Ph: 301-791-6220
- ☐ Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- ☐ Other
- ☐ Clean Earth of Philadelphia, 3201 S 61st Street, Philadelphia PA 19153, Ph: 215-724-5520
- ☐ Clean Earth of West Virginia, 3815 South State Route 2, Friendly WV 26146, Ph: 304-652-8580
- ☐ Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel St Newark NJ	GROSS WEIGHT: ☐Tons ☐Yards	
	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brogan Title: [illegible]

Signature: [illegible] Date and Time: 4-27-10 9:45

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 205 Avenue P Truck # and License Plate: 20 AJ 550P

Driver: Jorge Alehandra (Type or Print Clearly) SW Haulers Permit #: (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [illegible] Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [illegible] Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [illegible] Date and Time: 4/27/10

UB

GENERATOR

CLEANEARTH

Manifest # 409505

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 592 Chapel St Newark, NJ	GROSS WEIGHT: ☐ Tons ☐ Yards
	TARE WEIGHT: ☐ Tons ☐ Yards
GENERATOR'S PHONE:	NET WEIGHT: ☐ Tons ☒ Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

No H12 - contaminated soil

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: M. McBroom Title: agent for Generator

Signature: [signature] Date and Time: 4-27-10 10:00

TRANSPORTER

Company: Fusella 6. Phone Number: 908 884-0255

Address: 90 Forest Ave E Hanover NJ Truck # and License Plate: AK301D #16

Driver: (Type or Print Clearly) SW Haulers Permit #: (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 4/27/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 4/27/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 372433

GLOBAL JOB NUMBER: 113941 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other
_____
_____
_____

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industires 59-97 Chapel ST Newark NJ.	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brady Title: agent for generator

Signature: [signature] Date and Time: 4-27-10 10.25

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 49 DeForest Ave E. Hanover NJ Truck # and License Plate: AL990V #54

Driver: Randall Moore. SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 4/27/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 4/27/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: WB Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 415934

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer 59-97 Chapel st Newark NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: ~~Robert~~ Mike Braga Title: agent for Generator

Signature: Mike Braga Date and Time: 4-27-10 10:15

TRANSPORTER

Company: Fusella Phone Number:

Address: Newark NJ Truck # and License Plate: #14 AM492H

Driver: Jorge Pelaez SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: WB Date and Time: 4/27/10

GENERATOR

CLEANEARTH
treating the planet right

Manifest # 199591

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of West Virginia
3815 South State Route 2
Friendly WV 26146
Ph: 304-652-8580

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 99 chapel st Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brogan Title: agent for generator

Signature: Mike Brogan Date and Time: 4-27-10 10.45

TRANSPORTER

Company: Fusella Phone Number:

Address: Newark, NJ Truck # and License Plate: AM450C #22

Driver: Gus Morales SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 358799

GLOBAL JOB NUMBER: 113241 FACILITY APPROVAL NUMBER: 103070042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of West Virginia
3815 South State Route 2
Friendly WV 26146
Ph: 304-652-8580

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
59-97 Chapel St Newark NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogan Title: agent for Generator

Signature: Mike Brogan Date and Time: 4-27-10 11:05

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 305 avenue P Truck # and License Plate: 20 AJ550P

Driver: Jorge Atehortua SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Jorge Atehortua Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: Jorge Atehortua Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: CWB Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 409502

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700 42

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel ST NWK, NJ	GROSS WEIGHT: ☐Tons ☐Yards
	TARE WEIGHT: ☐Tons ☐Yards
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION Non-HAZ Contaminated Soil

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brugge Title: agent for generator

Signature: Mike Brugge Date and Time: 4-27-10 11:45

TRANSPORTER

Company: Trucella G Phone Number: 973 884 0255

Address: 40 Brokers Ave Hanover NJ Truck # and License Plate:

Driver: E. Mesta SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Date and Time: 9/27/10.

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Date and Time: 4/27/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 372432

GLOBAL JOB NUMBER: 163241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries Inc 99 Chapel ST Newark NJ.	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Procida Title: agent for generator

Signature: [signature] Date and Time: 4-27-10 12:15

TRANSPORTER

Company: Fusella Grop. Phone Number:

Address: 40 Deforest Ave E. Hanover NJ Truck # and License Plate: AL990V F54

Driver: Randall Morge. SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 4/27/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 4/27/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 415031

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103020042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 39-97 Chapel St Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Bragan Title: asst for grounds

Signature: Mike Bragan Date and Time: 4-27-10 12:10

TRANSPORTER

Company: Fusella Phone Number:

Address: Newark, NJ Truck # and License Plate: #14 AM492H

Driver: Jorge Pelaez SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 415930

GLOBAL JOB NUMBER: 11324 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 39-37 Chapel St Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: M the Bross Title: agent for Generator

Signature: M the Bross Date and Time: 4/27/10 12'30

TRANSPORTER

Company: Fiscella Phone Number:

Address: East Hanover NJ Truck # and License Plate: A26GPH2

Driver: Carlos Guzman SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 409997

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 99 Chapel St Newark NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brogan Title: agent for generator

Signature: Mike Brogan Date and Time: 4/27/10 12.45

TRANSPORTER

Company: Fusella Phone Number:

Address: Newark, NJ Truck # and License Plate: AM450C #22

Driver: Gus Morales SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: GMS Date and Time: 4/27/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: GMS Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: CWB Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 358798

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

- ☐ Clean Earth of Carteret, 24 Middlesex Avenue, Carteret, NJ 07008, Ph: 732-541-8909
- ☐ Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown MD 21740, Ph: 301-791-6220
- ☐ Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- ☐ Other
- ☐ Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia, PA 19153, Ph: 215-724-5520
- ☐ Clean Earth of West Virginia, 3815 South State Route 2, Friendly, WV 26146, Ph: 304-652-8580
- ☐ Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel St Newark NJ	GROSS WEIGHT: ☐Tons ☐Yards	
	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogan Title: [illegible]

Signature: [signature] Date and Time: 4-27-10 1:00

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 305 Avenue P Truck # and License Plate: 20 AJ550P

Driver: Jorge Atehortua (Type or Print Clearly) SW Haulers Permit #: (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: WB Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 409504

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- [x] Clean Earth of Carteret, 24 Middlesex Avenue, Carteret, NJ 07008, Ph: 732-541-8909
- [ ] Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown, MD 21740, Ph: 301-791-6220
- [ ] Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- [ ] Other
- [ ] Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia, PA 19153, Ph: 215-724-5520
- [ ] Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- [ ] Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel ST NWK NJ	GROSS WEIGHT: ☐ Tons ☐ Yards	
	TARE WEIGHT: ☐ Tons ☐ Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐ Tons ☐ Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

NON HAZ Cont Soil

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brogan Title: agent of generator

Signature: Mike Brogan Date and Time: 4/27/10 1:40

TRANSPORTER

Company: Rosella Group Phone Number: 908-884 0255

Address: 40 D Forest Ave, E Hanover NJ Truck # and License Plate: AK 301 D #16

Driver: E Mata (Type or Print Clearly) SW Haulers Permit #: (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 4/27/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 4/27/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 372431

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- ☐ Clean Earth of Carteret, 24 Middlesex Avenue, Carteret, NJ 07008, Ph: 732-541-8909
- ☐ Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown, MD 21740, Ph: 301-791-6220
- ☐ Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- ☐ Other
- ☐ Clean Earth of Philadelphia, 3201 S 61st Street, Philadelphia, PA 19153, Ph: 215-724-5520
- ☐ Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- ☐ Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industries. IN	GROSS WEIGHT: ☐Tons ☐Yards	
59-97 Chapel ST Newark. NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: x Mike Brogan Title: x Agent for Generator

Signature: x [signature] Date and Time: x 4/27/10 1400

TRANSPORTER

Company: Fusella Grop. Phone Number:

Address: 40 Deforest Ave. E. Hanover NY Truck # and License Plate: AL990V ~~#~~ 54.

Driver: Randall Monge (Type or Print Clearly) SW Haulers Permit #: (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 4/27/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 4/27/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: WB Date and Time: 4/27/10

GENERATOR

CLEANEARTH
treating the planet right

Manifest # 293300

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1330700421

Please Check One:

- [x] Clean Earth of Carteret, 24 Middlesex Avenue, Carteret NJ 07008, Ph: 732-541-8909
- [ ] Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown MD 21740, Ph: 301-791-6220
- [ ] Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- [ ] Other
- [ ] Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia PA 19153, Ph: 215-724-5520
- [ ] Clean Earth of West Virginia, 3815 South State Route 2, Friendly WV 26146, Ph: 304-652-8580
- [ ] Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 59-57 Chapel St Newark NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Bruce Title: agent for generator

Signature: [signature] Date and Time: 4-27-10 2:15

TRANSPORTER

Company: Fasella Group Phone Number:

Address: East Hanover NJ Truck # and License Plate: AJ 269P #2

Driver: Carlos Guzman SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 409998
#2

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other
_____
_____
_____

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 99 Chapel St Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE: _____	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brega Title: agent for owner

Signature: _____ Date and Time: 4-27-10 2:30

TRANSPORTER

Company: Fusello Phone Number: _____

Address: Newark, NJ Truck # and License Plate: AM450C #72

Driver: Gus Morolis SW Haulers Permit #: _____

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: _____ Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: _____ Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: (WB) Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 358797

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- ☐ Clean Earth of Carteret
  24 Middlesex Avenue
  Carteret NJ 07008
  Ph: 732-541-8909
- ☐ Clean Earth of Maryland
  1469 Oak Ridge Place
  Hagerstown MD 21740
  Ph: 301-791-6220
- ☐ Clean Earth of New Castle
  94 Pyles Lane
  New Castle, DE 19720
  Ph: 302-427-6633
- ☐ Other
- ☐ Clean Earth of Philadelphia
  3201 S. 61st Street
  Philadelphia PA 19153
  Ph: 215-724-5520
- ☐ Clean Earth of West Virginia
  3815 South State Route 2
  Friendly, WV 26146
  Ph: 304-652-8580
- ☐ Clean Earth of Southeast Pennsylvania
  7 Steel Road East
  Morrisville, PA 19067
  Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel St Newark NJ	GROSS WEIGHT: ☐ Tons ☐ Yards	
	TARE WEIGHT: ☐ Tons ☐ Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐ Tons ☐ Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brogan Title: agent for generator

Signature: [signature] Date and Time: 4-27-10 2.45

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 305 avenue P Truck # and License Plate: 20. AJ550P

Driver: Jorge Atchurtua SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 4-27-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 4-27-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: (WB) Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 409501

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- [x] Clean Earth of Carteret, 24 Middlesex Avenue, Carteret NJ 07008, Ph: 732-541-8909
- [ ] Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown MD 21740, Ph: 301-791-6220
- [ ] Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- [ ] Other
- [ ] Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia PA 19153, Ph: 215-724-5520
- [ ] Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- [ ] Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel ST NWK NJ	GROSS WEIGHT: ☐ Tons ☐ Yards	
	TARE WEIGHT: ☐ Tons ☐ Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐ Tons ☐ Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

Non-Haz Contaminated Soil

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Braga Title: agent for generator

Signature: [signature] Date and Time: 4-27-10 3:00

TRANSPORTER

Company: JUSELLA 6 Phone Number:

Address: 40 DEFOREST AVE, E HANOVER NJ Truck # and License Plate: #16

Driver: [signature] (Type or Print Clearly) SW Haulers Permit #: (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 4/27/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 4/27/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/27/10

GENERATOR

CLEANEARTH

Manifest # 409545

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700412

Please Check One:

☑ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel Street Newark NJ 07105 Palmer Industries	GROSS WEIGHT: ☐Tons ☐Yards	
	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

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Name: Mike Braga Title: Agent for Generator

Signature: Mike Braga Date and Time: 4-28-10 10:45

TRANSPORTER

Company: Fusella Group, LLC Phone Number: (973) 884-0255

Address: 40 Jefferson Av East Hanover Truck # and License Plate: 36 AM 496 H

Driver: Wilmar Garcia (Type or Print Clearly) SW Haulers Permit #: 684 NJ (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Wilmar Garcia Date and Time: 04-28-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Wilmar Garcia Date and Time: 04-28-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 4/28/10

GENERATOR

CLEANEARTH

Manifest # 415945

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 99 Chapel St Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

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Name: Mike Brogan Title: agent for generator

Signature: [signature] Date and Time: 4-28-10 700

TRANSPORTER

Company: Fustilo Phone Number:

Address: Newark, NJ Truck # and License Plate: AM493H #34

Driver: Gus Morales SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 4-28-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 4-28-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/28/10

GENERATOR

CLEANEARTH

Manifest # 409547

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- [x] Clean Earth of Carteret, 24 Middlesex Avenue, Carteret NJ 07008, Ph: 732-541-8909
- [ ] Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown MD 21740, Ph: 301-791-6220
- [ ] Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- [ ] Other
- [ ] Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia PA 19153, Ph: 215-724-5520
- [ ] Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- [ ] Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industries, 57-97 Chapel Street, Newark NJ 07105	GROSS WEIGHT: ☐ Tons ☐ Yards	
	TARE WEIGHT: ☐ Tons ☐ Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐ Tons ☐ Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brogan Title: [illegible]

Signature: [illegible] Date and Time: 4-28-10 6:45

TRANSPORTER

Company: Fusella Group LLC Phone Number: (973) 884-0255

Address: 40 Deforest Av East Hanover Truck # and License Plate: 36 Am 496 H

Driver: Wilmar Garcia (Type or Print Clearly) SW Haulers Permit #: 684 NJ (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [illegible] Date and Time: 04-28-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [illegible] Date and Time: 04-28-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: WB Date and Time: 4/28/10

GENERATOR

CLEANEARTH

Manifest # 415774

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industries 59-97 Chapel st Newark NJ	GROSS WEIGHT: ☐Tons ☐Yards
	TARE WEIGHT: ☐Tons ☐Yards
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION
Non haz petro

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogan Title: agent for generator

Signature: Mike Brogan Date and Time: 4.28.10 9.50

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 42 Delores St Rue NJ Truck # and License Plate: #50 AL158P

Driver: Hugo A. Nunez SW Haulers Permit #: NJ 684

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Date and Time: 4.28.10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Date and Time: 4.28.10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: Date and Time: 4/28/10

GENERATOR

CLEANEARTH

Manifest # 416073

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- [x] Clean Earth of Carteret, 24 Middlesex Avenue, Carteret NJ 07008, Ph: 732-541-8909
- [ ] Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown, MD 21740, Ph: 301-791-6220
- [ ] Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- [ ] Other
- [ ] Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia PA 19153, Ph: 215-724-5520
- [ ] Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- [ ] Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
59-97 Chapel St. Newark NJ 07105 Palmer Industries	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogan Title: agent for generator

Signature: [signature] Date and Time: 4-28-10 10:00

TRANSPORTER

Company: Fusella Group Phone Number:

Address: E. Hanover NJ Truck # and License Plate: AM497H NJ #4

Driver: Giovany (Type or Print Clearly) SW Haulers Permit #: 684 NJ (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 4/28/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 4/28/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: WB Date and Time: 4/28/10

GENERATOR

CLEANEARTH

Manifest # 415943

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- ☐ Clean Earth of Carteret
  24 Middlesex Avenue
  Carteret, NJ 07008
  Ph: 732-541-8909
- ☐ Clean Earth of Maryland
  1469 Oak Ridge Place
  Hagerstown MD 21740
  Ph: 301-791-6220
- ☐ Clean Earth of New Castle
  94 Pyles Lane
  New Castle, DE 19720
  Ph: 302-427-6633
- ☐ Other
- ☐ Clean Earth of Philadelphia
  3201 S 61st Street
  Philadelphia, PA 19153
  Ph: 215-724-5520
- ☐ Clean Earth of North Jersey
  115 Jacobus Avenue
  Kearny, NJ 07032
  Ph: 973-344-4004
- ☐ Clean Earth of Southeast Pennsylvania
  7 Steel Road East
  Morrisville, PA 19067
  Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industries	GROSS WEIGHT: ☐Tons ☐Yards	
99 chapel St	TARE WEIGHT: ☐Tons ☐Yards	
Newark NJ		
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogan Title: agent for generator

Signature: [signature] Date and Time: 4-28-10 10:15

TRANSPORTER

Company: Fusello Phone Number:

Address: Newark, NJ Truck # and License Plate: HM493H #34

Driver: Gus Morales SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 4-28-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 4-28-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: WB Date and Time: 4/28/10

GENERATOR

CLEANEARTH

Manifest # 409546

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industries 57-97 Chapel Street Newark NJ 07105 GENERATOR'S PHONE:	GROSS WEIGHT: ☐Tons ☐Yards TARE WEIGHT: ☐Tons ☐Yards NET WEIGHT: ☐Tons ☐Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brogan Title: agent of generator

Signature: Mike Brogan Date and Time: 4-28-10 10:30

TRANSPORTER

Company: Fusella Group llc Phone Number: (973) 884-0255

Address: 40 DeForest Av East Hanover Truck # and License Plate: "36" AM 496 H

Driver: Wilmar Garcia SW Haulers Permit #: 684 NJ
(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Wilmar Date and Time: 04-28-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Wilmar Date and Time: 04-28-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: Date and Time: 4/28/10

GENERATOR

CLEANEARTH

Manifest # 415776

GLOBAL JOB NUMBER: 113241 FACILITY APPROVAL NUMBER: 10307004 2

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other
_____
_____
_____

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industries 59-97 Chapel st Newark NJ	GROSS WEIGHT: ☐Tons ☐Yards
	TARE WEIGHT: ☐Tons ☐Yards
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION Non haz petro

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogan Title: asst for generator

Signature: [signature] Date and Time: 4-28-10 11.30

TRANSPORTER

Company: Fusella Group Phone Number: _____

Address: 42 Delforest NJ Truck # and License Plate: #50 AL158P

Driver: Hugo Nunez (Type or Print Clearly) SW Haulers Permit #: NJ-684 (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 4.28.10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 4.28.10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 4/28/10

GENERATOR

CLEANEARTH

Manifest # 416074

GLOBAL JOB NUMBER: 11241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
59-97 Chapel st. Newark NJ 07105 Palmer Industries	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

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Name: Mike Brogan Title: Project Coordinator

Signature: Mike Brogan Date and Time: 4-28-10 11:50

TRANSPORTER

Company: Fusella Group Phone Number:

Address: E. Hanover NJ Truck # and License Plate: AM497H NJ # 4

Driver: Giovanni SW Haulers Permit #: 684 NJ

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Date and Time: 4/28/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Date and Time: 4/28/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: Date and Time: 4/28/10

GENERATOR

CLEANEARTH

Manifest # 372434

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 59-97 Chapel ST Newark NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Broger Title: mgmt Co Generator

Signature: Mike Broger Date and Time: May 5, 2010 7:30

TRANSPORTER

Company: Fusella Grop Phone Number:

Address: 40 Defoorest Ave E. Hanover Truck # and License Plate: A1990U R454

Driver: Randall Monge SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: RM Date and Time: 5/5/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: RM Date and Time: 5/5/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: WB Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 416206

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- [x] Clean Earth of Carteret, 24 Middlesex Avenue, Carteret, NJ 07008, Ph: 732-541-8909
- [ ] Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown, MD 21740, Ph: 301-791-6220
- [ ] Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- [ ] Other
- [ ] Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia PA 19153, Ph: 215-724-5520
- [ ] Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- [ ] Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel ST Newark NJ	GROSS WEIGHT: ☐Tons ☐Yards	
	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

Non HAZ- Contaminated Soil

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Braga Title: agent for generator

Signature: Mike Braga Date and Time: [illegible] 2010 7:20

TRANSPORTER

Company: Fusella G. Phone Number: 908-884 0255

Address: 40 D Forest Ave, E Hanover, NJ Truck # and License Plate: AL 269P #2

Driver: E Mota SW Haulers Permit #: WH 5971.

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 5/5/2010

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 5/5/2010

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: [signature] Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 416025

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700412

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 59-97 Chapel St Newark NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Bragg Title: agent for Generator

Signature: [signature] Date and Time: May 5, 2010 2:40

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 93 Dorsa Ave Livingston NJ Truck # and License Plate: AJ551P #26

Driver: Luis M SW Haulers Permit #: NJ684

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Luis M Date and Time:

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: Luis M Date and Time:

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: WB Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 410233

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 59-97 Chapel St Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: mike Brogan Title: agent for Generator

Signature: Mike Brogan Date and Time: May 5, 2010 7:50

TRANSPORTER

Company: Fusella Phone Number:

Address: Newark NJ Truck # and License Plate: #14 AM492H

Driver: Jorge Pelaez SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Date and Time: 5-5-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Date and Time: 5-5-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 416141

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- [x] Clean Earth of Carteret, 24 Middlesex Avenue, Carteret NJ 07008, Ph: 732-541-8909
- [ ] Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown MD 21740, Ph: 301-791-6220
- [ ] Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- [ ] Other
- [ ] Clean Earth of Philadelphia, 3201 S. 61st Street, Philadelphia PA 19153, Ph: 215-724-5520
- [ ] Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- [ ] Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: Palmer Industires	GROSS WEIGHT: ☐ Tons ☐ Yards	
59-97 Chapel St.	TARE WEIGHT: ☐ Tons ☐ Yards	
Newark, NJ		
GENERATOR'S PHONE:	NET WEIGHT: ☐ Tons ☐ Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike [illegible] Title: [illegible]

Signature: [illegible] Date and Time: [illegible]

TRANSPORTER

Company: Fusella Phone Number:

Address: E. Hanover, NJ Truck # and License Plate: 32 AM495H

Driver: Cesar Machado SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 5-5-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 5-5-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: WB Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 372425

GLOBAL JOB NUMBER: 11324 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industires 59-97 Chapel ST Newark NJ.	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: [signature] Title: [illegible]

Signature: [signature] Date and Time: 5/5/10 9:10

TRANSPORTER

Company: Fusella Grop. Phone Number:

Address: 40 Defore Ave E Hanover. Truck # and License Plate: A1990V #54

Driver: Randall Mosy SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 5/5/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 5/5/10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: WB Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 415972

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

- ☐ Clean Earth of Carteret, 24 Middlesex Avenue, Carteret NJ 07008, Ph: 732-541-8909
- ☐ Clean Earth of Maryland, 1469 Oak Ridge Place, Hagerstown MD 21740, Ph: 301-791-6220
- ☐ Clean Earth of New Castle, 94 Pyles Lane, New Castle, DE 19720, Ph: 302-427-6633
- ☐ Other
- ☒ Clean Earth of Philadelphia, 3201 S 61st Street, Philadelphia PA 19153, Ph: 215-724-5520
- ☐ Clean Earth of North Jersey, 115 Jacobus Avenue, Kearny, NJ 07032, Ph: 973-344-4004
- ☐ Clean Earth of Southeast Pennsylvania, 7 Steel Road East, Morrisville, PA 19067, Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel St Newark, NJ	GROSS WEIGHT: ☐Tons ☐Yards	
	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

Non HAZ - Contaminated Soil

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogan Title: agent for generator

Signature: Mike Brogan Date and Time: May 5, 2010 9:35

TRANSPORTER

Company: JUSELLA G Phone Number: 908 884 0255

Address: 40 Deforest Ave, E, Hanover NJ Truck # and License Plate: #2 AL2B9P

Driver: E. Mata SW Haulers Permit #: WH5971

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 5/5/10.

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 5/5/2010

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: WB Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 416026

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700047

Please Check One:

☑ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries		
59-97 Chapel St	TARE WEIGHT: ☐Tons ☐Yards	
Newark NJ		
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Braga Title: agent for generator

Signature: Date and Time: 5-5-10 9:45

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 93 Dorsa Ave Livingston NJ Truck # and License Plate: AJ551P #26

Driver: Luis M SW Haulers Permit #: NJ684

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: Luis M Date and Time:

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Luis M Date and Time:

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 410232

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other
_____
_____
_____

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 59-97 Chapel st Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brosell Title: agent for generator

Signature: [signature] Date and Time: 5-5-10 10 am

TRANSPORTER

Company: Fusella Phone Number:

Address: Newark, NJ Truck # and License Plate: #14 AM4921-A

Driver: Jorge Peloez SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 5-5-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 5-5-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 416142

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☑ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other _____

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 59-97 Chapel st. Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE: _____	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Boser Title: agent for generator

Signature: [signature] Date and Time: 5-5-10 10:20

TRANSPORTER

Company: Fusella Phone Number: _____

Address: E. Hanover, NJ Truck # and License Plate: 32 AM495H

Driver: Cesar Machado SW Haulers Permit #: _____

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 5-5-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 5-5-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 372426

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 10307042

Please Check One:

☐ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industires. 59-97 Chapel ST. Newark NJ.	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogan Title: for gen

Signature: Mike Brogan Date and Time: 5/5/10 10:30

TRANSPORTER

Company: Fusella grop. Phone Number:

Address: 40 Deforest Ave E. Hanover NJ Truck # and License Plate: A1990V #54.

Driver: Randall Monge SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Date and Time: 5/5/10.

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: Date and Time: 5/5/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 415971

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 1030700142

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
59-97 Chapel ST NWK, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

Non-HAZ-Contaminated Soil

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Rosas Title: [illegible]

Signature: [signature] Date and Time: 5-5-10 11:10

TRANSPORTER

Company: FUSELLA 6 Phone Number: 908-884-0255

Address: 40 DeForest Ave, E. Hanover NJ Truck # and License Plate: #2 AL269P

Driver: [illegible], Mata SW Haulers Permit #: WH

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 5/5/10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: [signature] Date and Time: 5/5/10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 416152

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: 59-97 Chapel ST Newark NJ	GROSS WEIGHT: ☐Tons ☐Yards	
	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

Non Haz - Contaminated Soil

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Mike Brogan Title: [illegible]

Signature: [signature] Date and Time: 5-5-10 11:20

TRANSPORTER

Company: Fasella Group Phone Number:

Address: East Hanover NJ Truck # and License Plate: AM493H #34

Driver: Carlos Guzman SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [signature] Date and Time: 5 5 10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 5-5-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [signature] Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 410231

GLOBAL JOB NUMBER: 113241 FACILITY APPROVAL NUMBER: 1030700042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 59-97 Chapel St Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Progen Title: agent for generator

Signature: Mike Progen Date and Time: 5-5-10 1150

TRANSPORTER

Company: Fusella Phone Number:

Address: Newark, NJ Truck # and License Plate: #14 AM492H

Driver: Jorge Pelaez SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Date and Time: 5-5-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above

Driver Signature: Date and Time: 5-5-10

I hereby certify that the above named material has been accepted at the above referenced facility

Authorized Signature: Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 418027

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☒ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S 61st Street
Philadelphia PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 59-97 Chapel st Newark NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260 10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: M. W. Brogan Title: agent for generator

Signature: M W Brogan Date and Time: 5-5-10 12:10

TRANSPORTER

Company: Fusella Group Phone Number:

Address: 93 Dorsa ave Livingston NJ Truck # and License Plate: AJ551P #26

Driver: Luis M SW Haulers Permit #: NJ 68H

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Luis M Date and Time:

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: Luis M Date and Time:

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: MB Date and Time: 5/5/10

GENERATOR

CLEANEARTH

Manifest # 410143

GLOBAL JOB NUMBER: 113241 **FACILITY APPROVAL NUMBER:** 103070042

Please Check One:

☑ Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909

☐ Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220

☐ Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633

☐ Other

☐ Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520

☐ Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004

☐ Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS:	GROSS WEIGHT: ☐Tons ☐Yards	
Palmer Industries 59-97 Chapel St. Newark, NJ	TARE WEIGHT: ☐Tons ☐Yards	
GENERATOR'S PHONE:	NET WEIGHT: ☐Tons ☐Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations

Name: Mike Brogan Title: agent for generator

Signature: [signature] Date and Time: 5-5-10 1:20

TRANSPORTER

Company: Fusella Phone Number:

Address: E. Hanover, NJ Truck # and License Plate: 32 AM495H

Driver: Cesar Machado SW Haulers Permit #:

(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: [signature] Date and Time: 5-5-10

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [signature] Date and Time: 5-5-10

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: WB Date and Time: 5/5/10

GENERATOR

15378

ALL AMERICAN OIL RECOVERY COMPANY

1067 Route 23 South
Wayne, New Jersey 07470
(973) 628-WASTE • (973) 628-9278

Date: 12/15/09

GENERATOR/LOCATION

NAME: EMC

ACCOUNT #: 200338

INFORMATION/ATTENTION LINE: _____ ACCOUNT APPROVAL CODE: _____

DELIVERY ADDRESS: 99 CHapel ST

CITY: Newark STATE: NJ ZIP: _____

PHONE NUMBER: _____ PURCHASE ORDER NUMBER: _____

(USA EPA ID NO. IF APPLICABLE): _____ STATE ID NO.: _____

BILL TO (IF DIFFERENT FROM LOCATION)

NAME: EMC

INFORMATION/ATTENTION LINE: 72 COBB ST ACCOUNT APPROVAL CODE: _____

DELIVERY ADDRESS: _____

CITY: Rockaway STATE: NJ ZIP: 07866

PHONE NUMBER: _____ PURCHASE ORDER NUMBER: _____

MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number

SALES REPRESENTATIVE

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT OF MEASURE	PRICE	TAX	LINE TOTAL
	USED OIL REMOVAL						
	OILY WATER DISPOSAL		2000	Gallons	.70		1400.00
	SLUDGE DISPOSAL						
	#2 FUEL OIL						
	VAC TRUCK & OPERATOR		7.25	HRS			382.50
	SERVICE CHARGE						
	DEXIL TEST KIT						

TOTAL 1782.50

Robert A. VanVranck
AAORC REP (PRINT NAME)

AAORC REP (SIGNATURE)

Michael S. Bragg
GENERATOR/CUSTOMER (PRINT NAME)

GENERATOR/CUSTOMER (SIGNATURE)

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that my hazardous waste streams total less than 220 pounds (100 kg) for this calendar month and that I am not required to obtain an EPA identification number.

GENERATOR'S INITIALS

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

Generator certifies that the waste is _____ In accordance the N.J.A.C. 7:26-12.1 et seq. All American Oil Recovery Company has the required permits to accept the above described waste.

In accordance with 40 CFR § 43(5), All American Oil Recovery Company has notified the US EPA of its location and used oil management activities.

EPA ID # NJR 000003616 DEPE # 50074

845
5:30

√15383

ALL AMERICAN OIL RECOVERY COMPANY

1067 Route 23 South
Wayne, New Jersey 07470
(973) 628-WASTE • (973) 628-9278

Date: 12-15-09

GENERATOR/LOCATION	ACCOUNT # 200338	BILL TO (IF DIFFERENT FROM LOCATION)
NAME		NAME EMC
INFORMATION/ATTENTION LINE	ACCOUNT APPROVAL CODE	INFORMATION/ATTENTION LINE 72 COBB ST ACCOUNT APPROVAL CODE
DELIVERY ADDRESS 99 Chapel St		DELIVERY ADDRESS ROCKAWAY, NJ 07 866
CITY Newark STATE NJ ZIP		CITY STATE ZIP
PHONE NUMBER	PURCHASE ORDER NUMBER	PHONE NUMBER PURCHASE ORDER NUMBER
(USA EPA ID NO. IF APPLICABLE)	STATE ID NO.	MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number
		[illegible]		
		1795	gallon	Petroleum oil, class III, NAP70, PG III

SALES REPRESENTATIVE

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT OF MEASURE	PRICE	TAX	LINE TOTAL
	USED OIL REMOVAL						
	OILY WATER DISPOSAL						
	SLUDGE DISPOSAL						
	#2 FUEL OIL						
✓	VAC TRUCK & OPERATOR Pump out 8000 ust		8.75		90.00		787.50
	SERVICE CHARGE						
	DEXIL TEST KIT						
✓	#6 oil & water		1795	gallon	.70		1256.50

TOTAL 2044.00

AAORC REP. Josh Van Varick (PRINT NAME)

AAORC REP. [signature] (SIGNATURE)

GENERATOR/CUSTOMER Brian Estler (PRINT NAME)

GENERATOR/CUSTOMER [signature] (SIGNATURE)

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that my hazardous waste streams total less than 220 pounds (100 kg) for this calendar month and that I am not required to obtain an EPA identification number

GENERATOR'S INITIALS

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

Generator certifies that the waste is _____. In accordance the N.J.A.C. 7:26-12.1 et seq., All American Oil Recovery Company has the required permits to accept the above described waste.

In accordance with 40 CFR § 43(5), All American Oil Recovery Company has notified the US EPA of its location and used oil management activities.

EPA ID # NJR 000003616 DEPE # 50074

✓15379

ALL AMERICAN OIL RECOVERY COMPANY

1067 Route 23 South
Wayne, New Jersey 07470
(973) 628-WASTE • (973) 628-9278

Date: 12/16/09

GENERATOR/LOCATION	ACCOUNT #	BILL TO (IF DIFFERENT FROM LOCATION)
NAME: BMC	200338	NAME: BMC
INFORMATION/ATTENTION LINE: 99 Chapel ST	ACCOUNT APPROVAL CODE	INFORMATION/ATTENTION LINE	ACCOUNT APPROVAL CODE
DELIVERY ADDRESS		DELIVERY ADDRESS: 72 Cobb ST
CITY: Newark STATE: NJ ZIP		CITY: Rockaway STATE: NJ ZIP
PHONE NUMBER	PURCHASE ORDER NUMBER	PHONE NUMBER	PURCHASE ORDER NUMBER
(USA EPA ID NO. IF APPLICABLE)	STATE ID NO.	MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

SALES REPRESENTATIVE

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT OF MEASURE	PRICE	TAX	LINE TOTAL
	USED OIL REMOVAL						
	OILY WATER DISPOSAL		2000	Gallons	.70		1400.00
	SLUDGE DISPOSAL						
	#2 FUEL OIL						
	VAC TRUCK & OPERATOR		3	Hrs	90.00		270.00
	SERVICE CHARGE						
	DEXIL TEST KIT						

TOTAL 1670.00

Robert A. VanVorick
AAORC REP (PRINT NAME)

AAORC REP (SIGNATURE)

MICHAEL S. BROGAN
GENERATOR/CUSTOMER (PRINT NAME)

GENERATOR/CUSTOMER (SIGNATURE)

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that my hazardous waste streams total less than 220 pounds (100 kg) for this calendar month and that I am not required to obtain an EPA identification number

GENERATOR'S INITIALS

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

Generator certifies that the waste is _____ In accordance the N.J.A.C. 7:26-12.1 et seq., All American Oil Recovery Company has the required permits to accept the above described waste.
In accordance with 40 CFR § 43(5). All American Oil Recovery Company has notified the US EPA of its location and used oil management activities
EPA ID # NJR 000003616 DEPE # 50074

Clean Water of New York, Inc.
3249 Richmond Terrace
Staten Island, NY 10303
Phone: 718-981-4600 Fax: 718-981-5213

JOB RECEIPT

Job Number	Date	Time	Job Type
JOB0093850	12/8/09	2:45 pm	Truck Job

Generator

PALMER INDUSTRIES, INC
59-97 Chapel Street
Newark, NJ 07105
(000) 000-0000
EPA Permit #

Customer

ENVIRONMENTAL MGMT CONSULTANTS INC
72 Cobb Street
Rockaway, NJ 07866

PO #: N99C
Profile Sheet: Yes Approval Code: 706-001

Transporter

WILLIAM J. LAUER CORP.
3249 Richmond Terrace
Staten Island, NY 10303

EPA Permit #: NYR000157644
NYS DEC Permit #: 2A-531

Transport / Vessel: VAC # 52

# of Tanks: 1
Total Capacity: 6.065
U of M: Gallons

Site / Vessel Name: PALMER INDUSTRIES, INC - NEWARK, NJ

Received 2,857 Gallons Of Oily Water For Proper Treatment and Disposal.

Products & Test Results	Category	Code	Description	Quantity	UoM
	D	N018	Oily Water	2,857	Gallons

Compartment	% Water	% Oil	% Solid	Halogens (ppm)	Flash Point (oF)
1	98 00	2 00	0 00	0	>= 100

Other Tests Peformed: No

$1000 trucking

Did this load or any portion of this load orginate at a utility? No

12/8/09

Receiver's Signature and Date
12/8/2009 2:44 pm

Generator's Representative Signature and Date

NON-HAZARDOUS WASTE MANIFEST	1 Generator ID Number: N/A	2 Page 1 of: 1	3. Emergency Response Phone: (877) 319-0800	4. Waste Tracking Number: 009385O

5. Generator's Name and Mailing Address: Palmer Industries Inc 59-92 Chapel ST Newark NJ 07105

Generator's Site Address (if different than mailing address): SAME

Generator's Phone:

6. Transporter 1 Company Name: WILLIAM J. LAUER CORP. — U.S. EPA ID Number: NYR000157644

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: CLEAN WATER OF NEW YORK, INC. 3249 RICHMOND TERRACE - STATEN ISLAND, NY 10303 — U.S. EPA ID Number: NY0000968545

Facility's Phone: (718) 981-4600

	9 Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	NonDOT/ Petroleum contaminated NonRCRA Water	1 x 1	TT	2857	G	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information: E.M.C. Job — J0600938O VAC52

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Michael Brown (AGENT FOR OWNER) — Signature — Month/Day/Year: 12/08/09

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Edgar F. Gibbs — Signature: Edgar F. Gibbs — Month/Day/Year: 12/08/09

Transporter 2 Printed/Typed Name — Signature — Month/Day/Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month/Day/Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month/Day/Year: 12/8/09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

Clean Water of New York

Clean Water of New York, Inc.
3249 Richmond Terrace
Staten Island, NY 10303
Phone: 718-981-4600 Fax: 718-981-5213

JOB RECEIPT

Job Number	Date	Time	Job Type
JOB0[illegible]93843	12/8/09	10:40 am	Truck Job

Generator

PALMER INDUSTRIES, INC.
59-9[illegible] Chapel Street
Newark, N[illegible] 07105
(000) 000-[illegible]0
EPA Permit #

Customer

ENVIRONMENTAL MGMT CONSULTANTS INC
72 C[illegible]bb S[illegible]et
Rockaway [illegible]J 07866

PO #: [illegible]N99C
Profile Sha[illegible] Yes Approval Code: 706-001

Transporter

WILLIAM J. LAUER CORP
3249 Richmond Terrace
Staten Island, NY 10303

EPA Permit #: NYR000157644
NYS DEC Permit #: 2A-531

Transport / Vessel: VAC # 53

# of Tanks: 1
Total Capacity: 6,300
U of M: Gallons

Site Vessel Name: PALMER INDUSTRIES, INC - NEWARK NJ

Received 6,410 Gallons Of Oily Water For Proper Treatment and Disposal.

Products / Test Results	Category	Code	Description	Quantity	UoM
	D	N018	Oily Water	6,410	Gallons

Compartment	% Water	% Oil	% Solid	Halogens (ppm)	Flash Point (oF)
1	99.00	1.00	0.00	0	>= 100

Other Tests Performed: No

4 hrs trucking
@ $125/hr

Did this load or any portion of this load orginate at a utility? No

12-08-09

Receiver's Signature and Date
12/8/2009 10:35 am

Generator's Representative Signature and Date

NON-HAZARDOUS WASTE MANIFEST	1 Generator ID Number	2 Page 1 of	3. Emergency Response Phone (877) 319-0800	4. Waste Tracking Number

5. Generator's Name and Mailing Address: PALMER INDUSTRIES INC
59-97 CHAPEL STREET
NEWARK NJ 07105

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name: WILLIAM J. LAUER CORP.
U.S. EPA ID Number: NYR000157644

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: CLEAN WATER OF NEW YORK, INC.
3249 RICHMOND TERRACE - STATEN ISLAND, NY 10303
U.S. EPA ID Number: NY0000968545

Facility's Phone: (718) 981-4600

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. NON DOT NON RCRA Petroleum Contamidated Water	001	TT	6410	G
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information

WM #504
Vre #53
Job #0093843

ENVIRONMENTAL MGMT CONSULTANTS
72 Cobb STREET
ROCKAWAY NJ 07866

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: X Michael S. Brogan
Signature: X [signature] (AGENT FOR OWNER)
Month 12 Day 08 Year 09

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: GABINO VILLEGAS
Signature: Gabino Villegas
Month 12 Day 08 Year 09

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Michael [signature]
Signature: [signature]
Month 12 Day 08 Year 09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

169-BLS-C 5 11979 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

Clean Water of New York, Inc.
3249 Richmond Terrace
Staten Island, NY 10303
Phone: 718-981-4600 Fax: 718-981-5213

JOB RECEIPT

Job Number	Date	Time	Job Type
JOB0093894	12/9/09	1:00 pm	Truck Job

Generator

PALMER INDUSTRIES, INC.
59-97 Chapel Street
Newark, NJ 07105
(000) 000-0000
EPA Permit #

Customer

ENVIRONMENTAL MGMT CONSULTANTS INC
72 Cobb Street
Rockaway, NJ 07866

PO #: N99C
Profile Sheet: Yes Approval Code: 706-001

Transporter

WILLIAM J. LAUER CORP.
3249 Richmond Terrace
Staten Island, NY 10303

EPA Permit #: NYR000157644
NYS DEC Permit #: 2A-531

Transport / Vessel: VAC # 52

# of Tanks: 1
Total Capacity: 6,065
U of M: Gallons

Site / Vessel Name: PALMER INDUSTRIES, INC. - NEWARK NJ

Received 5,474 Gallons Of Oily Water For Proper Treatment and Disposal.

Products & Test Results	Category	Code	Description	Quantity	UoM
	D	N018	Oily Water	5,474	Gallons

Compartment	% Water	% Oil	% Solid	Halogens (ppm)	Flash Point (oF)
1	99.00	1.00	0.00	0	>= 100

Other Tests Peformed: No

$1000 trucking

Did this load or any portion of this load orginate at a utility? No

Receiver's Signature and Date
12/9/2009 2:46 pm

12/9/09

Generator's Representative Signature and Date

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number: N/A	2. Page 1 of 1	3. Emergency Response Phone: (877) 319-0800	4. Waste Tracking Number: 0093894

5. Generator's Name and Mailing Address
Palmer Industries Inc
59-97 Chapel St Newark NJ 07105

Generator's Site Address (if different than mailing address): SAME

Generator's Phone:

6. Transporter 1 Company Name: WILLIAM J. LAUER CORP.
U.S. EPA ID Number: NYR000157644

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
CLEAN WATER OF NEW YORK, INC.
3249 RICHMOND TERRACE - STATEN ISLAND, NY 10303
U.S. EPA ID Number: NY0000968545

Facility's Phone: (718) 981-4600

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1	NonDOT/ Petroleum Contaminated NonRCRA Water	xx1	TT	5474	G
2					
3					
4					

13. Special Handling Instructions and Additional Information
EMC. Job
Job 0093894
Vac 52

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: X Michael S. Brogan
Signature: X [signature] Agent for owner
Month 12 Day 09 Year 09

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Edgar F. Gibbs
Signature: Edgar F. Gibbs
Month 12 Day 09 Year 09

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☒ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a
Printed/Typed Name: [signature]
Signature: [signature]
Month 12 Day 09 Year 09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

169-BLS-C 5 11979 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

Clean Water of New York Inc.

Clean Water of New York, Inc.
3249 Richmond Terrace
Staten Island, NY 10303
Phone: 718-981-4600 Fax: 718-981-5213

JOB RECEIPT

Job Number	Date	Time	Job Type
JOB0093949	~~12/11/09~~	9:50 am	Truck Job

Generator

PALMER INDUSTRIES, INC.
59-97 Chapel Street
Newark, NJ 07105
(000) 000-0000
EPA Permit #

Customer

ENVIRONMENTAL MGMT CONSULTANTS INC
72 Cobb Street
Rockaway, NJ 07866
PO #: N99C
Profile Sheet: ~~No~~ Yes 706-001

Transporter

WILLIAM J. LAUER CORP
3249 Richmond Terrace
Staten Island, NY 10303

EPA Permit #: NYR000157644
NYS DEC Permit #: 2A-531

Transport / Vessel: VAC # 52

# of Tanks: 1
Total Capacity: 6,065
U of M: Gallons

12/10

Site / Vessel Name: PALMER INDUSTRIES, INC - NEWARK, NJ

Received 942 Gallons Of Oily Water For Proper Treatment and Disposal.

Products & Test Results	Category	Code	Description	Quantity	UoM
	D	N018	Oily Water	942	Gallons

Compartment	% Water	% Oil	% Solid	Halogens (ppm)	Flash Point (oF)
1	40.00	60.00	0.00	0	>= 110

Other Tests Peformed: No

$1000 trucking
$500 Steam Charge

Did this load or any portion of this load orginate at a utility? No

12-11-09
Receiver's Signature and Date
12/11/2009 9:46 am

Generator's Representative Signature and Date

NON-HAZARDOUS WASTE MANIFEST	1 Generator ID Number	2 Page 1 of	3 Emergency Response Phone	4 Waste Tracking Number
	N/A	1	(877) 319-0800	0093949

5. Generator's Name and Mailing Address
Palmer industries inc
59097 Chapel ST Newark NJ 07105
Generator's Phone:

Generator's Site Address (if different than mailing address)
SAme

6. Transporter 1 Company Name
WILLIAM J. LAUER CORP.
U.S. EPA ID Number
NYR000157644

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
CLEAN WATER OF NEW YORK, INC.
3249 RICHMOND TERRACE - STATEN ISLAND, NY 10303
Facility's Phone: (718) 981-4600
U.S. EPA ID Number
NY0000968545

	9 Waste Shipping Name and Description	10. Containers No.	Type	11. Total Quantity	12 Unit Wt./Vol.
1	NONDOT/Petroleum Contaminated NONRCRA Water	xx1	TT	942	G
2					
3					
4					

13. Special Handling Instructions and Additional Information
EMC Job
J060093949
Vac52

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: X [signature] Michael S. Bryan
Signature: X [signature] Agent for owner
Month 12 Day 10 Year 09

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Edgar F. Gibbs
Signature: Edgar F. Gibbs
Month 12 Day 10 Year 09
Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Michael Kelly
Signature: [signature]
Month 12 Day 11 Year 09

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

169-BLS-C 5 11979 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

Clean Water of New York, Inc.
3249 Richmond Terrace
Staten Island, NY 10303
Phone: 718-981-4600 Fax: 718-981-5213

JOB RECEIPT

Job Number	Date	Time	Job Type
JOB0094043	12/11/09	2:30 pm	Truck Job

Generator

ENVIRONMENTAL MGMT CONSULTANTS INC
72 Cobb Street
Rockaway, NJ 07866
(973) 983-7733
EPA Permit #

PALMER IND.
59-97 CHAPEL ST.
NEWARK, NJ 07105

Customer

ENVIRONMENTAL MGMT CONSULTANTS INC
72 Cobb Street
Rockaway, NJ 07866
PO #: N99C
Profile Sheet: YES 706-001

Transporter

WILLIAM J LAUER CORP
3249 Richmond Terrace
Staten Island, NY 10303

EPA Permit #: NYR000157644
NYS DEC Permit #: 2A-531
Transport / Vessel: VAC # 52
# of Tanks: 1
Total Capacity: 6.065
U of M: Gallons

12/11

Received 4,986 Gallons Of Oily Water For Proper Treatment and Disposal.

Products & Test Results	Category	Code	Description	Quantity	UoM
	D	N018	Oily Water	4,986	Gallons

Compartment	% Water	% Oil	% Solid	Halogens (ppm)	Flash Point (oF)
1	85.00	15 00	0 00	0	>= 100

Other Tests Peformed: No

$1000
+ 25 @ 125.00

Did this load or any portion of this load orginate at a utility? No

12-14-09
Receiver's Signature and Date
12/14/2009 12:46 pm

Generator's Representative Signature and Date

94017

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	N/A	1	(877) 319-0800	Vac52

GENERATOR

5. Generator's Name and Mailing Address
Palmer Industries Inc
59-97 Chapel ST Newark NJ 07105

Generator's Site Address (if different than mailing address)
SAME

Generator's Phone:

6. Transporter 1 Company Name
WILLIAM J. LAUER CORP.

U.S. EPA ID Number
NYR000157644

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
CLEAN WATER OF NEW YORK, INC.
3249 RICHMOND TERRACE - STATEN ISLAND, NY 10303

U.S. EPA ID Number
NY0000968545

Facility's Phone: (718) 981-4600

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1	Non DOT/ Petroleum contaminated Non RCRA Water	** 1	TT	4996	G	
2						
3						
4						

13. Special Handling Instructions and Additional Information
EMC Job
Vac52

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: X John Van Riper
Signature: X
Month 12 Day 11 Year 09

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Edgar F. Gibbs
Signature: Edgar F. Gibbs
Month 12 Day 11 Year 09

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Michael [illegible]
Signature
Month 12 Day 14 Year 09

Clean Water of New York, Inc.
3249 Richmond Terrace
Staten Island, NY 10303
Phone: 718-981-4600 Fax: 718-981-5213

JOB RECEIPT

Job Number	Date	Time	Job Type
JOB0094001	~~12/09~~ 12/14	7:20 am	Truck Job

Generator

PALMER INDUSTRIES, INC
59-97 Chapel Street
Newark, NJ 07105
(000) 000-0000
EPA Permit #

Customer

ENVIRONMENTAL MGMT CONSULTANTS INC
72 Cobb Street
Rockaway, NJ 07866

PO #: N99C
Profile Sheet: Yes Approval Code: 706-001

Transporter

WILLIAM J LAUER CORP.
3249 Richmond Terrace
Staten Island, NY 10303

EPA Permit #: NYR000157644
NYS DEC Permit #: 2A-531

Transport / Vessel: VAC # 52

# of Tanks: 1
Total Capacity: 6,065
U of M: Gallons

12/14

Site / Vessel Name: PALMER INDUSTRIES, INC - NEWARK, NJ

Received 4,632 Gallons Of Oily Water For Proper Treatment and Disposal.

Products & Test Results	Category	Code	Description	Quantity	UoM
	D	N018	Oily Water	4,632	Gallons

Compartment	% Water	% Oil	% Solid	Halogens (ppm)	Flash Point (oF)
1	90.00	10.00	0 00	0	>= 100

Other Tests Peformed: No

Trucking
$ 1000
25 @ 125/hr

Did this load or any portion of this load orginate at a utility? No

12.15.09
Receiver's Signature and Date
12/15/2009 7:14 am

Generator's Representative Signature and Date

NON-HAZARDOUS WASTE MANIFEST

1 Generator ID Number: N/A

2 Page 1 of: 1

3 Emergency Response Phone: (877) 319-0800

4 Waste Tracking Number: 0094001

5 Generator's Name and Mailing Address
Palmer Industries Inc.
59-97 Chapel St. Newark NJ 07105
Generator's Phone:

Generator's Site Address (if different than mailing address)
SAME

6 Transporter 1 Company Name
WILLIAM J. LAUER CORP.

U.S. EPA ID Number
NYR000157644

7 Transporter 2 Company Name

U.S. EPA ID Number

8 Designated Facility Name and Site Address
CLEAN WATER OF NEW YORK, INC.
3249 RICHMOND TERRACE - STATEN ISLAND, NY 10303
Facility's Phone: (718) 981-4600

U.S. EPA ID Number
NY0000968545

	9 Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11 Total Quantity	12 Unit Wt./Vol.	
1	NonDOT / Petroleum Contaminated Non RCRA Water	1	TT	4632	G	
2						
3						
4						

13. Special Handling Instructions and Additional Information
EMC Job
J06009400 1
VGC53

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Michael S. Brogan
Signature: Agent for Owner
Month 12 Day 14 Year 09

INT'L

15 International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Edgar F. Gibbs
Signature: Edgar F. Gibbs
Month 12 Day 14 Year 09

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Michael Kelly
Signature
Month 12 Day 14 Year 09

10:15
10:45
2:00

15276

ALL AMERICAN OIL RECOVERY COMPANY

1067 Route 23 South
Wayne, New Jersey 07470
(973) 628-WASTE • (973) 628-9278

Date: 4-14-10

GENERATOR/LOCATION	ACCOUNT #	BILL TO (IF DIFFERENT FROM LOCATION)
NAME		NAME FMC
INFORMATION/ATTENTION LINE	ACCOUNT APPROVAL CODE	INFORMATION/ATTENTION LINE / ACCOUNT APPROVAL CODE
DELIVERY ADDRESS 99 Chapel St		DELIVERY ADDRESS
CITY Newark	STATE NJ / ZIP	CITY / STATE / ZIP
PHONE NUMBER	PURCHASE ORDER NUMBER	PHONE NUMBER / PURCHASE ORDER NUMBER
(USA EPA ID NO. IF APPLICABLE)	STATE ID NO.	MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number
				Petroleum Oil Class 3 NA 1270 PG III

SALES REPRESENTATIVE

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT OF MEASURE	PRICE	TAX	LINE TOTAL
	USED OIL REMOVAL						
	OILY WATER DISPOSAL		1,800	gal			
	SLUDGE DISPOSAL						
	#2 FUEL OIL						
	VAC TRUCK & OPERATOR						
	SERVICE CHARGE						
	DEXIL TEST KIT						
	Vac Out Excavation						
	1,700 Total						
						TOTAL	

AAORC REP Paul Ezzo (PRINT NAME)

AAORC REP Paul Ezzo (SIGNATURE)

GENERATOR/CUSTOMER Micina Brown (PRINT NAME)

GENERATOR/CUSTOMER (SIGNATURE)

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that my hazardous waste streams total less than 220 pounds (100 kg) for this calendar month and that I am not required to obtain an EPA identification number

GENERATOR'S INITIALS

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

Generator certifies that the waste is _____ In accordance the N.J.A.C 7:26-12 1 et seq., All American Oil Recovery Company has the required permits to accept the above described waste

In accordance with 40 CFR § 43(5), All American Oil Recovery Company has notified the US EPA of its location and used oil management activities.

EPA ID # NJR 000003616 DEPE # 50074

7 30

15517

ALL AMERICAN OIL RECOVERY COMPANY

1067 Route 23 South
Wayne, New Jersey 07470
(973) 628-WASTE • (973) 628-9278

Date: 4-20-10

GENERATOR/LOCATION	ACCOUNT #	BILL TO (IF DIFFERENT FROM LOCATION)
NAME		NAME EMC
INFORMATION/ATTENTION LINE	ACCOUNT APPROVAL CODE	INFORMATION/ATTENTION LINE / ACCOUNT APPROVAL CODE
DELIVERY ADDRESS 99 Chapel St		DELIVERY ADDRESS
CITY Newark	STATE / ZIP	CITY / STATE / ZIP
PHONE NUMBER	PURCHASE ORDER NUMBER	PHONE NUMBER / PURCHASE ORDER NUMBER
(USA EPA ID NO. IF APPLICABLE)	STATE ID NO.	MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number
		2000	gallon	Petroleum oil, class III, NA 2270 PGIII

SALES REPRESENTATIVE

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT OF MEASURE	PRICE	TAX	LINE TOTAL
	USED OIL REMOVAL						
✓	OILY WATER DISPOSAL		2000	gallon			
	SLUDGE DISPOSAL						
	#2 FUEL OIL						
✓	VAC TRUCK & OPERATOR Comp excavation						
	SERVICE CHARGE						
	DEXIL TEST KIT						

TOTAL

AAORC REP Josh Van Wyck (PRINT NAME)

AAORC REP [signature] (SIGNATURE)

GENERATOR/CUSTOMER (PRINT NAME)

GENERATOR/CUSTOMER [signature] (SIGNATURE)

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that my hazardous waste streams total less than 220 pounds (100 kg) for this calendar month and that I am not required to obtain an EPA identification number.

GENERATOR'S INITIALS

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

Generator certifies that the waste is _____ In accordance the N J A C 7:26-12:1 et seq , All American Oil Recovery Company has the required permits to accept the above described waste

In accordance with 40 CFR § 43(5), All American Oil Recovery Company has notified the US EPA of its location and used oil management activities.

EPA ID # NJR 000003616 DEPE # 50074

[8-20

15250

ALL AMERICAN OIL RECOVERY COMPANY

1067 Route 23 South
Wayne, New Jersey 07470
(973) 628-WASTE • (973) 628-9278

Date: 4/23/10

GENERATOR/LOCATION	ACCOUNT #	BILL TO (IF DIFFERENT FROM LOCATION)
NAME		NAME
INFORMATION/ATTENTION LINE: 95 Chapel ST	ACCOUNT APPROVAL CODE	INFORMATION/ATTENTION LINE: Matt Tomac
DELIVERY ADDRESS: Newark		DELIVERY ADDRESS
CITY	STATE: NJ ZIP	CITY STATE ZIP
PHONE NUMBER	PURCHASE ORDER NUMBER	PHONE NUMBER PURCHASE ORDER NUMBER
(USA EPA ID NO. IF APPLICABLE)	STATE ID NO.	MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number
				Petroleum oil class 3 NA1270 PG III

SALES REPRESENTATIVE

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT OF MEASURE	PRICE	TAX	LINE TOTAL
	USED OIL REMOVAL						
✓	OILY WATER DISPOSAL		2000	Gal			
	SLUDGE DISPOSAL						
	#2 FUEL OIL						
✓	VAC TRUCK & OPERATOR						
	SERVICE CHARGE						
	DEXIL TEST KIT						
						TOTAL	

AAORC REP: Paul Fuller (PRINT NAME)

AAORC REP: Paul Fuller (SIGNATURE)

GENERATOR/CUSTOMER: [illegible] (PRINT NAME)

GENERATOR/CUSTOMER: [illegible] (SIGNATURE)

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that my hazardous waste streams total less than 220 pounds (100 kg) for this calendar month and that I am not required to obtain an EPA identification number

GENERATOR'S INITIALS

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

Generator certifies that the waste is _____ In accordance the N.J.A.C. 7:26-12.1 et seq., All American Oil Recovery Company has the required permits to accept the above described waste.

In accordance with 40 CFR § 43(5), All American Oil Recovery Company has notified the US EPA of its location and used oil management activities.

EPA ID # NJR 000003616 DEPE # 50074

730

15521

ALL AMERICAN OIL RECOVERY COMPANY

1067 Route 23 South
Wayne, New Jersey 07470
(973) 628-WASTE • (973) 628-9278

Date: 4-27-10

GENERATOR/LOCATION	ACCOUNT #	BILL TO (IF DIFFERENT FROM LOCATION)
NAME		NAME EMC
INFORMATION/ATTENTION LINE	ACCOUNT APPROVAL CODE	INFORMATION/ATTENTION LINE / ACCOUNT APPROVAL CODE
DELIVERY ADDRESS 99 Chapel st		DELIVERY ADDRESS
CITY Newark	STATE / ZIP	CITY / STATE / ZIP
PHONE NUMBER	PURCHASE ORDER NUMBER	PHONE NUMBER / PURCHASE ORDER NUMBER
(USA EPA ID NO. IF APPLICABLE)	STATE ID NO.	MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number
		2000	gallon	Petroleum oil, class III, NAN70, PG III

SALES REPRESENTATIVE

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT OF MEASURE	PRICE	TAX	LINE TOTAL
	USED OIL REMOVAL						
✓	OILY WATER DISPOSAL		2000	gallon			
	SLUDGE DISPOSAL						
	#2 FUEL OIL						
✓	VAC TRUCK & OPERATOR Pump precaution						
	SERVICE CHARGE						
	DEXIL TEST KIT						
						TOTAL	

AAORC REP Josh Van Varick (PRINT NAME)

AAORC REP [signature] (SIGNATURE)

GENERATOR/CUSTOMER [signature] (PRINT NAME)

GENERATOR/CUSTOMER (SIGNATURE)

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that my hazardous waste streams total less than 220 pounds (100 kg) for this calendar month and that I am not required to obtain an EPA identification number

GENERATOR'S INITIALS

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

Generator certifies that the waste is _____ In accordance the N.J.A.C. 7:26-12.1 et seq., All American Oil Recovery Company has the required permits to accept the above described waste.

In accordance with 40 CFR § 43(5), All American Oil Recovery Company has notified the US EPA of its location and used oil management activities.

EPA ID # NJR 000003616 DEPE # 50074

730

4213
15522

ALL AMERICAN OIL RECOVERY COMPANY

1067 Route 23 South
Wayne, New Jersey 07470
(973) 628-WASTE • (973) 628-9278

Date: 4-28-10

GENERATOR/LOCATION	ACCOUNT #	BILL TO (IF DIFFERENT FROM LOCATION)
NAME		NAME EMC
INFORMATION/ATTENTION LINE	ACCOUNT APPROVAL CODE	INFORMATION/ATTENTION LINE / ACCOUNT APPROVAL CODE
DELIVERY ADDRESS 99 Chapel St		DELIVERY ADDRESS
CITY Newark	STATE / ZIP	CITY / STATE / ZIP
PHONE NUMBER	PURCHASE ORDER NUMBER	PHONE NUMBER / PURCHASE ORDER NUMBER
(USA EPA ID NO. IF APPLICABLE)	STATE ID NO.	MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number
		922	gal	Petroleum oil, class III, [illegible]

SALES REPRESENTATIVE

SERVICE SECTION

SALES CODE	DESCRIPTION	WASTE CODE	QUANTITY	UNIT OF MEASURE	PRICE	TAX	LINE TOTAL
	USED OIL REMOVAL						
✓	OILY WATER DISPOSAL		922	gallon			
	SLUDGE DISPOSAL						
	#2 FUEL OIL						
✓	VAC TRUCK & OPERATOR	Pump excavation					
	SERVICE CHARGE						
	DEXIL TEST KIT						
						TOTAL	

AAORC REP. Josh Van Vorst (PRINT NAME)

AAORC REP. [signature] (SIGNATURE)

GENERATOR/CUSTOMER Michael Brown (PRINT NAME)

GENERATOR/CUSTOMER [signature] (SIGNATURE)

SMALL QUANTITY GENERATOR CERTIFICATION

I certify that my hazardous waste streams total less than 220 pounds (100 kg) for this calendar month and that I am not required to obtain an EPA identification number

GENERATOR'S INITIALS

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

Generator certifies that the waste is _____ In accordance the N J A C 7:26-12.1 et seq., All American Oil Recovery Company has the required permits to accept the above described waste

In accordance with 40 CFR § 43(5), All American Oil Recovery Company has notified the US EPA of its location and used oil management activities.

EPA ID # NJR 000003616 DEPE # 50074

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8509 Fax: (732) 541-8105

Ticket: 3070000098935

	Date	Time	Scale
In:	1/14/2010	13:25:05	Manual W
Out:	1/14/2010	14:13:55	P.T.

Manifest: 409688
Vehicle ID: FUS48

	Lbs	Tns
Gross:	100960	50.43
Tare:	30940	15.42
Net:	70020	35.01

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	35.01	Tns

Contaminate Type: 2 Oil
Treatment Type: Rio
Fac Waste Code: NJ DEP TD 27

Comment:

Driver: _____
Hesbor

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070000090331

	Date	Time	Scale
In:	1/14/2010	13:01:20	Scale 1
Out:	1/14/2010	14:08:24	P.T.

Manifest: 338547
Vehicle ID: FUS8

	Lbs.	Tns
Gross:	94160	47.08
Tare:	25440	12.72
Net:	68720	34.36

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042
Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105
Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	34.36	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Matt

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-0105

Ticket: 3070000098930

	Date	Time	Scale
In:	1/14/2010	12:59:10	Scale 1
Out:	1/14/2010	14:07:45	P.T.

Manifest: 409628
Vehicle ID: FUS60

	Lbs	Tns
Gross:	91900	45.95
Tare:	26340	13.17
Net:	65560	32.78

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700A2

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type-II	32.78	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Calvin

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000090915

	Date	Time	Scale
In:	1/14/2010	12:15:02	Scale 1
Out:	1/14/2010	13:21:44	P.T.

Manifest: 409631
Vehicle ID: FUS22

	Lbs	Tns
Gross:	90200	45.10
Tare:	25280	12.64
Net:	64920	32.46

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	32.46	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP TD 27

Comment:

Driver: _____
Tyrone

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070000983003

	Date	Time	Scale
In:	1/14/2010	11:50:01	Scale 1
Out:	1/14/2010	12:30:32	P.T.

Manifest: 372171
Vehicle ID: FU650

	Lbs	Tns
Gross:	96020	48.01
Tare:	29100	14.55
Net:	66920	33.46

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	33.46	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Hugo

Facility: _____
Lukasz Ceglarek

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070000998694

	Date	Time	Scale
In:	1/14/2010	11:18:19	Manual W
Out:	1/14/2010	11:55:34	P.T.

Manifest: 409690
Vehicle ID: FUS48

	Lbs	Tns
Gross:	99460	49.73
Tare:	30840	15.42
Net:	68620	34.31

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 39 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industrires
Job Address: 39-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	34.31	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Nestor

Facility: _____
Lukasz Ceglarek

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070000098891

	Date	Time	Scale
In:	1/14/2010	11:07:13	Scale 1
Out:	1/14/2010	11:33:43	P.T.

Manifest: 358551
Vehicle ID: FUS8

	Lbs	Tns
Gross:	95440	47.72
Tare:	25440	12.72
Net:	70000	35.00

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	35.00	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Matt

Facility: _____
Lukasz Ceglarek

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000090085

	Date	Time	Scale
In:	1/14/2010	10:44:27	Scale 1
Out:	1/14/2010	11:18:41	P.T.

Manifest: 403624
Vehicle ID: FUS60

	Lbs	Tns
Gross:	86780	43.39
Tare:	26340	13.17
Net:	60440	30.22

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	30.22	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Calvin

Facility: _____
Lukasz Ceglarek

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8509 Fax: (732) 541-8105

Ticket: 3070000090881

	Date	Time	Scale
In:	1/14/2010	10:32:07	Scale 1
Out:	1/14/2010	10:55:14	P.T.

Manifest: 409629
Vehicle ID: FL622

	Lbs	Tns
Gross:	87920	43.96
Tare:	25280	12.64
Net:	62640	31.32

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	31.32	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Tyrone

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070000098875

	Date	Time	Scale
In:	1/14/2010	10:03:39	Scale 1
Out:	1/14/2010	10:34:13	P.T.

	Lbs	Tns
Gross:	92000	46.00
Tare:	29100	14.55
Net:	62900	31.45

Manifest: 372173
Vehicle ID: FU650

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	31.45	Tns

Contaminate Type: 2 Oil
Treatment Type: Rio
Fac Waste Code: NJ DEP TD 27

Comment:

Driver: _____
Hugo

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000098860

	Date	Time	Scale
In:	1/14/2010	08:53:03	Manual W
Out:	1/14/2010	09:51:14	P.T.

Manifest: 409685
Vehicle ID: FU548

	Lbs	Tns
Gross:	95280	47.64
Tare:	30840	15.42
Net:	64440	32.22

Customer: PENNSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type 11	32.22	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Nestor

Facility: _____
Walter Frunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000098853

	Date	Time	Scale
In:	1/14/2010	08:37:06	Scale 1
Out:	1/14/2010	09:34:33	P.T.

Manifest: 358546
Vehicle ID: FUS8

	Lbs	Tns
Gross:	91700	45.85
Tare:	25440	12.72
Net:	66260	33.13

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	33.13	Tns

Contaminate Type: 2 Oil
Treatment Type: Rio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Matt

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: #0070000096852

	Date	Time	Scale
In:	1/14/2010	08:32:47	Scale 1
Out:	1/14/2010	09:33:54	E.T.

Manifest: 409623
Vehicle ID: FUS60

	Lbs	Tns
Gross:	87500	43.79
Tare:	26340	13.17
Net:	61240	30.62

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	30.62	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Calvin

Facility: _____
Walter Brunges

5

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000090043

	Date	Time	Scale
In:	1/14/2010	08:21:08	Scale 1
Out:	1/14/2010	09:14:03	E.T.

Manifest: 409630
Vehicle ID: FUS22

	Lbs	Tns
Gross:	93120	46.56
Tare:	25280	12.64
Net:	67840	33.92

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	33.92	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Tyrone

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-6105

Ticket: 3070001122552

	Date	Time	Scale
In:	4/20/2010	14:30:36	Scale 1
Out:	4/20/2010	14:44:49	P.T.

Manifest: 416043
Vehicle ID: FL548

	Lbs	Tns
Gross:	87640	43.82
Tare:	30940	15.42
Net:	56800	28.40

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	28.40	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Gonzalo

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070001122253

	Date	Time	Scale
In:	4/20/2010	14:31:57	Scale 1
Out:	4/20/2010	14:45:08	P.T.

	Lbs	Tns
Gross:	88020	44.01
Tare:	25280	12.64
Net:	62740	31.37

Manifest: 368378
Vehicle ID: FUS22

Customer: PENWEGEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	31.37	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Carlos

Facility: Walter Brunges

Clean Earth Of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070001122C4

	Date	Time	Scale
In:	4/20/2010	15:13:39	Scale 1
Out:	4/20/2010	15:18:56	P.T.

	Lbs	Tns
Gross:	95500	47.75
Tare:	25500	12.75
Net:	70000	35.00

Manifest: 416044
Vehicle ID: FUS4

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	35.00	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Giovanny

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8309 Fax: (732) 541-8105

Ticket: 3070001122265

	Date	Time	Scale
In:	4/20/2010	15:15:35	Scale 1
Out:	4/20/2010	15:20:15	P.T.

	Lbs	Tns
Gross:	86920	43.46
Tare:	26540	13.27
Net:	60380	30.19

Manifest: 372435
Vehicle ID: FL8554

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	30.19	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Randell

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-8105

Ticket: 3070001132?5

	Date	Time	Scale
In:	4/27/2010	08:11:14	Scale 1
Out:	4/27/2010	08:23:15	P.T.

	Lbs	Tns
Gross:	100480	50.24
Tare:	25280	12.64
Net:	75200	37.60

Manifest: 199590
Vehicle ID: FUS22

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700?2

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type: TT	37.60	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Gus

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070000113281

	Date	Time	Scale
In:	4/27/2010	08:20:03	Scale 1
Out:	4/27/2010	09:03:53	P.T.

	Lbs	Tns
Gross:	99120	49.56
Tare:	27600	13.80
Net:	71520	35.76

Manifest: 415840
Vehicle ID: FUS16

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700402

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	35.76	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID #?

Comment:

Driver: _____

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-0105

Ticket: 307000113204

	Date	Time	Scale
In:	4/27/2010	08:34:47	Scale 1
Out:	4/27/2010	09:05:07	P.T.

	Lbs	Tns
Gross:	88940	44.47
Tare:	26540	13.27
Net:	62400	31.20

Manifest: 372424
Vehicle ID: FJ554

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700402

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	31.20	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Randall

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8309 Fax: (732) 541-8105

Ticket: 307000113293

	Date	Time	Scale
In:	4/27/2010	08:47:13	Scale 1
Out:	4/27/2010	09:14:09	P.T.

	Lbs	Tns
Gross:	93000	46.50
Tare:	25000	12.50
Net:	68000	34.40

Manifest: 415932
Vehicle ID: FUS14

Customer: PENNGERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	34.40	Tns

Contaminate Type: 2 Oil
Treatment Type: Rio
Fac Waste Code: NJ DEF ID 27

Comment:

Driver: Jorge

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8309 Fax: (732) 541-8105

Ticket: 3070001133O9

	Date	Time	Scale
In:	4/27/2010	09:36:20	Scale 1
Out:	4/27/2010	09:51:07	P.T.

Manifest: 199592
Vehicle ID: FU622

	Lbs	Tns
Gross:	86380	43.19
Tare:	25280	12.64
Net:	61100	30.55

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042
Generator: Palmer Industries Inc
Gen Address: 39 Chapel Street
Newark, NJ 07105
Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	30.55	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID #7

Comment:

Driver: Gus

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8309 Fax: (732) 541-8105

Ticket: 3070001133 28

	Date	Time	Scale
In:	4/27/2010	10:15:36	Scale 1
Out:	4/27/2010	10:35:18	P.T.

	Lbs	Tns
Gross:	96160	48.08
Tare:	25200	12.60
Net:	70960	35.48

Manifest: 350800
Vehicle ID: FL620

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type 11	35.48	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Jorge

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8300 Fax: (732) 541-8105

Ticket: 3070000113336

	Date	Time	Scale
In:	4/27/2010	10:33:34	Scale 1
Out:	4/27/2010	10:51:38	P.T.

	Lbs	Tns
Gross:	89100	44.55
Tare:	27600	13.80
Net:	61500	30.75

Manifest: 4095505
Vehicle ID: FUS16

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	30.75	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____

Facility: _____
Walter Bruneges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000113353

	Date	Time	Scale
In:	4/27/2010	11:03:37	Scale 1
Out:	4/27/2010	11:34:30	P.T.

	Lbs	Tns
Gross:	91500	45.75
Tare:	26540	13.27
Net:	64960	32.48

Manifest: 372433
Vehicle ID: FUS54

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type 11	32.48	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Randall

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-0105

Ticket: 3070001133S4

	Date	Time	Scale
In:	4/27/2010	11:07:43	Scale 1
Out:	4/27/2010	11:34:56	P.T.

	Lbs	Tns
Gross:	97480	48.74
Tare:	25000	12.50
Net:	72480	36.24

Manifest: 415934
Vehicle ID: FUS14

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	36.24	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP 10 27

Comment:

Driver: _____
Jorge

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000113363

	Date	Time	Scale
In:	4/27/2010	11:17:35	Scale 1
Out:	4/27/2010	11:49:12	P.T.

	Lbs	Tns
Gross:	88280	44.14
Tare:	25280	12.64
Net:	63000	31.50

Manifest: 199591
Vehicle ID: FU822

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	31.50	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Gus

Facility: _____
Walter Prunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-0105

Ticket: 307000113370

	Date	Time	Scale
In:	4/27/2010	11:41:19	Scale 1
Out:	4/27/2010	11:56:25	P.T.

	Lbs	Tns
Gross:	98520	49.26
Tare:	25200	12.60
Net:	73320	36.66

Manifest: 358799
Vehicle ID: FUS20

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	36.66	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Jorge

Facility: _____
Walter Bruges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-8105

Ticket: 307000113409

	Date	Time	Scale
In:	4/27/2010	12:28:10	Scale 1
Out:	4/27/2010	12:57:39	P.T.

	Lbs	Tns
Gross:	99500	49.75
Tare:	27600	13.80
Net:	71900	35.95

Manifest: 409502
Vehicle ID: FUS16

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	35.95	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000113419

	Date	Time	Scale
In:	4/27/2010	12:46:32	Scale 1
Out:	4/27/2010	13:03:16	P.T.

	Lbs	Tns
Gross:	91160	45.58
Tare:	26540	13.27
Net:	64620	32.31

Manifest: 372432
Vehicle ID: FU854

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	32.31	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Randall

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000113424

	Date	Time	Scale
In:	4/27/2010	13:01:10	Scale 1
Out:	4/27/2010	13:19:39	P.T.

	Lbs	Tns
Gross:	103420	51.71
Tare:	25000	12.50
Net:	78420	39.21

Manifest: 415931
Vehicle ID: FUS14

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc.
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type: TT	39.21	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Jorge

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000113425

	Date	Time	Scale
In:	4/27/2010	13:09:18	Scale 1
Out:	4/27/2010	13:20:00	P.T.

	Lbs	Tns
Gross:	97500	48.79
Tare:	26400	13.20
Net:	71100	35.59

Manifest: 415930
Vehicle ID: FUS2

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	35.59	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Carlos

Facility: _____
Walter Arrunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-0105

Ticket: 3070001113426

	Date	Time	Scale
In:	4/27/2010	13:15:41	Scale 1
Out:	4/27/2010	13:20:24	P.T.

	Lbs	Tns
Gross:	88600	44.30
Tare:	25280	12.64
Net:	63320	31.66

Manifest: 409997
Vehicle ID: FU522

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 93 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	31.66	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Gus

Facility: Walter Frunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-0105

Ticket: 307000113428

	Date	Time	Scale
In:	4/27/2010	13:28:26	Scale 1
Out:	4/27/2010	13:42:29	P.T.

	Lbs	Tns
Gross:	99480	49.72
Tare:	25200	12.60
Net:	74240	37.12

Manifest: 358798
Vehicle ID: FUS20

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 39 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	37.12	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Jorge

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-6105

Ticket: 307000113436

	Date	Time	Scale
In:	4/27/2010	14:10:46	Scale 1
Out:	4/27/2010	14:25:06	P.T.

	Lbs	Tns
Gross:	92340	46.47
Tare:	27600	13.80
Net:	65340	32.67

Manifest: 409504
Vehicle ID: FUS16

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 10307000042

Generator: Palmer Industriess Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industriess
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	32.67	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-0105

Ticket: 307000113441

	Date	Time	Scale
In:	4/27/2010	14:33:47	Scale 1
Out:	4/27/2010	14:46:00	P.T.

Manifest: 372431
Vehicle ID: FU554

	Lbs	Tns
Gross:	87500	43.75
Tare:	26540	13.27
Net:	60960	30.48

Customer: PENNSYLVANIA ENVIRONMENTAL

Facility Approval#: 103070042
Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105
Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	30.48	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Randall

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-8105

Ticket: 307000113443

	Date	Time	Scale
In:	4/27/2010	14:40:02	Scale 1
Out:	4/27/2010	14:47:51	P.T.

	Lbs	Tns
Gross:	93340	46.67
Tare:	25000	12.50
Net:	68340	34.17

Manifest: 415929
Vehicle ID: FL614

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	34.17	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP TD-27

Comment:

Driver: Jorge

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-8105

Ticket: 307000113447

	Date	Time	Scale
In:	4/27/2010	14:48:07	Scale 1
Out:	4/27/2010	15:08:25	P.T.

	Lbs	Tns
Gross:	94520	47.26
Tare:	26400	13.20
Net:	68120	34.06

Manifest: 293300
Vehicle ID: FU52

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042
Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	34.06	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP TD 27

Comment:

Driver: Carlos

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070001134S0

	Date	Time	Scale
In:	4/27/2010	15:00:44	Scale 1
Out:	4/27/2010	15:16:12	P.T.

	Lbs	Tns
Gross:	87840	43.92
Tare:	25280	12.64
Net:	62560	31.28

Manifest: 409990
Vehicle ID: FUS22

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700402

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	31.28	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Gus

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070001134S4

	Date	Time	Scale
In:	4/27/2010	15:15:26	Scale 1
Out:	4/27/2010	15:32:34	P.T.

	Lbs	Tns
Gross:	85200	42.60
Tare:	25200	12.60
Net:	60000	30.00

Manifest: 358797
Vehicle ID: FUS20

Customer: PENNTERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	30.00	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Jorge

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-0909 Fax: (732) 541-0105

Ticket: 307000112456

	Date	Time	Scale
In:	4/27/2010	15:39:06	Scale 1
Out:	4/27/2010	15:52:08	P.T.

	Lbs	Tns
Gross:	92240	46.12
Tare:	27600	13.80
Net:	64640	32.32

Manifest: 409501
Vehicle ID: FUS16

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	32.32	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307008113502

	Date	Time	Scale
In:	4/28/2010	07:34:08	Scale 1
Out:	4/28/2010	07:43:30	P.T.

	Lbs	Tns
Gross:	92040	46.02
Tare:	27200	13.60
Net:	64840	32.42

Manifest: 405545
Vehicle ID: FUS36

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030708042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	32.42	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Wilmar

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070000113503

	Date	Time	Scale
In:	4/28/2010	07:40:51	Scale 1
Out:	4/28/2010	07:45:38	P.T.

Manifest: 415945
Vehicle ID: FUS34

	Lbs	Tns
Gross:	93400	46.70
Tare:	27800	13.90
Net:	65600	32.80

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700A2

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	32.80	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Gus

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070000113530

	Date	Time	Scale
In:	4/28/2010	10:34:11	Scale 1
Out:	4/28/2010	10:39:59	P.T.

Manifest: 415774
Vehicle ID: F1550

	Lbs	Tns
Gross:	86420	43.21
Tare:	29100	14.55
Net:	57320	28.66

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042
Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105
Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	28.66	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Hugo

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-0105

Ticket: 307000113532

	Date	Time	Scale
In:	4/28/2010	10:41:32	Scale 1
Out:	4/28/2010	10:49:44	P.T

Manifest: 416073
Vehicle ID: FU84

	Lbs	Tns
Gross:	87140	43.57
Tare:	25500	12.75
Net:	61640	30.82

Customer: PENNSYLVANIA ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	30.82	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Giovanny

Facility: Walter Brunyes

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070001135339

	Date	Time	Scale
In:	4/28/2010	11:02:48	Scale 1
Out:	4/28/2010	11:24:07	P.T.

	Lbs	Tns
Gross:	86780	43.39
Tare:	27800	13.90
Net:	58980	29.49

Manifest: 415943
Vehicle ID: FUS34

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700402

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type-TT	29.49	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Gus

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-8105

Ticket: 3070001135 40

	Date	Time	Scale
In:	4/28/2010	11:15:54	Scale 1
Out:	4/28/2010	11:24:25	P.T.

	Lbs	Tns
Gross:	93700	46.85
Tare:	27200	13.60
Net:	66500	33.25

Manifest: 405546
Vehicle ID: FUS36

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	33.25	Tns

Contaminate Type: 2 Oil
Treatment Type: Rio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Wilmar

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070001135S9

	Date	Time	Scale
In:	4/28/2010	12:23:35	Scale 1
Out:	4/28/2010	12:48:50	P.T.

Manifest: 415776
Vehicle ID: FU650

	Lbs	Tns
Gross:	83860	41.93
Tare:	29100	14.55
Net:	54760	27.38

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700402

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment: Type II	27.38	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Hugo

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-8105

Ticket: 307000113561

	Date	Time	Scale
In:	4/28/2010	12:27:15	Scale 1
Out:	4/28/2010	12:49:43	P.T.

Manifest: 416074
Vehicle ID: FLSA

	Lbs	Tns
Gross:	92240	46.12
Tare:	25500	12.75
Net:	66740	33.37

Customer: PENNGERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 53-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	33.37	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comments:

Driver: Giovanny

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000114246

	Date	Time	Scale
In:	5/5/2010	08:06:46	Scale 1
Out:	5/5/2010	08:13:24	P.T.

	Lbs	Tns
Gross:	85420	42.71
Tare:	26540	13.27
Net:	58880	29.44

Manifest: 372434
Vehicle ID: FU554

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700A2

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	29.44	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Drivers: Randall

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-8105

Ticket: 3070000114247

	Date	Time	Scale
In:	5/5/2010	08:07:26	Scale 1
Out:	5/5/2010	08:14:13	P.T.

	Lbs	Tns
Gross:	80920	40.46
Tare:	26400	13.20
Net:	54520	27.26

Manifest: 416206
Vehicle ID: FL52

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	27.26	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____

Facility: _____
Walter Bruneges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8900 Fax: (732) 541-8105

Ticket: 3070001142S0

	Date	Time	Scale
In:	5/5/2010	08:13:41	Scale 1
Out:	5/5/2010	08:22:34	P.T.

	Lbs	Tns
Gross:	85860	42.93
Tare:	26300	13.15
Net:	59560	29.78

Manifest: 416025
Vehicle ID: FU826

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07103

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	29.78	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Luis

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-0909 Fax: (732) 541-0105

Ticket: 307000114252

	Date	Time	Scale
In:	5/5/2010	08:18:14	Scale 1
Out:	5/5/2010	09:03:11	P.T.

	Lbs	Tns
Gross:	88300	44.15
Tare:	25000	12.50
Net:	63300	31.65

Manifest: 416233
Vehicle ID: FUS14

Customer: PENNSKEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	31.65	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID #7

Comment:

Driver: Jorge

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070000114254

	Date	Time	Scale
In:	5/5/2010	08:33:48	Scale 1
Out:	5/5/2010	09:04:55	P.T.

	Lbs	Tns
Gross:	91500	45.75
Tare:	25100	12.55
Net:	66400	33.20

Manifest: 416141
Vehicle ID: PUS32

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	33.20	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Cesar

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-8105

Ticket: 3070000114283

	Date	Time	Scale
In:	5/5/2010	09:45:10	Scale 1
Out:	5/5/2010	09:48:47	P.T.

Manifest: 372425
Vehicle ID: FU554

	Lbs	Tns
Gross:	95280	47.64
Tare:	26540	13.27
Net:	68740	34.37

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 39 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	34.37	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Randall

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-8105

Ticket: 3070000114231

	Date	Time	Scale
In:	5/5/2010	10:06:02	Scale 1
Out:	5/5/2010	10:21:10	P.T.

	Lbs	Tns
Gross:	91660	45.83
Tare:	26400	13.20
Net:	65260	32.63

Manifest: 415972
Vehicle ID: FUS2

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1003070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	32.63	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 67

Comment:

Driver: _____

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8300 Fax: (732) 541-8105

Ticket: 3070001142?7

	Date	Time	Scale
In:	5/5/2010	10:21:59	Scale 1
Out:	5/5/2010	10:29:36	P.T.

	Lbs	Tns
Gross:	96940	48.47
Tare:	26300	13.15
Net:	70640	35.32

Manifest: 416026
Vehicle ID: FUS26

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, ND	Soil Treatment Type II	35.32	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Luis

Facility: Walber Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 3070000114295

	Date	Time	Scale
In:	5/5/2010	10:36:01	Scale 1
Out:	5/5/2010	10:49:43	P.T.

	Lbs	Tns
Gross:	92260	46.13
Tare:	25000	12.50
Net:	67260	33.63

Manifest: 416232
Vehicle ID: FUS14

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	33.63	Tns

Contaminate Type: #2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Jorge

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8300 Fax: (732) 541-0105

Ticket: 307000114305

	Date	Time	Scale
In:	5/5/2010	10:57:14	Scale 1
Out:	5/5/2010	11:12:14	P.T.

	Lbs	Tns
Gross:	95520	47.76
Tare:	25100	12.55
Net:	70420	35.21

Manifest: 416142
Vehicle ID: FUS32

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	35.21	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Cesar

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8509 Fax: (732) 541-0105

Ticket: 387000114398

	Date	Time	Scale
In:	5/5/2010	11:14:14	Scale 1
Out:	5/5/2010	11:32:10	P.T.

Manifest: 372426
Vehicle ID: FUS54

	Lbs	Tns
Gross:	88140	44.07
Tare:	26540	13.27
Net:	61600	30.80

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	30.80	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____
Randall

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000114314

	Date	Time	Scale
In:	5/5/2010	11:42:12	Scale 1
Out:	5/5/2010	11:54:24	P.T.

	Lbs	Tns
Gross:	96760	48.38
Tare:	26400	13.20
Net:	70360	35.18

Manifest: 415971
Vehicle ID: FUS2

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 39 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	35.18	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: _____

Facility: _____
Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000114326

	Date	Time	Scale
In:	5/5/2010	11:55:52	Scale 1
Out:	5/5/2010	12:25:47	E.T.

Manifest: 416152
Vehicle ID: FUS34

	Lbs	Tns
Gross:	94460	47.23
Tare:	27800	13.90
Net:	66660	33.33

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industries
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	33.33	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Carlos

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8900 Fax: (732) 541-8105

Ticket: 3070001143238

	Date	Time	Scale
In:	5/5/2010	12:11:13	Scale 1
Out:	5/5/2010	12:26:25	P.T.

	Lbs	Tns
Gross:	98000	49.00
Tare:	25000	12.50
Net:	73000	36.50

Manifest: 416231
Vehicle ID: FL514

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 1030700042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	36.50	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Jorge

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 397000114345

	Date	Time	Scale
In:	5/5/2010	12:56:29	Scale 1
Out:	5/5/2010	13:26:11	P.T.

Manifest: 416027
Vehicle ID: FU526

	Lbs	Tns
Gross:	92980	46.49
Tare:	26300	13.15
Net:	66680	33.34

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042
Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105
Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	33.34	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID 27

Comment:

Driver: Luis

Facility: Walter Brunges

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 307000114351

	Date	Time	Scale
In:	5/5/2010	13:28:45	Scale 1
Out:	5/5/2010	13:36:57	P.T.

	Lbs	Tns
Gross:	92300	46.19
Tare:	25100	12.55
Net:	67200	33.64

Manifest: 416143
Vehicle ID: FUS32

Customer: PENNJERSEY ENVIRONMENTAL

Facility Approval#: 103070042

Generator: Palmer Industries Inc
Gen Address: 99 Chapel Street
Newark, NJ 07105

Job Name: Palmer Industires
Job Address: 59-97 Chapel Street
Newark, NJ 07105

Origin	Materials & Services	Quantity	Unit
Newark, NJ	Soil Treatment Type II	33.64	Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: NJ DEP ID #7

Comment:

Driver: Cesar

Facility: Walter Brunges

County Concrete Corporation
P.O. Box F Kenvil, NJ 07847
Phone: 973-584-7122 Fax 973-584-4370

April 21, 2011

Environmental Management Consultants, Inc.
72 Cobb Street
Rockaway NJ 07866

RE: Palmer Industries
99 Chapel Street
Newark, NJ

,

Dear Sir or Madam:

This letter certifies that the 483.93 total tons of ¾" road stone you purchased for the above referenced project from December 7, 2009 to December 14, 2009 is clean material This is an imported product that is stock piled on virgin ground, free of any hazardous materials.

Also attached is a letter from Tilcon located in Oxford, NJ, the company who we purchase our material from stating that their material is certified clean.

Thank You,

William H. Fink

William H. Fink

Tilcon NY OXFORD QUARRY

MT PISGAH & QUARRY AVE • P O. BOX 120 • OXFORD, N.J 07863 •908-453-4141

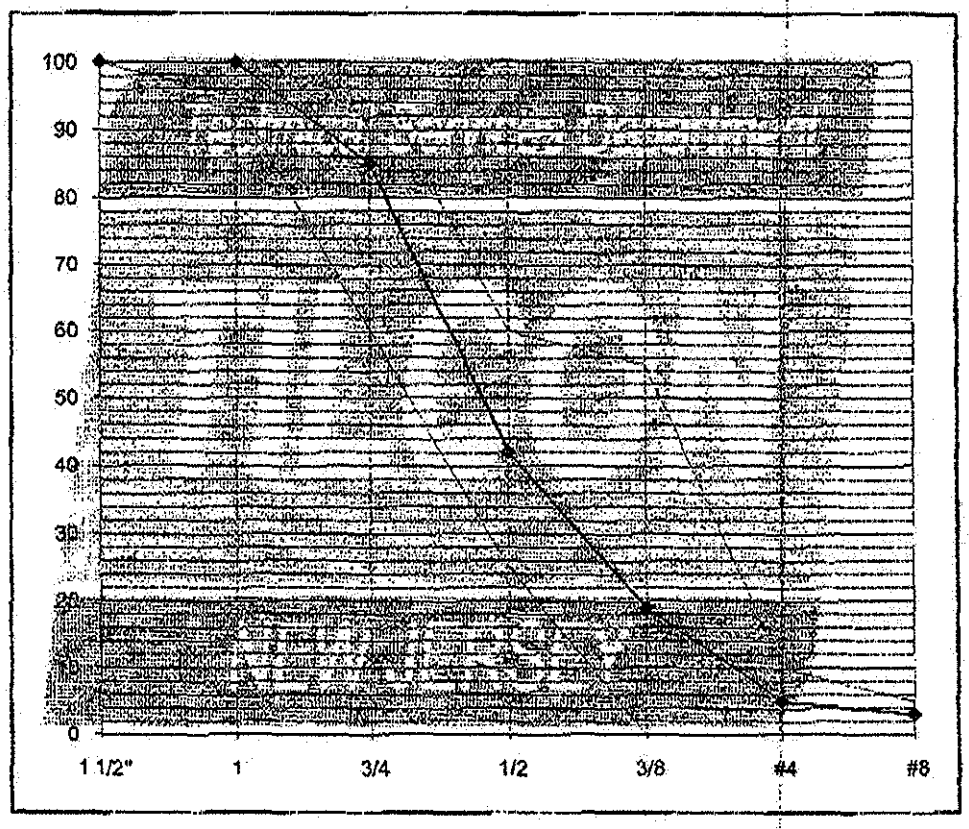
Typical Gradation #57 (3/4" Limestone)

Project

Contractor
County Concrete

Sp. Gr	2.78
Loose	89.5
Rodded	100.5

	Typical	Prod. Target	
	% Pass	Low	High
1 1/2"	100	100	100
1"	100	95	100
3/4	85	60	100
1/2	42	25	60
3/8	19		55
#4	5		10
#8	3		5



Tilcon-NJ confirms that the #57 (3/4" Limestone)available at Oxford Quarry meets the specification for environmental use and conforms to the quality requirements of section 901 of ***The New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction***. It is defined as virgin limestone mined at Oxford Quarry, Quarry Road & Mt Pisgah Ave, Block 33-Lot 21&22 White Township, Warren County. The material is identified on the job with Tilcon-NJ delivery tickets

The unit weights and voids and typical gradation are for process control and should be verified by the contractor before use

County Concrete Corporation
P.O. Box F Kenvil, NJ 07847
Phone: 973-584-7122 Fax 973-584-4370

April 25, 2011

Environmental Management Consultants, Inc.
72 Cobb Street
Rockaway NJ 07866

Re: Palmer Industries
99 Chapel Street
Newark, NJ

Dear Sir or Madam:

This letter certifies that the 102.02 tons of ¾" crushed stone you have purchased for the above referenced project on December 17, 2009 is clean material. This is an imported product that is stock piled on virgin ground, free of any hazardous materials.

Also attached is a letter from Tilcon located in Oxford, NJ, the company who we purchase our material from stating that their material is certified clean

Thank You,

Bill Fink

Bill Fink
Quality Control Manager
County Concrete Corp.

Tilcon NY OXFORD QUARRY

MT PISGAH & QUARRY AVE • P.O. BOX 120 • OXFORD, N.J. 07863 •908-453-4141

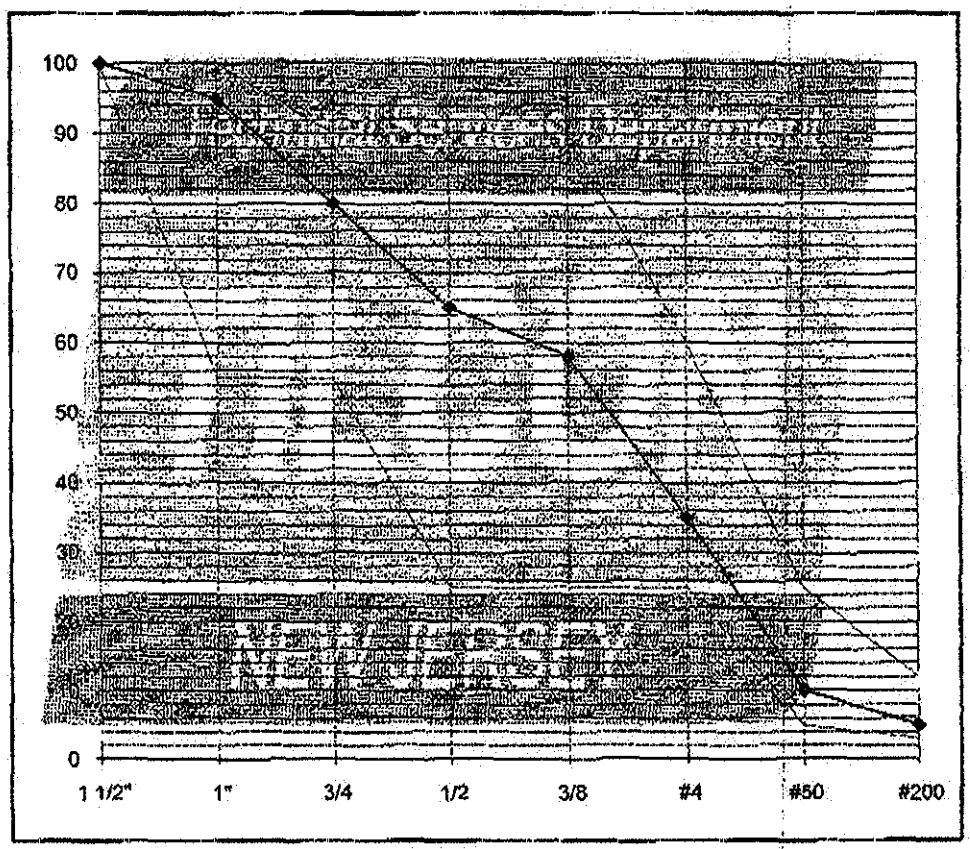
Typical Gradation DGABC (Limestone)

Project

Contractor
County Concrete

Sp. Gr	2.82
Loose	99
Rodded	112

	Typical	Prod. Target	
	% Pass	Low	High
1 1/2"	100	100	100
1"	95	55	100
3/4	80	55	90
1/2	65	25	90
3/8	58	25	90
#4	35	25	60
#50	10	5	25
#200	5	3	12



Tilcon-NJ confirms that the DGABC (Limestone)available at Oxford Quarry meets the specification for environmental use and conforms to the quality requirements of section 901 of ***The New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction.*** It is defined as virgin limestone mined at Oxford Quarry, Quarry Road & Mt Pisgah Ave, Block 33-Lot 21&22 White Township, Warren County. The material is identified on the job with Tilcon-NJ delivery tickets.

The unit weights and voids and typical gradation are for process control and should be verified by the contractor before use.

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40106

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	PER/ADAM-LANDI	203570	
	ORDER NO. EMC/NEW	JOB NO.	TIME 11:00	DATE 12/07/09
DELIVER TO	SPECIAL INSTRUCTIONS			
SHIPPING CONTAINER YARD NJ	Weighmaster: Ralph L Peterson 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028			

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

79500 LB GROSS
27720 LB TARE
51780 LB NET

TRUCK	HAUL NO.	HAULER
CC307	COUNTY	COUNTY CONCRETE CORP.

DRIVER: George S Huffert ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	25.89	25.89	1		
				1		
				1		
				1		
				1		
				1		
NEWARK	Delivery Charge	25.89	25.89	1		
~~EXTRA UNLOADING TIME~~	~~$75.00/HR~~					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: Joan Greene

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40109

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	PER/ADAM-LANDI	2037573
	ORDER NO. ENC/NEW	JOB NO.	TIME 11:15 DATE 12/07/09
DELIVER TO SHIPPING CONTAINER YARD NJ	SPECIAL INSTRUCTIONS 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028		Weighmaster: Ralph L Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
CCCS1	COUNTY	COUNTY CONCRETE CORP.

68740 LB GROSS
24360 LB TARE
44380 LB NET

DRIVER: Jamie Gonzalez ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	22.19	48.08	2		
NEWARK	Delivery Charge	22.19	48.08	2		
	EXTRA UNLOADING TIME $75 00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: _____

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40112

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	PER/ADAM-LANDI	2037576
	ORDER NO. EMC/NEW	JOB NO.	TIME 11:27 DATE 12/07/09
DELIVER TO SHIPPING CONTAINER YARD NJ,	SPECIAL INSTRUCTIONS 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028		Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1130	1240		

TRUCK	HAUL NO.	HAULER
CCC41	COUNTY	COUNTY CONCRETE CORP.

71780 LB GROSS
26560 LB TARE
45220 LB NET

DRIVER: Vincent V Modaffer ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	22.61	70.69	3		
NEWARK	Delivery Charge	22.61	70.69	3		
	EXTRA UNLOADING TIME $75.00/HR					

TAX
TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY
WEIGHMASTER

RECEIVED BY: _____

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40113

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	PER/ADAM-LANDI	2037577
	ORDER NO. EHC/NEW	JOB NO.	TIME 11:34 / DATE 12/07/09
DELIVER TO SHIPPING CONTAINER YARD NJ,	SPECIAL INSTRUCTIONS 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028		Weighmaster: Ralph L Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
11:37	12:35		

TRUCK	HAUL NO.	HAULER
CC306	COUNTY	COUNTY CONCRETE CORP.

DRIVER: Glen T Garrabrant ALT DRIVER:

73620 LB GROSS
25680 LB TARE
47940 LB NET

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	23.97	94.66	4		
				4		
				4		
				4		
				4		
				4		
NEWARK	Delivery Charge	23.97	94.66	4		
	EXTRA UNLOADING TIME $75.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER S COPY

WEIGHMASTER

RECEIVED BY:

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40114

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	PER/ADAM-LANDI	2037578
	ORDER NO. ENC/NEW	JOB NO.	TIME 11:37 DATE 12/07/09
DELIVER TO SHIPPING CONTAINER YARD NJ,	SPECIAL INSTRUCTIONS Weighmaster: Ralph L. Peterson 99 - CHAPEL ST., NEWARK ✓ SCOTT: 973/362-5028		

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1140	1235		

TRUCK	HAUL NO.	HAULER
CC304	COUNTY	COUNTY CONCRETE CORP.

81920 LB GROSS
25420 LB TARE
56500 LB NET

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	28.25	122.91	5		
				5		
				5		
				5		
				5		
				5		
NEWARK	Delivery Charge	28.25	122.91	5		
	EXTRA UNLOADING TIME $75.00/HR					

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY:

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40125

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	PER/ADAM-LANDI	2037589
	ORDER NO. ENC/NEW	JOB NO.	TIME 13:41 / DATE 12/07/09
DELIVER TO SHIPPING CONTAINER YARD NJ	SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028		

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
145			

TRUCK	HAUL NO.	HAULER
CC304	COUNTY	COUNTY CONCRETE CORP.

79760 LB GROSS
25420 LB TARE
54340 LB NET

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	27.17	150.08	6 6 6 6 6 6		
NEWARK	Delivery Charge	27.17	150.08	6		
	EXTRA UNLOADING TIME $75.00/HR					

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX
TOTAL

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY:

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40128

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	RER/ADAM LANDI	2037592
	ORDER NO. ENC/NEW	JOB NO.	TIME 14:08 DATE 12/07/09
DELIVER TO SHIPPING CONTAINER YARD NJ	SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson 99 CHAPEL ST., NEWARK SCOTT 973/362-5028		

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
2:11	3:10		

TRUCK	HAUL NO.	HAULER
CC306	COUNTY	COUNTY CONCRETE CORP.

76000 LB GROSS
25680 LB TARE
50320 LB NET

DRIVER: Glen T Garrabrant ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	25.16	175.24	7 7 7 7 7 7 7		
NEWARK	Delivery Charge	25.16	175.24	7		
	EXTRA UNLOADING TIME	$75.00/HR				

TAX
TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY:

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40221

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037685	
	ORDER NO. 38	JOB NO.	TIME 07:23	DATE 12/10/09
DELIVER TO SHIPPING CONTAINER YARD N.J	SPECIAL INSTRUCTIONS Weighmaster: Ralph L. Peterson 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028			

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
CC307	COUNTY	COUNTY CONCRETE CORP.

79740 LB GROSS
27720 LB TARE
52020 LB NET

DRIVER: George S Huffert ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	26.01	26.01	1		
				1		
				1		
				1		
				1		
				1		
	Delivery Charge	26.01	26.01	1		
	EXTRA UNLOADING TIME $75.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY:

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40222

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037686	
	ORDER NO. 38	JOB NO.	TIME 07:25	DATE 12/10/09

DELIVER TO
SHIPPING CONTAINER YARD
NJ

SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson
99 - CHAPEL ST., NEWARK
SCOTT: 973/362-5028

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
7:21	8:30	9 -	

TRUCK	HAUL NO.	HAULER
CCC51	COUNTY	COUNTY CONCRETE CORP.

68460 LB GROSS
24360 LB TARE
44100 LB NET

DRIVER: Jamie Gonzalez ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	22.05	48.06	2		
	Delivery Charge	22.05	48.06	2		
	~~EXTRA UNLOADING TIME~~	~~$75.00/HR~~				

TAX
TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY
WEIGHMASTER

RECEIVED BY: VAG

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40224

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037688	
	ORDER NO. 38	JOB NO.	TIME 07:31	DATE 12/10/09

DELIVER TO	SPECIAL INSTRUCTIONS
SHIPPING CONTAINER YARD NJ	Weighmaster: Ralph L Peterson 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
7:35	9:05		

TRUCK	HAUL NO.	HAULER
CCC47	COUNTY	COUNTY CONCRETE CORP.

72100 LB GROSS
25160 LB TARE
46940 LB NET

DRIVER: Richard T Rolph ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	23.47	71.53	3		
	Delivery Charge	23.47	71.53	3		
	~~EXTRA UNLOADING TIME $75.00/HR~~					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY
WEIGHMASTER

RECEIVED BY: _____

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40226

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037690	
	ORDER NO. 38	JOB NO.	TIME 07:35	DATE 12/10/09
DELIVER TO SHIPPING CONTAINER YARD NJ	SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028			

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
135			

TRUCK	HAUL NO.	HAULER
CC304	COUNTY	COUNTY CONCRETE CORP.

83400 LB GROSS
25420 LB TARE
57980 LB NET

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	28.99	100.52	4 4 4 4 4 4		
	Delivery Charge	28.99	100.52	4		
	~~EXTRA UNLOADING TIME $75.00/HR~~					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY
WEIGHMASTER

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Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40237

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037701	
	ORDER NO. 38	JOB NO.	TIME 10:43	DATE 12/10/09

DELIVER TO
SHIPPING CONTAINER YARD
NJ

SPECIAL INSTRUCTIONS Weighmaster: Ralph L. Peterson
99 CHAPEL ST., NEWARK
SCOTT: 973/362-5020

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1040			

TRUCK	HAUL NO.	HAULER
CC3052	COUNTY	COUNTY CONCRETE CORP.

80460 LB GROSS
27720 LB TARE
52740 LB NET

DRIVER: George S Huffert ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	26.37	126.89	5		
				5		
				5		
				5		
				5		
	Delivery Charge	26.37	126.89	5		
	EXTRA UNLOADING TIME $75.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

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50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40238

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037702	
	ORDER NO. 38	JOB NO.	TIME 10:47	DATE 12/10/09

DELIVER TO	SPECIAL INSTRUCTIONS
SHIPPING CONTAINER YARD NJ	Weighmaster: Ralph L Peterson 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
10:50	11:50		

TRUCK	HAUL NO.	HAULER
CCC47	COUNTY	COUNTY CONCRETE CORP.

69820 LB GROSS
25160 LB TARE
44660 LB NET

DRIVER: Richard T Rolph ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	22.33	149.22	6 6 6 6 6 6		
	Delivery Charge	22.33	149.22	6		
	~~EXTRA UNLOADING TIME~~	~~475.00/HR~~				

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: _____

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SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40240

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037704	
	ORDER NO. 38	JOB NO.	TIME 10:50	DATE 12/10/09

DELIVER TO
SHIPPING CONTAINER YARD
NJ

SPECIAL INSTRUCTIONS Weighmaster: Ralph L. Peterson
99 - CHAPEL ST., NEWARK
SCOTT: 973/362-5028

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1050			

82540 LB GROSS
25420 LB TARE
57120 LB NET

TRUCK	HAUL NO.	HAULER
CC304	COUNTY	COUNTY CONCRETE CORP.

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	28.50	177.78	7		
				7		
				7		
				7		
				7		
				7		
	Delivery Charge	28.50	177.78	7		
	~~EXTRA UNLOADING TIME $75.00/HR~~					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: _____

COUNTY CONCRETE CORP.

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50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40355

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENV102		2037819
	ORDER NO.	JOB NO.	TIME / DATE
			10:07 12/14/09

DELIVER TO	SPECIAL INSTRUCTIONS
SHIPPING CONTAINER YARD NJ	99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028

Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
10:07	11:30		

TRUCK	HAUL NO.	HAULER
CC301	COUNTY	COUNTY CONCRETE CORP.

80400 LB GROSS
25680 LB TARE
54720 LB NET

DRIVER: Luz P Gomez ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	27.36	27.36	1		
	Delivery Charge	27.36	27.36	1		
	EXTRA UNLOADING TIME	175.00/HR				

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY:

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40356

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037820
	ORDER NO.	JOB NO.	TIME 10:10 DATE 12/14/09
DELIVER TO SHIPPING CONTAINER YARD NJ	SPECIAL INSTRUCTIONS 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028		Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
10:10			

TRUCK	HAUL NO.	HAULER
CC308	COUNTY	COUNTY CONCRETE CORP.

70700 LB GROSS
27680 LB TARE
51020 LB NET

DRIVER: Jose L. Salazar ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	25.51	52.87	2		
	Delivery Charge	25.51	52.87			
	EXTRA UNLOADING TIME	$75.00/HR				

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY:

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Telephone: (973) 584-7122 • Fax: (973) 584-4370

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Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40357

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037821
	ORDER NO.	JOB NO.	TIME / DATE
	76		2/14/09
DELIVER TO	SPECIAL INSTRUCTIONS		
SHIPPING CONTAINER YARD NJ	Weighmaster: Ralph L. Peterson 99 - CHAPEL ST., NEWARK SCOTT: 973/362 5028		

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
02305	COUNTY	COUNTY CONCRETE CORP.

78040 LB GROSS
25800 LB TARE
52240 LB NET

DRIVER: Alberto Bentancour ALT. DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	26.12	78.99	3		
	Delivery Charge	26.12	78.99	3		

EXTRA UNLOADING TIME $75.00/HR

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

CUSTOMER S COPY

WEIGHMASTER

RECEIVED BY:

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Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANTS
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40364

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037828	
	ORDER NO. 76	JOB NO.	TIME 11:44	DATE 12/14/09
DELIVER TO SHIPPING CONTAINER YARD NT	SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028			

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1145	1240		

TRUCK	HAUL NO.	HAULER
CC307	COUNTY	COUNTY CONCRETE CORP

77920 LB GROSS
27720 LB TARE
50200 LB NET

DRIVER: George S Huffert ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
410	3/4" Road Stone	25.10	104.09	4		
				4		
				4		
				4		
				4		
				4		
	- Delivery Charge	25.10	104.09	4		
	EXTRA UNLOADING TIME	175.00/HR				

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY:

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40365

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2037829	
	ORDER NO. 76	JOB NO.	TIME 11:46	DATE 12/14/09
DELIVER TO SHIPPING CONTAINER YARD NJ	SPECIAL INSTRUCTIONS Weighmaster: Ralph L. Peterson 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028			

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1130	1245		

TRUCK	HAUL NO.	HAULER
CC304	COUNTY	COUNTY CONCRETE CORP.

79060 LB GROSS
25420 LB TARE
53640 LB NET

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
#10	3/4" Road Stone	26.82	130.91	5		
				5		
				5		
				5		
				5		
				5		
	* Delivery Charge	26.82	130.91	5		
	EXTRA UNLOADING TIME $75.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY:

COUNTY CONCRETE CORP.

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Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40554

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/362-5028SCOT	2038018	
	ORDER NO. 45	JOB NO.	TIME 10:10	DATE 12/17/09
DELIVER TO SHIPPING CONTAINER YARD NJ	SPECIAL INSTRUCTIONS Weighmaster: Ralph L. Peterson Jr. 99 CHAPEL ST., NEWARK SCOTT: 973/362-5028			

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
10:12	11:13	11:25	

TRUCK	HAUL NO.	HAULER
CCC31	COUNTY	COUNTY CONCRETE CORP.

67780 LB GROSS
-24560 LB TARE
43220 LB NET

DRIVER: Jamie Gonzalez ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
850	3/4" Crushed Stone	21.71	21.71	1		
				1		
				1		
				1		
				1		
				1		
	Delivery Charge	21.71	21.71	1		
	EXTRA UNLOADING TIME $75.00/HR.					

TAX
TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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WEIGHMASTER

RECEIVED BY:

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Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40559

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/362-5028SCOT	2038023	
	ORDER NO.	JOB NO.	TIME	DATE
	45		10:33	12/17/09

DELIVER TO
SHIPPING CONTAINER YARD
NJ

SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson
99 - CHAPEL ST., NEWARK
SCOTT: 973/362-5028

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1035			

TRUCK	HAUL NO.	HAULER
CC304	COUNTY	COUNTY CONCRETE CORP.

79940 LB GROSS
25420 LB TARE
54520 LB NET

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
450	3/4" Crushed Stone	27.26	48.97	2		
				2		
				2		
				2		
				2		
				2		
	Delivery Charge	27.26*	48.97	2		

EXTRA UNLOADING TIME $75.00/HR

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX
TOTAL

CUSTOMER'S COPY

WEIGHMASTER

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Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40560

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/362-5028SCOT	2030024	
	ORDER NO. 45.	JOB NO.	TIME 10:39	DATE 12/17/09
DELIVER TO SHIPPING CONTAINER YARD NJ	SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson 99 - CHAPEL ST., NEWARK SCOTT: 973/362-5028			

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1035			

TRUCK	HAUL NO.	HAULER
CC307	COUNTY	COUNTY CONCRETE CORP.

78300 LB GROSS
27720 LB TARE
50660 LB NET

DRIVER: George S Huffert ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
#3	3/4" Crushed Stone	25.33	74.30			
	Delivery Charge	25.33	74.30			
	EXTRA UNLOADING TIME $75.00/HR					

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

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RECEIVED BY: _____

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Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 40568

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/362-5028SCOT	2038032
	ORDER NO. 45	JOB NO.	TIME 11:06 / DATE 12/17/09

DELIVER TO
SHIPPING CONTAINER YARD
NJ

SPECIAL INSTRUCTIONS Weighmaster: Ralph L. Peterson
99 - CHAPEL ST., NEWARK
SCOTT: 973/362-5028

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1106	1120		

TRUCK	HAUL NO.	HAULER
CC305	COUNTY	COUNTY CONCRETE CORP.

81240 LB GROSS
25800 LB TARE
55440 LB NET

DRIVER: Alberto Bentancour ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
450	3/4" ~~Crushed~~ Stone	27.72	~~129.72~~ 102.02	4		
	Delivery Charge	27.72	129.72			
	EXTRA UNLOADING TIME $75.00/HR					

TAX
TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY
WEIGHMASTER

RECEIVED BY: _____

County Concrete Corporation
P.O. Box F Kenvil, NJ 07847
Phone: 973-584-7122 Fax 973-584-4370

April 21, 2011

Environmental Management Consultants, Inc
72 Cobb Street
Rockaway, NJ 07866

Re: Palmer Industries
99 Chapel Street
Newark, NJ

This letter certifies the 86 loads (2208.91 tons) of Pond Fill material purchased for the above-referenced project from April 13 2010 to May 10,2010 was taken from our plant in Kenvil, NJ. This material is "Certified Clean".

To the best of my knowledge, this product is from natural virgin material. Also, to the best of my knowledge this quarry has never been used as a dumpsite for chemical, toxic, radioactive or hazardous materials

Thank you,

William H. Fink

William H. Fink
Quality Control Manager

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 44291

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2041714	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 11:50	DATE 04/13/10
DELIVER TO (OPEN LOT) CHAPEL STREET	SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson N E W A R K BOB: 973/479-5698			

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
12:00	1:00		

TRUCK	HAUL NO.	HAULER
CCC45	COUNTY	COUNTY CONCRETE CORP.

73420 LB GROSS
26200 LB TARE
47220 LB NET

DRIVER: Richard T Rolph ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	23.61	45.91	2		
NEWARK	Delivery Charge	23.61	45.91	2		
~~EXTRA UNLOADING TIME~~	~~$75.00/HR~~					

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX
TOTAL

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WEIGHMASTER

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COUNTY CONCRETE CORP.

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SAND & GRAVEL PLANT
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Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 44289

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2041712	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 11:35	DATE 04/13/10
DELIVER TO (OPEN LOT) CHAPEL STREET	SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson N E W A R K BOB: 973/479-5698			

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
11:37	12:37	12:47	

TRUCK	HAUL NO.	HAULER
CCC51	COUNTY	COUNTY CONCRETE CORP.

69140 LB GROSS
24540 LB TARE
44600 LB NET

DRIVER: Jamie Gonzalez ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	22.30	22.30	1		
NEWARK	Delivery Charge	22.30	22.30	1		
~~EXTRA UNLOADING TIME~~	~~$75.00/HR~~					

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX
TOTAL

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Oxford (908) 453-4446

K/SG 44292

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2041715	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 11:54	DATE 04/13/10

DELIVER TO: (OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson
N E W A R K
BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
11:55			

TRUCK	HAUL NO.	HAULER
CC308	COUNTY	COUNTY CONCRETE CORP.

82820 LB GROSS
27920 LB TARE
54900 LB NET

DRIVER: Jose L Salazar ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	27.45	73.36	3 3 3 3 3 3 3 3 3 3 3		
NEWARK	Delivery Charge	27.45	73.36			
~~EXTRA UNLOADING TIME~~	~~$75.00/HR~~					

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX
TOTAL

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Oxford (908) 453-4446

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K/SG 44293

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2041716	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 11:59	DATE 04/13/10

DELIVER TO: (OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson
N E W A R K
BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
CC305	COUNTY	COUNTY CONCRETE CORP.

82580 LB GROSS
25800 LB TARE
56780 LB NET

DRIVER: Alberto Bentancour ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	28.39	101.75	4 4 4 4 4 4 4		
NEWARK	Delivery Charge	28.39	101.75	4		
~~EXTRA UNLOADING TIME~~	~~$75.00/HR~~					

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX
TOTAL

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K/SG 44312

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2041735
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 14:12 / DATE 04/13/10
DELIVER TO (OPEN LOT) CHAPEL STREET	SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson N E W A R K BOB: 973/479-5698		

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
14-15	15 15	15 20	

TRUCK	HAUL NO.	HAULER
CC308	COUNTY	COUNTY CONCRETE CORP.

79220 LB GROSS
27920 LB TARE
51300 LB NET

DRIVER: Jose L Salazar ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	25.65	127.40	5 5 5 5 5		
NEWARK	Delivery Charge	25.65	127.40	5		
~~EXTRA UNLOADING TIME~~	~~$75.00/HR~~					

TAX
TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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K/SG 44315

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2041738
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 14:22 / DATE 04/13/10
DELIVER TO (OPEN LOT) CHAPEL STREET	SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson N E W A R K BOB: 973/479-5698		

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
2:24	3:27		

TRUCK	HAUL NO.	HAULER
CC301	COUNTY	COUNTY CONCRETE CORP.

79280 LB GROSS
25680 LB TARE
53600 LB NET

DRIVER: Glen T Ganrabrant ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	26.80	154.20	6 6 6 6 6 6		
NEWARK	Delivery Charge	26.80	154.20	6		
~~EXTRA UNLOADING TIME~~	~~$75.00/HR~~					

TAX
TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY
WEIGHMASTER
Ryan Boyce

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Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 44689

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042112
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 09:22 DATE 04/20/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	Weighmaster: Ralph L. Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
925	1030		

TRUCK	HAUL NO.	HAULER
CC306	COUNTY	COUNTY CONCRETE CORP.

77580 LB GROSS
25900 LB TARE
51680 LB NET

DRIVER: James J Hill ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	25.84	25.84	1		
				1		
				1		
				1		
				1		
				1		
NEWARK	Delivery Charge	25.84	25.84	1		
	~~EXTRA UNLOADING TIME $75.00/HR~~					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

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K/SG 44691

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENV102	973/479-5698	2042114
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 09:32 / DATE 04/20/10

DELIVER TO: (OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson
N E W A R K
BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
7 35	10 35	10 47	

TRUCK	HAUL NO.	HAULER
CC301	COUNTY	COUNTY CONCRETE CORP.

79640 LB GROSS
25680 LB TARE
53960 LB NET

DRIVER: Jamie Gonzalez ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	26.98	52.82	2		
NEWARK	Delivery Charge	26.98	52.82	2		
	~~EXTRA UNLOADING TIME $75.00/HR~~					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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K/SG 44697

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENV102	973/479-5698	2042120	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 10:06	DATE 04/20/10
DELIVER TO (OPEN LOT) CHAPEL STREET	SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson N E W A R K BOB: 973/479-5698			

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1010	1105		

TRUCK	HAUL NO.	HAULER
CC304	COUNTY	COUNTY CONCRETE CORP.

76600 LB GROSS
25400 LB TARE
51200 LB NET

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	25.60	78.42	3		
NEWARK	Delivery Charge	25.60	78.42	3		
	EXTRA UNLOADING TIME $75.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: Ready #3

COUNTY CONCRETE CORP.

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SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 44728

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042151
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 12:56 / DATE 04/20/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	Weighmaster: Ralph L Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1256			

TRUCK	HAUL NO.	HAULER
CC307	COUNTY	COUNTY CONCRETE CORP.

79260 LB GROSS
27720 LB TARE
51540 LB NET

DRIVER: George S Huffert ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	25.77	104.19	4		
				4		
				4		
				4		
				4		
				4		
NEWARK	Delivery Charge	25.77	104.19	4		
	~~EXTRA UNLOADING TIME~~	~~$75.00/HR~~				

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

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Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 44729

SOLD TO	CUSTOMER NO	PURCHASE ORDER NO	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042152	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 12:59	DATE 04/20/10

DELIVER TO
(OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS Weighmaster: Ralph L. Peterson
N E W A R K
BOB: 973/479-5698

13 - 10:02 10:10

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
CC301	COUNTY	COUNTY CONCRETE CORP.

82040 LB GROSS
25680 LB TARE
56360 LB NET

DRIVER: Jamie Gonzalez ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	28.18	132.37	5 5 5 5 5 5		
NEWARK	Delivery Charge	28.18	132.37	5		
	EXTRA UNLOADING TIME $75.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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K/SG 44731

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENV102	973/479-5698	2042154
	ORDER NO. EMC/CHA	JOB NO. 72405	TIME 13:13 / DATE 04/20/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	Weighmaster / Ralph L. Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
115			1

TRUCK	HAUL NO.	HAULER
CC306	COUNTY	COUNTY CONCRETE CORP.

84260 LB GROSS
25900 LB TARE
58360 LB NET

DRIVER: James J Hill ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	29.18	161.55	6		
				6		
				6		
				6		
				6		
				6		
NEWARK	Delivery Charge	29.18	161.55	6		
	EXTRA UNLOADING TIME $75.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG .5440

SOLD TO:	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Enviropmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042861	
	ORDER NO.	JOB NO.	TIME	DATE
	EMC/CHA	72485	10:12	04/29/10

DELIVER TO: (OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson
N E W A R K
BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1015			

TRUCK	HAUL NO.	HAULER
CC304	COUNTY	COUNTY CONCRETE CORP.

73620 LB GROSS
25400 LB TARE
48220 LB NET

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	24.11	24.11	1		
				1		
				1		
				1		
				1		
				1		
NEWARK	Delivery Charge	24.11	24.11	1		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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Oxford (908) 453-4446

K/SG 45453

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042874	
	ORDER NO.	JOB NO.	TIME	DATE
	EMC/CHQ	72485	11:37	04/29/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	Weighmaster: Ralph L. Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
11:10			

TRUCK	HAUL NO.	HAULER
CC306	COUNTY	COUNTY CONCRETE CORP.

81380 LB GROSS
25900 LB TARE
55480 LB NET

DRIVER: James J Hill ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	27.74	51.85	2		
NEWARK	Delivery Charge	27.74	51.85	2		
	EXTRA UNLOADING TIME $75.00/HR					

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

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Hackettstown (908) 852-0240
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Oxford (908) 453-4446

K/SG 45454

SOLD TO: Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	CUSTOMER NO. ENVI02 ORDER NO. [illegible]	PURCHASE ORDER NO. 973/479-5698 JOB NO. 72485	TICKET NO. 2042875 TIME 11:39 DATE 04/29/10 Weighmaster: Ralph L Peterson
DELIVER TO: (OPEN LOT) CHAPEL STREET	SPECIAL INSTRUCTIONS: N E W A R K BOB: 973/479-5698		

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1139	1240	1255	

TRUCK	HAUL NO.	HAULER
00305	COUNTY	COUNTY CONCRETE CORP.

74180 LB GROSS
25800 LB TARE
48380 LB NET

DRIVER: Alberto Bentancour ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
20Y	Pond Fill	24.19	76.04	3		
	305			3		
	[signature]			3		
				3		
				3		
NEWARK	Delivery Charge	24.19	76.04	3		
	EXTRA UNLOADING TIME	$75.00/HR				

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY
WEIGHMASTER

RECEIVED BY: [signature] (#3)

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Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45455

SOLD TO: Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	CUSTOMER NO: ENVI02 ORDER NO: [illegible]	PURCHASE ORDER NO: 973/479-5698 JOB NO: 72485	TICKET NO: 2042876 TIME: 11:41 DATE: 04/29/10
DELIVER TO: (NEW LOT) CHAPEL STREET	SPECIAL INSTRUCTIONS: NEWARK BOB: 973/479-5698		Weighmaster: Ralph L Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT		
11:43				80740	LB GROSS
				27920	LB TARE
TRUCK: 08	HAUL NO: COUNTY	HAULER: COUNTY CONCRETE CORP.		52820	LB NET

DRIVER: Jose L Salazar ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
	Structural Fill	26.41	102.45	4		
				4		
				4		
				4		
				4		
NEWARK	Delivery Charge	26.41	102.45	4		
	EXTRA UNLOADING TIME	$75.00/HR				

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: [signature]

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
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K/SG 45459

SOLD TO: Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	CUSTOMER NO. ENV102	PURCHASE ORDER NO. 973/479-5698	TICKET NO. 2042880
	ORDER NO. [illegible]	JOB NO. 72405 Weighmaster: Ralph L	TIME 12:10 DATE 04/23/10 Peterson
DELIVER TO (OPEN LOT) CHAPEL STREET	SPECIAL INSTRUCTIONS N E W A R K BOB: 973/479-5698		

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT		
				74700	LB GROSS
				25660	LB TARE
TRUCK 02502	HAUL NO. COUNTY	HAULER COUNTY CONCRETE CORP.		49040	LB NET

DRIVER: Romuald Wachowiak ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TOTAL	LOADS	RATE	EXT.
	Fill	24.52	126.97	5		
NEWARK	Delivery Charge			5		
	EXTRA UNLOADING TIME	$75.00/HR				

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

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Hackettstown	(908) 852-0240
Sussex	(973) 875-3124
Oxford	(908) 453-4446

K/SG 45462

SOLD TO	CUSTOMER NO	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042883
	ORDER NO. CHA	JOB NO. 72485	TIME 12:22 DATE 4/29/10
		Weighmaster: Ralph H Peterson	

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1225			

TRUCK	HAUL NO.	HAULER
CCS04	COUNTY	COUNTY CONCRETE CORP.

81000 LB GROSS
25400 LB TARE
55600 LB NET

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
20	Pond Fill	27.80	154.77	6		
				6		
				6		
				6		
				6		
				6		
NEWARK	Delivery Charge	27.80	154.77	6		
	EXTRA UNLOADING TIME	$75.00/HR				

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: RJB (5)

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Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 15482

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042902
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 13:51 DATE 04/29/10
DELIVER TO (OPEN LOT) CHAPEL STREET	SPECIAL INSTRUCTIONS N E W A R K BOB: 973/479-5698		Weighmaster : Ralph L Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
CC305	COUNTY	COUNTY CONCRETE CORP.

78820 LB GROSS
25800 LB TARE
53020 LB NET

DRIVER: Alberto Bentancour ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	26.51	181.28	7		
				7		
				7		
				7		
				7		
				7		
NEWARK	Delivery Charge	26.51	181.28	7		
	EXTRA UNLOADING TIME	$75.00/HR				

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45483

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042903
	ORDER NO. ENVICHA	JOB NO. 72485	TIME 13:53 DATE 4/29/10
		Weighmaster: Ralph L Peterson	

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
13 53	14 37	15 05	

TRUCK	HAUL NO.	HAULER
CC308	COUNTY	COUNTY CONCRETE CORP.

75300 LB GROSS
27920 LB TARE
47380 LB NET

DRIVER: Jose L Salazar ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	23.69	204.97	8		
				8		
				8		
				8		
				8		
				8		
NEWARK	Delivery Charge	23.69	204.97	8		
	EXTRA UNLOADING TIME $25.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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WEIGHMASTER

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Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45485

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042905
	ORDER NO. CHA	JOB NO. 72485	TIME 13:58 DATE 4/29/10
		Weighmaster: Ralph L Peterson	

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
200			

TRUCK	HAUL NO.	HAULER
CC306	COUNTY	COUNTY CONCRETE CORP.

77980 LB GROSS
25900 LB TARE
52080 LB NET

DRIVER: James J Hill ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT
207	Pond Fill	26.04	231.01	9		
				9		
				9		
				9		
				9		
				9		
NEWARK	Delivery Charge	26.04	231.01	9		
	EXTRA UNLOADING TIME	$75.00/HR				

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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WEIGHMASTER

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Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45487

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042907
	ORDER NO. ENVICHR	JOB NO. 72485	TIME 14:12 DATE 4/29/10
		Weighmaster: Ralph L Peterson	

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT		
14:17	15:20	15:30		69820	LB GROSS
				25140	LB TARE
				44680	LB NET

TRUCK	HAUL NO.	HAULER
CCC48	COUNTY	COUNTY CONCRETE CORP.

DRIVER: Jamie Gonzalez ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT
207	Pond Fill	22.34	253.35	10		
				10		
				10		
				10		
				10		
				10		
NEWARK	Delivery Charge	22.34	253.35	10		
	EXTRA UNLOADING TIME $75.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45511

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042931	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 07:09	DATE 04/30/10

DELIVER TO: (OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson
N E W A R K
BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
707	540	850	

TRUCK	HAUL NO.	HAULER
CC305	COUNTY	COUNTY CONCRETE CORP.

77600 LB GROSS
25800 LB TARE
51800 LB NET

DRIVER: Alberto Bentancour ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	25.90	25.90	1		
	305			1		
				1		
				1		
				1		
				1		
NEWARK	Delivery Charge	25.90	25.90	1		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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WEIGHMASTER

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SAND & GRAVEL PLANT

Kenvil	(973) 584-7122
Morristown	(973) 538-3113
Hackettstown	(908) 852-0240
Sussex	(973) 875-3124
Oxford	(908) 453-4446

K/SG 45512

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042932	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 07:11	DATE 04/30/10

DELIVER TO
(OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS Weighmaster: Ralph L Peterson
N E W A R K
BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
7 15	8 30	8 40	

TRUCK	HAUL NO.	HAULER
CC308	COUNTY	COUNTY CONCRETE CORP.

81340 LB GROSS
27920 LB TARE
53420 LB NET

DRIVER: Jose L Salazar ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	26.71	52.61	2		
				2		
				2		
				2		
				2		
NEWARK	Delivery Charge	26.71	52.61	2		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: Ralph

COUNTY CONCRETE CORP.

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Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45513

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042933	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 07:13	DATE 04/30/10

DELIVER TO: (OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson
N E W A R K
BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
7:15	8:49		

77560 LB GROSS
25680 LB TARE
51880 LB NET

TRUCK	HAUL NO.	HAULER
CC301	COUNTY	COUNTY CONCRETE CORP.

DRIVER: Glen T Garrabrant ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	25.94	78.55	3		
				3		
				3		
				3		
				3		
				3		
NEWARK	Delivery Charge	25.94	78.55	3		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: _____

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SAND & GRAVEL PLANT
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Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45514

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042934	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 07:15	DATE 04/30/10

DELIVER TO: (OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson
N E W A R K
BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
715	840		

TRUCK	HAUL NO.	HAULER
CC306	COUNTY	COUNTY CONCRETE CORP.

78580 LB GROSS
25900 LB TARE
52680 LB NET

DRIVER: James J Hill ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	26.34	104.09	4		
				4		
				4		
				4		
				4		
				4		
NEWARK	Delivery Charge	26.34	104.85	4		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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WEIGHMASTER

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Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45541

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042961	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 10:08	DATE 04/30/10

DELIVER TO: (OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson
N E W A R K
DOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
10:00	11:21	1:30	

TRUCK	HAUL NO	HAULER
CC305	COUNTY	COUNTY CONCRETE CORP.

79080 LB GROSS
25800 LB TARE
53280 LB NET

DRIVER: Alberto Bentancour ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	26.64	131.53	5		
	305			5		
				5		
				5		
				5		
				5		
NEWARK	Delivery Charge	26.64	131.52	5		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

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COUNTY CONCRETE CORP.

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SAND & GRAVEL PLANT
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Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45542

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042962
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 10:10 / DATE 04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	Weighmaster: Ralph L. Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
10.10			

TRUCK	HAUL NO	HAULER
CC308	COUNTY	COUNTY CONCRETE CORP.

75860 LB GROSS
27920 LB TARE
47940 LB NET

DRIVER: Jose L Salazar ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	23.97	155.50	6		
				6		
				6		
				6		
				6		
				6		
NEWARK	Delivery Charge	23.97	155.50	6		
	EXTRA UNLOADING TIME $75.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: RK

COUNTY CONCRETE CORP.

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SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45543

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENV102	973/479-5698	2042963	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 10:11	DATE 04/30/10

DELIVER TO: (OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson
N E W A R K
BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1010	1105		

TRUCK	HAUL NO	HAULER
CC306	COUNTY	COUNTY CONCRETE CORP.

80680 LB GROSS
25900 LB TARE
54780 LB NET

DRIVER: James J Hill ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	27.39	182.85	7		
				7		
				7		
				7		
				7		
				7		
NEWARK	Delivery Charge	27.39	182.85	7		

EXTRA UNLOADING TIME $75.00/HR

TAX
TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

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COUNTY CONCRETE CORP.

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SAND & GRAVEL PLANT
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Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45555

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042975
	ORDER NO.	JOB NO.	TIME / DATE
	EMC/DHA	72485	11:25 04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	Weighmaster: Ralph L. Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1125			

TRUCK	HAUL NO	HAULER
CC304	COUNTY	COUNTY CONCRETE CORP.

80840 LB GROSS
25400 LB TARE
55440 LB NET

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	27.72	210.61		8	
					8	
					8	
					8	
					8	
					8	
NEWARK	Delivery Charge	27.72	210.61		8	

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

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COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45564

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY N.J 07866	ENVI02	973/479-5698	2042984
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 12:12 DATE 04/30/10
DELIVER TO (OPEN LOT) CHAPEL STREET	SPECIAL INSTRUCTIONS N E W A R K BOB: 973/479-5698		Weighmaster: Ralph L Peberson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
12-15			

TRUCK	HAUL NO.	HAULER
CC308	COUNTY	COUNTY CONCRETE CORP.

79780 LB GROSS
27920 LB TARE
51860 LB NET

DRIVER: Jose L. Salazar ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT
207	Pond Fill	25.93	236.54	9		
				9		
				9		
				9		
				9		
				9		
NEWARK	Delivery Charge	25.93	236.54	9		
	EXTRA UNLOADING TIME	$75.00/HR				

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

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Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45565

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042985
	ORDER NO. EMC/CHR	JOB NO. 72485	TIME 12:1[illegible] DATE 04/30/10
		Weighmaster: Ralph L Peterson	

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1215	705		

TRUCK	HAUL NO	HAULER
CC306	COUNTY	COUNTY CONCRETE CORP.

80460 LB GROSS
25900 LB TARE
54560 LB NET

DRIVER: James J Hill ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	27.28	263.82		10	
					10	
					10	
					10	
					10	
					10	
NEWARK	Delivery Charge	27.28	263.82		10	
	EXTRA UNLOADING TIME	$75.00/HR				

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

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WEIGHMASTER

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K/SG 45566

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2042986
	ORDER NO. EMC/C-1A	JOB NO. 72485	TIME 12:14 DATE 04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	Weighmaster: Ralph L Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
12:14	12:20	12:45	

TRUCK	HAUL NO.	HAULER
CC305	COUNTY	COUNTY CONCRETE CORP.

79760 LB GROSS
25800 LB TARE
53960 LB NET

DRIVER: Alberto Bentancour ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	26.98	290.80		11 11 11 11 11 11	
NEWARK	Delivery Charge	26.98	290.80		11	
	EXTRO UNLOADING TIME	$75.00/HR				

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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WEIGHMASTER

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TIMER

K/SG 45582

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENV102	973/479-5698	2043002	
	ORDER NO.	JOB NO.	TIME	DATE
	EMC/CHA	72485	13:34	04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	Weighmaster: Ralph L. Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
1335	1430		

TRUCK	HAUL NO.	HAULER
CC304	COUNTY	COUNTY CONCRETE CORP.

79160 LB GROSS
25400 LB TARE
53760 LB NET

DRIVER: Dominic M Mazzara ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	26.88	317.68	12		
				12		
				12		
				12		
				12		
				12		
NEWARK	Delivery Charge	26.88	317.68	12		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: RECK

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Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45522

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2042942	
	ORDER NO. 79	JOB NO. 72485	TIME 07:33	DATE 04/30/10

DELIVER TO: FOB (CHAPEL ST/NEWARK)

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
ME4	UNK	UNKNOWN HAULER

68640 LB GROSS
24940 LB TARE
43700 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	21.85	21.85	1		
				1		
				1		
				1		
				1		
				1		
FOB	Delivery Charge	21.85	21.85	1		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: DM

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Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45523

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2042943	
	ORDER NO. 79	JOB NO. 72485	TIME 07:34	DATE 04/30/10

DELIVER TO: FOB (CHAPEL ST/NEWARK)

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO	HAULER
M25	UNK	UNKNOWN HAULER

69260 LB GROSS
29240 LB TARE
40020 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	20.03	41.86	2		
FOB	Delivery Charge	20.01	41.86	2		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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K/SG 45524

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2042944	
	ORDER NO. 79	JOB NO. 72485	TIME 07:36	DATE 04/30/10

DELIVER TO: FOB (CHAPEL ST/NEWARK)

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
M26	COUNTY	COUNTY CONCRETE CORP.

72480 LB GROSS
25640 LB TARE
46840 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	23.42	65.28	3		
FOB	Delivery Charge	23.42	65.28	3		
~~EXTRA UNLOADING TIME~~	~~475.00/HR~~					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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WEIGHMASTER

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Oxford (908) 453-4446

K/SG 45548

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2042968	
	ORDER NO. 79	JOB NO. 72485	TIME 10:30	DATE 04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
FOB (CHAPEL ST/NEWARK)	Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
M25	UNK	UNKNOWN HAULER

73160 LB GROSS
29240 LB TARE
43920 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	21.96	87.24	4		
				4		
				4		
				4		
				4		
				4		
FOB	Delivery Charge	21.96	87.24	4		
	~~EXTRA UNLOADING TIME $75.00/HR~~					

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

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Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45549

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2042969
	ORDER NO.	JOB NO.	TIME / DATE
	79	72485	10:32 04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
FOB (CHAPEL ST/NEWARK)	Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
M26	COUNTY	COUNTY CONCRETE CORP.

73620 LB GROSS
25640 LB TARE
47980 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	23.99	111.23	5 5 5 5 5 5 5 5 5 5		
FOB	Delivery Charge	23.99	111.23			

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

#61

CUSTOMER'S COPY

WEIGHMASTER

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Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45550

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2042970
	ORDER NO.	JOB NO.	TIME / DATE
	79	72485	10:34 04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
FOB (CHAPEL ST/NEWARK)	Weighmaster: Ralph L Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
M24	UNK	UNKNOWN HAULER

72940 LB GROSS
24940 LB TARE
48000 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	24.00	135.23	6		
				6		
				6		
				6		
				6		
				6		
FOB	Delivery Charge	24.00	135.23	6		
	EXTRA UNLOADING TIME $75.00/HR					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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#53

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Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45571

SOLD TO	CUSTOMER NO	PURCHASE ORDER NO	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2042991	
	ORDER NO.	JOB NO.	TIME	DATE
	79	72485	12:27	04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
FOB (CHAPEL ST/NEWARK)	Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO	HAULER
M25	UNK	UNKNOWN HAULER

73520 LB GROSS
29240 LB TARE
44280 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT
207	Pond Fill	22.14	157.37	7		
				7		
				7		
				7		
				7		
				7		
FOB	Delivery Charge	22.14	157.37	7		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN ~~DELIVERING~~ OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45574

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENV102		2042994	
	ORDER NO. 79	JOB NO. 72485	TIME 12:46	DATE 04/30/10

DELIVER TO: FOB (CHAPEL ST/NEWARK)

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
M24	UNK	UNKNOWN HAULER

74300 LB GROSS
24940 LB TARE
49360 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	24.68	206.79	9		
FOB	Delivery Charge	24.68	206.79	9		

EXTRA UNLOADING TIME $75.00/HR

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

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WEIGHMASTER

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Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45573

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2042993	
	ORDER NO.	JOB NO.	TIME	DATE
	79	72485	12:43	04/30/10

DELIVER TO: FOB (CHAPEL ST/NEWARK)

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO.	HAULER
M26	COUNTY	COUNTY CONCRETE CORP.

75120 LB GROSS
25640 LB TARE
49480 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	24.74	182.11	8		
				8		
				8		
				8		
				8		
				8		
FOB	Delivery Charge	24.74	182.11	8		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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WEIGHMASTER

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Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45591

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2043011	
	ORDER NO. 79	JOB NO. 72485	TIME 14:26	DATE 04/30/10

DELIVER TO: FOB (CHAPEL ST/NEWARK)

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO	HAULER
M25	UNK	UNKNOWN HAULER

73780 LB GROSS
29240 LB TARE
44540 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	22.27	229.06	10		
				10		
				10		
				10		
				10		
				10		
FOB	Delivery Charge	22.27	229.06	10		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

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WEIGHMASTER

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Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45594

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02		2043014	
	ORDER NO 79	JOB NO. 72485	TIME 15:10	DATE 04/30/10

DELIVER TO
FOB (CHAPEL ST/NEWARK)

SPECIAL INSTRUCTIONS Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO	HAULER
M26	COUNTY	COUNTY CONCRETE CORP.

75860 LB GROSS
25640 LB TARE
50220 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	25.11	254.17	11		
				11		
				11		
				11		
				11		
				11		
FOB	Delivery Charge	25.11	254.17	11		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: _____

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45595

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENV102		2043015	
	ORDER NO.	JOB NO.	TIME	DATE
	79	72485	15:12	04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
FOB (CHAPEL ST/NEWARK)	Weighmaster: Ralph L. Peterson

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO	HAULER
M24	UNK	UNKNOWN HAULER

73380 LB GROSS
24940 LB TARE
48440 LB NET

DRIVER: UNKNOWN ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill	24.22	278.39	12		
				12		
				12		
				12		
				12		
				12		
FOB	Delivery Charge	24.22	278.39	12		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: DM

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 15584

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2043004	
	ORDER NO.	JOB NO.	TIME	DATE
	EMC/CHA	72485	13:53	04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OREN LOT) CHAPEL STREET	Weighmaster: Ralph L Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT

TRUCK	HAUL NO	HAULER
CCC48	COUNTY	COUNTY CONCRETE CORP.

70620 LB GROSS
25140 LB TARE
45480 LB NET

DRIVER: Jamie Gonzalez ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	22.74	340.42	13 13 13 13 13 13 13		
NEWARK	Delivery Charge	22.74	340.42	13		
	~~EXTRA UNLOADING TIME $75.00/HR~~					

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: _____

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45587

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2043007	
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 14:09	DATE 04/30/10

DELIVER TO: (OPEN LOT) CHAPEL STREET

SPECIAL INSTRUCTIONS: Weighmaster: Ralph L Peterson
N E W A R K
BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
14-10	15 10	15 20	

TRUCK	HAUL NO	HAULER
CC308	COUNTY	COUNTY CONCRETE CORP.

76880 LB GROSS
27920 LB TARE
48960 LB NET

DRIVER: Jose L Salazar ALT DRIVER:

PRODUCT	DESCRIPTION	QTY.	TODAY	LOADS	RATE	EXT.
207	Pond Fill	24.48	364.90	14		
				14		
				14		
				14		
				14		
				14		
NEWARK	Delivery Charge	24.48	364.90	14		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: [signature]

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F. • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45588

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.	
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2043008	
	ORDER NO.	JOB NO.	TIME	DATE
	EMC/CHA	72485	14:14	04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	Weighmaster: Ralph L Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
21	31	12	

TRUCK	HAUL NO.	HAULER
CC305	COUNTY	COUNTY CONCRETE CORP.

78780 LB GROSS
25800 LB TARE
52980 LB NET

DRIVER: Alberto Bentancour ALT. DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT
207	Pond Fill 30J	26.49	391.39	15 15 15 15 15 15		
NEWARK	Delivery Charge	26.49	391.39	15		

EXTRA UNLOADING TIME $75.00/HR

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

TAX

TOTAL

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: _____

COUNTY CONCRETE CORP.

Ready Mix Concrete • Sand and Gravel
50 Railroad Ave., P.O. Box F • Kenvil, New Jersey 07847
Telephone: (973) 584-7122 • Fax: (973) 584-4370

SAND & GRAVEL PLANT
Kenvil (973) 584-7122
Morristown (973) 538-3113
Hackettstown (908) 852-0240
Sussex (973) 875-3124
Oxford (908) 453-4446

K/SG 45589

SOLD TO	CUSTOMER NO.	PURCHASE ORDER NO.	TICKET NO.
Environmental Mgmt. Consult ATTN: CHRISTINE ROCKAWAY NJ 07866	ENVI02	973/479-5698	2043009
	ORDER NO. EMC/CHA	JOB NO. 72485	TIME 14:16 / DATE 04/30/10

DELIVER TO	SPECIAL INSTRUCTIONS
(OPEN LOT) CHAPEL STREET	Weighmaster: Ralph L. Peterson N E W A R K BOB: 973/479-5698

LEAVE PLANT	ARRIVE JOB	LEAVE JOB	ARRIVE PLANT
320			

TRUCK	HAUL NO.	HAULER
CC306	COUNTY	COUNTY CONCRETE CORP.

80120 LB GROSS
25900 LB TARE
54220 LB NET

DRIVER: James J Hill ALT DRIVER:

PRODUCT	DESCRIPTION	QTY	TODAY	LOADS	RATE	EXT.
207	Pond Fill	27.11	418.50	16		
				16		
				16		
				16		
				16		
				16		
NEWARK	Delivery Charge	27.11	418.50	16		

EXTRA UNLOADING TIME $75.00/HR

TAX

TOTAL

NOT RESPONSIBLE FOR DAMAGE DONE WHEN DELIVERING OFF PUBLIC ROADS.
EXCESS UNLOADING TIME CHARGED AFTER 10 MINUTES.
SUBJECT TO GENERAL TERMS AND CONDITIONS OF SALE ON REVERSE.

CUSTOMER'S COPY

WEIGHMASTER

RECEIVED BY: _____

PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM
PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

PI# 510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

SECTION 5

PREVIOUSLY SUBMITTED FORMS & DOCUMENTS

Prepared for

PALMER INDUSTRIES, INC.
NEWARK, NEW JERSEY

SECTION 5

PREVIOUSLY SUBMITTED
SRRA-LSRP FORMS & DOCUMENTS

LSRP NOTIFICATION OF RETENTION OR DISMISSAL FORM

CONFIRMED DISCHARGE NOTIFICATION

PUBLIC NOTIFICATION, INITIAL, 11-25-2009

NOTICE OF PLANNED REMEDIAL ACTIVITY, 03-26-2010

RECEPTOR EVALUATION FORM

REMEDIATION TIME FRAME EXTENSION REQUEST FORM

New Jersey Department of Environmental Protection
Site Remediation Program

LSRP NOTIFICATION OF RETENTION OR DISMISSAL

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Palmer Industries, Inc.

List all AKAs:

Street Address: 59-97 Chapel Street

Municipality: Newark City (Township, Borough or City)

County: Essex Zip Code: 07114

Mailing Address if different than street address: 8 Lister Avenue

Program Interest (PI) Number(s): Case Tracking Number(s): 09-11-09-1042-09

SECTION B. I was retained

SECTION B. I was retained by Palmer Industries, Inc. (name of responsible party) to conduct the remediation at the site on 11/24/2009.

1. Did you replace another LSRP? ☐ Yes ☒ No
2. If "Yes," name of LSRP:
3. Are you hired to conduct a full site investigation? ☒ Yes ☐ No
4. Are you hired to conduct an area of concern only investigation? ☐ Yes ☒ No

SECTION C. I was released

SECTION C. I was released by _____ (name of responsible party) from responsibility for remediation at the site on _____.

Note: The release notification is only required if it occurs prior to the issuance of the response action outcome for the site by the LSRP.

SECTION D. Potential Areas of Concern

	Area of Concern	Currently Exists? ☒ if "Yes"	Proposed Investigation SI ☒ if "Yes"	Proposed Investigation RI ☒ if "Yes"
1	Above ground storage tanks and associated piping	☐	☒	☐
2	Areas of stressed vegetation	☐	☐	☐
3	Areas which receive flood or storm water from potentially contaminated areas	☐	☐	☐
4	Chemical storage cabinets and closets	☐	☐	☐
5	Compressor vent discharges	☐	☐	☐
6	Discharge areas pursuant to N.J.A.C. 7:1E	☐	☐	☐
7	Discolored or spill areas	☐	☐	☐
8	Drainage swales and culverts	☐	☐	☐
9	Drywells and sumps	☐	☐	☐
10	Dumpsters	☐	☐	☐
11	Electrical transformers and capacitors	☐	☐	☐
12	Floor drain collection system	☐	☐	☐
13	Former agricultural applied pesticide area	☐	☐	☐
14	Hazardous material storage or handling areas	☐	☐	☐
15	Historic fill or any other fill material	☒	☒	☐
16	Hydraulic lifts	☐	☐	☐
17	Incinerators	☐	☐	☐
18	Landfills or landfarms	☐	☐	☐

	Area of Concern	Currently Exists? ☒ if "Yes"	Proposed Investigation SI ☒ if "Yes"	Proposed Investigation RI ☒ if "Yes"
19	Loading and unloading areas	☐	☐	☐
20	Non-contact cooling water discharges	☐	☐	☐
21	Open areas away from production areas	☐	☐	☐
22	Piping, above ground and below ground pumping stations, sumps and pits	☐	☐	☐
23	Process area sinks and piping which receive process waste	☐	☐	☐
24	Rail cars	☐	☐	☐
25	Roof leaders when process operations vent to the roof	☐	☐	☐
26	Septic systems, leachfields or seepage pits	☐	☐	☐
27	Silos	☐	☐	☐
28	Sprayfields	☐	☐	☐
29	Storage pads including drum and/or waste storage	☐	☐	☐
30	Storm sewer and spill containment collection systems	☐	☐	☐
31	Storm water detention ponds and fire ponds	☐	☐	☐
32	Surface impoundments and lagoons	☐	☐	☐
33	Surface water bodies	☐	☐	☐
34	Underground piping including industrial process sewers	☐	☐	☐
35	Underground storage tanks and associated piping	☒	☒	☐
36	Waste piles as defined by N.J.A.C. 7:26	☐	☐	☐
37	Waste water treatment	☐	☐	☐
38	Other:	☐	☐	☐

SECTION E. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Palmer Industries, Inc.

Representative First Name: Robert F. Representative Last Name: Chambers

Title: Project Manager

Phone Number: (973) 589-4400 Ext: 143 Fax:

Mailing Address: 99 Chapel Street

City/Town: Newark State: NJ Zip Code: ~~07114~~ 07105

Email Address: rchambers@portwide.com

Developer Certification Included ☐ or Filed Date of Filing

This certification shall be signed by the responsible party who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: Robert F. Chambers Date: 11/24/09

Name/Title: Robert F Chambers, Project Manager

SECTION F. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 505618

First Name: Richard Last Name: Katz

Phone Number: (215) 860-1231 Ext: Fax: (215) 860-9988

Mailing Address: 2034 East Wellington Rd

City/Town: Newtown State: PA Zip Code: 18940

Email Address: pecinc@aol.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

☐ *directly oversaw and supervised all of the referenced remediation, and\or*

☒ *personally reviewed and accepted all of the referenced remediation presented herein.*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: Date: 11/24/2009

LSRP Name/Title: Richard J. Katz, President

Company Name: Pennjersey Environmental Consulting, Inc.

New Jersey Department of Environmental Protection
Site Remediation Program

CONFIRMED DISCHARGE NOTIFICATION

Date Stamp
(For Department use only)

SECTION A. SITE LOCATION

Site Name: Palmer Industries

List all AKAs:

Street Address: 59-97 Chapel Street

Municipality: Newark City (Township, Borough or City)

County: Essex Zip Code: 07114

Mailing Address if different than street address: 8 Lister Avenue

Incident Number(s)/Com. Center Number(s): 09-11-09-1042-09

Program Interest (PI) Number(s): Case Tracking Number(s):

Date trigger compliance with Section 30 of Site Remediation Reform Act PL 11/09/2009

State Plane Coordinates for a central location at the site: Easting: 632193 Northing: 425308

Municipal Block(s) and Lot(s): Block # 2442 Lot # 3

Block # Lot # Block # Lot #

Block # Lot # Block # Lot #

Block # Lot # Block # Lot #

Block # Lot # Block # Lot #

SECTION B. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION

Name: Palmer Industries, Inc. Phone: (973) 589-4400

Contact: Christopher A Guido Title: Managing DIrector

Street Address: 8 Lister Avenue Municipality: Newark City (Township, Borough or City)

County: Essex State: NJ Zip Code: 07105

SECTION C. CURRENT OWNER OF THE SITE

Affiliation/Name of Organization: Palmer Industries, Inc.

First Name of Contact: Robert Last Name of Contact: Chambers

Title: Project Manager

Phone Number: (973) 589-4400 Ext: 143 Fax:

Mailing Address: 99 Chapel Street

City/Town: Newark State: NJ Zip Code: 07114

Email Address: rchambers@portwide.com

SECTION D. INCIDENT INFORMATION

Location Type: ☐ Residential ☐ Commercial ☐ Industrial ☐ Sensitive Population ☒ Other: vacant

Date Discharge Occurred: 01/01/1944 Date Discharge Notification to the Department: 11/09/2009

Substance Released	State (liquid, solid, etc.)	Amount	HAZMAT ☒ if "Yes"	TCPA ☒ if "Yes"	Release Verified	Substance Contained ☒ if "Yes"	Release Status
#2 heating oil	liquid	unknown	☐	☐	no	☒	investigating
#4 heating oil	liquid	unknown	☐	☐	no	☒	investigating
gasoline	liquid	unknown	☐	☐	no	☒	investigating
			☐	☐		☐	
			☐	☐		☐	

Media Contaminated: ☒ Soil ☐ Groundwater ☐ Surface Water Receiving Water: _____

Description of Discharge:

Due diligence review of site in expectation of possible sale revealed the presence of 5 previously unknown underground storage tanks. Tanks were exposed and lacked integrity. They have been registered with the NJDEP and an NOI has been obtained for removal. That work is scheduled for mid-December 2009.

SECTION E. FEDERAL RELEASE

Is this discharge related to a release from a Federally regulated UST? ..... ☐ Yes ☒ No

If "Yes," please answer the following questions:

Tank ID (from Registration) 0003 Tank System Size: 1000 gallons

Contents: gasoline

Source of Federal Release (check appropriate category):

- ☐ Dispenser
- ☐ Vent Pipe
- ☐ Fill Port/Fill Lines
- ☐ Piping (Upgraded)
- ☒ Piping (Not Upgraded)
- ☐ Spill Bucket
- ☐ Tank (Upgraded)
- ☒ Tank (Not Upgraded)
- ☐ Vapor System Recovery
- ☐ Submersible Turbine Pump Area
- ☐ Other (Specify) _____
- ☐ Unknown

Cause of Federal Release (check appropriate category):

- ☐ Spill
- ☐ Overfill
- ☐ Physical/Mechanical Damage
- ☐ Loose Fittings
- ☐ Installation Problem
- ☐ Vapor Release
- ☒ Other (Specify) Corrosion of ancient tank
- ☐ Unknown

SECTION F. SITE USE

Current Site Use (check all that apply)

- ☐ Industrial
- ☐ Residential
- ☐ Commercial
- ☐ School or child care
- ☐ Agricultural
- ☐ Park or recreational use
- ☒ Vacant
- ☐ Government

Intended Future Site Use, if known (check all that apply)

- ☐ Industrial
- ☐ Residential
- ☐ Commercial
- ☐ School or child care
- ☐ Park or recreational use
- ☐ Vacant
- ☐ Government
- ☐ Future site use unknown

SECTION G. CASE TYPE: (check all that apply)

- ☐ Child Care Facility
- ☐ School facility
- ☐ School Development Authority (SDA)
- ☐ UST Grant/Loan
- ☐ Hazardous Discharge Remediation Fund (HDSRF) Grant/Loan
- ☐ Administrative Consent Order (ACO)
- ☐ Remediation Agreement (RA)
- ☐ Brownfield Development Area (BDA)
- ☐ Site is located within an economic development priority area
- ☐ ISRA
- ☒ Regulated Underground Storage Tank (UST)
- ☐ Landfill
- ☐ Federal oversight (RCRA, CERCLA, DOD, TSCA, etc.)
- ☐ Coal Gas
- ☐ Chrome Site (Chromate chemical production waste)
- ☐ Spill Act Discharge
- ☐ Due Diligence with RAO

SECTION H. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 505618

First Name: Richard Last Name: Katz

Phone Number: (215) 860-1231 Ext: Fax: (215) 860-9988

Mailing Address: 2034 East Wellington Rd

City/Town: Newtown State: PA Zip Code: 18940

Email Address: pecinc@aol.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

- ☐ *directly oversaw and supervised all of the referenced remediation, and\or*
- ☒ *personally reviewed and accepted all of the referenced remediation presented herein.*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: Date: 11/24/2009

LSRP Name/Title: Richard J. Katz, President

Company Name: Pennjersey Environmental Consulting, Inc.

PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

November 25, 2009

Division of Remediation Support
New Jersey Department of Environmental Protection
401 East State Street, 6th Floor
Post Office Box 413
Trenton, NJ 08625-0413

Attention: Office of Community Relations

Re: Notification and Public Outreach Compliance
59 Chapel Street, Newark City, Essex County
NJDEP Incident # 09-11-09-1042-09

Dear Office of Community Relations:

In accordance with the requirements of N.J.A.C. 7:26E-1.4 "Notification and Public Outreach," this letter will serve as notice that removal of newly discovered and registered tanks will be initiatedd at the property on or about December 7, 2009. Remedial investigation and action activities are expected to continue for an as-yet-undefined period.

Please feel free to make contact with any questions or comments you may have.

Very truly yours,
Pennjersey Environmental Consulting, Inc.

Richard J. Katz. M.S.
President

c: Robert Marasco, Newark City Clerk
Maria Vizcarrondo, Director, Newark Dept of Env Health
R. Chambers, Esq. (e-mail only)

PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

March 26, 2010

Division of Remediation Support
New Jersey Department of Environmental Protection
401 East State Street, 6th Floor
Post Office Box 413
Trenton, NJ 08625-0413

Attention: Office of Community Relations

Re: Notification and Public Outreach Compliance
Palmer Industries, Inc., **59-97 Chapel Street**
Newark City, Essex County
SRP PI # 510630

Dear Office of Community Relations:

In accordance with the requirements of N.J.A.C. 7:26E-1.4 "Notification and Public Outreach," this letter will serve as notice that the next phase of remedial actions at the referenced property will be initiated in roughly two weeks. The work will be conducted over a period of as long as two months.

Please feel free to make contact with any questions or comments you may have.

Very truly yours,
Pennjersey Environmental Consulting, Inc.

Richard J. Katz. M.S., LSRP
President

c: Robert Marasco, Newark City Clerk
Maria Vizcarrondo, Director, Newark Dept of Env Health
R. Chambers, Esq. (e-mail only)

New Jersey Department of Environmental Protection
Site Remediation Program

RECEPTOR EVALUATION FORM

☐ Non-LSRP (Existing Cases) ☒ LSRP ☐ Subsurface Evaluator

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Palmer Industries, Inc.

List all AKAs:

Street Address: 59-97 Chapel Street Rear

Municipality: Newark City (Township, Borough or City)

County: Essex Zip Code: 07105

Mailing Address if different than street address: 99 Chapel Street, Newark, NJ 07105

Program Interest (PI) Number(s): 510630 Case Tracking Number(s): 09-11-09-1042-09

The purpose of this form is to document the existence of receptors and the actions taken to protect receptors and is required unless an unrestricted remedial action is completed before the due date of the **initial** Receptor Evaluation. At the time of the initial or interim Receptor Evaluation the Department acknowledges that the remedial investigation may not be fully complete. The Receptor Evaluation should be completed in accordance with requirements and timeframes in the Technical Requirements for Site Remediation and is an ongoing process as the extent of contamination is defined. The Receptor Evaluation should be submitted within the Mandatory Timeframes.

☒ Initial Submission ☐ Interim Submission

☐ No Change (if no change, indicate last RE date and skip to Section G: _____)

SECTION B. ON SITE AND SURROUNDING PROPERTY USE

1. Identify any sensitive populations/uses that are currently on-site or surrounding property usage within 200 feet of the site boundary (check all that apply):

	On-site	Off-site
None of the following	☒	☐
Residences or residential property	☐	☒
Public or Private Schools grades K-12	☐	☐
Child care centers	☐	☐
Public parks, playgrounds or other recreation areas	☐	☐
Other sensitive population use(s) Explain _____.	☐	☐

If any of the above applies, attach a list of addresses, facility names, type of use, and a map depicting each location relative to the site.

2. Current site uses (check all that apply):

☐ Industrial ☐ Residential ☒ Commercial ☐ Agricultural
☐ School or child care ☐ Government ☐ Park or recreational use
☒ Vacant ☐ Other _____

3. Planned future site uses and offsite use within 200 ft of site boundary (check all that apply):

☒ Industrial ☒ Residential ☒ Commercial ☐ Agricultural
☐ School or child care ☐ Government ☒ Park or recreational use
☒ Vacant ☐ Other _____

Provide a map depicting the location of the proposed changes in land use.

☒ Initial Submission ☐ Interim Submission

☐ No Change (if no change, indicate last RE date and skip to Section G: _____)

SECTION C. DESCRIPTION OF CONTAMINATION

1. Identify if any of the following exist at the site (check all that apply):
   - ☐ Free product [N.J.A.C. 7:26E-1.8]
   - ☐ Residual product [N.J.A.C. 7:26E-1.8]
   - ☐ Other high concentration source materials not identified above (e.g., buried drums, containers, unsecured friable asbestos)

   Explain _____
2. If this evaluation is submitted with a technical document that includes this information, proceed to Section D. Otherwise attach a brief summary of all currently available data and information to be included in the site investigation or remedial investigation report.

   ☒ Initial Submission ☐ Interim Submission
   ☐ No Change (if no change, indicate last RE date and skip to Section G: _____)

SECTION D. GROUND WATER USE

1. The requirement for ground water sampling has been triggered. If "No," proceed to Section F..... ☒ Yes ☐ No
2. Ground water is contaminated above the Ground Water Remediation Standards [N.J.A.C.7:9C]..... ☒ Yes ☐ No

   Or ☐ Awaiting laboratory data with the expected due date: _____

   If "Yes," provide the date that the laboratory data were available and contamination exists above the Ground Water Remediation Standards. Date 03/03/2010

   If "No," or awaiting laboratory data proceed to Section F.
3. Identify if any of the following conditions exist based on the well search [N.J.A.C.7:26E-1.17(a)] (check all that apply):
   - ☐ Potable wells located within 1000 feet from the downgradient edge of the currently known extent of contamination.
   - ☐ Potable well located 250 feet upgradient or 500 feet side gradient of the currently known extent of contamination.
   - ☐ Ground water contamination is located within a wellhead protection area Tier 1 or Tier 2 (WHPA). Tier: Identify if **Tier 1** ☐ or **Tier 2** ☐.
4. Complete and attach the Well Search spreadsheet.
5. Potable use wells have been identified in the well search and the area has been canvassed for additional ground water use (potable and irrigation wells, etc.). ..... ☐ Yes ☒ No
6. Potable wells and non-potable use wells were identified and ☐ potable well and /or ☐ non-potable use well sampling has been conducted. ..... ☐ Yes ☒ No
7. Contamination identified above Ground Water Remediation Standards but not suspected to be from the site (if "Yes," provide justification)..... ☐ Yes ☒ No
8. Potable wells were sampled and results were above State or Federal Drinking Water Standard..... ☐ Yes ☒ No

   Date _____. Or ☐ Awaiting laboratory data with the expected due date _____

   If "Yes" to #8 for potable well contamination not attributable to background follow the IEC Guidance Document at http://www.nj.gov/dep/srp/guidance/srra/iec_guidance_draft.pdf.

   IEC was abated ..... ☐ Yes ☐ No

   Date _____ NJDEP Case Manager _____
9. Receptors abated as part of mitigation (provide a brief narrative description)..... ☐ Yes ☒ No
10. Non-potable use wells were sampled and results were above GWQS.

    Date _____ Or ☐ Awaiting laboratory data and the expected due date: _____

    ☒ Initial Submission ☐ Interim Submission
    ☐ No Change (if no change, indicate last RE date and skip to Section G: _____)

SECTION E. VAPOR INTRUSION (VI)

1. Contaminants present in ground water exceed vapor intrusion ground water screening levels (see NJDEP Vapor Intrusion Guidance) that trigger a VI evaluation..... ☒ Yes ☐ No

Or ☐ Awaiting laboratory data and the expected due date: _____

Provide the date that the laboratory data was available and confirmed contamination above the Vapor Intrusion trigger levels. 01/22/2010

If "No," or awaiting laboratory data, proceed to Section F.

2. Identify and locate on scaled map any structures/sensitive populations that exist within the following distances from ground water contamination with concentrations above the Ground Water Screening Levels for Vapor Intrusion or specific threats (check all that apply):

☐ 30 feet of dissolved petroleum hydrocarbon contamination in ground water.
☐ 100 feet of any free product or any non-petroleum dissolved volatile organic ground water contamination.
☒ No structures exist within the specified distances
☐ Unsaturated zone contamination
☐ Landfills on or adjacent to site
☐ Elemental mercury
☐ Other_____
☐ Methanogenic conditions
☐ Elevated soil gas or indoor vapors
☐ Basement or sump contains contaminated ground water or product

3. A VI evaluation has been conducted of the structures to address threats identified ..... ☐ Yes ☒ No
4. The vapor intrusion pathway is not a concern at or adjacent to the site (if "yes", attach justification) ..... ☐ Yes ☒ No
5. Contamination identified but not suspected to be from the site (if "Yes," attach justification)..... ☐ Yes ☒ No
6. Indoor air sampling was conducted and results were above the Department's proposed vapor intrusion Rapid Action Levels..... ☐ Yes ☒ No

Or ☐ Awaiting laboratory data

Provide the date that the laboratory data was received and detected contamination above the proposed vapor intrusion Rapid Action Levels. _____

If "Yes" to #6 above, required actions for contamination follow the IEC Guidance Document at http://www.nj.gov/dep/srp/guidance/srra/iec_guidance_draft.pdf.

The IEC receptor engineering system response for receptor control was implemented for all identified structures…… ..... ☐ Yes ☐ No

Date _____ NJDEP Case Manager _____

7. Indoor air sampling was conducted and results were above the Department's Indoor Air Screening Levels but at or below the proposed vapor intrusion Rapid Action Levels ..... ☐ Yes ☒ No

Or ☐ Awaiting laboratory data

If "Yes" to #7 above, required actions are:

Vapor Concern Response Action Form notification of the exceedances of the data has been completed (date _____)..... ☐ Yes ☐ No

A plan to mitigate and monitor the exposure has been submitted (date _____) ..... ☐ Yes ☐ No

The mitigation response action report has been submitted (date _____)..... ☐ Yes ☐ No

8. The vapor intrusion investigation is being completed and stepping out as part of the site investigation or remedial investigation (if "No" attach justification)..... ☐ Yes ☒ No

☒ Initial Submission ☐ Interim Submission
☐ No Change (if no change, indicate last RE date and skip to Section G: _____)

SECTION F. ECOLOGICAL RECEPTORS

1. Identify any of the following conditions that exist based on the investigations conducted to date (check all that apply):

The results of a baseline ecological evaluation [N.J.A.C.7:26E- 3.11] required that a remedial investigation of ecological receptors [N.J.A.C.7:26E-4.7] is conducted ..... ☐ Yes ☒ No

Provide the name(s) of any surface water body on or within 200 feet of the site. Passaic River

Free product or residual product is located within 100 feet from an ecological receptor. ..... ☐ Yes ☒ No

2. Available data indicates an impact on ecological receptor(s), surface water or sediment. ..... ☐ Yes ☒ No

☒ Initial Submission ☐ Interim Submission

☐ No Change (if no change, indicate last RE date and skip to Section G: _____)

SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Palmer Industries

Representative First Name: Christopher Representative Last Name: Guido

Title: Managing DIrector

Phone Number: (973) 589-4400 Ext: _____ Fax: (973) 589-4618

Mailing Address: 99 Chapel Street

City/Town: Newark State: NJ Zip Code: 07105

Email Address: cguido@portwide.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: _____ Date: 2-24-11

Name/Title: Christopher Guido, Managing Director **No Changes Since Last Submittal** ☒

SECTION H. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 505618

First Name: Richard Last Name: Katz

Phone Number: (215) 860-1231 Ext: Fax: (215) 860-9988

Mailing Address: 2034 East Wellington Road

City/Town: Newtown State: PA Zip Code: 19840

Email Address: pecinc@aol.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

☐ *directly oversaw and supervised all of the referenced remediation, and\or*

☒ *personally reviewed and accepted all of the referenced remediation presented herein.*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: Date: 2/26/2011

LSRP Name/Title: Richard Katz, President **No Changes Since Last Submittal** ☐

Company Name: Pennjersey Environmental Consulting, Inc.

Submit this form to the assigned case manager, municipal clerk and designate health department. If there is no assigned case manager, submit this form to:

Bureau of Case Assignment & Initial Notice
New Jersey Department of Environmental Protection
Site Remediation Program
401 East State Street, PO Box 434
Trenton, NJ 08625

Palmer Industries, Inc.
PI ID #510630

Addendum to Receptor Evaluation Form, February 2011

Section C. 2.

Soil and ground water sampling were conducted as appropriate at all known and potential areas of concern on the property. The specific AOCs encountered were leaking underground storage tanks (the tanks and affected soil were removed and disposed off-site), historic fill (to be addressed through institutional and engineering controls), and minor ground water contamination. This last matter will be addressed through reclassification of the property to Class IIIB, based on documented tidal influences that isolate the water and established salt water intrusion at levels in excess of potable water standards.

ID	Address	Block	Lot	Municipality	Owner	Use
A	59-97 Chapel Street (Front)	2442	1	Newark	Newark Housing Authority	Residential

Sources:
GoogleEarth Image
Municipal Tax Map
Various Site Visits

NORTH

PEC
Pennjersey Environmental Consulting, Inc.

PALMER INDUSTRIES, NEWARK CITY, ESSEX CO, NJ

LAND USE WITHIN 200'

BY: RJK
DATE: 02/23/11
REV:

SCALE: APPROXIMATE
260 ft

FIGURE
RE

WELL SEARCH RESULTS

Case Name: **Palmer Industries, Inc., 59-97 Chapel Street (rear), Newark, New Jersey**

Program Interest (PI) ID# **510630**

Spreadsheet Submission Date: **February 2011**

Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation
1	Waste Management, Inc.	1230 McCarter Hwy Newark NJ	26-60087	2001	20	5	15	M	NJDEP	Shale
2	Motiva Enterprises LLC	1434 McCarter Hwy Newark NJ	26-62610	2001	35	25	10	M	NJDEP	
			26-62611	2001	35	25	10	M	NJDEP	
3	Mario Da Costa	1300-1346 McCarter Hwy Newark NJ	26-00069038	2004	265	120	145	I	NJDEP	
4	Passaic Clay Urban Renewal LLC	264-304 Passaic Street Newark NJ	26-00081480	2006	20	5	15	M	NJDEP	
			2600081481	2006	20	5	15	M	NJDEP	
			2600081482	2006	20	5	15	M	NJDEP	Shale
			2600081483	2006	20	5	15	M	NJDEP	
			2600086818	2008	35	25	10	M	NJDEP	
			2600086817	2008	20	5	15	M	NJDEP	
5	National Fuel Oil Inc.	175 Orange St. Newark	2600076510	2005	19	9	10	M	NJDEP	
			26-48188	1998	18	8	10	M	NJDEP	Shale
			26-48189	1998	18	8	10	M	NJDEP	
6	Merit Oil Co. Inc.	Elm St. & McCarter Hwy Newark Lot 22 Block No. 876	26-57147	2000	20	5	15	M	NJDEP	Shale
			26-57149	2000	20	5	15	M	NJDEP	Shale
			26-57148	2000	20	5	15	M	NJDEP	
7	New West Urban Renewal LTD.	95 Orange St. Former Westinghouse Property Newark	2600073887	2005	37	32	5	M	NJDEP	
			2600073888	2005	40	35	5	M	NJDEP	Shale
			2600073889	2005	18	3	15	M	NJDEP	
			2600076551	2005	30	10	20	GV	NJDEP	
			2600076552	2005	30	10	20	GV	NJDEP	
			2600076553	2005	30	10	20	GV	NJDEP	
			2600076554	2005	30	10	20	GV	NJDEP	
			2600076556	2005	40	35	5	M	NJDEP	Shale
			2600076557	2005	75	70	5	M	NJDEP	Weathered Shale
			P200803016	2008	17	7	10	M	NJDEP	
			P200803017	2008	14.5	4.5	10	M	NJDEP	
			P200907341	2009	34	24	10	M	NJDEP	
			P200907342	2009	28	18	10	M	NJDEP	
			P200907343	2009	27	17	10	M	NJDEP	
			P200907344	2009	38	28	10	M	NJDEP	
			26-62911	2002	43	23	20	M	NJDEP	
			26-62913	2002	40	20	20	M	NJDEP	
8	NJDOT	421-437 Broad St. Newark	P200907604	2009	45	35	10	M	NJDEP	
9	Essex County Improvement	460 Broad St. Newark	26-54536	1999	25	15	10	M	NJDEP	
10	Newark City	920 Broad St. Newark	26-54764	1999	32	22	10	P	NJDEP	
			26-54767	1999	75	N/A	N/A	B	NJDEP	

WELL SEARCH RESULTS

Case Name: **Palmer Industries, Inc., 59-97 Chapel Street (rear), Newark, New Jersey**

Program Interest (PI) ID# **510630**

Spreadsheet Submission Date: **February 2011**

Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation
			26-54951	1999	30	20	10	P	NJDEP	
			26-10147	1987	25	15	10	M	NJDEP	
			26-10148	1987	27	16	10	M	NJDEP	
			26-10149	1987	27	15	10	M	NJDEP	
			26-10150	1987	N/A	15	10	M	NJDEP	
			2600071733	2005	70	N/A	N/A	B	NJDEP	
11	Newark City	Edison St. BN/A LN/A Newark	26-54948	1999	29	19	10	P	NJDEP	Weathered Shale
			26-54949	1999	19.5	9.5	10	P	NJDEP	
			26-54950	1999	30	20	10	P	NJDEP	Weathered Shale
12	Essex County Improvement	36 Bridge St. Bears Stadium Garage Newark	2600070800	2004	35	25	10	M	NJDEP	
			2600070801	2004	20	10	10	M	NJDEP	Weathered Shale
			2600070802	2004	32	22	10	M	NJDEP	
13	Exxon Mobil Refinig and Supply Co.	1244 Mc Carter HWY. Exxon Facility #38951 Newark	2600072762	2004	20	5	15	M	NJDEP	
			2600072763	2004	20	5	15	M	NJDEP	
			2600072764	2004	20	5	15	M	NJDEP	Shale
14	Leonard Lev	814 Broadway Trans Express Inc. Newark	2600082751	2007	500	58	442	I	NJDEP	
			2600082751	2007	500	58	442	I	NJDEP	
15	Broad St. Fidelco LLC.	494 Broad St. IDT Global Building Newark	2600085241	2007	43	33	10	M	NJDEP	Shale
			P200801070	2008	45	25	20	M	NJDEP	
			P200801071	2008	45	25	20	M	NJDEP	
16	NJ Transit	Lackawanna Plaza NJ Transit Broad St. Stn Newark	2600076555	2005	35	25	10	M	NJDEP	
17	David Yen	54 1/2 James St. MW-1 Newark	P200904335	2009	20	10	10	M	NJDEP	
18	Sanford St. LLC	825 Sanford Ave Newark	2600086068	2008	305	60	245	I	NJDEP	
19	Creative Management Group, LLC	Central Ave @ Lock Student Housing L19,40 B398 Newark	2600076047	2005	22	4	18	M	NJDEP	
			2600076048	2005	20	2	18	M	NJDEP	
			2600076043	2005	20	2	18	M	NJDEP	
			2600076044	2005	22	4	18	M	NJDEP	
			2600076045	2005	22	4	18	M	NJDEP	
			2600076046	2005	20	2	18	M	NJDEP	
20	Sunoco INC.	18th Ave. & Munn Ave L18 B59 Irvington Twp	2600084200	2007	18	6	12	M	NJDEP	
			2600084201	2007	18	6	12	M	NJDEP	
			2600084193	2007	15	3	12	M	NJDEP	
			2600084196	2007	18	6	12	M	NJDEP	
			2600084199	2007	18	6	12	M	NJDEP	
			2600084194	2007	18	6	12	M	NJDEP	
			2600084195	2007	18	6	12	M	NJDEP	

WELL SEARCH RESULTS

Case Name: **Palmer Industries, Inc., 59-97 Chapel Street (rear), Newark, New Jersey**

Program Interest (PI) ID# **510630**

Spreadsheet Submission Date: **February 2011**

Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation
21	Stadium Dev. Corp.	459 Broad St. Newark	26-55300	1999	62	N/A	N/A	M	NJDEP	
22	Newark YMCA	600 Broad St. Newark	26-64210	2002	25	5	20	M	NJDEP	
23	Newark City Div of Proper	University Ave & Market S L31 B73.01 Newark	26-57357	2000	30	N/A	N/A	B	NJDEP	
			26-56989	2000	25	N/A	N/A	B	NJDEP	
24	NJ Transit	Mulberry St. L138 B1 Newark	26-66273	2003	35	20	15	M	NJDEP	
		L N/A BN/A	26-66272	2003	36	26	10	M	NJDEP	
		L N/A BN/A	26-53220	1999	50	40	10	P	NJDEP	
		L N/A BN/A	26-53220	1999	50	40	10	P	NJDEP	Shaly Limestone
		L N/A BN/A	26-53221	1999	30	20	10	P	NJDEP	Shaly Limestone
		L N/A BN/A	26-53222	1999	65	55	10	P	NJDEP	
		L N/A BN/A	26-53223	1999	74	64	10	P	NJDEP	
		L N/A BN/A	26-53224	1999	40	30	10	P	NJDEP	
		L N/A BN/A	26-53225	1999	65	55	10	P	NJDEP	
		L N/A BN/A	26-54646	1999	40	20	20	P	NJDEP	
		L25,01,03 B138	26-55981	1999	42	22	20	M	NJDEP	
		L25,01,03 B138	26-55982	1999	44	24	20	M	NJDEP	
		L25,01,03 B138	26-55983	1999	44	24	20	M	NJDEP	
		L25,01,03 B138	26-55984	1999	42	22	20	M	NJDEP	
		L25,01,03 B138	26-55985	1999	43	23	20	M	NJDEP	
		LRow BRow	2600068454	2003	75	70	5	IN	NJDEP	
		LRow BRow	2600068455	2003	72	72	N/A	IN	NJDEP	
		LRow BRow	2600068456	2003	70	60	10	IN	NJDEP	
		LRow BRow	2600068457	2003	70	70	N/A	IN	NJDEP	
		LRow BRow	2600068458	2003	70	70	N/A	IN	NJDEP	
		LRow BRow	2600068459	2003	70	70	N/A	IN	NJDEP	
		LRow BRow	2600068460	2003	70	70	N/A	IN	NJDEP	
		LRow BRow	2600068461	2003	70	70	N/A	IN	NJDEP	
25	NJ Transit	Raymond BLVD. to RT. 280LN/A BN/A Newark	26-53218	2000	38.5	N/A	N/A	B	NJDEP	
26	Trustees of Operating EN	1100 McCarter HWY. Newark	26-56617	2000	27	22	5	M	NJDEP	
27	Seabra Brothers	RT. 21/ Bridge ST. L9 B4 Newark	26-56616	2000	29.5	24.5	5	M	NJDEP	
28	Turner Const./ NJIT	New St. & Summit Plaza L1 B374 Newark	26-60357	2001	27	N/A	N/A	B	NJDEP	
29	NJ DOT	McCarter Hwy. & Lombardy S L+D901& 13B3& 4 Newark	26-60478	2001	29	N/A	N/A	B	NJDEP	
30	NJ DOT	Parkway Ave. LN/A BN/A Newark	26-56619	2000	66	N/A	N/A	B	NJDEP	
31	536 Broad St. Assoc.	536 Broad St. L37 B24 Newark	26-59135	2000	N/A	N/A	N/A	B	NJDEP	
32	New west Urban Renewal Co.	River Rd, Flemington NJ	24-39500	2000	37	15	22	M	NJDEP	

WELL SEARCH RESULTS

Case Name: **Palmer Industries, Inc., 59-97 Chapel Street (rear), Newark, New Jersey**

Program Interest (PI) ID# **510630**

Spreadsheet Submission Date: **February 2011**

Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation
33	Essex Co.	Howard St. &Nelson Pl. Essex Hall of Records L1 B203 Newark	2600081632	2007	16	6	10	M	NJDEP	
			2600081631	2007	15	5	10	M	NJDEP	
34	Bracebridge Corporation	Branford Place & University Av. L 12,13,14 B75 Newark	26-62057	2001	27	N/A	N/A	B	NJDEP	
35	Rutgers State University	Warren Place Parking Deck L1 B37 Newark	2600072362	2004	30	15	15	M	NJDEP	
36	Rutgers State University	27 Road 1/ BLDG. 4086 Livingston Campus Rutgers Gold Newark	2600072363	2004	30	15	15	M	NJDEP	
37	Rutgers State University	Martin Luther King Blvd. L1 B38 Newark	26-55161	1999	39	14	25	M	NJDEP	
38	NJ Economic Dev. A	Warren St. L 9-1, 31 B410 Newark	26-55165	1999	35	N/A	N/A	B	NJDEP	
			26-55166	1999	32	32	0	P	NJDEP	
39	McCarter Associates	970-972 McCarter Hwy Newark	26-56620	2000	30	25	5	M	NJDEP	
40	Oriental Masonic Temple	37 Fulton St. Newark	2600067430	2003	25	5	20	M	NJDEP	
41	Newark Museum	51 Central Ave/ MW-1 Newark	P200803495	2008	34	24	10	M	NJDEP	
			P200803496	2008	34	24	10	M	NJDEP	
			P200803497	2008	33	23	10	M	NJDEP	
42	Housing Authority City of Newark	Passaic Place/ Rt. 21 L1 B13 Newark	26-56618	2000	28	23	5	M	NJDEP	
43	Becker Newark LLC	Central Ave & Lock St. Newark Central Ave. Project L13,15,17 B398 Newark	2600074021	2005	36.5	6.5	30	B	NJDEP	
			2600074022	2005	39	9	30	B	NJDEP	
			2600074020	2005	38	8	30	B	NJDEP	
44	Merit Oil Co. Inc.	273 Elizabeth Ave Newark	26-55469	1999	20	5	15	M	NJDEP	
			26-55470	2000	20	5	15	M	NJDEP	
			26-55471	2000	25	10	15	M	NJDEP	
			26-55472	2000	25	10	15	M	NJDEP	
45	Salem 7th Day Adventist Church	229-241 Halsey St. Newark	2600086175	2008	14.5	4.5	10	M	NJDEP	
			2600086176	2008	14.5	4.5	10	M	NJDEP	
			2600086177	2008	14.5	4.5	10	M	NJDEP	
			2600086178	2008	19.5	4.5	15	M	NJDEP	
46	NJIT	120-142 Bleeker St. Newark	2600083329	2007	38	13	25	M	NJDEP	
47	NJIT	168-182 Central Ave Newark	2600083330	2007	50	25	25	M	NJDEP	
			2600083327	2007	45	20	25	M	NJDEP	
			2600083328	2007	42	17	25	M	NJDEP	
48	NJIT	323 Martin Luther King Blvd. Newark	2600072705	2004	45	23	22	M	NJDEP	
49	Essex County Hall of Records	Martin Luther King Blvd. LN/A BN/A Newark	2600067577	2003	14	4	10	P	NJDEP	
			2600067578	2003	14	4	10	P	NJDEP	
			2600067579	2003	14	4	10	P	NJDEP	

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Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation
			2600067580	2003	14	4	10	P	NJDEP	
50	RBH Group	310 University Ave. Newark	2600085825	2008	105	95	10	M	NJDEP	
51	Essex County College	303 University Ave. Newark	P200802294	2008	26	11	15	M	NJDEP	
			P200908451	2009	26	10	16	M	NJDEP	
			P200908452	2009	30	10	20	M	NJDEP	
			P200908453	2009	37	17	20	M	NJDEP	
52	Clover Enterprises LLC	30-58 Warren St. Newark	26-62988	2001	30	15	15	M	NJDEP	
53	Clover Enterprises LLC	155 Washington St. Newark	26-62989	2001	30	15	15	M	NJDEP	
54	Public Safety Elec & Gas	1025 McCarter HWY Newark	26-53907	1999	67	47	20	M	NJDEP	
			26-53908	1999	44	32	12	M	NJDEP	
			26-53909	1999	36	21	15	M	NJDEP	
			26-53910	1999	45	37	8	M	NJDEP	
			26-53911	1999	18	3	15	M	NJDEP	
			26-53912	1999	34	25	9	M	NJDEP	
			26-53913	1999	19	4	15	M	NJDEP	
			26-53914	1999	30	23	7	M	NJDEP	
			26-53915	1999	19	4	15	M	NJDEP	
55	PSE&G	1025 McCarter HWY Newark	2600069136	2003	43	20	23	M	NJDEP	
			2600069137	2003	92	82	10	M	NJDEP	
			26-51013	1998	35	20	15	M	NJDEP	
			26-51014	1998	59	49	10	M	NJDEP	
			26-51015	1998	16	3	13	M	NJDEP	
			26-51016	1998	34	24	10	M	NJDEP	
			26-51017	1998	14	3	11	M	NJDEP	
			26-51018	1998	29	24	5	M	NJDEP	
			26-51019	1998	55	35	20	M	NJDEP	
			26-51000	1998	62	42	20	M	NJDEP	
			26-51021	1998	72	52	20	M	NJDEP	
			26-51023	1998	58	N/A	N/A	B	NJDEP	
			26-51694	1998	32	17	15	M	NJDEP	
56	Orbit Newark Dev. LLC	72-84 Halsey St. Newark	2600071744	2004	60	50	10	M	NJDEP	
			2600071745	2004	47	37	10	M	NJDEP	
57	NJ Transit	Newark- Elizabeth Rail Link LN/A BN/A Newark	2600071854	2003	74	34	40	DW	NJDEP	
58	NJ Economic Dev. authority	40-44 Center St. MW-1 Newark	P200912128	2009	30	15	15	M	NJDEP	
59	RBH Group	308 Washington St. Newark	2600085826	2007	50	40	10	M	NJDEP	
60	William Washington, LLC	45 Willaim St., MW-1 Newark	P200800754	2008	20.5	5.5	15	M	NJDEP	
			P200800755	2008	20.5	5.5	15	M	NJDEP	

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			P200800756	2008	20.5	5.5	15	M	NJDEP	
61	William Washington, LLC	1 Washington Park MW-4 Newark	P200800894	2008	22.5	5.5	15	M	NJDEP	
62	Newark City	318 Washington St. Newark	P200801941	2008	20.5	5.5	15	M	NJDEP	
			P200801942	2008	20.5	5.5	15	M	NJDEP	
			P200801943	2008	20.5	5.5	15	M	NJDEP	
			P200801944	2008	20.5	5.5	15	M	NJDEP	
			P200801945	2008	20.5	5.5	15	M	NJDEP	
			P200801946	2008	19.5	4.5	15	M	NJDEP	
			P200905510	2009	20	5	15	M	NJDEP	
			P200905511	2009	20	5	15	M	NJDEP	
			P200905512	2009	20	5	15	M	NJDEP	
63	RBH Group Partners XIV, LP	226-236 Halsey St. Newark	P200901107	2009	20	5	15	M	NJDEP	
			P200901108	2009	20	5	15	M	NJDEP	
			P200901109	2009	19.5	4.5	15	M	NJDEP	
64	Textron Inc.	400 Doremus Ave Newark	26-56798	2000	6	1	5	M	NJDEP	
			26-56799	2000	8	1	7	M	NJDEP	
			26-53901	2000	8	3	5	R	NJDEP	
			26-56800	2000	8	0.5	7.5	M	NJDEP	
65	Crompton Corp	625 Doremus Ave. Newark	26-62540	2001	10.5	0.5	10	M	NJDEP	
			26-62541	2001	10.5	0.5	10	M	NJDEP	
			26-62542	2001	10.5	0.5	10	M	NJDEP	
			26-62543	2001	10.5	0.5	10	M	NJDEP	
			26-62544	2001	10.5	0.5	10	M	NJDEP	
			26-62545	2001	10.5	0.5	10	M	NJDEP	
			26-62546	2001	10.5	0.5	10	M	NJDEP	
			26-62547	2001	10.5	0.5	10	M	NJDEP	
			26-62548	2001	10.5	0.5	10	M	NJDEP	
			26-62549	2001	10.5	0.5	10	M	NJDEP	
			26-62550	2001	10.5	0.5	10	M	NJDEP	
			26-63891	2002	11	1	10	M	NJDEP	
			2600073879	2005	30.5	20.5	10	M	NJDEP	
			2600073880	2005	11	1	10	M	NJDEP	
			2600073881	2005	11	1	10	M	NJDEP	
			2600073882	2005	13	0.5	12.5	M	NJDEP	
66	Verizon	95 Williams St. Newark	26-65259	2002	205	205	0	CP	NJDEP	
67	Passaic Valley Sewerage	652 Doremus Ave. Newark	2600082996	2007	15	1	14	M	NJDEP	
68	Amerada Hess Corp.	Harrison Ave. @Passaic St. L1 B 1-5 Newark	26-60474	2001	15	3	12	M	NJDEP	

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			26-60475	2001	17	3	14	M	NJDEP	
			26-65923	2002	40	30	10	M	NJDEP	
69	Gene Heller Enterprises	Passaic Ave L1,2,22 B12,13,17 Newark	2600076698	2005	78.3	N/A	N/A	B	NJDEP	
70	Newark City	264-304 Passaic Street Newark NJ	2600082565	2007	19	4	15	M	NJDEP	
			2600082566	2007	20	5	15	M	NJDEP	
			2600082567	2007	19	4	15	M	NJDEP	
			2600083795	2007	35	33	2	M	NJDEP	
			2600083796	2007	18	8	10	M	NJDEP	
			2600083797	2007	18	8	10	M	NJDEP	
71	East Newark Borough	250 Grant Ave. Newark	2600085724	2007	22	12	10	M	NJDEP	
72	Kearny Town	50 Belgrove Dr. Newark	26-59897	2000	25	10	15	M	NJDEP	
73	Epec Oil Co.	1 Harrison Ave. Newark	26-57336	2000	12	2	10	M	NJDEP	
			26-57337	2000	14	4	10	M	NJDEP	
			26-57338	2000	14	4	10	M	NJDEP	
			26-57339	2000	12	2	10	M	NJDEP	
			26-57340	2000	12	2	10	M	NJDEP	

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			26-57341	2000	14	4	10	M	NJDEP	
			26-60134	2001	12	2	10	M	NJDEP	
			2600072570	2004	12	2	10	M	NJDEP	
			2600084085	2007	12	2	10	M	NJDEP	
	Epec Oil Liquidating Trust		P200903118	2009	15	5	10	M	NJDEP	
			P200903119	2009	15	5	10	M	NJDEP	
			P200903120	2009	15	5	10	M	NJDEP	
			2600069414	2003	12	2	10	M	NJDEP	
			2600069415	2003	12	2	10	M	NJDEP	
			2600069416	2003	12	2	10	M	NJDEP	
			26-49431	1997	20	15	5	M	NJDEP	
74	Waste Management, Inc.	Clay St. L45 B434 Newark	26-63335	2002	52	N/A	N/A	B	NJDEP	
75	Conoco Phillips Co.	1086 McCarter HWY. Newark	2600070058	2004	25	10	15	M	NJDEP	
76	PSE&G Services	25 Mullock Place Newark	2600072889	2004	74	N/A	N/A	B	NJDEP	
			2600072890	2004	76	N/A	N/A	B	NJDEP	
			2600072891	2004	76	N/A	N/A	B	NJDEP	
			2600072893	2004	72	N/A	N/A	B	NJDEP	
			2600072895	2004	76	N/A	N/A	B	NJDEP	

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77	PSE&G Services	400-404 Passaic Ave. Newark	2600073248	2005	16	6	10	M	NJDEP	
			2600073249	2005	16	6	10	M	NJDEP	
			2600073247	2005	16	6	10	M	NJDEP	
			2600073859	2005	72	N/A	N/A	B	NJDEP	
			2600073860	2005	68	N/A	N/A	B	NJDEP	
78	Campbell Foundry	252-268 Harrison Ave. Newark	2600077641	2005	12	7	5	M	NJDEP	
79	CSX Transportation	Pennsylavania Ave, L18 B289 Newark	26-53584	1999	20	7	13	M	NJDEP	
80	Edison Properties LLC.	50 Commercial St. Newark	26-60313	2001	152	N/A	N/A	B	NJDEP	
			26-60317	2001	15	5	10	P	NJDEP	
			26-60318	2001	15	5	10	P	NJDEP	
81	Malcolm Pirnie	Raymond Plaza East LN/A BN/A Newark	2600071641	2004	67	N/A	N/A	B	NJDEP	
82	NJSCC - Gary Skowronski	425 Kingsland Ave. Newark	2600080768	2006	35	20	15	M	NJDEP	
83	Millrose Developers LLC	1st St. Harrison Waterfront Development L21,22,23 B66 Harrison	2600073163	2005	75	N/A	N/A	B	NJDEP	
84	Pechter's Property	753 Harrison Ave. Harrison	2600074698	2005	40	35	5	AS	NJDEP	
			2600074699	2005	40	35	5	AS	NJDEP	
			2600074700	2005	40	35	5	AS	NJDEP	
			2600074701	2005	40	35	5	AS	NJDEP	
			2600074696	2005	40	35	5	AS	NJDEP	
			2600074697	2005	40	35	5	AS	NJDEP	
85	Pechter's Property	500 Supor Blvd. Harrison	2600074702	2005	15	5	10	VE	NJDEP	
			2600074703	2005	15	5	10	VE	NJDEP	
			2600074704	2005	15	5	10	VE	NJDEP	
			2600074705	2005	15	5	10	VE	NJDEP	
			2600074706	2005	15	5	10	VE	NJDEP	
86	Joseph Supor	847 Ann St. Harrison	26-66061	2002	99	94	5	M	NJDEP	
			26-66062	2002	20	10	10	M	NJDEP	

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			26-66063	2002	20.5	10.5	10	M	NJDEP	
			26-66067	2002	20	10	10	M	NJDEP	
			26-66066	2002	20.5	10.5	10	M	NJDEP	
			26-66065	2002	20.5	10.5	10	M	NJDEP	
			26-66064	2002	20	10	10	M	NJDEP	
			2600071811	2004	23	8	15	M	NJDEP	
			2600071813	2004	22.5	7.5	15	M	NJDEP	
			2600071814	2004	50	45	5	M	NJDEP	
			2600071816	2004	49.5	44.5	5	M	NJDEP	
			2600071817	2004	50	45	5	M	NJDEP	
			2600071818	2004	49	44	5	M	NJDEP	
			2600071819	2004	49	44	5	M	NJDEP	
			2600071820	2004	83	78	5	M	NJDEP	
			2600071821	2004	99	94	5	M	NJDEP	
			2600071822	2004	99	94	5	M	NJDEP	
			2600071823	2004	97.5	92.5	5	M	NJDEP	
			2600071824	2004	99	94	5	M	NJDEP	
			26-61010	2001	16	6	10	M	NJDEP	
			26-61011	2001	25	5	20	M	NJDEP	
			26-61012	2001	25	5	20	M	NJDEP	
			26-61013	2001	25	5	20	M	NJDEP	
			26-61014	2001	24	9	15	M	NJDEP	
			26-61015	2001	24	9	15	M	NJDEP	
			26-61016	2001	40	35	5	M	NJDEP	
			26-61017	2001	40	35	5	M	NJDEP	
			26-61018	2001	40	35	5	M	NJDEP	
			26-61019	2001	80	75	5	M	NJDEP	
			26-61030	2001	25	10	15	M	NJDEP	
			26-61031	2001	40	35	5	M	NJDEP	
			26-61032	2001	25	10	15	M	NJDEP	
			26-61250	2001	39	34	5	M	NJDEP	
87	PSE&G	2000 Frank E Rodgers Harrison	2600081129	2007	40	30	10	P	NJDEP	
			2600081130	2007	37	27	10	P	NJDEP	
			2600081131	2007	37	27	10	P	NJDEP	
			2600081132	2007	35	25	10	P	NJDEP	
			2600081133	2007	35	25	10	P	NJDEP	
			2600081134	2007	38	28	10	P	NJDEP	

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			2600081135	2007	38	28	10	P	NJDEP	
			2600081127	2007	38	28	10	P	NJDEP	
			2600081128	2007	40	30	10	P	NJDEP	
			2600081357	2007	38	13	25	DW	NJDEP	
			2600081558	2007	40	15	25	DW	NJDEP	
			2600081561	2007	40	15	25	DW	NJDEP	
			2600081562	2007	40	15	25	DW	NJDEP	
			2600081351	2006	44	19	25	DW	NJDEP	
			2600081101	2006	37	27	10	P	NJDEP	
			2600081102	2006	35	25	10	P	NJDEP	
			2600081103	2006	38	28	10	P	NJDEP	
			2600081352	2006	42	17	25	DW	NJDEP	
			2600081353	2006	37	12	25	DW	NJDEP	
			2600081354	2006	45	20	25	DW	NJDEP	
			2600081355	2006	42	17	25	DW	NJDEP	
			2600081356	2007	39	14	25	DW	NJDEP	
			2600081358	2006	38	14	24	DW	NJDEP	
			2600081359	2006	38	13	24	DW	NJDEP	
			2600081360	2006	38	13	25	DW	NJDEP	
			2600081361	2006	44	19	25	DW	NJDEP	
			2600081362	2006	38	13	25	DW	NJDEP	
			2600081555	2007	37	12	25	DW	NJDEP	
			2600081556	2007	40	15	25	DW	NJDEP	
			2600081557	2007	40	15	25	DW	NJDEP	
			2600081558	2007	40	15	25	DW	NJDEP	
			2600081559	2007	40	15	25	DW	NJDEP	
			2600081560	2007	40	15	25	DW	NJDEP	
			2600081563	2007	40	15	25	DW	NJDEP	
			2600081564	2007	40	15	25	DW	NJDEP	
			2600081565	2007	37	12	25	DW	NJDEP	
			2600081566	2007	36	11	25	DW	NJDEP	
			2600080214	2006	14	2	12	P	NJDEP	
			2600080215	2006	14	2	12	P	NJDEP	
			2600080216	2006	14	2.5	11.5	P	NJDEP	
			2600080217	2006	8	2.5	5.5	P	NJDEP	
			2600080218	2006	12	2.5	11.5	P	NJDEP	
			2600080219	2006	12	2	10	P	NJDEP	

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			2600080220	2006	10	2.5	7.5	P	NJDEP	
			2600080221	2006	12	2	10	P	NJDEP	
			2600080222	2006	12	2	10	P	NJDEP	
			2600080223	2006	10	3.5	6.5	P	NJDEP	
			2600080224	2006	10	2	8	P	NJDEP	
			2600080225	2006	10	2	8	P	NJDEP	
			2600080226	2006	8	2	6	P	NJDEP	
			2600080227	2006	12	2	10	P	NJDEP	
			2600080228	2006	14	2	12	P	NJDEP	
			2600080229	2006	16	4	12	P	NJDEP	
			2600085553	2008	25	15	10	P	NJDEP	
			2600085552	2008	8	3	5	P	NJDEP	
			2600085551	2008	25	15	10	P	NJDEP	
			2600085555	2008	25	15	10	M	NJDEP	
			26-67048	2003	15	15	N/A	P	NJDEP	
			2600084609	2006	60	N/A	N/A	B	NJDEP	
			2600088028	2008	10	1	9	M	NJDEP	
			2600088029	2008	9	1	8	M	NJDEP	
			2600088030	2008	10.5	1	9.5	M	NJDEP	
			2600088031	2008	10.5	1	9.5	M	NJDEP	
			2600088032	2008	9	1	8	M	NJDEP	
			2600088033	2008	9	1	8	M	NJDEP	
			2600088034	2008	9	1	8	M	NJDEP	
			2600088035	2008	9	2	7	M	NJDEP	
			2600088036	2008	53	48	5	M	NJDEP	
			2600088037	2008	9	1	8	M	NJDEP	
			26-65123	2002	8	5	3	M	NJDEP	
			26-65124	2002	7.5	2.5	5	M	NJDEP	
			26-65125	2002	11.5	2.5	9	M	NJDEP	
			26-65126	2002	13	3	10	M	NJDEP	
			P200906834	2009	8	3	5	M	NJDEP	
			P200906835	2009	45	35	10	M	NJDEP	
			26-49275	1997	13	3	10	M	NJDEP	
			26-49271	1997	8	3	5	M	NJDEP	
			26-56560	2000	40	N/A	N/A	B	NJDEP	
			26-58431	2001	47	42	5	P	NJDEP	
			26-58431	2001	47	42	5	P	NJDEP	

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Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation
			26-58432	2001	43	38	5	P	NJDEP	
			26-58433	2001	48	43	5	P	NJDEP	
			26-49241	1997	8.5	3.5	5	M	NJDEP	
			26-49242	1997	8.5	3.5	5	M	NJDEP	
			26-49243	1997	12	4	8	M	NJDEP	
			26-49244	1997	9	4	5	M	NJDEP	
			26-49245	1997	9.5	4.5	5	M	NJDEP	
			26-49246	1997	9	3.5	5.5	M	NJDEP	
			26-49247	1997	9	4	5	M	NJDEP	
			26-49248	1997	7.5	2.5	5	M	NJDEP	
			26-49249	1997	11	2	9	M	NJDEP	
			26-49250	1997	12	3.5	8.5	M	NJDEP	
			26-49251	1997	10	2.5	7.5	M	NJDEP	
			26-49252	1997	12	3	9	M	NJDEP	
			26-49253	1997	12	3.5	8.5	M	NJDEP	
			26-49254	1997	12	3.5	8.5	M	NJDEP	
			26-49255	1997	12	3.5	8.5	M	NJDEP	
			26-49256	1997	9	2	7	M	NJDEP	
			26-49257	1997	10	2.5	7.5	M	NJDEP	
			26-49258	1997	11	2	9	M	NJDEP	
			26-49259	1997	12	2	10	M	NJDEP	
			26-49260	1997	11	2.5	8.5	M	NJDEP	
			26-49261	1997	9	2.5	6.5	M	NJDEP	
			26-49262	1997	9	2	7	M	NJDEP	
			26-49263	1997	8	2	6	M	NJDEP	
			26-49264	1997	8	2	6	M	NJDEP	
			26-49265	1998	94	89	5	M	NJDEP	
			26-49266	1997	38	33	5	M	NJDEP	
			26-49267	1997	40	35	5	M	NJDEP	
			26-49268	1997	19.5	3	16.5	M	NJDEP	
			26-49269	1997	13	3	10	M	NJDEP	
			26-49270	1997	11	2.5	8.5	M	NJDEP	
			26-49271	1997	8	3	5	M	NJDEP	
			26-49272	1997	11	3	8	M	NJDEP	
			26-49273	1997	10	2.5	7.5	M	NJDEP	
			26-49274	1997	11.5	2.5	9	M	NJDEP	
			26-49275	1997	13	3	10	M	NJDEP	

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			26-49276	1997	9	3	6	M	NJDEP	
			26-49277	1998	89	N/A	N/A	B	NJDEP	
			26-49473	1997	10	3	7	M	NJDEP	
			26-49683	1998	40	35	5	P	NJDEP	
			26-49685	1998	55	45	10	P	NJDEP	
			26-49864	1998	12	2	10	P	NJDEP	
			26-50338	1998	8	3	5	P	NJDEP	
			26-50339	1998	9	4	5	P	NJDEP	
			26-50398	1998	33	28	5	P	NJDEP	
			26-50399	1998	37	32	5	P	NJDEP	
			26-50400	1998	40	35	5	P	NJDEP	
			26-51766	1998	10	5	5	P	NJDEP	
			26-51767	1998	9	3	6	P	NJDEP	
			26-51768	1998	7.5	2.5	5	P	NJDEP	
			26-51769	1998	9.5	2.5	7	P	NJDEP	
			26-51770	1998	10	5	5	P	NJDEP	
			26-51771	1998	10	3	7	P	NJDEP	
			26-51772	1998	33	28	5	P	NJDEP	
			26-51773	1998	N/A	N/A	N/A	B	NJDEP	
88	Amerifoods Companies Inc.	847 Ann St. Harrison	26-50807	1981	28	13	15	M	NJDEP	
			26-50808	1981	32	17	15	M	NJDEP	
			26-50809	1981	28	13	15	M	NJDEP	
			26-50810	1981	28	13	15	M	NJDEP	
			26-50283	1998	25	15	10	M	NJDEP	
			26-50284	1998	22	12	10	M	NJDEP	
			26-50285	1998	22	12	10	M	NJDEP	
			26-52009	1998	26	16	10	M	NJDEP	
			26-52010	1998	23	13	10	M	NJDEP	
			26-52041	1998	23	13	10	M	NJDEP	
89	Joseph Supot	720 Ann St. Harrison	26-54709	1999	50	N/A	N/A	B	NJDEP	
			26-54714	1999	27	12	15	M	NJDEP	
			26-54715	1999	32	12	20	M	NJDEP	
			26-54716	1999	34	14	20	M	NJDEP	
			26-54717	1999	33	13	20	M	NJDEP	
			26-54718	1999	34	14	20	M	NJDEP	
			26-56010	2000	32	17	15	M	NJDEP	
			26-56995	2000	30	25	5	M	NJDEP	

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			26-56996	2000	50	45	5	M	NJDEP	
			26-56997	2000	30	25	5	M	NJDEP	
			26-56998	2000	50	45	5	M	NJDEP	
			26-56999	2000	30	25	5	M	NJDEP	
			26-57000	2000	50	45	5	M	NJDEP	
			26-57060	2000	34	14	20	M	NJDEP	
			26-57061	2000	37	27	10	M	NJDEP	
			26-57062	2000	34	14	20	M	NJDEP	
90	Pechter's Banking Group	840 Jersey St. Harrison	26-56744	2000	26	16	10	m	NJDEP	
91	Harrison housing Authorotiy	Harrison Ave & Schuyler Ave L1 B50 Harrison	26-63701	2002	60	10	50	CP	NJDEP	
92	NJ Schools Construction Corp.	850 Hamilton St. Newark	2600078595	2006	35	25	10	M	NJDEP	
			2600078596	2006	20	5	15	M	NJDEP	
			2600078597	2006	20	5	15	M	NJDEP	
			2600078598	2006	35	25	10	M	NJDEP	
			2600078599	2006	35	25	10	M	NJDEP	
			2600078600	2006	22	7	15	M	NJDEP	
			2600078601	2006	35	25	10	M	NJDEP	
			2600078602	2006	24	9	15	M	NJDEP	
			2600078603	2006	35	25	10	M	NJDEP	
			2600078604	2006	20	5	15	M	NJDEP	
			2600078605	2006	35	25	10	M	NJDEP	
			2600078606	2006	23	8	15	M	NJDEP	
93	NJSCC	405 Kingsland Ave. Harrison	2600083696	2007	35	20	15	M	NJDEP	
			2600083687	2007	35	20	15	M	NJDEP	
94	PSE&G Services Corp.	McCarter HWY. Rt 21 L13 B3 Newark	26-60777	2001	17.5	4	13.5	P	NJDEP	
			26-60778	2001	30	20	10	P	NJDEP	
			26-60779	2001	52	42	10	P	NJDEP	
			26-60780	2001	52	42	10	P	NJDEP	
			26-60783	2001	55	30	25	M	NJDEP	
			26-61265	2001	40	30	10	M	NJDEP	
			26-61266	2001	72	52	20	M	NJDEP	
			26-61267	2001	19	9	10	M	NJDEP	
			62-61268	2001	54	34	20	M	NJDEP	
			26-61269	2001	67	47	20	M	NJDEP	
			26-61270	2001	34	24	10	M	NJDEP	
			26-61271	2001	68	48	20	M	NJDEP	
			26-61272	2001	73	53	20	M	NJDEP	

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			26-58231	2000	12	5	7	M	NJDEP	
			26-58232	2000	12	5	7	M	NJDEP	
			26-58701	2000	12	5	7	M	NJDEP	
95	Greg Nacimento	253 Highland Ave. Kearny	2600071050	2004	19	4	15	M	NJDEP	
96	Harrison Heights Dev. Corp.	Bergen and South Second St. L43 B97 Harrison	2600080466	2006	72	N/A	N/A	B	NJDEP	
		L10 B97	2600080467	2006	67	N/A	N/A	B	NJDEP	
		L39 B97	2600080468	2006	72	N/A	N/A	B	NJDEP	
		L28 B97	2600080469	2006	62	N/A	N/A	B	NJDEP	
		L23A B97	2600080470	2006	67	N/A	N/A	B	NJDEP	
		L24B B97	2600080471	2006	52	N/A	N/A	B	NJDEP	
		L23B B97	2600080472	2006	62	N/A	N/A	B	NJDEP	
		L34 B97	2600080473	2006	67	N/A	N/A	B	NJDEP	
		L44 B97	2600080474	2006	97	N/A	N/A	B	NJDEP	
		L44 B97	2600080475	2006	107	N/A	N/A	B	NJDEP	
97	Millrose Developers LLC	2 Bergen St. Harrison	2600081761	2007	13	3	10	M	NJDEP	
			2600076947	2005	13	3	10	M	NJDEP	
			2600076948	2005	13	3	10	M	NJDEP	
			2600076949	2005	13	3	10	M	NJDEP	
			2600076590	2005	13	3	10	M	NJDEP	
			2600076591	2005	13	3	10	M	NJDEP	
98	Atlantic Richfield	530 East St. Linden	P200903422	2009	38	28	10	M	NJDEP	
99	Isadore Spiegel	600 Cape May St. Harrison	2600071704	2004	97	N/A	N/A	B	NJDEP	
100	Campbell Foundry	1235 Harrison Ave. Kearny	2600087282	2008	12	3	9	M	NJDEP	
			2600087283	2008	10	1	9	M	NJDEP	
			2600087284	2008	12	2.5	9.5	M	NJDEP	
101	CJUF II Harrison Holdings LLC.	600 Frank Rodgers Blvd. Harrison	2600086096	2008	14	4	10	M	NJDEP	
102	Harrison Township	104-108 Harrison Ave. Harrison	2600073045	2004	19	9	10	M	NJDEP	
			2600073046	2004	19	9	10	M	NJDEP	
			2600073047	2004	16	6	10	M	NJDEP	
103	Teval Corp.	600 Cape May St. Harrison	2600076394	2005	150	N/A	N/A	B	NJDEP	
104	Advanced Realty Group	900-1000 Frank E Rodgers Blvd. Harrison	2600079059	2006	31	21	10	M	NJDEP	
			2600079060	2006	34	24	10	M	NJDEP	
			2600079061	2006	37	27	10	M	NJDEP	
			2600079062	2006	35	25	10	M	NJDEP	
			2600079063	2006	34	24	10	M	NJDEP	Shaly Limestone
			2600079064	2006	41	26	15	M	NJDEP	Limestone
			2600079065	2006	12	5	7	M	NJDEP	Shale

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			2600079066	2006	11	4	7	M	NJDEP	Shale
			2600079067	2006	11	4	7	M	NJDEP	
			2600079068	2006	12	5	7	M	NJDEP	
			2600079069	2006	12	5	7	M	NJDEP	
			2600079129	2006	11	4	7	M	NJDEP	
			2600072331	2004	16	6	10	M	NJDEP	
			2600072332	2004	15	5	10	M	NJDEP	
			2600072333	2004	15	5	10	M	NJDEP	
			2600072334	2004	16	6	10	M	NJDEP	
			2600072335	2004	15	5	10	M	NJDEP	
105	CJUF II Harrison Holdings LLC.	330 Somerset St. Harrison	2600086088	2008	14	4	10	M	NJDEP	
			2600086089	2008	26	16	10	M	NJDEP	
106	CJUF II Harrison Holdings LLC.	607 Frank Rodger Blvd. Harrison,NJ	2600086090	2008	14	4	10	M	NJDEP	
			2600086091	2008	26	16	10	M	NJDEP	
107	CJUF II Harrison Holdings LLC.	320 Middlesex St. Harrison	2600086092	2008	26	16	10	M	NJDEP	
			2600086093	2008	14	4	10	M	NJDEP	
108	CJUF II Harrison Holdings LLC.	240 Middlesex St. Harrison	2600086095	2008	26	16	10	M	NJDEP	
			2600086094	2008	14	4	10	M	NJDEP	
109	Seton Hall University	1 Newark Center Newark	2600082811	207	105	N/A	N/A	B	NJDEP	
			2600082812	2007	106	N/A	N/A	B	NJDEP	
			2600082813	2007	105	N/A	N/A	B	NJDEP	
			2600082814	2007	100.1	N/A	N/A	B	NJDEP	
			2600082815	2007	107	N/A	N/A	B	NJDEP	
110	Flexo Craft Corp.	1000 1st St. Harrison	26-56189	1000	12.25	2.25	10	M	NJDEP	
			26-56190	1999	12.25	2.25	10	M	NJDEP	
			26-56191	1999	12.25	2.25	10	M	NJDEP	
111	The Pegasus Group	Somerset St. Harrison	26-58718	2000	42	N/A	N/A	B	NJDEP	
112	Harrison Commons LLC	709-715 Frank E Rodgers Blvd. Harrison	2600081202	2006	13	3	10	M	NJDEP	
			2600081204	2006	13	3	10	M	NJDEP	
113	Harrison Commons LLC	601-615 Frank E Rodgers Blvd. Harrison	2600081197	2006	14	4	10	M	NJDEP	
			2600081198	2006	14	4	10	M	NJDEP	
			2600081199	2006	13	3	10	M	NJDEP	
114	Harrison Commons LLC	301-307 Middlesex St. Harrison	2600081200	2006	13	3	10	M	NJDEP	
115	Harrison Commons LLC	309-329 Middlesex St. Harrison	2600081201	2006	13	3	10	M	NJDEP	
116	Harrison Commons LLC	300-310 Somerset St. Harrison	2600081203	2006	13	3	10	M	NJDEP	
117	Harrison Commons LLC	301-321 Somerset St. Harrison	2600081205	2006	13	3	10	M	NJDEP	
118	CJUF II Harrison Holdings LLC.	221 Middlesex St. Harrison	2600085154	2007	14	4	10	M	NJDEP	

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119	CJUF II Harrison Holdings LLC.	237 Middlesex St. Harrison	2600085156	2007	13	3	10	M	NJDEP	
120	CJUF II Harrison Holdings LLC.	210 Middlesex St. Harrison	2600085157	2007	13	3	10	M	NJDEP	
121	CJUF II Harrison Holdings LLC.	2nd & 3rd Streets L13 B102 Harrison	2600085158	2007	14	4	10	M	NJDEP	
122	CJUF II Harrison Holdings LLC.	200 Middlesex St. Harrison	2600085159	2007	13	3	10	M	NJDEP	
123	CJUF II Harrison Holdings LLC.	2nd & 3rd Streets L44 B21 Harrison	2600085160	2007	14	4	10	M	NJDEP	
124	CJUF II Harrison Holdings LLC.	2nd & 3rd Streets L23 B102 Harrison	2600085161	2007	14	4	10	M	NJDEP	
125	CJUF II Harrison Holdings LLC.	2nd & 3rd Streets L23 B101 Harrison	2600085162	2007	14	4	10	M	NJDEP	
126	CJUF II Harrison Holdings LLC.	601 Frank Rodgers Blvd. Harrison	2600086097	2008	15	5	10	M	NJDEP	
127	Pegasus Group	Somerset, Frank E Rodger L1-40, B114-116 Harrison	26-60526	2001	42	N/A	N/A	B	NJDEP	
128	Long Island City Trucking	881-889 Frelinghuysen Ave. Newark	2600086754	2007	17	7	10	M	NJDEP	
129	Hartz Mountain Corp.	700 Frank E Rodgers Blvd. Harrison	26-54363	1999	21	6	15	M	NJDEP	
			26-54277	1999	30	N/A	N/A	B	NJDEP	
130	Exxon Mobil Corporation	2388-2392 Kennedy Blvd. Jersey City	2600069559	2003	11	3	8	M	NJDEP	
131	Harrison Realty	308 Middlesex St. Harrison	2600067415	2003	13	3	10	M	NJDEP	
			2600067416	2003	13	3	10	M	NJDEP	
			2600067417	2003	12	2	10	M	NJDEP	
			2600068373	2003	12	2	10	M	NJDEP	
132	Harrison Commons LLC	225-233 NJ Railroad Ave. Harrison	2600078691	2006	13	3	10	M	NJDEP	
133	Harrison Commons LLC	215-217 Nj Railroad Ave	2600078692	2006	13	3	10	M	NJDEP	
134	Harrison Commons LLC	222-232 Middlesex St. Harrison	2600078693	2006	13	3	10	M	NJDEP	
135	CJUF II Harrison Holdings LLC.	321 Somerset St. Harrison	2600086086	2008	13	3	10	M	NJDEP	
			2600086087	2008	25	15	10	M	NJDEP	
136	Pegasus Group	3rd & Somerset St. L15 B115 Harrison	2600088646	2008	100	N/A	N/A	B	NJDEP	
			2600088647	2008	100	N/A	N/A	B	NJDEP	
137	CJUF II Harrison Holdings LLC.	310-330 Somerset St. Harrison	P200803599	2008	12	2	10	M	NJDEP	
			P200803600	2008	10	2	8	M	NJDEP	
			P200803601	2008	12	2	10	M	NJDEP	
138	CJUF II Harrison Holdings LLC.	329 Middlesex St. Harrison	P200803602	2008	12	2	10	M	NJDEP	
139	CJUF II Harrison Holdings LLC.	819 Frank E Rodgers Blvd. Harrison	P200803603	2008	14	4	10	M	NJDEP	
140	CJUF II Harrison Holdings LLC.	715 Frank E Rodgers Blvd. Harrison	P200803604	2008	10	2	8	M	NJDEP	
141	PSE&G	City Dock & River St. L10 B134 Newark	26-65155	2002	13	3	10	M	NJDEP	
			26-65156	2002	13	3	10	M	NJDEP	
			26-65157	2002	12	2	10	M	NJDEP	
			26-65158	2002	15	5	10	M	NJDEP	
142	Matrix/ Newark City Dock, LLC	City Dock & River St. L10 B134 Newark	2600075809	2005	12	2	10	M	NJDEP	
143	Tishman Speyer Properties	Raymond Plaza W & Market L35,107 B151, 01 Newark	26-55734	1999	25	5	20	M	NJDEP	

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144	NJ Transit	1 Raymond Pl W Newark Penn Station L2 B157 Newark	2600073117	2004	40	30	10	M	NJDEP	
145	PSE&G	Penn Station- Newark Amtrak LN/A BN/A Harrison	2600087689	2008	25	20	5	M	NJDEP	
			2600087690	2008	8	3	5	M	NJDEP	
			2600087691	2009	35	30	5	M	NJDEP	
			2600087692	2008	7	3	4	M	NJDEP	
			2600087693	2008	35	30	5	M	NJDEP	
			2600087694	2008	9	4	5	M	NJDEP	
			2600087696	2008	25	20	5	M	NJDEP	
			2600087695	2008	8	3	5	M	NJDEP	
146	CJUF II Harrison Holdings LLC.	2nd & 3rd Sts Harrison Commons L33A B100 Harrison	2600085155	2007	14	4	10	M	NJDEP	
147	Harrison Alloys Inc.	308 Middlesex St. Harrison	26-53891	1999	13	3	10	M	NJDEP	
148	Martz Mountain Industries	700 Frank E Rodgers Blvd. Harrison	26-55067	1999	20	10	10	M	NJDEP	
			26-55068	1999	20	10	10	M	NJDEP	
			26-55069	1999	20	10	10	M	NJDEP	
			26-62924	2001	20	10	10	M	NJDEP	
149	Harrison Town Fire Dept.	630 Sussex St. Harrison	2600087491	2008	72	57	15	M	NJDEP	
			2600087492	2008	30	15	15	M	NJDEP	
			2600087493	2008	30	15	15	M	NJDEP	
			2600087494	2008	30	15	15	M	NJDEP	
150	FER Boulevard Realty Co.	700 Frank E Rodgers Blvd. Harrison	2600075180	2005	45	25	20	M	NJDEP	
			2600075181	2005	45	25	20	M	NJDEP	
			2600075182	2005	45	25	20	M	NJDEP	
			2600075183	2005	45	25	20	M	NJDEP	
			2600075184	2005	45	25	20	M	NJDEP	
151	Harrison Town DPW	600 Essex St. Harrison	2600075810	2005	20	10	10	M	NJDEP	
152	620 Essex Realty PNB 638	620 Essex St. Harrison	P200902122	2009	53	43	10	M	NJDEP	
			P200902123	2009	53	43	10	M	NJDEP	
			P200902124	2009	53	43	10	M	NJDEP	
			P200902125	2009	33	23	10	M	NJDEP	
			P200902024	2009	24.5	9.5	15	P	NJDEP	
			P200902025	2009	23	8	15	P	NJDEP	
153	Port Authority of NY & NJ	COR Maintenance Facility LN/A BN/A Harrison	26-67323	2003	15	5	10	M	NJDEP	
			26-67324	2003	15	5	10	M	NJDEP	
154	Advanced Realty Group	9000-1000 Frank E Rodgers Blvd. Harrison	26-62973	2001	15	5	10	M	NJDEP	
			26-62974	2001	20	5	15	M	NJDEP	
			26-62975	2001	15	5	10	M	NJDEP	

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			26-62976	2001	15	5	10	M	NJDEP	
			26-62977	2001	15	5	10	M	NJDEP	
			26-62978	2001	15	5	10	M	NJDEP	
			26-62966	2001	15	5	10	M	NJDEP	
			26-62967	2001	14	4	10	M	NJDEP	
			26-62968	2001	15	5	10	M	NJDEP	
155	Advanced Realty Group	600 Cape May St. Harrison	26-62990	2001	15	5	10	M	NJDEP	
			26-62991	2001	15	5	10	M	NJDEP	
			26-62992	2001	15	5	10	M	NJDEP	
			26-62993	2001	15	5	10	M	NJDEP	
			26-62994	2001	15	5	10	M	NJDEP	
			26-62995	2001	15	5	10	M	NJDEP	
156	Advance Realty	Frank Rodgers Blvd. S & Cape May Harrimon L138 B1	P200802822	2008	67	N/A	N/A	B	NJDEP	
157	Spiegel Trucking	600 Cape May St. Harrison	2600071282	2004	102	N/A	N/A	B	NJDEP	
			2600070755	2004	10	3	7	M	NJDEP	
			2600070756	2004	10	3	7	M	NJDEP	
			2600070757	2004	9.4	2	7.4	M	NJDEP	
			2600070758	2004	10.6	3.6	7	M	NJDEP	
			2600070759	2004	10.6	2	8.6	M	NJDEP	
			2600070760	2004	14	4	10	M	NJDEP	
			2600070761	2004	13	3	10	M	NJDEP	
			2600070762	2004	10	2	8	M	NJDEP	
158	Sherwin Williams Co.	60 Lister Ave. Newark	2600069381	2003	3	2	1	M	NJDEP	
			2600069382	2003	3	2	1	M	NJDEP	
			2600069384	2003	7	5	2	M	NJDEP	
			2600069386	2003	8	6	2	M	NJDEP	
			2600069389	2003	8	6	2	M	NJDEP	
			2600069392	2003	4	3	1	M	NJDEP	
			2600069394	2003	8	6	2	M	NJDEP	
			2600069398	2003	3	2	1	M	NJDEP	
			2600069518	2003	3	2	1	M	NJDEP	
			2600069519	2003	3	2	1	M	NJDEP	
			2600069520	2003	5	4	1	M	NJDEP	
			2600069521	2003	4	3	1	M	NJDEP	
			2600069522	2003	3	2	1	M	NJDEP	
			2600069523	2003	3	2	1	M	NJDEP	

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Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation
159	Tom Michnuwitz	Frank Rodgers Blvd. South & Cape May Harrimon LVarious BVarious Harrison	2600078295	2006	77	N/A	N/A	B	NJDEP	
160	Harrison TWP ReDev. Agency	600 Cape May St. Harrison	2600080601	2006	11.5	4.5	7	M	NJDEP	
161	Quaker Oats Company	Foot of Sanford Sr. L25 B279 Kearny	26-56501	2000	15	5	10	M	NJDEP	
162	Parc LLC	Foot of Sanford Sr. L14,15,16 B279 Kearny	26-63518	2002	20	5	15	M	NJDEP	
			26-63519	2002	20	5	15	M	NJDEP	
			26-63520	2002	20	15	5	M	NJDEP	
163	Russo Acquisitions, LLC	212-234 Scuyler Ave. Kearny	2600084081	2007	13	3	10	M	NJDEP	
			2600084082	2007	16	6	10	M	NJDEP	
			2600084083	2007	13	2	11	M	NJDEP	
164	Weldan Materials Inc.	Harrison Ave. L4 B221 Harrison	2600084143	2007	24	N/A	N/A	B	NJDEP	
165	NJDEP	86-92 Lister Ave. Newark	P200902869	2009	59	N/A	N/A	B	NJDEP	
			P200902870	2009	65	N/A	N/A	B	NJDEP	
			P200902871	2009	65	N/A	N/A	B	NJDEP	
			P200902872	2009	59	N/A	N/A	B	NJDEP	
			P200902873	2009	60	N/A	N/A	B	NJDEP	
166	Stanley Works	139 Chapel St. Newark	2600067410	2003	15	5	10	M	NJDEP	
			2600067411	2003	15	5	10	M	NJDEP	
			2600067412	2003	15	5	10	M	NJDEP	
			2600067413	2003	15	5	10	M	NJDEP	
			2600067414	2003	15	5	10	M	NJDEP	
			2600069495	2003	11	3	8	M	NJDEP	
			2600069496	2003	11	3	8	M	NJDEP	
			2600069497	2003	11	3	8	M	NJDEP	
			2600069498	2003	11	3	8	M	NJDEP	
			26-53446	1999	15	5	10	P	NJDEP	
			26-53495	1999	12	3	9	P	NJDEP	
			26-52421	1998	5	1	4	GV	NJDEP	
			26-52422	1998	5	1	4	GV	NJDEP	
			26-52423	1998	5	1	4	GV	NJDEP	
			26-52424	1998	5	1	4	GV	NJDEP	
			26-52425	1998	5	1	4	GV	NJDEP	
			26-52426	1998	5	1	4	GV	NJDEP	
			26-52427	1998	5	1	4	GV	NJDEP	
			26-52428	1998	5	1	4	GV	NJDEP	
			26-52429	1998	5	1	4	GV	NJDEP	
			26-52430	1998	5	1	4	GV	NJDEP	

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167	Newark Group Recycled Fibers	335-347 Raymond Blvd. Newark	2600086217	2008	20	5	15	M	NJDEP	
168	Stanley Works	99 Chapel St. Newark	26-53150	1999	15	5	10	P	NJDEP	
			26-53151	1999	15	5	10	P	NJDEP	
			26-53152	1999	15	5	10	P	NJDEP	
			26-53149	1999	15	5	10	P	NJDEP	
			26-53148	1999	15	5	10	P	NJDEP	
			26-53153	1999	14	4	10	P	NJDEP	
			26-53154	1999	15	5	10	P	NJDEP	
			26-53155	1999	20	5	15	P	NJDEP	
			26-53156	1999	20	5	15	P	NJDEP	
169	Chapel Estates Inc.	60-66 Chapel St. Newark	2600078207	2006	18	8	10	M	NJDEP	
			2600078208	2006	18	8	10	M	NJDEP	
			2600078209	2006	18	8	10	M	NJDEP	
			2600078210	2006	16	6	10	M	NJDEP	
			2600078211	2006	16	6	10	M	NJDEP	
			2600078212	2006	17	7	10	M	NJDEP	
			2600078213	2006	50	40	10	M	NJDEP	
170	Power Concrete	458-497 Raymond Blvd. Newark	2600088062	2008	15	5	10	M	NJDEP	
171	Marc Gellman	Hamilton St. Between NJRR L21,31 B182 Newark	26-56402	2000	142	N/A	N/A	B	NJDEP	
			26-56403	2000	52	N/A	N/A	B	NJDEP	
171	Fried, Elliot	588-600 Market St. Newark	26-63901	2002	150	94	56	I	NJDEP	
172	PSE&G	12-14 Jersey St. Newark	2600072089	2004	97	67	30	DW	NJDEP	
			2600073642	2005	95	55	40	DW	NJDEP	
173	PSE&G	438-448 Market St. Newark	26-58242	2000	45	N/A	N/A	B	NJDEP	
			26-58269	2000	40	30	10	M	NJDEP	
			26-58271	2000	20	5	15	M	NJDEP	
			26-58272	2000	25	8	17	M	NJDEP	
			26-58293	2000	25	5	20	M	NJDEP	
			26-58295	2000	10	2	8	M	NJDEP	
			26-61676	2001	27	6	21	M	NJDEP	
			26-61677	2001	28	5	23	M	NJDEP	
			26-61678	2001	28	8	20	M	NJDEP	
174	PSE&G	50-58 Jersey St. Newark	26-58296	2000	10	2	8	M	NJDEP	
			26-58297	2000	36.5	26.5	10	M	NJDEP	
			26-58298	2000	39	29	10	M	NJDEP	
			26-58299	2000	45.5	35.5	10	M	NJDEP	
175	PSE&G	20-40 Jersey St. Newark	26-58300	2000	43	33	10	M	NJDEP	

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			26-58301	2000	10	2	8	M	NJDEP	
			26-58302	2000	13	3	10	M	NJDEP	
			26-58303	2000	51.5	41.5	10	M	NJDEP	
			26-58304	2000	38.5	28.5	10	M	NJDEP	
			26-61790	2001	10	2	8	M	NJDEP	
			26-67333	2003	120	N/A	N/A	B	NJDEP	
176	PSE&G Services Corp.	Raymond Blvd. L1 B170 Newark	26-59020	2000	16	6	10	M	NJDEP	
			26-59021	2000	33	23	10	M	NJDEP	
			26-61786	2001	31	7	24	M	NJDEP	
		L13 B170	26-65650	2002	15	5	10	M	NJDEP	
			26-65651	2002	39	29	10	M	NJDEP	
			26-65652	2002	15	5	10	M	NJDEP	
			26-65653	2002	44	32	12	M	NJDEP	
			26-65654	2002	15.5	5.5	10	M	NJDEP	
			26-65655	2002	38	28	10	M	NJDEP	
			26-65656	2002	20	10	10	M	NJDEP	
			26-65657	2002	61	N/A	N/A	M	NJDEP	
			26-65658	2002	20	5	15	M	NJDEP	
			26-65942	2002	77	63	14	B	NJDEP	
177	PSE&G Services Corp.	Market St. L3,6,10 B172 Newark	26-61675	2001	37	N/A	N/A	B	NJDEP	
178	PSE&G Srvices Corp.	418 Market St. Newark	26-61791	2001	20	5	15	M	NJDEP	
			26-61792	2001	28	8	20	M	NJDEP	
179	Cumberland Farms Inc.	12-14 Jersey St. Newark	2600075354	2005	20	5	15	M	NJDEP	
180	Jose Lopez	95-111 New Railroad Ave Newark	26-66782	2003	230	204	226	I	NJDEP	
181	Cumberland Farms Inc.	487 Market St. Newark	260075355	2005	20	5	15	M	NJDEP	
182	NJ Property Holding, LLC	65-67 Jackson St. Newark	P200901447	2009	16.5	12	4.5	M	NJDEP	
183	Lorus Guerrero Realty	192 Lafayette St. Newark	2600070960	2004	29	9	20	M	NJDEP	
			2600070961	2004	29	9	20	M	NJDEP	
184	Euro Associates	97-105 Hamilton St. Newark	2600072336	2004	25	15	10	P	NJDEP	
185	Immaculate Heart of Mary RCCH	117 Prospect Ave. Newark	2600087673	2008	30	10	20	M	NJDEP	
			2600087675	2008	30	10	20	M	NJDEP	
186	James Johnson Jr.	132 Union St. Newark	2600087677	2008	30	10	20	M	NJDEP	
			2600087678	2008	30	10	20	M	NJDEP	
187	Harry Brutsche	124 Union St. Newark	2600087679	2008	30	10	20	M	NJDEP	
188	Edwardo Bambosa	46-48 New York Ave. Newark	26-53812	1999	15	3	12	M	NJDEP	
			26-53813	1999	15	3	12	M	NJDEP	
			26-53814	1999	15	3	12	M	NJDEP	

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			26-53815	1999	15	3	12	M	NJDEP	
			26-53816	1999	15	3	12	M	NJDEP	
			26-56600	2000	15	3	12	M	NJDEP	
			26-56601	2000	15	3	12	M	NJDEP	
189	275 Lafayette Corp.	135 Monroe St. Newark	2600072942	2005	29	4	25	M	NJDEP	
190	Port Authority of NY & NJ	Newark Airport Hanger 14 L1 B5094 Newark	2600078854	2006	16	6	10	M	NJDEP	
191	Ironbound Dev. Assoc. LLC	3139 Jefferson St. Newark	2600081507	2007	23	13	10	M	NJDEP	
			2600081509	2007	20	10	10	M	NJDEP	
			2600081510	2007	20	10	10	M	NJDEP	
			2600081512	2007	20	10	10	M	NJDEP	
			2600081513	2007	26	15	11	M	NJDEP	
			2600081514	2007	20	10	10	M	NJDEP	
			2600081511	2007	22	12	10	M	NJDEP	
192	Ironbound Dev. Assoc. LLC	3238 Congress St. Newark	2600081515	2006	19	9	10	M	NJDEP	
			2600081508	2006	21	11	10	M	NJDEP	
			2600081526	2006	18	8	10	M	NJDEP	
			2600081527	2006	20	11	9	M	NJDEP	
193	PSE&G	Jersey & Market Sts. L3 B172 Newark	2600083333	2007	72.5	67	5.5	M	NJDEP	
194	PSE&G	Market & Congress Sts. L6 B176 Newark	2600081705	2007	18	8	10	M	NJDEP	
195	Antonio & Carlos Gomes	Prospect & Market Sts. L7 B177 Newark	2600082023	2007	90.5	85.5	5	M	NJDEP	
			2600082021	2007	19	9	10	M	NJDEP	
			2600082022	2007	21	11	10	M	NJDEP	
196	Ironbound Dev. Assoc. LLC	Prospect & Market Sts. L10 B176 Newark	2600083332	2007	70	60	10	M	NJDEP	
197	PSE&G	Prospect & Ferry Sts. L56 B176 Newark	2600081706	2007	23	13	10	M	NJDEP	
198	PSE&G	Jersey St. L_41 B171 Newark	2600083334	2007	58	53	5	M	NJDEP	
199	PSE&G	Union & Market Sts LN/A BN/A Newark	2600081704	2007	23	13	10	M	NJDEP	
200	NJ DOT	54 Jersey St. Newark	2600085834	2007	13	2	11	M	NJDEP	
201	430 Market St Holdings Co.	430-436 Market St. Newark	2600085871	2007	21	11	10	M	NJDEP	
202	Annunziata Pasquarelli	167 Van Buren St. Newark	2600081175	2007	15	3	12	M	NJDEP	
203	Mid-Jersey Realty, LLC	182 Ferry St. Newark	P200901027	2009	18	3	15	M	NJDEP	
			P200901028	2009	18	3	15	M	NJDEP	
			P200901929	2009	18	3	15	M	NJDEP	
			P200901930	2009	18	3	15	M	NJDEP	
204	Chestnut & Jefferson, LLC	266-278 Chestnut St. Warehouse Newark	P200802099	2008	12.5	2	10.5	M	NJDEP	
205	Joauqim Dasilva	280-282 Chestnut St. Newark	P200802100	2008	12.5	2.5	10	M	NJDEP	
			P200802845	2009	13	3	10	M	NJDEP	
206	Jose Rei	284-292 Chestnut St. Newark	P200802101	2008	13	3	10	M	NJDEP	

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			P200802102	2008	12.5	2	10.5	M	NJDEP	
			P200802103	2008	12.5	2.5	10	M	NJDEP	
207	Manuel Cordeiro	79 Nichols Street Newrak	P200803756	2008	12	2	10	M	NJDEP	
208	Socafe	41-43 Malverne St. Newark	26-54907	1999	12	2	10	M	NJDEP	
209	Tenax Finishing Products	390 Adams St Newark	26-63277	2001	8	3	5	M	NJDEP	
			26-63278	2001	8	3	5	M	NJDEP	
			26-63279	2001	8	3	5	M	NJDEP	
			26-63280	2001	8	3	5	M	NJDEP	
			2600071863	2004	8	3	5	M	NJDEP	
			2600071864	2004	8	3	5	M	NJDEP	
			26-27215	1991	13	3	10	M	NJDEP	
			26-33232	1993	14	4	10	M	NJDEP	
			26-33233	1993	14	4	10	M	NJDEP	
			26-34339	1993	12	2	10	GV	NJDEP	
			26-34340	1993	21	19.5	1.5	GV	NJDEP	
			26-34341	1993	10	8.5	1.5	GV	NJDEP	
			26-36125	1994	40	34	6	M	NJDEP	
210	Amoco Oil	312 Walnut St. Newark	26-65479	2002	10	2	8	M	NJDEP	
			2600067734	2003	10	4	6	M	NJDEP	
			2600067735	2003	10	4	6	M	NJDEP	
211	Alken Realty	410 Adams St. Newark	2600073743	2005	10	5	5	M	NJDEP	
			2600073744	2005	10	5	5	M	NJDEP	
			2600083939	2007	12	7	5	VE	NJDEP	
			2600083940	2007	13	8	5	VE	NJDEP	
			2600083941	2007	13	8	5	VE	NJDEP	
			2600083945	2007	9.5	4.5	5	VE	NJDEP	
			2600083946	2007	9.5	4.5	5	VE	NJDEP	
			2600083947	2007	9.5	4.5	5	VE	NJDEP	
			2600083948	2007	9.5	4.5	5	VE	NJDEP	
			2600083949	2007	12.5	7.5	5	VE	NJDEP	
			2600083950	2007	12.5	7.5	5	VE	NJDEP	
			2600083951	2007	12.5	7.5	5	VE	NJDEP	
			2600083952	2007	12	7	5	VE	NJDEP	
			2600083954	2007	12.5	5	7.5	VE	NJDEP	
			2600083955	2007	12.5	5	7.5	VE	NJDEP	
			2600083956	2007	10	5	5	VE	NJDEP	
			2600083969	2007	10	5	5	VE	NJDEP	

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			2600083968	2007	10	5	5	VE	NJDEP	
			2600083963	2007	11	6	5	VE	NJDEP	
			2600083967	2007	12	7	5	VE	NJDEP	
			2600083964	2007	10	5	5	VE	NJDEP	
			2600083965	2007	10	5	5	VE	NJDEP	
			2600083966	2007	10	5	5	VE	NJDEP	
			2600083962	2007	10	5	5	VE	NJDEP	
			2600083970	2007	10	5	5	VE	NJDEP	
			2600083959	2007	10	5	5	VE	NJDEP	
			2600083942	2007	10	5	5	VE	NJDEP	
			2600083943	2007	9	4	5	VE	NJDEP	
			2600083944	2007	9.5	4.5	5	VE	NJDEP	
			2600083957	2007	12	7	5	VE	NJDEP	
			2600083958	2007	12.5	7.5	5	VE	NJDEP	
			2600083960	2007	10	5	5	VE	NJDEP	
			2600083961	2007	10	5	5	VE	NJDEP	
			2600083953	2007	12.5	5	7.5	VE	NJDEP	
			2600083938	2007	8	3	5	VE	NJDEP	
			2600083937	2007	8	3	5	VE	NJDEP	
			2600084095	2007	12.5	7.5	5	VE	NJDEP	
212	M. Corbo	105 Nichols St. Newark	2600077988	2006	15	2	13	M	NJDEP	
			2600077988	2006	15	2	13	M	NJDEP	
213	Atlantic Richfield	1 West Pennsylvania Ave. Newark	2600084379	2007	10	3	7	M	NJDEP	
			2600084380	2007	30	25	5	M	NJDEP	
214	Henry &Barbara Rozenbajgier	395 Walnut St. Newark	2600076278	2005	7	2	5	M	NJDEP	
			2600076277	2005	7.6	2.6	5	M	NJDEP	
			2600076277	2005	7.6	2.6	5	M	NJDEP	
			2600076278	2005	7	2	5	M	NJDEP	
			2600079945	2006	13	3	10	M	NJDEP	
			2600079946	2006	14	4	10	M	NJDEP	
215	Oceanville Associates	549 Market St. Newark	26-52948	2004	160	140	20	I	NJDEP	
216	National Fuel Oil Inc.	525 Raymond Blvd. Newark	2600069936	2003	20	3	17	M	NJDEP	
			2600069937	2003	23	3	20	M	NJDEP	
			26-48190	1997	13	3	10	M	NJDEP	
			26-48191	1997	14	4	10	M	NJDEP	
			26-48192	1997	13	3	10	M	NJDEP	
			26-48193	1997	13	3	10	M	NJDEP	

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			26-48194	1997	13	3	10	M	NJDEP	
217	NJ Schools Construction Corp.	63-81 Polk St. Newark	2600072706	2004	20	5	15	M	NJDEP	
			2600072707	2004	15	5	10	M	NJDEP	
218	NJ Schools Construction Corp.	36 Clover St. Newark	2600072708	2004	15	5	10	M	NJDEP	
219	Ferry Industrial Park Assoc.	347 Ferry St. Newark	2600076735	2005	14.6	4.6	10	M	NJDEP	
220	347 Ferry St. Dev. LLC	1-17 Saint Francis St. Newark	2600086521	2008	15	5	10	M	NJDEP	
221	Newark City	649 Market St. Newark	26-65694	2002	14.5	4.5	10	M	NJDEP	
222	Bloomfield Ave Urban Renewal LLC	Ferry St Btw Main St. & Francis St. L30 B2047 Newark	2600075605	2005	42	32	10	P	NJDEP	
223	David Merces	323-327 Ferry St. Newark	2600080201	2006	77	N/A	N/A	B	NJDEP	
			2600080202	2006	86	N/A	N/A	B	NJDEP	
			2600080203	2006	82	N/A	N/A	B	NJDEP	
			2600080204	2006	72	N/A	N/A	B	NJDEP	
			2600080205	2006	78	N/A	N/A	B	NJDEP	
224	St Charles St. LLC	49-55 St Charles St. Newark,NJ	26-56650	2000	15	5	10	M	NJDEP	
225	BP Products of North America	312 Walnut St. Newark	2600078013	2006	30	20	10	M	NJDEP	
226	Kossuth St. Urban Renewal	112-118 Rome St. Newark	26-58119	2000	20	5	15	M	NJDEP	
227	Alliance Chemical Inc.	309-327 Avenue P Newark	26-61532	2001	12	2	10	M	NJDEP	
			26-61533	2001	12	2	10	M	NJDEP	
			26-61534	2001	12	2	10	M	NJDEP	
			26-61536	2001	12	2	10	M	NJDEP	
			26-61535	2001	12	2	10	M	NJDEP	
			26-61537	2001	11	1	10	M	NJDEP	
			26-61538	2001	12	2	10	M	NJDEP	
228	Wilson Fidelco, LLC	238 Wison Ave. Newark	26-63148	2001	62	N/A	N/A	B	NJDEP	
			26-63149	2001	62	N/A	N/A	B	NJDEP	
			26-63150	2001	54	N/A	N/A	B	NJDEP	
			26-63151	2001	58	N/A	N/A	B	NJDEP	
229	Newark City	St. Charles St. L1 B2052 Newark	2600073002	2004	62	N/A	N/A	B	NJDEP	
			2600073004	2004	75.3	N/A	N/A	B	NJDEP	
230	NJSCC	Chapel St. & Raymond Blvd. L52 B2466 Newark	2600072405	2004	65	N/A	N/A	B	NJDEP	
231	L D N LLC	84 Foundry St. Newark	2600073875	2005	15	5	10	M	NJDEP	
232	Jagr Realty	371-396 Ferry St. Newark	26-65701	2003	20	5	15	M	NJDEP	
			26-65702	2003	20	5	15	M	NJDEP	
			26-65703	2003	20	5	15	M	NJDEP	
233	RBH Management	212 Rome St. Newark	P200800751	2008	20	5	15	M	NJDEP	
			P200800752	2008	20	5	15	M	NJDEP	
			P200800753	2008	20	5	15	M	NJDEP	

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Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation
234	Chemos Corp. Liquidating	410 Adams St. Newark	26-65142	2002	10	2	8	M	NJDEP	
			26-65143	2002	10	2	8	M	NJDEP	
235	Anthony Vieira	224 Chestnut St. Newark	2600073266	2005	9	4	5	M	NJDEP	
236	Joseph Mennella	99 Malvern St. Newark	2600085175	2007	20	5	15	M	NJDEP	
237	Guardian Fence Co.	180 Wright St. Newark	26-53539	1999	12	4	8	M	NJDEP	
238	John R. Westerhold	275-315 South St. Newark	2600080764	2006	15	5	10	M	NJDEP	
			2600080765	2006	13	3	10	M	NJDEP	
			2600080766	2006	13	3	10	M	NJDEP	
			2600080767	2006	13	3	10	M	NJDEP	
239	Alpha Gary Corporation	65 Jabez St. Newark	26-60140	2001	14	4	10	M	NJDEP	
240	Newark City	69 Vesey St. Newark	2600071242	2004	15	5	10	M	NJDEP	
241	Jabez Realty Investmesnts	1 Jabez St. Newark	2600085281	2007	12	2	10	M	NJDEP	
			2600085282	2007	14	4	10	M	NJDEP	
			2600085283	2007	14	4	10	M	NJDEP	
			2600085284	2007	14	4	10	M	NJDEP	
242	Star Ledger Publishing Co.	1 Star Ledger Plaza Newark	26-54125	1999	36	N/A	N/A	B	NJDEP	
243	JPA Urban Renewal Corp.	999 Broad St. Newark	26-54557	1999	22	12	10	M	NJDEP	
			26-54558	1999	25	15	10	M	NJDEP	
			26-54590	1999	12	2	10	M	NJDEP	
244	SHP Management Corp.	2 Nevada St. Newark	26-55739	1999	20	5	15	M	NJDEP	
			26-55740	1999	20	5	15	M	NJDEP	
			26-55741	1999	20	5	15	M	NJDEP	
			26-55742	1999	22	7	15	M	NJDEP	
245	Electria Craft, Inc.	250 Halsey St. Newark	26-57233	2000	25	8	17	M	NJDEP	
246	J & J Twins Corp.	395 Halsey St. Newark	2600077568	2006	20	5	15	M	NJDEP	
			2600078002	2006	25	5	20	M	NJDEP	
			2600078003	2006	25	5	20	M	NJDEP	
247	Lincoln Pk Coast Cultural Dist	454 Washington St. Newark	2600082174	2007	17.3	7.3	10	M	NJDEP	
248	Steven Burns 482-488 Washington Properties LLC	482-488 Washington St. Newark	P200804286	2009	15	5	10	M	NJDEP	
249	Newark Broad St. LLC	999 Broad St. Newark	P200913183	2009	38	28	10	M	NJDEP	
250	Newark City	Broad St., Edison Pl., Mulberry St. & Green	2600071571	2004	25	15	10	P	NJDEP	
		L5-48, 55-11 B165 & 865	2600071572	2004	25	20	5	P	NJDEP	
			2600071573	2004	30	20	10	P	NJDEP	
			2600071574	2004	35	25	10	P	NJDEP	
251	Newark City Dept. of Eng'g	31-33 Green St. Newark	2600075918	2005	28	18	10	M	NJDEP	
252	Arch Crown Tags Inc.	277 Halsey St. Newark	P200803939	2008	20	10	10	M	NJDEP	

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253	JPA Develpoment Assoc.	967-985 Broad St. Newark	P200903125	2001	21	11	10	M	NJDEP	
			P200903126	2009	20	10	10	M	NJDEP	
254	JPA Develpoment Assoc.	Broad St. MW-3 L75 B111 Newark	P200903127	2009	19	9	10	M	NJDEP	
			P200903128	2009	20	10	10	M	NJDEP	
			P200903129	2009	20	10	10	M	NJDEP	
255	JPA Dev. Assoc.	961-985 Broad Street Newark	P200905979	2009	24.5	14.5	10	M	NJDEP	
			P200905978	2009	24.5	14.5	10	M	NJDEP	
			P200905977	2009	21	11	10	M	NJDEP	
256	Alan Levy	390 Washington St. Newark	P200910371	2009	20	5	15	M	NJDEP	
			P200910372	2009	19	4	15	M	NJDEP	
			P200910373	2009	19	4	15	M	NJDEP	
257	Edison Properties	752 McCarter Hwy Newark	26-58478	2000	52	N/A	N/A	B	NJDEP	
258	EMSIG	66 Railroad Ave. Newark	2600069053	2004	7	1.5	5.5	M	NJDEP	
			2600069929	2004	12	2	10	M	NJDEP	
			2600069930	2004	12	2	10	M	NJDEP	
			26-51302	1998	17.5	2.5	5	M	NJDEP	
259	Lorousso-Guerrero Realty	184-192 Lafayette St. Newark	2600077826	2005	29	9	20	M	NJDEP	
			2600077827	2005	29	9	20	M	NJDEP	
260	NJ Transit	Route 21 & NJ Transit LRow BRow Newark	2600080280	2006	77	N/A	N/A	B	NJDEP	
			2600080281	2006	77	N/A	N/A	B	NJDEP	
			2600080282	2006	77	N/A	N/A	B	NJDEP	
			2600080283	2006	37	N/A	N/A	B	NJDEP	
			2600080284	2006	25	5	20	P	NJDEP	
261	NJ Transit Eng & Const Dept.	McCarter Hwy Penn Station L21 B157 Newark	2600081425	2007	52	N/A	N/A	B	NJDEP	
			2600081426	2007	52	N/A	N/A	B	NJDEP	
262	RBH Group	222 Halsey St. Newark	2600085827	2008	27	7	20	M	NJDEP	
263	Dolnik MGT. Corp.	113-115 Broad St. Newark	2600076264	2005	30	15	15	M	NJDEP	
			2600076264	2005	30	10	20	M	NJDEP	
264	Newark Boys Chorus School	114 Broad St. Newark	2600076265	2005	30	15	15	M	NJDEP	
			2600076266	2005	30	15	15	M	NJDEP	
265	Newark City, Dept. of Eng'g	31 Green St. Newark	2600078251	2006	45	40	5	M	NJDEP	
266	EXTECH	193 Christie St. Newark	2600081277	2006	25	10	15	M	NJDEP	
			2600081278	2006	25	10	15	M	NJDEP	
			2600081279	2006	25	10	15	M	NJDEP	
			2600081280	2006	25	10	15	M	NJDEP	
267	NJ Schools Const Corp.	Oliver St. L1-51 B918 Newark	2600068930	2003	13	3	10	M	NJDEP	
			2600068931	2003	13	3	10	M	NJDEP	

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			2600068932	2003	13	3	10	M	NJDEP	
			2600068933	2003	13	3	10	M	NJDEP	
			2600068934	2003	13	3	10	M	NJDEP	
			2600068935	2003	13	3	10	M	NJDEP	
			2600068936	2003	15	5	10	M	NJDEP	
			2600073431	2005	100	N/A	N/A	B	NJDEP	
			2600073432	2005	100	N/A	N/A	B	NJDEP	
268	1015 Broad St. LLC	1013-1015 Broad St. Newark	2600069870	2003	30	15	15	M	NJDEP	
			2600069871	2003	27	12	15	M	NJDEP	
			2600069872	2003	28	13	15	M	NJDEP	
269	NJ School Const. Corp.	Pennington St. L1 B929 Newark	2600073433	2005	100	N/A	N/A	B	NJDEP	
			2600073434	2005	100	N/A	N/A	B	NJDEP	
270	Thomas Popola & Sons Inc.	68-92 Delancey St. Newark	2600073836	2005	13	3	10	M	NJDEP	
271	NJDOT	33-37 New York Ave. Newark	2600081087	2007	13	3	10	M	NJDEP	
272	Exxon Mobil Corporation	25-29 Cottage St. Newark	P200906006	2009	20	5	15	M	NJDEP	
			P200906007	2009	20	5	15	M	NJDEP	
			P200906008	2009	20	5	15	M	NJDEP	
			P200906009	2009	20	5	15	M	NJDEP	
			P200906010	2009	20	5	15	M	NJDEP	
273	Canrad Inc.	100 Chestnut St. Newark	26-55612	2000	60	50	10	M	NJDEP	
			26-30748	1992	20	3	17	M	NJDEP	
			26-30749	1992	20	3	17	M	NJDEP	
			26-36778	1994	4	2	2	GV	NJDEP	
			26-36779	1994	4	2	2	GV	NJDEP	
			26-36781	1994	4	2	2	GV	NJDEP	
			26-40112	1995	16	13	3	GV	NJDEP	
274	Exxon Mobil Corporation	1086 McCarter HWY. Newark	26-59071	2000	27	12	15	M	NJDEP	
			26-59072	2000	27	12	15	M	NJDEP	
			26-59703	2000	27	12	15	M	NJDEP	
275	Igor Shliosberg	615 McCarter Hwy. Newar	2600072715	2004	25	5	20	M	NJDEP	
			2600072716	2004	20	5	15	M	NJDEP	
			2600072717	2004	20	5	15	M	NJDEP	
276	Rocco Ruggiero	146 Pennington St. Newark	2600074113	2005	15	5	10	M	NJDEP	
			2600074114	2005	15	5	10	M	NJDEP	
			2600074115	2005	16.5	6.5	10	M	NJDEP	
			2600074116	2005	14	4	10	M	NJDEP	
277	NJ School Dev. Auth.	44-48 Hermon St. Newark	P200912390	2009	25	20	5	M	NJDEP	

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			P200912391	2009	17	11	6	M	NJDEP	
			P200912392	2009	17	12	5	M	NJDEP	
			P200912393	2009	19	9	10	R	NJDEP	
278	Vesey Warehouse Corporation	52 Vesey St. Newark	2600068309	2003	11	3	8	M	NJDEP	
			2600068310	2003	11	4	7	M	NJDEP	
			2600068311	2003	11	3	8	M	NJDEP	
279	Progressive Management	52 Vesey St. Newark	2600079288	2006	12	5	7	P	NJDEP	
			2600079289	2006	20.5	11.5	9	P	NJDEP	
			2600079291	2006	20.5	17	3.5	P	NJDEP	
			2600079292	2006	20.5	17	3.5	P	NJDEP	
			2600079293	2006	14.5	9.5	5	P	NJDEP	
			2600079294	2006	14.5	9.5	5	P	NJDEP	
			2600079295	2006	14.5	9.5	5	P	NJDEP	
			2600079296	2006	14.5	9.5	5	P	NJDEP	
			2600079297	2006	20.5	17	3.5	P	NJDEP	
			2600079298	2006	12	5	7	P	NJDEP	
			2600079299	2006	20.5	17	3.5	P	NJDEP	
			2600079300	2006	12	5	7	P	NJDEP	
			2600079301	2006	20.5	17	3.5	P	NJDEP	
280	Newark City Dept. of Eng'g	226 Rome St. Newark	26-48245	1997	29.5	13	16.5	R	NJDEP	
			26-48246	1997	27.5	11	16.5	R	NJDEP	
			26-48247	1997	29.5	8	20	R	NJDEP	
			26-48248	1997	27.5	11	15	R	NJDEP	
			26-48249	1997	30.5	9	10	R	NJDEP	
			26-48250	1997	31.5	10	10	R	NJDEP	
			26-48251	1997	31.5	10	10	R	NJDEP	
			26-48252	1997	32	10.5	10	R	NJDEP	
			26-48253	1997	32	10.5	10	R	NJDEP	
			26-48254	1997	27.5	11	15	R	NJDEP	
			26-48255	1997	24.8	13.3	10	R	NJDEP	
			26-48256	1997	26.5	10	15	R	NJDEP	
			26-48257	1997	26.5	10	15	R	NJDEP	
			26-48258	1997	26.5	10	15	R	NJDEP	
			26-48259	1997	26.5	10	15	R	NJDEP	
			26-48260	1997	27.5	16	10	R	NJDEP	
			26-48261	1997	31.5	10	10	R	NJDEP	
			26-48262	1997	31.5	10	10	R	NJDEP	

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281	Public Service Electric	1026 McCarter Hwy Newark	26-48595	1997	43	23	20	P	NJDEP	
			26-48596	1997	44	24	20	P	NJDEP	
			26-48597	1997	18	3	15	P	NJDEP	
			26-48598	1997	16	3	13	P	NJDEP	
			26-48599	1997	58	48	10	P	NJDEP	
			26-48600	1997	70	60	10	P	NJDEP	
			26-48601	1997	26	16	10	P	NJDEP	
			26-48602	1997	30	20	10	P	NJDEP	
			26-48837	1997	38	N/A	N/A	B	NJDEP	
282	Anna Estate Inc.	15-17 Ann St. Newark	26-49223	1997	15	5	10	M	NJDEP	
			26-49224	1998	15	5	10	M	NJDEP	
			26-49225	1997	15	5	10	M	NJDEP	
283	PSE&G	Jersey St. L11 B171 Newark	26-50965	1998	14	2	12	M	NJDEP	
			26-50966	1998	50	40	10	M	NJDEP	
			26-50967	1998	23	8	15	M	NJDEP	
			26-50968	1998	40	30	10	M	NJDEP	
			26-50969	1998	17	7	10	M	NJDEP	
			26-50970	1998	50	40	10	M	NJDEP	
284	River Terminal Dev.	100 Central Ave. Bldg.75 Kearny	26-51061	1998	11.6	1	10.6	M	NJDEP	
285	PSE&G	Coal Street L1 B133 Newark	26-51097	1998	12	2	10	M	NJDEP	
			26-51099	1998	12	2	10	M	NJDEP	
			26-51100	1998	12	2	10	M	NJDEP	
286	Witco Corporation	625 Doremus Ave. Newark	26-51402	1998	12	2.1	9.9	M	NJDEP	
			26-51403	1998	12	2	10	M	NJDEP	
			26-51404	1998	12	2.1	9.9	M	NJDEP	
			26-51405	1998	12	2	10	M	NJDEP	
			26-51406	1998	11.5	1.5	10	M	NJDEP	
			26-51407	1998	17	2	15	M	NJDEP	
287	City of Newark	31-33 Green St. Newark	26-51670	1998	29	19	10	M	NJDEP	
			26-44681	1996	29.4	19.4	10	M	NJDEP	
			26-47673	1997	35.4	N/A	15.4	R	NJDEP	
			26-47674	1997	35	N/A	15	R	NJDEP	
			26-47777	1997	30	N/A	15	M	NJDEP	
			26-47778	1997	30	N/A	15	M	NJDEP	
288	Town of Harrison	2000 Frank E Rodgers Harrison	26-51756	1998	12	4	8	P	NJDEP	
			26-51757	1998	15	5	10	P	NJDEP	
			26-51758	1998	40	35	5	P	NJDEP	

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			26-51759	1998	45	40	5	P	NJDEP	
			26-51760	1998	20	10	10	P	NJDEP	
			26-51761	1998	18	8	10	P	NJDEP	
			26-51762	1998	50	N/A	N/A	B	NJDEP	
			26-51763	1998	66	61	5	P	NJDEP	
289	National Railroad Passeng	2000 Frank E Rodgers Harrison	26-51764	1998	40	35	5	M	NJDEP	
			26-51765	1998	7.5	2.5	5	P	NJDEP	
290	Cruz Construction	315 Essex St. Harrison	26-51866	1998	18	8	10	M	NJDEP	
291	Linde-Griffith Construction	152 Passaic St. Newark	26-52411	1998	10	3	7	M	NJDEP	
292	PSE&G	34 Jersey St. Newark	26-52592	1999	55	N/A	N/A	B	NJDEP	
			26-52617	1999	38	28	10	M	NJDEP	
			26-52618	1999	38	28	10	M	NJDEP	
			26-52619	1999	8	2	6	M	NJDEP	
			26-52620	1999	41	31	10	M	NJDEP	
293	PSE&G	897 Raymond Blvd. Newark	26-52791	1999	30	20	10	M	NJDEP	
			26-52792	1999	47	37	10	M	NJDEP	
			26-52793	1999	40	30	10	M	NJDEP	
294	NJ Economic Dev.	Warren St. L13,12,11 B410 Newark	26-52964	1999	N/A	N/A	N/A	B	NJDEP	
295	Thomas Popola & Sons Inc.	92 Delancey St. Newark	26-53261	1999	16	6	10	M	NJDEP	
296	Getty Car Wash	814 Boadway L23 B821 Newark	26-8608	1986	350	60	290	C	NJDEP	
297	Syncon Resins	Jacobus Ave. LN/A BN/A Kearny	267687	1985	18	15	3	N/A	NJDEP	
			267688	1985	38	20	10	N/A	NJDEP	
			267689	1985	13	2	10	N/A	NJDEP	
			267690	1985	18	2	15	N/A	NJDEP	
			267691	1985	20	2	15	N/A	NJDEP	
			267692	1985	20	2	10	N/A	NJDEP	
			267693	1985	17	2	10	N/A	NJDEP	
			267694	1985	28	17	10	N/A	NJDEP	
			267695	1985	12	2	10	N/A	NJDEP	
			267696	1985	19	2	10	N/A	NJDEP	
			267697	1985	29	18	10	N/A	NJDEP	
			267698	1985	13	2	10	N/A	NJDEP	
			267699	1985	18	2	15	N/A	NJDEP	
			267700	1985	12	2	5	N/A	NJDEP	
			267701	1985	13	2	10	N/A	NJDEP	
298	Capital City Products	Sanford Ave. L13.1 B279 Kearny	26-8669	1986	11.6	8.6	5	M	NJDEP	
			26-8670	1986	24.6	16.6	10	M	NJDEP	

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			26-8671	1986	43	31.6	10	M	NJDEP	
			26-8672	1986	11	4	5	M	NJDEP	
			26-8673	1986	N/A	N/A	7	M	NJDEP	
			26-8674	1986	37	27	10	M	NJDEP	
			26-8765	1986	N/A	12	15	M	NJDEP	
			26-8676	1986	28	10	18	M	NJDEP	
299	Countryside Developers	McCarter Hwy. L3034 B894 Newark	26-09658	1986	150	140	10	C	NJDEP	
300	Koppers Co., Inc.	Seaboard & Tar Plant, Fish House Rd. Kearny	2610153	1987	67	57	10	M	NJDEP	
			2610154	1987	75	65	20	M	NJDEP	
			2610155	1987	71	61	10	M	NJDEP	
			2610156	1987	77.5	67.5	10	M	NJDEP	
			2610157-2	1987	77.8	67.8	10	M	NJDEP	
			2610158	1987	87	77	10	M	NJDEP	
			26.10159	1987	14	9	5	M	NJDEP	
			26-10160	1987	13	8	5	M	NJDEP	
			26-10161	1987	10	5	5	M	NJDEP	
			26.10162	1987	13	3	10	M	NJDEP	
			26-10163	1987	17	7	10	M	NJDEP	
			26-10164	1987	9	4	5	M	NJDEP	
301	Farmers Feed Co.	Chapel St. L21 B2467 Newark	2610165	1987	13	N/A	N/A	B	NJDEP	
			2610166	1987	16.5	N/A	N/A	B	NJDEP	
			2610167	1987	16.5	N/A	N/A	B	NJDEP	
302	Jeremiah Placek	200 Pulaski St. Newark	26-10229	1987	12.5	2.5	10	M	NJDEP	
			26-10230	1987	13	3	10	M	NJDEP	
303	NJ Bell	650 Market St. Newark	26-10430	1987	22	10	10	M	NJDEP	
			26-10431	1987	22	10	10	M	NJDEP	
			26-10432	1987	22	10	10	M	NJDEP	
			26-10433	1987	22	10	10	M	NJDEP	
304	Keystone Enviormental	Koppers Seaboard and Tar Plant, Fish House Rd. LN/A BN/A Kearny	26-10513	1987	12	2	10	M	NJDEP	
			26-10514	1987	12	2	10	M	NJDEP	
			26-10515	1987	12	2	10	M	NJDEP	
			26-10516	1987	12	2	10	M	NJDEP	
			26-10517	1987	9	2	7	M	NJDEP	
			26-10518	1987	9	2	7	M	NJDEP	
			26-10519	1987	12	2	10	M	NJDEP	
			26-10520	1987	14	4	10	M	NJDEP	

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			26-10521	1987	46.5	36.5	10	M	NJDEP	
			26-10522	1987	9	2	7	M	NJDEP	
			26-10524	1987	12	2	10	M	NJDEP	
			26-10525	1987	12	2	10	M	NJDEP	
			26-10526	1987	22	22	10	M	NJDEP	
			26-10527	1987	12	2	10	M	NJDEP	
			26-10528	1987	18	8	10	M	NJDEP	
305	Helen Sobchuk c/o Nick Casciano	L8 B278 Kearny	2610569	1987	25	15	10	N/A	NJDEP	
			2610570	1987	25	15	10	N/A	NJDEP	
			2610571	1987	24.4	14.4	10	N/A	NJDEP	
306	Courtalds- CPD Inc.	270 Ferry St. Newark	2610699	1987	22	10	10	M	NJDEP	
			2610700	1987	20	7	10	M	NJDEP	
			2610701	1987	22	10	10	M	NJDEP	
			2610702	1987	18	10	10	M	NJDEP	
307	City of Newark	Ironbound Recreation Area, St. Charles St. Newark	26-11456	1987	19	2	15	M	NJDEP	
		LN/A BN/A	26-11458	1987	17	2	15	M	NJDEP	
			26-11459	1987	19	2	15	M	NJDEP	
			26-11460	1987	21	4	15	M	NJDEP	
			26-11461	1987	21	4	15	M	NJDEP	
			26-31838	1992	60	N/A	N/A	B	NJDEP	
308	Henkel Corp.	1st and Essex St. L1 B71 Harrison	26-11937	1987	15	5	10	M	NJDEP	
			26-11938	1987	15	5	10	M	NJDEP	
			26-11939	1987	36	26	10	M	NJDEP	
			26-11940	1987	15	5	10	M	NJDEP	
			26-11941	1987	15	5	10	M	NJDEP	
			26-11942	1987	15	5	10	M	NJDEP	
			26-11943	1987	15	5	10	M	NJDEP	
			26-11944	1987	15	5	10	M	NJDEP	
			26-12782-2	1992	15	5	12	M	NJDEP	
			26-12783-1	1992	40	27	15	M	NJDEP	
			26-12784-9	1992	15	5	12	M	NJDEP	
			26-12785-7	1992	40	27	15	M	NJDEP	
			26-12784-5	1992	15	5	12	M	NJDEP	
			26-12787-3	1992	40	27	15	M	NJDEP	
			2612788-1	1988	15	5	12	M	NJDEP	
			26-12789	1992	15	5	12	M	NJDEP	
			26-12790-3	1992	16	8	10	M	NJDEP	

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			26-12791-1	1992	15	5	12	M	NJDEP	
			26-36483	1994	10	2	8	M	NJDEP	
			26-36484	1994	14	4	10	M	NJDEP	
			26-36485	1994	10	2	8	M	NJDEP	
			26-36486	1994	9	2	7	M	NJDEP	
			26-36487	1994	14	4	10	M	NJDEP	
			26-36488	1994	15	5	10	M	NJDEP	
309	Mutual Benefit Life Corp.	520 Broad St. Newark	26-11999	1987	15	N/A	N/A	B	NJDEP	
			26-12000	1987	10	N/A	N/A	B	NJDEP	
			26-12001	1987	10	N/A	N/A	B	NJDEP	
			26-12002	1987	10	N/A	N/A	B	NJDEP	
			26-12003	1987	10	N/A	N/A	B	NJDEP	
			26-12004	1987	14.5	N/A	N/A	B	NJDEP	
310	Hudson Tool	12 Malvern St. L43 N-948 Newark	2612199	1988	12	6	6	R	NJDEP	
311	Tenneco Manufacturing	L1 B66 Harrison	2612625	1988	19	4	15	M	NJDEP	
			2612626-5	1988	19	4	15	M	NJDEP	
			26-12686	1988	10	N/A	N/A	B	NJDEP	
312	Georgia Pacific Corp.	290 Ferry St. L30 B2045 Newark	26-12982	1988	24	9	15	M	NJDEP	
			2612983-3	1988	24	11	15	M	NJDEP	
			2612984-1	1988	24	11	15	M	NJDEP	
			2612985-0	1988	24	11	15	M	NJDEP	
			26-12996-5	1988	45	25	10	M	NJDEP	
			26-12997-3	1988	45.5	37.5	10	M	NJDEP	
			26-12998-1	1988	45	37	10	M	NJDEP	
			26-12999-0	1988	45	35	10	M	NJDEP	
			26-14373	1988	18	8	10	M	NJDEP	
			26-14374	1988	38	28	20	M	NJDEP	
			26-14375	1989	28	8	20	M	NJDEP	
			26-14803	1989	32	22	10	M	NJDEP	
			26-14804	1989	26	16	10	M	NJDEP	
			26-14805	1989	34	24	10	M	NJDEP	
			26-14942	1989	28	18	10	M	NJDEP	
			26-20909	1990	66	N/A	N/A	M	NJDEP	
			26-20910	1990	63	N/A	N/A	M	NJDEP	
			26-20912	1990	24	14	10	M	NJDEP	
			26-20913	1990	20	10	10	M	NJDEP	
			26-20914	1990	20	10	10	M	NJDEP	

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			26-20915	1990	20	10	10	M	NJDEP	
			26-20916	1990	50	40	10	M	NJDEP	
			26-22919	1990	22.5	15.2	7.3	R	NJDEP	
			26-22917	1990	50	30	20	R	NJDEP	
			26-41188	1995	50	40	10	M	NJDEP	
			26-41189	1995	45	35	10	M	NJDEP	
			26-41190	1995	21	11	10	M	NJDEP	
			26-41191	1995	45	35	10	M	NJDEP	
			26-41192	1995	22	12	10	M	NJDEP	
			26-42039	1995	27	17	10	M	NJDEP	
			26-42040	1995	44.9	34.9	5	M	NJDEP	
313	City of Newark	L1 B2052 Newark	26-13108-1	1988	34	40	30	M	NJDEP	
			2613109-9	1988	18	3	15	M	NJDEP	
			26-21824	1990	30	20	10	M	NJDEP	
			26-21825	1990	27	17	10	M	NJDEP	
			26-21826	1990	30	20	10	M	NJDEP	
			26-21827	1990	28	18	10	M	NJDEP	
			26-21828	1990	26	16	10	M	NJDEP	
			26-21829	1990	30	20	10	M	NJDEP	
			26-21830	1990	30	20	10	M	NJDEP	
			26-21831	1990	15	5	10	M	NJDEP	
			26-21832	1990	25	15	10	M	NJDEP	
			26-21833	1990	25	15	10	M	NJDEP	
			26-21834	1990	20	10	10	M	NJDEP	
			26-21835	1990	20	10	10	M	NJDEP	
			26-21836	1990	30	20	10	M	NJDEP	
			26-21837	1990	19	9	10	M	NJDEP	
			26-21838	1990	31	21	10	M	NJDEP	
			26-22159	1990	30	20	10	M	NJDEP	
			26-22160	1990	30	20	10	M	NJDEP	
			26-22535-2	1990	33	23	10	M	NJDEP	
			26-22536-1	1990	17	7	10	M	NJDEP	
			26-26675	1991	27	17	10	M	NJDEP	
			26-26676	1991	25	15	10	M	NJDEP	
			26-26677	1991	40	N/A	N/A	B	NJDEP	
			26-26683	1991	40	30	10	M	NJDEP	
			26-26684	1991	18	8	10	M	NJDEP	

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			26-26885	1991	34	24	10	M	NJDEP	
			26-28547	1992	31.5	21.5	10	R	NJDEP	
			26-30680	1992	20	10	10	M	NJDEP	
			26-30681	1992	28	18	10	M	NJDEP	
			26-30682	1992	28	13	15	M	NJDEP	
314	Wilson-Imperial Co.	115 Chestnut St. Newark	26-13174	1988	11	6	5	M	NJDEP	
315	Right-O-Way Trucking Inc.	57 Charles St. L14,20 B2053 Newark	26-13282-6	1988	17	7	10	O	NJDEP	
			26-13283-4	1988	17	7	10	O	NJDEP	
			26-13284-2	1988	17	7	10	O	NJDEP	
			26-13285-1	1988	17	7	10	O	NJDEP	
			26-17250	1989	17	7	10	M	NJDEP	
			26-17257	1989	17	7	10	M	NJDEP	
			26-23616	1991	17	7	10	M	NJDEP	
			26-23617	1991	17	7	10	M	NJDEP	
			26-27509	1991	17	7	10	M	NJDEP	
316	Teixeras Bakery	311 Kossuth St. Newark	26-13206	1988	32	N/A	N/A	B	NJDEP	
			26-13207	1988	42	N/A	N/A	B	NJDEP	
			26-13441	1988	42	N/A	N/A	B	NJDEP	
			26-13442	1988	17	N/A	N/A	B	NJDEP	
317	Imperial Urban Renewal	Wilson Ave. L36 B5046 Newark	26-14449	1988	35	N/A	N/A	B	NJDEP	
			26-14450	1988	16	6.2	9.8	M	NJDEP	
318	Peter Pan Industries	88 Francis St. Newark	26-14419	1988	19	4	15	M	NJDEP	
			26-14420	1988	19	4	15	M	NJDEP	
			26-14421	1988	20	5	15	M	NJDEP	
319	Imperial Urban Renewal	57 Freeman L37 B5046 Newark	26-14510	1988	35	N/A	N/A	B	NJDEP	
			26-14511	1988	34	N/A	N/A	B	NJDEP	
320	Newark Housing Authority	647-695 Delancy St. Newark	26-14522	1988	32	8	18	M	NJDEP	
			26-14523	1988	26	12	14	M	NJDEP	
321	Bond Adhesives Co., Inc.	301 Frelinghysen Ave. L24 B3538	26-14548-1	1989	13	3	10	N/A	NJDEP	
322	Newark Housing Authority	411-433 Wilson Ave. Newark	26-14843	1988	17	5	12	M	NJDEP	
			26-14844	1988	23	13	10	M	NJDEP	
			26-14845	1988	24	12	12	M	NJDEP	
			26-14847	1988	45	20	25	M	NJDEP	
			26-14848	1988	27	17	10	M	NJDEP	
			26-14849	1988	27	15	12	M	NJDEP	
			26-14850	1988	30	3	27	M	NJDEP	
			26-14851	1988	52	N/A	N/A	B	NJDEP	

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			26-14852	1989	28	20	8	P	NJDEP	
			26-14853	1988	15	5	10	P	NJDEP	
			26-14854	1988	34	22	12	M	NJDEP	
			26-14855	1988	30	20	10	P	NJDEP	
323	Courtesy Container	465 Wilson Ave. Newark	26-14861	1988	14	4	10	M	NJDEP	
			26-14862	1988	16	4	12	M	NJDEP	
			26-14863	1988	18	4	14	M	NJDEP	
324	Ashland Oil & Refining Co.	187-189 Foundry St. Newark	26-14865	1989	27	N/A	N/A	B	NJDEP	
			26-14867	1989	27	N/A	N/A	B	NJDEP	
			26-15684	1989	13	3	10	M	NJDEP	
325	Conrail	NJ Turnpike LN/A BN/A Newark	26-14890	1988	35	N/A	N/A	B	NJDEP	
			26-14893	1988	35	N/A	N/A	B	NJDEP	
			26-14984	1988	30	N/A	N/A	B	NJDEP	
326	Canrad Inc.	100 Chestnut St. Newark L5 B919	26-16647	1989	17.6	2.6	15	M	NJDEP	
			26-32668	1993	17	2	15	M	NJDEP	
327	Heubach, Inc.	256 Vanderpool Ave. Newark	26-16737	1989	3.5	1	3	M	NJDEP	
			26-16738	1989	3	2	1	M	NJDEP	
			26-16739	1989	7.5	2.5	5	M	NJDEP	
			26-16740	1989	9.5	4.5	5	M	NJDEP	
			26-16741	1989	25	15	10	M	NJDEP	
			26-16742	1989	25	15	10	M	NJDEP	
			26-16743	1989	33	23	10	M	NJDEP	
			26-16747	1989	19	17	3	P	NJDEP	
			26-16748	1989	5	5	2	P	NJDEP	
328	Chemical Land Holdings	L57 B2438 Newark	2617335-2	1989	8	8	N/A	M	NJDEP	
329	Lester M Kutin Assoc.	1 Cape May St. Harrison	26-17918	1989	102	N/A	N/A	B	NJDEP	
			26-17919	1989	75	N/A	N/A	B	NJDEP	
			26-17920	1989	62	N/A	N/A	B	NJDEP	
			26-17921	1989	75	N/A	N/A	B	NJDEP	
330	National Fuel Oil Inc.	575 Raymond Blvd. Newark	26-18168	1989	23	3	20	M	NJDEP	
			26-18169	1989	23	3	20	M	NJDEP	
			26-18170	1989	22	4	18	M	NJDEP	
			26-18171	1989	19.5	3.5	16	M	NJDEP	
			26-25150	1991	45.5	N/A	N/A	B	NJDEP	
			26-25151	1991	43.5	N/A	N/A	B	NJDEP	
			26-25152	1991	42	N/A	N/A	B	NJDEP	
331	Merito Oil of NJ Inc.	L3 B172 Newark	26-18386	1990	25	15	10	M	NJDEP	

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			26-18387	1990	25	15	10	M	NJDEP	
			26-18388	1990	25	15	10	M	NJDEP	
			26-18389	1990	25	15	10	M	NJDEP	
332	The Stanley Works	L2445, 243 B41 Newark	26-189620	1990	15	15	10	M	NJDEP	
			26-18921	1990	15	15	10	M	NJDEP	
			26-18922	1990	15	15	10	M	NJDEP	
			26-18923	1990	18	18	10	M	NJDEP	
			26-18924	1990	18	18	10	M	NJDEP	
			26-18925	1990	15	15	10	M	NJDEP	
			26-18926	1990	18	18	10	M	NJDEP	
			26-18927	1990	15	15	10	M	NJDEP	
			26-18928	1990	15	15	10	M	NJDEP	
333	PSE&G	40 Mulberry St. newark	26-19958	1990	33	13	20	M	NJDEP	
334	PSE&G	L7A B143 Harrison	26-20109	1990	27	27	N/A	M	NJDEP	
			26-20110	1990	52	52	N/A	M	NJDEP	
			26-20111	1990	30	30	N/A	M	NJDEP	
			26-20112	1990	27	27	N/A	M	NJDEP	
			26-20113	1990	27	27	N/A	M	NJDEP	
			26-20114	1990	27	27	N/A	M	NJDEP	
			26-20115	1990	27	27	N/A	M	NJDEP	
335	Harts Mountain Industries	Raymond Blvd. L39 B100 Newark	26-20330	1990	21	6	15	M	NJDEP	
			26-20331	1990	23	8	15	M	NJDEP	
			26-20332	1990	20	5	15	M	NJDEP	
336	Chase Laboratories Inc.	280 Chestnut St. Newark	26-21044	1990	20	9	11	M	NJDEP	
			26-21043	1990	14	3	11	M	NJDEP	
			26-21040	1990	13	2.5	10	M	NJDEP	
			26-21041	1990	13	2.5	10	M	NJDEP	
			26-21042	1990	13	2.5	10	M	NJDEP	
			26-21195	1990	14	4	10	M	NJDEP	
			26-21196	1990	12	2	10	M	NJDEP	
			26-21197	1990	13	3	10	M	NJDEP	
			26-21198	1990	14	4	10	M	NJDEP	
			26-21199	1990	12	2	10	M	NJDEP	
			26-21200	1990	12	2	10	M	NJDEP	
			26-21201	1990	12	2	10	M	NJDEP	
			26-21202	1990	15.3	5.3	10	M	NJDEP	
			26-21203	1990	16	5	10	M	NJDEP	

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			26-21204	1990	14	4	10	M	NJDEP	
			26-21206	1990	15	5	10	M	NJDEP	
			26-21207	1990	13	3	10	M	NJDEP	
			26-21208	1990	15	5	10	M	NJDEP	
			26-21209	1990	17	6	10	M	NJDEP	
			26-21210	1990	15	5	10	M	NJDEP	
337	Archie Schmartz Co.	12-14 Garden St. Newark	26-22419	1990	15	15	10	M	NJDEP	
			26-22420	1990	15	15	10	m	NJDEP	
			26-22421	1990	15	15	10	M	NJDEP	
338	NJIT	L384 B3,7,9 Newark	26-22483	1990	41	21	20	M	NJDEP	
			26-22484	1990	11.5	1.5	10	M	NJDEP	
339	Theurer, Inc.	Thomas St. L1,32 B1145,46 Newark	26-24275	1991	18	8	10	M	NJDEP	
			26-24274	1991	15	5	10	M	NJDEP	
340	Theurer, Inc.	Clifford St. L15,25,30 B1147 Newark	26-24276-1	1991	15	5	10	M	NJDEP	
341	Government Services Admin.	L1 B21 Newark	26-24369	1991	71	61	10	M	NJDEP	
342	Exxon Company USA	427 Lafayette St. Newark	264907	1980	20	15	5	M	NJDEP	
			264908	1980	20	6	15	O	NJDEP	
			264909	1980	20	5	15	M	NJDEP	
			264911	1980	20	10	10	M	NJDEP	
			264912	1980	20	10	10	M	NJDEP	
			264913	1980	20	10	10	M	NJDEP	
343	PSE&G	80 Park Place Newark	264930	1981	308	56	252	D	NJDEP	
344	Hildeman Industries	325 Raymond Blvd. L32 B2407 Newark	26-4958	1981	400	95	305	D	NJDEP	
345	Harbak	720 Jersey Ave L21 B197 Harrison	26-4982	1981	194	194	N/A	D	NJDEP	
346	Lace Creations	1448 McCarter L27 B567 Newark	26-5096	1981	300	110	N/A	I	NJDEP	
347	Troy Chemical	1 Ave. L Newark	26-5454	1982	N/A	N/A	N/A	M	NJDEP	
348	Town Park Exxon	Harrison and 7th St. Harrison	26-5729	1982	33	13	20	O	NJDEP	
			26-5730	1982	32	12	20	O	NJDEP	
			26-5731	1982	32	12	20	O	NJDEP	
349	C&A Exxon	100 Schuyler Ave. Newark	26-5818	1982	25.6	N/A	N/A	O	NJDEP	
			26-5819	1982	22	11	11	O	NJDEP	
			26-5820	1982	23	12	11	O	NJDEP	
350	Exxon Company USA	516 Williams St. E. Orange	264910	1980	N/A	10	20	M	NJDEP	
351	Harte Mountain Industries	700 Frank E Rodgers Blvd. Harrison	26-24521	1991	25	15	10	M	NJDEP	
			26-24522	1991	25	15	10	M	NJDEP	
			26-24523	1991	27	12	15	M	NJDEP	
352	Newark ReDev.	57 Sussex Ave. L109 B5038 Newark	26-25243	1991	67	60	7	M	NJDEP	

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			26-25244	1991	17	12	5	M	NJDEP	
			26-25245	1991	72	67	5	M	NJDEP	
			26-25246	1991	87	77	10	M	NJDEP	
			26-25247	1991	10	3	7	M	NJDEP	
			26-25248	1991	24	22	5	M	NJDEP	
			26-25249	1991	13	3	10	M	NJDEP	
			26-25250	1991	33	32	5	M	NJDEP	
			26-25251	1991	9	4	5	M	NJDEP	
353	Newark ReDev. Ho	57 Sussex Ave. L70 B5038 Newark	26-25460	1991	40	33	5	M	NJDEP	
			26-25461	1991	18	14	5	M	NJDEP	
			26-25462	1991	7	2	5	M	NJDEP	
354	Rebuth Steel	300 Wilson Ave L104 B5038 Newark	26-25614	1991	9	4	5	M	NJDEP	
			26-25615	1991	30	27	3	M	NJDEP	
355	NJ Performing Art	NJ Performing Art Ctr, Park/Saybrook Pl. Newark	26-25758	1991	55	N/A	N/A	B	NJDEP	
		L1,5,21 B17&17.0	26-25759	1991	55	N/A	N/A	B	NJDEP	
			26-25760	1991	60	N/A	N/A	B	NJDEP	
			26-25761	1991	53	N/A	N/A	B	NJDEP	
			26-25762	1991	45	25	20	B	NJDEP	
			26-25763	1991	46	26	20	B	NJDEP	
			26-29471	1992	50	N/A	N/A	B	NJDEP	
			26-29472	1992	40.1	N/A	N/A	B	NJDEP	
			26-29473	1992	55	N/A	N/A	B	NJDEP	
			26-29475	1992	55.1	N/A	N/A	B	NJDEP	
			26-29481	1992	50.1	N/A	N/A	B	NJDEP	
			26-29482	1992	55	N/A	N/A	B	NJDEP	
			26-29483	1992	50.1	N/A	N/A	B	NJDEP	
			26-29484	1992	60	N/A	N/A	B	NJDEP	
			26-29469	1992	45	35	10	P	NJDEP	
			26-29470	1992	55	45	10	P	NJDEP	
			26-26921	1992	50	N/A	N/A	B	NJDEP	
			26-37949	1994	35	15	20	M	NJDEP	
356	Exxon Company USA	McCarter Hwy/Clay St L41 B436.01 Newark	26-26431	1991	20	5	15	M	NJDEP	
			26-26432	1991	19	4	15	M	NJDEP	
			26-26433	1991	20	5	15	M	NJDEP	
			26-26434	1991	20	5	15	M	NJDEP	
			26-26435	1991	20	5	15	M	NJDEP	
357	HMDC	L149 B10 Kearny	26-26535	1991	100	60	40	GV	NJDEP	

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			26-26536	1991	110	50	60	GV	NJDEP	
			26-26537	1991	110	50	60	GV	NJDEP	
			26-26538	1991	110	50	60	GV	NJDEP	
			26-26539	1991	110	50	60	GV	NJDEP	
			26-26540	1991	110	40	70	GV	NJDEP	
			26-26541	1991	85	40	45	GV	NJDEP	
			26-26542	1991	110	40	70	GV	NJDEP	
			26-26543	1991	80	40	40	GV	NJDEP	
			26-26544	1991	100	40	60	GV	NJDEP	
358	Roman Catholic Archdioces	31 Mulberry St. L21 B120.01 Newark	26-26585	1991	25.5	15.5	10	P	NJDEP	
359	Louis Gottlieb	34 Park Place L84 B17,01 Newark	26-26566	1991	35.5	25.5	10	P	NJDEP	
360	John Murray	400 South 2nd St. L23-44 B97 Harrison	26-26619	1991	13	3	10	M	NJDEP	
361	Sheng, Tony L.	244 Dukes St. L19 B274 Kearny	26-26724	1991	15	5	10	M	NJDEP	
			26-26725	1991	14	4	10	M	NJDEP	
362	Georgia Pacific Corp.	L45 B2046 Newark	26-27165	1991	49	39	10	M	NJDEP	
			26-27166	1991	42	32	10	M	NJDEP	
			26-27167	1991	42	32	10	M	NJDEP	
363	Sterling Drug Inc.	90 Park Ave. L34 N-2438 Newark	26-27653	1991	11	1	10	M	NJDEP	
364	Eureka Spring Co.	915 Manufacturers Pl. L52 B2479 Newark	26-28225	1992	19	9	10	M	NJDEP	
365	Hartz Mtn Ind. Inc.	L15 B170 Newark	26-28236	1992	102	5	N/A	B	NJDEP	
		L71,75 B169	26-28234	1992	102	5	N/A	B	NJDEP	
			26-28235	1992	102	5	N/A	B	NJDEP	
366	Panel Systems Inc.	70 Worthington Ave. L23 B279 Harrison	26-28284	1992	102	N/A	N/A	B	NJDEP	
367	Hudson Tool & Die Co. Inc.	18 Malvern St. L21,69 B948 Newark	26-28689	1992	18.5	3.5	15	M	NJDEP	
			26-28690	1992	18	3	15	M	NJDEP	
			26-28691	1992	18	3	15	M	NJDEP	
			26-28692	1992	19	4	15	M	NJDEP	
			26-30238	1992	18.5	3.5	15	M	NJDEP	
			26-30239	1992	18.9	3.9	15	M	NJDEP	
			26-30287	1992	20	5	15	M	NJDEP	
			26-32284	1993	20	5	15	M	NJDEP	
			26-32675	1993	19	4	15	M	NJDEP	
			26-33296	1993	19.83	4.83	15	M	NJDEP	
			26-33297	1993	20	5	15	M	NJDEP	
			26-33616	1993	40	30	10	M	NJDEP	
			26-33617	1993	19	4	15	M	NJDEP	
			26-33618	1993	19	4	15	M	NJDEP	

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368	Ronson Metals Corp.	45-65 Manufacturers St. Newark	26-28937	1992	19	4	15	M	NJDEP	
		L68 B2479	26-42546	1995	19	4	15	M	NJDEP	
			26-42547	1995	19	4	15	M	NJDEP	
			26-42548	1995	19	4	15	M	NJDEP	
369	Federal Pacific Electric	16 Herbert St. Newark	26-29310	1992	42	16	24	R	NJDEP	
			26-29311	1992	27	25	2	P	NJDEP	
			26-29312	1992	26	24	2	P	NJDEP	
			26-29313	1992	27	25	2	P	NJDEP	
			26-29314	1992	12	10	2	P	NJDEP	
			26-29315	1992	22	20	2	P	NJDEP	
			26-29316	1992	22	20	2	P	NJDEP	
			26-29331	1992	22	20	2	P	NJDEP	
			26-29332	1992	42	7	37	IN	NJDEP	
370	CS Osborne& Co.	15 Jersey St. L5A B92 Harrison	26-29403	1992	20	10	10	M	NJDEP	
			26-29404	1992	26	16	10	M	NJDEP	
371	Bert Guido	99 Chapel St. Newark	26-29430	1992	15	5	10	M	NJDEP	
			26-29431	1992	15	5	10	M	NJDEP	
			26-29432	1992	15	5	10	M	NJDEP	
			26-29433	1992	15	5	10	M	NJDEP	
372	Dooner & Smith	Toller Place & Frelinghuysen A L46 B3520 Newark	26-29655	1992	15	5	10	M	NJDEP	
373	Cabezas Service Center	364 Broadway Newark	26-29666	1992	20.75	N/A	10	M	NJDEP	
			26-29667	1992	21.31	N/A	10	M	NJDEP	
			26-29759	1992	8	2	6	P	NJDEP	
374	Chem-Fleur International	L8 B1125 Newark	26-29760	1992	10	4	6	P	NJDEP	
375	Ashland Chemical	L1,6,10 B5005 Newark	26-30592	1992	30	20	10	M	NJDEP	
			26-30593	1992	30	20	10	M	NJDEP	
			26-30594	1992	30	20	10	M	NJDEP	
			26-30595	1992	20	10	10	M	NJDEP	
376	Catholic Community Services	Jefferson & Market St. L1 B175 Newark	26-31002	1992	50	N/A	N/A	B	NJDEP	
			26-31003	1992	50	N/A	N/A	B	NJDEP	
			26-31004	1992	45	N/A	N/A	B	NJDEP	
			26-31005	1992	40	N/A	N/A	B	NJDEP	
			26-31006	1992	40	N/A	N/A	B	NJDEP	
377	Jeryl Industries Inc.	680 Schuyler Ave. Kearny	26-31600	1992	17.8	7.8	10	GV	NJDEP	
			26-31601	1992	17	7	10	GV	NJDEP	
			26-31602	1992	14.5	4.5	10	GV	NJDEP	
			26-31603	1992	14.1	4.1	10	GV	NJDEP	

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			26-31604	1992	14	4	10	GV	NJDEP	
378	Tenneco Oil Co.	1 & 5 Harrison Ave. Newark	26-31888	1992	10	9	1	GV	NJDEP	
			26-31889	1992	10	9	1	GV	NJDEP	
			26-31890	1992	10	9	1	GV	NJDEP	
			26-31891	1992	10	9	1	GV	NJDEP	
			26-31892	1992	10	9	1	GV	NJDEP	
			26-31893	1992	10	9	1	GV	NJDEP	
			26-31894	1992	10	9	1	GV	NJDEP	
			26-31895	1992	10	9	1	GV	NJDEP	
			26-31896	1992	10	9	1	GV	NJDEP	
			26-31897	1992	10	9	1	GV	NJDEP	
			26-31898	1992	10	9	1	GV	NJDEP	
			26-31899	1992	10	9	1	GV	NJDEP	
			26-31900	1992	10	9	1	GV	NJDEP	
			26-31901	1992	10	9	1	GV	NJDEP	
			26-31902	1992	10	9	1	GV	NJDEP	
			26-31903	1992	10	9	1	GV	NJDEP	
			26-31904	1992	10	9	1	GV	NJDEP	
			26-31905	1992	10	9	1	GV	NJDEP	
			26-31906	1992	10	9	1	GV	NJDEP	
			26-31907	1992	10	9	1	GV	NJDEP	
			26-31908	1992	10	9	1	GV	NJDEP	
			26-31909	1992	10	9	1	GV	NJDEP	
			26-31911	1992	10	9	1	GV	NJDEP	
			26-31912	1992	10	9	1	GV	NJDEP	
			26-31913	1992	10	9	1	GV	NJDEP	
			26-31914	1992	10	9	1	GV	NJDEP	
			26-31915	1992	10	9	1	GV	NJDEP	
			26-31916	1992	10	9	1	GV	NJDEP	
379	Alvin Zach	920 Broad St. L1 B1 Newark	26-32177	1993	100.2	N/A	N/A	B	NJDEP	
			26-32178	1993	100.25	N/A	N/A	B	NJDEP	
			26-32179	1993	82	N/A	N/A	B	NJDEP	
			26-32180	1993	98	N/A	N/A	B	NJDEP	
			26-32181	1993	98	N/A	N/A	B	NJDEP	
			26-32182	1993	77	N/A	N/A	B	NJDEP	
380	Tidewater Baling Corp.	26 Charles St. L2 B2487 Newark	26-32466	1993	19	4	15	M	NJDEP	
			26-32467	1993	20	5	15	M	NJDEP	

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			26-32468	1993	15	3	12	M	NJDEP	
381	Day & Ross California Inc.	57 Charles St. L14,20 B2053 Newark	26-32513	1993	14	14	10	P	NJDEP	
			26-32514	1993	14	14	10	P	NJDEP	
			26-32515	1993	14	4	10	P	NJDEP	
			26-32516	1993	14	4	10	P	NJDEP	
			26-32517	1993	14	4	10	P	NJDEP	
			26-32518	1993	14	4	10	P	NJDEP	
382	K-Mart	200 Passaic Ave. Kearny	26-32983	1993	20	3	17	M	NJDEP	
			26-32984	1993	35	15	20	M	NJDEP	
			26-32985	1993	28	8	20	M	NJDEP	
			26-32986	1993	34	14	20	M	NJDEP	
			26-33151	1993	30	10	20	M	NJDEP	
383	Merit Oil Corp.	897 Raymond Blvd. Newark	26-33671	1993	20	5	15	M	NJDEP	
			26-33672	1993	20	5	15	M	NJDEP	
			26-33673	1993	20	15	5	M	NJDEP	
			26-33674	1993	15	5	10	M	NJDEP	
			26-33675	1993	20	5	15	M	NJDEP	
			26-40901	1995	20.5	5	14.5	M	NJDEP	
			26-40902	1995	19	4	15	M	NJDEP	
			26-40903	1995	18	3	15	M	NJDEP	
			26-43121	1995	21	6	15	M	NJDEP	
383	Tumal Inc.	306 Sussex St. L17,21 B122 Newark	26-34342	1993	26.5	16.5	10	M	NJDEP	
384	Antonio Matinho	66-70 Union St. Newark	26-34596	1993	20	10	10	P	NJDEP	
385	Litton Systems Inc.	88 Ferguson Ave. Newark	26-34617	1993	15	5	10	M	NJDEP	
			26-34618	1993	15	5	10	M	NJDEP	
			26-34619	1993	14	4	10	M	NJDEP	
			26-38838	1994	15	5	10	M	NJDEP	
			26-38839	1994	15	5	10	M	NJDEP	
			26-38840	1994	48	38	10	M	NJDEP	
			26-39115	1994	15	5	10	M	NJDEP	
386	Hicks, Mevse & Co.	51 Rome St. Newark	26-34658	1993	17	7	10	M	NJDEP	
387	Stanley Tool	140 Chapel St. Newark	26-34969	1993	14.4	2.4	12	M	NJDEP	
			26-34990	1993	14.3	2.3	12	M	NJDEP	
			26-34991	1993	14.3	2	12.3	M	NJDEP	
388	US Army Corps of Engineers	Raymond Blvd. L1 B2025 Newark	26-35144	1993	69.6	N/A	N/A	B	NJDEP	
		L2 B2025	26-35145	1993	65	N/A	N/A	B	NJDEP	
			26-35146	1993	71.5	N/A	N/A	B	NJDEP	

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			26-35147	1993	76.5	N/A	N/A	B	NJDEP	
			26-35148	1993	76.5	N/A	N/A	B	NJDEP	
			26-35149	1993	76.5	N/A	N/A	B	NJDEP	
389	US Army Corps of Engineers	River St. L1,12 B130 Newark	26-35405	1993	61.5	N/A	N/A	B	NJDEP	
			26-35406	1993	56.5	N/A	N/A	B	NJDEP	
			26-35407	1993	56.5	N/A	N/A	B	NJDEP	
			26-35408	1993	56.5	N/A	N/A	B	NJDEP	
390	US Army Corps of Engineers	Edison Atlantic Corp, Raymond Blvd. L70 B169,01 Newark	26-35409	1994	71.5	N/A	N/A	B	NJDEP	
391	US Army Corps of Engineers	Jersey St. L40 B171 Newark	26-35410	1994	66.5	N/A	N/A	B	NJDEP	
		L42 B171	26-36681	1994	61.5	N/A	N/A	B	NJDEP	
			26-36902	1994	36.5	N/A	N/A	B	NJDEP	
392	US Army Corps of Engineers	Raymond Blvd. L17 B2021 Newark	26-35411	1994	71.5	N/A	N/A	B	NJDEP	
			26-35412	1994	71.5	N/A	N/A	B	NJDEP	
			26-35413	1994	71.5	N/A	N/A	B	NJDEP	
393	NJ Performing Arts Center	Park Place & Saybrook Place L34 B17 Newark	26-35451	1993	30	20	10	M	NJDEP	
			26-35452	1993	30	20	10	M	NJDEP	
			26-35453	1993	30	20	10	M	NJDEP	
394	Prudential Service Co.	213 Washington St. L1 B62 Newark	46-35633	1925	17	N/A	N/A	I	NJDEP	
395	Prudential Service Co.	751 Broad St. Newark	46-35634	1938	546	N/A	N/A	I	NJDEP	
396	US Army Corps of Engineers	McCarter Hwy. L24 B1 Newark	26-36324	1994	50.4	N/A	N/A	B	NJDEP	
		L46 B1	26-36325	1994	40.7	N/A	N/A	B	NJDEP	
		L29 B2	26-36326	1994	36.5	N/A	N/A	B	NJDEP	
		L1 B3	26-36327	1994	15	N/A	N/A	B	NJDEP	
		L130 B1	26-38673	1994	51.5	N/A	N/A	B	NJDEP	
		L13 B3	26-36676	1994	45	N/A	N/A	B	NJDEP	
			26-36677	1994	26.5	N/A	N/A	B	NJDEP	
		L15 B2	26-26679	1994	43.6	N/A	N/A	B	NJDEP	
398	Ashland Chemical Co.	Doremus Ave. L1-610-15 B5005 Newark	26-37053	1994	36.6	26	10	M	NJDEP	
399	1000 South Inc.	1000 South 2nd St. Newark	26-37113	1994	11	2	9	M	NJDEP	
			26-37114	1994	11	2	9	M	NJDEP	
			26-37115	1994	11	2	9	M	NJDEP	
400	Carlos Auto Electric	370 South St. Newark	26-37222	1994	15	10	5	M	NJDEP	
			26-37223	1994	15	10	5	M	NJDEP	
			26-37224	1994	15	10	5	M	NJDEP	
401	City of Newark	132 St. Charles L1 B2052 Newark	26-37303	1994	20	4	16	M	NJDEP	
			26-37304	1994	17	4	13	M	NJDEP	

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			26-37305	1994	27	4	23	M	NJDEP	
			26-37306	1994	11	4	7	M	NJDEP	
			26-37307	1994	25	15	10	M	NJDEP	
			26-37309	1994	12	4	8	M	NJDEP	
			26-37310	1994	22	4	18	M	NJDEP	
			26-37308	1994	23	13	10	M	NJDEP	
402	National Magnetics	250 South St. Newark	26-37359	1994	15	5	10	M	NJDEP	
403	David M Sanchez	57 St. Charles St. Newark	26-38056	1994	17	7	10	M	NJDEP	
			26-38057	1994	17	7	10	M	NJDEP	
			26-38058	1994	17	7	10	M	NJDEP	
404	Eagle Affiliates	505 Manor St. L001 B189 Harrison	26-38179	1994	12.6	5.6	7	M	NJDEP	
			26-38180	1994	15	5	10	M	NJDEP	
			26-38181	1994	15	5	10	M	NJDEP	
			26-38182	1994	15	5	10	M	NJDEP	
			26-47003	1997	20	7	13	M	NJDEP	
			26-47040	1997	20	N/A	10	M	NJDEP	
405	Rutgers University	51 Rector St. Newark	26-38552	1994	25	10	15	M	NJDEP	
406	Gloube Manufacturing Co.	300 1st St. Harrison	26-39041	1994	20	5	15	M	NJDEP	
407	Kidde Industries Inc.	358 Thomas St. Newark	26-39905	1995	8	3	5	M	NJDEP	
			26-39906	1995	8	3	5	M	NJDEP	
			26-39907	1995	9	4	5	M	NJDEP	
408	O'Neill, Jim/ Alken Real	390 Adams St L5 B5088 Newark	26-39908	1995	9	4	5	M	NJDEP	
			26-39909	1995	9	4	5	M	NJDEP	
409	Archer Schwartz Co.	12-14 Garden St. Newark	26-39957	1995	15	5	10	M	NJDEP	
			26-39958	1995	15	5	10	M	NJDEP	
			26-39959	1995	14	4	10	M	NJDEP	
410	St. James Hospital	155 Jefferson St. Newark	26-40539	1995	28	N/A	N/A	B	NJDEP	
			26-40667	1995	30	10	20	M	NJDEP	
			26-40668	1996	30	15	15	M	NJDEP	
			26-40669	1996	30	15	15	M	NJDEP	
			26-46547	1997	30	15	15	M	NJDEP	
411	Teval Corp.	900 Rogers Rd. harrison	26-40873	1995	17	7	10	M	NJDEP	
412	City of Newark	34-48 Jersey St. Newark	26-41525	1995	12	2	10	M	NJDEP	
			26-41526	1995	12	2	10	M	NJDEP	
			26-41527	1995	11.5	1.5	10	M	NJDEP	
413	Newark Housing Authority	80 Wheeler Point Rd. Newark	26-40230	1995	13	3	10	M	NJDEP	
			26-40231	1995	13	3	10	M	NJDEP	

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Spreadsheet Submission Date: **February 2011**

Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation
414	Evergreen Realty	222 Thomas St. Newark	26-42233	1995	15	5	10	M	NJDEP	
			26-42234	1995	15	5	10	M	NJDEP	
415	Newark City	2052-2070 McCarter Hwy. Newark	26-42267	1995	18	8	10	M	NJDEP	
			26-42268	1995	18	8	10	M	NJDEP	
416	Newark City Eng'g D	185 Foundry St. Newark	26-42270	1995	10	2	8	M	NJDEP	
			26-42271	1995	10	2	8	M	NJDEP	
			26-42272	1995	10	2	8	M	NJDEP	
417	Hartz Mountain Corp.	700 Frank E Rodgers Blvd. Harrison	26-42681	1995	105	95	10	M	NJDEP	
			26-42682	1995	90	80	10	M	NJDEP	
			26-42683	1995	110	100	10	M	NJDEP	
			26-42684	1995	100	90	10	M	NJDEP	
			26-42685	1995	96	86	10	M	NJDEP	
			26-42686	1995	97	87	10	M	NJDEP	
			26-42687	1995	98	88	10	M	NJDEP	
			26-42688	1995	70	60	10	M	NJDEP	
			26-42689	1995	80	70	10	M	NJDEP	
			26-44120	1995	100	90	10	M	NJDEP	
			26-46642	1997	22	12	10	M	NJDEP	
			26-46643	1997	35	25	10	M	NJDEP	
			26-46644	1997	20	10	10	M	NJDEP	
			26-46645	1997	18	8	10	M	NJDEP	
			26-46646	1997	110	100	10	M	NJDEP	
			26-46650	1997	20	10	10	M	NJDEP	
			26-46651	1997	20	10	10	M	NJDEP	
			26-46652	1997	20	10	10	M	NJDEP	
			26-46653	1997	20	10	10	M	NJDEP	
			26-46663	1997	37	N/A	N/A	B	NJDEP	
418	NJ Historical Society	52 Park Place Newark	26-42944	1995	50	N/A	N/A	B	NJDEP	
419	NJ Transit	Rector St. to Raymond Blvd. LN/A BN/A Newark	26-42994	1996	37	N/A	N/A	B	NJDEP	
			26-42995	1996	38	N/A	N/A	B	NJDEP	
420	Polymer Extruded Products	297 Ferry St. Newark	46-43539	1947	852	N/A	N/A	I	NJDEP	
421	Campbell Foundry	808 Worthington Ave. Harrison	26-44003	1996	16	6	10	M	NJDEP	
			26-44004	1996	24	14	10	M	NJDEP	
			26-44005	1996	15	5	10	M	NJDEP	
422	Tenax Finishing Products	358 Thomas St. Newark	26-44048	1996	38	33	5	M	NJDEP	
423	The Prudential Insurance Co.	Warren ST Building, Newark	26-3777	1966	324	39.1	N/A	D	NJDEP	
424	Acme Refining Co.	12 Lister Ave. Newark	26-2130	1960	500	144	N/A	I	NJDEP	

WELL SEARCH RESULTS

Case Name: **Palmer Industries, Inc., 59-97 Chapel Street (rear), Newark, New Jersey**

Program Interest (PI) ID# **510630**

Spreadsheet Submission Date: **February 2011**

Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation
425	G. Heller Enterprises, In	Frank Rogers Blvd. LN/A B138-143 Harrison	26-45572	1996	62	N/A	N/A	B	NJDEP	
426	NJ Bell Telephone Co.	540 Broad St. Newark	26-3173	1965	215	65	N/A	PS	NJDEP	
427	550 Broad St. Associates	550 Broad St. Newark	26-3532	1966	300	52	N/A	D	NJDEP	
428	Thomas A. Riley	255-257 Belmount Ave. Newark	26-906	1954	200	35	N/A	CL	NJDEP	
429	Synthetic Plastics Co.	88 St. Francis St. Newark	26-459	1958	600	145	N/A	COOL	NJDEP	
430	Newark Center Corp.	1180 Raymond Blvd. Newark	26-1053	1955	700	150	N/A	N/A	NJDEP	
431	Klines Department Stores	689 Broad St. Newark	26-3233	1965	400	62	N/A	COOL	NJDEP	
432	Joseph Hensler Brewing Co.	73 Wilson St. Newark	26-127	1949	700	57	N/A	COOL	NJDEP	
433	NJ Economic Dev.	24 Rector St. Newark	26-46374	1997	34	19	15	M	NJDEP	
			26-46375	1997	28	N/A	N/A	B	NJDEP	
434	Alloys Inc.	308 Middlesex St. Harrison	46-47336	1946	257	2.7	234.6	I	NJDEP	
435	Army Corps of Engineers	Route 21 LN/A BN/A Newark	26-47632	1997	68	N/A	N/A	B	NJDEP	

WELL SEARCH RESULTS

Case Name: **Palmer Industries, Inc., 59-97 Chapel Street (rear), Newark, New Jersey**

Program Interest (PI) ID# **510630**

Spreadsheet Submission Date: **February 2011**

Map ID	Well Owner	Address	Permit Number	Year Drilled	Total Depth	Casing Length	SWL	Use Code	Data Source	Formation

T	Test
ES	Elevator Shaft
D	Domestic well
M	Monitoring well
I	Industrial well
IR	Irrigation well
PS	Public Supply
GV	Gas Vent
AC	Air Conditioning
B	Boring
CC	Convelecent Center
HP	Heat Pump and Return
W	Withdrawal
C	Commercial
IN	Injection
P	Piezometer
FG	Fairgrounds
PS	Private Supply
R	Recovery
DR	Domestic Replacement
MB	Maintenance Building
Inc	Inclinometer
O	Observation
CP	Cathodic Protection
DW	Dewatering
AS	Air Sparge
VE	Vapor Extraction
CL	Car Laundry

Subj: **510630_20110226_Palmer Industries_Receptor Eval Form & RT Extension Request Form**
Date: 2/26/2011 1:14:40 A.M. Eastern Standard Time
From: Pecinc@aol.com
To: kirstin.pointin-hahn@dep.state.nj.us
CC: cguido@portwide.com, rchambers@portwide.com, eminentdomain@mckirdyriskin.com, gduus@coleschotz.com, nagorbm@yahoo.com

Dear Chief Hahn,

The attached Receptor Evaluation Form for the Palmer Industries site is attached in accordance with the Regulatory Time Frame deadline of March 1, 2011.

Also attached is an extension request for the related PA and SI. This form is being submitted less than 30 days prior to the regulatory timeframe date of March 1. In reference to our conversation at the February 3 seminar, it is my understanding that the Department will use its regulatory discretion and accept extensions under this shortened notice.

Hard copy of the forms will be sent via overnight mail to reach you on February 28. Thank you for your assistance in this matter

Regards,
Dick

Pennjersey Environmental Consulting, Inc.
Richard J. Katz, M.S., LSRP, President
2034 East Wellington Road
Newtown, PA 18940-3708

Voice: (215) 860-1231
Fax: (215) 860-9988
Cell: (215) 327-1532
E-mail: pecinc@aol.com

This message is intended for the sole use of the individual to whom it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If you are not the addressee you are hereby notified that you may not use, copy, disclose, or distribute to anyone the message or any information contained in the message. If you have received this message in error, please immediately advise the sender by reply e-mail and delete this message

New Jersey Department of Environmental Protection
Site Remediation Program

REMEDIATION TIMEFRAME EXTENSION REQUEST FORM

☐ Non-LSRP (Existing Cases) ☒ LSRP ☐ Subsurface Evaluator

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Palmer Industries, Inc.

List all AKAs:

Street Address: 59-97 Chapel Street (rear)

Municipality: Newark City (Township, Borough or City)

County: Essex Zip Code: 07105

Mailing Address if different than street address: 99 Chapel Street, Newark, NJ 07105

Program Interest (PI) Number(s): 510630 Case Tracking Number(s): 09-11-09-1042-09

SECTION B. NJDEP CASE MANAGER

Do you have an assigned Case Manager? ☐ Yes ☐ No

If "Yes," please list the Case Manager:

SECTION C. EXTENSION REQUEST

An extension is requested for submission of the following report(s):

Report Type	Original End Date	Number of Days Requested Beyond Original End Date	Proposed End Date	Mark if this is an Extension to a Regulatory End Date	Mark if this is an Expedited Site Specific End Date
Immediate Environmental Concern Engineered System Response Action Report					☐
Immediate Environmental Concern Source Control Report*				☐	☐
Free Product Interim Remedial Measures Report*				☐	☐
Preliminary Assessment Report*	03/01/2011	120	07/01/2011	☒	☐
Initial Receptor Evaluation*				☐	☐
Site Investigation Report*	03/01/2011	120	07/01/2011	☒	☐
Full Laboratory Data Deliverables Report					☐
Remedial Investigation Report					☐
Remedial Action Work Plan					☐
Remedial Action Report					☐
Remedial Action Permit Application					☐
Discharge Authorization Application					☐
Biennial Certification Report					☐
Other:					☐
Other:					☐
Other:					☐

*This report has a mandatory remediation timeframe

SECTION D. JUSTIFICATION FOR EXTENSION

1. Describe the cause or causes of the need for additional time to complete the work:

Work has been hampered by taking of the property under eminent domain. Discussions regarding remediation costs and fair-market value negotiations have slowed the process.

2. Describe in detail the steps taken to minimize the additional time needed to complete the work:

Site remediation has been completed.. A deed notice will be required for historic fill and ground water reclassification due to salt water intrusion will be needed to close the case.

3. Additional information:

4. Mark below as applicable:

☒ This extension meets all of the requirements stipulated under N.J.A.C. 7:26C-3.2 for an extension of a regulatory timeframe and shall be deemed approved unless the Department notifies the requestor in writing that the extension is denied.

☐ This extension of a ☐ mandatory, or ☐ expedited site specific timeframe meets all of the conditions and requirements to be deemed granted as stipulated under N.J.A.C. 7:26C-3.5.

☐ This request for an extension of a regulatory, mandatory or expedited site specific timeframe requires written Department approval pursuant to N.J.A.C. 7:26C-3.2-3.5.

SECTION E. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Palmer Industries, Inc.

Representative First Name: Christopher Representative Last Name: Guido

Title: Managing Director

Phone Number: (973) 589-4400 Ext: Fax: (908) 688-9523

Mailing Address: 99 Chapel St.

City/Town: Newark State: NJ Zip Code: 07105

Email Address: cguido@portwide.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: Date: 2-24-11

Name/Title: Christopher Guido, Managing Director **No Changes Since Last Submittal** ☒

SECTION F. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 505618

First Name: Richard Last Name: Katz

Phone Number: (215) 860-1231 Ext: Fax: (215) 860-9988

Mailing Address: 2034 East Wellington Rd

City/Town: Newtown State: PA Zip Code: 18940

Email Address: pecinc@aol.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b 2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

☐ *directly oversaw and supervised all of the referenced remediation, and/or*

☒ *personally reviewed and accepted all of the referenced remediation presented herein.*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: Date: 2/26/2011

LSRP Name/Title: Richard J. Katz, President **No Changes Since Last Submittal** ☒

Company Name: Pennjersey Environmental Consulting, Inc.

Submit this form to the assigned case manager. If there is no assigned case manager, submit this form to:

Bureau of Case Assignment & Initial Notice
New Jersey Department of Environmental Protection
Site Remediation Program
401 East State Street, PO Box 434
Trenton, NJ 08625

Subj: **510630_20110226_Palmer Industries_Receptor Eval Form & RT Extension Request Form**
Date: 2/26/2011 1:14:40 A.M. Eastern Standard Time
From: Pecinc@aol.com
To: kirstin.pointin-hahn@dep.state.nj.us
CC: cguido@portwide.com, rchambers@portwide.com, eminentdomain@mckirdyriskin.com, gduus@coleschotz.com, nagorbm@yahoo.com

Dear Chief Hahn,

The attached Receptor Evaluation Form for the Palmer Industries site is attached in accordance with the Regulatory Time Frame deadline of March 1, 2011.

Also attached is an extension request for the related PA and SI. This form is being submitted less than 30 days prior to the regulatory timeframe date of March 1. In reference to our conversation at the February 3 seminar, it is my understanding that the Department will use its regulatory discretion and accept extensions under this shortened notice.

Hard copy of the forms will be sent via overnight mail to reach you on February 28. Thank you for your assistance in this matter

Regards,
Dick

Pennjersey Environmental Consulting, Inc.
Richard J. Katz, M.S., LSRP, President
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Cell: (215) 327-1532
E-mail: pecinc@aol.com

This message is intended for the sole use of the individual to whom it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If you are not the addressee you are hereby notified that you may not use, copy, disclose, or distribute to anyone the message or any information contained in the message. If you have received this message in error, please immediately advise the sender by reply e-mail and delete this message

PEC *Pennjersey Environmental Consulting, Inc.*

2034 East Wellington Road, Newtown, PA 18940
phone: (215) 860-1231 fax: (215) 860-9988

LICENSED SITE REMEDIATION PROFESSIONALS PROGRAM
PRELIMINARY ASSESSMENT & REMEDIAL INVESTIGATION REPORTS

PI# 510630, PALMER INDUSTRIES, INC.
59-97 CHAPEL STREET REAR, CITY OF NEWARK
ESSEX COUNTY, NEW JERSEY
MAY 2011

SECTION 6

LABORATORY ANALYTICAL REPORTS

Prepared for

PALMER INDUSTRIES, INC.
NEWARK, NEW JERSEY

SECTION 6

LABORATORY ANALYTICAL REPORTS

1. IAL Report E09-11437, "TP" series, 11/09/2009
2. IAL Report E09-12542, "T" series, 12/08/2009
3. IAL Report E09-12676, "SBD" & "ANOME", 12/14/2009
4. IAL Report E09-12828, "L", "T1" & "T2" series,12/16-17/2009
5. IAL Report E09-12828, Addendum, fingerprint analysis
6. IAL Report E10-00176, "MW8 – MW11", 01/07/2010
7. IAL Report E10-01419, "TW1 – TW3", 02/16/2010
8. IAL Report E10-01500, "T" & "L" series delineation samples, 02/17-18/2010
9. IAL Report E10-04018, "P4" & "Z" series, 04/29/2010
10. IAL Report E10-04230, "L8-D2", duplicate for lost sample, 05/05/2010
11. IAL Report E10-05088, "TW-1A" & "TW-3A", 05/22/2010
12. IAL Report E10-09269, "MW12 – MW14", installation soil samples, 09/15/2010
13. IAL Report E10-09270, "TP10A" series, 09/15/2010
14. IAL Report E10-09980, "MW8 – MW16", 10/05/2010
15. IAL Report E10-12342, "MW8R", "MW12" & "MW14",12/04/2010
16. IAL Report E11-00286, "MW8R", "MW12 – MW14" &"MW-17", 01/11/2011

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E09-11437**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11492), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy R QA Program

Sample Summary

IAL Case No.

E09-11437

Client PennJersey Environmental Consulting

Project PALMER

Received On 11/10/2009@14:45

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
11437-001	TRIP	n/a	11/ 9/2009	Soil	1
11437-002	TP7	4.25/4.75	11/ 9/2009@09:30	Soil	4
11437-003	TP5-1	3.17/3.67	11/ 9/2009@10:00	Soil	4
11437-004	TP5-2	5.67/6.17	11/ 9/2009@10:30	Soil	4
11437-005	TP2-1	2/2.5	11/ 9/2009@11:30	Soil	4
11437-006	TP2-2	3/3.5	11/ 9/2009@12:00	Soil	4
11437-007	TP1	4/4.5	11/ 9/2009@13:00	Soil	4
11437-008	TP6	4.58/5.08	11/ 9/2009@14:00	Soil	4

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received eight (8) soil sample(s) from PennJersey Environmental Consulting (Project: PALMER) on November 10, 2009 for the analysis of:

(1) TCL VOA + 10
(7) TCL VO+10
(7) TCL BNA+20
(7) PCB
(7) TCL Pesticides
(7) TPH-QAM025
(7) TAL Metals
(7) Cyanide, Total

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

11/24/09
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E09-11437

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E09 - 11437

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	GC/MS Tuning Specifications: a. BFB Passed		✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4.	GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5.	GC/MS Calibration Requirements: a. Calibration Check Compounds		na
	b. System Performance Check Compounds		na
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
	If not met, were the calculations checked and the results qualified as "estimated"?		na
8.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		na
9.	Internal Standard Area/Retention Time Shift meet criteria		✓
10.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		na
11.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12.	Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

11/16/09
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS SEMIVOLATILE ANALYSIS

Lab Case Number: E09 - 11437

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. DFTPP Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series.		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank: a. B/N Fraction b. Acid Fraction	✓	
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range) a. B/N Fraction b. Acid Fraction		✓
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) a. B/N Fraction b. Acid Fraction		✓
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		✓
11. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12. Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

11-16-09
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S

Lab Case Number: E09 - 11437

		No	Yes
1	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks)		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
			✓
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

11/18/08
Date

rev 01/09

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PESTICIDES

Lab Case Number: E09 - 11437

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

11/18/09
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - Miscellaneous
Including Hydrocarbons, Metabolic Acids, and Gas Screens

Lab Case Number: E09 - 11457

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		

Comments:

Organic Manager

11/15/09
Date

rev 01/09

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
METAL ANALYSIS

Lab Case Number: E09-11437

		No	Yes
1.	Calibration Summary Meet Criteria.		✓
2.	ICP Interference Check Sample Results Meets Criteria (if applicable)		✓
3.	Serial Dilution/Post Spike Summary Submitted (if applicable) / Meets Criteria		✓
4.	Internal Standards Meet Criteria (if applicable)		✓
5.	Laboratory Control Sample Summary Submitted (if applicable) / Meets Criteria		✓
6.	Blank Contamination: If yes, list compounds and concentrations in each blank:	✓	
7.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).		✓
8.	Extraction Holding Time Met. If not, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not, list number of days exceeded for each sample:		✓

Additional Comments:

Wei Cheng
Inorganic Manager

November 16, 2009
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E09-11437

Lab ID:	11437-001			11437-002			11437-003			11437-004		
Client ID:	TRIP			TP7			TP5-1			TP5-2		
Depth:				4.25/4.75			3.17/3.67			5.67/6.17		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	11/9/09			11/9/09			11/9/09			11/9/09		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Acetone	ND		0.250	0.018		0.0048	ND		0.0083	ND		0.0086
Methylene chloride	ND		0.100	0.00431	C	0.0024	0.013	C	0.00415	0.014	C	0.0043
Chloroform	ND		0.100	ND		0.0024	ND		0.00415	0.00174	J	0.0043
TOTAL VO's:	ND			0.022	C		0.013	C		0.015	JC	
TOTAL TIC's:	ND			0.118			ND			1.63		
TOTAL VO's & TIC's:	ND			0.140	C		0.013	C		1.65	JC	
Semivolatiles - BNA (Units)				*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TOTAL BNA'S:				ND			ND			ND		
TOTAL TIC's:	~		~	ND			ND			ND		
TOTAL BNA'S & TIC's:	~		~	ND			ND			ND		
PCB's (Units)				*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016	~		~	ND		0.000816	ND		0.00108	ND		0.00124
Aroclor-1221	~		~	ND		0.000816	ND		0.00108	ND		0.00124
Aroclor-1232	~		~	ND		0.000816	ND		0.00108	ND		0.00124
Aroclor-1242	~		~	ND		0.000816	ND		0.00108	ND		0.00124
Aroclor-1248	~		~	ND		0.000816	ND		0.00108	ND		0.00124
Aroclor-1254	~		~	ND		0.000816	ND		0.00108	ND		0.00124
Aroclor-1260	~		~	ND		0.000816	ND		0.00108	ND		0.00124
Hydrocarbons (Units)				*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Total TPHC	~		~	127		6.84	ND		9.72	ND		10.8
Pesticides (Units)				*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
alpha-BHC	~		~	ND		0.000204	ND		0.000271	ND		0.000309
beta-BHC	~		~	ND		0.000204	ND		0.000271	ND		0.000309
gamma-BHC (Lindane)	~		~	ND		0.000204	ND		0.000271	ND		0.000309
delta-BHC	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Heptachlor	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Aldrin	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Heptachlor epoxide	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Endosulfan I	~		~	ND		0.000204	ND		0.000271	ND		0.000309
4,4'-DDE	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Dieldrin	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Endrin	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Endosulfan II	~		~	ND		0.000204	ND		0.000271	ND		0.000309
4,4'-DDD	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Endrin aldehyde	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Endosulfan sulfate	~		~	ND		0.000204	ND		0.000271	ND		0.000309
4,4'-DDT	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Endrin ketone	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Methoxychlor	~		~	ND		0.000204	ND		0.000271	ND		0.000309
alpha-Chlordane	~		~	ND		0.000204	ND		0.000271	ND		0.000309
gamma-Chlordane	~		~	ND		0.000204	ND		0.000271	ND		0.000309
Toxaphene	~		~	ND		0.000612	ND		0.000813	ND		0.000927

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the MDL

C = Common Laboratory and/or Bottle Contaminant.

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E09-11437

	Lab ID:	11437-001			11437-002			11437-003			11437-004		
	Client ID:	TRIP			TP7			TP5-1			TP5-2		
	Depth:				4.25/4.75			3.17/3.67			5.67/6.17		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	11/9/09			11/9/09			11/9/09			11/9/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)					*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum		~		~	4270		13.3	9060		17.0	9940		20.1
Antimony		~		~	ND		1.33	ND		1.70	ND		2.01
Arsenic		~		~	2.10		1.33	11.9		1.70	11.5		2.01
Barium		~		~	53.8		13.3	110		17.0	118		20.1
Beryllium		~		~	ND		0.663	ND		0.849	ND		1.01
Cadmium		~		~	ND		0.332	ND		0.424	ND		0.503
Calcium		~		~	1210		66.3	184000		849	194000		1010
Chromium		~		~	4.84		2.65	9.37		3.40	9.53		4.03
Cobalt		~		~	ND		2.65	ND		3.40	ND		4.03
Copper		~		~	3.58		2.65	97.3		3.40	94.3		4.03
Iron		~		~	4860		33.2	7320		42.4	6140		50.3
Lead		~		~	10.8		0.663	364		0.849	339		1.01
Magnesium		~		~	539		66.3	2690		84.9	1270		101
Manganese		~		~	41.1		1.33	392		1.70	145		2.01
Mercury		~		~	0.023		0.017	ND		0.024	ND		0.028
Nickel		~		~	2.48		1.33	8.60		1.70	7.93		2.01
Potassium		~		~	550		66.3	503		84.9	454		101
Selenium		~		~	ND		2.65	ND		3.40	ND		4.03
Silver		~		~	ND		0.663	ND		0.849	ND		1.01
Sodium		~		~	ND		133	1610		170	1760		201
Thallium		~		~	ND		0.332	ND		0.424	ND		0.503
Vanadium		~		~	7.07		2.65	6.65		3.40	6.10		4.03
Zinc		~		~	15.4		2.65	1330		3.40	1330		4.03
General Analytical (Units)													
Cyanide, Total(mg/Kg-ppm)		~		~	ND		1.22	ND		1.63	ND		1.86

	Lab ID:	11437-005			11437-006			11437-007			11437-008		
	Client ID:	TP2-1			TP2-2			TP1			TP6		
	Depth:	2/2.5			3/3.5			4/4.5			4.58/5.08		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	11/9/09			11/9/09			11/9/09			11/9/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Methylene chloride		0.00817	C	0.00395	0.00384	C	0.002	0.018	C	0.0044	0.00556	C	0.0029
Chloroform		ND		0.00395	ND		0.002	0.00241	J	0.0044	ND		0.0029
TOTAL VO's:		0.00817	C		0.00384	C		0.020	JC		0.00556	C	
TOTAL TIC's:		ND			ND			ND			ND		
TOTAL VO's & TIC's:		0.00817	C		0.00384	C		0.020	JC		0.00556	C	
Semivolatiles - BNA (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TOTAL BNA'S:		ND			ND			ND			ND		
TOTAL TIC's:		ND			ND			ND			ND		
TOTAL BNA'S & TIC's:		ND			ND			ND			ND		

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the MDL

C = Common Laboratory and/or Bottle Contaminant.

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E09-11437

	Lab ID:	11437-005		11437-006		11437-007		11437-008	
	Client ID:	TP2-1		TP2-2		TP1		TP6	
	Depth:	2/2.5		3/3.5		4/4.5		4.58/5.08	
	Matrix:	Soil		Soil		Soil		Soil	
	Sampled Date	11/9/09		11/9/09		11/9/09		11/9/09	
PARAMETER(Units)		Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL
PCB's (Units)		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
Aroclor-1016		ND	0.0008	ND	0.000772	ND	0.000892	ND	0.000836
Aroclor-1221		ND	0.0008	ND	0.000772	ND	0.000892	ND	0.000836
Aroclor-1232		ND	0.0008	ND	0.000772	ND	0.000892	ND	0.000836
Aroclor-1242		ND	0.0008	ND	0.000772	ND	0.000892	ND	0.000836
Aroclor-1248		ND	0.0008	ND	0.000772	ND	0.000892	ND	0.000836
Aroclor-1254		ND	0.0008	ND	0.000772	ND	0.000892	ND	0.000836
Aroclor-1260		ND	0.0008	ND	0.000772	ND	0.000892	ND	0.000836
Hydrocarbons (Units)		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
Total TPHC		9.54	7.17	ND	6.75	ND	7.65	ND	7.25
Pesticides (Units)		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
alpha-BHC		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
beta-BHC		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
gamma-BHC (Lindane)		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
delta-BHC		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
Heptachlor		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
Aldrin		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
Heptachlor epoxide		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
Endosulfan I		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
4,4'-DDE		ND	0.0002	ND	0.000193	0.000491	0.000223	ND	0.000209
Dieldrin		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
Endrin		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
Endosulfan II		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
4,4'-DDD		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
Endrin aldehyde		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
Endosulfan sulfate		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
4,4'-DDT		ND	0.0002	ND	0.000193	0.0017	0.000223	ND	0.000209
Endrin ketone		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
Methoxychlor		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
alpha-Chlordane		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
gamma-Chlordane		ND	0.0002	ND	0.000193	ND	0.000223	ND	0.000209
Toxaphene		ND	0.0006	ND	0.000579	ND	0.000669	ND	0.000627
Metals (Units)		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
Aluminum		11600	132	14700	116	10600	15.1	10300	131
Antimony		2.08	1.32	ND	1.16	ND	1.51	ND	1.31
Arsenic		140	1.32	2.71	1.16	102	1.51	15.6	1.31
Barium		194	13.2	40.2	11.6	127	15.1	65.0	13.1
Beryllium		1.45	0.661	ND	0.580	1.72	0.755	2.68	0.654
Cadmium		5.10	0.330	ND	0.290	4.07	0.377	2.07	0.327
Calcium		9920	66.1	1010	58.0	7540	75.5	4580	65.4
Chromium		14.5	2.64	17.4	2.32	17.6	3.02	11.7	2.62
Cobalt		8.47	2.64	6.59	2.32	9.59	3.02	7.77	2.62
Copper		29.8	2.64	25.6	2.32	35.5	3.02	126	2.62
Iron		24500	33.0	18700	29.0	23700	37.7	55700	32.7
Lead		63.6	0.661	5.98	0.580	57.2	0.755	20.7	0.654

ND = Analyzed for but Not Detected at the MDL

Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E09-11437

	Lab ID:	11437-005			11437-006			11437-007			11437-008		
	Client ID:	TP2-1			TP2-2			TP1			TP6		
	Depth:	2/2.5			3/3.5			4/4.5			4.58/5.08		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	11/9/09			11/9/09			11/9/09			11/9/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Magnesium		1470		66.1	2210		58.0	2550		75.5	2090		65.4
Manganese		10500		1.32	353		1.16	16100		15.1	11000		1.31
Mercury		0.036		0.019	0.023		0.015	0.053		0.019	0.035		0.018
Nickel		16.7		1.32	13.4		1.16	35.6		1.51	14.2		1.31
Potassium		1070		66.1	772		58.0	686		75.5	693		65.4
Selenium		5.96		2.64	ND		2.32	3.84		3.02	ND		2.62
Silver		ND		0.661	ND		0.580	ND		0.755	ND		0.654
Sodium		838		132	ND		116	1360		151	209		131
Thallium		0.443		0.330	ND		0.290	ND		0.377	ND		0.327
Vanadium		22.0		2.64	28.4		2.32	19.8		3.02	24.3		2.62
Zinc		34800		26.4	1620		2.32	62500		30.2	15200		26.2
General Analytical (Units)													
Cyanide, Total(mg/Kg-ppm)		ND		1.20	ND		1.16	1.51		1.34	ND		1.25

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-001
Client ID: TRIP
Date Received: 11/10/2009
Date Analyzed: 11/12/2009
Data file: L1632.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.100
Chloromethane	ND		0.100
Vinyl chloride	ND		0.100
Bromomethane	ND		0.100
Chloroethane	ND		0.100
Trichlorofluoromethane	ND		0.100
1,1-Dichloroethene	ND		0.100
Acetone	ND		0.250
Carbon disulfide	ND		0.100
Methylene chloride	ND		0.100
trans-1,2-Dichloroethene	ND		0.100
Methyl tert-butyl ether (MTBE)	ND		0.100
1,1-Dichloroethane	ND		0.100
cis-1,2-Dichloroethene	ND		0.100
2-Butanone (MEK)	ND		0.100
Bromochloromethane	ND		0.100
Chloroform	ND		0.100
1,1,1-Trichloroethane	ND		0.100
Carbon tetrachloride	ND		0.100
1,2-Dichloroethane (EDC)	ND		0.100
Benzene	ND		0.050
Trichloroethene	ND		0.100
1,2-Dichloropropane	ND		0.100
Bromodichloromethane	ND		0.100
cis-1,3-Dichloropropene	ND		0.100
4-Methyl-2-pentanone (MIBK)	ND		0.100

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-001
Client ID: TRIP
Date Received: 11/10/2009
Date Analyzed: 11/12/2009
Data file: L1632.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Toluene	ND		0.100
trans-1,3-Dichloropropene	ND		0.100
1,1,2-Trichloroethane	ND		0.100
Tetrachloroethene	ND		0.100
2-Hexanone	ND		0.200
Dibromochloromethane	ND		0.100
1,2-Dibromoethane (EDB)	ND		0.100
Chlorobenzene	ND		0.100
Ethylbenzene	ND		0.100
Total Xylenes	ND		0.100
Styrene	ND		0.100
Bromoform	ND		0.100
Isopropylbenzene	ND		0.100
1,1,2,2-Tetrachloroethane	ND		0.100
1,3-Dichlorobenzene	ND		0.100
1,4-Dichlorobenzene	ND		0.100
1,2-Dichlorobenzene	ND		0.100
1,2-Dibromo-3-chloropropane	ND		0.100
1,2,4-Trichlorobenzene	ND		0.100
1,2,3-Trichlorobenzene	ND		0.100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.100
Methyl acetate	ND		0.100
Cyclohexane	ND		0.100
Methylcyclohexane	ND		0.100

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-001
Client ID: TRIP
Date Received: 11/10/2009
Date Analyzed: 11/12/2009
Date File: L1632.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-002
Client ID: TP7/4.25-4.75
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5024.D

GC/MS Column: DB-624
Sample wt/vol: 6.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.8
% Moisture: 18.2

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.0024
Chloromethane	ND		0.0024
Vinyl chloride	ND		0.0024
Bromomethane	ND		0.0024
Chloroethane	ND		0.0024
Trichlorofluoromethane	ND		0.0024
1,1-Dichloroethene	ND		0.0024
Acetone	0.018		0.0048
Carbon disulfide	ND		0.0024
Methylene chloride	0.00431	C	0.0024
trans-1,2-Dichloroethene	ND		0.0024
Methyl tert-butyl ether (MTBE)	ND		0.0024
1,1-Dichloroethane	ND		0.0024
cis-1,2-Dichloroethene	ND		0.0024
2-Butanone (MEK)	ND		0.0048
Bromochloromethane	ND		0.0024
Chloroform	ND		0.0024
1,1,1-Trichloroethane	ND		0.0024
Carbon tetrachloride	ND		0.0024
1,2-Dichloroethane (EDC)	ND		0.0024
Benzene	ND		0.0024
Trichloroethene	ND		0.0024
1,2-Dichloropropane	ND		0.0024
Bromodichloromethane	ND		0.0024
cis-1,3-Dichloropropene	ND		0.0024
4-Methyl-2-pentanone (MIBK)	ND		0.0048

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-002
Client ID: TP7/4.25-4.75
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5024.D

GC/MS Column: DB-624
Sample wt/vol: 6.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.8
% Moisture: 18.2

Compound	Concentration	Q	MDL
Toluene	ND		0.0024
trans-1,3-Dichloropropene	ND		0.0024
1,1,2-Trichloroethane	ND		0.0024
Tetrachloroethene	ND		0.0024
2-Hexanone	ND		0.0048
Dibromochloromethane	ND		0.0024
1,2-Dibromoethane (EDB)	ND		0.0024
Chlorobenzene	ND		0.0024
Ethylbenzene	ND		0.0024
Total Xylenes	ND		0.0024
Styrene	ND		0.0024
Bromoform	ND		0.0024
Isopropylbenzene	ND		0.0024
1,1,2,2-Tetrachloroethane	ND		0.0024
1,3-Dichlorobenzene	ND		0.0024
1,4-Dichlorobenzene	ND		0.0024
1,2-Dichlorobenzene	ND		0.0024
1,2-Dibromo-3-chloropropane	ND		0.0024
1,2,4-Trichlorobenzene	ND		0.0024
1,2,3-Trichlorobenzene	ND		0.0024
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0024
Methyl acetate	ND		0.0024
Cyclohexane	ND		0.0024
Methylcyclohexane	ND		0.0024
Total Target Compounds:	0.022	C	

0018

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-002
Client ID: TP7/4.25-4.75
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Date File: F5024.D

GC/MS Column: DB-624
Sample wt/vol: 6.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.8
% Moisture: 18.2

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown	0.0097	15.07
	Unknown cyclic hydrocarbon	0.012	15.47
	Unknown	0.012	15.61
	Unknown cyclic hydrocarbon	0.011	15.75
	Unknown cyclic hydrocarbon	0.0095	15.86
	Substituted benzene	0.015	16.15
	Substituted benzene	0.00826	16.43
	Unknown	0.011	16.68
	Unknown	0.019	16.86
	Unknown	0.011	16.91

Total TICs = 0.118

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-003
Client ID: TP5-1/3.17-3.67
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5018.D

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 38.6

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.00415
Chloromethane	ND		0.00415
Vinyl chloride	ND		0.00415
Bromomethane	ND		0.00415
Chloroethane	ND		0.00415
Trichlorofluoromethane	ND		0.00415
1,1-Dichloroethene	ND		0.00415
Acetone	ND		0.0083
Carbon disulfide	ND		0.00415
Methylene chloride	0.013	C	0.00415
trans-1,2-Dichloroethene	ND		0.00415
Methyl tert-butyl ether (MTBE)	ND		0.00415
1,1-Dichloroethane	ND		0.00415
cis-1,2-Dichloroethene	ND		0.00415
2-Butanone (MEK)	ND		0.0083
Bromochloromethane	ND		0.00415
Chloroform	ND		0.00415
1,1,1-Trichloroethane	ND		0.00415
Carbon tetrachloride	ND		0.00415
1,2-Dichloroethane (EDC)	ND		0.00415
Benzene	ND		0.00415
Trichloroethene	ND		0.00415
1,2-Dichloropropane	ND		0.00415
Bromodichloromethane	ND		0.00415
cis-1,3-Dichloropropene	ND		0.00415
4-Methyl-2-pentanone (MIBK)	ND		0.0083

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-003
Client ID: TP5-1/3.17-3.67
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5018.D

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 38.6

Compound	Concentration	Q	MDL
Toluene	ND		0.00415
trans-1,3-Dichloropropene	ND		0.00415
1,1,2-Trichloroethane	ND		0.00415
Tetrachloroethene	ND		0.00415
2-Hexanone	ND		0.0083
Dibromochloromethane	ND		0.00415
1,2-Dibromoethane (EDB)	ND		0.00415
Chlorobenzene	ND		0.00415
Ethylbenzene	ND		0.00415
Total Xylenes	ND		0.00415
Styrene	ND		0.00415
Bromoform	ND		0.00415
Isopropylbenzene	ND		0.00415
1,1,2,2-Tetrachloroethane	ND		0.00415
1,3-Dichlorobenzene	ND		0.00415
1,4-Dichlorobenzene	ND		0.00415
1,2-Dichlorobenzene	ND		0.00415
1,2-Dibromo-3-chloropropane	ND		0.00415
1,2,4-Trichlorobenzene	ND		0.00415
1,2,3-Trichlorobenzene	ND		0.00415
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00415
Methyl acetate	ND		0.00415
Cyclohexane	ND		0.00415
Methylcyclohexane	ND		0.00415
Total Target Compounds:	0.013	C	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-003
Client ID: TP5-1/3.17-3.67
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Date File: F5018.D

GC/MS Column: DB-624
Sample wt/vol: 4.9g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 38.6

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-004
Client ID: TP5-2/5.67-6.17
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5023.D

GC/MS Column: DB-624
Sample wt/vol: 5.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.9
% Moisture: 46.1

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.0043
Chloromethane	ND		0.0043
Vinyl chloride	ND		0.0043
Bromomethane	ND		0.0043
Chloroethane	ND		0.0043
Trichlorofluoromethane	ND		0.0043
1,1-Dichloroethene	ND		0.0043
Acetone	ND		0.0086
Carbon disulfide	ND		0.0043
Methylene chloride	0.014	C	0.0043
trans-1,2-Dichloroethene	ND		0.0043
Methyl tert-butyl ether (MTBE)	ND		0.0043
1,1-Dichloroethane	ND		0.0043
cis-1,2-Dichloroethene	ND		0.0043
2-Butanone (MEK)	ND		0.0086
Bromochloromethane	ND		0.0043
Chloroform	0.00174	J	0.0043
1,1,1-Trichloroethane	ND		0.0043
Carbon tetrachloride	ND		0.0043
1,2-Dichloroethane (EDC)	ND		0.0043
Benzene	ND		0.0043
Trichloroethene	ND		0.0043
1,2-Dichloropropane	ND		0.0043
Bromodichloromethane	ND		0.0043
cis-1,3-Dichloropropene	ND		0.0043
4-Methyl-2-pentanone (MIBK)	ND		0.0086

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-004
Client ID: TP5-2/5.67-6.17
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5023.D

GC/MS Column: DB-624
Sample wt/vol: 5.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.9
% Moisture: 46.1

Compound	Concentration	Q	MDL
Toluene	ND		0.0043
trans-1,3-Dichloropropene	ND		0.0043
1,1,2-Trichloroethane	ND		0.0043
Tetrachloroethene	ND		0.0043
2-Hexanone	ND		0.0086
Dibromochloromethane	ND		0.0043
1,2-Dibromoethane (EDB)	ND		0.0043
Chlorobenzene	ND		0.0043
Ethylbenzene	ND		0.0043
Total Xylenes	ND		0.0043
Styrene	ND		0.0043
Bromoform	ND		0.0043
Isopropylbenzene	ND		0.0043
1,1,2,2-Tetrachloroethane	ND		0.0043
1,3-Dichlorobenzene	ND		0.0043
1,4-Dichlorobenzene	ND		0.0043
1,2-Dichlorobenzene	ND		0.0043
1,2-Dibromo-3-chloropropane	ND		0.0043
1,2,4-Trichlorobenzene	ND		0.0043
1,2,3-Trichlorobenzene	ND		0.0043
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0043
Methyl acetate	ND		0.0043
Cyclohexane	ND		0.0043
Methylcyclohexane	ND		0.0043
Total Target Compounds:	0.015	JC	

0024

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-004
Client ID: TP5-2/5.67-6.17
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Date File: F5023.D

GC/MS Column: DB-624
Sample wt/vol: 5.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.9
% Moisture: 46.1

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	0.121	15.67
	Unknown alkane	0.086	15.75
	Substituted benzene	0.130	16.30
	Unknown alkane	0.150	16.67
	Unknown alkane	0.089	16.91
	Substituted benzene	0.157	17.00
	Unknown	0.232	17.16
	Unknown	0.309	17.81
	Unknown	0.105	18.17
	Unknown	0.247	18.27

Total TICs = 1.63

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-005
Client ID: TP2-1/2-2.5
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5019.D

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.3
% Moisture: 16.5

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.00395
Chloromethane	ND		0.00395
Vinyl chloride	ND		0.00395
Bromomethane	ND		0.00395
Chloroethane	ND		0.00395
Trichlorofluoromethane	ND		0.00395
1,1-Dichloroethene	ND		0.00395
Acetone	ND		0.0079
Carbon disulfide	ND		0.00395
Methylene chloride	0.00817	C	0.00395
trans-1,2-Dichloroethene	ND		0.00395
Methyl tert-butyl ether (MTBE)	ND		0.00395
1,1-Dichloroethane	ND		0.00395
cis-1,2-Dichloroethene	ND		0.00395
2-Butanone (MEK)	ND		0.0079
Bromochloromethane	ND		0.00395
Chloroform	ND		0.00395
1,1,1-Trichloroethane	ND		0.00395
Carbon tetrachloride	ND		0.00395
1,2-Dichloroethane (EDC)	ND		0.00395
Benzene	ND		0.00395
Trichloroethene	ND		0.00395
1,2-Dichloropropane	ND		0.00395
Bromodichloromethane	ND		0.00395
cis-1,3-Dichloropropene	ND		0.00395
4-Methyl-2-pentanone (MIBK)	ND		0.0079

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-005
Client ID: TP2-1/2-2.5
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5019.D

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.3
% Moisture: 16.5

Compound	Concentration	Q	MDL
Toluene	ND		0.00395
trans-1,3-Dichloropropene	ND		0.00395
1,1,2-Trichloroethane	ND		0.00395
Tetrachloroethene	ND		0.00395
2-Hexanone	ND		0.0079
Dibromochloromethane	ND		0.00395
1,2-Dibromoethane (EDB)	ND		0.00395
Chlorobenzene	ND		0.00395
Ethylbenzene	ND		0.00395
Total Xylenes	ND		0.00395
Styrene	ND		0.00395
Bromoform	ND		0.00395
Isopropylbenzene	ND		0.00395
1,1,2,2-Tetrachloroethane	ND		0.00395
1,3-Dichlorobenzene	ND		0.00395
1,4-Dichlorobenzene	ND		0.00395
1,2-Dichlorobenzene	ND		0.00395
1,2-Dibromo-3-chloropropane	ND		0.00395
1,2,4-Trichlorobenzene	ND		0.00395
1,2,3-Trichlorobenzene	ND		0.00395
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00395
Methyl acetate	ND		0.00395
Cyclohexane	ND		0.00395
Methylcyclohexane	ND		0.00395
Total Target Compounds:	0.00817	C	

0027

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-005
Client ID: TP2-1/2-2.5
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Date File: F5019.D

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.3
% Moisture: 16.5

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-006
Client ID: TP2-2/3-3.5
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5025.D

GC/MS Column: DB-624
Sample wt/vol: 7.2g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.7
% Moisture: 13.5

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.002
Chloromethane	ND		0.002
Vinyl chloride	ND		0.002
Bromomethane	ND		0.002
Chloroethane	ND		0.002
Trichlorofluoromethane	ND		0.002
1,1-Dichloroethene	ND		0.002
Acetone	ND		0.004
Carbon disulfide	ND		0.002
Methylene chloride	0.00384	C	0.002
trans-1,2-Dichloroethene	ND		0.002
Methyl tert-butyl ether (MTBE)	ND		0.002
1,1-Dichloroethane	ND		0.002
cis-1,2-Dichloroethene	ND		0.002
2-Butanone (MEK)	ND		0.004
Bromochloromethane	ND		0.002
Chloroform	ND		0.002
1,1,1-Trichloroethane	ND		0.002
Carbon tetrachloride	ND		0.002
1,2-Dichloroethane (EDC)	ND		0.002
Benzene	ND		0.002
Trichloroethene	ND		0.002
1,2-Dichloropropane	ND		0.002
Bromodichloromethane	ND		0.002
cis-1,3-Dichloropropene	ND		0.002
4-Methyl-2-pentanone (MIBK)	ND		0.004

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-006
Client ID: TP2-2/3-3.5
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5025.D

GC/MS Column: DB-624
Sample wt/vol: 7.2g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.7
% Moisture: 13.5

Compound	Concentration	Q	MDL
Toluene	ND		0.002
trans-1,3-Dichloropropene	ND		0.002
1,1,2-Trichloroethane	ND		0.002
Tetrachloroethene	ND		0.002
2-Hexanone	ND		0.004
Dibromochloromethane	ND		0.002
1,2-Dibromoethane (EDB)	ND		0.002
Chlorobenzene	ND		0.002
Ethylbenzene	ND		0.002
Total Xylenes	ND		0.002
Styrene	ND		0.002
Bromoform	ND		0.002
Isopropylbenzene	ND		0.002
1,1,2,2-Tetrachloroethane	ND		0.002
1,3-Dichlorobenzene	ND		0.002
1,4-Dichlorobenzene	ND		0.002
1,2-Dichlorobenzene	ND		0.002
1,2-Dibromo-3-chloropropane	ND		0.002
1,2,4-Trichlorobenzene	ND		0.002
1,2,3-Trichlorobenzene	ND		0.002
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.002
Methyl acetate	ND		0.002
Cyclohexane	ND		0.002
Methylcyclohexane	ND		0.002
Total Target Compounds:	0.00384	C	

0030

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-006
Client ID: TP2-2/3-3.5
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Date File: F5025.D

GC/MS Column: DB-624
Sample wt/vol: 7.2g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.7
% Moisture: 13.5

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-007
Client ID: TP1/4-4.5
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5021.D

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.3
% Moisture: 25.4

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.0044
Chloromethane	ND		0.0044
Vinyl chloride	ND		0.0044
Bromomethane	ND		0.0044
Chloroethane	ND		0.0044
Trichlorofluoromethane	ND		0.0044
1,1-Dichloroethene	ND		0.0044
Acetone	ND		0.0088
Carbon disulfide	ND		0.0044
Methylene chloride	0.018	C	0.0044
trans-1,2-Dichloroethene	ND		0.0044
Methyl tert-butyl ether (MTBE)	ND		0.0044
1,1-Dichloroethane	ND		0.0044
cis-1,2-Dichloroethene	ND		0.0044
2-Butanone (MEK)	ND		0.0088
Bromochloromethane	ND		0.0044
Chloroform	0.00241	J	0.0044
1,1,1-Trichloroethane	ND		0.0044
Carbon tetrachloride	ND		0.0044
1,2-Dichloroethane (EDC)	ND		0.0044
Benzene	ND		0.0044
Trichloroethene	ND		0.0044
1,2-Dichloropropane	ND		0.0044
Bromodichloromethane	ND		0.0044
cis-1,3-Dichloropropene	ND		0.0044
4-Methyl-2-pentanone (MIBK)	ND		0.0088

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-007
Client ID: TP1/4-4.5
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5021.D

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.3
% Moisture: 25.4

Compound	Concentration	Q	MDL
Toluene	ND		0.0044
trans-1,3-Dichloropropene	ND		0.0044
1,1,2-Trichloroethane	ND		0.0044
Tetrachloroethene	ND		0.0044
2-Hexanone	ND		0.0088
Dibromochloromethane	ND		0.0044
1,2-Dibromoethane (EDB)	ND		0.0044
Chlorobenzene	ND		0.0044
Ethylbenzene	ND		0.0044
Total Xylenes	ND		0.0044
Styrene	ND		0.0044
Bromoform	ND		0.0044
Isopropylbenzene	ND		0.0044
1,1,2,2-Tetrachloroethane	ND		0.0044
1,3-Dichlorobenzene	ND		0.0044
1,4-Dichlorobenzene	ND		0.0044
1,2-Dichlorobenzene	ND		0.0044
1,2-Dibromo-3-chloropropane	ND		0.0044
1,2,4-Trichlorobenzene	ND		0.0044
1,2,3-Trichlorobenzene	ND		0.0044
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0044
Methyl acetate	ND		0.0044
Cyclohexane	ND		0.0044
Methylcyclohexane	ND		0.0044
Total Target Compounds:	0.020	JC	

0033

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-007
Client ID: TP1/4-4.5
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Date File: F5021.D

GC/MS Column: DB-624
Sample wt/vol: 3.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.3
% Moisture: 25.4

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-008
Client ID: TP6/4.58-5.08
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5022.D

GC/MS Column: DB-624
Sample wt/vol: 5.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.9
% Moisture: 20.2

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.0029
Chloromethane	ND		0.0029
Vinyl chloride	ND		0.0029
Bromomethane	ND		0.0029
Chloroethane	ND		0.0029
Trichlorofluoromethane	ND		0.0029
1,1-Dichloroethene	ND		0.0029
Acetone	ND		0.0058
Carbon disulfide	ND		0.0029
Methylene chloride	0.00556	C	0.0029
trans-1,2-Dichloroethene	ND		0.0029
Methyl tert-butyl ether (MTBE)	ND		0.0029
1,1-Dichloroethane	ND		0.0029
cis-1,2-Dichloroethene	ND		0.0029
2-Butanone (MEK)	ND		0.0058
Bromochloromethane	ND		0.0029
Chloroform	ND		0.0029
1,1,1-Trichloroethane	ND		0.0029
Carbon tetrachloride	ND		0.0029
1,2-Dichloroethane (EDC)	ND		0.0029
Benzene	ND		0.0029
Trichloroethene	ND		0.0029
1,2-Dichloropropane	ND		0.0029
Bromodichloromethane	ND		0.0029
cis-1,3-Dichloropropene	ND		0.0029
4-Methyl-2-pentanone (MIBK)	ND		0.0058

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-008
Client ID: TP6/4.58-5.08
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Data file: F5022.D

GC/MS Column: DB-624
Sample wt/vol: 5.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.9
% Moisture: 20.2

Compound	Concentration	Q	MDL
Toluene	ND		0.0029
trans-1,3-Dichloropropene	ND		0.0029
1,1,2-Trichloroethane	ND		0.0029
Tetrachloroethene	ND		0.0029
2-Hexanone	ND		0.0058
Dibromochloromethane	ND		0.0029
1,2-Dibromoethane (EDB)	ND		0.0029
Chlorobenzene	ND		0.0029
Ethylbenzene	ND		0.0029
Total Xylenes	ND		0.0029
Styrene	ND		0.0029
Bromoform	ND		0.0029
Isopropylbenzene	ND		0.0029
1,1,2,2-Tetrachloroethane	ND		0.0029
1,3-Dichlorobenzene	ND		0.0029
1,4-Dichlorobenzene	ND		0.0029
1,2-Dichlorobenzene	ND		0.0029
1,2-Dibromo-3-chloropropane	ND		0.0029
1,2,4-Trichlorobenzene	ND		0.0029
1,2,3-Trichlorobenzene	ND		0.0029
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0029
Methyl acetate	ND		0.0029
Cyclohexane	ND		0.0029
Methylcyclohexane	ND		0.0029
Total Target Compounds:	0.00556	C	

0036

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-008
Client ID: TP6/4.58-5.08
Date Received: 11/10/2009
Date Analyzed: 11/10/2009
Date File: F5022.D

GC/MS Column: DB-624
Sample wt/vol: 5.4g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.9
% Moisture: 20.2

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-002
Client ID: TP7/4.25-4.7
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7403.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.2

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.082
Phenol	ND		0.082
Bis(2-chloroethyl) ether	ND		0.082
2-Chlorophenol	ND		0.082
2-Methylphenol	ND		0.082
Bis(2-chloroisopropyl) ether	ND		0.082
4-Methylphenol	ND		0.082
N-Nitrosodi-n-propylamine	ND		0.082
Acetophenone	ND		0.082
Hexachloroethane	ND		0.082
Nitrobenzene	ND		0.082
Isophorone	ND		0.082
2-Nitrophenol	ND		0.082
2,4-Dimethylphenol	ND		0.082
Bis(2-chloroethoxy) methane	ND		0.082
2,4-Dichlorophenol	ND		0.082
Naphthalene	ND		0.082
4-Chloroaniline	ND		0.082
Hexachlorobutadiene	ND		0.082
Caprolactam	ND		0.082
4-Chloro-3-methylphenol	ND		0.082
2-Methylnaphthalene	ND		0.082
Hexachlorocyclopentadiene	ND		0.082
2,4,6-Trichlorophenol	ND		0.082
2,4,5-Trichlorophenol	ND		0.082
1,1'-Biphenyl	ND		0.082
2-Chloronaphthalene	ND		0.082
2-Nitroaniline	ND		0.082
Dimethyl phthalate	ND		0.082

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-002
Client ID: TP7/4.25-4.7
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7403.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.2

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.082
Acenaphthylene	ND		0.082
3-Nitroaniline	ND		0.082
Acenaphthene	ND		0.082
2,4-Dinitrophenol	ND		0.082
4-Nitrophenol	ND		0.082
2,4-Dinitrotoluene	ND		0.082
Dibenzofuran	ND		0.082
Diethyl phthalate	ND		0.082
Fluorene	ND		0.082
4-Chlorophenyl phenyl ether	ND		0.082
4-Nitroaniline	ND		0.082
1,2,4,5-Tetrachlorobenzene	ND		0.082
4,6-Dinitro-2-methylphenol	ND		0.082
N-Nitrosodiphenylamine	ND		0.082
4-Bromophenyl phenyl ether	ND		0.082
Hexachlorobenzene	ND		0.082
Atrazine	ND		0.082
Pentachlorophenol	ND		0.082
Phenanthrene	ND		0.082
Anthracene	ND		0.082
Carbazole	ND		0.082
Di-n-butyl phthalate	ND		0.082
Fluoranthene	ND		0.082
Pyrene	ND		0.082
Butyl benzyl phthalate	ND		0.082
3,3'-Dichlorobenzidine	ND		0.082
Benzo[a]anthracene	ND		0.082
Chrysene	ND		0.082
Bis(2-ethylhexyl) phthalate	ND		0.082
Di-n-octyl phthalate	ND		0.082
Benzo[b]fluoranthene	ND		0.082
Benzo[k]fluoranthene	ND		0.082
Benzo[a]pyrene	ND		0.082
Indeno[1,2,3-cd]pyrene	ND		0.082
Dibenz[a,h]anthracene	ND		0.082
Benzo[g,h,i]perylene	ND		0.082

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-002
Client ID: TP7/4.25-4.7
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Date File: C7403.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.2

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-003
Client ID: TP5-1/3.17-3
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7404.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 38.6

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.109
Phenol	ND		0.109
Bis(2-chloroethyl) ether	ND		0.109
2-Chlorophenol	ND		0.109
2-Methylphenol	ND		0.109
Bis(2-chloroisopropyl) ether	ND		0.109
4-Methylphenol	ND		0.109
N-Nitrosodi-n-propylamine	ND		0.109
Acetophenone	ND		0.109
Hexachloroethane	ND		0.109
Nitrobenzene	ND		0.109
Isophorone	ND		0.109
2-Nitrophenol	ND		0.109
2,4-Dimethylphenol	ND		0.109
Bis(2-chloroethoxy) methane	ND		0.109
2,4-Dichlorophenol	ND		0.109
Naphthalene	ND		0.109
4-Chloroaniline	ND		0.109
Hexachlorobutadiene	ND		0.109
Caprolactam	ND		0.109
4-Chloro-3-methylphenol	ND		0.109
2-Methylnaphthalene	ND		0.109
Hexachlorocyclopentadiene	ND		0.109
2,4,6-Trichlorophenol	ND		0.109
2,4,5-Trichlorophenol	ND		0.109
1,1'-Biphenyl	ND		0.109
2-Chloronaphthalene	ND		0.109
2-Nitroaniline	ND		0.109
Dimethyl phthalate	ND		0.109

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-003
Client ID: TP5-1/3.17-3
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7404.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 38.6

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.109
Acenaphthylene	ND		0.109
3-Nitroaniline	ND		0.109
Acenaphthene	ND		0.109
2,4-Dinitrophenol	ND		0.109
4-Nitrophenol	ND		0.109
2,4-Dinitrotoluene	ND		0.109
Dibenzofuran	ND		0.109
Diethyl phthalate	ND		0.109
Fluorene	ND		0.109
4-Chlorophenyl phenyl ether	ND		0.109
4-Nitroaniline	ND		0.109
1,2,4,5-Tetrachlorobenzene	ND		0.109
4,6-Dinitro-2-methylphenol	ND		0.109
N-Nitrosodiphenylamine	ND		0.109
4-Bromophenyl phenyl ether	ND		0.109
Hexachlorobenzene	ND		0.109
Atrazine	ND		0.109
Pentachlorophenol	ND		0.109
Phenanthrene	ND		0.109
Anthracene	ND		0.109
Carbazole	ND		0.109
Di-n-butyl phthalate	ND		0.109
Fluoranthene	ND		0.109
Pyrene	ND		0.109
Butyl benzyl phthalate	ND		0.109
3,3'-Dichlorobenzidine	ND		0.109
Benzo[a]anthracene	ND		0.109
Chrysene	ND		0.109
Bis(2-ethylhexyl) phthalate	ND		0.109
Di-n-octyl phthalate	ND		0.109
Benzo[b]fluoranthene	ND		0.109
Benzo[k]fluoranthene	ND		0.109
Benzo[a]pyrene	ND		0.109
Indeno[1,2,3-cd]pyrene	ND		0.109
Dibenz[a,h]anthracene	ND		0.109
Benzo[g,h,i]perylene	ND		0.109

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-003
Client ID: TP5-1/3.17-3
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Date File: C7404.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 38.6

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-004
Client ID: TP5-2/5.67-6
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7405.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 46.1

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.124
Phenol	ND		0.124
Bis(2-chloroethyl) ether	ND		0.124
2-Chlorophenol	ND		0.124
2-Methylphenol	ND		0.124
Bis(2-chloroisopropyl) ether	ND		0.124
4-Methylphenol	ND		0.124
N-Nitrosodi-n-propylamine	ND		0.124
Acetophenone	ND		0.124
Hexachloroethane	ND		0.124
Nitrobenzene	ND		0.124
Isophorone	ND		0.124
2-Nitrophenol	ND		0.124
2,4-Dimethylphenol	ND		0.124
Bis(2-chloroethoxy) methane	ND		0.124
2,4-Dichlorophenol	ND		0.124
Naphthalene	ND		0.124
4-Chloroaniline	ND		0.124
Hexachlorobutadiene	ND		0.124
Caprolactam	ND		0.124
4-Chloro-3-methylphenol	ND		0.124
2-Methylnaphthalene	ND		0.124
Hexachlorocyclopentadiene	ND		0.124
2,4,6-Trichlorophenol	ND		0.124
2,4,5-Trichlorophenol	ND		0.124
1,1'-Biphenyl	ND		0.124
2-Chloronaphthalene	ND		0.124
2-Nitroaniline	ND		0.124
Dimethyl phthalate	ND		0.124

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-004
Client ID: TP5-2/5.67-6
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7405.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 46.1

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.124
Acenaphthylene	ND		0.124
3-Nitroaniline	ND		0.124
Acenaphthene	ND		0.124
2,4-Dinitrophenol	ND		0.124
4-Nitrophenol	ND		0.124
2,4-Dinitrotoluene	ND		0.124
Dibenzofuran	ND		0.124
Diethyl phthalate	ND		0.124
Fluorene	ND		0.124
4-Chlorophenyl phenyl ether	ND		0.124
4-Nitroaniline	ND		0.124
1,2,4,5-Tetrachlorobenzene	ND		0.124
4,6-Dinitro-2-methylphenol	ND		0.124
N-Nitrosodiphenylamine	ND		0.124
4-Bromophenyl phenyl ether	ND		0.124
Hexachlorobenzene	ND		0.124
Atrazine	ND		0.124
Pentachlorophenol	ND		0.124
Phenanthrene	ND		0.124
Anthracene	ND		0.124
Carbazole	ND		0.124
Di-n-butyl phthalate	ND		0.124
Fluoranthene	ND		0.124
Pyrene	ND		0.124
Butyl benzyl phthalate	ND		0.124
3,3'-Dichlorobenzidine	ND		0.124
Benzo[a]anthracene	ND		0.124
Chrysene	ND		0.124
Bis(2-ethylhexyl) phthalate	ND		0.124
Di-n-octyl phthalate	ND		0.124
Benzo[b]fluoranthene	ND		0.124
Benzo[k]fluoranthene	ND		0.124
Benzo[a]pyrene	ND		0.124
Indeno[1,2,3-cd]pyrene	ND		0.124
Dibenz[a,h]anthracene	ND		0.124
Benzo[g,h,i]perylene	ND		0.124

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-004
Client ID: TP5-2/5.67-6
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Date File: C7405.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 46.1

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-005
Client ID: TP2-1/2-2.5
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7406.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.5

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.080
Phenol	ND		0.080
Bis(2-chloroethyl) ether	ND		0.080
2-Chlorophenol	ND		0.080
2-Methylphenol	ND		0.080
Bis(2-chloroisopropyl) ether	ND		0.080
4-Methylphenol	ND		0.080
N-Nitrosodi-n-propylamine	ND		0.080
Acetophenone	ND		0.080
Hexachloroethane	ND		0.080
Nitrobenzene	ND		0.080
Isophorone	ND		0.080
2-Nitrophenol	ND		0.080
2,4-Dimethylphenol	ND		0.080
Bis(2-chloroethoxy) methane	ND		0.080
2,4-Dichlorophenol	ND		0.080
Naphthalene	ND		0.080
4-Chloroaniline	ND		0.080
Hexachlorobutadiene	ND		0.080
Caprolactam	ND		0.080
4-Chloro-3-methylphenol	ND		0.080
2-Methylnaphthalene	ND		0.080
Hexachlorocyclopentadiene	ND		0.080
2,4,6-Trichlorophenol	ND		0.080
2,4,5-Trichlorophenol	ND		0.080
1,1'-Biphenyl	ND		0.080
2-Chloronaphthalene	ND		0.080
2-Nitroaniline	ND		0.080
Dimethyl phthalate	ND		0.080

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-005
Client ID: TP2-1/2-2.5
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7406.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.5

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.080
Acenaphthylene	ND		0.080
3-Nitroaniline	ND		0.080
Acenaphthene	ND		0.080
2,4-Dinitrophenol	ND		0.080
4-Nitrophenol	ND		0.080
2,4-Dinitrotoluene	ND		0.080
Dibenzofuran	ND		0.080
Diethyl phthalate	ND		0.080
Fluorene	ND		0.080
4-Chlorophenyl phenyl ether	ND		0.080
4-Nitroaniline	ND		0.080
1,2,4,5-Tetrachlorobenzene	ND		0.080
4,6-Dinitro-2-methylphenol	ND		0.080
N-Nitrosodiphenylamine	ND		0.080
4-Bromophenyl phenyl ether	ND		0.080
Hexachlorobenzene	ND		0.080
Atrazine	ND		0.080
Pentachlorophenol	ND		0.080
Phenanthrene	ND		0.080
Anthracene	ND		0.080
Carbazole	ND		0.080
Di-n-butyl phthalate	ND		0.080
Fluoranthene	ND		0.080
Pyrene	ND		0.080
Butyl benzyl phthalate	ND		0.080
3,3'-Dichlorobenzidine	ND		0.080
Benzo[a]anthracene	ND		0.080
Chrysene	ND		0.080
Bis(2-ethylhexyl) phthalate	ND		0.080
Di-n-octyl phthalate	ND		0.080
Benzo[b]fluoranthene	ND		0.080
Benzo[k]fluoranthene	ND		0.080
Benzo[a]pyrene	ND		0.080
Indeno[1,2,3-cd]pyrene	ND		0.080
Dibenz[a,h]anthracene	ND		0.080
Benzo[g,h,i]perylene	ND		0.080

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-005
Client ID: TP2-1/2-2.5
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Date File: C7406.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.5

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-006
Client ID: TP2-2/3-3.5
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7407.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.5

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.077
Phenol	ND		0.077
Bis(2-chloroethyl) ether	ND		0.077
2-Chlorophenol	ND		0.077
2-Methylphenol	ND		0.077
Bis(2-chloroisopropyl) ether	ND		0.077
4-Methylphenol	ND		0.077
N-Nitrosodi-n-propylamine	ND		0.077
Acetophenone	ND		0.077
Hexachloroethane	ND		0.077
Nitrobenzene	ND		0.077
Isophorone	ND		0.077
2-Nitrophenol	ND		0.077
2,4-Dimethylphenol	ND		0.077
Bis(2-chloroethoxy) methane	ND		0.077
2,4-Dichlorophenol	ND		0.077
Naphthalene	ND		0.077
4-Chloroaniline	ND		0.077
Hexachlorobutadiene	ND		0.077
Caprolactam	ND		0.077
4-Chloro-3-methylphenol	ND		0.077
2-Methylnaphthalene	ND		0.077
Hexachlorocyclopentadiene	ND		0.077
2,4,6-Trichlorophenol	ND		0.077
2,4,5-Trichlorophenol	ND		0.077
1,1'-Biphenyl	ND		0.077
2-Chloronaphthalene	ND		0.077
2-Nitroaniline	ND		0.077
Dimethyl phthalate	ND		0.077

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-006
Client ID: TP2-2/3-3.5
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7407.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.5

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.077
Acenaphthylene	ND		0.077
3-Nitroaniline	ND		0.077
Acenaphthene	ND		0.077
2,4-Dinitrophenol	ND		0.077
4-Nitrophenol	ND		0.077
2,4-Dinitrotoluene	ND		0.077
Dibenzofuran	ND		0.077
Diethyl phthalate	ND		0.077
Fluorene	ND		0.077
4-Chlorophenyl phenyl ether	ND		0.077
4-Nitroaniline	ND		0.077
1,2,4,5-Tetrachlorobenzene	ND		0.077
4,6-Dinitro-2-methylphenol	ND		0.077
N-Nitrosodiphenylamine	ND		0.077
4-Bromophenyl phenyl ether	ND		0.077
Hexachlorobenzene	ND		0.077
Atrazine	ND		0.077
Pentachlorophenol	ND		0.077
Phenanthrene	ND		0.077
Anthracene	ND		0.077
Carbazole	ND		0.077
Di-n-butyl phthalate	ND		0.077
Fluoranthene	ND		0.077
Pyrene	ND		0.077
Butyl benzyl phthalate	ND		0.077
3,3'-Dichlorobenzidine	ND		0.077
Benzo[a]anthracene	ND		0.077
Chrysene	ND		0.077
Bis(2-ethylhexyl) phthalate	ND		0.077
Di-n-octyl phthalate	ND		0.077
Benzo[b]fluoranthene	ND		0.077
Benzo[k]fluoranthene	ND		0.077
Benzo[a]pyrene	ND		0.077
Indeno[1,2,3-cd]pyrene	ND		0.077
Dibenz[a,h]anthracene	ND		0.077
Benzo[g,h,i]perylene	ND		0.077

Total Target Compounds: 0

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-006
Client ID: TP2-2/3-3.5
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Date File: C7407.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.5

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-007
Client ID: TP1/4-4.5
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7408.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.4

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.089
Phenol	ND		0.089
Bis(2-chloroethyl) ether	ND		0.089
2-Chlorophenol	ND		0.089
2-Methylphenol	ND		0.089
Bis(2-chloroisopropyl) ether	ND		0.089
4-Methylphenol	ND		0.089
N-Nitrosodi-n-propylamine	ND		0.089
Acetophenone	ND		0.089
Hexachloroethane	ND		0.089
Nitrobenzene	ND		0.089
Isophorone	ND		0.089
2-Nitrophenol	ND		0.089
2,4-Dimethylphenol	ND		0.089
Bis(2-chloroethoxy) methane	ND		0.089
2,4-Dichlorophenol	ND		0.089
Naphthalene	ND		0.089
4-Chloroaniline	ND		0.089
Hexachlorobutadiene	ND		0.089
Caprolactam	ND		0.089
4-Chloro-3-methylphenol	ND		0.089
2-Methylnaphthalene	ND		0.089
Hexachlorocyclopentadiene	ND		0.089
2,4,6-Trichlorophenol	ND		0.089
2,4,5-Trichlorophenol	ND		0.089
1,1'-Biphenyl	ND		0.089
2-Chloronaphthalene	ND		0.089
2-Nitroaniline	ND		0.089
Dimethyl phthalate	ND		0.089

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-007
Client ID: TP1/4-4.5
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7408.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.4

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.089
Acenaphthylene	ND		0.089
3-Nitroaniline	ND		0.089
Acenaphthene	ND		0.089
2,4-Dinitrophenol	ND		0.089
4-Nitrophenol	ND		0.089
2,4-Dinitrotoluene	ND		0.089
Dibenzofuran	ND		0.089
Diethyl phthalate	ND		0.089
Fluorene	ND		0.089
4-Chlorophenyl phenyl ether	ND		0.089
4-Nitroaniline	ND		0.089
1,2,4,5-Tetrachlorobenzene	ND		0.089
4,6-Dinitro-2-methylphenol	ND		0.089
N-Nitrosodiphenylamine	ND		0.089
4-Bromophenyl phenyl ether	ND		0.089
Hexachlorobenzene	ND		0.089
Atrazine	ND		0.089
Pentachlorophenol	ND		0.089
Phenanthrene	ND		0.089
Anthracene	ND		0.089
Carbazole	ND		0.089
Di-n-butyl phthalate	ND		0.089
Fluoranthene	ND		0.089
Pyrene	ND		0.089
Butyl benzyl phthalate	ND		0.089
3,3'-Dichlorobenzidine	ND		0.089
Benzo[a]anthracene	ND		0.089
Chrysene	ND		0.089
Bis(2-ethylhexyl) phthalate	ND		0.089
Di-n-octyl phthalate	ND		0.089
Benzo[b]fluoranthene	ND		0.089
Benzo[k]fluoranthene	ND		0.089
Benzo[a]pyrene	ND		0.089
Indeno[1,2,3-cd]pyrene	ND		0.089
Dibenz[a,h]anthracene	ND		0.089
Benzo[g,h,i]perylene	ND		0.089

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-007
Client ID: TP1/4-4.5
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Date File: C7408.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.4

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-008
Client ID: TP6/4.58-5.0
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7409.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 20.2

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.083
Phenol	ND		0.083
Bis(2-chloroethyl) ether	ND		0.083
2-Chlorophenol	ND		0.083
2-Methylphenol	ND		0.083
Bis(2-chloroisopropyl) ether	ND		0.083
4-Methylphenol	ND		0.083
N-Nitrosodi-n-propylamine	ND		0.083
Acetophenone	ND		0.083
Hexachloroethane	ND		0.083
Nitrobenzene	ND		0.083
Isophorone	ND		0.083
2-Nitrophenol	ND		0.083
2,4-Dimethylphenol	ND		0.083
Bis(2-chloroethoxy) methane	ND		0.083
2,4-Dichlorophenol	ND		0.083
Naphthalene	ND		0.083
4-Chloroaniline	ND		0.083
Hexachlorobutadiene	ND		0.083
Caprolactam	ND		0.083
4-Chloro-3-methylphenol	ND		0.083
2-Methylnaphthalene	ND		0.083
Hexachlorocyclopentadiene	ND		0.083
2,4,6-Trichlorophenol	ND		0.083
2,4,5-Trichlorophenol	ND		0.083
1,1'-Biphenyl	ND		0.083
2-Chloronaphthalene	ND		0.083
2-Nitroaniline	ND		0.083
Dimethyl phthalate	ND		0.083

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-008
Client ID: TP6/4.58-5.0
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7409.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 20.2

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.083
Acenaphthylene	ND		0.083
3-Nitroaniline	ND		0.083
Acenaphthene	ND		0.083
2,4-Dinitrophenol	ND		0.083
4-Nitrophenol	ND		0.083
2,4-Dinitrotoluene	ND		0.083
Dibenzofuran	ND		0.083
Diethyl phthalate	ND		0.083
Fluorene	ND		0.083
4-Chlorophenyl phenyl ether	ND		0.083
4-Nitroaniline	ND		0.083
1,2,4,5-Tetrachlorobenzene	ND		0.083
4,6-Dinitro-2-methylphenol	ND		0.083
N-Nitrosodiphenylamine	ND		0.083
4-Bromophenyl phenyl ether	ND		0.083
Hexachlorobenzene	ND		0.083
Atrazine	ND		0.083
Pentachlorophenol	ND		0.083
Phenanthrene	ND		0.083
Anthracene	ND		0.083
Carbazole	ND		0.083
Di-n-butyl phthalate	ND		0.083
Fluoranthene	ND		0.083
Pyrene	ND		0.083
Butyl benzyl phthalate	ND		0.083
3,3'-Dichlorobenzidine	ND		0.083
Benzo[a]anthracene	ND		0.083
Chrysene	ND		0.083
Bis(2-ethylhexyl) phthalate	ND		0.083
Di-n-octyl phthalate	ND		0.083
Benzo[b]fluoranthene	ND		0.083
Benzo[k]fluoranthene	ND		0.083
Benzo[a]pyrene	ND		0.083
Indeno[1,2,3-cd]pyrene	ND		0.083
Dibenz[a,h]anthracene	ND		0.083
Benzo[g,h,i]perylene	ND		0.083

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-008
Client ID: TP6/4.58-5.0
Date Received: 11/10/2009
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Date File: C7409.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 20.2

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-002
Client ID: TP7/4.25-4
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: R8102.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.2

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.000816
Aroclor-1221	ND		0.000816
Aroclor-1232	ND		0.000816
Aroclor-1242	ND		0.000816
Aroclor-1248	ND		0.000816
Aroclor-1254	ND		0.000816
Aroclor-1260	ND		0.000816
Total PCBs:	ND		

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-003
Client ID: TP5-1/3.17
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/17/2009
Data file: R8090.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 38.6

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.00108
Aroclor-1221	ND		0.00108
Aroclor-1232	ND		0.00108
Aroclor-1242	ND		0.00108
Aroclor-1248	ND		0.00108
Aroclor-1254	ND		0.00108
Aroclor-1260	ND		0.00108
Total PCBs:	ND		

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-004
Client ID: TP5-2/5.67
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/17/2009
Data file: R8091.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 46.1

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.00124
Aroclor-1221	ND		0.00124
Aroclor-1232	ND		0.00124
Aroclor-1242	ND		0.00124
Aroclor-1248	ND		0.00124
Aroclor-1254	ND		0.00124
Aroclor-1260	ND		0.00124
Total PCBs:	ND		

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-005
Client ID: TP2-1/2-2.
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: R8103.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.5

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.0008
Aroclor-1221	ND		0.0008
Aroclor-1232	ND		0.0008
Aroclor-1242	ND		0.0008
Aroclor-1248	ND		0.0008
Aroclor-1254	ND		0.0008
Aroclor-1260	ND		0.0008
Total PCBs:	ND		

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-006
Client ID: TP2-2/3-3.
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/17/2009
Data file: R8093.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.5

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.000772
Aroclor-1221	ND		0.000772
Aroclor-1232	ND		0.000772
Aroclor-1242	ND		0.000772
Aroclor-1248	ND		0.000772
Aroclor-1254	ND		0.000772
Aroclor-1260	ND		0.000772
Total PCBs:	ND		

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-007
Client ID: TP1/4-4.5
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: R8104.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.4

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.000892
Aroclor-1221	ND		0.000892
Aroclor-1232	ND		0.000892
Aroclor-1242	ND		0.000892
Aroclor-1248	ND		0.000892
Aroclor-1254	ND		0.000892
Aroclor-1260	ND		0.000892
Total PCBs:	ND		

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-008
Client ID: TP6/4.58-5
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/17/2009
Data file: R8095.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 20.2

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.000836
Aroclor-1221	ND		0.000836
Aroclor-1232	ND		0.000836
Aroclor-1242	ND		0.000836
Aroclor-1248	ND		0.000836
Aroclor-1254	ND		0.000836
Aroclor-1260	ND		0.000836
Total PCBs:	ND		

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-002
Client ID: TP7/4.25-4
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: P5857.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.2

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000204
beta-BHC	ND		0.000204
gamma-BHC (Lindane)	ND		0.000204
delta-BHC	ND		0.000204
Heptachlor	ND		0.000204
Aldrin	ND		0.000204
Heptachlor epoxide	ND		0.000204
Endosulfan I	ND		0.000204
4,4'-DDE	ND		0.000204
Dieldrin	ND		0.000204
Endrin	ND		0.000204
Endosulfan II	ND		0.000204
4,4'-DDD	ND		0.000204
Endrin aldehyde	ND		0.000204
Endosulfan sulfate	ND		0.000204
4,4'-DDT	ND		0.000204
Endrin ketone	ND		0.000204
Methoxychlor	ND		0.000204
alpha-Chlordane	ND		0.000204
gamma-Chlordane	ND		0.000204
Toxaphene	ND		0.000612

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-003
Client ID: TP5-1/3.17
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: P5850.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 38.6

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000271
beta-BHC	ND		0.000271
gamma-BHC (Lindane)	ND		0.000271
delta-BHC	ND		0.000271
Heptachlor	ND		0.000271
Aldrin	ND		0.000271
Heptachlor epoxide	ND		0.000271
Endosulfan I	ND		0.000271
4,4'-DDE	ND		0.000271
Dieldrin	ND		0.000271
Endrin	ND		0.000271
Endosulfan II	ND		0.000271
4,4'-DDD	ND		0.000271
Endrin aldehyde	ND		0.000271
Endosulfan sulfate	ND		0.000271
4,4'-DDT	ND		0.000271
Endrin ketone	ND		0.000271
Methoxychlor	ND		0.000271
alpha-Chlordane	ND		0.000271
gamma-Chlordane	ND		0.000271
Toxaphene	ND		0.000813

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-004
Client ID: TP5-2/5.67
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: P5851.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 46.1

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000309
beta-BHC	ND		0.000309
gamma-BHC (Lindane)	ND		0.000309
delta-BHC	ND		0.000309
Heptachlor	ND		0.000309
Aldrin	ND		0.000309
Heptachlor epoxide	ND		0.000309
Endosulfan I	ND		0.000309
4,4'-DDE	ND		0.000309
Dieldrin	ND		0.000309
Endrin	ND		0.000309
Endosulfan II	ND		0.000309
4,4'-DDD	ND		0.000309
Endrin aldehyde	ND		0.000309
Endosulfan sulfate	ND		0.000309
4,4'-DDT	ND		0.000309
Endrin ketone	ND		0.000309
Methoxychlor	ND		0.000309
alpha-Chlordane	ND		0.000309
gamma-Chlordane	ND		0.000309
Toxaphene	ND		0.000927

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-005
Client ID: TP2-1/2-2.
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: P5852.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.5

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.0002
beta-BHC	ND		0.0002
gamma-BHC (Lindane)	ND		0.0002
delta-BHC	ND		0.0002
Heptachlor	ND		0.0002
Aldrin	ND		0.0002
Heptachlor epoxide	ND		0.0002
Endosulfan I	ND		0.0002
4,4'-DDE	ND		0.0002
Dieldrin	ND		0.0002
Endrin	ND		0.0002
Endosulfan II	ND		0.0002
4,4'-DDD	ND		0.0002
Endrin aldehyde	ND		0.0002
Endosulfan sulfate	ND		0.0002
4,4'-DDT	ND		0.0002
Endrin ketone	ND		0.0002
Methoxychlor	ND		0.0002
alpha-Chlordane	ND		0.0002
gamma-Chlordane	ND		0.0002
Toxaphene	ND		0.0006

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-006
Client ID: TP2-2/3-3.
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: P5853.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.5

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000193
beta-BHC	ND		0.000193
gamma-BHC (Lindane)	ND		0.000193
delta-BHC	ND		0.000193
Heptachlor	ND		0.000193
Aldrin	ND		0.000193
Heptachlor epoxide	ND		0.000193
Endosulfan I	ND		0.000193
4,4'-DDE	ND		0.000193
Dieldrin	ND		0.000193
Endrin	ND		0.000193
Endosulfan II	ND		0.000193
4,4'-DDD	ND		0.000193
Endrin aldehyde	ND		0.000193
Endosulfan sulfate	ND		0.000193
4,4'-DDT	ND		0.000193
Endrin ketone	ND		0.000193
Methoxychlor	ND		0.000193
alpha-Chlordane	ND		0.000193
gamma-Chlordane	ND		0.000193
Toxaphene	ND		0.000579

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-007
Client ID: TP1/4-4.5
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: P5854.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.4

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000223
beta-BHC	ND		0.000223
gamma-BHC (Lindane)	ND		0.000223
delta-BHC	ND		0.000223
Heptachlor	ND		0.000223
Aldrin	ND		0.000223
Heptachlor epoxide	ND		0.000223
Endosulfan I	ND		0.000223
4,4'-DDE	0.000491		0.000223
Dieldrin	ND		0.000223
Endrin	ND		0.000223
Endosulfan II	ND		0.000223
4,4'-DDD	ND		0.000223
Endrin aldehyde	ND		0.000223
Endosulfan sulfate	ND		0.000223
4,4'-DDT	0.0017		0.000223
Endrin ketone	ND		0.000223
Methoxychlor	ND		0.000223
alpha-Chlordane	ND		0.000223
gamma-Chlordane	ND		0.000223
Toxaphene	ND		0.000669

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-008
Client ID: TP6/4.58-5
Date Received: 11/10/2009
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: P5855.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 20.2

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000209
beta-BHC	ND		0.000209
gamma-BHC (Lindane)	ND		0.000209
delta-BHC	ND		0.000209
Heptachlor	ND		0.000209
Aldrin	ND		0.000209
Heptachlor epoxide	ND		0.000209
Endosulfan I	ND		0.000209
4,4'-DDE	ND		0.000209
Dieldrin	ND		0.000209
Endrin	ND		0.000209
Endosulfan II	ND		0.000209
4,4'-DDD	ND		0.000209
Endrin aldehyde	ND		0.000209
Endosulfan sulfate	ND		0.000209
4,4'-DDT	ND		0.000209
Endrin ketone	ND		0.000209
Methoxychlor	ND		0.000209
alpha-Chlordane	ND		0.000209
gamma-Chlordane	ND		0.000209
Toxaphene	ND		0.000627

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-002
Client ID: TP7/4.25
Date Received: 11/10/2009
Date Extracted: 11/12/2009
Date Analyzed: 11/12/2009
Data file: Z7244.D

GC Column: DB-5
Sample wt/vol: 10.72g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.2

Compound	Concentration	Q	MDL
Total TPHC	127		6.84

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-003
Client ID: TP5-1/3.
Date Received: 11/10/2009
Date Extracted: 11/12/2009
Date Analyzed: 11/12/2009
Data file: Z7245.D

GC Column: DB-5
Sample wt/vol: 10.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 38.6

Compound	Concentration	Q	MDL
Total TPHC	ND		9.72

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-004
Client ID: TP5-2/5.
Date Received: 11/10/2009
Date Extracted: 11/12/2009
Date Analyzed: 11/12/2009
Data file: Z7246.D

GC Column: DB-5
Sample wt/vol: 10.33g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 46.1

Compound	Concentration	Q	MDL
Total TPHC	ND		10.8

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-005
Client ID: TP2-1/2-
Date Received: 11/10/2009
Date Extracted: 11/12/2009
Date Analyzed: 11/12/2009
Data file: Z7247.D

GC Column: DB-5
Sample wt/vol: 10.02g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.5

Compound	Concentration	Q	MDL
Total TPHC	9.54		7.17

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-006
Client ID: TP2-2/3-
Date Received: 11/10/2009
Date Extracted: 11/12/2009
Date Analyzed: 11/12/2009
Data file: Z7248.D

GC Column: DB-5
Sample wt/vol: 10.27g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.5

Compound	Concentration	Q	MDL
Total TPHC	ND		6.75

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INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-007
Client ID: TP1/4-4.
Date Received: 11/10/2009
Date Extracted: 11/12/2009
Date Analyzed: 11/12/2009
Data file: Z7249.D

GC Column: DB-5
Sample wt/vol: 10.52g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.4

Compound	Concentration	Q	MDL
Total TPHC	ND		7.65

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 11437-008
Client ID: TP6/4.58
Date Received: 11/10/2009
Date Extracted: 11/12/2009
Date Analyzed: 11/12/2009
Data file: Z7250.D

GC Column: DB-5
Sample wt/vol: 10.37g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 20.2

Compound	Concentration	Q	MDL
Total TPHC	ND		7.25

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E09-11437-002
Client ID: TP7
Date Received: 11/10/2009
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 18.2
Batch #: 489

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Aluminum	4270		1	13.3	11/12/09	6020
Antimony	ND		1	1.33	11/12/09	6020
Arsenic	2.10		1	1.33	11/12/09	6020
Barium	53.8		1	13.3	11/12/09	6020
Beryllium	ND		1	0.663	11/12/09	6020
Cadmium	ND		1	0.332	11/12/09	6020
Calcium	1210		1	66.3	11/12/09	6020
Chromium	4.84		1	2.65	11/12/09	6020
Cobalt	ND		1	2.65	11/12/09	6020
Copper	3.58		1	2.65	11/12/09	6020
Iron	4860		1	33.2	11/12/09	6020
Lead	10.8		1	0.663	11/12/09	6020
Magnesium	539		1	66.3	11/12/09	6020
Manganese	41.1		1	1.33	11/12/09	6020
Mercury	0.023		1	0.017	11/12/09	7471A
Nickel	2.48		1	1.33	11/12/09	6020
Potassium	550		1	66.3	11/12/09	6020
Selenium	ND		1	2.65	11/12/09	6020
Silver	ND		1	0.663	11/12/09	6020
Sodium	ND		1	133	11/12/09	6020
Thallium	ND		1	0.332	11/12/09	6020
Vanadium	7.07		1	2.65	11/12/09	6020
Zinc	15.4		1	2.65	11/12/09	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E09-11437-003
Client ID: TP5-1
Date Received: 11/10/2009
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 38.6
Batch #: 489

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Aluminum	9060		1	17.0	11/12/09	6020
Antimony	ND		1	1.70	11/12/09	6020
Arsenic	11.9		1	1.70	11/12/09	6020
Barium	110		1	17.0	11/12/09	6020
Beryllium	ND		1	0.849	11/12/09	6020
Cadmium	ND		1	0.424	11/12/09	6020
Calcium	184000		10	849	11/12/09	6020
Chromium	9.37		1	3.40	11/12/09	6020
Cobalt	ND		1	3.40	11/12/09	6020
Copper	97.3		1	3.40	11/12/09	6020
Iron	7320		1	42.4	11/12/09	6020
Lead	364		1	0.849	11/12/09	6020
Magnesium	2690		1	84.9	11/12/09	6020
Manganese	392		1	1.70	11/12/09	6020
Mercury	ND		1	0.024	11/12/09	7471A
Nickel	8.60		1	1.70	11/12/09	6020
Potassium	503		1	84.9	11/12/09	6020
Selenium	ND		1	3.40	11/12/09	6020
Silver	ND		1	0.849	11/12/09	6020
Sodium	1610		1	170	11/12/09	6020
Thallium	ND		1	0.424	11/12/09	6020
Vanadium	6.65		1	3.40	11/12/09	6020
Zinc	1330		1	3.40	11/12/09	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E09-11437-004
Client ID: TP5-2
Date Received: 11/10/2009
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 46.1
Batch #: 489

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Aluminum	9940		1	20.1	11/12/09	6020
Antimony	ND		1	2.01	11/12/09	6020
Arsenic	11.5		1	2.01	11/12/09	6020
Barium	118		1	20.1	11/12/09	6020
Beryllium	ND		1	1.01	11/12/09	6020
Cadmium	ND		1	0.503	11/12/09	6020
Calcium	194000		10	1010	11/12/09	6020
Chromium	9.53		1	4.03	11/12/09	6020
Cobalt	ND		1	4.03	11/12/09	6020
Copper	94.3		1	4.03	11/12/09	6020
Iron	6140		1	50.3	11/12/09	6020
Lead	339		1	1.01	11/12/09	6020
Magnesium	1270		1	101	11/12/09	6020
Manganese	145		1	2.01	11/12/09	6020
Mercury	ND		1	0.028	11/12/09	7471A
Nickel	7.93		1	2.01	11/12/09	6020
Potassium	454		1	101	11/12/09	6020
Selenium	ND		1	4.03	11/12/09	6020
Silver	ND		1	1.01	11/12/09	6020
Sodium	1760		1	201	11/12/09	6020
Thallium	ND		1	0.503	11/12/09	6020
Vanadium	6.10		1	4.03	11/12/09	6020
Zinc	1330		1	4.03	11/12/09	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E09-11437-005
Client ID: TP2-1
Date Received: 11/10/2009
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 16.5
Batch #: 489

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Aluminum	11600		10	132	11/12/09	6020
Antimony	2.08		1	1.32	11/12/09	6020
Arsenic	140		1	1.32	11/12/09	6020
Barium	194		1	13.2	11/12/09	6020
Beryllium	1.45		1	0.661	11/12/09	6020
Cadmium	5.10		1	0.330	11/12/09	6020
Calcium	9920		1	66.1	11/12/09	6020
Chromium	14.5		1	2.64	11/12/09	6020
Cobalt	8.47		1	2.64	11/12/09	6020
Copper	29.8		1	2.64	11/12/09	6020
Iron	24500		1	33.0	11/12/09	6020
Lead	63.6		1	0.661	11/12/09	6020
Magnesium	1470		1	66.1	11/12/09	6020
Manganese	10500		1	1.32	11/12/09	6020
Mercury	0.036		1	0.019	11/12/09	7471A
Nickel	16.7		1	1.32	11/12/09	6020
Potassium	1070		1	66.1	11/12/09	6020
Selenium	5.96		1	2.64	11/12/09	6020
Silver	ND		1	0.661	11/12/09	6020
Sodium	838		1	132	11/12/09	6020
Thallium	0.443		1	0.330	11/12/09	6020
Vanadium	22.0		1	2.64	11/12/09	6020
Zinc	34800		10	26.4	11/12/09	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E09-11437-006
Client ID: TP2-2
Date Received: 11/10/2009
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 13.5
Batch #: 489

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Aluminum	14700		10	116	11/12/09	6020
Antimony	ND		1	1.16	11/12/09	6020
Arsenic	2.71		1	1.16	11/12/09	6020
Barium	40.2		1	11.6	11/12/09	6020
Beryllium	ND		1	0.580	11/12/09	6020
Cadmium	ND		1	0.290	11/12/09	6020
Calcium	1010		1	58.0	11/12/09	6020
Chromium	17.4		1	2.32	11/12/09	6020
Cobalt	6.59		1	2.32	11/12/09	6020
Copper	25.6		1	2.32	11/12/09	6020
Iron	18700		1	29.0	11/12/09	6020
Lead	5.98		1	0.580	11/12/09	6020
Magnesium	2210		1	58.0	11/12/09	6020
Manganese	353		1	1.16	11/12/09	6020
Mercury	0.023		1	0.015	11/12/09	7471A
Nickel	13.4		1	1.16	11/12/09	6020
Potassium	772		1	58.0	11/12/09	6020
Selenium	ND		1	2.32	11/12/09	6020
Silver	ND		1	0.580	11/12/09	6020
Sodium	ND		1	116	11/12/09	6020
Thallium	ND		1	0.290	11/12/09	6020
Vanadium	28.4		1	2.32	11/12/09	6020
Zinc	1620		1	2.32	11/12/09	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E09-11437-007
Client ID: TP1
Date Received: 11/10/2009
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 25.4
Batch #: 489

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Aluminum	10600		1	15.1	11/12/09	6020
Antimony	ND		1	1.51	11/12/09	6020
Arsenic	102		1	1.51	11/12/09	6020
Barium	127		1	15.1	11/12/09	6020
Beryllium	1.72		1	0.755	11/12/09	6020
Cadmium	4.07		1	0.377	11/12/09	6020
Calcium	7540		1	75.5	11/12/09	6020
Chromium	17.6		1	3.02	11/12/09	6020
Cobalt	9.59		1	3.02	11/12/09	6020
Copper	35.5		1	3.02	11/12/09	6020
Iron	23700		1	37.7	11/12/09	6020
Lead	57.2		1	0.755	11/12/09	6020
Magnesium	2550		1	75.5	11/12/09	6020
Manganese	16100		10	15.1	11/12/09	6020
Mercury	0.053		1	0.019	11/12/09	7471A
Nickel	35.6		1	1.51	11/12/09	6020
Potassium	686		1	75.5	11/12/09	6020
Selenium	3.84		1	3.02	11/12/09	6020
Silver	ND		1	0.755	11/12/09	6020
Sodium	1360		1	151	11/12/09	6020
Thallium	ND		1	0.377	11/12/09	6020
Vanadium	19.8		1	3.02	11/12/09	6020
Zinc	62500		10	30.2	11/12/09	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E09-11437-008
Client ID: TP6
Date Received: 11/10/2009
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 20.2
Batch #: 489

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Aluminum	10300		10	131	11/12/09	6020
Antimony	ND		1	1.31	11/12/09	6020
Arsenic	15.6		1	1.31	11/12/09	6020
Barium	65.0		1	13.1	11/12/09	6020
Beryllium	2.68		1	0.654	11/12/09	6020
Cadmium	2.07		1	0.327	11/12/09	6020
Calcium	4580		1	65.4	11/12/09	6020
Chromium	11.7		1	2.62	11/12/09	6020
Cobalt	7.77		1	2.62	11/12/09	6020
Copper	126		1	2.62	11/12/09	6020
Iron	55700		1	32.7	11/12/09	6020
Lead	20.7		1	0.654	11/12/09	6020
Magnesium	2090		1	65.4	11/12/09	6020
Manganese	11000		1	1.31	11/12/09	6020
Mercury	0.035		1	0.018	11/12/09	7471A
Nickel	14.2		1	1.31	11/12/09	6020
Potassium	693		1	65.4	11/12/09	6020
Selenium	ND		1	2.62	11/12/09	6020
Silver	ND		1	0.654	11/12/09	6020
Sodium	209		1	131	11/12/09	6020
Thallium	ND		1	0.327	11/12/09	6020
Vanadium	24.3		1	2.62	11/12/09	6020
Zinc	15200		10	26.2	11/12/09	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Cyanide, Total

Client/Project: PENNJERSEY/PALMER

Date Received: 11/10/09 14:45

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	% Solid	Date Analyzed
11437-002	TP7	ND		1	Soil-mg/Kg	1.22	81.8	11/12/09 13:07
11437-003	TP5-1	ND		1	Soil-mg/Kg	1.63	61.4	11/12/09 13:07
11437-004	TP5-2	ND		1	Soil-mg/Kg	1.86	53.9	11/12/09 13:07
11437-005	TP2-1	ND		1	Soil-mg/Kg	1.20	83.5	11/12/09 13:07
11437-006	TP2-2	ND		1	Soil-mg/Kg	1.16	86.5	11/12/09 13:07
11437-007	TP1	1.51		1	Soil-mg/Kg	1.34	74.6	11/12/09 13:07
11437-008	TP6	ND		1	Soil-mg/Kg	1.25	79.8	11/12/09 13:07

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F4801.D

BFB Injection Date: 10/26/2009

Inst ID: MSD_F

BFB Injection Time: 9:04

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	23.5			
75	30.0 - 60.0% of mass 95	55.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.5			
173	Less than 2.0% of mass 174	0.7	(	1.0	)1
174	Great than 50.0% of mass 95	71.8			
175	5.0 - 9.0% of mass 174	5.7	(	7.9	)1
176	95.0 - 101.0% of mass 174	70.9	(	98.7	)1
177	5.0 - 9.0% of mass 176	4.6	(	6.5	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
1PPB	STD-1PPB	F4803.D	10/26/2009	10:11
5PPB	STD-5PPB	F4805.D	10/26/2009	11:09
20PPB	STD-20PPB	F4806.D	10/26/2009	11:38
100PPB	STD-100PPB	F4808.D	10/26/2009	12:36
200PPB	STD-200PPB	F4809.D	10/26/2009	13:05
150PPB	STD-150PPB	F4810.D	10/26/2009	13:34
N/A	METHOD-BLK	F4813.D	10/26/2009	15:01
LCS-50PPB	BLK-SPK	F4814.D	10/26/2009	15:30
MS	SOIL-MS	F4815.D	10/26/2009	15:59
MSD	SOIL-MSD	F4816.D	10/26/2009	16:28
DR-7A/0-0.5	10782-008	F4817.D	10/26/2009	16:57
DR-2A/0-0.5	10782-018	F4818.D	10/26/2009	17:26
WC-1	10802-001	F4819.D	10/26/2009	17:55
TP229_SO_10-10	10867-002	F4820.D	10/26/2009	18:24
TP230_SO_13-13	10867-004	F4821.D	10/26/2009	18:53
TP234_SO_18-18	10868-002	F4822.D	10/26/2009	19:22
TP235_SO_18-18	10868-004	F4823.D	10/26/2009	19:51
FILL-1/4-4.5	10859-001	F4824.D	10/26/2009	20:20
FILL-2/4.5-5	10859-002	F4825.D	10/26/2009	20:49

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F5006.D BFB Injection Date: 11/10/2009

Inst ID: MSD_F BFB Injection Time: 11:22

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	23.7			
75	30.0 - 60.0% of mass 95	59.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.1			
173	Less than 2.0% of mass 174	1.0	(	1.2	)1
174	Great than 50.0% of mass 95	79.9			
175	5.0 - 9.0% of mass 174	5.8	(	7.2	)1
176	95.0 - 101.0% of mass 174	77.4	(	96.9	)1
177	5.0 - 9.0% of mass 176	5.0	(	6.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	F5007.D	11/10/2009	11:51
1PPM	TPH-1PPM	F5008.D	11/10/2009	12:20
N/A	METHOD-BLK	F5010.D	11/10/2009	13:18
LCS-50PPB	BLK-SPK	F5011.D	11/10/2009	13:47
MS	SOIL-MS	F5012.D	11/10/2009	14:16
MSD	SOIL-MSD	F5013.D	11/10/2009	14:45
DUMPSTER_36	11371-003	F5014.D	11/10/2009	15:14
COMP_5A-8A	11345-014	F5016.D	11/10/2009	16:12
TP5-1/3.17-3.67	11437-003	F5018.D	11/10/2009	17:10
TP2-1/2-2.5	11437-005	F5019.D	11/10/2009	17:39
TP1/4-4.5	11437-007	F5021.D	11/10/2009	18:37
TP6/4.58-5.08	11437-008	F5022.D	11/10/2009	19:06
TP5-2/5.67-6.17	11437-004	F5023.D	11/10/2009	19:35
TP7/4.25-4.75	11437-002	F5024.D	11/10/2009	20:04
TP2-2/3-3.5	11437-006	F5025.D	11/10/2009	20:33

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L1560.D BFB Injection Date: 11/10/2009

Inst ID: MSD_L BFB Injection Time: 23:32

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	17.9			
75	30.0 - 60.0% of mass 95	52.2			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.5			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	56.9			
175	5.0 - 9.0% of mass 174	4.3	(	7.6	)1
176	95.0 - 101.0% of mass 174	57.4	(	100.9	)1
177	5.0 - 9.0% of mass 176	3.8	(	6.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
1PPB	STD1PPB	L1561.D	11/10/2009	0:15
5PPB	STD-5PPB	L1564.D	11/10/2009	1:47
20PPB	STD-20PPB	L1565.D	11/10/2009	2:18
100PPB	STD-100PPB	L1567.D	11/10/2009	3:16
150PPB	STD-150PPB	L1569.D	11/10/2009	4:17
200PPB	STD-200PPB	L1571.D	11/10/2009	5:25

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L1626.D

BFB Injection Date: 11/12/2009

Inst ID: MSD_L

BFB Injection Time: 14:27

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	18.6			
75	30.0 - 60.0% of mass 95	49.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.5	(	0.6	)1
174	Great than 50.0% of mass 95	77.0			
175	5.0 - 9.0% of mass 174	5.6	(	7.3	)1
176	95.0 - 101.0% of mass 174	77.6	(	100.8	)1
177	5.0 - 9.0% of mass 176	5.0	(	6.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	L1628.D	11/12/2009	15:49
N/A	METHOD-BLK	L1631.D	11/12/2009	17:20
TRIP	11437-001	L1632.D	11/12/2009	17:47
LCS-50PPB	BLK-SPK	L1633.D	11/12/2009	18:14
MS	11434-001MS	L1634.D	11/12/2009	18:41
MSD	11434-0011MSD	L1635.D	11/12/2009	19:08
AOC1-WC	11434-001	L1636.D	11/12/2009	19:35
AOC2-WC1	11434-002	L1637.D	11/12/2009	20:02
AOC2-WC2	11434-003	L1638.D	11/12/2009	20:28
3E/1-2	11470-017	L1639.D	11/12/2009	20:55
4D/1-2	11470-022	L1640.D	11/12/2009	21:22
1B/1-2	11470-002	L1641.D	11/12/2009	21:48
2B/1-2	11470-008	L1642.D	11/12/2009	22:15
STOCKPILE	11424-001	L1643.D	11/12/2009	22:42
STOCKPILE	11425-001	L1645.D	11/12/2009	23:35
SOIL_PILE/8	11458-001	L1647.D	11/13/2009	0:29
WC1	11404-001	L1649.D	11/13/2009	1:22
P09-0604-1	11399-001	L1650.D	11/13/2009	1:49

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F5010.D Instrument ID: MSD_F

Date Analyzed: 11/10/2009 Time Analyzed: 13:18

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS-50PPB	BLK-SPK	11/10/2009	13:47
MS	SOIL-MS	11/10/2009	14:16
MSD	SOIL-MSD	11/10/2009	14:45
DUMPSTER_36	11371-003	11/10/2009	15:14
COMP_5A-8A	11345-014	11/10/2009	16:12
TP5-1/3.17-3.67	11437-003	11/10/2009	17:10
TP2-1/2-2.5	11437-005	11/10/2009	17:39
TP1/4-4.5	11437-007	11/10/2009	18:37
TP6/4.58-5.08	11437-008	11/10/2009	19:06
TP5-2/5.67-6.17	11437-004	11/10/2009	19:35
TP7/4.25-4.75	11437-002	11/10/2009	20:04
TP2-2/3-3.5	11437-006	11/10/2009	20:33

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 11/10/2009
Data file: F5010.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.0025
Chloromethane	ND		0.0025
Vinyl chloride	ND		0.0025
Bromomethane	ND		0.0025
Chloroethane	ND		0.0025
Trichlorofluoromethane	ND		0.0025
1,1-Dichloroethene	ND		0.0025
Acetone	ND		0.005
Carbon disulfide	ND		0.0025
Methylene chloride	ND		0.0025
trans-1,2-Dichloroethene	ND		0.0025
Methyl tert-butyl ether (MTBE)	ND		0.0025
1,1-Dichloroethane	ND		0.0025
cis-1,2-Dichloroethene	ND		0.0025
2-Butanone (MEK)	ND		0.005
Bromochloromethane	ND		0.0025
Chloroform	ND		0.0025
1,1,1-Trichloroethane	ND		0.0025
Carbon tetrachloride	ND		0.0025
1,2-Dichloroethane (EDC)	ND		0.0025
Benzene	ND		0.0025
Trichloroethene	ND		0.0025
1,2-Dichloropropane	ND		0.0025
Bromodichloromethane	ND		0.0025
cis-1,3-Dichloropropene	ND		0.0025
4-Methyl-2-pentanone (MIBK)	ND		0.005

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 11/10/2009
Data file: F5010.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Toluene	ND		0.0025
trans-1,3-Dichloropropene	ND		0.0025
1,1,2-Trichloroethane	ND		0.0025
Tetrachloroethene	ND		0.0025
2-Hexanone	ND		0.005
Dibromochloromethane	ND		0.0025
1,2-Dibromoethane (EDB)	ND		0.0025
Chlorobenzene	ND		0.0025
Ethylbenzene	ND		0.0025
Total Xylenes	ND		0.0025
Styrene	ND		0.0025
Bromoform	ND		0.0025
Isopropylbenzene	ND		0.0025
1,1,2,2-Tetrachloroethane	ND		0.0025
1,3-Dichlorobenzene	ND		0.0025
1,4-Dichlorobenzene	ND		0.0025
1,2-Dichlorobenzene	ND		0.0025
1,2-Dibromo-3-chloropropane	ND		0.0025
1,2,4-Trichlorobenzene	ND		0.0025
1,2,3-Trichlorobenzene	ND		0.0025
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0025
Methyl acetate	ND		0.0025
Cyclohexane	ND		0.0025
Methylcyclohexane	ND		0.0025

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 11/10/2009
Data file: F5010.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: L1631.D Instrument ID: MSD_L

Date Analyzed: 11/12/2009 Time Analyzed: 17:20

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TRIP	11437-001	11/12/2009	17:47
LCS-50PPB	BLK-SPK	11/12/2009	18:14
MS	11434-001MS	11/12/2009	18:41
MSD	11434-0011MSD	11/12/2009	19:08
AOC1-WC	11434-001	11/12/2009	19:35
AOC2-WC1	11434-002	11/12/2009	20:02
AOC2-WC2	11434-003	11/12/2009	20:28
3E/1-2	11470-017	11/12/2009	20:55
4D/1-2	11470-022	11/12/2009	21:22
1B/1-2	11470-002	11/12/2009	21:48
2B/1-2	11470-008	11/12/2009	22:15
STOCKPILE	11424-001	11/12/2009	22:42
STOCKPILE	11425-001	11/12/2009	23:35
SOIL_PILE/8	11458-001	11/13/2009	0:29
WC1	11404-001	11/13/2009	1:22
P09-0604-1	11399-001	11/13/2009	1:49

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 11/12/2009
Data file: L1631.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 50
% Moisture: 0

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.050
Chloromethane	ND		0.050
Vinyl chloride	ND		0.050
Bromomethane	ND		0.050
Chloroethane	ND		0.050
Trichlorofluoromethane	ND		0.050
1,1-Dichloroethene	ND		0.050
Acetone	ND		0.125
Carbon disulfide	ND		0.050
Methylene chloride	ND		0.050
trans-1,2-Dichloroethene	ND		0.050
Methyl tert-butyl ether (MTBE)	ND		0.050
1,1-Dichloroethane	ND		0.050
cis-1,2-Dichloroethene	ND		0.050
2-Butanone (MEK)	ND		0.050
Bromochloromethane	ND		0.050
Chloroform	ND		0.050
1,1,1-Trichloroethane	ND		0.050
Carbon tetrachloride	ND		0.050
1,2-Dichloroethane (EDC)	ND		0.050
Benzene	ND		0.025
Trichloroethene	ND		0.050
1,2-Dichloropropane	ND		0.050
Bromodichloromethane	ND		0.050
cis-1,3-Dichloropropene	ND		0.050
4-Methyl-2-pentanone (MIBK)	ND		0.050

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 11/12/2009
Data file: L1631.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 50
% Moisture: 0

Compound	Concentration	Q	MDL
Toluene	ND		0.050
trans-1,3-Dichloropropene	ND		0.050
1,1,2-Trichloroethane	ND		0.050
Tetrachloroethene	ND		0.050
2-Hexanone	ND		0.100
Dibromochloromethane	ND		0.050
1,2-Dibromoethane (EDB)	ND		0.050
Chlorobenzene	ND		0.050
Ethylbenzene	ND		0.050
Total Xylenes	ND		0.050
Styrene	ND		0.050
Bromoform	ND		0.050
Isopropylbenzene	ND		0.050
1,1,2,2-Tetrachloroethane	ND		0.050
1,3-Dichlorobenzene	ND		0.050
1,4-Dichlorobenzene	ND		0.050
1,2-Dichlorobenzene	ND		0.050
1,2-Dibromo-3-chloropropane	ND		0.050
1,2,4-Trichlorobenzene	ND		0.050
1,2,3-Trichlorobenzene	ND		0.050
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050
Methyl acetate	ND		0.050
Cyclohexane	ND		0.050
Methylcyclohexane	ND		0.050

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 11/12/2009
Date File: L1631.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 50
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Response Factor Report MSD_F

Method Path : C:\MSDCHEM\1\METHODS\
Method File : FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Oct 27 08:25:40 2009
Response Via : Initial Calibration

Calibration Files
20 =F4806.D 100 =F4808.D 1 =F4803.D
150 =F4810.D 200 =F4809.D 5 =F4805.D

		Compound (ppb)	20	100	1	150	200	5	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------					
2)	T	Dichlorodifluorom	1.036	0.760	0.783	0.847	0.766	0.835	0.838	12.35
3)	P	Chloromethane	0.970	0.719	0.871	0.724	0.742	0.846	0.812	12.41
4)	C	Vinyl chloride	0.676	0.615	0.723	0.647	0.667	0.738	0.678	6.81
5)	T	Bromomethane	0.701	0.743	0.785	0.642	0.677	0.824	0.729	9.39
6)	T	Chloroethane	0.418	0.375	0.403	0.335	0.300	0.355	0.364	11.96
7)	T	Trichlorofluorome	1.330	1.102	1.366	1.163	0.956	1.150	1.178	12.84
8)	T	Acrolein	0.044	0.038	0.052	0.048	0.037	0.041	0.043	13.60
9)	MC	1,1-Dichloroethen	0.603	0.453	0.555	0.550	0.436	0.460	0.510	13.47
10)	T	Acetone	0.338	0.250	0.261	0.284	0.231	0.317	0.280	14.63
11)	T	Carbon disulfide	1.725	1.359	1.695	1.788	1.312	1.555	1.572	12.67
12)	T	Vinyl acetate	1.413	1.245	1.172	1.292	1.248	1.088	1.243	8.83
13)	T	Methylene chlorid	0.682	0.526	0.654	0.679	0.507	0.741	0.631	14.83
14)	T	Acrylonitrile	0.205	0.145	0.224	0.217	0.184	0.193	0.195	14.63
15)	T	tert-Butyl alcoho	0.106	0.088	0.096	0.105	0.095	0.095	0.098	7.19
16)	T	trans-1,2-Dichlor	0.501	0.395	0.537	0.483	0.431	0.521	0.478	11.48
17)	T	Methyl tert-butyl	1.095	0.834	1.016	1.080	0.800	0.980	0.967	12.88
18)	P	1,1-Dichloroethan	0.998	0.734	0.836	0.784	0.686	0.854	0.815	13.38
19)	T	Diisopropyl ether	0.878	0.772	0.702	0.857	0.754	0.635	0.767	12.01
20)	T	cis-1,2-Dichloroe	0.589	0.467	0.440	0.525	0.431	0.403	0.476	14.53
21)	T	2,2-Dichloropropa	0.800	0.700	0.693	0.800	0.614	0.671	0.713	10.37
22)	T	2-Butanone (MEK)	0.343	0.267	0.322	0.297	0.275	0.361	0.311	12.11
23)	T	Bromochloromethan	0.305	0.264	0.263	0.298	0.236	0.273	0.273	9.33
25)	C	Chloroform	1.324	1.030	1.347	1.168	1.014	1.342	1.204	12.94
26)	T	1,1,1-Trichloroet	1.213	0.943	1.112	1.273	0.953	0.963	1.076	13.45
27)	T	Carbon tetrachlor	1.222	1.039	1.303	1.281	1.005	1.093	1.157	11.07
28)	T	1,1-Dichloroprope	0.939	0.772	0.689	0.820	0.727	0.742	0.781	11.37
29)	T	1,2-Dichloroethan	1.860	1.383	1.799	1.569	1.357	1.620	1.598	12.96
30)	S	1,2-Dichloroethan	0.890	0.785	1.033	0.799	0.769	1.033	0.885	13.84
31)	I	1,4-Difluorobenzene	----------	ISTD	----------					
32)	M	Benzene	1.440	1.190	1.097	1.183	1.300	1.113	1.220	10.58
33)	M	Trichloroethene	0.460	0.409	0.382	0.417	0.361	0.365	0.399	9.45
34)	C	1,2-Dichloropropa	0.352	0.282	0.293	0.321	0.262	0.296	0.301	10.46
35)	T	Dibromomethane	0.344	0.282	0.294	0.296	0.275	0.290	0.297	8.20
36)	T	1,4-Dioxane	0.002	0.002	0.002	0.003	0.002	0.002	0.002	14.70
37)	T	Bromodichlorometh	0.797	0.676	0.596	0.735	0.693	0.589	0.681	11.80
38)	T	2-Chloroethyl vin	0.169	0.193	0.184	0.190	0.192	0.145	0.179	10.54
39)	T	cis-1,3-Dichlorop	0.695	0.706	0.681	0.708	0.685	0.526	0.667	10.47
40)	T	4-Methyl-2-pentan	0.286	0.301	0.245	0.325	0.314	0.257	0.288	11.03
41)	S	Toluene-d8	1.086	1.072	1.036	1.193	1.227	1.145	1.126	6.60
42)	MC	Toluene	1.199	1.026	1.132	1.038	1.055	0.953	1.067	8.09
43)	T	trans-1,3-Dichlor	0.808	0.843	0.616	0.821	0.822	0.602	0.752	14.81
44)	T	1,1,2-Trichloroet	0.350	0.303	0.326	0.301	0.294	0.261	0.306	9.88
45)	T	Tetrachloroethene	0.557	0.530	0.421	0.508	0.472	0.405	0.482	12.58
46)	T	1,3-Dichloropropa	0.774	0.721	0.600	0.710	0.709	0.562	0.679	11.88
47)	T	2-Hexanone	0.246	0.278	0.269	0.303	0.301	0.227	0.271	11.06
48)	T	Dibromochlorometh	0.653	0.625	0.489	0.635	0.627	0.481	0.585	13.34
49)	T	1,2-Dibromoethane	0.458	0.433	0.342	0.435	0.439	0.330	0.406	13.64
50)	I	Chlorobenzene-d5	----------	ISTD	----------					
51)	MP	Chlorobenzene	1.444	1.230	1.521	1.187	1.131	1.455	1.328	12.37
52)	T	1,1,1,2-Tetrachlo	0.565	0.460	0.563	0.459	0.431	0.523	0.500	11.58

53)	C	Ethylbenzene	2.512	2.202	1.828	2.102	1.984	1.923	2.092	11.69
54)	T	m,p-Xylene	1.019	0.872	0.663	0.833	0.809	0.773	0.828	14.19
55)	T	o-Xylene	0.857	0.798	0.787	0.785	0.769	0.599	0.766	11.37
56)	T	Styrene	1.583	1.444	1.366	1.416	1.406	1.081	1.383	11.97
57)	P	Bromoform	0.369	0.353	0.375	0.370	0.368	0.326	0.360	5.04
58)	T	Isopropylbenzene	2.413	2.273	2.343	2.210	2.107	1.980	2.221	7.14
59)	S	Bromofluorobenzen	0.627	0.633	0.656	0.634	0.651	0.744	0.658	6.68
60)	P	1,1,2,2-Tetrachlo	0.586	0.498	0.640	0.505	0.503	0.559	0.549	10.44
61)	T	Bromobenzene	0.652	0.567	0.628	0.569	0.558	0.576	0.592	6.57
62)	T	1,2,3-Trichloropr	0.663	0.559	0.676	0.556	0.554	0.645	0.609	9.61
63)	T	n-Propylbenzene	3.237	2.889	2.440	2.735	2.649	2.499	2.742	10.64
64)	T	2-Chlorotoluene	2.158	1.878	1.625	1.826	1.791	1.676	1.826	10.32
65)	T	1,3,5-Trimethylbe	2.632	2.354	2.481	2.305	2.255	1.883	2.318	10.91
66)	T	4-Chlorotoluene	2.803	2.377	2.412	2.297	2.284	2.363	2.423	7.94
67)	T	tert-Butylbenzene	1.773	1.596	1.417	1.605	1.487	1.147	1.504	14.16
68)	T	1,2,4-Trimethylbe	2.837	2.501	2.043	2.454	2.394	1.929	2.359	13.98
69)	T	sec-Butylbenzene	2.928	2.666	2.737	2.596	2.453	2.013	2.566	12.20
70)	T	1,3-Dichlorobenze	1.381	1.218	1.095	1.212	1.199	1.239	1.224	7.51
71)	T	4-Isopropyltoluen	2.902	2.627	2.391	2.586	2.448	2.001	2.492	12.01
72)	T	1,4-Dichlorobenze	1.446	1.262	1.002	1.261	1.254	1.341	1.261	11.64
73)	T	n-Butylbenzene	1.332	1.332	1.152	1.337	1.280	0.987	1.237	11.42
74)	T	1,2-Dichlorobenze	1.430	1.241	1.114	1.250	1.250	1.262	1.258	7.99
75)	T	1,2-Dibromo-3-chl	0.167	0.178	0.181	0.187	0.191	0.155	0.177	7.47
76)	T	1,2,4-Trichlorobe	0.917	0.960	0.747	0.975	0.969	0.692	0.877	14.20
77)	T	Hexachlorobutadie	0.757	0.628	0.549	0.583	0.548	0.707	0.629	13.74
78)	T	Naphthalene	2.491	2.473	2.227	2.528	2.474	1.881	2.345	10.73
79)	T	1,2,3-Trichlorobe	1.050	0.936	0.725	0.923	0.935	0.812	0.897	12.63
80)	T	1,1,2-Trichloro-1	0.352	0.252	0.293	0.300	0.271	0.349	0.303	13.41
81)	T	Methyl acetate	0.314	0.264	0.229	0.291	0.247	0.315	0.277	12.97
82)	T	Cyclohexane	0.297	0.246	0.279	0.289	0.225	0.309	0.274	11.74
83)	T	Methylcyclohexane	0.223	0.218	0.165	0.242	0.225	0.201	0.212	12.56

(#) = Out of Range

FSO1026.M Tue Oct 27 11:06:28 2009 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5007.D
Acq On : 10 Nov 2009 11:51
Operator : XING
Sample : 100PPB,STD-100PPB,S,5g,0
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 10 12:22:41 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	78	0.00
2	T	Dichlorodifluoromethane	0.838	0.716	14.6	74	0.00
3	P	Chloromethane	0.812	0.885	-9.0	96	0.00
4	C	Vinyl chloride	0.678	0.796	-17.4	101	0.00
5	T	Bromomethane	0.729	0.741	-1.6	78	0.00
6	T	Chloroethane	0.364	0.436	-19.8	91	0.00
7	T	Trichlorofluoromethane	1.178	1.346	-14.3	95	0.00
8	T	Acrolein	0.043	0.041	4.7	85	-0.01
9	MC	1,1-Dichloroethene	0.510	0.471	7.6	81	0.00
10	T	Acetone	0.280	0.272	2.9	85	0.00
11	T	Carbon disulfide	1.572	1.644	-4.6	95	0.00
12	T	Vinyl acetate	1.243	1.473	-18.5	92	0.00
13	T	Methylene chloride	0.631	0.616	2.4	92	0.00
14	T	Acrylonitrile	0.195	0.162	16.9	87	-0.01
15	T	tert-Butyl alcohol (TBA)	0.098	0.090	8.2	80	-0.01
16	T	trans-1,2-Dichloroethene	0.478	0.450	5.9	89	0.00
17	T	Methyl tert-butyl ether (MT	0.967	0.972	-0.5	91	0.00
18	P	1,1-Dichloroethane	0.815	0.862	-5.8	92	0.00
19	T	Diisopropyl ether (DIPE)	0.767	0.901	-17.5	91	-0.01
20	T	cis-1,2-Dichloroethene	0.476	0.550	-15.5	92	0.00
21	T	2,2-Dichloropropane	0.713	0.772	-8.3	86	0.00
22	T	2-Butanone (MEK)	0.311	0.333	-7.1	97	-0.01
23	T	Bromochloromethane	0.273	0.295	-8.1	87	0.00
25	C	Chloroform	1.204	1.281	-6.4	97	0.00
26	T	1,1,1-Trichloroethane	1.076	1.232	-14.5	102	0.00
27	T	Carbon tetrachloride	1.157	1.346	-16.3	101	0.00
28	T	1,1-Dichloropropene	0.781	0.860	-10.1	87	0.00
29	T	1,2-Dichloroethane (EDC)	1.598	1.726	-8.0	98	0.00
30	S	1,2-Dichloroethane-d4	0.885	0.871	1.6	87	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	82	0.00
32	M	Benzene	1.220	1.324	-8.5	92	0.00
33	M	Trichloroethene	0.399	0.453	-13.5	91	0.00
34	C	1,2-Dichloropropane	0.301	0.313	-4.0	91	0.00
35	T	Dibromomethane	0.297	0.332	-11.8	97	0.00
37	T	Bromodichloromethane	0.681	0.795	-16.7	97	0.00
38	T	2-Chloroethyl vinyl ether	0.179	0.180	-0.6	77	0.00
39	T	cis-1,3-Dichloropropene	0.667	0.758	-13.6	88	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.288	0.341	-18.4	93	0.00
41	S	Toluene-d8	1.126	1.095	2.8	84	0.00
42	MC	Toluene	1.067	1.165	-9.2	94	0.00
43	T	trans-1,3-Dichloropropene	0.752	0.890	-18.4	87	0.00
44	T	1,1,2-Trichloroethane	0.306	0.330	-7.8	90	0.00
45	T	Tetrachloroethene	0.482	0.551	-14.3	86	0.00
46	T	1,3-Dichloropropane	0.679	0.779	-14.7	89	0.00
47	T	2-Hexanone	0.271	0.314	-15.9	93	0.00

48	T	Dibromochloromethane	0.585	0.673	-15.0	89	0.00
49	T	1,2-Dibromoethane (EDB)	0.406	0.458	-12.8	87	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	88	0.00
51	MP	Chlorobenzene	1.328	1.212	8.7	87	0.00
52	T	1,1,1,2-Tetrachloroethane	0.500	0.460	8.0	88	0.00
53	C	Ethylbenzene	2.092	2.219	-6.1	89	0.00
54	T	m,p-Xylene	0.828	0.855	-3.3	87	0.00
55	T	o-Xylene	0.766	0.775	-1.2	86	0.00
56	T	Styrene	1.383	1.381	0.1	85	0.00
57	P	Bromoform	0.360	0.344	4.4	86	0.00
58	T	Isopropylbenzene	2.221	2.260	-1.8	88	0.00
59	S	Bromofluorobenzene	0.658	0.658	0.0	92	0.00
60	P	1,1,2,2-Tetrachloroethane	0.549	0.482	12.2	86	0.00
61	T	Bromobenzene	0.592	0.553	6.6	86	0.00
62	T	1,2,3-Trichloropropane	0.609	0.572	6.1	91	0.00
63	T	n-Propylbenzene	2.742	2.925	-6.7	90	0.00
64	T	2-Chlorotoluene	1.826	1.904	-4.3	90	0.00
65	T	1,3,5-Trimethylbenzene	2.318	2.379	-2.6	89	0.00
66	T	4-Chlorotoluene	2.423	2.425	-0.1	90	0.00
67	T	tert-Butylbenzene	1.504	1.635	-8.7	91	0.00
68	T	1,2,4-Trimethylbenzene	2.359	2.558	-8.4	90	0.00
69	T	sec-Butylbenzene	2.566	2.672	-4.1	89	0.00
70	T	1,3-Dichlorobenzene	1.224	1.201	1.9	87	0.00
71	T	4-Isopropyltoluene	2.492	2.658	-6.7	89	-0.01
72	T	1,4-Dichlorobenzene	1.261	1.258	0.2	88	0.00
73	T	n-Butylbenzene	1.237	1.350	-9.1	90	0.00
74	T	1,2-Dichlorobenzene	1.258	1.216	3.3	87	0.00
75	T	1,2-Dibromo-3-chloropropane	0.177	0.168	5.1	84	0.00
76	T	1,2,4-Trichlorobenzene	0.877	0.929	-5.9	86	0.00
77	T	Hexachlorobutadiene	0.629	0.611	2.9	86	0.00
78	T	Naphthalene	2.345	2.233	4.8	80	0.00
79	T	1,2,3-Trichlorobenzene	0.897	0.887	1.1	84	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.303	0.263	13.2	92	0.00
81	T	Methyl acetate	0.277	0.273	1.4	92	-0.01
82	T	Cyclohexane	0.274	0.261	4.7	94	0.00
83	T	Methylcyclohexane	0.212	0.241	-13.7	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO1026.M Tue Nov 10 12:22:45 2009 RP1

Response Factor Report MSD_L

Method Path : C:\MSDCHEM\1\METHODS\
Method File : LME1109.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Nov 10 11:14:34 2009
Response Via : Initial Calibration

Calibration Files
100 =L1567.D 200 =L1571.D 150 =L1569.D
1 =L1561.D 20 =L1565.D 5 =L1564.D

		Compound	100	200	150	1	20	5	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluorom	0.636	0.588	0.527	0.609	0.552	0.461	0.562	11.22
3)	P	Chloromethane	0.863	0.780	0.750	0.915	0.733	0.917	0.826	10.01
4)	C	Vinyl chloride	0.760	0.709	0.673	0.640	0.674	0.761	0.703	7.09
5)	T	Bromomethane	0.394	0.294	0.301	0.373	0.396	0.396	0.359	13.50
6)	T	Chloroethane	0.359	0.350	0.281	0.381	0.398	0.413	0.363	12.87
7)	T	Trichlorofluorome	0.611	0.516	0.503	0.686	0.545	0.501	0.560	13.22
8)	T	Acrolein	0.082	0.079	0.082	0.084	0.087	0.084	0.083	3.36
9)	MC	1,1-Dichloroethen	0.520	0.476	0.459	0.530	0.454	0.520	0.493	6.89
10)	T	Acetone	0.188	0.152	0.158		0.191	0.213	0.180	13.99
11)	T	Carbon disulfide	2.048	1.943	1.867	2.137	1.645	1.885	1.921	8.82
12)	T	Vinyl acetate	2.910	2.727	2.464	2.342	2.633	3.350	2.738	13.14
13)	T	Methylene chlorid	0.788	0.700	0.698	0.689	0.663	0.873	0.735	10.82
14)	T	Acrylonitrile	0.264	0.267	0.276	0.249	0.270	0.274	0.267	3.62
15)	T	tert-Butyl alcoho	0.093	0.077	0.070	0.096	0.083	0.075	0.082	12.42
16)	T	trans-1,2-Dichlor	0.832	0.802	0.753	0.682	0.703	0.894	0.778	10.35
17)	T	Methyl tert-butyl	3.085	2.849	2.697	2.451	2.695	3.522	2.883	13.04
18)	P	1,1-Dichloroethan	1.667	1.589	1.501	1.286	1.409	1.808	1.543	12.08
19)	T	Diisopropyl ether	3.089	2.842	2.715	2.368	2.667	3.490	2.862	13.53
20)	T	cis-1,2-Dichloroe	0.958	0.920	0.862	0.697	0.790	1.048	0.879	14.21
21)	T	2,2-Dichloropropa	1.184	1.245	1.000	1.078	1.040	1.158	1.117	8.36
22)	T	2-Butanone (MEK)	0.424	0.373	0.355	0.516	0.415	0.444	0.421	13.58
23)	T	Bromochloromethan	0.403	0.391	0.365	0.272	0.335	0.413	0.363	14.55
25)	C	Chloroform	1.669	1.574	1.493	1.305	1.431	1.862	1.556	12.51
26)	T	1,1,1-Trichloroet	1.146	1.140	1.032	0.908	0.951	1.089	1.044	9.47
27)	T	Carbon tetrachlor	0.828	0.821	0.745	0.666	0.675	0.682	0.736	10.02
28)	T	1,1-Dichloroprope	1.106	1.073	0.987	1.115	0.964	1.122	1.061	6.49
29)	T	1,2-Dichloroethan	1.348	1.194	1.164	1.069	1.202	1.565	1.257	13.97
30)	S	1,2-Dichloroethan	0.687	0.657	0.676	0.711	0.724	0.718	0.696	3.80
31)	I	1,4-Difluorobenzene	----------ISTD----------							
32)	M	Benzene	2.109	2.025	1.915	1.725	1.759	2.288	1.970	10.90
33)	M	Trichloroethene	0.499	0.485	0.458	0.424	0.415	0.541	0.470	10.15
34)	C	1,2-Dichloropropa	0.543	0.519	0.490	0.405	0.457	0.595	0.501	13.27
35)	T	Dibromomethane	0.348	0.327	0.309	0.246	0.295	0.376	0.317	14.17
37)	T	Bromodichlorometh	0.704	0.689	0.644	0.772	0.551	0.648	0.668	11.04
38)	T	2-Chloroethyl vin	0.403	0.383	0.354	0.449	0.344	0.427	0.393	10.44
39)	T	cis-1,3-Dichlorop	0.934	0.905	0.832	1.059	0.749	0.908	0.898	11.58
40)	T	4-Methyl-2-pentan	0.521	0.471	0.444	0.542	0.473	0.599	0.508	11.24
41)	S	Toluene-d8	1.201	1.192	1.190	1.177	1.202	1.192	1.192	0.77
42)	MC	Toluene	1.258	1.211	1.134	1.004	1.035	1.345	1.164	11.34
43)	T	trans-1,3-Dichlor	0.875	0.855	0.784	0.626	0.701	0.807	0.775	12.26
44)	T	1,1,2-Trichloroet	0.424	0.404	0.376	0.305	0.357	0.459	0.387	13.95
45)	T	Tetrachloroethene	0.364	0.376	0.335	0.378	0.298	0.358	0.351	8.67
46)	T	1,3-Dichloropropa	0.878	0.817	0.777	0.646	0.747	0.968	0.806	13.77
47)	T	2-Hexanone	0.369	0.334	0.313	0.300	0.341	0.417	0.346	12.22
48)	T	Dibromochlorometh	0.433	0.437	0.403	0.357	0.314	0.337	0.380	13.53
49)	T	1,2-Dibromoethane	0.474	0.452	0.420	0.353	0.401	0.511	0.435	12.85
50)	I	Chlorobenzene-d5	----------ISTD----------							
51)	MP	Chlorobenzene	1.164	1.115	1.050	0.961	0.963	1.272	1.087	11.15
52)	T	1,1,1,2-Tetrachlo	0.366	0.351	0.333	0.267	0.293	0.353	0.327	11.94
53)	C	Ethylbenzene	1.987	1.871	1.784	1.716	1.686	2.182	1.871	10.03

54)	T	m,p-Xylene	0.732	0.659	0.644	0.646	0.616	0.780	0.680	9.27
55)	T	o-Xylene	0.762	0.703	0.681	0.606	0.624	0.798	0.696	10.82
56)	T	Styrene	1.381	1.266	1.226	0.915	1.131	1.415	1.222	14.96
57)	P	Bromoform	0.173	0.151	0.143	0.145	0.152	0.148	0.152	7.16
58)	T	Isopropylbenzene	1.694	1.646	1.537	1.495	1.399	1.706	1.579	7.75
59)	S	Bromofluorobenzen	0.563	0.558	0.557	0.551	0.565	0.565	0.560	0.98
60)	P	1,1,2,2-Tetrachlo	0.618	0.567	0.529	0.445	0.545	0.677	0.564	14.06
61)	T	Bromobenzene	0.438	0.425	0.398	0.321	0.353	0.459	0.399	13.22
62)	T	1,2,3-Trichloropr	0.516	0.475	0.448	0.411	0.463	0.601	0.486	13.65
63)	T	n-Propylbenzene	2.070	2.019	1.850	1.997	1.725	2.117	1.963	7.51
64)	T	2-Chlorotoluene	1.418	1.352	1.267	1.285	1.185	1.526	1.339	9.05
65)	T	1,3,5-Trimethylbe	1.451	1.389	1.306	1.305	1.201	1.486	1.356	7.83
66)	T	4-Chlorotoluene	1.627	1.522	1.450	1.511	1.375	1.787	1.545	9.38
67)	T	tert-Butylbenzene	1.068	1.083	0.992	0.967	0.855	1.034	1.000	8.38
68)	T	1,2,4-Trimethylbe	1.544	1.485	1.387	1.354	1.270	1.612	1.442	8.85
69)	T	sec-Butylbenzene	1.528	1.549	1.392	1.493	1.212	1.415	1.432	8.67
70)	T	1,3-Dichlorobenze	0.802	0.806	0.735	0.698	0.638	0.827	0.751	9.83
71)	T	4-Isopropyltoluen	1.248	1.252	1.132	1.068	0.992	1.172	1.144	8.94
72)	T	1,4-Dichlorobenze	0.839	0.837	0.767	0.730	0.665	0.855	0.782	9.61
73)	T	n-Butylbenzene	0.686	0.702	0.626	0.689	0.537	0.649	0.648	9.49
74)	T	1,2-Dichlorobenze	0.802	0.786	0.731	0.709	0.637	0.815	0.747	9.07
75)	T	1,2-Dibromo-3-chl	0.090	0.097	0.103	0.066	0.097	0.101	0.092	14.96
76)	T	1,2,4-Trichlorobe	0.505	0.532	0.475	0.535	0.378	0.494	0.487	11.86
77)	T	Hexachlorobutadie	0.162	0.190	0.155	0.164	0.128	0.174	0.162	12.77
78)	T	Naphthalene	1.441	1.419	1.287	1.057	1.189	1.452	1.308	12.26
79)	T	1,2,3-Trichlorobe	0.470	0.498	0.438	0.482	0.361	0.461	0.452	10.75
80)	T	1,1,2-Trichloro-1	0.235	0.204	0.194	0.286	0.221	0.205	0.224	14.95
81)	T	Methyl acetate	0.277	0.244	0.240	0.323	0.249	0.272	0.268	11.64
82)	T	Cyclohexane	0.514	0.480	0.428	0.411	0.472	0.524	0.472	9.52
83)	T	Methylcyclohexane	0.358	0.335	0.299	0.365	0.308	0.300	0.328	8.99

(#) = Out of Range

LME1109.M Tue Nov 10 12:09:06 2009 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\11-12-09\
Data File : L1628.D
Acq On : 12 Nov 2009 15:49
Operator : MEI
Sample : 100PPB,STD-100PPB,W,5ml,100
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 13 09:45:31 2009
Quant Method : C:\MSDCHEM\1\METHODS\LME1109.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Nov 10 11:14:34 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	126	0.00
2	T	Dichlorodifluoromethane	0.562	0.476	15.3	94	0.00
3	P	Chloromethane	0.826	0.803	2.8	117	0.00
4	C	Vinyl chloride	0.703	0.647	8.0	107	0.00
5	T	Bromomethane	0.359	0.349	2.8	111	0.00
6	T	Chloroethane	0.363	0.345	5.0	121	0.00
7	T	Trichlorofluoromethane	0.560	0.556	0.7	115	0.00
8	T	Acrolein	0.083	0.090	-8.4	138	0.00
9	MC	1,1-Dichloroethene	0.493	0.482	2.2	117	-0.01
10	T	Acetone	0.180	0.152	15.6	102	0.00
11	T	Carbon disulfide	1.921	1.783	7.2	110	-0.01
12	T	Vinyl acetate	2.738	2.419	11.7	105	0.00
13	T	Methylene chloride	0.735	0.637	13.3	102	0.03
14	T	Acrylonitrile	0.267	0.311	-16.5	149	0.00
15	T	tert-Butyl alcohol (TBA)	0.082	0.080	2.4	108	-0.01
16	T	trans-1,2-Dichloroethene	0.778	0.677	13.0	102	0.00
17	T	Methyl tert-butyl ether (MT	2.883	2.402	16.7	98	0.00
18	P	1,1-Dichloroethane	1.543	1.293	16.2	98	0.00
19	T	Diisopropyl ether (DIPE)	2.862	2.641	7.7	108	0.00
20	T	cis-1,2-Dichloroethene	0.879	0.786	10.6	103	0.00
21	T	2,2-Dichloropropane	1.117	0.973	12.9	104	0.00
22	T	2-Butanone (MEK)	0.421	0.451	-7.1	134	0.00
23	T	Bromochloromethane	0.363	0.375	-3.3	117	0.00
25	C	Chloroform	1.556	1.287	17.3	97	0.00
26	T	1,1,1-Trichloroethane	1.044	0.991	5.1	109	0.00
27	T	Carbon tetrachloride	0.736	0.804	-9.2	122	0.00
28	T	1,1-Dichloropropene	1.061	0.879	17.2	100	0.00
29	T	1,2-Dichloroethane (EDC)	1.257	1.041	17.2	97	0.00
30	S	1,2-Dichloroethane-d4	0.696	0.615	11.6	113	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	116	0.00
32	M	Benzene	1.970	1.759	10.7	96	0.00
33	M	Trichloroethene	0.470	0.439	6.6	102	0.00
34	C	1,2-Dichloropropane	0.501	0.467	6.8	99	0.00
35	T	Dibromomethane	0.317	0.292	7.9	97	0.00
37	T	Bromodichloromethane	0.668	0.615	7.9	101	0.00
38	T	2-Chloroethyl vinyl ether	0.393	0.318	19.1	91	0.00
39	T	cis-1,3-Dichloropropene	0.898	0.776	13.6	96	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.508	0.418	17.7	93	0.00
41	S	Toluene-d8	1.192	1.102	7.6	106	0.00
42	MC	Toluene	1.164	1.116	4.1	103	0.00
43	T	trans-1,3-Dichloropropene	0.775	0.724	6.6	95	0.00
44	T	1,1,2-Trichloroethane	0.387	0.345	10.9	94	0.00
45	T	Tetrachloroethene	0.351	0.413	-17.7	131	0.00
46	T	1,3-Dichloropropane	0.806	0.697	13.5	92	0.00
47	T	2-Hexanone	0.346	0.291	15.9	91	0.00

48	T	Dibromochloromethane	0.380	0.443	-16.6	118	0.00
49	T	1,2-Dibromoethane (EDB)	0.435	0.418	3.9	102	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	120	0.00
51	MP	Chlorobenzene	1.087	1.069	1.7	110	0.00
52	T	1,1,1,2-Tetrachloroethane	0.327	0.379	-15.9	124	0.00
53	C	Ethylbenzene	1.871	1.728	7.6	104	0.00
54	T	m,p-Xylene	0.680	0.704	-3.5	115	0.00
55	T	o-Xylene	0.696	0.723	-3.9	113	0.00
56	T	Styrene	1.222	1.244	-1.8	108	0.00
57	P	Bromoform	0.152	0.182	-19.7	126	0.00
58	T	Isopropylbenzene	1.579	1.637	-3.7	115	0.00
59	S	Bromofluorobenzene	0.560	0.492	12.1	105	0.00
60	P	1,1,2,2-Tetrachloroethane	0.564	0.471	16.5	91	0.00
61	T	Bromobenzene	0.399	0.458	-14.8	125	0.00
62	T	1,2,3-Trichloropropane	0.486	0.417	14.2	97	0.00
63	T	n-Propylbenzene	1.963	1.865	5.0	108	0.00
64	T	2-Chlorotoluene	1.339	1.235	7.8	104	0.00
65	T	1,3,5-Trimethylbenzene	1.356	1.394	-2.8	115	0.00
66	T	4-Chlorotoluene	1.545	1.412	8.6	104	0.00
67	T	tert-Butylbenzene	1.000	1.065	-6.5	119	0.00
68	T	1,2,4-Trimethylbenzene	1.442	1.467	-1.7	114	0.00
69	T	sec-Butylbenzene	1.432	1.542	-7.7	121	0.00
70	T	1,3-Dichlorobenzene	0.751	0.836	-11.3	124	0.00
71	T	4-Isopropyltoluene	1.144	1.244	-8.7	119	0.00
72	T	1,4-Dichlorobenzene	0.782	0.861	-10.1	123	0.00
73	T	n-Butylbenzene	0.648	0.648	0.0	113	0.00
74	T	1,2-Dichlorobenzene	0.747	0.817	-9.4	122	0.00
75	T	1,2-Dibromo-3-chloropropane	0.092	0.085	7.6	113	0.00
76	T	1,2,4-Trichlorobenzene	0.487	0.549	-12.7	130	0.00
77	T	Hexachlorobutadiene	0.162	0.192	-18.5	141	0.00
78	T	Naphthalene	1.308	1.304	0.3	108	0.00
79	T	1,2,3-Trichlorobenzene	0.452	0.488	-8.0	124	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.224	0.236	-5.4	120	0.00
81	T	Methyl acetate	0.268	0.255	4.9	110	0.00
82	T	Cyclohexane	0.472	0.466	1.3	108	0.00
83	T	Methylcyclohexane	0.328	0.331	-0.9	110	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LME1109.M Fri Nov 13 09:45:36 2009

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 11/10/2009

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD-BLK	SOIL	F5010.D	130	91	77
BLK-SPK	SOIL	F5011.D	109	95	98
SOIL-MS	SOIL	F5012.D	132	92	79
SOIL-MSD	SOIL	F5013.D	136	90	80
11371-003	SOIL	F5014.D	92	90	70
11345-014	SOLID	F5016.D	113	88	69
11437-003	SOIL	F5018.D	105	92	73
11437-005	SOIL	F5019.D	90	88	73
11437-007	SOIL	F5021.D	107	86	75
11437-008	SOIL	F5022.D	77	89	73
11437-004	SOIL	F5023.D	99	93	79
11437-002	SOIL	F5024.D	77	90	76
11437-006	SOIL	F5025.D	106	92	86

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	76-138	39-156
SMC2 = Toluene-d8	50 ppb	66-119	50-136
SMC3 = Bromofluorobenzene	50 ppb	43-136	51-137

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 11/12/2009

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD-BLK	SOIL	L1631.D	82	91	87
11437-001	MEOH	L1632.D	80	90	87
BLK-SPK	MEOH	L1633.D	80	93	88
11434-001MS	MEOH	L1634.D	81	91	86
11434-0011MSD	MEOH	L1635.D	81	91	85
11434-001	MEOH	L1636.D	79	90	87
11434-002	MEOH	L1637.D	79	91	87
11434-003	MEOH	L1638.D	79	90	85
11470-017	MEOH	L1639.D	78	90	86
11470-022	MEOH	L1640.D	78	90	86
11470-002	MEOH	L1641.D	78	89	86
11470-008	MEOH	L1642.D	77	90	86
11424-001	SOIL	L1643.D	77	90	87
11425-001	SOIL	L1645.D	79	91	89
11458-001	SOIL	L1647.D	76	91	86
11404-001	SOIL	L1649.D	75	90	87
11399-001	SOIL	L1650.D	76	92	90

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	45-154	51-164
SMC2 = Toluene-d8	50 ppb	47-151	52-157
SMC3 = Bromofluorobenzene	50 ppb	48-149	56-154

Column to be used to flag recovery values

SOIL VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: SOIL-MSD

Batch No.: FSO111009A

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	51.5	103	46 - 179
Benzene	50.0	0.0	45.7	91	44 - 150
Trichloroethene	50.0	0.0	45.9	92	41 - 140
Toluene	50.0	0.4	42.0	83	48 - 142
Chlorobenzene	50.0	0.0	38.5	77	48 - 146

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	52.1	104	1	22	46 - 179
Benzene	0.0	45.8	92	1	18	44 - 150
Trichloroethene	0.0	46.3	93	1	16	41 - 140
Toluene	0.4	45.0	89	7	16	48 - 142
Chlorobenzene	0.0	42.7	85	10	16	48 - 146

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

MEOH VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 11434-001

Batch No.: LME111209A

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	63.0	126	46 - 150
Benzene	50.0	0.0	51.0	102	63 - 146
Trichloroethene	50.0	0.0	54.6	109	60 - 152
Toluene	50.0	0.0	53.5	107	63 - 151
Chlorobenzene	50.0	0.0	55.4	111	75 - 149

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	56.6	113	11	17	46 - 150
Benzene	0.0	44.9	90	13	14	63 - 146
Trichloroethene	0.0	48.4	97	12	15	60 - 152
Toluene	0.0	47.8	96	11	15	63 - 151
Chlorobenzene	0.0	49.2	98	12	12	75 - 149

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F4808.D

Date Analyzed: 10/26/2009

Instrument ID: MSD_F

Time Analyzed: 12:36

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	55176		5.98		89318		6.80		101784		10.13	
	UPPER LIMIT	110352		6.48		178636		7.30		203568		10.63	
	LOWER LIMIT	27588		5.48		44659		6.30		50892		9.63	
	LAB SAMPLE ID												
01	STD-1PPB	45214		5.99		82102		6.80		70665		10.13	
02	STD-5PPB	40574		5.98		75542		6.80		67570		10.13	
03	STD-20PPB	49797		5.99		84420		6.80		91972		10.13	
04	STD-200PPB	57110		5.98		93235		6.80		108481		10.13	
05	STD-150PPB	62485		5.99		101196		6.80		114857		10.13	
06	METHOD-BLK	40430		5.99		78681		6.80		80949		10.13	
07	BLK-SPK	52390		5.98		86802		6.80		94873		10.13	
08	SOIL-MS	46043		5.98		91593		6.80		95500		10.13	
09	SOIL-MSD	48160		5.98		90731		6.80		94198		10.13	
10	10782-008	40787		5.99		76888		6.80		71393		10.13	
11	10782-018	43021		5.99		82742		6.80		78558		10.13	
12	10802-001	37998		5.98		72418		6.80		65336		10.13	
13	10867-002	45080		5.98		88583		6.80		76224		10.13	
14	10867-004	42964		5.98		77969		6.80		72870		10.13	
15	10868-002	50001		5.98		84097		6.79		78353		10.13	
16	10868-004	47515		5.98		90154		6.80		77105		10.13	
17	10859-001	47855		5.98		83974		6.79		78741		10.13	
18	10859-002	54555		5.98		100558		6.79		83800		10.13	
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F5007.D Date Analyzed: 11/10/2009

Instrument ID: MSD_F Time Analyzed: 11:51

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	43119	5.98	73529	6.80	89991	10.13
	UPPER LIMIT	86238	6.48	147058	7.30	179982	10.63
	LOWER LIMIT	21559.5	5.48	36764.5	6.30	44995.5	9.63
	LAB SAMPLE ID						
01	TPH-1PPM	43960	5.99	87117	6.80	97505	10.13
02	METHOD-BLK	31178	5.99	65843	6.80	72833	10.13
03	BLK-SPK	43461	5.99	81967	6.80	95217	10.13
04	SOIL-MS	37357	5.99	75857	6.80	86261	10.13
05	SOIL-MSD	34210	5.99	76758	6.80	83786	10.13
06	11371-003	28114	5.99	56102	6.80	58028	10.13
07	11345-014	29371	5.99	62751	6.80	65800	10.13
08	11437-003	28428	5.99	59716	6.80	64659	10.13
09	11437-005	41436	5.98	88141	6.80	88057	10.13
10	11437-007	31583	5.99	71793	6.80	72503	10.13
11	11437-008	46082	5.98	84548	6.80	88773	10.13
12	11437-004	28849	5.99	56331	6.80	65608	10.13
13	11437-002	44493	5.99	85956	6.80	89967	10.13
14	11437-006	56229	5.98	109960	6.80	125309	10.13
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L1567.D

Date Analyzed: 11/10/2009

Instrument ID: MSD_L

Time Analyzed: 3:16

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	151843	6.20	270094	7.01	299295	10.34
	UPPER LIMIT	303686	6.70	540188	7.51	598590	10.84
	LOWER LIMIT	75921.5	5.70	135047	6.51	149647.5	9.84
	LAB SAMPLE ID						
01	STD1PPB	158192	6.19	281381	7.01	297985	10.33
02	STD-5PPB	149383	6.20	263407	7.01	283270	10.33
03	STD-20PPB	165671	6.19	294812	7.01	321049	10.33
04	STD-150PPB	169394	6.19	298922	7.01	330838	10.33
05	STD-200PPB	167798	6.19	293685	7.01	327879	10.34
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L1628.D Date Analyzed: 11/12/2009

Instrument ID: MSD_L Time Analyzed: 15:49

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	191224		6.19		312004		7.01		357687		10.33	
	UPPER LIMIT	382448		6.69		624008		7.51		715374		10.83	
	LOWER LIMIT	95612		5.69		156002		6.51		178843.5		9.83	
	LAB SAMPLE ID												
01	METHOD-BLK	176241		6.20		293511		7.01		320086		10.33	
02	11437-001	187564		6.19		308875		7.01		334561		10.33	
03	BLK-SPK	191009		6.19		312862		7.01		357104		10.33	
04	11434-001MS	170264		6.19		281878		7.01		312816		10.33	
05	11434-0011MSD	186767		6.19		307115		7.01		341338		10.33	
06	11434-001	195685		6.19		321831		7.00		348305		10.33	
07	11434-002	213689		6.19		348369		7.00		376710		10.33	
08	11434-003	190297		6.19		313453		7.00		341137		10.33	
09	11470-017	211202		6.19		346543		7.00		373819		10.33	
10	11470-022	208947		6.19		346689		7.00		370064		10.33	
11	11470-002	211252		6.19		347738		7.00		370900		10.33	
12	11470-008	194557		6.19		319432		7.00		342305		10.33	
13	11424-001	220675		6.19		361719		7.00		393942		10.33	
14	11425-001	213990		6.19		353058		7.01		382002		10.33	
15	11458-001	219889		6.19		358185		7.00		388645		10.33	
16	11404-001	223777		6.19		362466		7.00		391949		10.33	
17	11399-001	210365		6.19		342396		7.01		380635		10.33	
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-12-09\
Data File : L1632.D
Acq On : 12 Nov 2009 17:47
Operator : MEI
Sample : TRIP,11437-001,M,0.05g,0
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 13 09:39:59 2009
Quant Method : C:\MSDCHEM\1\METHODS\LME1109.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Nov 10 11:14:34 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.19	168	187564	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.01	114	308875	50.00	UG	0.00
50) Chlorobenzene-d5	10.33	117	334561	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.53	65	104751	40.14	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 80.28%			
41) Toluene-d8	8.67	98	332932	45.20	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 90.40%			
59) Bromofluorobenzene	11.73	95	162068	43.27	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 86.54%			

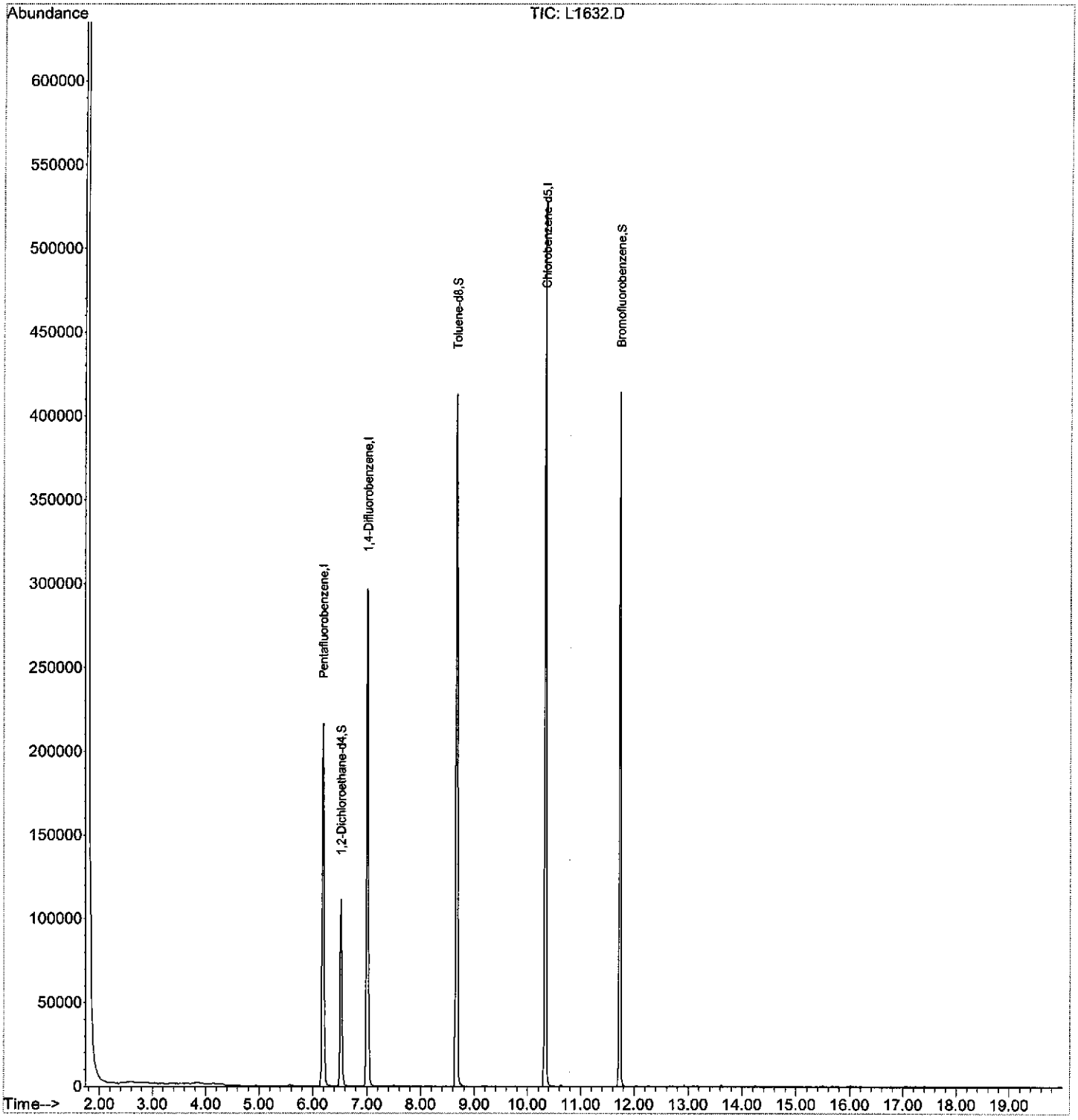
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-12-09\
Data File : L1632.D
Acq On : 12 Nov 2009 17:47
Operator : MEI
Sample : TRIP,11437-001,M,0.05g,0
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 13 09:39:59 2009
Quant Method : C:\MSDCHEM\1\METHODS\LME1109.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Nov 10 11:14:34 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\11-12-09\
Data File : L1632.D
Acq On : 12 Nov 2009 17:47
Operator : MEI
Sample : TRIP,11437-001,M,0.05g,0
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LME1109.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.191	433	440	460	rBV	216646	529558	52.96%	12.747%
2	6.526	465	473	492	rVB	111221	274856	27.49%	6.616%
3	7.003	514	520	533	rBV	296835	706923	70.70%	17.016%
4	8.668	677	684	702	rBV	412906	880535	88.07%	21.195%
5	10.333	841	848	862	rBV	528930	999855	100.00%	24.067%
6	11.734	980	986	998	rVB	414191	762809	76.29%	18.361%

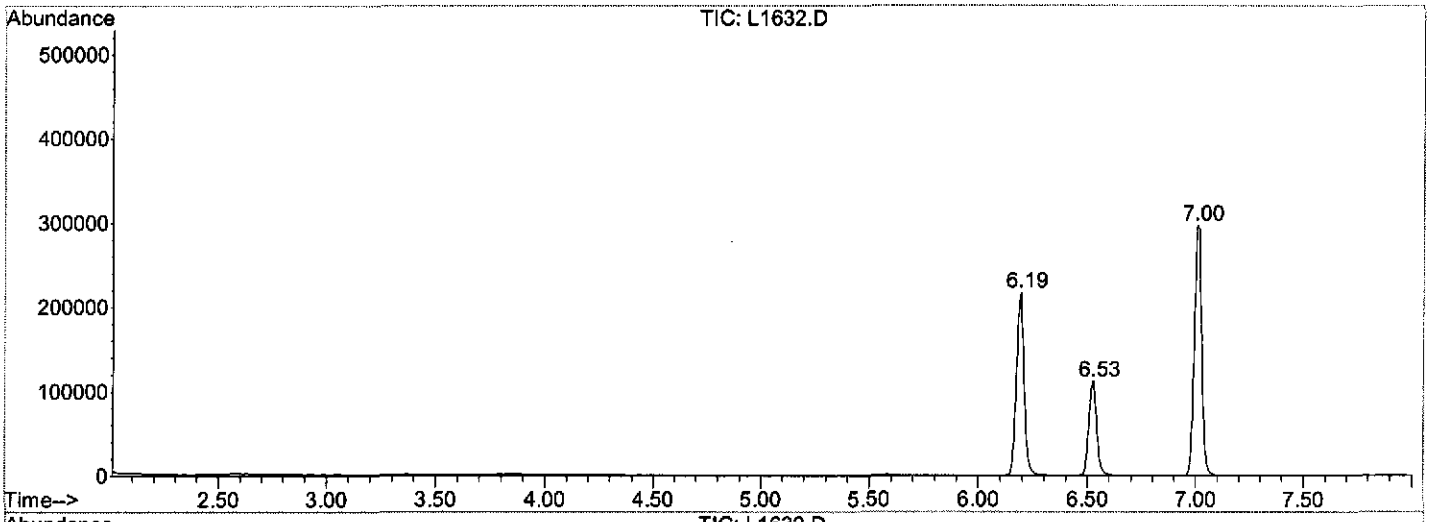
Sum of corrected areas: 4154536

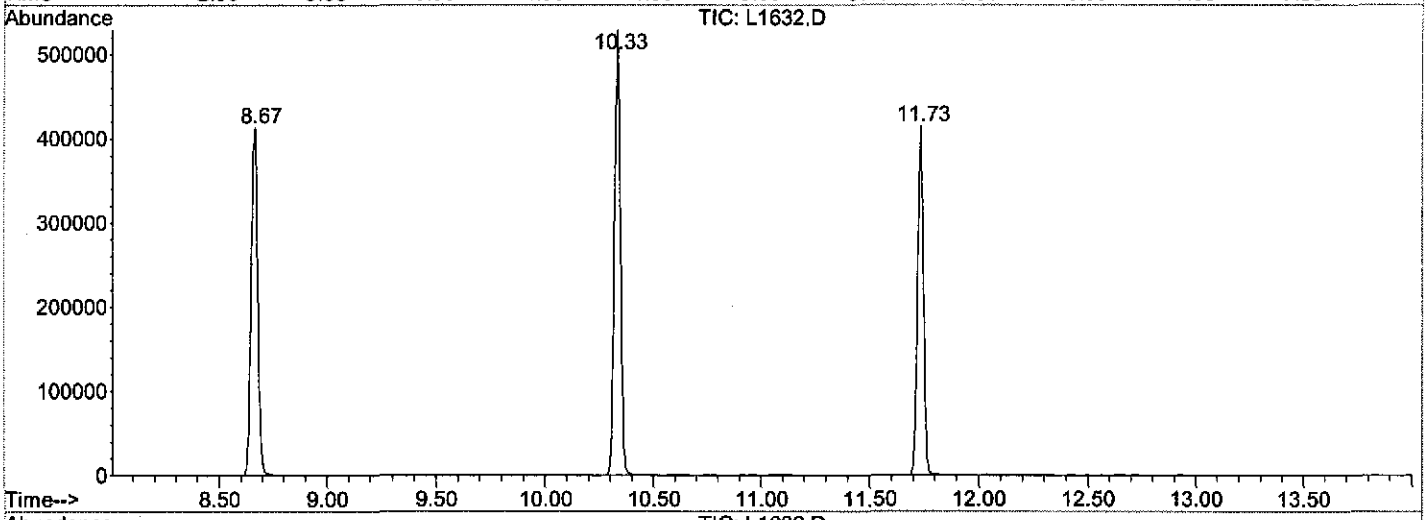
LSC Report - Integrated Chromatogram

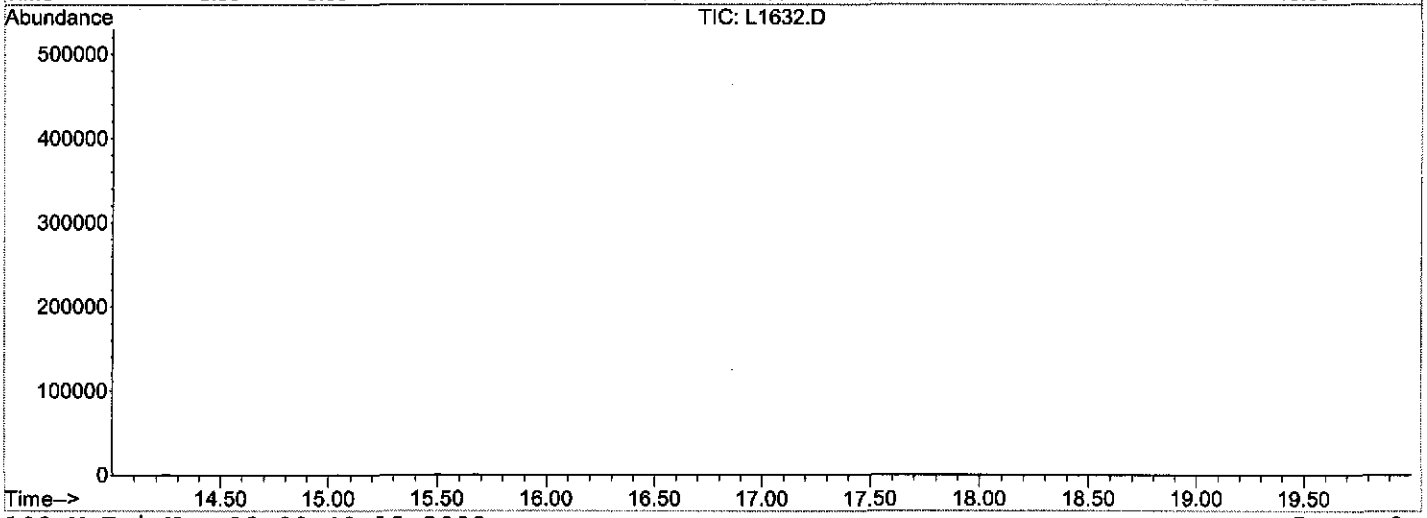
Data Path : C:\MSDChem\1\DATA\11-12-09\
Data File : L1632.D
Acq On : 12 Nov 2009 17:47
Operator : MEI
Sample : TRIP,11437-001,M,0.05g,0
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LME1109.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 11 16:03:59 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration

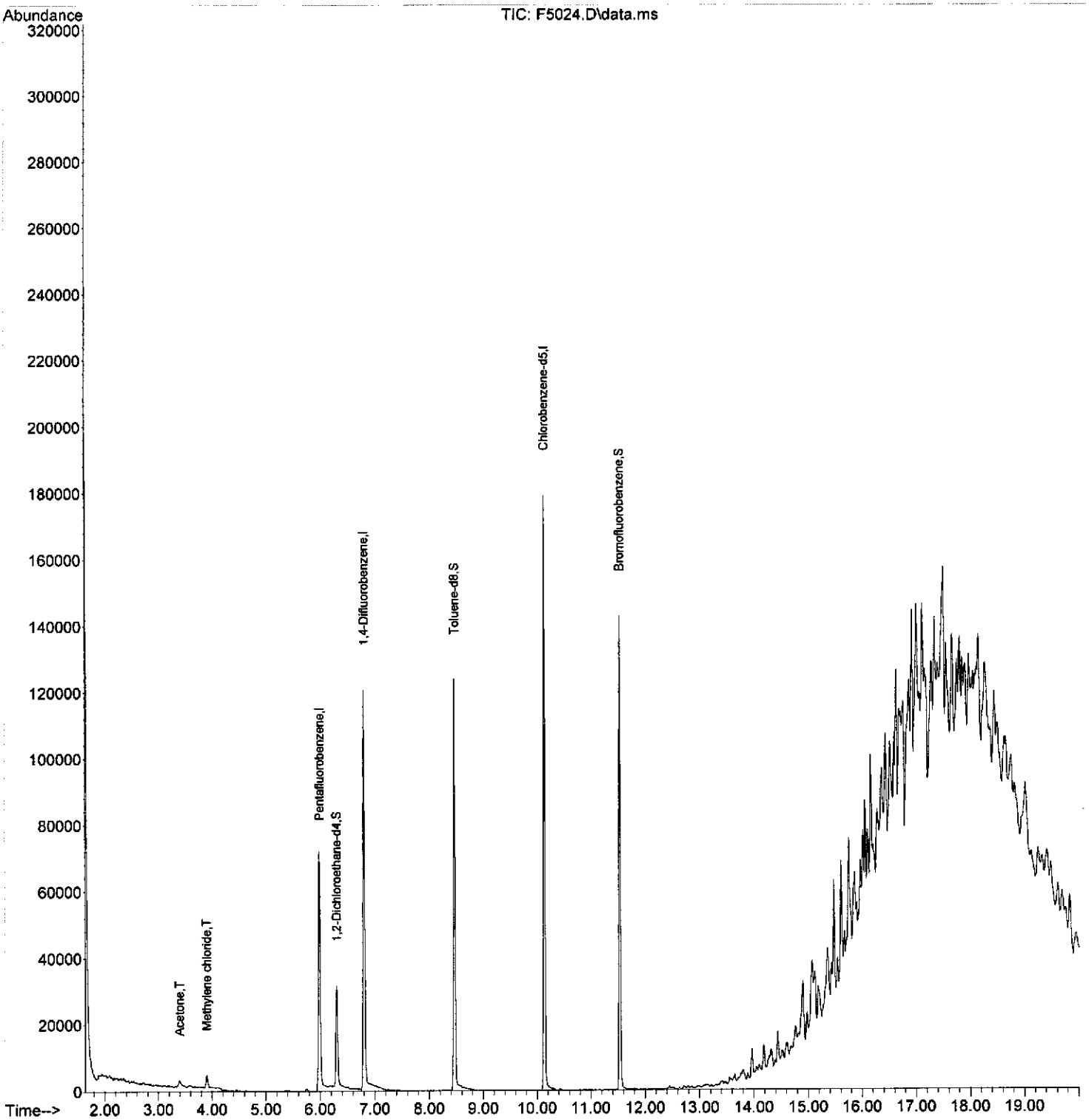
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	5.992	168	44493	50.00	UG		0.01
31) 1,4-Difluorobenzene	6.804	114	85956	50.00	UG		0.00
50) Chlorobenzene-d5	10.134	117	89967	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.297	65	30433	38.65	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 77.30%				
41) Toluene-d8	8.469	98	87340	45.11	UG		0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 90.22%				
59) Bromofluorobenzene	11.535	95	44759	37.82	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 75.64%				
Target Compounds							Qvalue
10) Acetone	3.393	43	4666	18.72	UG		98
13) Methylene chloride	3.901	84	2522	4.49	UG	#	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 11 16:03:59 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5024.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.941	23	31	35	rBV3	1633	8083	2.50%	0.321%
2	3.393	169	174	187	rVB	2079	9001	2.79%	0.357%
3	3.901	220	224	233	rBV	3816	8983	2.78%	0.356%
4	5.982	423	429	442	rBV	72007	169640	52.53%	6.730%
5	6.297	455	460	479	rVB	30615	73458	22.74%	2.914%
6	6.804	503	510	519	rBV	120320	238449	73.83%	9.459%
7	8.469	664	674	688	rBV	123895	250532	77.57%	9.939%
8	10.134	830	838	852	rBV	179083	322967	100.00%	12.812%
9	11.535	969	976	992	rBV	142719	242737	75.16%	9.629%
10	12.987	1111	1119	1123	rBV7	773	3268	1.01%	0.130%
11	13.403	1155	1160	1164	rBV7	1307	4844	1.50%	0.192%
12	13.555	1171	1175	1180	rBV6	2140	6888	2.13%	0.273%
13	13.646	1180	1184	1187	rVB5	2236	4188	1.30%	0.166%
14	13.799	1188	1199	1205	rBV9	3298	15843	4.91%	0.628%
15	13.890	1205	1208	1211	rBV5	1788	3410	1.06%	0.135%
16	13.961	1212	1215	1219	rBV2	8813	19916	6.17%	0.790%
17	14.185	1233	1237	1241	rBV4	7539	16950	5.25%	0.672%
18	14.316	1242	1250	1254	rVV4	5360	20096	6.22%	0.797%
19	14.438	1258	1262	1266	rBV3	9408	18855	5.84%	0.748%
20	14.601	1274	1278	1283	rBV7	4551	15005	4.65%	0.595%
21	14.763	1290	1294	1297	rBV4	5678	15138	4.69%	0.601%
22	14.895	1301	1307	1312	rVB5	17705	50058	15.50%	1.986%
23	14.976	1312	1315	1317	rBV3	8293	16564	5.13%	0.657%
24	15.068	1318	1324	1327	rBV5	20039	65375	20.24%	2.593%
25	15.179	1333	1335	1342	rBV6	9997	29734	9.21%	1.180%
26	15.352	1349	1352	1357	rVB6	14370	35806	11.09%	1.420%
27	15.474	1357	1364	1368	rBV5	34604	77783	24.08%	3.086%
28	15.545	1369	1371	1373	rBV	8445	12856	3.98%	0.510%
29	15.606	1373	1377	1381	rBV3	36310	80638	24.97%	3.199%
30	15.748	1388	1391	1397	rBV6	30810	75847	23.48%	3.009%
31	15.860	1398	1402	1408	rBV3	18494	63727	19.73%	2.528%
32	15.961	1410	1412	1414	rBV3	16380	27999	8.67%	1.111%
33	16.052	1419	1421	1424	rVB2	23711	36320	11.25%	1.441%
34	16.154	1429	1431	1440	rVV2	36361	98868	30.61%	3.922%
35	16.428	1456	1458	1462	rVB3	29785	55818	17.28%	2.214%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	16.509	1464	1466	1471	rVV4	19871	47425	14.68%	1.881%
37	16.682	1481	1483	1487	rBV5	22123	73627	22.80%	2.921%
38	16.865	1494	1501	1503	rBV4	34904	130494	40.40%	5.177%
39	16.915	1504	1506	1509	rVB3	43950	73589	22.79%	2.919%

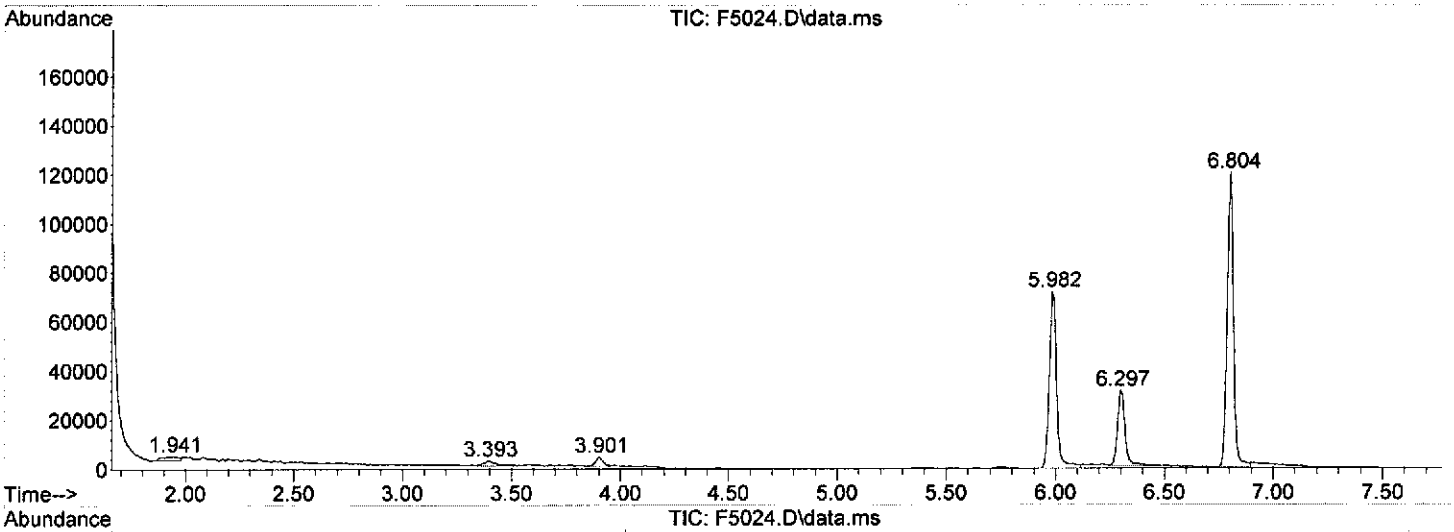
Sum of corrected areas: 2520779

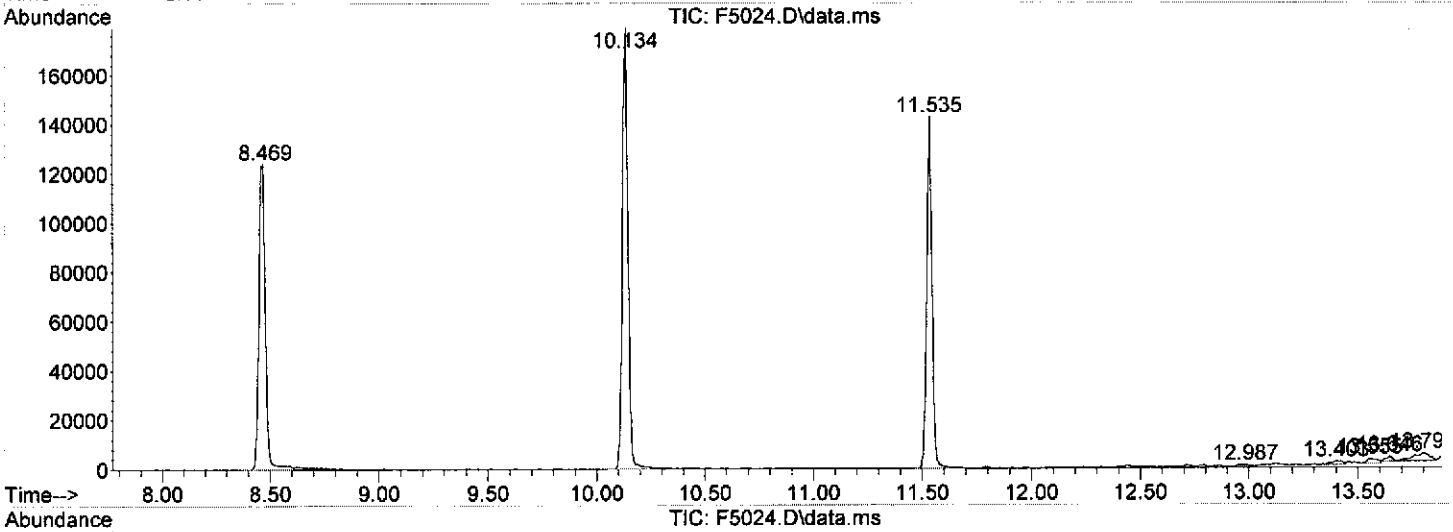
LSC Report - Integrated Chromatogram

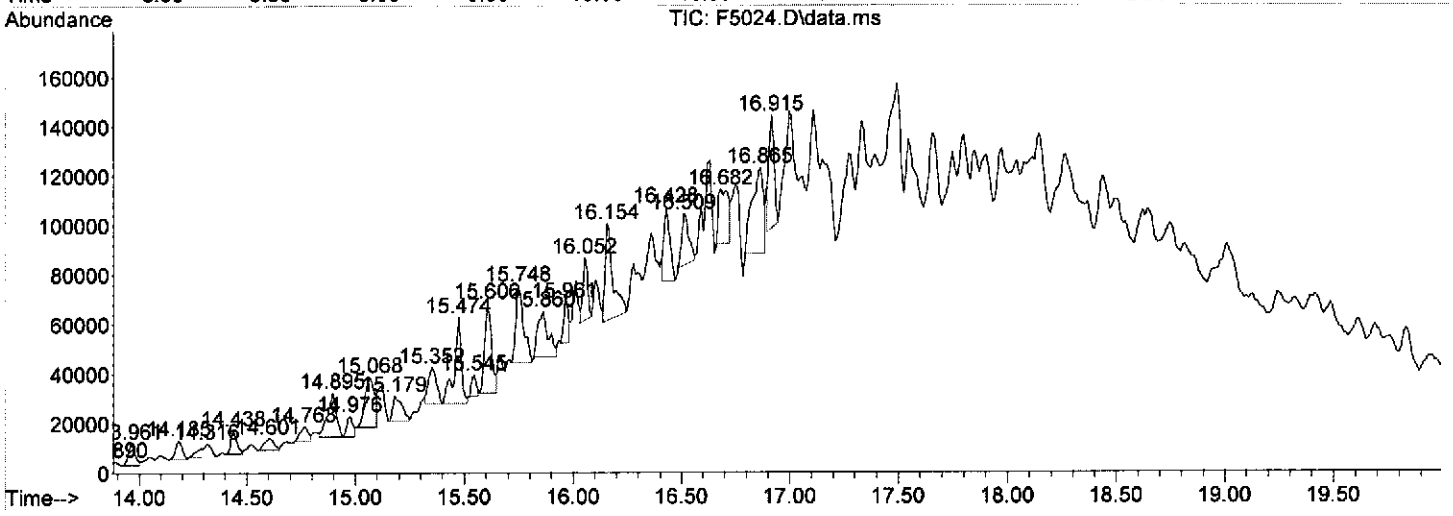
Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

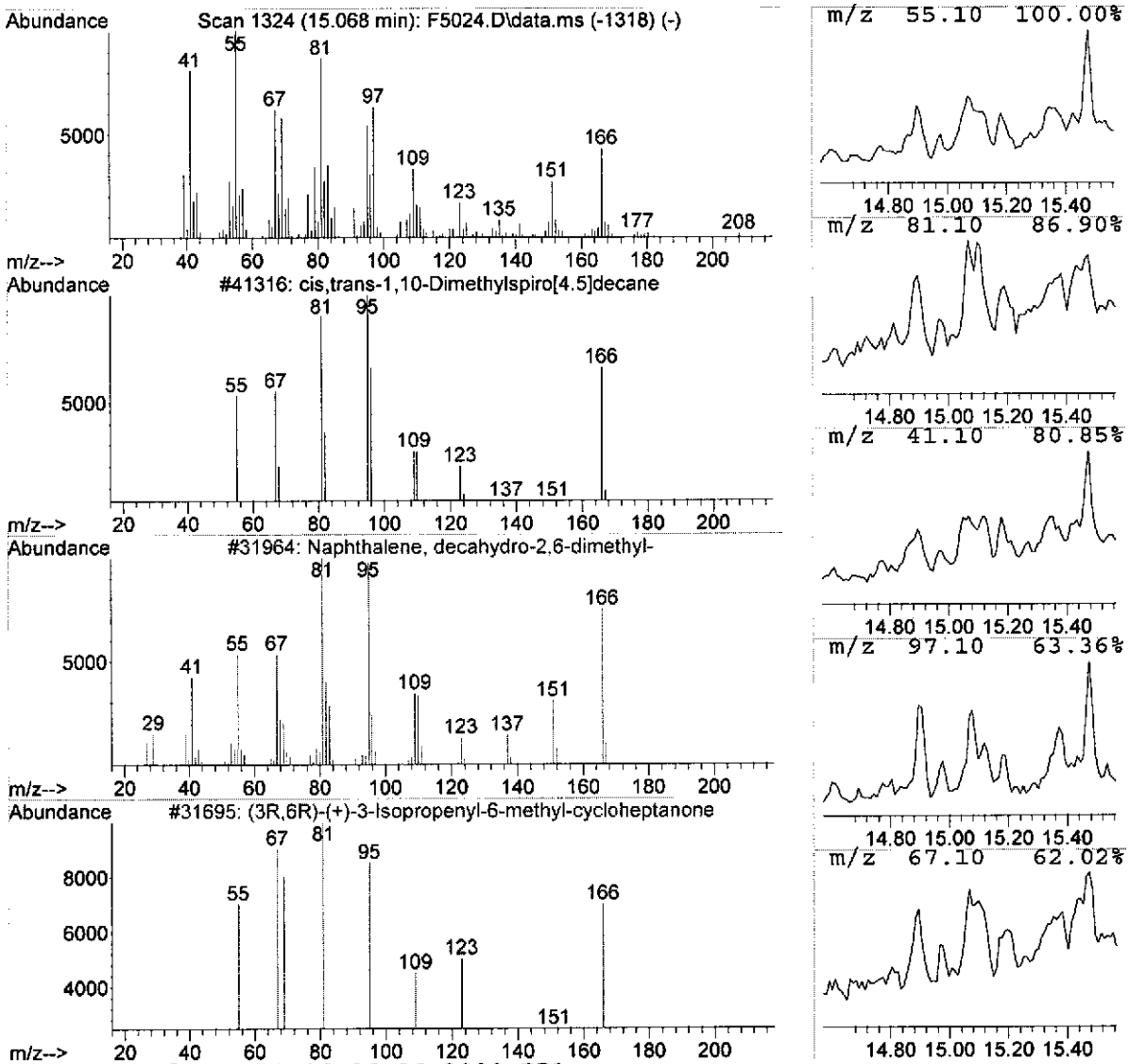
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Unknown Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.07	10.12 UG	65375	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	cis,trans-1,10-Dimethylspiro[4.5...	166	C12H22	1000111-72-3	89
2	Naphthalene, decahydro-2,6-dimet...	166	C12H22	001618-22-0	68
3	(3R,6R)-(+)-3-Isopropenyl-6-meth...	166	C11H18O	1000144-53-4	62
4	7-Tetradecyne	194	C14H26	035216-11-6	52
5	2(1H)-Naphthalenone, octahydro-1...	166	C11H18O	021102-88-5	50



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

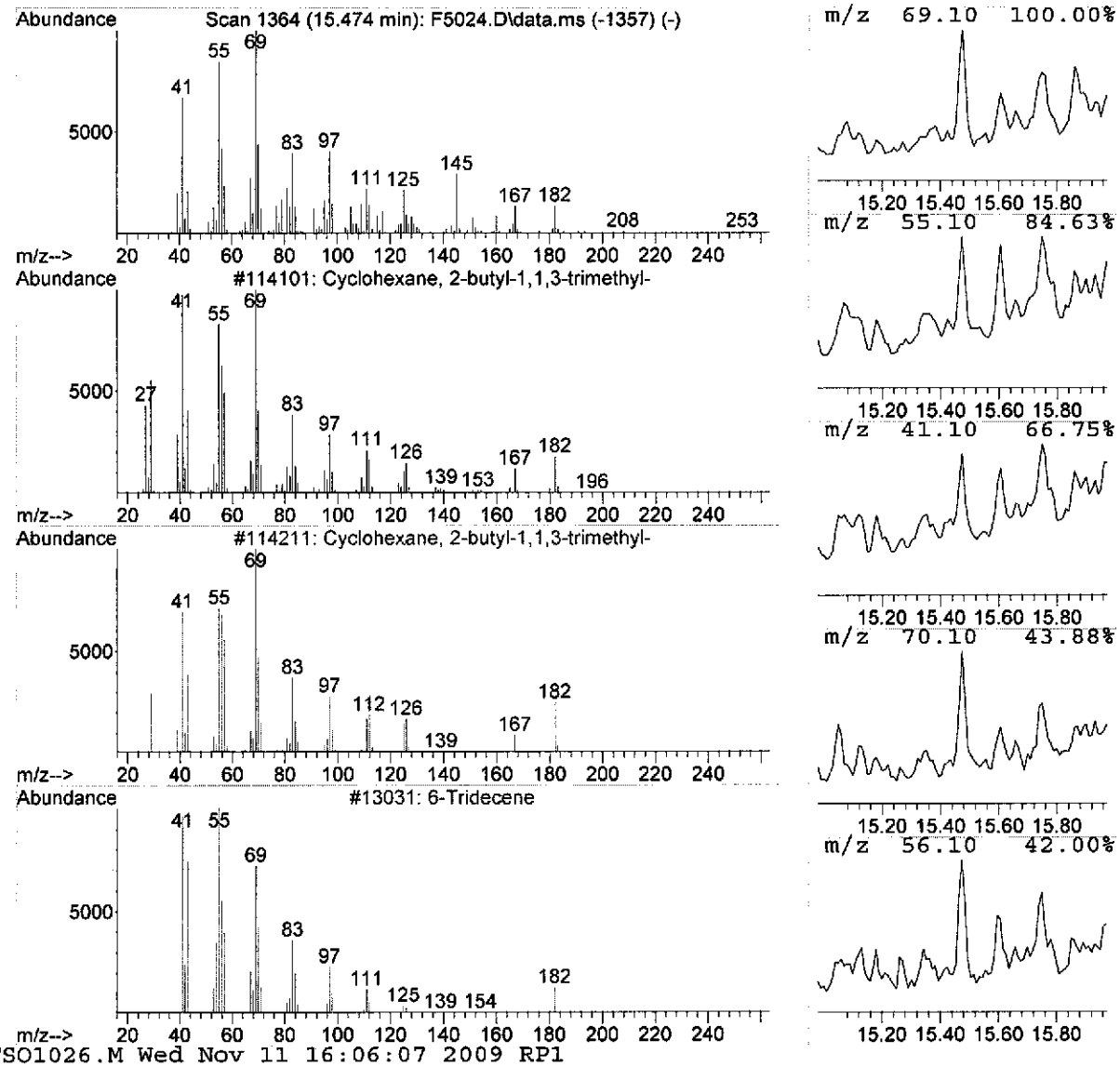
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown cyclic hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.47	12.04 UG	77783	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 2-butyl-1,1,3-trime...	182	C13H26	054676-39-0	86
2	Cyclohexane, 2-butyl-1,1,3-trime...	182	C13H26	054676-39-0	74
3	6-Tridecene	182	C13H26	024949-38-0	60
4	Cyclohexane, 2-butyl-1,1,3-trime...	182	C13H26	054676-39-0	58
5	6-Tridecene, (Z)-	182	C13H26	006508-77-6	53



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

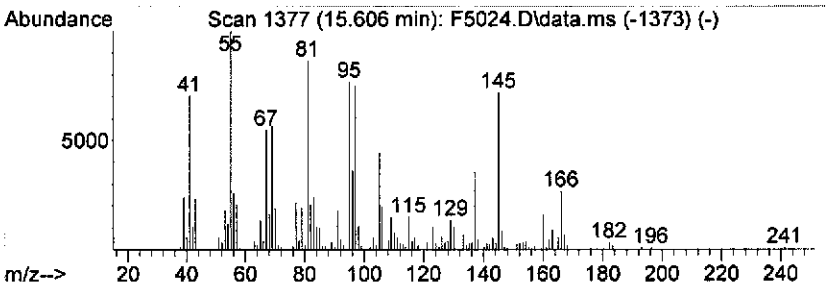
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

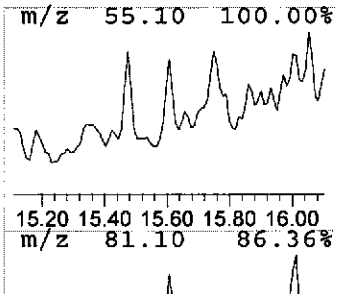
****

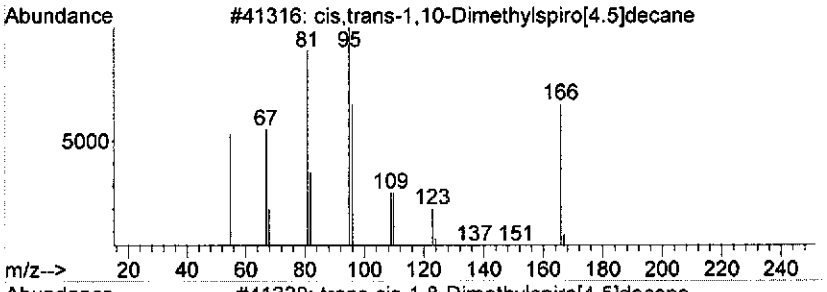
Peak Number 3 Unknown Concentration Rank 3

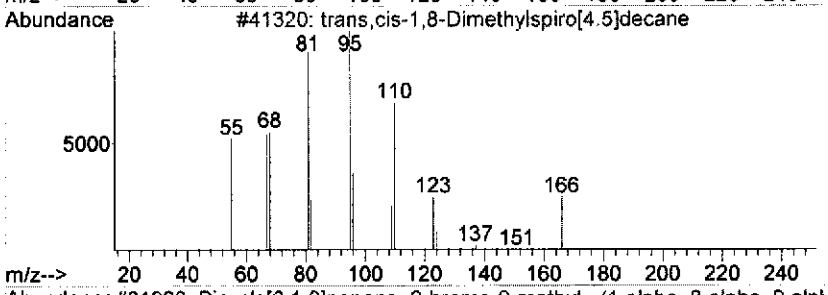
R.T.	EstConc	Area	Relative to ISTD	R.T.
15.61	12.48 UG	80638	Chlorobenzene-d5	10.13

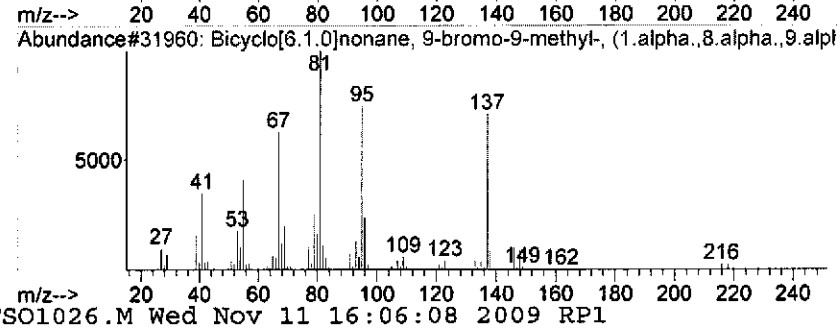
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	cis,trans-1,10-Dimethylspiro[4.5...	166	C12H22	1000111-72-3	53
2	trans,cis-1,8-Dimethylspiro[4.5]...	166	C12H22	1000111-72-9	49
3	Bicyclo[6.1.0]nonane, 9-bromo-9-...	216	C10H17Br	059474-03-2	43
4	3,5-Octadiene, 4,5-diethyl-	166	C12H22	067652-84-0	38
5	Naphthalene, 2-ethyldecahydro-	166	C12H22	001618-23-1	38











Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

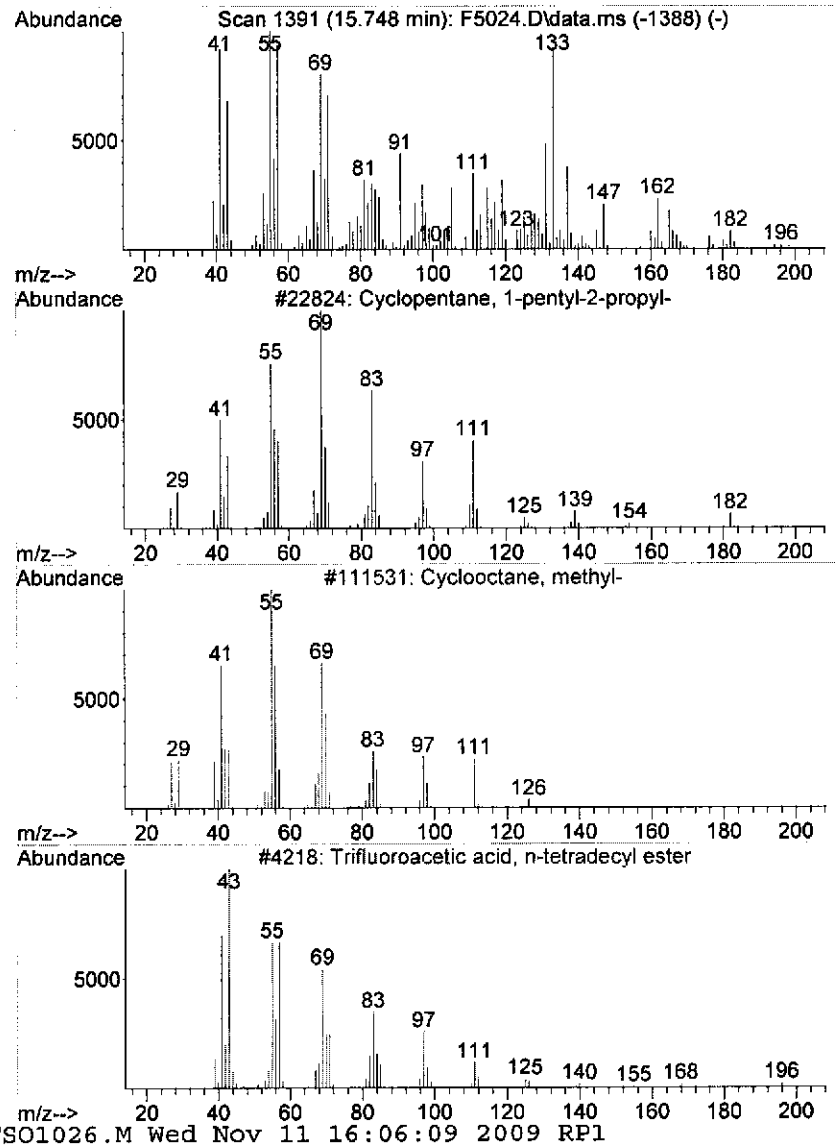
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

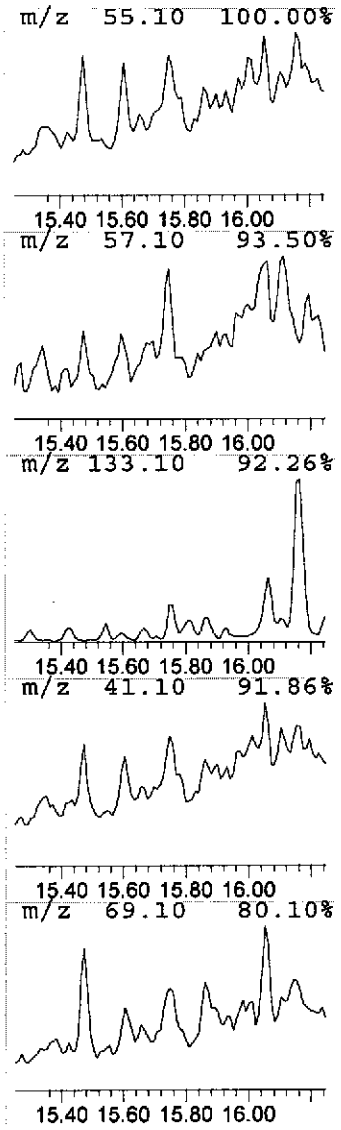
****

Peak Number 4 Unknown cyclic hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.75	11.74 UG	75847	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1-pentyl-2-propyl-	182	C13H26	062199-51-3	30
2	Cyclooctane, methyl-	126	C9H18	001502-38-1	25
3	Trifluoroacetic acid, n-tetradec...	310	C16H29F3O2	1000216-79-0	20
4	Cyclopentane, 1-butyl-2-propyl-	168	C12H24	062199-50-2	20
5	1-Heptadecanol	256	C17H36O	001454-85-9	18





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

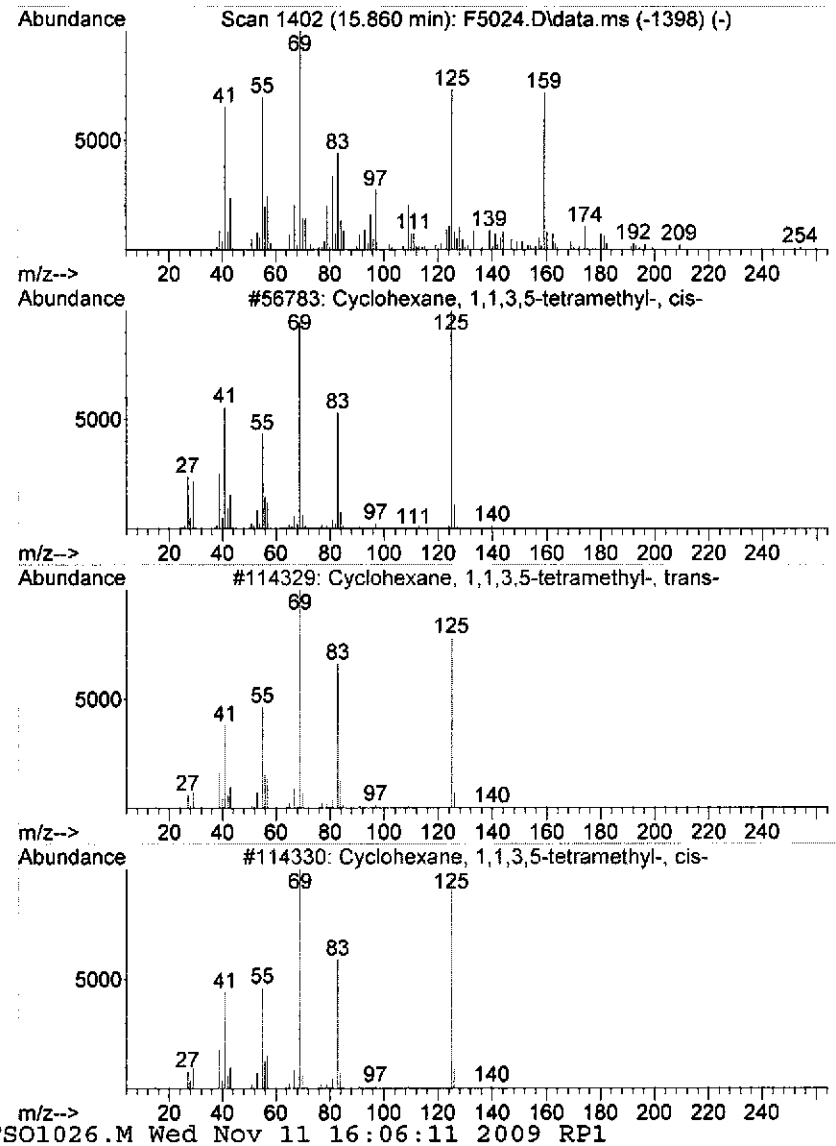
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

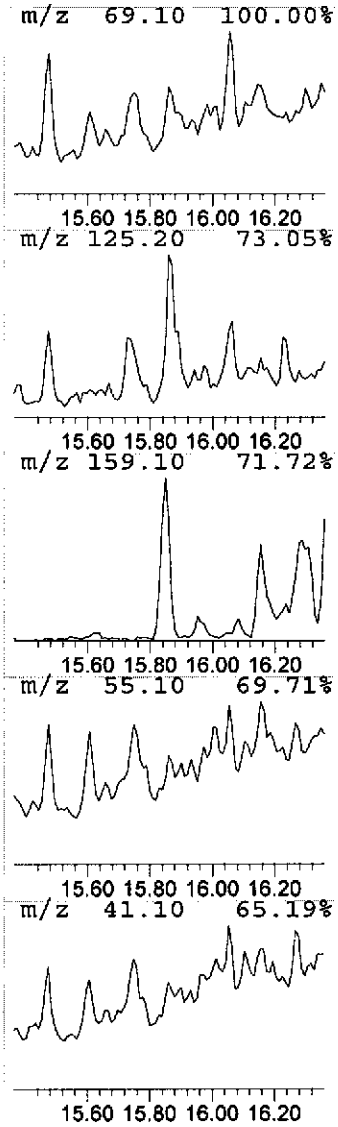
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 5 Unknown cyclic hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.86	9.87 UG	63727	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,1,3,5-tetramethyl...	140	C10H20	050876-32-9	46
2	Cyclohexane, 1,1,3,5-tetramethyl...	140	C10H20	050876-31-8	46
3	Cyclohexane, 1,1,3,5-tetramethyl...	140	C10H20	050876-32-9	46
4	Cyclohexane, 2,4-diethyl-1-methyl-	154	C11H22	061142-70-9	43
5	Cyclohexane, 1,3,5-trimethyl-2-o...	378	C27H54	055282-34-3	38





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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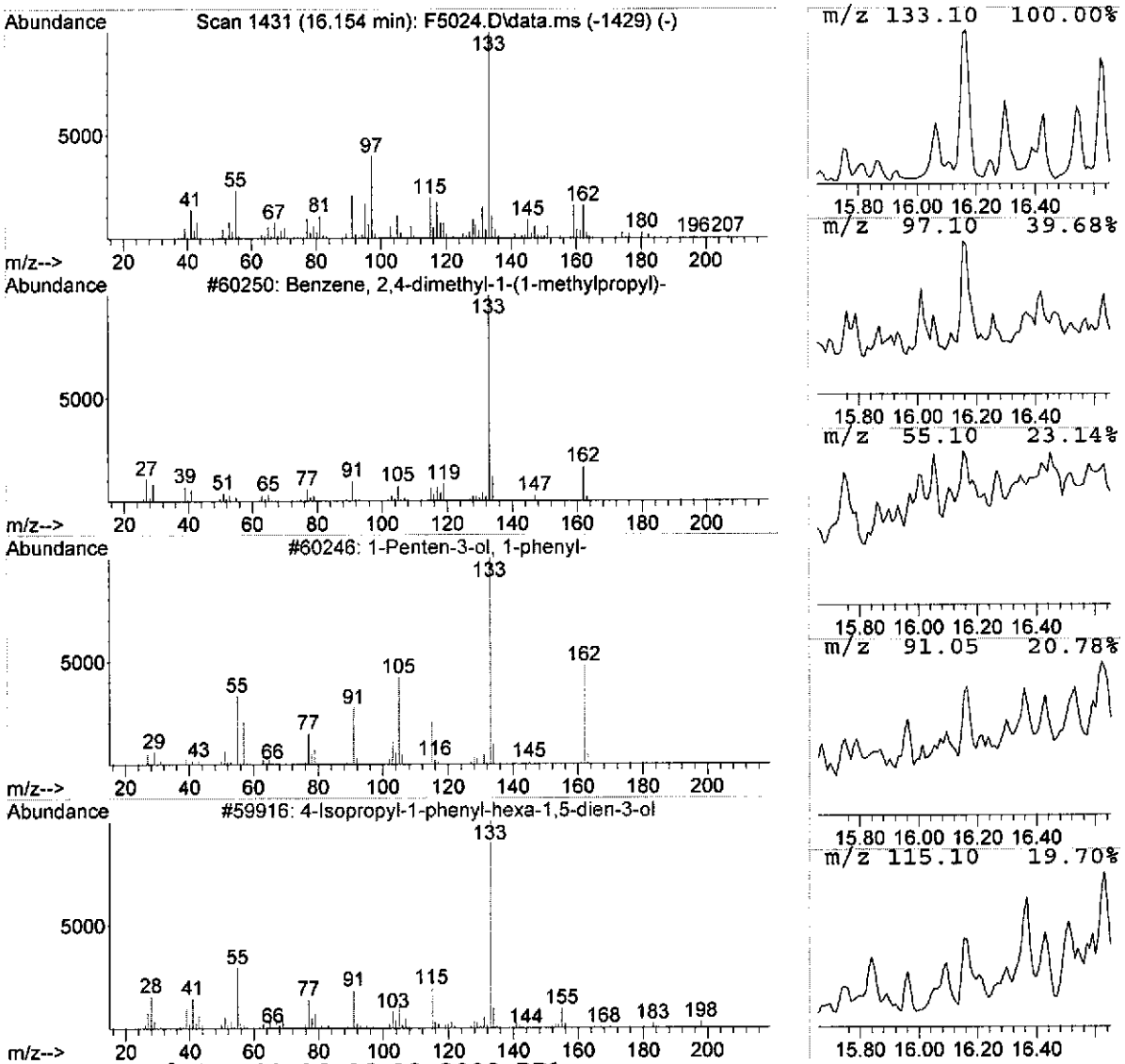
Peak Number 6 Substituted benzene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.15	15.31 UG	98868	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2,4-dimethyl-1-(1-methy...	162	C12H18	001483-60-9	43
2	1-Penten-3-ol, 1-phenyl-	162	C11H14O	034862-94-7	43
3	4-Isopropyl-1-phenyl-hexa-1,5-di...	216	C15H20O	1000190-36-2	43
4	Benzene, 1-ethyl-4-(1-methylethyl)-	148	C11H16	004218-48-8	38
5	Benzenepropanoic acid, .beta.,3,...	206	C13H18O2	056298-99-8	37



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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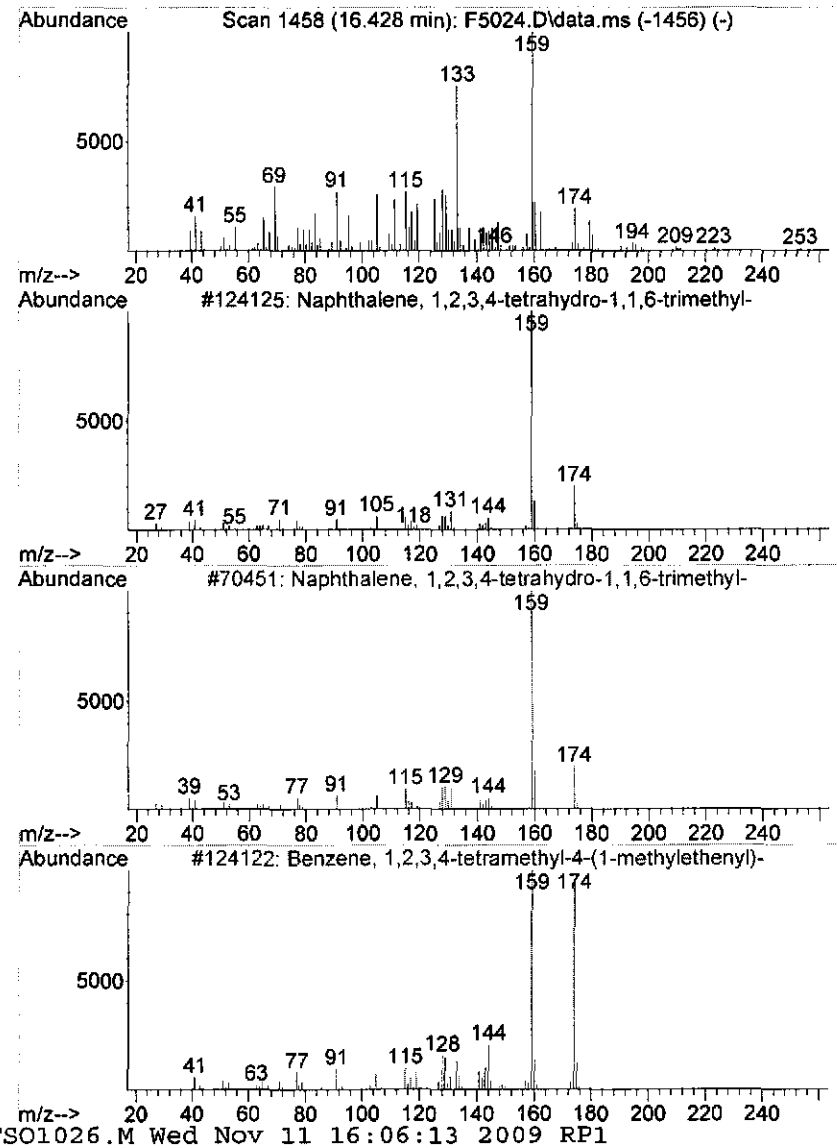
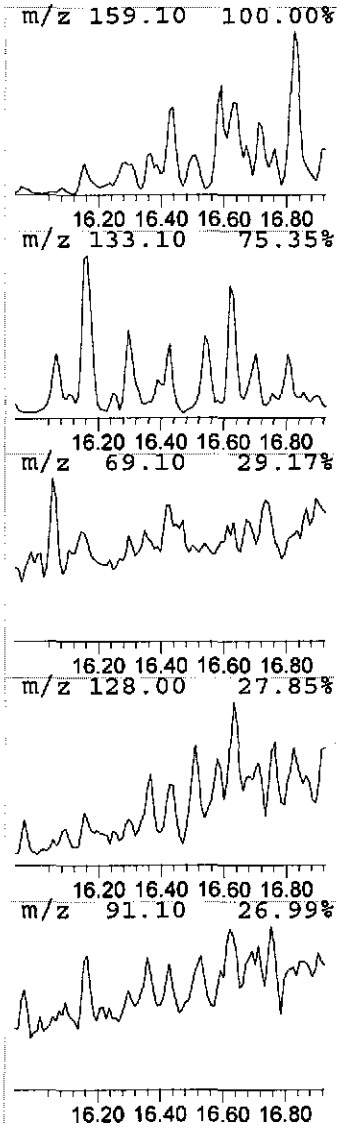
Peak Number 7 Substituted benzene Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.43	8.64 UG	55818	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	174	C13H18	000475-03-6	64
2	Naphthalene, 1,2,3,4-tetrahydro-...	174	C13H18	000475-03-6	64
3	Benzene, 1,2,3,4-tetramethyl-4-(...	174	C13H18	061142-76-5	50
4	Naphthalene, 1,2,3,4-tetrahydro-...	174	C13H18	000475-03-6	50
5	1H-Indene, 2,3-dihydro-1,1,4,5-t...	174	C13H18	016204-57-2	50





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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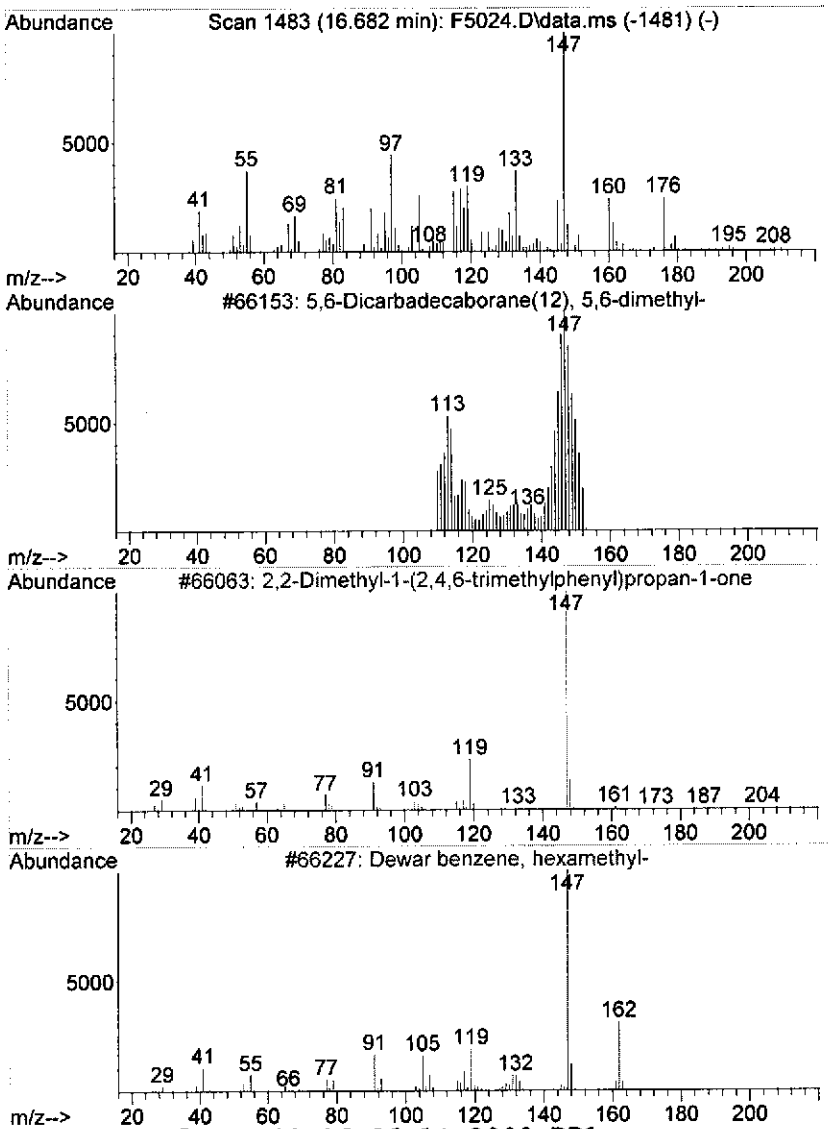
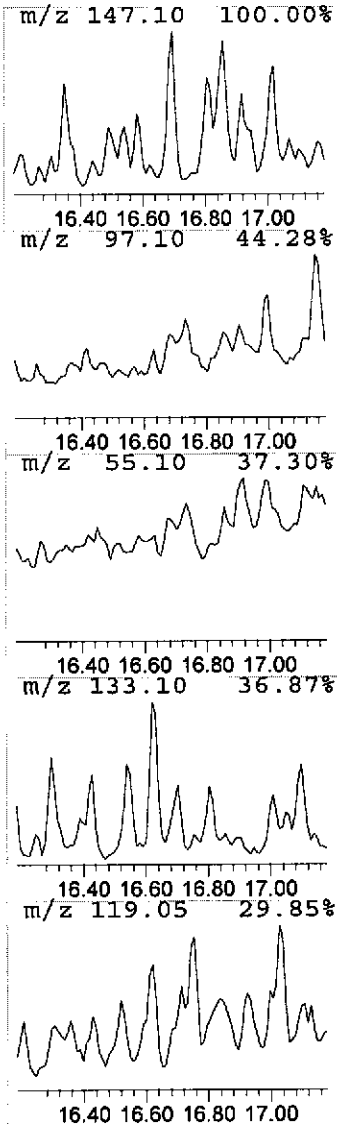
Peak Number 8 Unknown Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.68	11.40 UG	73627	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5,6-Dicarbadecaborane(12), 5,6-d...	152	C4H16B8	031566-09-3	47
2	2,2-Dimethyl-1-(2,4,6-trimethylp...	204	C14H20O	1000195-45-6	27
3	Dewar benzene, hexamethyl-	162	C12H18	007641-77-2	27
4	Benzene, 1,4-bis(1-methylethyl)-	162	C12H18	000100-18-5	27
5	Disiloxane, ethylpentamethyl-	176	C7H20OSi2	006231-60-3	27





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

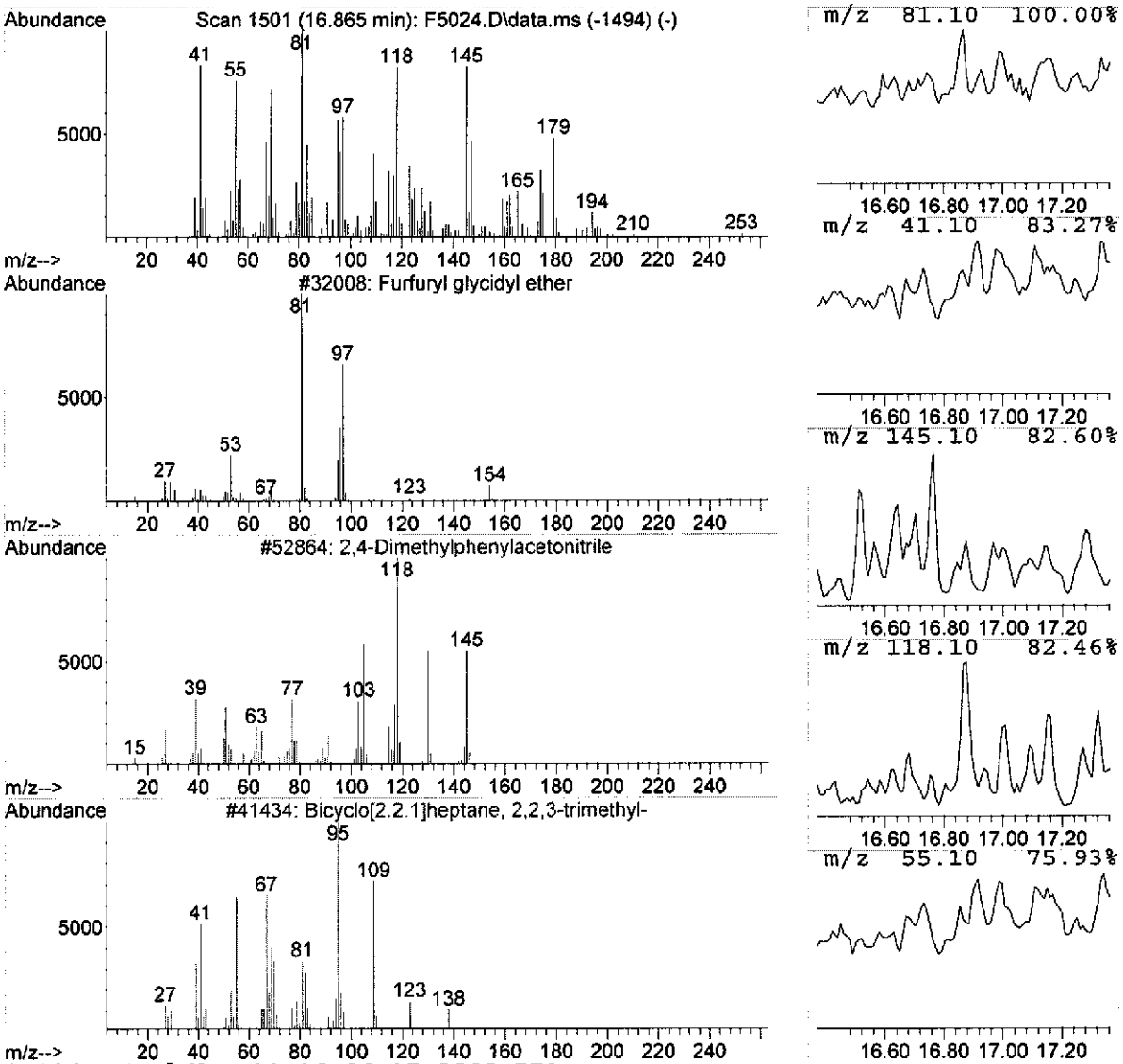
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 9 Unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.86	20.20 UG	130494	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furfuryl glycidyl ether	154	C8H10O3	005380-87-0	22
2	2,4-Dimethylphenylacetonitrile	145	C10H11N	068429-53-8	14
3	Bicyclo[2.2.1]heptane, 2,2,3-tri...	138	C10H18	000473-19-8	11
4	2-Quinazolinamine	145	C8H7N3	001687-51-0	11
5	2,4-Heptadiene, (E,E)-	96	C7H12	002384-94-3	11



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5024.D
Acq On : 10 Nov 2009 20:04
Operator : XING
Sample : TP7/4.25-4.75,11437-002,S,6.4g,18.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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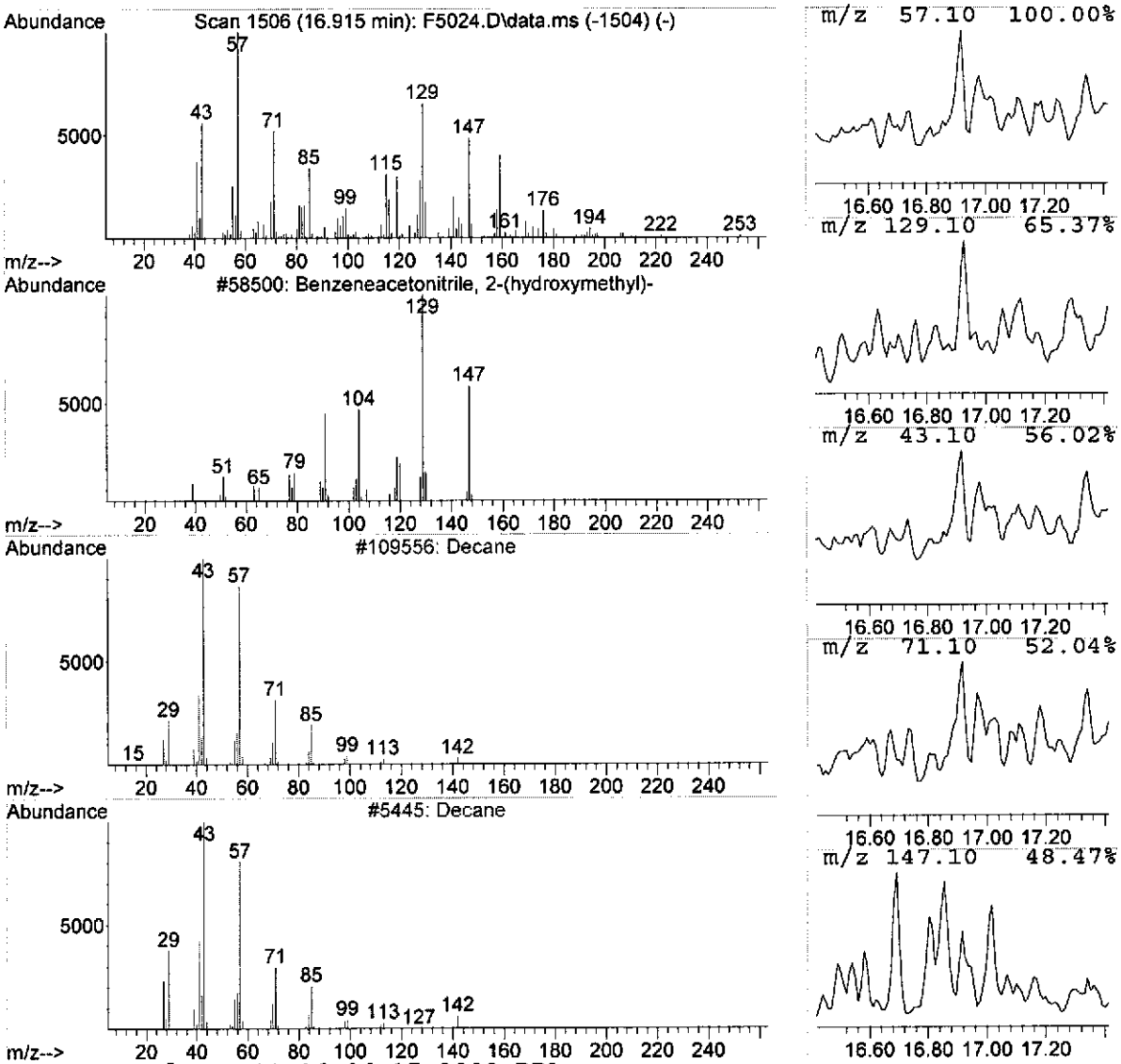
Peak Number 10 Unknown Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.91	11.39 UG	73589	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneacetonitrile, 2-(hydroxym...	147	C9H9NO	067519-22-6	27
2	Decane	142	C10H22	000124-18-5	15
3	Decane	142	C10H22	000124-18-5	15
4	Decane	142	C10H22	000124-18-5	15
5	Dodecane	170	C12H26	000112-40-3	11



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5018.D
Acq On : 10 Nov 2009 17:10
Operator : XING
Sample : TP5-1/3.17-3.67,11437-003,S,4.9g,38.6
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 11 15:52:17 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration

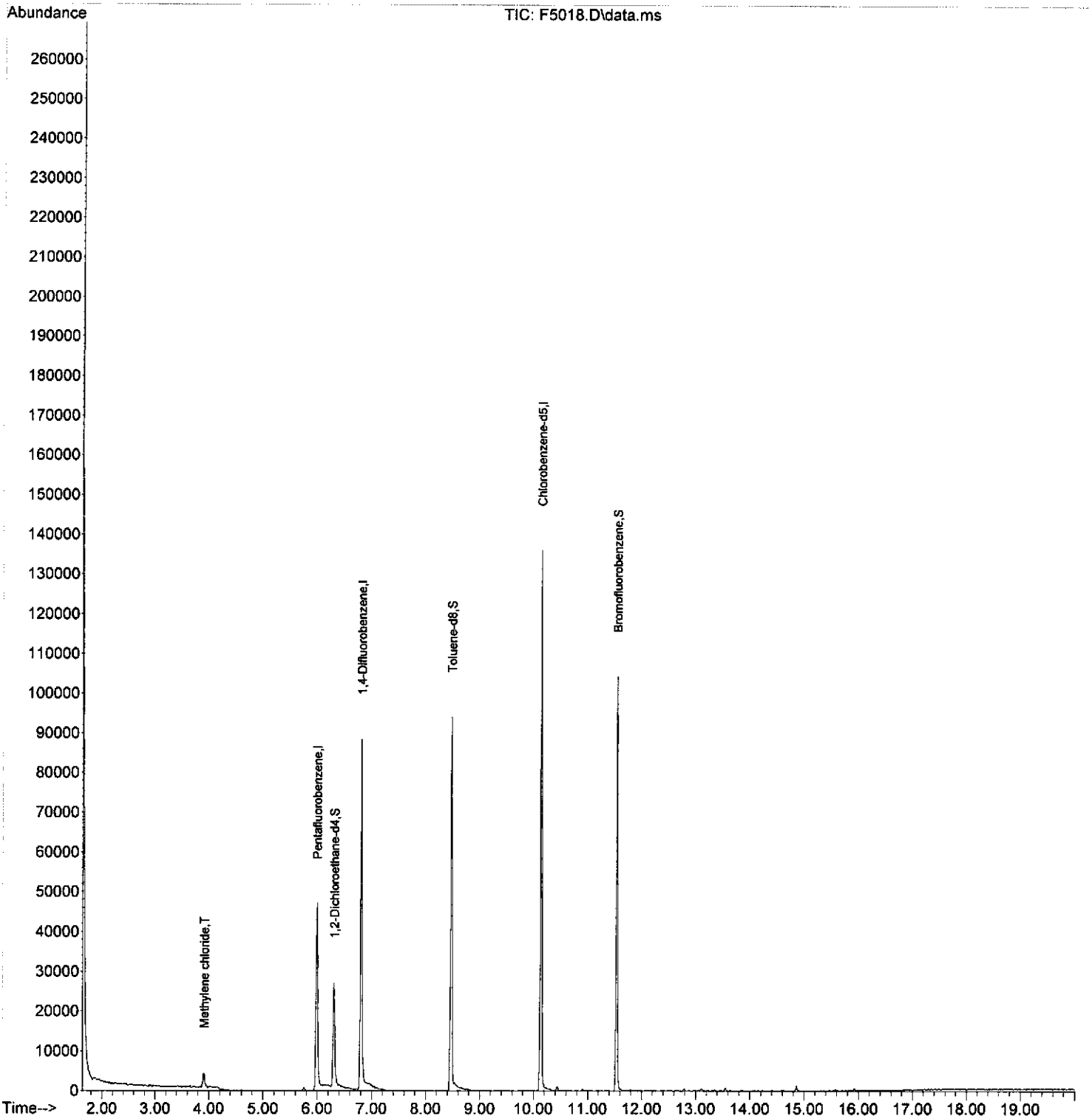
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.992	168	28428	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.804	114	59716	50.00	UG	0.00
50) Chlorobenzene-d5	10.134	117	64659	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.307	65	26405	52.49	UG	0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 104.98%			
41) Toluene-d8	8.469	98	61568	45.77	UG	0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 91.54%			
59) Bromofluorobenzene	11.535	95	31162	36.64	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 73.28%			
Target Compounds						Qvalue
13) Methylene chloride	3.911	84	2815	7.84	UG	# 98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5018.D
Acq On : 10 Nov 2009 17:10
Operator : XING
Sample : TP5-1/3.17-3.67,11437-003,S,4.9g,38.6
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 11 15:52:17 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5018.D
Acq On : 10 Nov 2009 17:10
Operator : XING
Sample : TP5-1/3.17-3.67,11437-003,S,4.9g,38.6
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5018.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.911	220	225	232	rVB	3765	9909	4.12%	1.028%
2	5.992	420	430	441	rBV	47060	110972	46.17%	11.513%
3	6.307	455	461	485	rVB	26381	64465	26.82%	6.688%
4	6.804	505	510	533	rBV	88200	182528	75.95%	18.936%
5	8.469	664	674	702	rBV	94134	184333	76.70%	19.123%
6	10.134	831	838	861	rBB	136066	240337	100.00%	24.934%
7	11.535	970	976	988	rBV	104334	171365	71.30%	17.778%

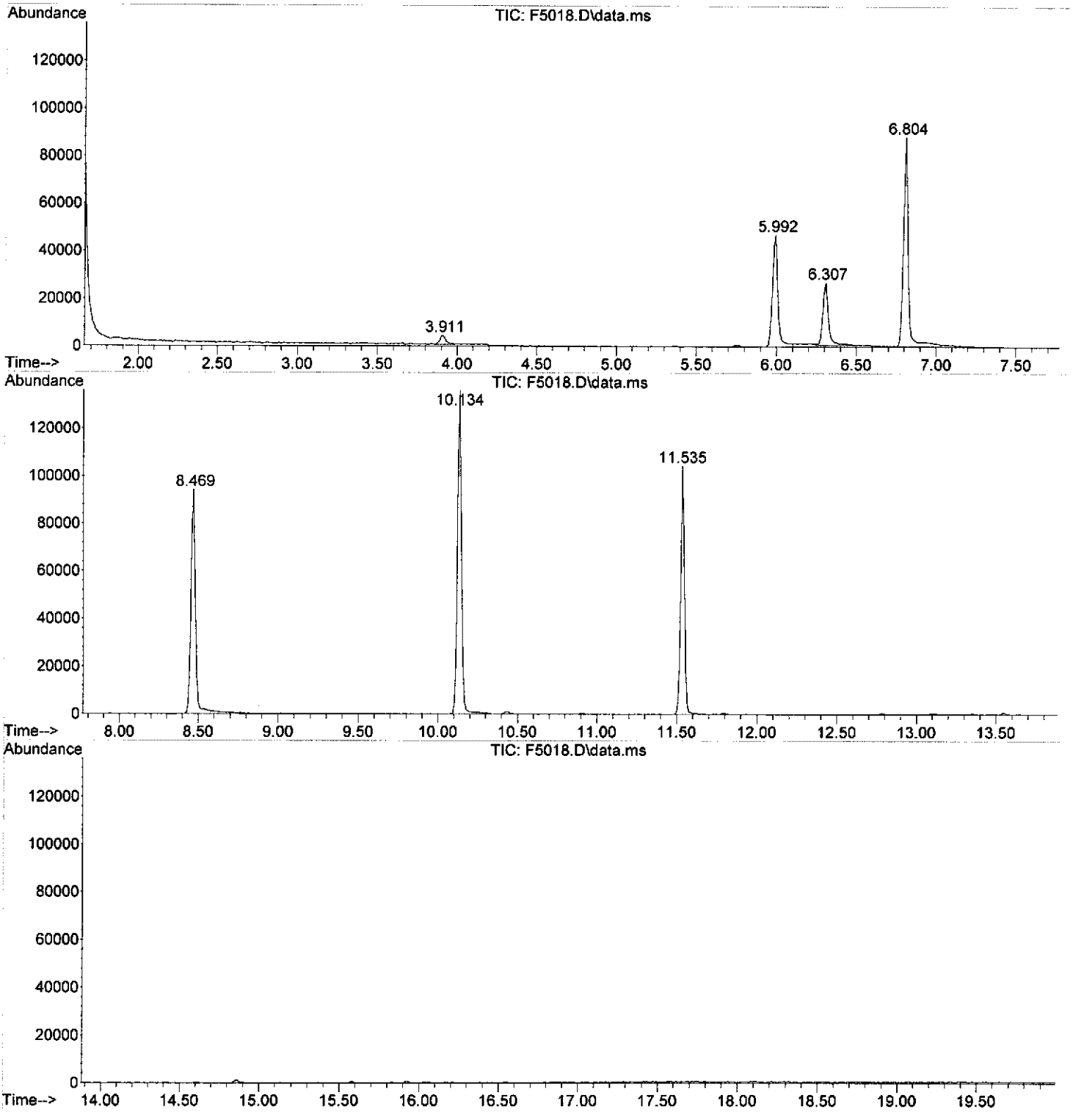
Sum of corrected areas: 963909

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5018.D
Acq On : 10 Nov 2009 17:10
Operator : XING
Sample : TP5-1/3.17-3.67,11437-003,S,4.9g,38.6
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 11 15:58:28 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.992	168	28849	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.804	114	56331	50.00	UG	0.00
50) Chlorobenzene-d5	10.134	117	65608	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.296	65	25194	49.35	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 98.70%			
41) Toluene-d8	8.469	98	58743	46.29	UG	0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 92.58%			
59) Bromofluorobenzene	11.535	95	33915	39.30	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 78.60%			
Target Compounds						Qvalue
13) Methylene chloride	3.901	84	2878	7.90	UG	# 100
25) Chloroform	5.748	83	702	1.01	UG	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 11 15:58:28 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
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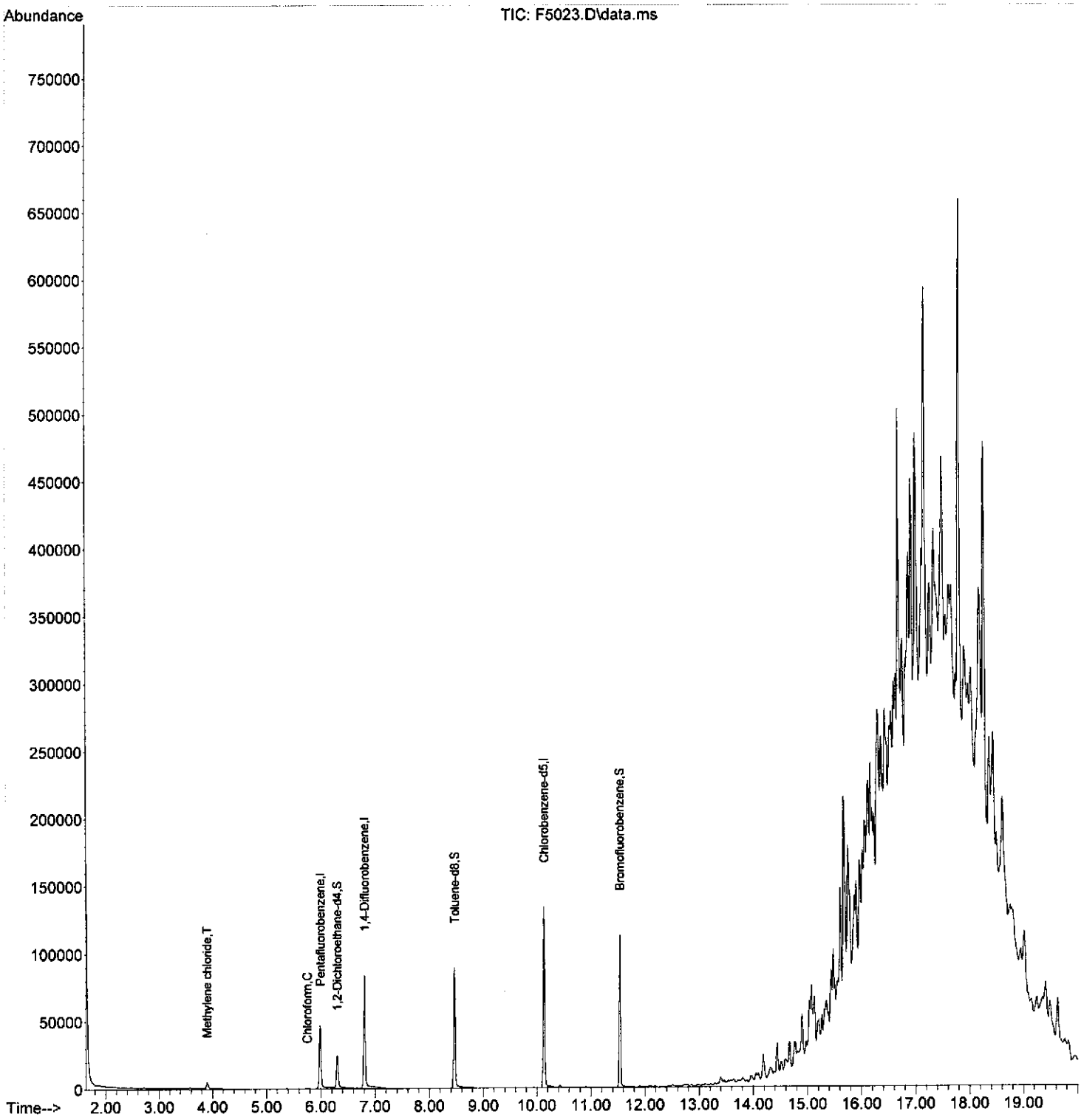


LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5023.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.901	219	224	234	rBV2	4894	12797	1.47%	0.164%
2	5.982	419	429	440	rBV	47114	111685	12.81%	1.434%
3	6.296	455	460	482	rVB	24167	59843	6.86%	0.768%
4	6.804	504	510	529	rBV	83335	172822	19.82%	2.219%
5	8.469	666	674	683	rBV	89300	173386	19.89%	2.226%
6	10.134	827	838	852	rBV	133785	242412	27.81%	3.112%
7	11.535	969	976	988	rBV	112863	188562	21.63%	2.421%
8	13.403	1156	1160	1164	rBV5	4466	13401	1.54%	0.172%
9	13.961	1210	1215	1220	rBV8	4553	15050	1.73%	0.193%
10	14.052	1220	1224	1225	rBV4	5042	9715	1.11%	0.125%
11	14.184	1232	1237	1243	rBV4	18108	48284	5.54%	0.620%
12	14.316	1244	1250	1255	rBV5	7051	28711	3.29%	0.369%
13	14.438	1259	1262	1266	rBV4	21632	40582	4.66%	0.521%
14	14.519	1266	1270	1273	rBV3	7218	16131	1.85%	0.207%
15	14.590	1273	1277	1281	rBV6	7957	28424	3.26%	0.365%
16	14.661	1281	1284	1289	rVB2	18814	39050	4.48%	0.501%
17	14.763	1289	1294	1298	rBV3	18706	63430	7.28%	0.814%
18	14.895	1303	1307	1311	rVB3	29440	61273	7.03%	0.787%
19	14.976	1312	1315	1317	rBV3	9256	19755	2.27%	0.254%
20	15.068	1317	1324	1327	rBV5	45011	166981	19.15%	2.144%
21	15.210	1333	1338	1341	rBV6	15665	49574	5.69%	0.636%
22	15.271	1341	1344	1346	rBV	14774	23799	2.73%	0.306%
23	15.342	1346	1351	1357	rBV5	22013	98399	11.29%	1.263%
24	15.433	1357	1360	1362	rBV3	38614	80511	9.24%	1.034%
25	15.474	1362	1364	1369	rVB2	38742	77657	8.91%	0.997%
26	15.606	1374	1377	1380	rBV3	69897	118082	13.54%	1.516%
27	15.666	1380	1383	1388	rBV2	136892	339983	39.00%	4.365%
28	15.748	1388	1391	1397	rVB5	87598	242826	27.85%	3.117%
29	15.870	1398	1403	1404	rBV3	50548	122255	14.02%	1.570%
30	15.961	1409	1412	1415	rBV3	65737	147108	16.87%	1.889%
31	16.012	1415	1417	1418	rBV	39290	56303	6.46%	0.723%
32	16.123	1424	1428	1430	rBV	51534	117897	13.52%	1.514%
33	16.164	1430	1432	1440	rVB3	76160	230204	26.41%	2.955%
34	16.296	1440	1445	1448	rBV4	115456	364984	41.87%	4.686%
35	16.428	1456	1458	1463	rVB6	57319	132186	15.16%	1.697%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	16.672	1480	1482	1487	rBV3	231257	422131	48.42%	5.419%
37	16.915	1504	1506	1510	rVB3	149263	250324	28.71%	3.214%
38	16.996	1511	1514	1520	rVB5	183469	441746	50.67%	5.671%
39	17.159	1527	1530	1536	rVB3	290133	655053	75.14%	8.410%
40	17.342	1545	1548	1556	rBV7	76191	238176	27.32%	3.058%
41	17.809	1589	1594	1599	rVB	388186	871778	100.00%	11.192%
42	18.174	1627	1630	1635	rVV5	98337	297180	34.09%	3.815%
43	18.265	1635	1639	1645	rVB2	283729	695743	79.81%	8.932%
44	18.367	1646	1649	1652	rBV3	51181	104384	11.97%	1.340%
45	19.626	1769	1773	1782	rVB3	33080	98689	11.32%	1.267%

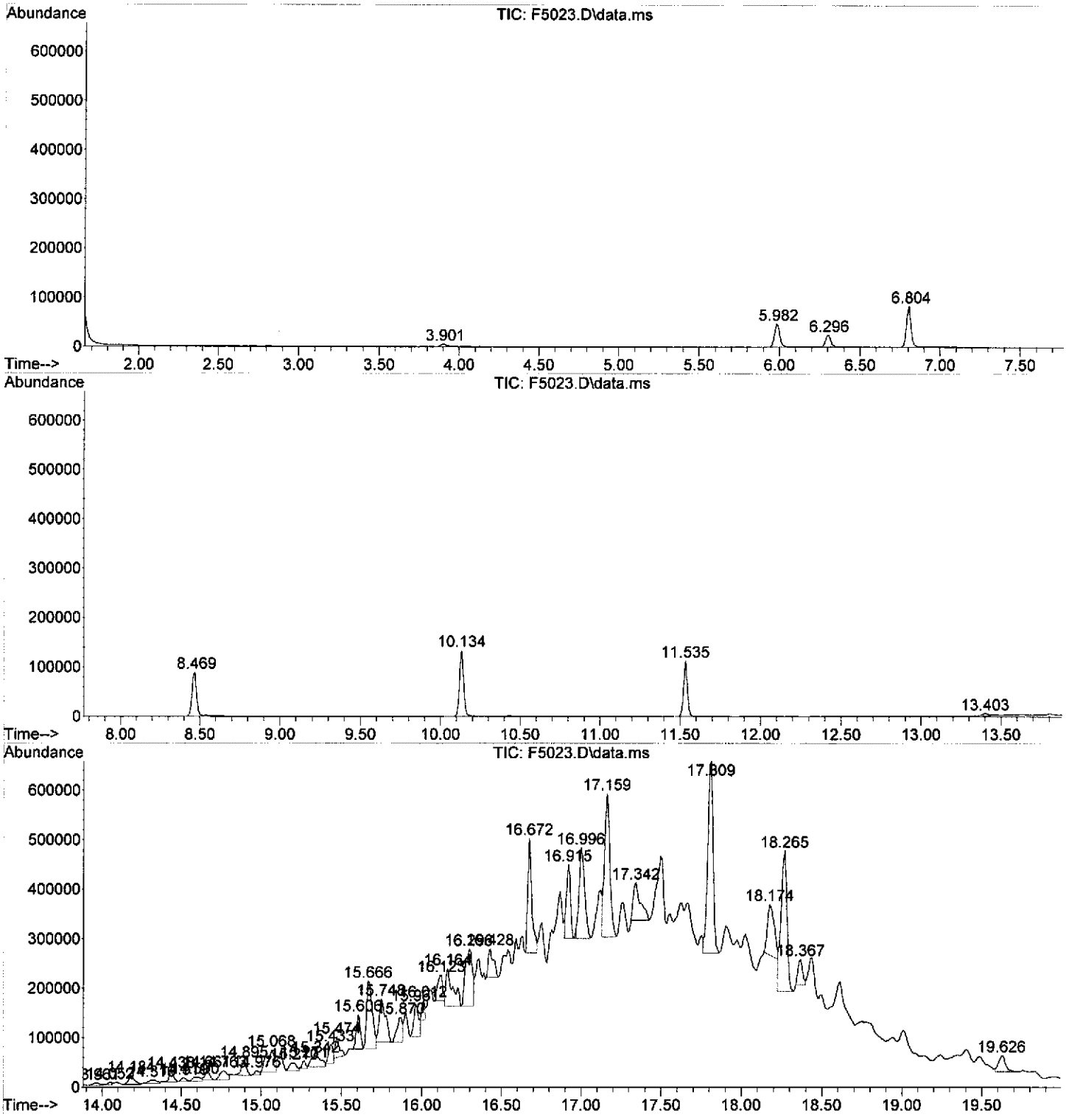
Sum of corrected areas: 7789266

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

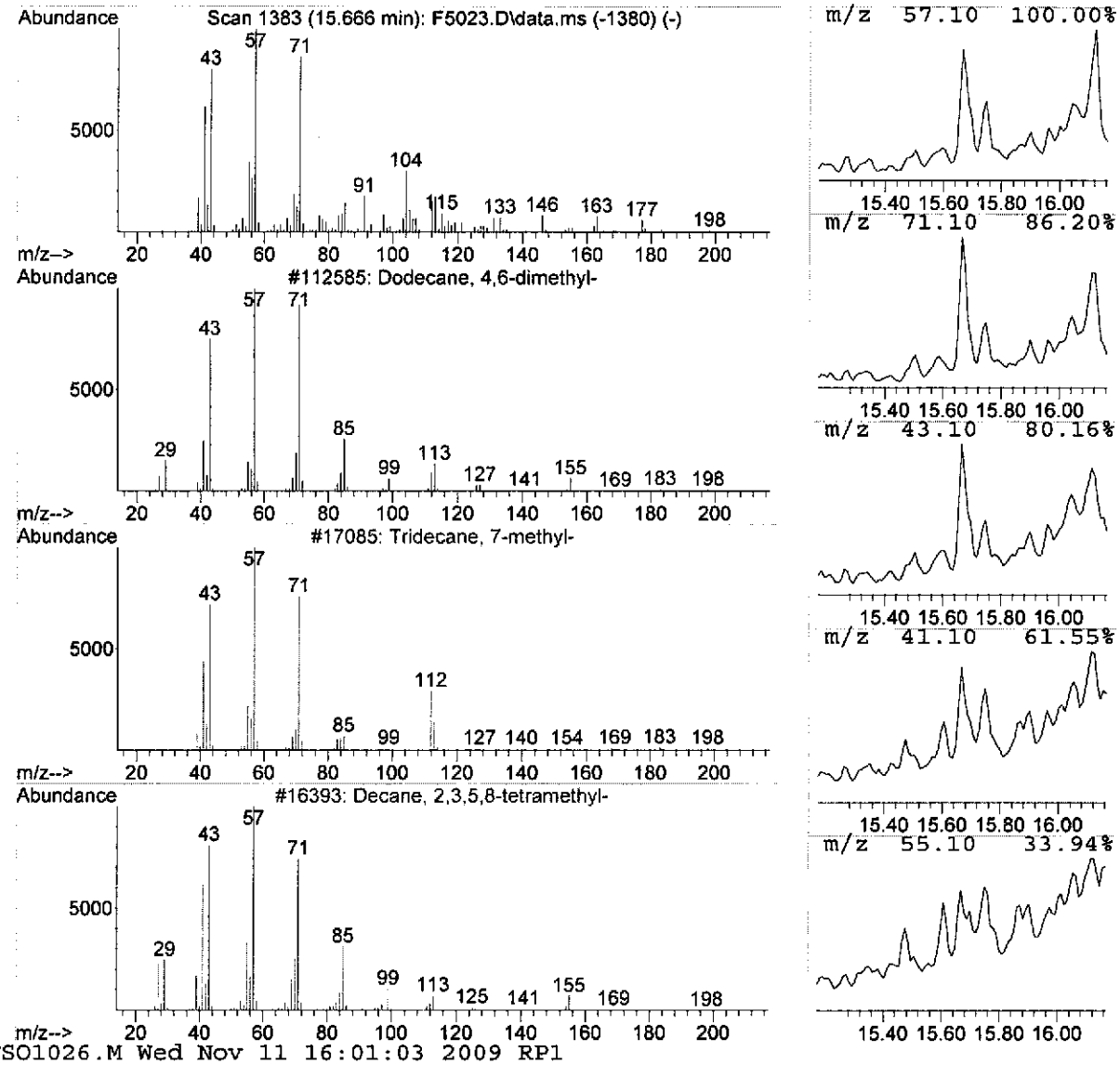
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Unknown alkane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.67	70.13 UG	339983	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane, 4,6-dimethyl-	198	C14H30	061141-72-8	62
2	Tridecane, 7-methyl-	198	C14H30	026730-14-3	62
3	Decane, 2,3,5,8-tetramethyl-	198	C14H30	1000149-58-9	50
4	Tridecane	184	C13H28	000629-50-5	50
5	3-Bromooctane	192	C8H17Br	000999-64-4	49



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

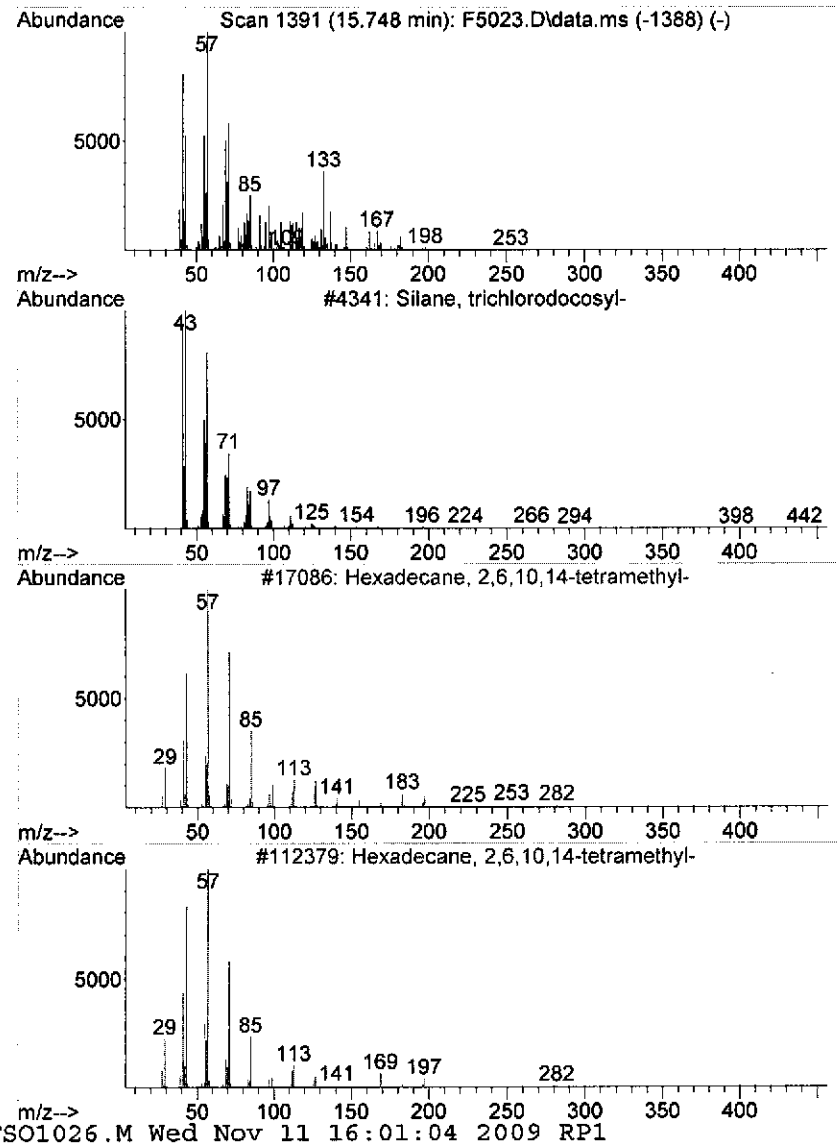
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

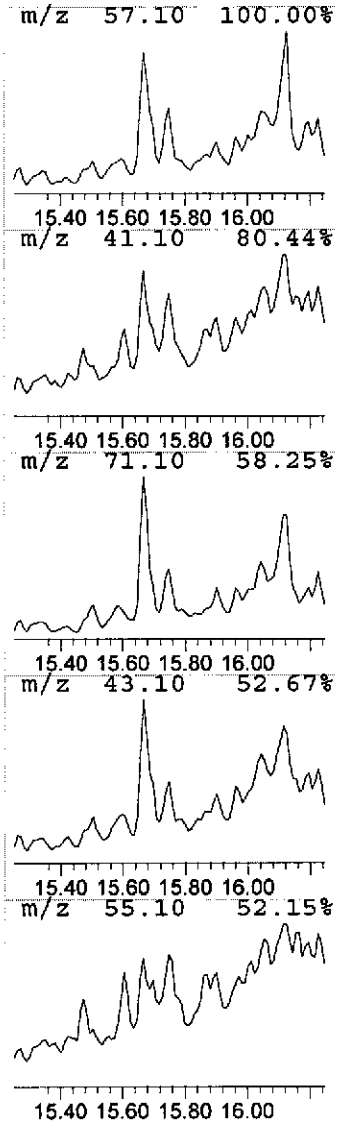
****

Peak Number 2 Unknown alkane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.75	50.09 UG	242826	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, trichlorodocosyl-	442	C22H45Cl3Si	007325-84-0	43
2	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	35
3	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	35
4	Undecane, 5-methyl-	170	C12H26	001632-70-8	30
5	Heptane, 2,6-dimethyl-	128	C9H20	001072-05-5	30





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

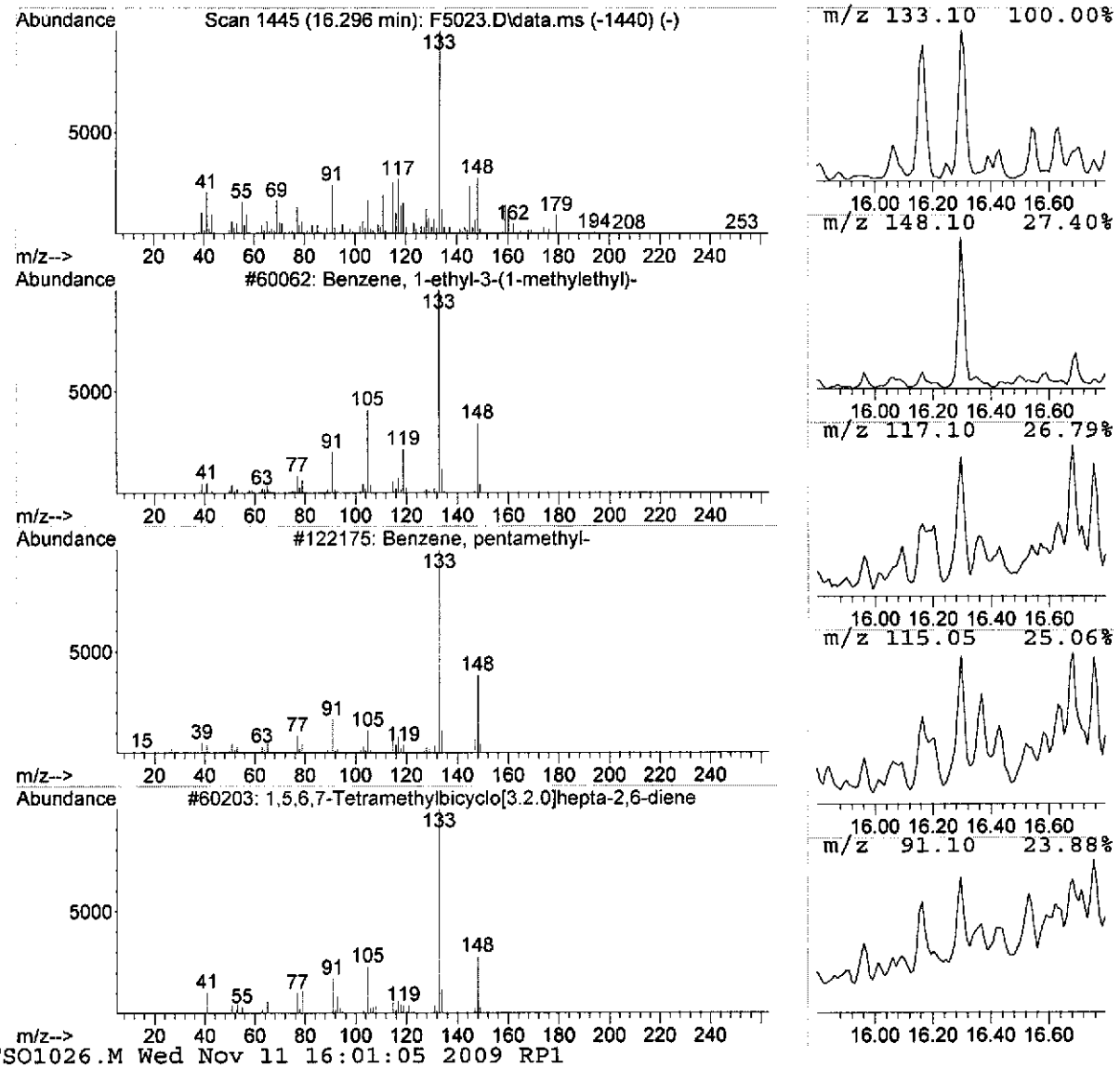
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 3 Substituted benzene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.30	75.28 UG	364984	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-(1-methylethyl)-	148	C11H16	004920-99-4	49
2	Benzene, pentamethyl-	148	C11H16	000700-12-9	49
3	1,5,6,7-Tetramethylbicyclo[3.2.0...	148	C11H16	134329-46-7	47
4	Benzene, 2,4-dimethyl-1-(1-methy...	148	C11H16	004706-89-2	47
5	Benzene, 1,3-dimethyl-5-(1-methy...	148	C11H16	004706-90-5	46



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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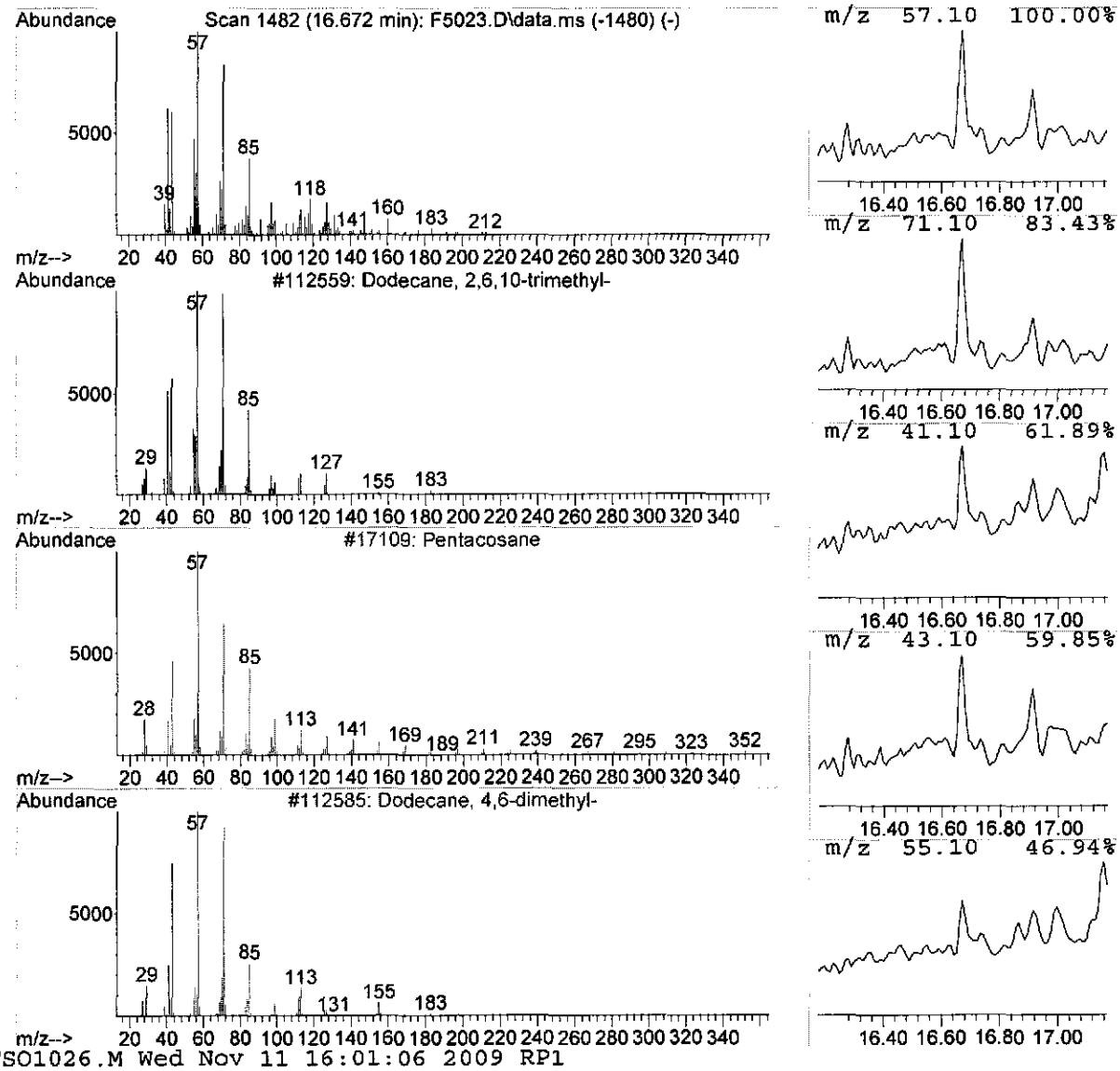
Peak Number 4 Unknown alkane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.67	87.07 UG	422131	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane, 2,6,10-trimethyl-	212	C15H32	003891-98-3	81
2	Pentacosane	352	C25H52	000629-99-2	72
3	Dodecane, 4,6-dimethyl-	198	C14H30	061141-72-8	70
4	Decane, 5-propyl-	184	C13H28	017312-62-8	70
5	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	68



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

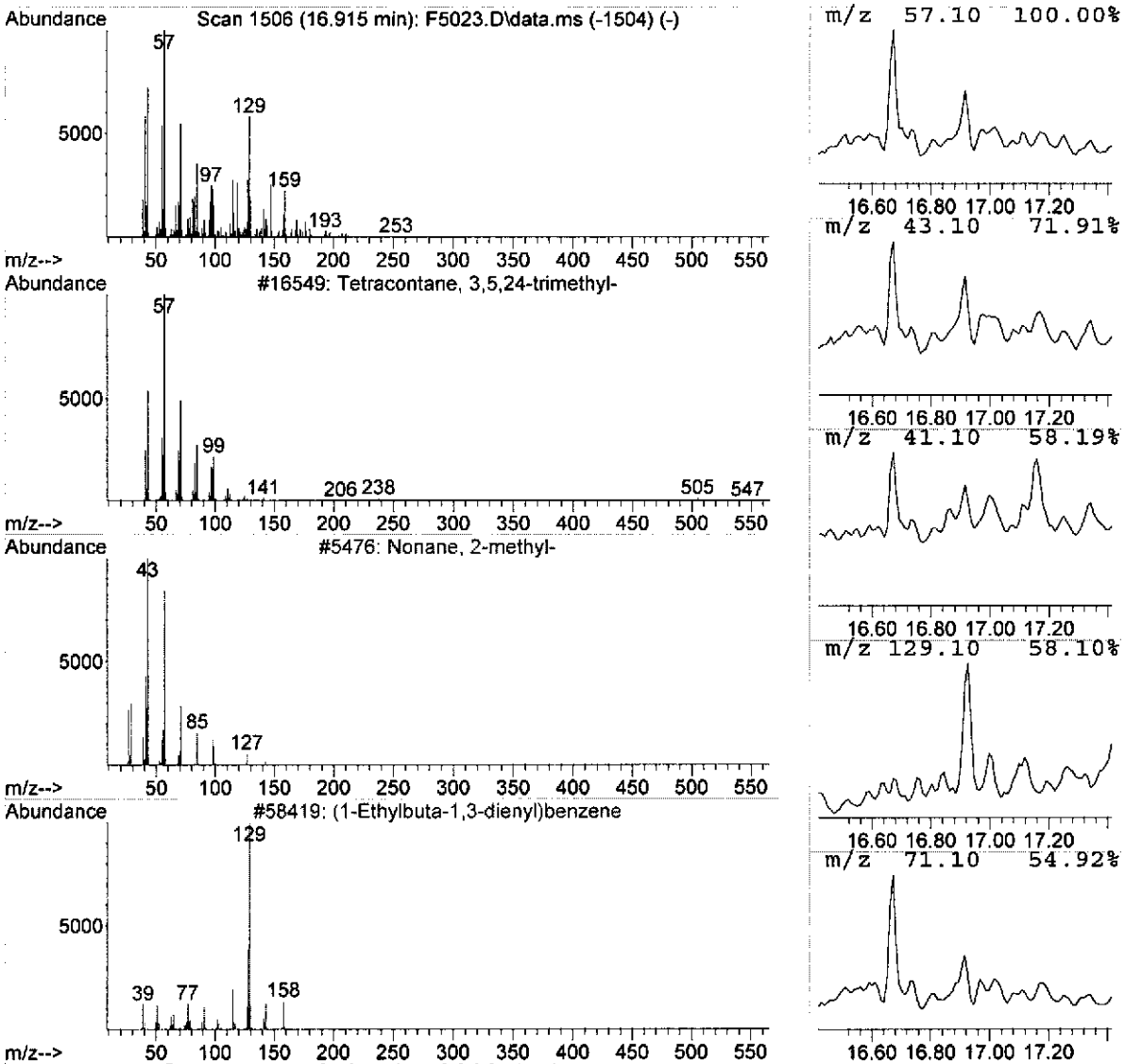
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 5 Unknown alkane Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.91	51.63 UG	250324	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracontane, 3,5,24-trimethyl-	605	C43H88	055162-61-3	35
2	Nonane, 2-methyl-	142	C10H22	000871-83-0	30
3	(1-Ethylbuta-1,3-dienyl)benzene	158	C12H14	1000210-05-6	25
4	Tridecane, 2-methyl-	198	C14H30	001560-96-9	25
5	5H-Benzocycloheptene, 6,7-dihydro-	144	C11H12	007125-62-4	25



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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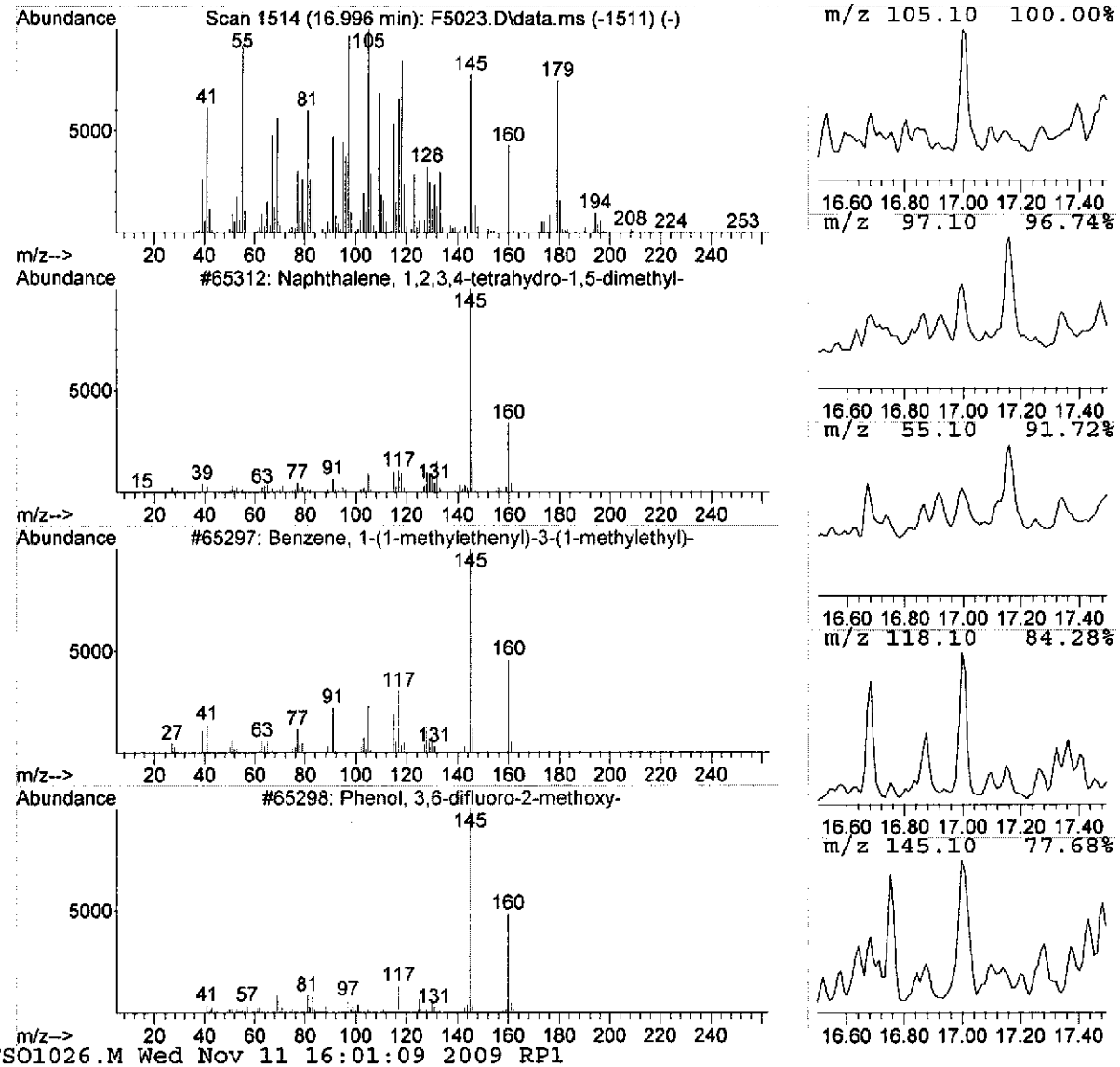
Peak Number 6 Substituted benzene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.00	91.11 UG	441746	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	021564-91-0	42
2	Benzene, 1-(1-methylethenyl)-3-(...	160	C12H16	001129-29-9	35
3	Phenol, 3,6-difluoro-2-methoxy-	160	C7H6F2O2	075626-22-1	27
4	Ethanone, 1-(2,3-dihydro-2,3-dim...	222	C12H14O4	042178-48-3	27
5	Bicyclo[4.2.0]octa-1,3,5-triene,...	118	C9H10	022250-74-4	25



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

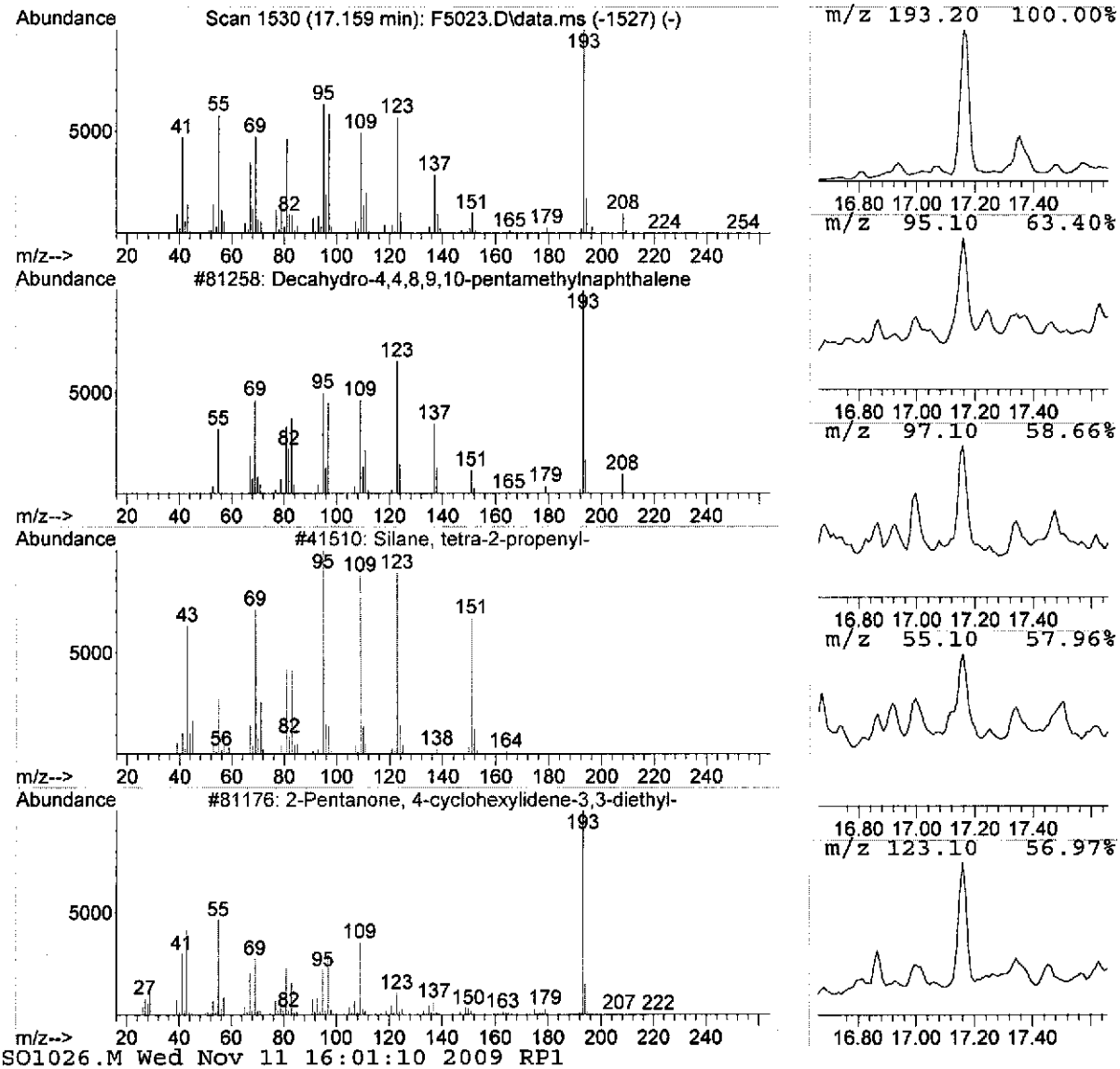
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 7 Unknown Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.16	135.11 UG	655053	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decahydro-4,4,8,9,10-pentamethyl...	208	C15H28	080655-44-3	93
2	Silane, tetra-2-propenyl-	192	C12H20Si	001112-66-9	35
3	2-Pentanone, 4-cyclohexylidene-3...	222	C15H26O	1000149-35-4	35
4	Pyrazolo[5,1-c]-as-triazine-3-ca...	193	C6H7N7O	016111-78-7	30
5	10.alpha.-Eremophilane	208	C15H28	003242-05-5	25



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

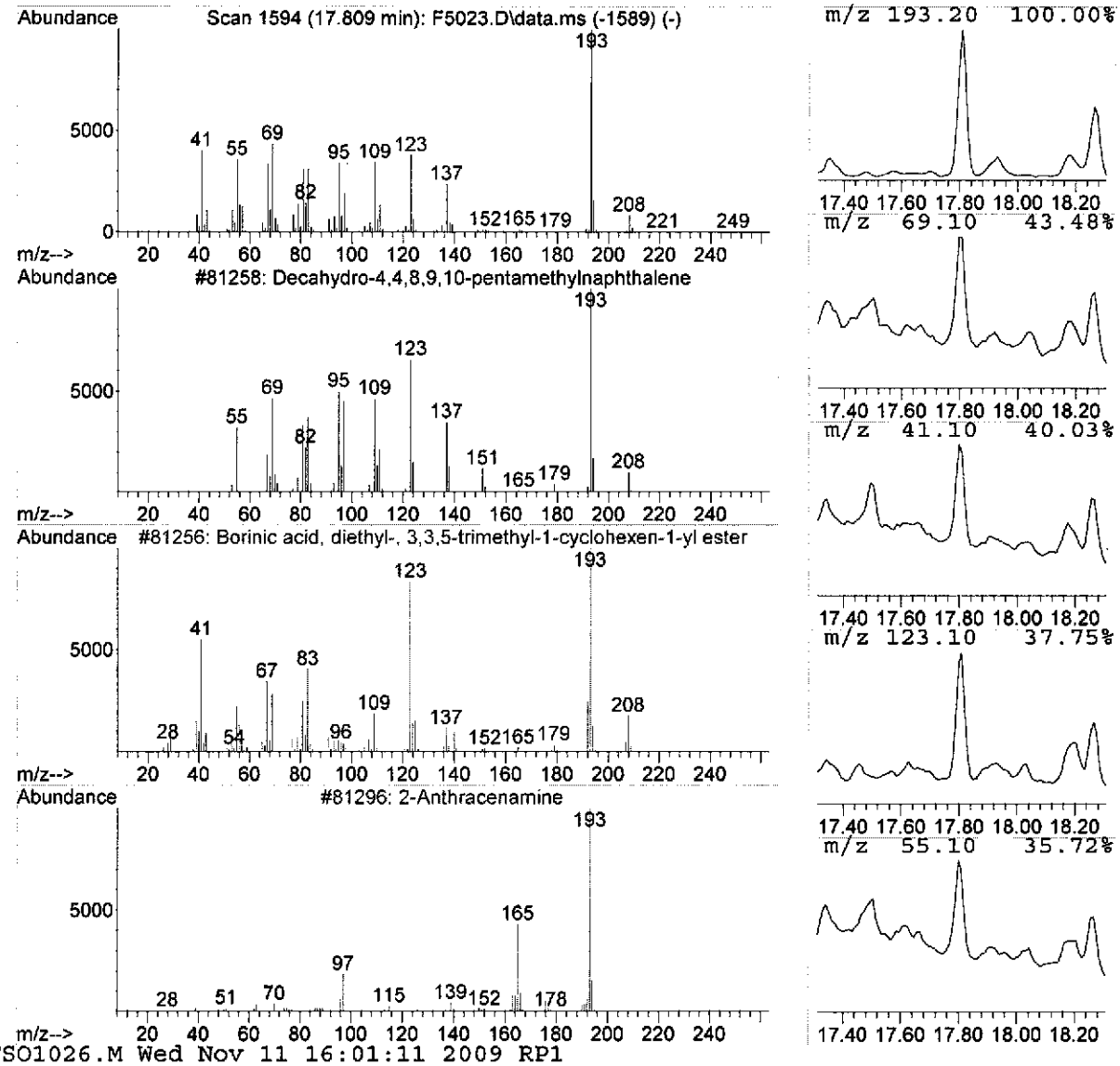
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 8 Unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.81	179.81 UG	871778	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decahydro-4,4,8,9,10-pentamethyl...	208	C15H28	080655-44-3	53
2	Borinic acid, diethyl-, 3,3,5-tr...	208	C13H25BO	057387-76-5	40
3	2-Anthracenamine	193	C14H11N	000613-13-8	35
4	2-Anthracenamine	193	C14H11N	000613-13-8	35
5	Iminostilbene	193	C14H11N	000256-96-2	35



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

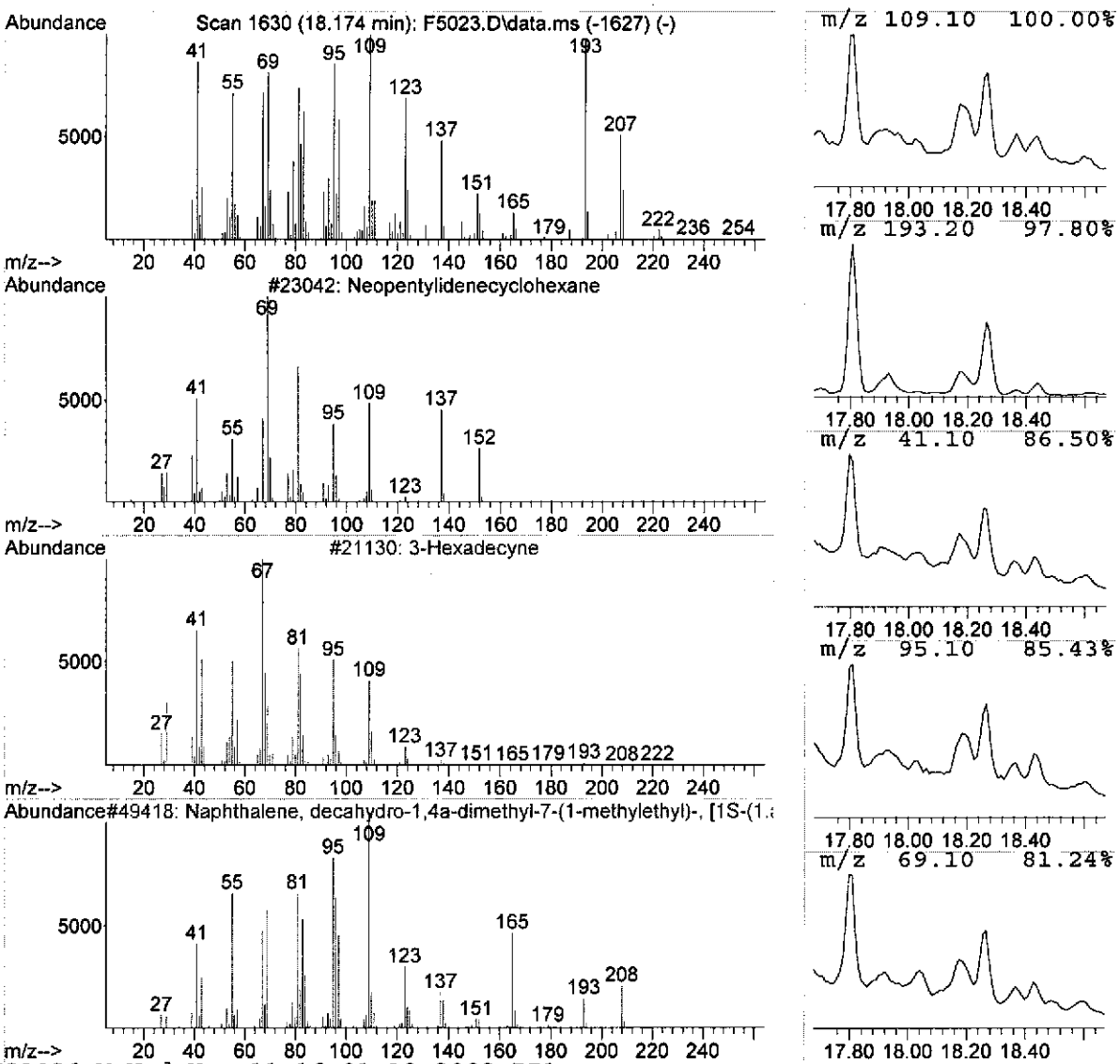
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 9 Unknown Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.17	61.30 UG	297180	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Neopentylidenecyclohexane	152	C11H20	039546-80-0	38
2	3-Hexadecyne	222	C16H30	061886-62-2	38
3	Naphthalene, decahydro-1,4a-dime...	208	C15H28	030824-81-8	38
4	Bicyclo[4.1.0]heptane, 3,7,7-tri...	138	C10H18	006069-97-2	35
5	1-Cyclohexanol-2-(3-methyl-1,3-b...	208	C14H24O	1000196-01-6	27



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5023.D
Acq On : 10 Nov 2009 19:35
Operator : XING
Sample : TP5-2/5.67-6.17,11437-004,S,5.4g,46.1
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

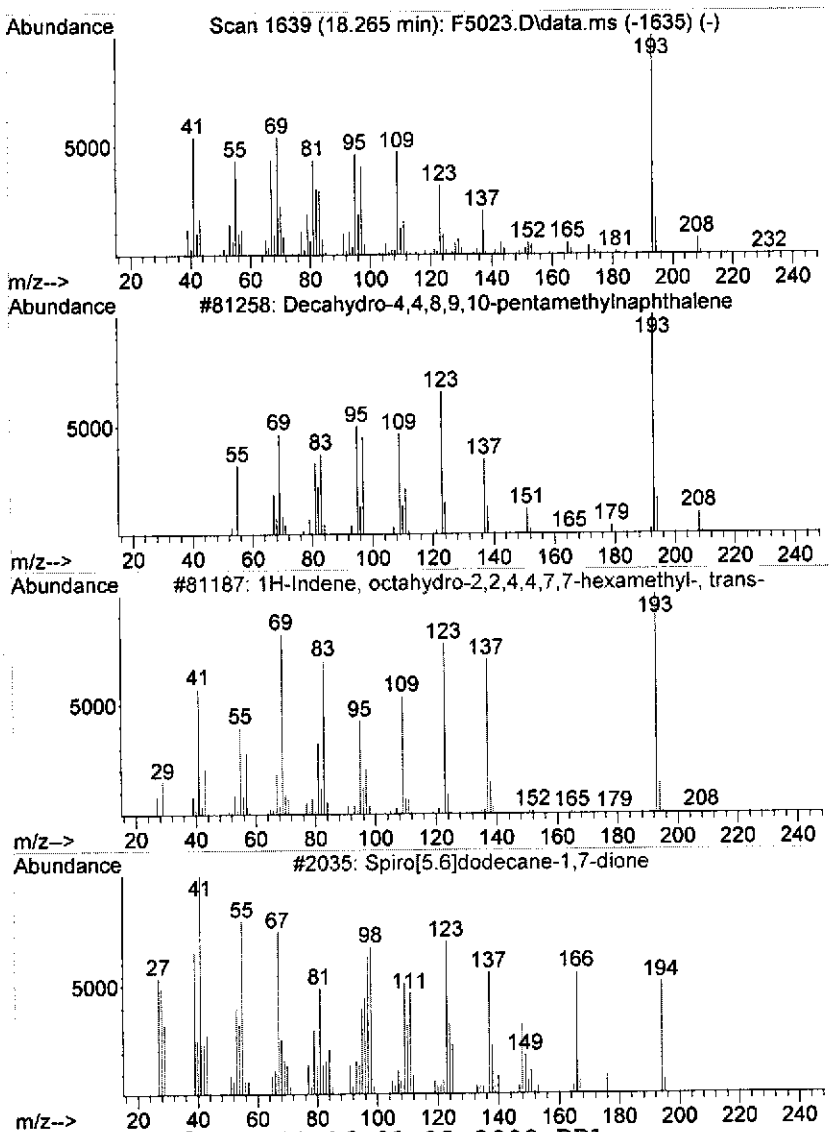
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

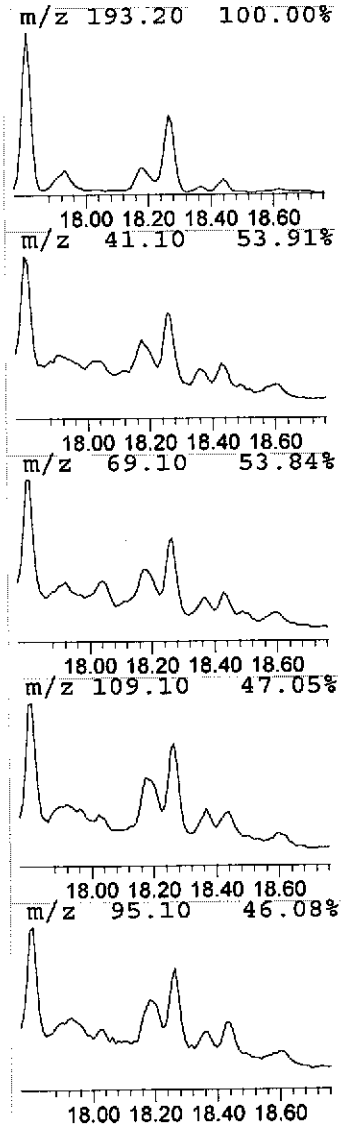
****

Peak Number 10 Unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.27	143.50 UG	695743	Chlorobenzene-d5	10.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decahydro-4,4,8,9,10-pentamethyl...	208	C15H28	080655-44-3	43
2	1H-Indene, octahydro-2,2,4,4,7,7...	208	C15H28	054832-83-6	38
3	Spiro[5.6]dodecane-1,7-dione	194	C12H18O2	050803-80-0	18
4	Cyclododecanone, 2-methylene-	194	C13H22O	003045-76-9	16
5	Neopentylidenecyclohexane	152	C11H20	039546-80-0	16





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5019.D
Acq On : 10 Nov 2009 17:39
Operator : XING
Sample : TP2-1/2-2.5,11437-005,S,3.8g,16.5
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 11 15:53:21 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration

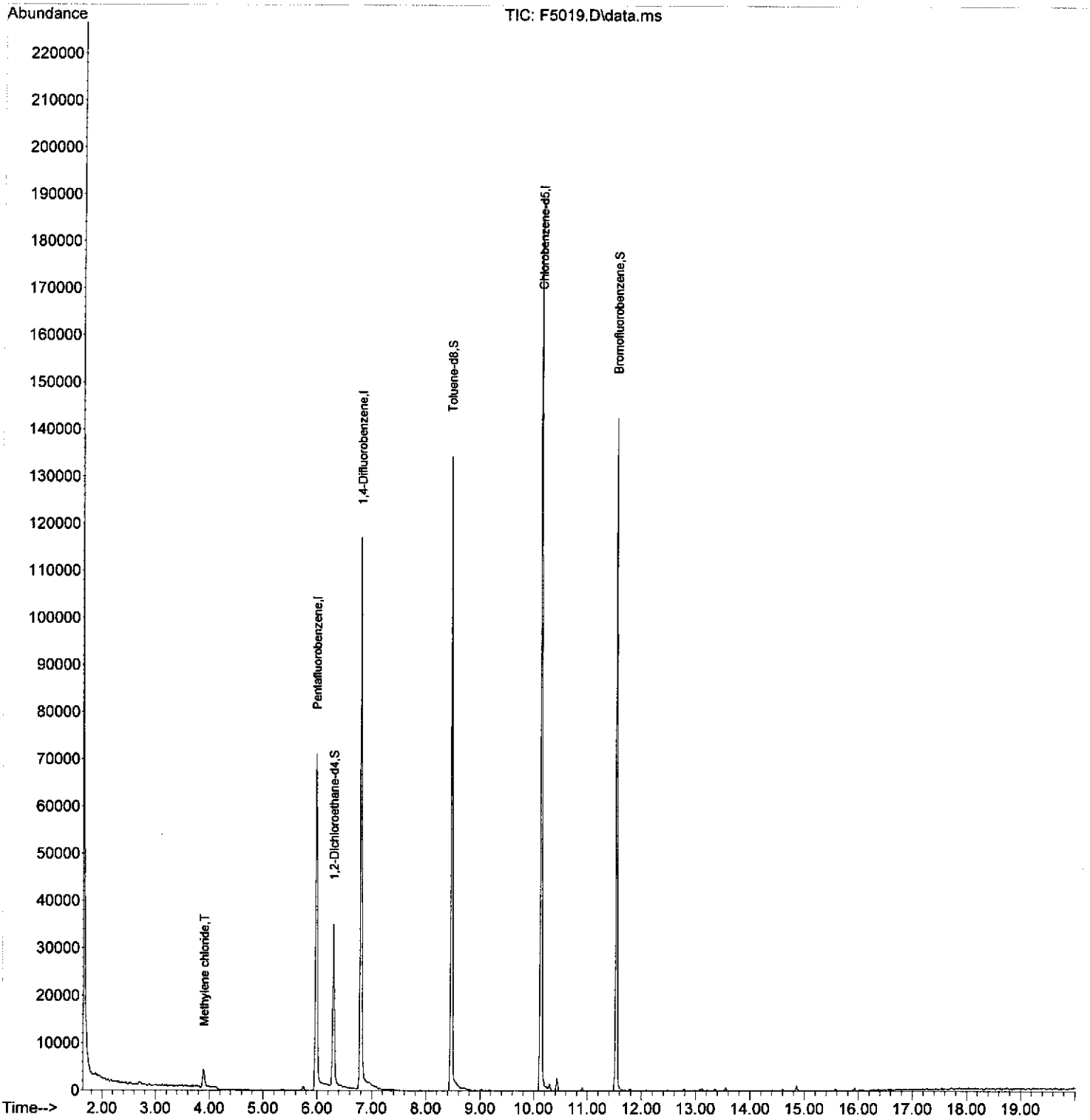
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.982	168	41436	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.804	114	88141	50.00	UG	0.00
50) Chlorobenzene-d5	10.134	117	88057	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.296	65	32825	44.76	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 89.52%			
41) Toluene-d8	8.459	98	87586	44.11	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 88.22%			
59) Bromofluorobenzene	11.535	95	42450	36.65	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 73.30%			
Target Compounds						Qvalue
13) Methylene chloride	3.900	84	2706	5.17	UG	# 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5019.D
Acq On : 10 Nov 2009 17:39
Operator : XING
Sample : TP2-1/2-2.5,11437-005,S,3.8g,16.5
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 11 15:53:21 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5019.D
Acq On : 10 Nov 2009 17:39
Operator : XING
Sample : TP2-1/2-2.5,11437-005,S,3.8g,16.5
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5019.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.703	102	106	120	rVB5	774	3639	1.11%	0.272%
2	3.890	218	223	231	rBV	3844	10814	3.30%	0.810%
3	5.982	418	429	445	rBV	71158	165012	50.32%	12.356%
4	6.296	454	460	472	rBV	34000	74309	22.66%	5.564%
5	6.794	504	509	536	rBV	116864	253940	77.43%	19.014%
6	8.459	666	673	705	rBV	134382	262722	80.11%	19.672%
7	10.134	831	838	851	rBV	188729	327946	100.00%	24.556%
8	10.428	863	867	875	rVB	2530	4566	1.39%	0.342%
9	11.535	967	976	988	rBV	142546	232567	70.92%	17.414%

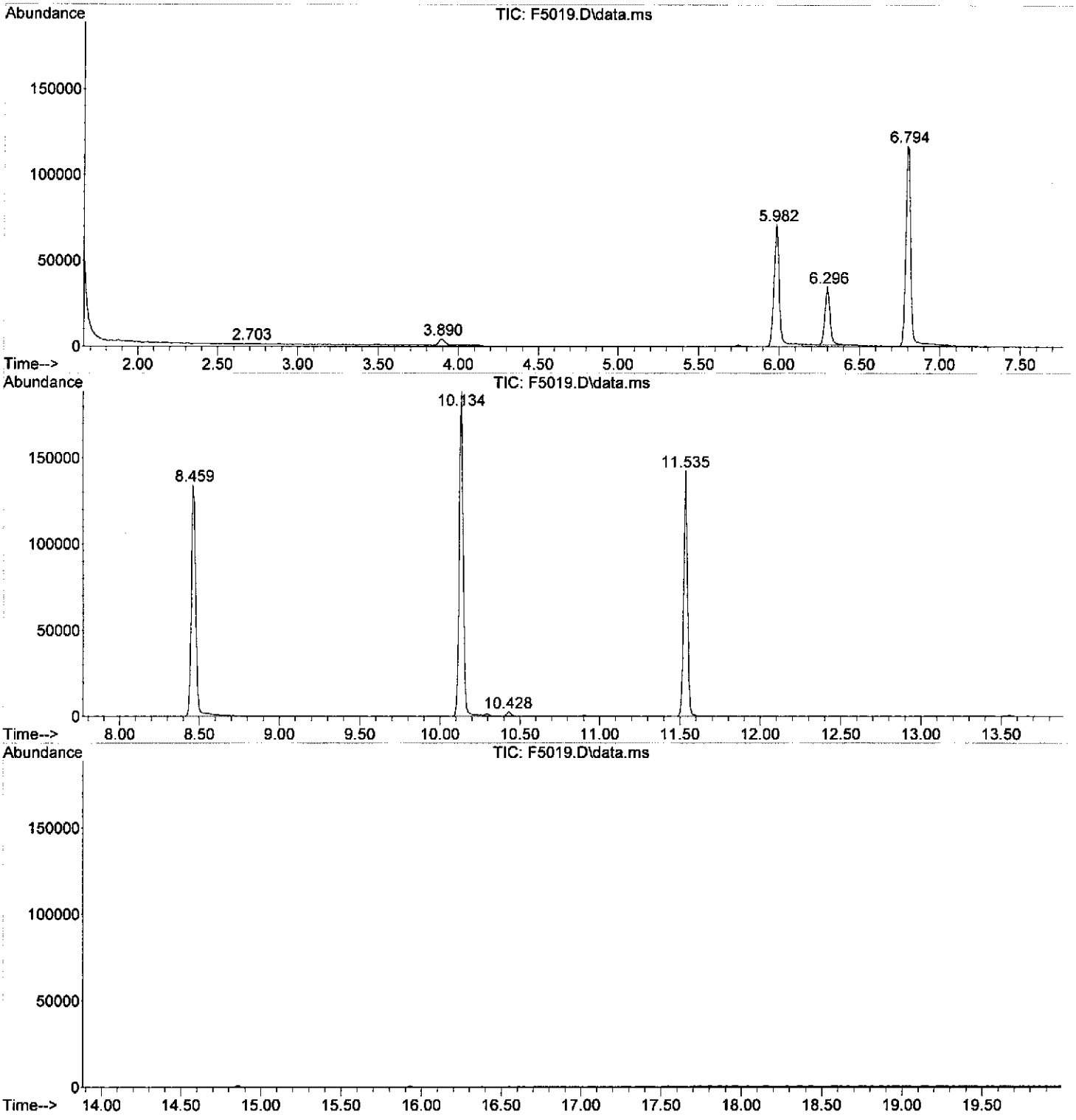
Sum of corrected areas: 1335515

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5019.D
Acq On : 10 Nov 2009 17:39
Operator : XING
Sample : TP2-1/2-2.5,11437-005,S,3.8g,16.5
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5025.D
Acq On : 10 Nov 2009 20:33
Operator : XING
Sample : TP2-2/3-3.5,11437-006,S,7.2g,13.5
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 12 11:11:37 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration

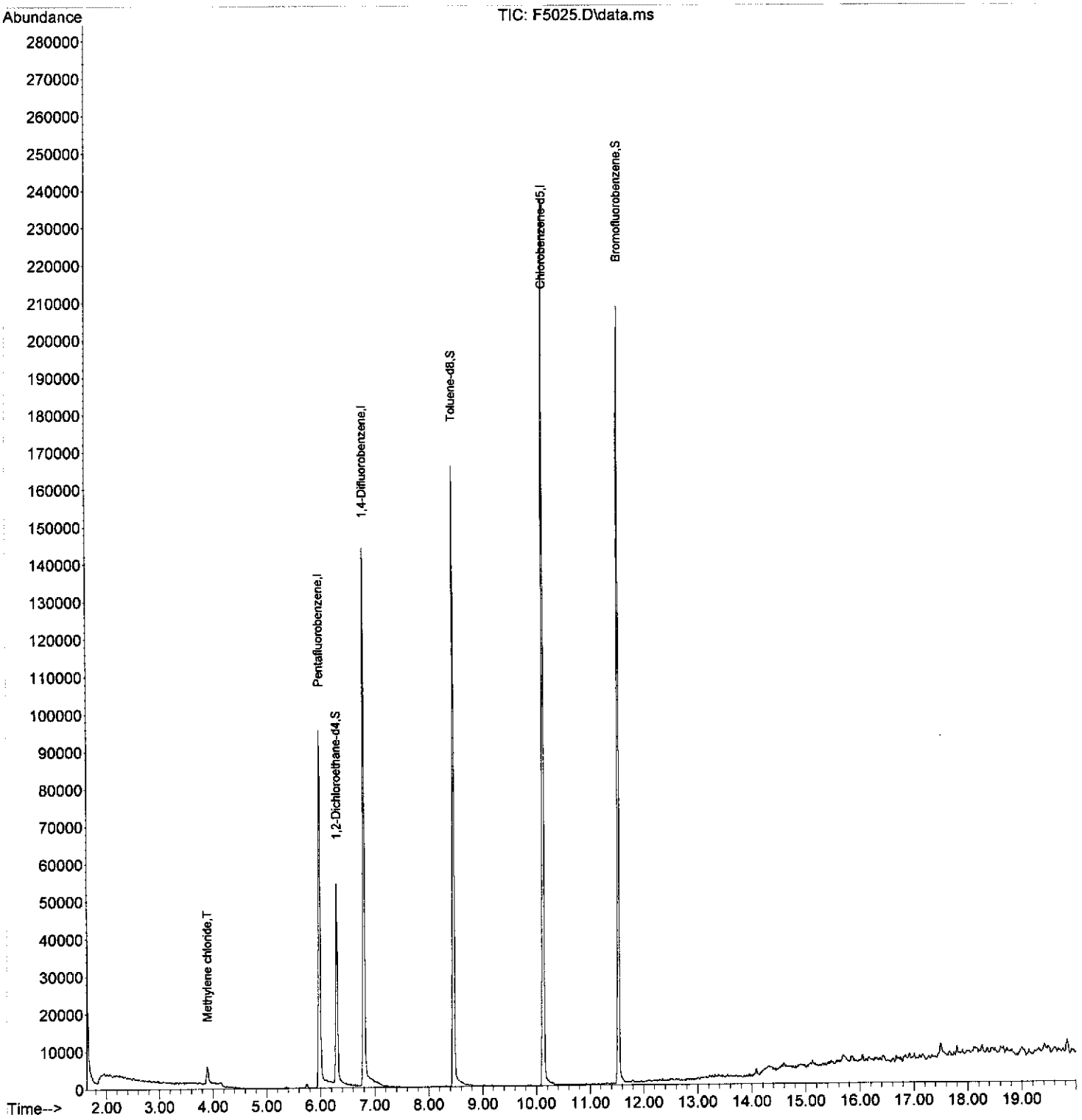
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.982	168	56229	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.804	114	109960	50.00	UG	0.00
50) Chlorobenzene-d5	10.134	117	125309	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.296	65	52638	52.90	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 105.80%			
41) Toluene-d8	8.459	98	113882	45.98	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 91.96%			
59) Bromofluorobenzene	11.535	95	70923	43.03	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 86.06%			
Target Compounds						Qvalue
13) Methylene chloride	3.900	84	3408	4.80	UG	# 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5025.D
Acq On : 10 Nov 2009 20:33
Operator : XING
Sample : TP2-2/3-3.5,11437-006,S,7.2g,13.5
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 12 11:11:37 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5025.D
Acq On : 10 Nov 2009 20:33
Operator : XING
Sample : TP2-2/3-3.5,11437-006,S,7.2g,13.5
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5025.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.961	20	33	36	rBV	2802	18558	4.17%	0.996%
2	3.900	220	224	234	rBV2	4668	12925	2.90%	0.694%
3	5.982	423	429	439	rBV	95250	211848	47.56%	11.370%
4	6.296	454	460	475	rVB	53213	118312	26.56%	6.350%
5	6.794	503	509	551	rVB	143798	320378	71.93%	17.195%
6	8.459	666	673	697	rBV	165977	325816	73.15%	17.487%
7	10.134	832	838	853	rBV	236907	445391	100.00%	23.904%
8	11.535	968	976	988	rBV	208149	372058	83.54%	19.969%
9	14.326	1233	1251	1252	rBV	2419	17335	3.89%	0.930%
10	17.494	1561	1563	1576	rVB	3204	10143	2.28%	0.544%
11	19.839	1790	1794	1799	rVB7	3672	10447	2.35%	0.561%

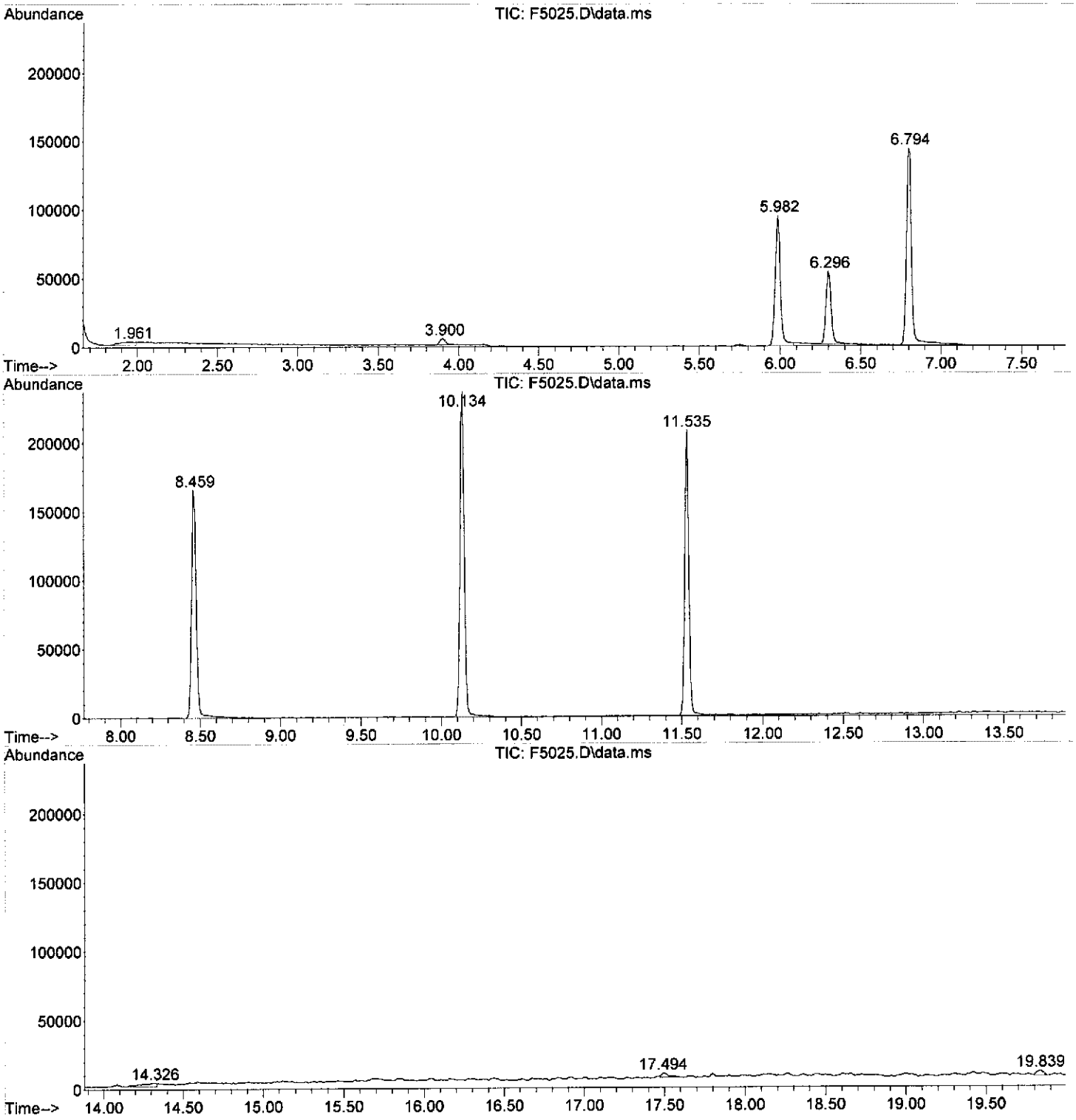
Sum of corrected areas: 1863211

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5025.D
Acq On : 10 Nov 2009 20:33
Operator : XING
Sample : TP2-2/3-3.5,11437-006,S,7.2g,13.5
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5021.D
Acq On : 10 Nov 2009 18:37
Operator : XING
Sample : TP1/4-4.5,11437-007,S,3.8g,25.4
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 11 15:56:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration

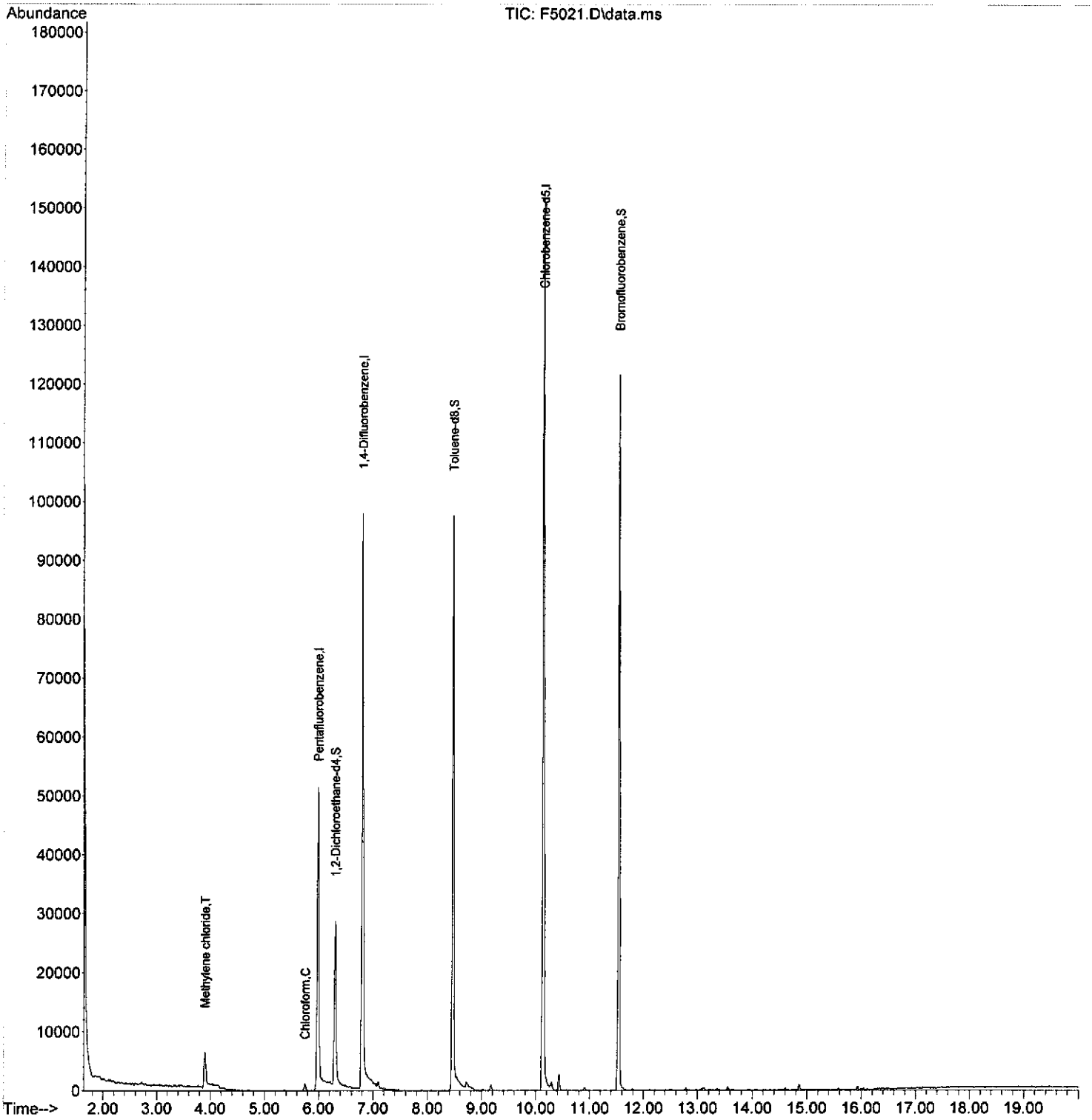
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.992	168	31583	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.804	114	71793	50.00	UG	0.00
50) Chlorobenzene-d5	10.134	117	72503	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.296	65	29912	53.52	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 107.04%			
41) Toluene-d8	8.469	98	69405	42.92	UG	0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 85.84%			
59) Bromofluorobenzene	11.535	95	35610	37.34	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 74.68%			
Target Compounds						Qvalue
13) Methylene chloride	3.901	84	4068	10.20	UG	# 97
25) Chloroform	5.748	83	1042	1.37	UG	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5021.D
Acq On : 10 Nov 2009 18:37
Operator : XING
Sample : TP1/4-4.5,11437-007,S,3.8g,25.4
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 11 15:56:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5021.D
Acq On : 10 Nov 2009 18:37
Operator : XING
Sample : TP1/4-4.5,11437-007,S,3.8g,25.4
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5021.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.901	220	224	237	rBV	5996	18600	6.95%	1.691%
2	5.982	422	429	440	rBV	51246	123988	46.35%	11.269%
3	6.296	455	460	478	rVB	27869	66924	25.02%	6.083%
4	6.804	504	510	536	rBV	97582	205751	76.91%	18.701%
5	8.469	665	674	695	rBV	97679	204781	76.55%	18.613%
6	8.713	695	698	717	rVB4	1394	7369	2.75%	0.670%
7	10.134	829	838	850	rBV	151452	267523	100.00%	24.315%
8	10.296	850	854	862	rVV3	1434	3798	1.42%	0.345%
9	10.428	862	867	873	rVB	2753	5078	1.90%	0.462%
10	11.535	970	976	988	rBV	121520	196413	73.42%	17.852%

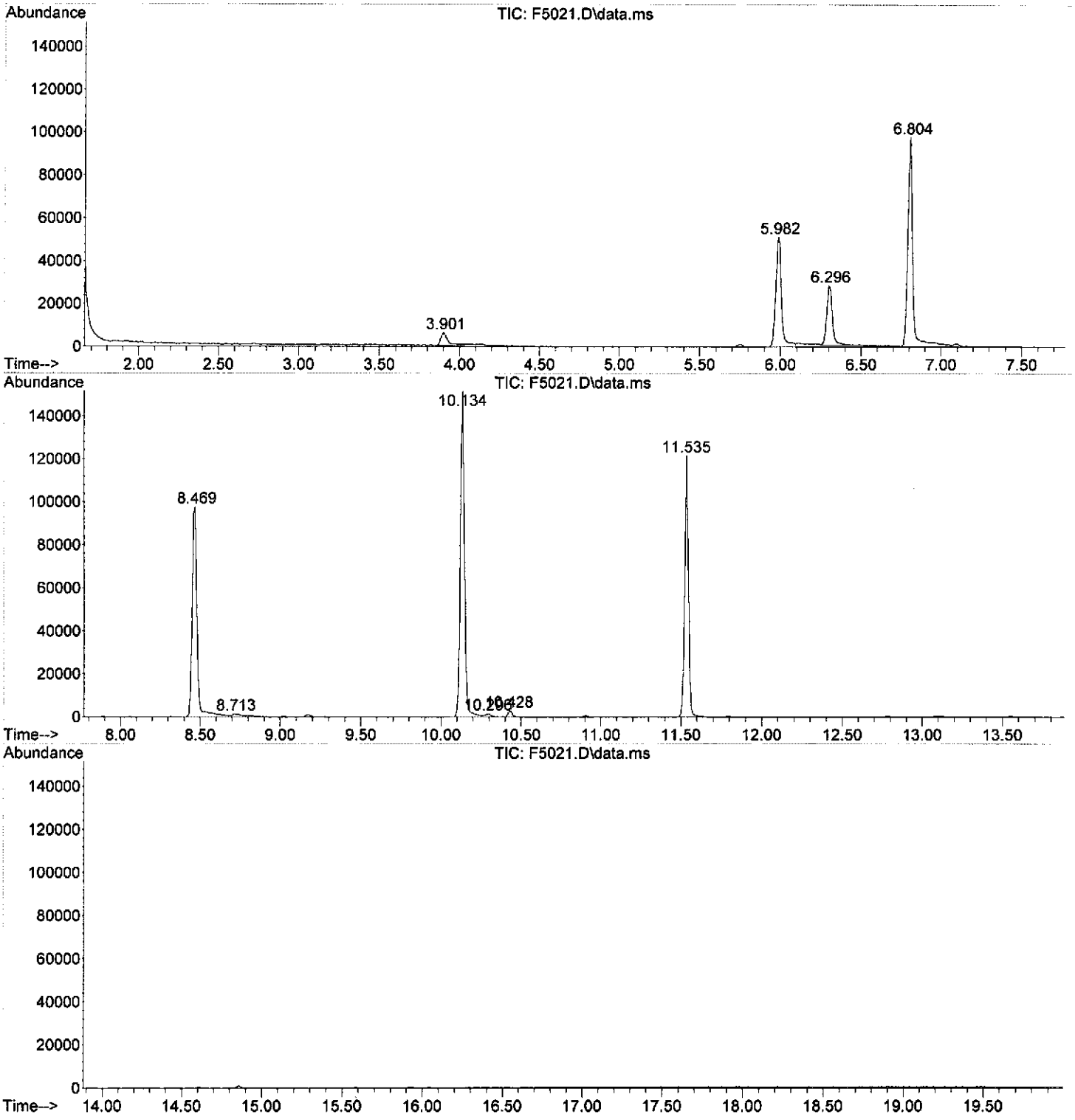
Sum of corrected areas: 1100225

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5021.D
Acq On : 10 Nov 2009 18:37
Operator : XING
Sample : TP1/4-4.5,11437-007,S,3.8g,25.4
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5022.D
Acq On : 10 Nov 2009 19:06
Operator : XING
Sample : TP6/4.58-5.08,11437-008,S,5.4g,20.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 11 15:57:05 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration

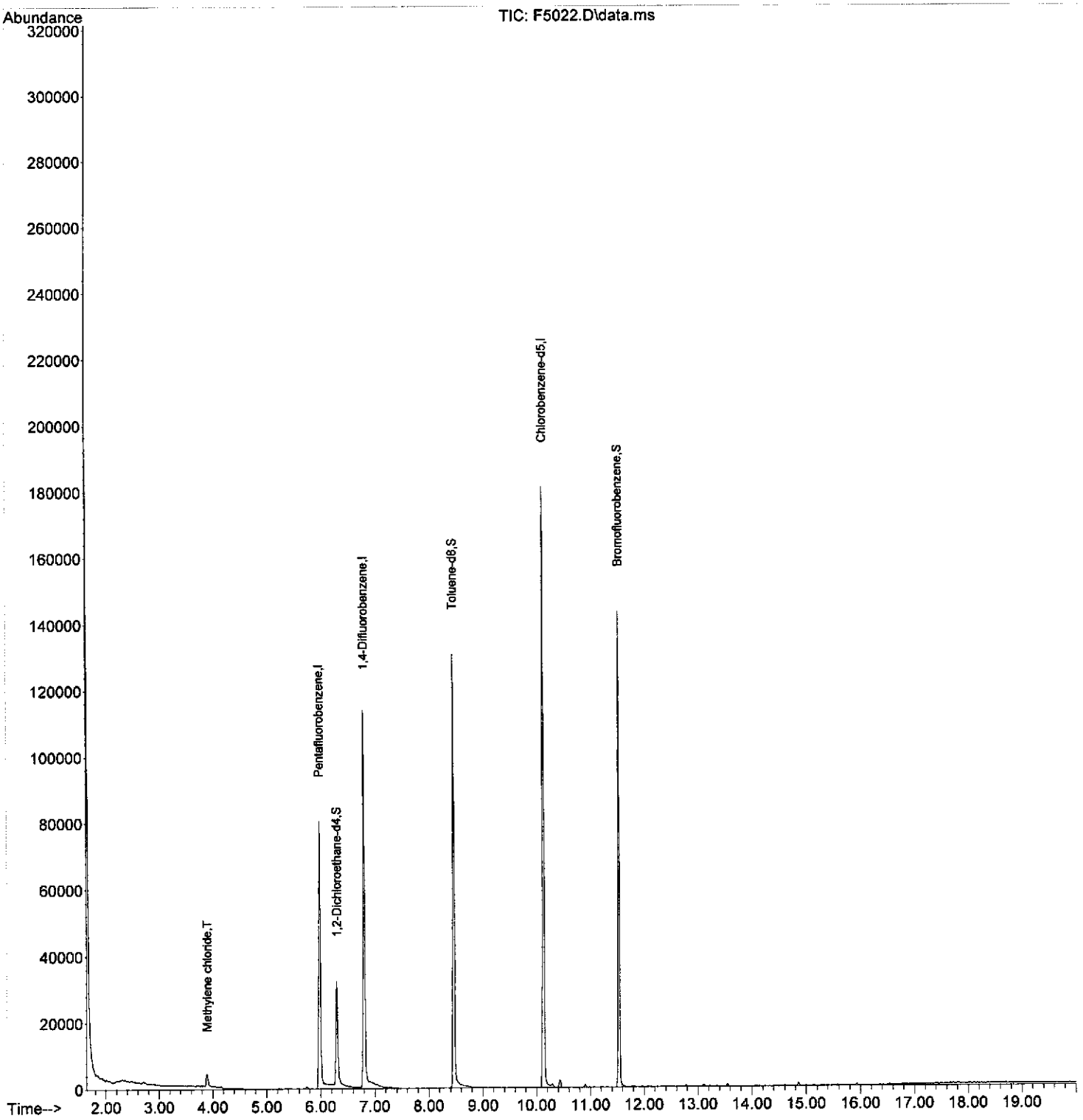
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.982	168	46082	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.804	114	84548	50.00	UG	0.00
50) Chlorobenzene-d5	10.134	117	88773	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.296	65	31272	38.35	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 76.70%			
41) Toluene-d8	8.459	98	84494	44.36	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 88.72%			
59) Bromofluorobenzene	11.535	95	42468	36.37	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 72.74%			
Target Compounds						Qvalue
13) Methylene chloride	3.901	84	2790	4.79	UG	# 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5022.D
Acq On : 10 Nov 2009 19:06
Operator : XING
Sample : TP6/4.58-5.08,11437-008,S,5.4g,20.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 11 15:57:05 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5022.D
Acq On : 10 Nov 2009 19:06
Operator : XING
Sample : TP6/4.58-5.08,11437-008,S,5.4g,20.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5022.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.890	219	223	232	rVB	3907	9306	2.85%	0.694%
2	5.982	420	429	437	rBV	80369	175542	53.83%	13.098%
3	6.296	455	460	481	rVB	31675	77699	23.83%	5.798%
4	6.794	503	509	547	rVB	113899	257626	79.00%	19.223%
5	8.459	668	673	701	rBV	130741	256741	78.73%	19.157%
6	10.134	826	838	850	rBV	181149	326114	100.00%	24.333%
7	10.428	863	867	873	rVB	2263	4382	1.34%	0.327%
8	11.535	967	976	990	rBV	143504	232791	71.38%	17.370%

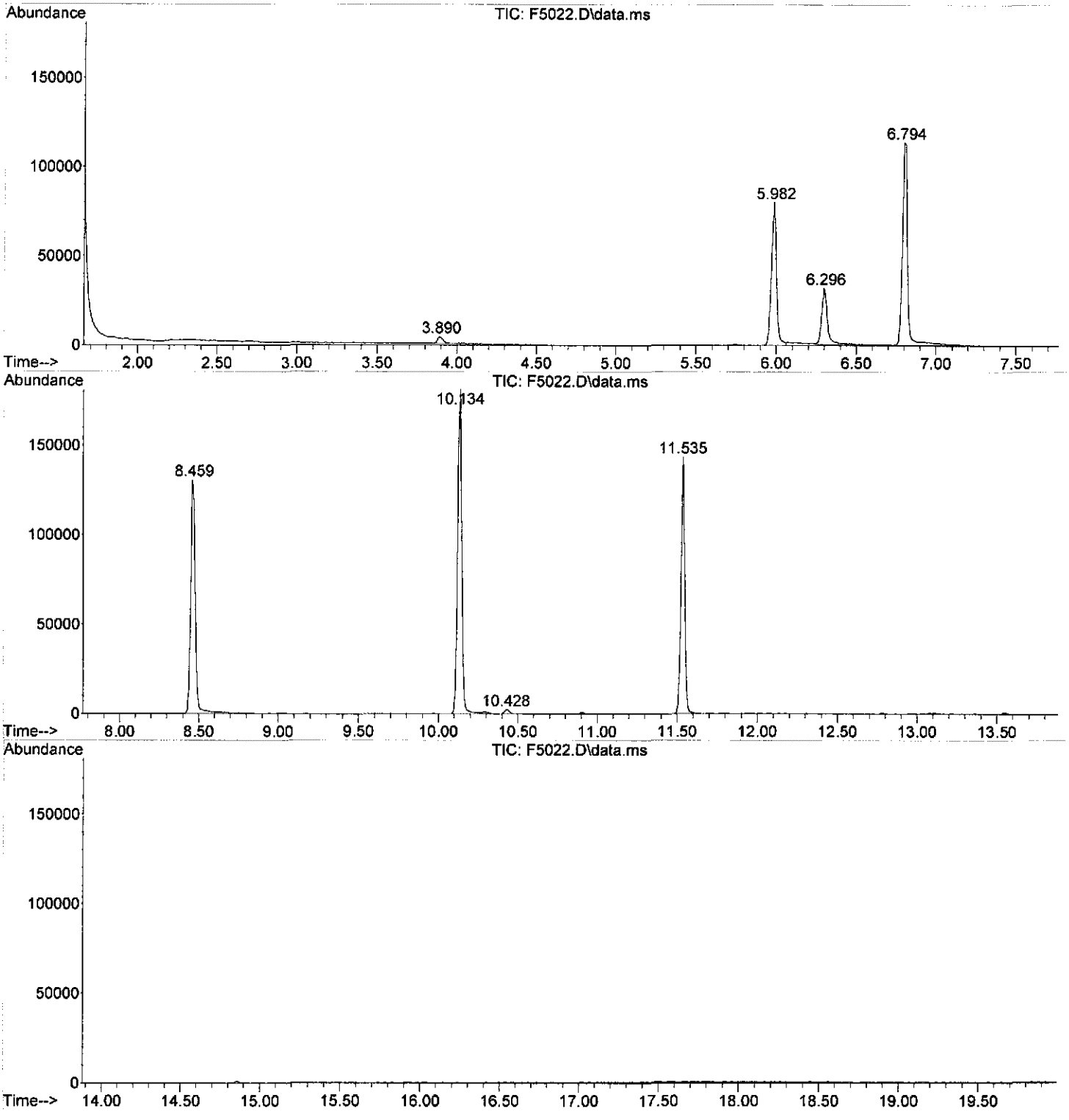
Sum of corrected areas: 1340201

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5022.D
Acq On : 10 Nov 2009 19:06
Operator : XING
Sample : TP6/4.58-5.08,11437-008,S,5.4g,20.2
Misc : PENNJERSEY/PALMER,11/9/09,11/10/09
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5010.D
Acq On : 10 Nov 2009 13:18
Operator : XING
Sample : N/A,METHOD-BLK,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 10 13:41:56 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.992	168	31178	50.00	UG	0.01
31) 1,4-Difluorobenzene	6.804	114	65843	50.00	UG	0.00
50) Chlorobenzene-d5	10.134	117	72833	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.307	65	35857	64.99	UG	0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 129.98%			
41) Toluene-d8	8.469	98	67627	45.60	UG	0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 91.20%			
59) Bromofluorobenzene	11.535	95	36914	38.53	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 77.06%			

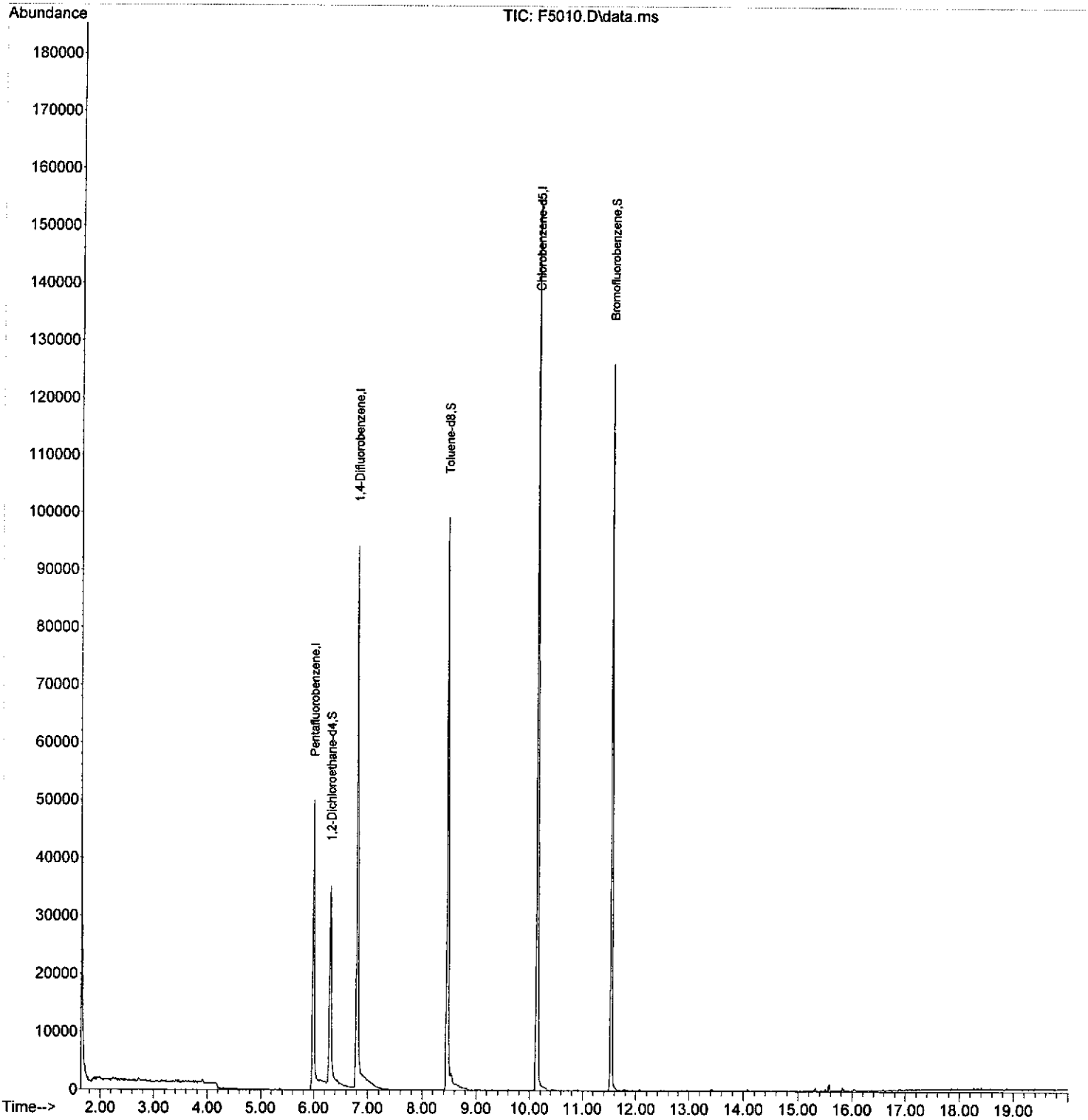
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5010.D
Acq On : 10 Nov 2009 13:18
Operator : XING
Sample : N/A,METHOD-BLK,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 10 13:41:56 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Oct 27 08:25:40 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5010.D
Acq On : 10 Nov 2009 13:18
Operator : XING
Sample : N/A,METHOD-BLK,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5010.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.992	423	430	441	rBV	49879	120652	44.92%	11.359%
2	6.307	455	461	478	rVB	34141	82800	30.83%	7.796%
3	6.804	504	510	549	rVB	93909	202792	75.50%	19.093%
4	8.469	666	674	679	rBV	99202	183503	68.32%	17.277%
5	10.134	832	838	859	rBV	154375	268605	100.00%	25.289%
6	11.535	966	976	987	rBV	126158	203777	75.86%	19.186%

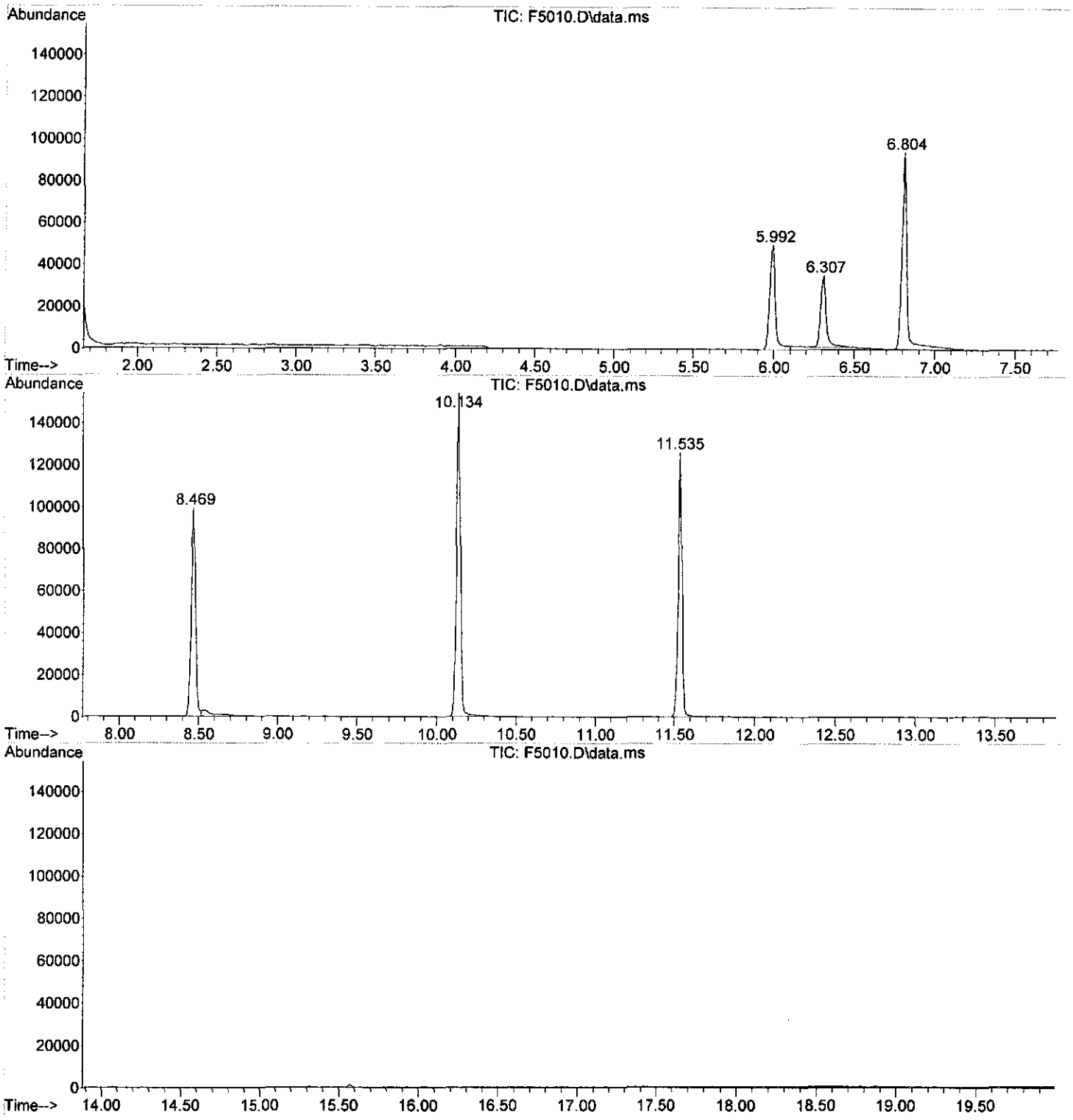
Sum of corrected areas: 1062129

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\11-10-09\
Data File : F5010.D
Acq On : 10 Nov 2009 13:18
Operator : XING
Sample : N/A,METHOD-BLK,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1026.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-12-09\
Data File : L1631.D
Acq On : 12 Nov 2009 17:20
Operator : MEI
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 13 09:38:49 2009
Quant Method : C:\MSDCHEM\1\METHODS\LME1109.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Nov 10 11:14:34 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	176241	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.01	114	293511	50.00	UG	0.00
50) Chlorobenzene-d5	10.33	117	320086	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.53	65	100524	40.99	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 81.98%			
41) Toluene-d8	8.67	98	316981	45.29	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 90.58%			
59) Bromofluorobenzene	11.73	95	155785	43.47	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 86.94%			

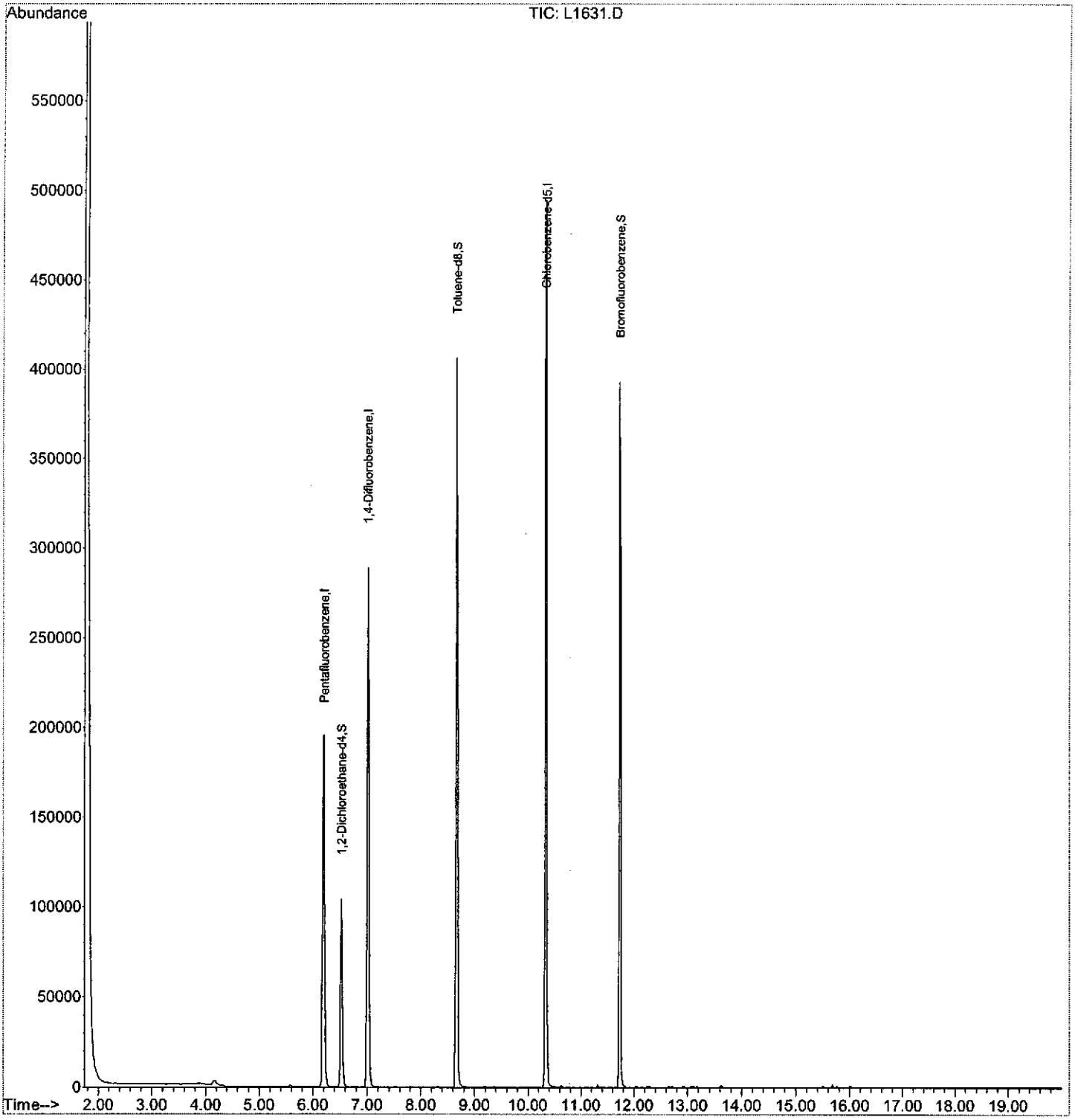
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-12-09\
Data File : L1631.D
Acq On : 12 Nov 2009 17:20
Operator : MEI
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 13 09:38:49 2009
Quant Method : C:\MSDCHEM\1\METHODS\LME1109.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Tue Nov 10 11:14:34 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\11-12-09\
Data File : L1631.D
Acq On : 12 Nov 2009 17:20
Operator : MEI
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LME1109.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.161	235	240	253	rVB5	2440	10572	1.10%	0.265%
2	6.191	433	440	456	rBV	195684	501975	52.33%	12.593%
3	6.526	465	473	491	rVB	104035	262629	27.38%	6.589%
4	7.013	514	521	545	rVB	288651	674976	70.37%	16.933%
5	8.668	677	684	707	rVB	406156	840412	87.61%	21.083%
6	10.333	842	848	860	rBV	494540	959239	100.00%	24.064%
7	11.734	980	986	1000	rVB	392879	736337	76.76%	18.472%

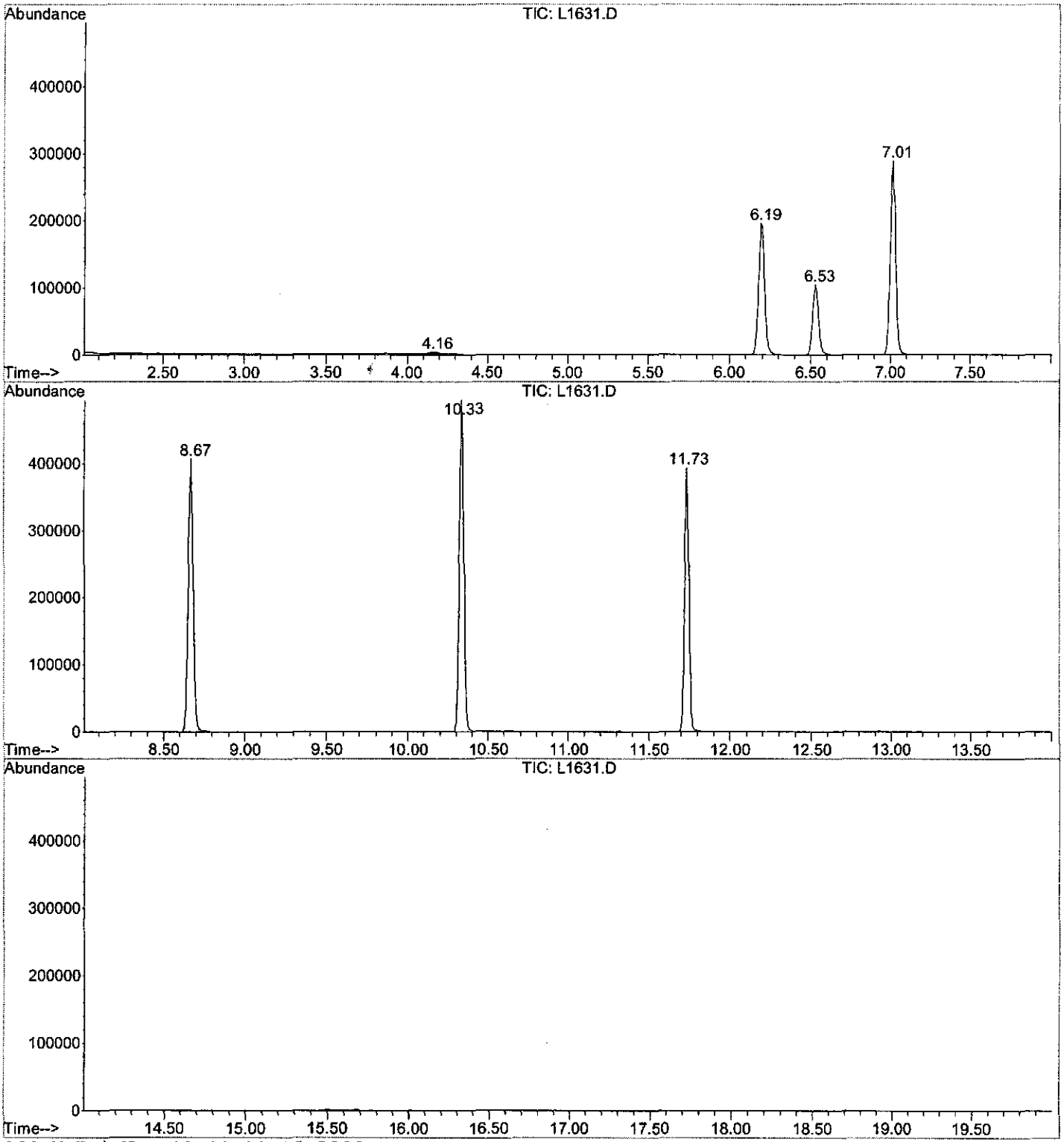
Sum of corrected areas: 3986140

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\11-12-09\
Data File : L1631.D
Acq On : 12 Nov 2009 17:20
Operator : MEI
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LME1109.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



0177

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7310.D DFTPP Injection Date : 11/10/2009

Inst ID: MSDC DFTPP Injection Time: 14:26

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	40.7			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	46.6			
70	Less than 2.0% of mass 69	0.3	(	0.6	)1
127	40.0 - 60.0% of mass 198	55.1			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.0			
275	10.0 - 30.0% of mass 198	21.1			
365	Greater than 1.0% of mass 198	1.5			
441	Present, but less than mass 443	5.40	(	63.8	)3
442	40.0 - 100.0% of mass 198	43.6			
443	17.0 - 23.0% of mass 442	8.5	(	19.4	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN119.09	40ngBNA_FOR_1	C7311.D	11/10/2009	14:36
ABN121.09	10ngBNA_FOR_1	C7312.D	11/10/2009	14:52
ABN122.09	20ngBNA_FOR_1	C7313.D	11/10/2009	15:07
ABN123.09	80ngBNA_FOR_1	C7314.D	11/10/2009	15:23
ABN124.09	120ngBNA_FOR_	C7315.D	11/10/2009	15:39
ABN120.09	1ngBNA_FOR_11	C7316.D	11/10/2009	15:54
ABN122.09	1ngOLMO4_FOR_	C7317.D	11/10/2009	16:09
ABN123.09	10ngOLMO4_FOI	C7318.D	11/10/2009	16:24
ABN124.09	20ngOLMO4_FOI	C7319.D	11/10/2009	16:40
ABN125.09	40ngOLMO4_FOI	C7320.D	11/10/2009	16:55
ABN126.09	80ngOLMO4_FOI	C7321.D	11/10/2009	17:10
ABN127.09	120ngOLMO4_FC	C7322.D	11/10/2009	17:28
ABN136.09	40ngBNAchk_FOI	C7323.D	11/10/2009	17:44
ABN137.09	40ngOLMO4chk_I	C7324.D	11/10/2009	18:00

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7394.D DFTPP Injection Date : 11/13/2009

Inst ID: MSDC DFTPP Injection Time: 09:21

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	35.1			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	39.3			
70	Less than 2.0% of mass 69	0.2	(	0.5	)1
127	40.0 - 60.0% of mass 198	49.5			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.0			
275	10.0 - 30.0% of mass 198	22.9			
365	Greater than 1.0% of mass 198	2.2			
441	Present, but less than mass 443	8.54	(	70.8	)3
442	40.0 - 100.0% of mass 198	54.8			
443	17.0 - 23.0% of mass 442	12.1	(	22.0	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN136.09	40ngBNAchk_FOI	C7395.D	11/13/2009	09:49
ABN137.09	40ngOLMO4chk_I	C7396.D	11/13/2009	10:20
.	Method_Blank	C7397.D	11/13/2009	16:08
.	LCS	C7398.D	11/13/2009	16:24
.	MS(11373-001)	C7399.D	11/13/2009	16:39
.	MSD(11373-001)	C7400.D	11/13/2009	16:55
09-194-1-ANT	11493-001	C7401.D	11/13/2009	17:10
01-194-2-C2C	11493-002	C7402.D	11/13/2009	17:26
TP7/4.25-4.7	11437-002	C7403.D	11/13/2009	17:41
TP5-1/3.17-3	11437-003	C7404.D	11/13/2009	17:57
TP5-2/5.67-6	11437-004	C7405.D	11/13/2009	18:12
TP2-1/2-2.5	11437-005	C7406.D	11/13/2009	18:28
TP2-2/3-3.5	11437-006	C7407.D	11/13/2009	18:43
TP1/4-4.5	11437-007	C7408.D	11/13/2009	18:59
TP6/4.58-5.0	11437-008	C7409.D	11/13/2009	19:14
PIPE/2	11372-001	C7410.D	11/13/2009	19:30
EX-1/15.5	11372-002	C7411.D	11/13/2009	19:45
EX-2/15.5	11372-003	C7412.D	11/13/2009	20:01
EX-3/15.5	11372-004	C7413.D	11/13/2009	20:16
EX-4/15.5	11372-005	C7414.D	11/13/2009	20:31
BOTTOM/16	11373-001	C7415.D	11/13/2009	20:47

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C7397.D Instrument ID: MSDC

Date Extracted: 11/13/09 Matrix: SOIL

Date Analyzed: 11/13/2009 Time Analyzed: 16:08

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	11/13/2009	16:24
.	MS(11373-001)	11/13/2009	16:39
.	MSD(11373-001)	11/13/2009	16:55
09-194-1-ANT	11493-001	11/13/2009	17:10
01-194-2-C2C	11493-002	11/13/2009	17:26
TP7/4.25-4.7	11437-002	11/13/2009	17:41
TP5-1/3.17-3	11437-003	11/13/2009	17:57
TP5-2/5.67-6	11437-004	11/13/2009	18:12
TP2-1/2-2.5	11437-005	11/13/2009	18:28
TP2-2/3-3.5	11437-006	11/13/2009	18:43
TP1/4-4.5	11437-007	11/13/2009	18:59
TP6/4.58-5.0	11437-008	11/13/2009	19:14
PIPE/2	11372-001	11/13/2009	19:30
EX-1/15.5	11372-002	11/13/2009	19:45
EX-2/15.5	11372-003	11/13/2009	20:01
EX-3/15.5	11372-004	11/13/2009	20:16
EX-4/15.5	11372-005	11/13/2009	20:31
BOTTOM/16	11373-001	11/13/2009	20:47

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: N/A

Lab ID: Method_Blank
Client ID: .
Date Received: N/A
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7397.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		0.033
Pyridine	ND		0.033
Benzaldehyde	ND		0.033
Phenol	ND		0.033
Aniline	ND		0.033
Bis(2-chloroethyl) ether	ND		0.033
2-Chlorophenol	ND		0.033
1,3-Dichlorobenzene	ND		0.033
1,4-Dichlorobenzene	ND		0.033
Benzyl alcohol	ND		0.033
1,2-Dichlorobenzene	ND		0.033
2-Methylphenol	ND		0.033
Bis(2-chloroisopropyl) ether	ND		0.033
4-Methylphenol	ND		0.033
N-Nitrosodi-n-propylamine	ND		0.033
Acetophenone	ND		0.033
Hexachloroethane	ND		0.033
Nitrobenzene	ND		0.033
Isophorone	ND		0.033
2-Nitrophenol	ND		0.033
2,4-Dimethylphenol	ND		0.033
Bis(2-chloroethoxy) methane	ND		0.033
Benzoic acid	ND		0.033
2,4-Dichlorophenol	ND		0.033
1,2,4-Trichlorobenzene	ND		0.033
Naphthalene	ND		0.033
4-Chloroaniline	ND		0.033
Hexachlorobutadiene	ND		0.033
Caprolactam	ND		0.033
4-Chloro-3-methylphenol	ND		0.033
2-Methylnaphthalene	ND		0.033
Hexachlorocyclopentadiene	ND		0.033
2,4,6-Trichlorophenol	ND		0.033
2,4,5-Trichlorophenol	ND		0.033
1,1'-Biphenyl	ND		0.033
2-Chloronaphthalene	ND		0.033
2-Nitroaniline	ND		0.033
Dimethyl phthalate	ND		0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: N/A

Lab ID: Method_Blank
Client ID: .
Date Received: N/A
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7397.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.033
Acenaphthylene	ND		0.033
3-Nitroaniline	ND		0.033
Acenaphthene	ND		0.033
2,4-Dinitrophenol	ND		0.033
4-Nitrophenol	ND		0.033
2,4-Dinitrotoluene	ND		0.033
Dibenzofuran	ND		0.033
Diethyl phthalate	ND		0.033
Fluorene	ND		0.033
4-Chlorophenyl phenyl ether	ND		0.033
4-Nitroaniline	ND		0.033
1,2,4,5-Tetrachlorobenzene	ND		0.033
4,6-Dinitro-2-methylphenol	ND		0.033
N-Nitrosodiphenylamine	ND		0.033
1,2-Diphenylhydrazine	ND		0.033
4-Bromophenyl phenyl ether	ND		0.033
Hexachlorobenzene	ND		0.033
Atrazine	ND		0.033
Pentachlorophenol	ND		0.033
Phenanthrene	ND		0.033
Anthracene	ND		0.033
Carbazole	ND		0.033
Di-n-butyl phthalate	ND		0.033
Fluoranthene	ND		0.033
Benzidine	ND		0.033
Pyrene	ND		0.033
3,3'-Dimethylbenzidine	ND		0.033
Butyl benzyl phthalate	ND		0.033
3,3'-Dichlorobenzidine	ND		0.033
Benzo[a]anthracene	ND		0.033
Chrysene	ND		0.033
Bis(2-ethylhexyl) phthalate	ND		0.033
Di-n-octyl phthalate	ND		0.033
Benzo[b]fluoranthene	ND		0.033
Benzo[k]fluoranthene	ND		0.033
Benzo[a]pyrene	ND		0.033
Indeno[1,2,3-cd]pyrene	ND		0.033
Dibenz[a,h]anthracene	ND		0.033
Benzo[g,h,i]perylene	ND		0.033

Total Target Compounds: 0

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: N/A

Lab ID: Method_Blank
Client ID: .
Date Received: N/A
Date Extracted: 11/13/2009
Date Analyzed: 11/13/2009
Data file: C7397.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS1809.M
Title : BNA CALIBRATION METHOD
Last Update : Tue Nov 10 17:46:44 2009
Response Via : Initial Calibration

Calibration Files
120 =C7315.D 10 =C7312.D 20 =C7313.D
80 =C7314.D 1 =C7316.D 40 =C7311.D

		Compound	120	10	20	80	1	40	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD							
2)	T	N-Nitrosodimethyl	0.748	0.788	0.818	0.696	0.790	0.781	0.770	5.57
3)	T	Pyridine	0.738	0.710	0.851	0.772	0.875	0.772	0.786	8.15
4)	S	2-Fluorophenol	1.250	1.170	1.175	1.188	1.166	1.207	1.192	2.66
5)	T	Benzaldehyde	0.808	0.704	0.868	0.852	0.824	0.646	0.784	11.32
6)	S	Phenol-d5	1.582	1.525	1.564	1.526	1.510	1.484	1.532	2.34
7)	MC	Phenol	1.418	1.452	1.498	1.488	1.651	1.570	1.513	5.60
8)	T	Aniline	0.599	0.610	0.647	0.592	0.695	0.615	0.626	6.15
9)	T	Bis(2-chloroethyl	0.788	0.808	0.846	0.738	0.982	0.779	0.824	10.35
10)	M	2-Chlorophenol	1.286	1.287	1.344	1.318	1.534	1.336	1.351	6.87
11)	T	1,3-Dichlorobenze	1.419	1.536	1.521	1.450	1.741	1.515	1.530	7.36
12)	MC	1,4-Dichlorobenze	1.478	1.520	1.528	1.412	1.772	1.482	1.532	8.13
13)	T	Benzyl alcohol	0.813	0.751	0.832	0.825	0.744	0.814	0.796	4.87
14)	T	1,2-Dichlorobenze	1.424	1.520	1.529	1.369	1.641	1.437	1.487	6.53
15)	T	2-Methylphenol	0.813	0.751	0.832	0.825	0.746	0.814	0.797	4.79
16)	T	Bis(2-chloroisopr	1.107	1.242	1.288	1.113	1.340	1.192	1.214	7.76
17)	T	4-Methylphenol	1.136	1.184	1.288	1.163	1.226	1.171	1.195	4.55
18)	MP	N-Nitrosodi-n-pro	0.699	0.770	0.816	0.740	0.879	0.789	0.782	7.96
19)	T	Acetophenone	1.529	1.663	1.707	1.524	1.849	1.586	1.643	7.58
20)	T	3-Methylphenol	1.136	1.184	1.288	1.163	1.226	1.168	1.194	4.56
21)	T	Hexachloroethane	0.483	0.500	0.522	0.485	0.558	0.507	0.509	5.48
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	ISTD							
24)	S	Nitrobenzene-d5	0.356	0.334	0.332	0.338	0.328	0.352	0.340	3.41
25)	T	Nitrobenzene	0.291	0.314	0.314	0.283	0.375	0.303	0.314	10.39
26)	T	Isophorone	0.551	0.597	0.622	0.553	0.689	0.602	0.602	8.49
27)	TC	2-Nitrophenol	0.187	0.172	0.178	0.176	0.172	0.185	0.178	3.5
28)	T	2,4-Dimethylpheno	0.289	0.300	0.325	0.310	0.334	0.326	0.314	5.54
29)	T	Bis(2-chloroethox	0.351	0.373	0.394	0.343	0.406	0.382	0.375	6.47
30)	T	Benzoic acid	0.132	0.102	0.119	0.119	0.097	0.128	0.116	12.22
31)	T	2,4-Dimethylanili	0.372	0.400	0.408	0.376	0.443	0.404	0.401	6.38
32)	TC	2,4-Dichloropheno	0.285	0.302	0.306	0.298	0.302	0.294	0.298	2.47
33)	M	1,2,4-Trichlorobe	0.332	0.341	0.359	0.327	0.392	0.350	0.350	6.80
34)	T	Naphthalene	0.941	1.061	1.069	0.983	1.207	1.049	1.052	8.66
35)	T	4-Chloroaniline	0.530	0.559	0.567	0.535	0.636	0.557	0.564	6.79
36)	T	4-Aminotoluene	0.530	0.575	0.586	0.539	0.653	0.600	0.581	7.69
37)	TC	Hexachlorobutadie	0.200	0.213	0.221	0.200	0.242	0.211	0.214	7.41
38)	T	Caprolactam	0.111	0.105	0.120	0.114	0.101	0.114	0.111	6.07
39)	T	2-Aminotoluene	0.530	0.575	0.586	0.539	0.653	0.600	0.581	7.69
40)	MC	4-Chloro-3-methyl	0.278	0.262	0.294	0.271	0.251	0.283	0.273	5.60
41)	T	2-Methylnaphthale	0.648	0.693	0.707	0.656	0.714	0.685	0.684	3.94
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	ISTD							
44)	TP	Hexachlorocyclope	0.288	0.185	0.218	0.248	0.239	0.218	0.233	15.00
45)	TC	2,4,6-Trichloroph	0.336	0.325	0.344	0.334	0.330	0.304	0.329	4.15
46)	T	2,4,5-Trichloroph	0.377	0.359	0.390	0.371	0.360	0.344	0.367	4.43
47)	S	2-Fluorobiphenyl	1.313	1.414	1.403	1.276	1.472	1.226	1.351	6.95
48)	T	1,1'-Biphenyl	1.280	1.463	1.451	1.273	1.795	1.254	1.419	14.51
49)	T	2-Chloronaphthale	1.044	1.133	1.107	0.993	1.261	0.976	1.086	9.74
50)	T	2-Nitroaniline	0.222	0.208	0.228	0.227	0.209	0.198	0.215	5.74
51)	T	Dimethyl phthalat	1.192	1.272	1.284	1.142	1.368	1.088	1.224	8.40

52)	T	2,6-Dinitrotoluen	0.300	0.265	0.282	0.281	0.250	0.253	0.272	7.20
53)	T	Acenaphthylene	1.642	1.816	1.878	1.693	1.919	1.606	1.759	7.40
54)	T	3-Nitroaniline	0.369	0.333	0.356	0.353	0.318	0.314	0.341	6.54
55)	MC	Acenaphthene	0.966	1.124	1.132	1.016	1.257	0.967	1.077	10.64
56)	TP	2,4-Dinitrophenol	0.138	0.118	0.132	0.135	0.148	0.120	0.132	8.62
57)	MP	4-Nitrophenol	0.153	0.127	0.142	0.148	0.110	0.124	0.134	12.39
58)	M	2,4-Dinitrotoluen	0.408	0.323	0.382	0.383	0.282	0.340	0.353	13.26
59)	T	Dibenzofuran	1.473	1.695	1.708	1.552	1.854	1.443	1.621	9.77
60)	T	Diethyl phthalate	1.073	1.176	1.213	1.112	1.297	1.058	1.155	7.92
61)	T	Fluorene	1.151	1.357	1.405	1.264	1.449	1.188	1.302	9.24
62)	T	4-Chlorophenyl ph	0.661	0.719	0.723	0.679	0.755	0.630	0.695	6.63
63)	T	4-Nitroaniline	0.300	0.282	0.312	0.306	0.248	0.266	0.286	8.71
64)		1,2,4,5-Tetrachlo	0.547	0.620	0.622	0.548	0.747	0.523	0.601	13.71
65)	T	3,5-Dimethylpheno							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.096	0.075	0.070	0.090	0.102	0.083	0.086	14.34
68)	TC	N-Nitrosodiphenyl	0.465	0.532	0.527	0.482	0.557	0.544	0.518	7.00
69)	T	1,2-Diphenylhydra	0.485	0.555	0.547	0.519	0.557	0.551	0.536	5.31
70)	S	2,4,6-Tribromophe	0.170	0.160	0.157	0.163	0.155	0.162	0.161	3.24
71)	T	4-Bromophenyl phe	0.240	0.251	0.254	0.238	0.298	0.251	0.255	8.60
72)	T	Hexachlorobenzene	0.284	0.305	0.306	0.291	0.339	0.312	0.306	6.27
73)	T	Atrazine	0.211	0.204	0.214	0.211	0.232	0.213	0.214	4.45
74)	MC	Pentachlorophenol	0.143	0.112	0.123	0.133	0.095	0.134	0.123	14.17
75)	T	Phenanthrene	0.970	1.096	1.083	1.021	1.256	1.075	1.083	8.93
76)	T	Anthracene	0.975	1.112	1.137	1.055	1.157	1.121	1.093	6.15
77)	T	Carbazole	0.941	1.009	1.031	0.976	0.987	1.013	0.993	3.24
78)	T	Di-n-butyl phthal	0.963	1.037	1.080	1.037	1.068	1.106	1.049	4.73
79)	TC	Fluoranthene	1.049	1.139	1.200	1.117	1.151	1.169	1.137	4.52
80)	T	Benzidine	0.456	0.345	0.373	0.489	0.473	0.428	0.427	13.40
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.068	1.126	1.163	1.103	1.222	1.183	1.144	4.89
84)	S	Terphenyl-d14	0.985	0.988	0.970	0.960	1.095	1.105	1.017	6.40
85)	T	3,3'-Dimethylbenz	0.564	0.426	0.512	0.630	0.462	0.579	0.529	14.52
86)	T	Butyl benzyl phth	0.458	0.410	0.445	0.444	0.426	0.468	0.442	4.83
87)	T	3,3'-Dichlorobenz	0.298	0.268	0.320	0.314	0.264	0.314	0.296	8.28
88)	T	Benzo[a]anthracen	0.927	0.945	0.978	0.951	1.035	0.975	0.969	3.92
89)	T	Chrysene	0.916	0.954	0.991	0.905	1.108	0.979	0.975	7.49
90)	T	Bis(2-ethylhexyl)	0.558	0.516	0.549	0.549	0.547	0.579	0.550	3.68
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.027	0.843	0.962	1.010	0.779	1.008	0.938	10.97
94)	T	Benzo[b]fluoranth	1.045	0.831	1.037	1.080	0.901	1.071	0.994	10.38
95)	T	Benzo[k]fluoranth	1.043	1.238	1.099	1.064	1.119	1.068	1.105	6.37
96)	TC	Benzo[a]pyrene	0.871	0.810	0.862	0.859	0.749	0.876	0.838	5.93
97)	T	Indeno[1,2,3-cd]p	1.098	0.820	0.938	1.061	0.982	1.081	0.997	10.65
98)	T	Dibenz[a,h]anthra	0.924	0.691	0.788	0.892	0.678	0.896	0.811	13.40
99)	T	Benzo[g,h,i]peryl	0.909	0.740	0.783	0.882	0.837	0.891	0.840	7.97
100)	T	Hydroquinone							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

CS1809.M Tue Nov 10 17:46:50 2009 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7395.D
Acq On : 13 Nov 2009 9:49
Operator : EDM
Sample : ABN136.09,40ngBNAchk_FOR_11/13/09
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Nov 13 10:27:55 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
2	T	N-Nitrosodimethylamine	0.770	0.655	14.9	80	0.00
3	T	Pyridine	0.786	0.660	16.0	82	0.00
4	S	2-Fluorophenol	1.192	1.176	1.3	93	0.00
5	T	Benzaldehyde	0.784	0.802	-2.3	92	0.00
6	S	Phenol-d5	1.532	1.433	6.5	92	0.00
7	MC	Phenol	1.513	1.280	15.4	78	0.00
8	T	Aniline	0.626	0.590	5.8	92	0.00
9	T	Bis(2-chloroethyl) ether	0.824	0.740	10.2	91	0.00
10	M	2-Chlorophenol	1.351	1.338	1.0	96	0.00
11	T	1,3-Dichlorobenzene	1.530	1.513	1.1	95	0.00
12	MC	1,4-Dichlorobenzene	1.532	1.515	1.1	98	0.00
13	T	Benzyl alcohol	0.796	0.872	-9.5	102	0.00
14	T	1,2-Dichlorobenzene	1.487	1.473	0.9	98	0.00
15	T	2-Methylphenol	0.797	0.872	-9.4	102	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.214	0.994	18.1	80	0.00
17	T	4-Methylphenol	1.195	1.256	-5.1	103	0.00
18	MP	N-Nitrosodi-n-propylamine	0.782	0.753	3.7	91	0.00
19	T	Acetophenone	1.643	1.646	-0.2	99	0.00
20	T	3-Methylphenol	1.194	1.256	-5.2	103	0.00
21	T	Hexachloroethane	0.509	0.515	-1.2	97	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	101	0.00
24	S	Nitrobenzene-d5	0.340	0.345	-1.5	98	0.00
25	T	Nitrobenzene	0.314	0.279	11.1	93	0.00
26	T	Isophorone	0.602	0.582	3.3	97	0.00
27	TC	2-Nitrophenol	0.178	0.206	-15.7	112	0.00
28	T	2,4-Dimethylphenol	0.314	0.321	-2.2	99	0.00
29	T	Bis(2-chloroethoxy) methane	0.375	0.362	3.5	95	0.00
30	T	Benzoic acid	0.116	0.137	-18.1	108	0.00
31	T	2,4-Dimethylaniline	0.401	0.406	-1.2	101	0.00
32	TC	2,4-Dichlorophenol	0.298	0.319	-7.0	109	0.00
33	M	1,2,4-Trichlorobenzene	0.350	0.373	-6.6	107	0.00
34	T	Naphthalene	1.052	1.053	-0.1	101	0.00
35	T	4-Chloroaniline	0.564	0.584	-3.5	105	0.00
36	T	4-Aminotoluene	0.581	0.551	5.2	92	0.00
37	TC	Hexachlorobutadiene	0.214	0.231	-7.9	110	0.00
38	T	Caprolactam	0.111	0.103	7.2	91	0.00
39	T	2-Aminotoluene	0.581	0.551	5.2	92	0.00
40	MC	4-Chloro-3-methylphenol	0.273	0.302	-10.6	107	0.00
41	T	2-Methylnaphthalene	0.684	0.710	-3.8	104	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	94	0.01
44	TP	Hexachlorocyclopentadiene	0.233	0.271	-16.3	117	0.00
45	TC	2,4,6-Trichlorophenol	0.329	0.372	-13.1	115	0.00

46	T	2,4,5-Trichlorophenol	0.367	0.405	-10.4	111	0.00
47	S	2-Fluorobiphenyl	1.351	1.368	-1.3	105	0.00
48	T	1,1'-Biphenyl	1.419	1.409	0.7	106	0.01
49	T	2-Chloronaphthalene	1.086	1.115	-2.7	108	0.01
50	T	2-Nitroaniline	0.215	0.216	-0.5	103	0.00
51	T	Dimethyl phthalate	1.224	1.321	-7.9	114	0.01
52	T	2,6-Dinitrotoluene	0.272	0.311	-14.3	116	0.01
53	T	Acenaphthylene	1.759	1.793	-1.9	105	0.01
54	T	3-Nitroaniline	0.341	0.370	-8.5	111	0.00
55	MC	Acenaphthene	1.077	1.085	-0.7	106	0.01
56	TP	2,4-Dinitrophenol	0.132	0.136	-3.0	107	0.01
57	MP	4-Nitrophenol	0.134	0.141	-5.2	108	0.01
58	M	2,4-Dinitrotoluene	0.353	0.386	-9.3	107	0.01
59	T	Dibenzofuran	1.621	1.633	-0.7	106	0.01
60	T	Diethyl phthalate	1.155	1.226	-6.1	109	0.02
61	T	Fluorene	1.302	1.277	1.9	101	0.01
62	T	4-Chlorophenyl phenyl ether	0.695	0.735	-5.8	110	0.02
63	T	4-Nitroaniline	0.286	0.307	-7.3	109	0.01
64		1,2,4,5-Tetrachlorobenzene	0.601	0.628	-4.5	113	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	102	0.02
67	T	4,6-Dinitro-2-methylphenol	0.086	0.099	-15.1	122	0.02
68	TC	N-Nitrosodiphenylamine	0.518	0.545	-5.2	102	0.02
69	T	1,2-Diphenylhydrazine	0.536	0.532	0.7	99	0.02
70	S	2,4,6-Tribromophenol	0.161	0.191	-18.6	121	0.02
71	T	4-Bromophenyl phenyl ether	0.255	0.281	-10.2	114	0.02
72	T	Hexachlorobenzene	0.306	0.335	-9.5	109	0.02
73	T	Atrazine	0.214	0.221	-3.3	106	0.02
74	MC	Pentachlorophenol	0.123	0.145	-17.9	110	0.02
75	T	Phenanthrene	1.083	1.045	3.5	99	0.02
76	T	Anthracene	1.093	1.090	0.3	99	0.03
77	T	Carbazole	0.993	0.922	7.2	93	0.02
78	T	Di-n-butyl phthalate	1.049	1.100	-4.9	102	0.02
79	TC	Fluoranthene	1.137	1.070	5.9	93	0.03
80	T	Benzidine	0.427	0.410	4.0	66	0.03
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	88	0.03
83	M	Pyrene	1.144	1.225	-7.1	92	0.03
84	S	Terphenyl-d14	1.017	1.113	-9.4	89	0.03
85	T	3,3'-Dimethylbenzidine	0.529	0.630	-19.1	78	0.04
86	T	Butyl benzyl phthalate	0.442	0.530	-19.9	100	0.05
87	T	3,3'-Dichlorobenzidine	0.296	0.354	-19.6	80	0.03
88	T	Benzo[a]anthracene	0.969	1.011	-4.3	92	0.03
89	T	Chrysene	0.975	0.966	0.9	87	0.03
90	T	Bis(2-ethylhexyl) phthalate	0.550	0.637	-15.8	97	0.03
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	98	0.03
93	TC	Di-n-octyl phthalate	0.938	1.034	-10.2	101	0.03
94	T	Benzo[b]fluoranthene	0.994	1.063	-6.9	98	0.03
95	T	Benzo[k]fluoranthene	1.105	1.086	1.7	100	0.03
96	TC	Benzo[a]pyrene	0.838	0.895	-6.8	101	0.03
97	T	Indeno[1,2,3-cd]pyrene	0.997	1.189	-19.3	108	0.03
98	T	Dibenz[a,h]anthracene	0.811	0.972	-19.9	107	0.03
99	T	Benzo[g,h,i]perylene	0.840	0.966	-15.0	107	0.03
100	T	Hydroquinone					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS1809.M Fri Nov 13 10:55:01 2009 RPT1

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 11/13/2009

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
40ngOLMO4chk_FO		C7396.D	N/A	N/A	N/A	N/A	N/A	N/A
Method_Blank	SOIL	C7397.D	57	62	54	61	69	67
LCS	SOIL	C7398.D	74	78	77	82	101	90
MS(11373-001)	SOIL	C7399.D	34	34	38	45	51	46
MSD(11373-001)	SOIL	C7400.D	35	35	38	44	52	47
11493-001	SOIL	C7401.D	70	71	64	67	81	76
11493-002	SOIL	C7402.D	40	45	41	53	63	52
11437-002	SOIL	C7403.D	34	35	35	40	47	46
11437-003	SOIL	C7404.D	40	41	42	48	55	54
11437-004	SOIL	C7405.D	58	58	59	67	78	76
11437-005	SOIL	C7406.D	87	86	43	51	122	57
11437-006	SOIL	C7407.D	46	48	45	50	58	58
11437-007	SOIL	C7408.D	89	92	43	51	126	69
11437-008	SOIL	C7409.D	37	39	41	47	50	55
11372-001	SOIL	C7410.D	N/A	N/A	41	47	N/A	58
11372-002	SOIL	C7411.D	N/A	N/A	48	56	N/A	66
11372-003	SOIL	C7412.D	N/A	N/A	43	53	N/A	58
11372-004	SOIL	C7413.D	N/A	N/A	46	50	N/A	56
11372-005	SOIL	C7414.D	N/A	N/A	46	51	N/A	57
11373-001	SOIL	C7415.D	N/A	N/A	49	57	N/A	63

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SOIL SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 11373-001 Batch No.: C111309S

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	100.0	0.0	41.7	42	35 - 116
2-Chlorophenol	100.0	0.0	44.2	44	37 - 112
1,4-Dichlorobenzene	50.0	0.0	22.4	45	29 - 102
N-Nitrosodi-n-propylamine	50.0	0.0	24.0	48	38 - 119
1,2,4-Trichlorobenzene	50.0	0.0	24.0	48	33 - 100
4-Chloro-3-methylphenol	100.0	0.0	52.5	53	42 - 118
Acenaphthene	50.0	0.0	26.9	54	20 - 132
4-Nitrophenol	100.0	0.0	55.5	56	31 - 123
2,4-Dinitrotoluene	50.0	0.0	30.1	60	24 - 130
Pentachlorophenol	100.0	0.0	74.2	74	29 - 113
Pyrene	50.0	0.0	26.9	54	31 - 133

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	0.0	39.3	39	7	14	35 - 116
2-Chlorophenol	0.0	42.8	43	2	13	37 - 112
1,4-Dichlorobenzene	0.0	22.6	45	0	14	29 - 102
N-Nitrosodi-n-propylamine	0.0	23.7	47	2	14	38 - 119
1,2,4-Trichlorobenzene	0.0	23.5	47	2	12	33 - 100
4-Chloro-3-methylphenol	0.0	51.9	52	2	13	42 - 118
Acenaphthene	0.0	26.3	53	2	22	20 - 132
4-Nitrophenol	0.0	55.7	56	0	18	31 - 123
2,4-Dinitrotoluene	0.0	28.8	58	3	26	24 - 130
Pentachlorophenol	0.0	77.4	77	4	19	29 - 113
Pyrene	0.0	27.5	55	2	17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7311.D

Date Analyzed: 11/10/2009

Instrument ID: MSDC

Time Analyzed: 14:36

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	105296	2.42	393236	2.97	290878	3.79
	UPPER LIMIT	210592	2.92	786472	3.47	581756	4.29
	LOWER LIMIT	52648	1.92	196618	2.47	145439	3.29
	LAB SAMPLE ID						
01	10ngBNA_FOR_11/1	98235	2.42	372327	2.96	239294	3.77
02	20ngBNA_FOR_11/1	88200	2.42	340411	2.96	225144	3.77
03	80ngBNA_FOR_11/1	75679	2.42	293090	2.96	200126	3.77
04	120ngBNA_FOR_11/	84958	2.42	341073	2.96	227974	3.77
05	1ngBNA_FOR_11/10	126800	2.42	492071	2.96	309104	3.77
06	1ngOLMO4_FOR_11	119102	2.42	464425	2.97	288014	3.79
07	10ngOLMO4_FOR_1	76566	2.42	302222	2.96	194155	3.79
08	20ngOLMO4_FOR_1	83314	2.42	327802	2.96	208136	3.78
09	40ngOLMO4_FOR_1	77715	2.42	301469	2.96	208719	3.77
10	80ngOLMO4_FOR_1	75410	2.42	297745	2.96	187107	3.77
11	120ngOLMO4_FOR_	82610	2.42	315143	2.96	204329	3.77
12	40ngBNAchk_FOR_1	65469	2.42	253494	2.96	174600	3.77
13	40ngOLMO4chk_FOR	96323	2.42	370363	2.96	242435	3.76
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7311.D

Date Analyzed: 11/10/2009

Instrument ID: MSDC

Time Analyzed: 14:36

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	471464		4.57		472435		6.33		376242		7.63	
	UPPER LIMIT	942928		5.07		944870		6.83		752484		8.13	
	LOWER LIMIT	235732		4.07		236218		5.83		188121		7.13	
	LAB SAMPLE ID												
01	10ngBNA_FOR_11/1	449070		4.53		472039		6.28		358075		7.58	
02	20ngBNA_FOR_11/1	435533		4.51		469025		6.25		359872		7.56	
03	80ngBNA_FOR_11/1	374075		4.51		391747		6.25		307076		7.55	
04	120ngBNA_FOR_11/	428576		4.51		423719		6.25		341259		7.56	
05	1ngBNA_FOR_11/10	571989		4.51		542122		6.25		391912		7.55	
06	1ngOLMO4_FOR_11	520722		4.57		505574		6.34		368560		7.63	
07	10ngOLMO4_FOR_1	366254		4.56		378875		6.32		269878		7.62	
08	20ngOLMO4_FOR_1	399348		4.55		424120		6.30		306937		7.61	
09	40ngOLMO4_FOR_1	395854		4.52		454365		6.27		346352		7.57	
10	80ngOLMO4_FOR_1	357456		4.51		414486		6.25		320506		7.56	
11	120ngOLMO4_FOR_	383009		4.51		404467		6.25		301721		7.56	
12	40ngBNAchk_FOR_1	330255		4.51		344440		6.25		259755		7.55	
13	40ngOLMO4chk_FOR	462214		4.50		481114		6.23		354534		7.53	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7395.D

Date Analyzed: 11/13/2009

Instrument ID: MSDC

Time Analyzed: 09:49

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	100717		2.42		395265		2.96		273682		3.78	
	UPPER LIMIT	201434		2.92		790530		3.46		547364		4.28	
	LOWER LIMIT	50359		1.92		197633		2.46		136841		3.28	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	78198		2.42		305736		2.96		191042		3.77	
02	Method_Blank	53869		2.41		214525		2.96		143927		3.78	
03	LCS	80824		2.42		318581		2.96		211971		3.78	
04	MS(11373-001)	83592		2.42		327474		2.96		209764		3.77	
05	MSD(11373-001)	100821		2.42		395015		2.96		254088		3.75	
06	11493-001	91060		2.41		366773		2.96		237506		3.78	
07	11493-002	89297		2.42		362572		2.96		224394		3.75	
08	11437-002	130866		2.42		510395		2.96		320020		3.78	
09	11437-003	67202		2.42		266960		2.96		174229		3.75	
10	11437-004	80127		2.42		315713		2.96		202626		3.75	
11	11437-005	95953		2.41		385451		2.96		241970		3.77	
12	11437-006	75557		2.42		304229		2.96		197329		3.75	
13	11437-007	104707		2.42		414774		2.96		258812		3.77	
14	11437-008	71821		2.42		287513		2.96		182536		3.75	
15	11372-001	77436		2.42		320398		2.96		205235		3.75	
16	11372-002	90982		2.42		365207		2.96		227416		3.75	
17	11372-003	80882		2.42		337536		2.96		205582		3.75	
18	11372-004	94581		2.42		369645		2.96		229266		3.75	
19	11372-005	90310		2.42		351549		2.96		215509		3.75	
20	11373-001	85894		2.42		340504		2.96		209937		3.74	
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7395.D

Date Analyzed: 11/13/2009

Instrument ID: MSDC

Time Analyzed: 09:49

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	481510		4.53		417418		6.28		370507		7.59	
	UPPER LIMIT	963020		5.03		834836		6.78		741014		8.09	
	LOWER LIMIT	240755		4.03		208709		5.78		185254		7.09	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	327353		4.52		336457		6.28		300299		7.58	
02	Method_Blank	273852		4.55		288634		6.30		244477		7.61	
03	LCS	409846		4.54		426051		6.30		346144		7.60	
04	MS(11373-001)	384236		4.51		446977		6.26		381039		7.56	
05	MSD(11373-001)	445099		4.48		493544		6.21		412943		7.52	
06	11493-001	440425		4.56		400454		6.32		366222		7.62	
07	11493-002	367168		4.48		347234		6.21		358232		7.52	
08	11437-002	553551		4.55		508072		6.31		467589		7.62	
09	11437-003	303747		4.48		276006		6.21		260199		7.52	
10	11437-004	350591		4.48		307698		6.21		293892		7.52	
11	11437-005	425986		4.53		369278		6.28		343847		7.58	
12	11437-006	345175		4.48		313292		6.21		290328		7.52	
13	11437-007	463039		4.53		381707		6.30		344880		7.60	
14	11437-008	320788		4.48		288964		6.22		256353		7.52	
15	11372-001	351349		4.48		304912		6.22		269695		7.52	
16	11372-002	381313		4.49		341753		6.23		309991		7.53	
17	11372-003	355061		4.48		334689		6.22		305707		7.52	
18	11372-004	401058		4.49		374253		6.22		338671		7.52	
19	11372-005	376576		4.49		348432		6.21		317988		7.52	
20	11373-001	363435		4.48		332129		6.21		301062		7.51	
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7403.D
Acq On : 13 Nov 2009 17:41
Operator : EDM
Sample : TP7/4.25-4.7,11437-002,S,15.00g,18.2,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 16 10:20:43 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.42	152	130866	40.00	UG	0.00
23) Naphthalene-d8	2.96	136	510395	40.00	UG	0.00
43) Acenaphthene-d10	3.78	164	320020	40.00	UG	0.01
66) Phenanthrene-d10	4.55	188	553551	40.00	UG	0.04
82) Chrysene-d12	6.31	240	508072	40.00	UG	0.06
92) Perylene-d12	7.62	264	467589	40.00	UG	0.06
System Monitoring Compounds						
4) 2-Fluorophenol	1.90	112	132256	33.90	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 33.90%			
6) Phenol-d5	2.24	99	177358	35.39	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 35.39%			
24) Nitrobenzene-d5	2.65	82	75481	17.39	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 34.78%			
47) 2-Fluorobiphenyl	3.43	172	218556	20.23	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 40.46%			
70) 2,4,6-Tribromophenol	4.18	330	103857	46.63	UG	0.02
Spiked Amount 100.000	Range 32 - 126		Recovery = 46.63%			
84) Terphenyl-d14	5.45	244	297337	23.01	UG	0.07
Spiked Amount 50.000	Range 32 - 135		Recovery = 46.02%			

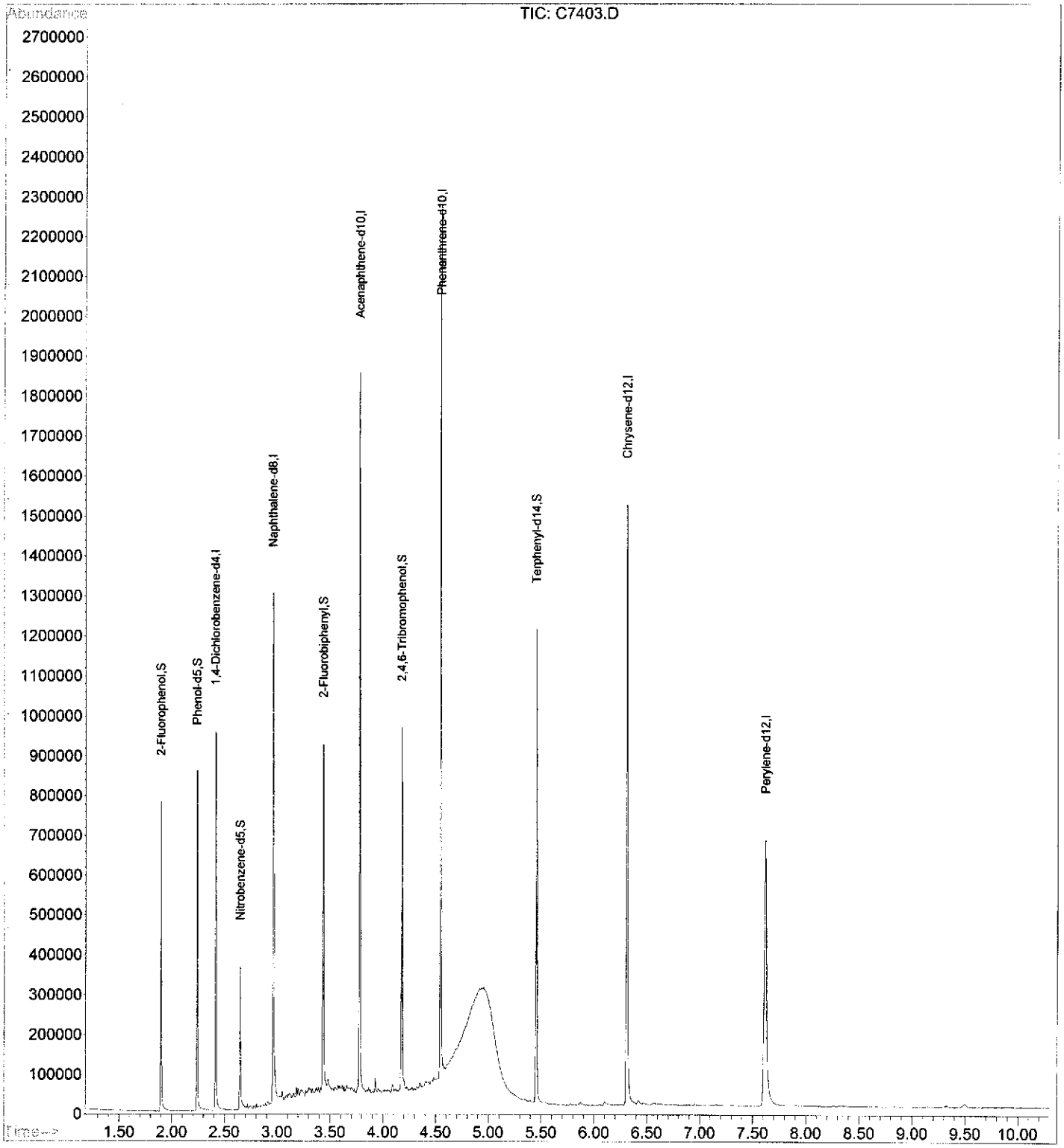
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7403.D
Acq On : 13 Nov 2009 17:41
Operator : EDM
Sample : TP7/4.25-4.7,11437-002,S,15.00g,18.2,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 16 10:20:43 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7403.D
Acq On : 13 Nov 2009 17:41
Operator : EDM
Sample : TP7/4.25-4.7,11437-002,S,15.00g,18.2,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS1809.M Mon Nov 16 10:20:52 2009 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7404.D
Acq On : 13 Nov 2009 17:57
Operator : EDM
Sample : TP5-1/3.17-3,11437-003,S,15.00g,38.6,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 16 10:19:51 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.42	152	67202	40.00	UG	0.00
23) Naphthalene-d8	2.96	136	266960	40.00	UG	0.00
43) Acenaphthene-d10	3.75	164	174229	40.00	UG	-0.02
66) Phenanthrene-d10	4.48	188	303747	40.00	UG	-0.03
82) Chrysene-d12	6.21	240	276006	40.00	UG	-0.04
92) Perylene-d12	7.52	264	260199	40.00	UG	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	1.90	112	80616	40.24	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 40.24%			
6) Phenol-d5	2.24	99	105402	40.96	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 40.96%			
24) Nitrobenzene-d5	2.65	82	48194	21.23	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 42.46%			
47) 2-Fluorobiphenyl	3.42	172	140569	23.90	UG	-0.01
Spiked Amount 50.000	Range 32 - 128		Recovery = 47.80%			
70) 2,4,6-Tribromophenol	4.13	330	67087	54.89	UG	-0.03
Spiked Amount 100.000	Range 32 - 126		Recovery = 54.89%			
84) Terphenyl-d14	5.34	244	187857	26.76	UG	-0.04
Spiked Amount 50.000	Range 32 - 135		Recovery = 53.52%			

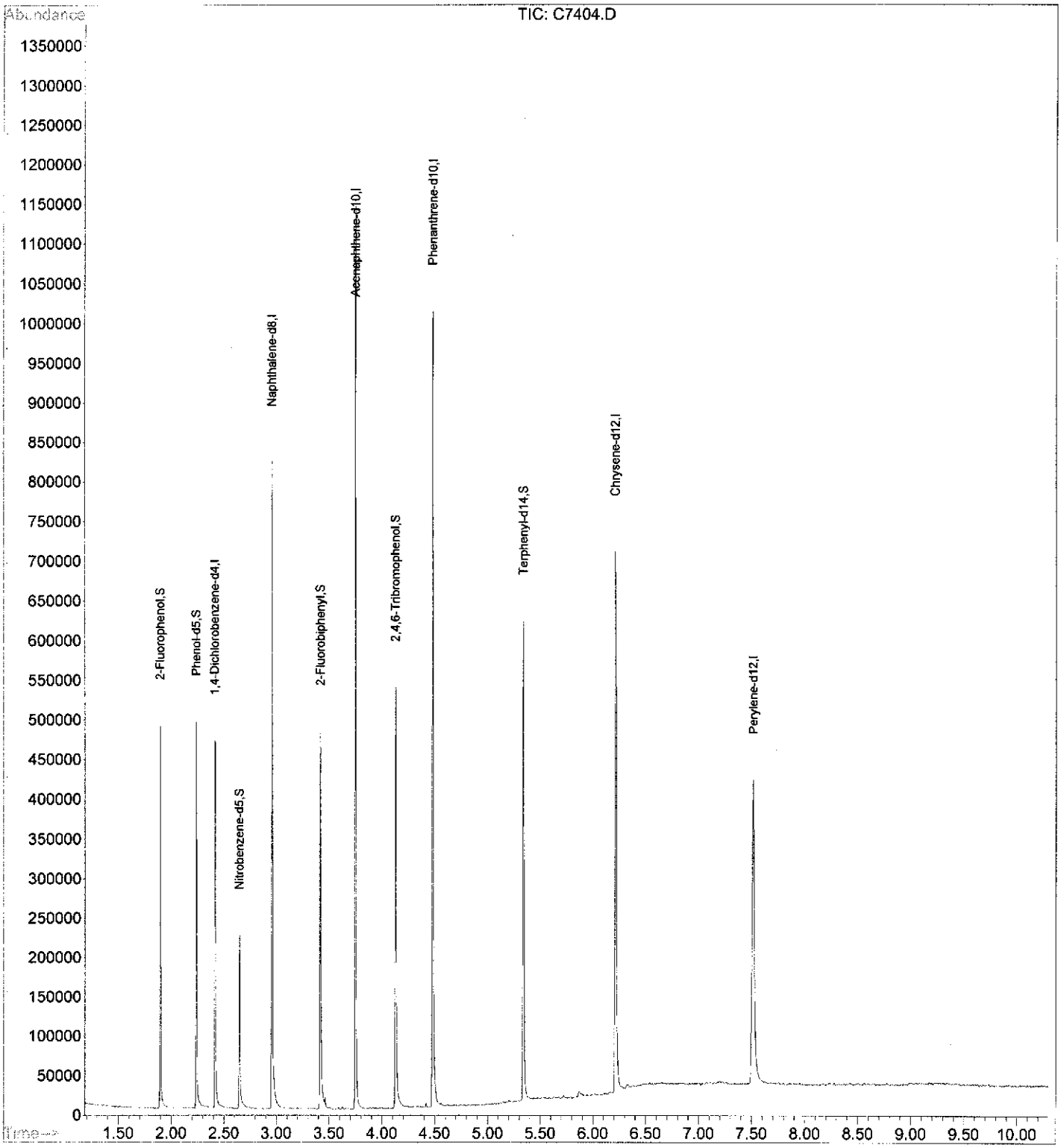
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7404.D
Acq On : 13 Nov 2009 17:57
Operator : EDM
Sample : TP5-1/3.17-3,11437-003,S,15.00g,38.6,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 16 10:19:51 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7404.D
Acq On : 13 Nov 2009 17:57
Operator : EDM
Sample : TP5-1/3.17-3,11437-003,S,15.00g,38.6,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS1809.M Mon Nov 16 10:20:25 2009 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7405.D
Acq On : 13 Nov 2009 18:12
Operator : EDM
Sample : TP5-2/5.67-6,11437-004,S,15.00g,46.1,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 16 10:39:21 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.42	152	80127	40.00	UG	0.00
23) Naphthalene-d8	2.96	136	315713	40.00	UG	0.00
43) Acenaphthene-d10	3.75	164	202626	40.00	UG	-0.02
66) Phenanthrene-d10	4.48	188	350591	40.00	UG	-0.03
82) Chrysene-d12	6.21	240	307698	40.00	UG	-0.04
92) Perylene-d12	7.52	264	293892	40.00	UG	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	1.90	112	137566	57.59	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 57.59%			
6) Phenol-d5	2.24	99	179258	58.42	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 58.42%			
24) Nitrobenzene-d5	2.65	82	79189	29.50	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 59.00%			
47) 2-Fluorobiphenyl	3.42	172	228124	33.35	UG	-0.01
Spiked Amount 50.000	Range 32 - 128		Recovery = 66.70%			
70) 2,4,6-Tribromophenol	4.13	330	110066	78.02	UG	-0.03
Spiked Amount 100.000	Range 32 - 126		Recovery = 78.02%			
84) Terphenyl-d14	5.34	244	298102	38.09	UG	-0.05
Spiked Amount 50.000	Range 32 - 135		Recovery = 76.18%			

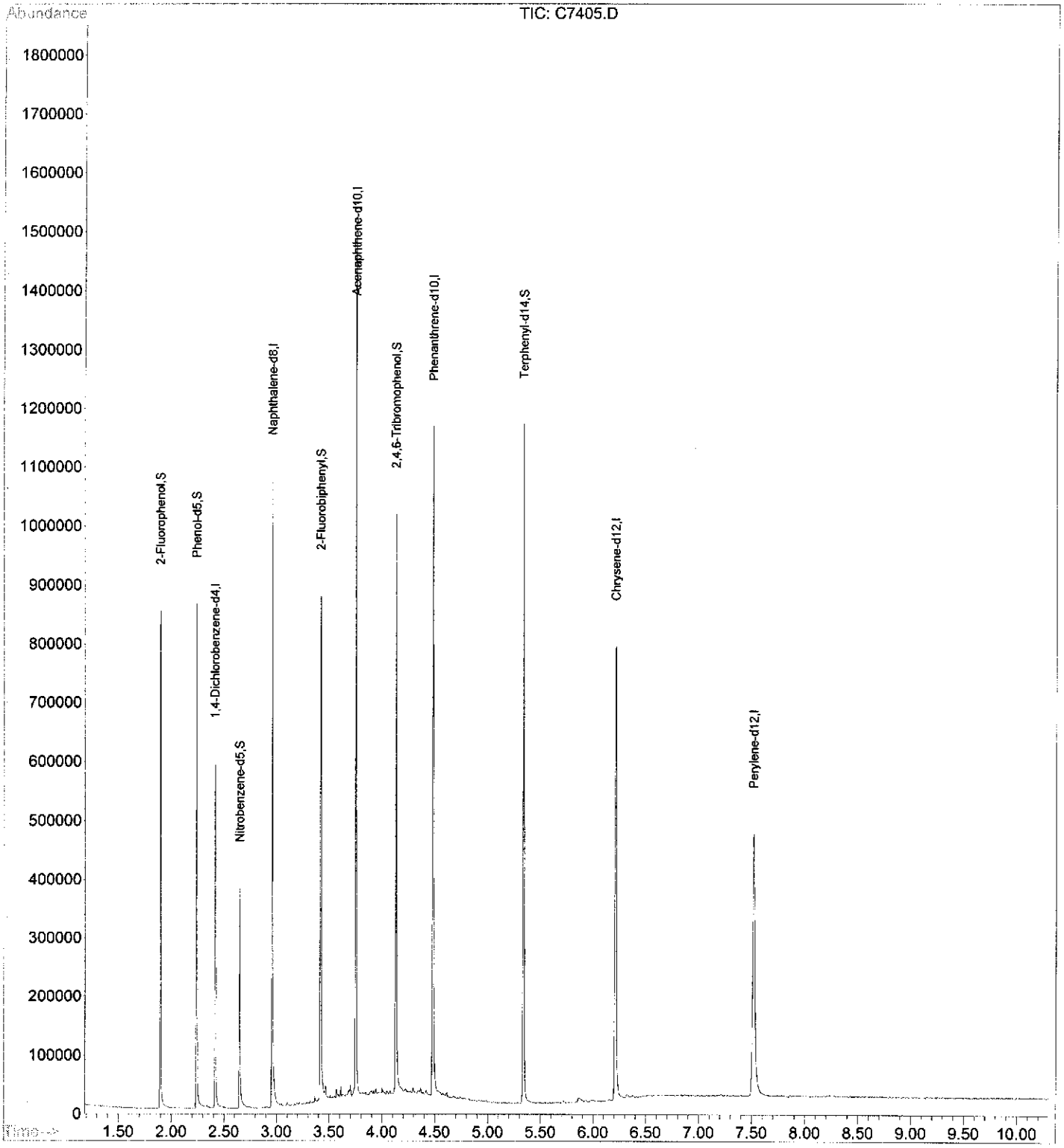
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7405.D
Acq On : 13 Nov 2009 18:12
Operator : EDM
Sample : TP5-2/5.67-6,11437-004,S,15.00g,46.1,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 16 10:39:21 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration



0201

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7405.D
Acq On : 13 Nov 2009 18:12
Operator : EDM
Sample : TP5-2/5.67-6,11437-004,S,15.00g,46.1,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS1809.M Mon Nov 16 10:39:31 2009 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7406.D
Acq On : 13 Nov 2009 18:28
Operator : EDM
Sample : TP2-1/2-2.5,11437-005,S,15.00g,16.5,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 16 10:39:58 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.41	152	95953	40.00	UG	0.00
23) Naphthalene-d8	2.96	136	385451	40.00	UG	0.00
43) Acenaphthene-d10	3.77	164	241970	40.00	UG	0.00
66) Phenanthrene-d10	4.53	188	425986	40.00	UG	0.02
82) Chrysene-d12	6.28	240	369278	40.00	UG	0.03
92) Perylene-d12	7.58	264	343847	40.00	UG	0.03
System Monitoring Compounds						
4) 2-Fluorophenol	1.90	112	248582	86.90	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 86.90%			
6) Phenol-d5	2.24	99	315104	85.75	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 85.75%			
24) Nitrobenzene-d5	2.65	82	70500	21.51	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 43.02%			
47) 2-Fluorobiphenyl	3.43	172	207220	25.36	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 50.72%			
70) 2,4,6-Tribromophenol	4.17	330	209360	122.14	UG	0.01
Spiked Amount 100.000	Range 32 - 126		Recovery = 122.14%			
84) Terphenyl-d14	5.42	244	268634	28.60	UG	0.04
Spiked Amount 50.000	Range 32 - 135		Recovery = 57.20%			

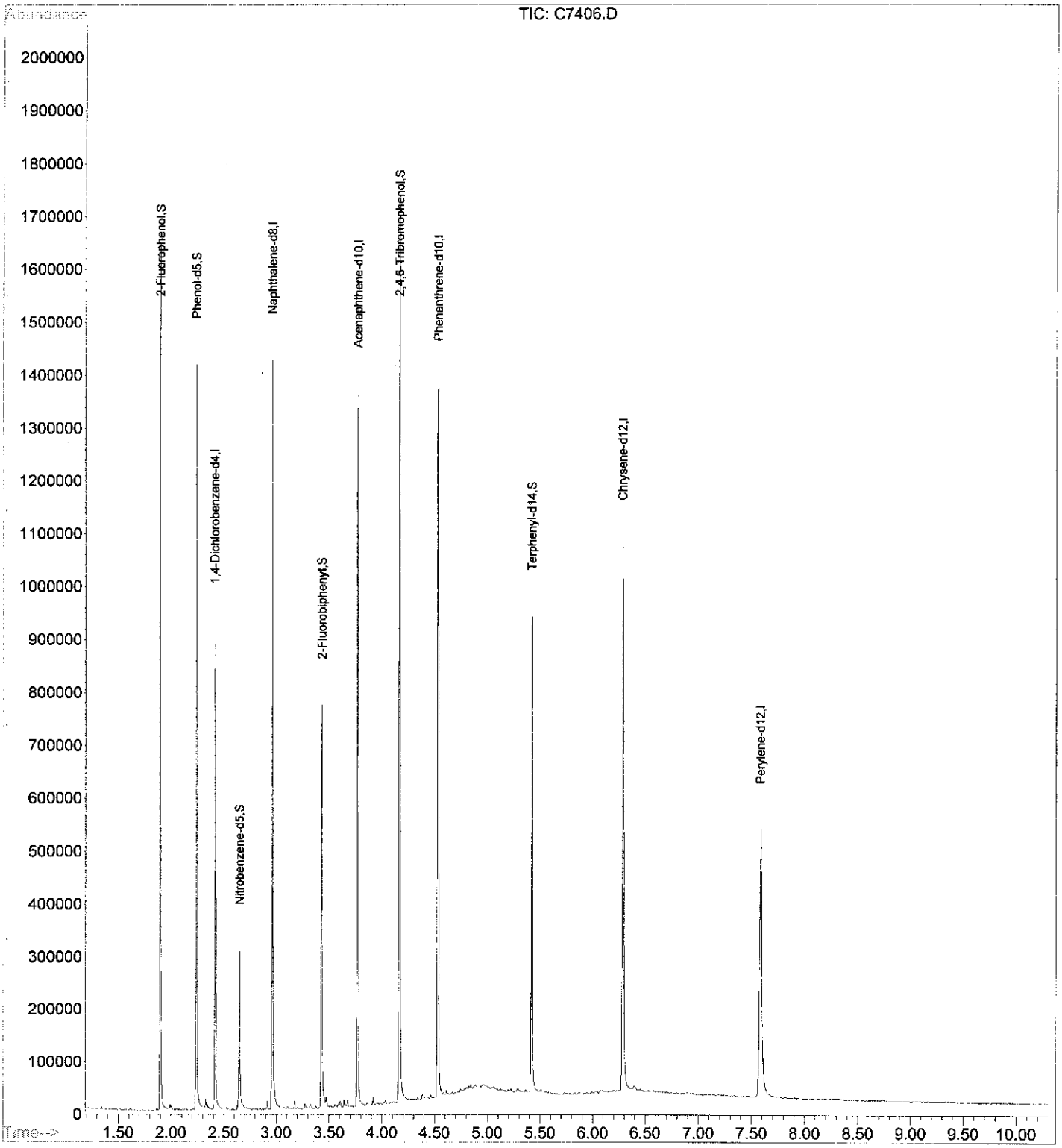
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7406.D
Acq On : 13 Nov 2009 18:28
Operator : EDM
Sample : TP2-1/2-2.5,11437-005,S,15.00g,16.5,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 16 10:39:58 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7406.D
Acq On : 13 Nov 2009 18:28
Operator : EDM
Sample : TP2-1/2-2.5,11437-005,S,15.00g,16.5,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS1809.M Mon Nov 16 10:40:09 2009 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7407.D
Acq On : 13 Nov 2009 18:43
Operator : EDM
Sample : TP2-2/3-3.5,11437-006,S,15.00g,13.5,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 16 10:41:09 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.42	152	75557	40.00	UG	0.00
23) Naphthalene-d8	2.96	136	304229	40.00	UG	0.00
43) Acenaphthene-d10	3.75	164	197329	40.00	UG	-0.02
66) Phenanthrene-d10	4.48	188	345175	40.00	UG	-0.03
82) Chrysene-d12	6.21	240	313292	40.00	UG	-0.04
92) Perylene-d12	7.52	264	290328	40.00	UG	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	1.90	112	103805	46.09	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 46.09%			
6) Phenol-d5	2.24	99	138423	47.84	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 47.84%			
24) Nitrobenzene-d5	2.65	82	58124	22.47	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 44.94%			
47) 2-Fluorobiphenyl	3.42	172	167229	25.10	UG	-0.01
Spiked Amount 50.000	Range 32 - 128		Recovery = 50.20%			
70) 2,4,6-Tribromophenol	4.13	330	80197	57.74	UG	-0.03
Spiked Amount 100.000	Range 32 - 126		Recovery = 57.74%			
84) Terphenyl-d14	5.34	244	233036	29.25	UG	-0.05
Spiked Amount 50.000	Range 32 - 135		Recovery = 58.50%			

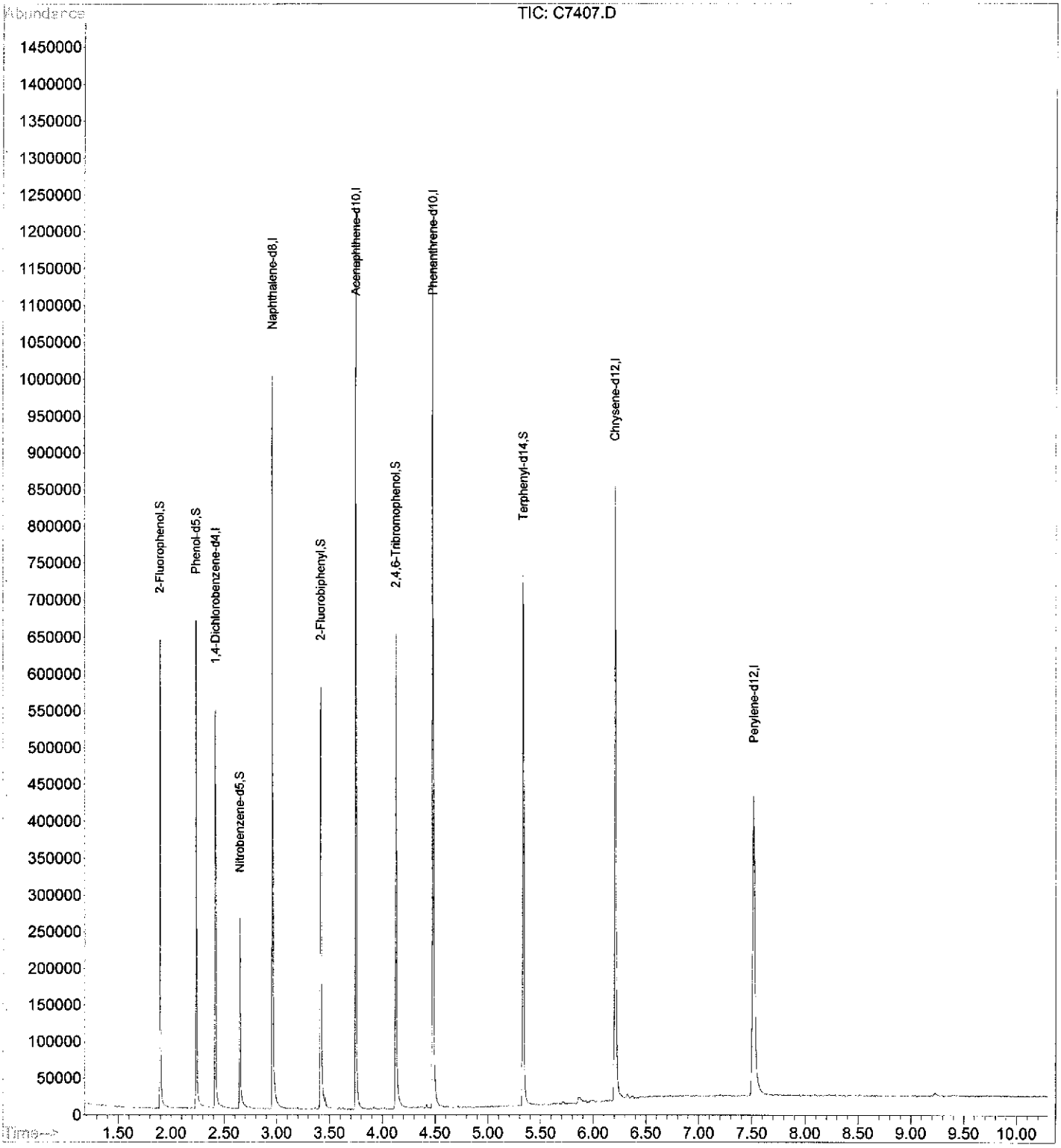
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7407.D
Acq On : 13 Nov 2009 18:43
Operator : EDM
Sample : TP2-2/3-3.5,11437-006,S,15.00g,13.5,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 16 10:41:09 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7407.D
Acq On : 13 Nov 2009 18:43
Operator : EDM
Sample : TP2-2/3-3.5,11437-006,S,15.00g,13.5,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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CS1809.M Mon Nov 16 10:41:19 2009 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7408.D
Acq On : 13 Nov 2009 18:59
Operator : EDM
Sample : TP1/4-4.5,11437-007,S,15.00g,25.4,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 16 10:41:51 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.42	152	104707	40.00	UG	0.00
23) Naphthalene-d8	2.96	136	414774	40.00	UG	0.00
43) Acenaphthene-d10	3.77	164	258812	40.00	UG	0.00
66) Phenanthrene-d10	4.53	188	463039	40.00	UG	0.03
82) Chrysene-d12	6.30	240	381707	40.00	UG	0.05
92) Perylene-d12	7.60	264	344880	40.00	UG	0.04
System Monitoring Compounds						
4) 2-Fluorophenol	1.90	112	278622	89.26	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 89.26%			
6) Phenol-d5	2.24	99	370797	92.47	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 92.47%			
24) Nitrobenzene-d5	2.65	82	76121	21.58	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 43.16%			
47) 2-Fluorobiphenyl	3.43	172	224953	25.74	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 51.48%			
70) 2,4,6-Tribromophenol	4.17	330	235016	126.13	UG	0.02
Spiked Amount 100.000	Range 32 - 126		Recovery = 126.13%#			
84) Terphenyl-d14	5.44	244	336611	34.67	UG	0.05
Spiked Amount 50.000	Range 32 - 135		Recovery = 69.34%			

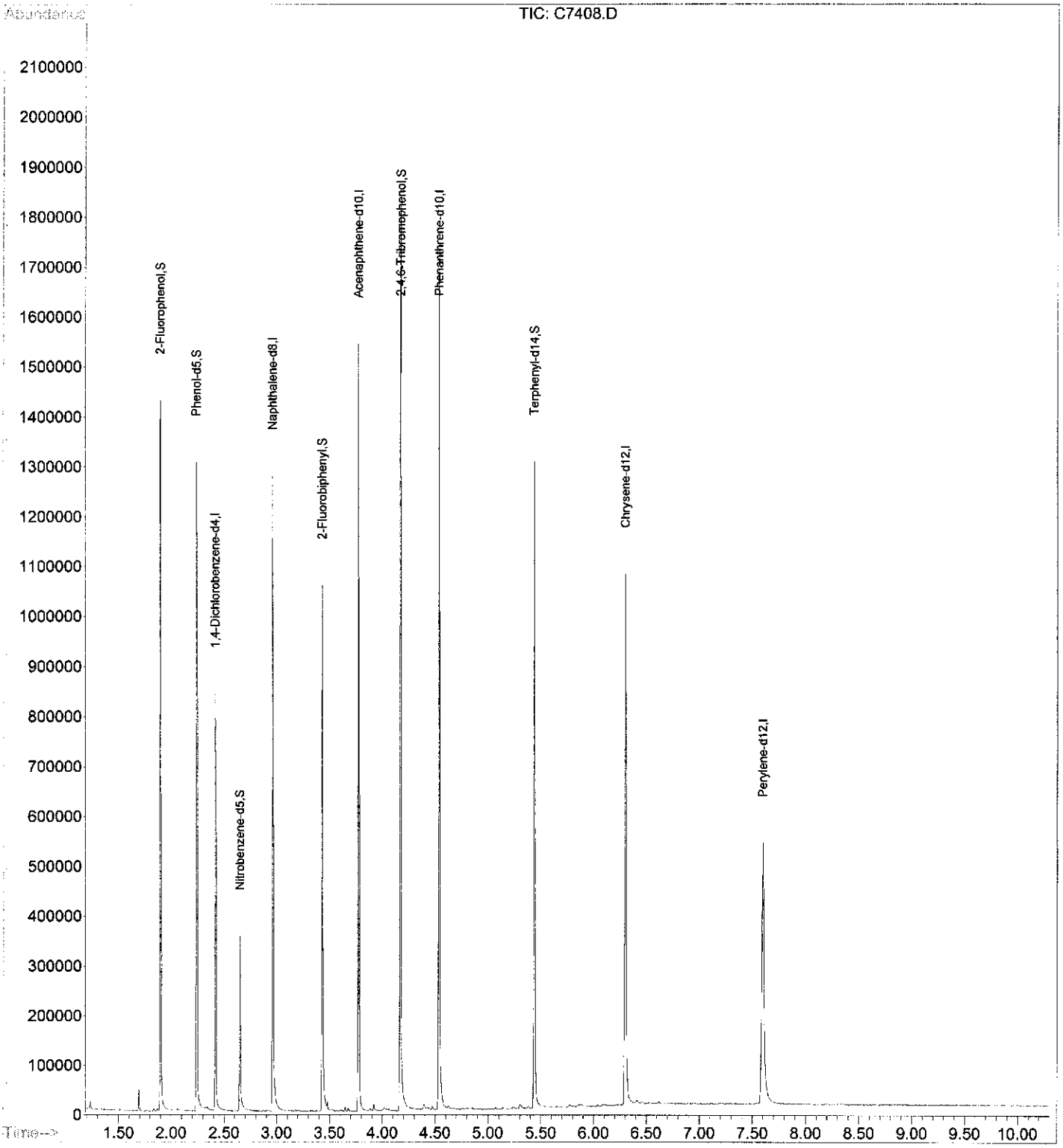
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7408.D
Acq On : 13 Nov 2009 18:59
Operator : EDM
Sample : TP1/4-4.5,11437-007,S,15.00g,25.4,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 16 10:41:51 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7408.D
Acq On : 13 Nov 2009 18:59
Operator : EDM
Sample : TP1/4-4.5,11437-007,S,15.00g,25.4,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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CS1809.M Mon Nov 16 10:42:00 2009 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7409.D
Acq On : 13 Nov 2009 19:14
Operator : EDM
Sample : TP6/4.58-5.0,11437-008,S,15.00g,20.2,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 16 10:42:26 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.42	152	71821	40.00	UG	0.00
23) Naphthalene-d8	2.96	136	287513	40.00	UG	0.00
43) Acenaphthene-d10	3.75	164	182536	40.00	UG	-0.02
66) Phenanthrene-d10	4.48	188	320788	40.00	UG	-0.03
82) Chrysene-d12	6.22	240	288964	40.00	UG	-0.03
92) Perylene-d12	7.52	264	256353	40.00	UG	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	1.90	112	78807	36.81	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 36.81%			
6) Phenol-d5	2.24	99	108362	39.40	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 39.40%			
24) Nitrobenzene-d5	2.65	82	50607	20.70	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 41.40%			
47) 2-Fluorobiphenyl	3.42	172	145893	23.67	UG	-0.01
Spiked Amount 50.000	Range 32 - 128		Recovery = 47.34%			
70) 2,4,6-Tribromophenol	4.13	330	64982	50.34	UG	-0.02
Spiked Amount 100.000	Range 32 - 126		Recovery = 50.34%			
84) Terphenyl-d14	5.34	244	202212	27.51	UG	-0.04
Spiked Amount 50.000	Range 32 - 135		Recovery = 55.02%			

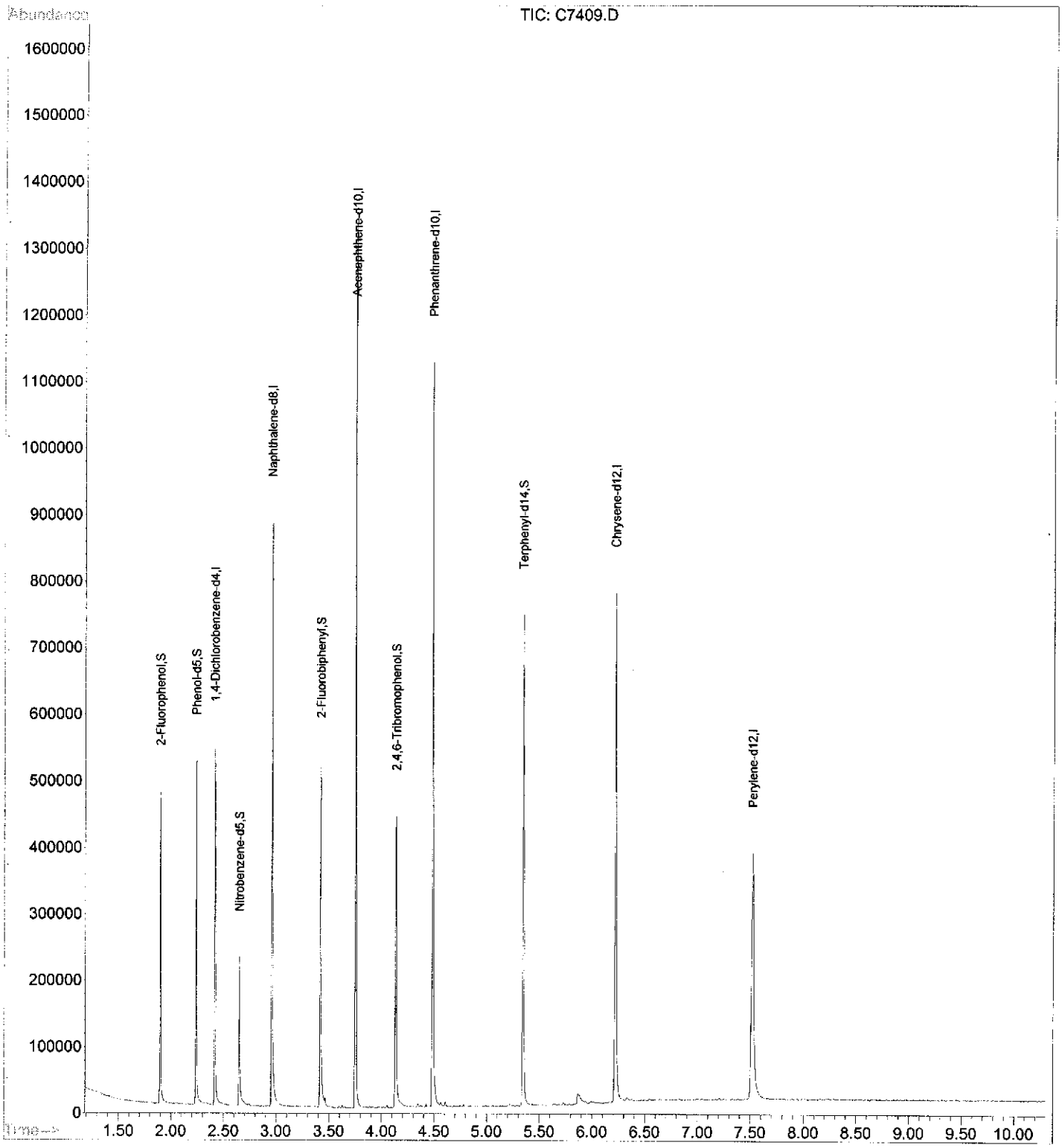
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7409.D
Acq On : 13 Nov 2009 19:14
Operator : EDM
Sample : TP6/4.58-5.0,11437-008,S,15.00g,20.2,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 16 10:42:26 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7409.D
Acq On : 13 Nov 2009 19:14
Operator : EDM
Sample : TP6/4.58-5.0,11437-008,S,15.00g,20.2,11/13/09
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS1809.M Mon Nov 16 10:42:35 2009 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7397.D
Acq On : 13 Nov 2009 16:08
Operator : EDM
Sample : .,Method Blank,S,30.00g,0,11/13/09
Misc : N/A,N/A,N/A,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 16:19:59 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.41	152	53869	40.00	UG	0.00
23) Naphthalene-d8	2.96	136	214525	40.00	UG	0.00
43) Acenaphthene-d10	3.78	164	143927	40.00	UG	0.01
66) Phenanthrene-d10	4.55	188	273852	40.00	UG	0.04
82) Chrysene-d12	6.30	240	288634	40.00	UG	0.05
92) Perylene-d12	7.61	264	244477	40.00	UG	0.06
System Monitoring Compounds						
4) 2-Fluorophenol	1.90	112	92008	57.29	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 57.29%			
6) Phenol-d5	2.24	99	127560	61.84	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 61.84%			
24) Nitrobenzene-d5	2.65	82	49036	26.88	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 53.76%			
47) 2-Fluorobiphenyl	3.43	172	148032	30.46	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 60.92%			
70) 2,4,6-Tribromophenol	4.18	330	75746	68.74	UG	0.02
Spiked Amount 100.000	Range 32 - 126		Recovery = 68.74%			
84) Terphenyl-d14	5.45	244	246689	33.61	UG	0.06
Spiked Amount 50.000	Range 32 - 135		Recovery = 67.22%			

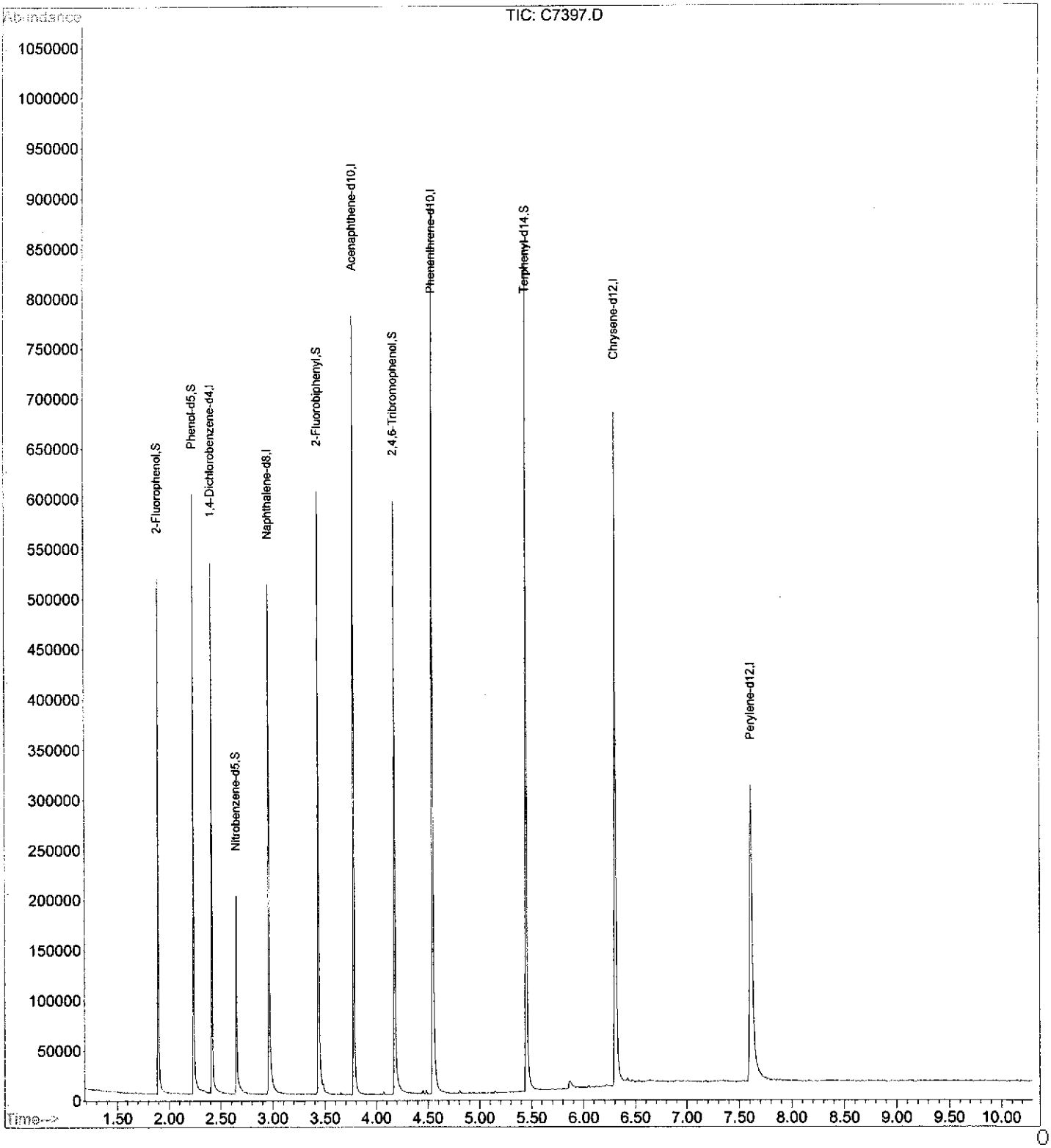
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7397.D
Acq On : 13 Nov 2009 16:08
Operator : EDM
Sample : .,Method Blank,S,30.00g,0,11/13/09
Misc : N/A,N/A,N/A,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 13 16:19:59 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Nov 10 17:46:44 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\11-13-09\
Data File : C7397.D
Acq On : 13 Nov 2009 16:08
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,11/13/09
Misc : N/A,N/A,N/A,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1809.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS1809.M Fri Nov 13 16:20:09 2009 RPT1

PCB METHOD BLANK SUMMARY

Lab File ID:	R8088.D	Instrument ID:	GC-R
Date Extracted:	11/17/2009	Matrix:	SOIL
Date Analyzed:	11/17/2009	Time Analyzed:	17:54

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TP5-1/3.17	11437-003	11/17/2009	18:29
TP5-2/5.67	11437-004	11/17/2009	18:47
TP2-2/3-3.	11437-006	11/17/2009	19:21
TP6/4.58-5	11437-008	11/17/2009	19:56
SP-1-1111-	11518-001	11/17/2009	20:14
PCB	11437-006-MS05	11/17/2009	20:31
PCB	11437-006-MSD05	11/17/2009	20:49
PCB	PBS1117-MS05	11/17/2009	21:06
TP7/4.25-4	11437-002	11/18/2009	12:00
TP2-1/2-2.	11437-005	11/18/2009	12:18
TP1/4-4.5	11437-007	11/18/2009	12:37

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: NA

Lab ID: 1117-BLK05
Client ID: PCB
Date Received: NA
Date Extracted: 11/17/2009
Date Analyzed: 11/17/2009
Data file: R8088.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.000668
Aroclor-1221	ND		0.000668
Aroclor-1232	ND		0.000668
Aroclor-1242	ND		0.000668
Aroclor-1248	ND		0.000668
Aroclor-1254	ND		0.000668
Aroclor-1260	ND		0.000668
Total PCBs:	ND		

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/09/2009 **Instrument ID:** GC-

GC Column (1st): DB-5

Data File: R7911.D R7910.D R7909.D R7908.D R7907.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.63	3.63	3.63	3.63	3.63	3.63	3.56	3.70
Aroclor-1016 {2}	4.54	4.54	4.54	4.54	4.54	4.54	4.47	4.61
Aroclor-1016 {3}	5.12	5.12	5.12	5.12	5.12	5.12	5.05	5.19
Aroclor-1016 {4}	5.60	5.60	5.59	5.60	5.60	5.60	5.53	5.67
Aroclor-1016 {5}	6.07	6.07	6.07	6.07	6.07	6.07	6.00	6.14
Aroclor-1221			2.38				2.31	2.45
Aroclor-1221 {2}			3.40				3.33	3.47
Aroclor-1221 {3}			3.54				3.47	3.61
Aroclor-1221 {4}			3.63				3.56	3.70
Aroclor-1221 {5}			4.28				4.21	4.35
Aroclor-1232			3.63				3.56	3.70
Aroclor-1232 {2}			4.54				4.47	4.61
Aroclor-1232 {3}			5.25				5.18	5.32
Aroclor-1232 {4}			5.87				5.80	5.94
Aroclor-1232 {5}			6.07				6.00	6.14
Aroclor-1242			4.54				4.47	4.61
Aroclor-1242 {2}			5.53				5.46	5.60
Aroclor-1242 {3}			5.87				5.80	5.94
Aroclor-1242 {4}			6.59				6.52	6.66
Aroclor-1242 {5}			6.88				6.81	6.95
Aroclor-1248			4.96				4.88	5.04
Aroclor-1248 {2}			5.53				5.45	5.61
Aroclor-1248 {3}			5.87				5.79	5.95
Aroclor-1248 {4}			6.59				6.51	6.67
Aroclor-1248 {5}			6.88				6.80	6.96
Aroclor-1254			6.99				6.91	7.07
Aroclor-1254 {2}			7.45				7.37	7.53
Aroclor-1254 {3}			7.62				7.53	7.71
Aroclor-1254 {4}			8.06				7.97	8.15
Aroclor-1254 {5}			8.92				8.83	9.01
Aroclor-1260	8.92	8.92	8.92	8.92	8.92	8.92	8.02	9.82
Aroclor-1260 {2}	9.60	9.61	9.60	9.60	9.60	9.60	8.70	10.50
Aroclor-1260 {3}	10.08	10.08	10.08	10.07	10.07	10.08	9.18	10.98
Aroclor-1260 {4}	10.57	10.57	10.57	10.57	10.57	10.57	9.67	11.47
Aroclor-1260 {5}	11.64	11.64	11.64	11.63	11.64	11.64	10.74	12.54

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/09/2009 **Instrument ID:** GC-

GC Column (1st): DB-5

Data File: R7911.D R7910.D R7909.D R7908.D R7907.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	805806	759807	842937	721323	629190	751813	10.98
Aroclor-1016 {2}	1104565	1127415	1157417	1022348	893627	1061074	10.01
Aroclor-1016 {3}	1521877	1499427	1489029	1282970	1106048	1379870	13.10
Aroclor-1016 {4}	864025	732051	742824	651018	572779	712539	15.30
Aroclor-1016 {5}	1122552	1164053	1210733	1060006	931013	1097672	9.88
Aroclor-1221			230212				
Aroclor-1221 {2}			343027				
Aroclor-1221 {3}			232584				
Aroclor-1221 {4}			819443				
Aroclor-1221 {5}			152267				
Aroclor-1232			552301				
Aroclor-1232 {2}			338529				
Aroclor-1232 {3}			308649				
Aroclor-1232 {4}			339887				
Aroclor-1232 {5}			417860				
Aroclor-1242			676025				
Aroclor-1242 {2}			438216				
Aroclor-1242 {3}			618790				
Aroclor-1242 {4}			857458				
Aroclor-1242 {5}			821914				
Aroclor-1248			1368300				
Aroclor-1248 {2}			800736				
Aroclor-1248 {3}			1032752				
Aroclor-1248 {4}			1498291				
Aroclor-1248 {5}			1264660				
Aroclor-1254			1978000				
Aroclor-1254 {2}			1294965				
Aroclor-1254 {3}			2339703				
Aroclor-1254 {4}			2526087				
Aroclor-1254 {5}			2488003				
Aroclor-1260	3640613	3698490	2942661	2869753	2452385	3120780	17.15
Aroclor-1260 {2}	1713212	1728537	1576310	1319294	1127576	1492986	17.55
Aroclor-1260 {3}	4000582	4332717	4438884	3834942	3366798	3994784	10.70
Aroclor-1260 {4}	1987723	2110050	2115154	1834753	1608937	1931323	11.05
Aroclor-1260 {5}	829331	902014	923112	854143	768174	855355	7.17
					Average %RSD		12.29

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/09/2009 **Instrument ID:** GC-

GC Column (2nd): DB-1701P

Data File: R7911.C R7910.C R7909.C R7908.C R7907.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	4.11	4.11	4.13	4.11	4.11	4.11	4.04	4.18
Aroclor-1016 {2}	4.77	4.77	4.79	4.77	4.77	4.78	4.71	4.85
Aroclor-1016 {3}	5.54	5.53	5.55	5.53	5.53	5.54	5.47	5.61
Aroclor-1016 {4}	5.77	5.77	5.79	5.77	5.77	5.78	5.71	5.85
Aroclor-1016 {5}	5.95	5.95	5.97	5.95	5.95	5.95	5.88	6.02
Aroclor-1221			2.67				2.60	2.74
Aroclor-1221 {2}			3.77				3.70	3.84
Aroclor-1221 {3}			4.03				3.96	4.10
Aroclor-1221 {4}			4.12				4.05	4.19
Aroclor-1221 {5}			5.54				5.47	5.61
Aroclor-1232			4.11				4.04	4.18
Aroclor-1232 {2}			5.19				5.12	5.26
Aroclor-1232 {3}			5.77				5.70	5.84
Aroclor-1232 {4}			5.95				5.88	6.02
Aroclor-1232 {5}			6.59				6.52	6.66
Aroclor-1242			5.19				5.12	5.26
Aroclor-1242 {2}			5.95				5.88	6.02
Aroclor-1242 {3}			6.59				6.52	6.66
Aroclor-1242 {4}			6.76				6.69	6.83
Aroclor-1242 {5}			7.31				7.24	7.38
Aroclor-1248			5.53				5.45	5.61
Aroclor-1248 {2}			6.17				6.09	6.25
Aroclor-1248 {3}			6.59				6.51	6.67
Aroclor-1248 {4}			6.75				6.67	6.83
Aroclor-1248 {5}			7.09				7.01	7.17
Aroclor-1254			7.61				7.53	7.69
Aroclor-1254 {2}			8.22				8.14	8.30
Aroclor-1254 {3}			8.84				8.75	8.93
Aroclor-1254 {4}			9.09				9.00	9.18
Aroclor-1254 {5}			9.69				9.60	9.78
Aroclor-1260	8.69	8.69	8.70	8.69	8.69	8.69	7.79	9.59
Aroclor-1260 {2}	9.09	9.09	9.10	9.08	9.08	9.09	8.19	9.99
Aroclor-1260 {3}	10.32	10.32	10.33	10.32	10.32	10.32	9.42	11.22
Aroclor-1260 {4}	10.82	10.82	10.83	10.82	10.82	10.82	9.92	11.72
Aroclor-1260 {5}	11.43	11.43	11.44	11.43	11.43	11.43	10.53	12.33

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/09/2009 **Instrument ID:** GC-

GC Column (2nd): DB-1701P

Data File: R7911.C R7910.C R7909.C R7908.C R7907.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	950958	978407	1034494	823782	708342	899197	14.65
Aroclor-1016 {2}	2034994	1983214	2006377	1605502	1400457	1806109	15.87
Aroclor-1016 {3}	4247199	4090035	4231729	3421458	2964513	3790987	15.10
Aroclor-1016 {4}	1767299	1812922	1833973	1486125	1284658	1636995	14.76
Aroclor-1016 {5}	1514979	1506188	1541844	1006981	1085492	1331097	19.67
Aroclor-1221			293574				
Aroclor-1221 {2}			425939				
Aroclor-1221 {3}			285485				
Aroclor-1221 {4}			978239				
Aroclor-1221 {5}			194287				
Aroclor-1232			642916				
Aroclor-1232 {2}			250062				
Aroclor-1232 {3}			519943				
Aroclor-1232 {4}			428445				
Aroclor-1232 {5}			570579				
Aroclor-1242			482578				
Aroclor-1242 {2}			832627				
Aroclor-1242 {3}			1037809				
Aroclor-1242 {4}			1060936				
Aroclor-1242 {5}			953246				
Aroclor-1248			1449095				
Aroclor-1248 {2}			1302000				
Aroclor-1248 {3}			1557800				
Aroclor-1248 {4}			1419956				
Aroclor-1248 {5}			724312				
Aroclor-1254			1557148				
Aroclor-1254 {2}			1671727				
Aroclor-1254 {3}			1435793				
Aroclor-1254 {4}			1006030				
Aroclor-1254 {5}			2131040				
Aroclor-1260	2266066	2167415	2085499	1774229	1557727	1970187	14.98
Aroclor-1260 {2}	2598668	2406496	2390209	2039008	1764172	2239711	14.90
Aroclor-1260 {3}	1840062	1711492	1862802	1565305	1363082	1668549	12.46
Aroclor-1260 {4}	3601051	3298146	3564952	3043036	2742217	3249880	11.15
Aroclor-1260 {5}	2515508	2781660	2723719	2626623	2205064	2570515	8.87
					Average %RSD		14.24

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 11/17/2009 **Instrument ID:** GC-R

Data File: R8087.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.64	3.56	3.70	751813	849661	13.02
Aroclor-1016 {2}	4.55	4.47	4.61	1061074	1157404	9.08
Aroclor-1016 {3}	5.13	5.05	5.19	1379870	1502472	8.89
Aroclor-1016 {4}	5.61	5.53	5.67	712539	728679	2.27
Aroclor-1016 {5}	6.08	6.00	6.14	1097672	1225634	11.66
Aroclor-1260	8.93	8.02	9.82	3120780	3214582	3.01
Aroclor-1260 {2}	9.61	8.70	10.50	1492986	1411767	5.44
Aroclor-1260 {3}	10.09	9.18	10.98	3994784	3615665	9.49
Aroclor-1260 {4}	10.58	9.67	11.47	1931323	1597908	17.26
Aroclor-1260 {5}	11.64	10.74	12.54	855355	714795	16.43
					Average %D	9.65

Data File: R8087.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.11	4.04	4.18	899197	1067369	18.70
Aroclor-1016 {2}	4.77	4.71	4.85	1806109	2026528	12.20
Aroclor-1016 {3}	5.53	5.47	5.61	3790987	4290736	13.18
Aroclor-1016 {4}	5.77	5.71	5.85	1636995	1746096	6.66
Aroclor-1016 {5}	5.95	5.88	6.02	1331097	1512954	13.66
Aroclor-1260	8.69	7.79	9.59	1970187	2146899	8.97
Aroclor-1260 {2}	9.08	8.19	9.99	2239711	2422778	8.17
Aroclor-1260 {3}	10.31	9.42	11.22	1668549	1596595	4.31
Aroclor-1260 {4}	10.81	9.92	11.72	3249880	2803669	13.73
Aroclor-1260 {5}	11.43	10.53	12.33	2570515	2196643	14.54
					Average %D	11.41

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 11/17/2009 **Instrument ID:** GC-R

Data File: R8100.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.64	3.56	3.70	751813	791954	5.34
Aroclor-1016 {2}	4.55	4.47	4.61	1061074	1177791	11.00
Aroclor-1016 {3}	5.14	5.05	5.19	1379870	1513360	9.67
Aroclor-1016 {4}	5.61	5.53	5.67	712539	723975	1.60
Aroclor-1016 {5}	6.08	6.00	6.14	1097672	1223712	11.48
Aroclor-1260	8.93	8.02	9.82	3120780	3074848	1.47
Aroclor-1260 {2}	9.61	8.70	10.50	1492986	1324515	11.28
Aroclor-1260 {3}	10.08	9.18	10.98	3994784	3351383	16.11
Aroclor-1260 {4}	10.58	9.67	11.47	1931323	1596331	17.35
Aroclor-1260 {5}	11.64	10.74	12.54	855355	709032	17.11
					Average %D	10.24

Data File: R8100.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.10	4.04	4.18	899197	1031448	14.71
Aroclor-1016 {2}	4.77	4.71	4.85	1806109	2052914	13.67
Aroclor-1016 {3}	5.53	5.47	5.61	3790987	4372860	15.35
Aroclor-1016 {4}	5.77	5.71	5.85	1636995	1918169	17.18
Aroclor-1016 {5}	5.94	5.88	6.02	1331097	1622177	21.87
Aroclor-1260	8.68	7.79	9.59	1970187	2218138	12.59
Aroclor-1260 {2}	9.08	8.19	9.99	2239711	2497738	11.52
Aroclor-1260 {3}	10.31	9.42	11.22	1668549	1642362	1.57
Aroclor-1260 {4}	10.81	9.92	11.72	3249880	2796581	13.95
Aroclor-1260 {5}	11.42	10.53	12.33	2570515	2130047	17.14
					Average %D	13.95

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 11/18/2009 **Instrument ID:** GC-R

Data File: R8101.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.62	3.56	3.70	751813	808315	7.52
Aroclor-1016 {2}	4.54	4.47	4.61	1061074	1109711	4.58
Aroclor-1016 {3}	5.12	5.05	5.19	1379870	1415394	2.57
Aroclor-1016 {4}	5.60	5.53	5.67	712539	702327	1.43
Aroclor-1016 {5}	6.07	6.00	6.14	1097672	1156510	5.36
Aroclor-1260	8.92	8.02	9.82	3120780	2710486	13.15
Aroclor-1260 {2}	9.61	8.70	10.50	1492986	1476683	1.09
Aroclor-1260 {3}	10.08	9.18	10.98	3994784	4235184	6.02
Aroclor-1260 {4}	10.57	9.67	11.47	1931323	2045881	5.93
Aroclor-1260 {5}	11.64	10.74	12.54	855355	920419	7.61
					Average %D	5.53

Data File: R8101.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.10	4.04	4.18	899197	979311	8.91
Aroclor-1016 {2}	4.76	4.71	4.85	1806109	1892388	4.78
Aroclor-1016 {3}	5.53	5.47	5.61	3790987	4015420	5.92
Aroclor-1016 {4}	5.76	5.71	5.85	1636995	1758467	7.42
Aroclor-1016 {5}	5.94	5.88	6.02	1331097	1485617	11.61
Aroclor-1260	8.68	7.79	9.59	1970187	2117270	7.47
Aroclor-1260 {2}	9.07	8.19	9.99	2239711	2441454	9.01
Aroclor-1260 {3}	10.31	9.42	11.22	1668549	1863226	11.67
Aroclor-1260 {4}	10.81	9.92	11.72	3249880	3444279	5.98
Aroclor-1260 {5}	11.42	10.53	12.33	2570515	2822348	9.80
					Average %D	8.26

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 11/18/2009 **Instrument ID:** GC-R

Data File: R8105.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.63	3.56	3.70	751813	764913	1.74
Aroclor-1016 {2}	4.54	4.47	4.61	1061074	1032435	2.70
Aroclor-1016 {3}	5.12	5.05	5.19	1379870	1317384	4.53
Aroclor-1016 {4}	5.60	5.53	5.67	712539	645305	9.44
Aroclor-1016 {5}	6.07	6.00	6.14	1097672	1051764	4.18
Aroclor-1260	8.92	8.02	9.82	3120780	2745749	12.02
Aroclor-1260 {2}	9.61	8.70	10.50	1492986	1321095	11.51
Aroclor-1260 {3}	10.08	9.18	10.98	3994784	3570351	10.62
Aroclor-1260 {4}	10.57	9.67	11.47	1931323	1711177	11.40
Aroclor-1260 {5}	11.64	10.74	12.54	855355	808207	5.51
					Average %D	7.37

Data File: R8105.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.10	4.04	4.18	899197	941289	4.68
Aroclor-1016 {2}	4.77	4.71	4.85	1806109	1806665	0.03
Aroclor-1016 {3}	5.53	5.47	5.61	3790987	3789618	0.04
Aroclor-1016 {4}	5.77	5.71	5.85	1636995	1633613	0.21
Aroclor-1016 {5}	5.94	5.88	6.02	1331097	1368500	2.81
Aroclor-1260	8.68	7.79	9.59	1970187	1826158	7.31
Aroclor-1260 {2}	9.08	8.19	9.99	2239711	2059651	8.04
Aroclor-1260 {3}	10.31	9.42	11.22	1668549	1651139	1.04
Aroclor-1260 {4}	10.81	9.92	11.72	3249880	3164783	2.62
Aroclor-1260 {5}	11.42	10.53	12.33	2570515	2628527	2.26
					Average %D	2.90

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 11/17/2009

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	1117-BLK05	SOIL	145		68		151		74	
TP5-1/3.17	11437-003	SOIL	88		50		103		60	
TP5-2/5.67	11437-004	SOIL	78		56		100		72	
TP2-2/3-3.	11437-006	SOIL	90		52		107		61	
TP6/4.58-5	11437-008	SOIL	86		50		101		58	
SP-1-1111-	11518-001	SOIL	84		46		109		53	
PCB	11437-006-MS05	SOIL	100		60		113		65	
PCB	11437-006-MSD05	SOIL	101		61		113		64	
PCB	PBS1117-MS05	SOIL	130		60		145		75	
TP7/4.25-4	11437-002	SOIL	57		127		64		130	
TP2-1/2-2.	11437-005	SOIL	72		117		84		134	
TP1/4-4.5	11437-007	SOIL	84		118		92		124	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	23-172	13-170

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 11437-006-MS05

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	5.0	0.0	3.4	68	45 - 165
Aroclor-1260	5.0	0.0	2.8	56	45 - 165

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	3.4	68	0	19	45 - 165
Aroclor-1260	0.0	2.8	56	0	19	45 - 165

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS1117-MS05

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	5.0	0.0	5.6	112	45 - 165
Aroclor-1260	5.0	0.0	3.6	72	45 - 165

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.11 **DCB 1** 12.75 **TCMX 2** 3.22 **DCB 2** 13.15

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	1117-BLK05	11/17/2009	17:54	3.11		12.75		3.22		13.15	
TP5-1/3.17	11437-003	11/17/2009	18:29	3.12		12.75		3.22		13.15	
TP5-2/5.67	11437-004	11/17/2009	18:47	3.12		12.75		3.22		13.15	
TP2-2/3-3.	11437-006	11/17/2009	19:21	3.11		12.75		3.22		13.15	
TP6/4.58-5	11437-008	11/17/2009	19:56	3.12		12.75		3.22		13.15	
SP-1-1111-	11518-001	11/17/2009	20:14	3.11		12.75		3.22		13.15	
PCB	11437-006-MS05	11/17/2009	20:31	3.12		12.75		3.22		13.15	
PCB	11437-006-MSD05	11/17/2009	20:49	3.12		12.75		3.22		13.15	
PCB	PBS1117-MS05	11/17/2009	21:06	3.12		12.75		3.22		13.15	
TP7/4.25-4	11437-002	11/18/2009	12:00	3.10		12.74		3.22		13.15	
TP2-1/2-2.	11437-005	11/18/2009	12:18	3.10		12.74		3.21		13.15	
TP1/4-4.5	11437-007	11/18/2009	12:37	3.10		12.74		3.21		13.14	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\R8102.D\ECD1B.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\R8102.D\ECD2A.CH
Acq On : 18 Nov 2009 12:00 Operator: JP
Sample : TP7/4.25-4,11437-002,S,30.00g,18.2,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 12:15:30 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.10	3.22	3952.0E6	5174.2E6	56.881	64.381
Spiked Amount 100.000	Range 75 - 125		Recovery =		56.88%#	64.38%#
2) S DCB	12.74	13.15	2119.1E6	2365.1E6	127.212m	129.871m
Spiked Amount 100.000			Recovery =		127.21%	129.87%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

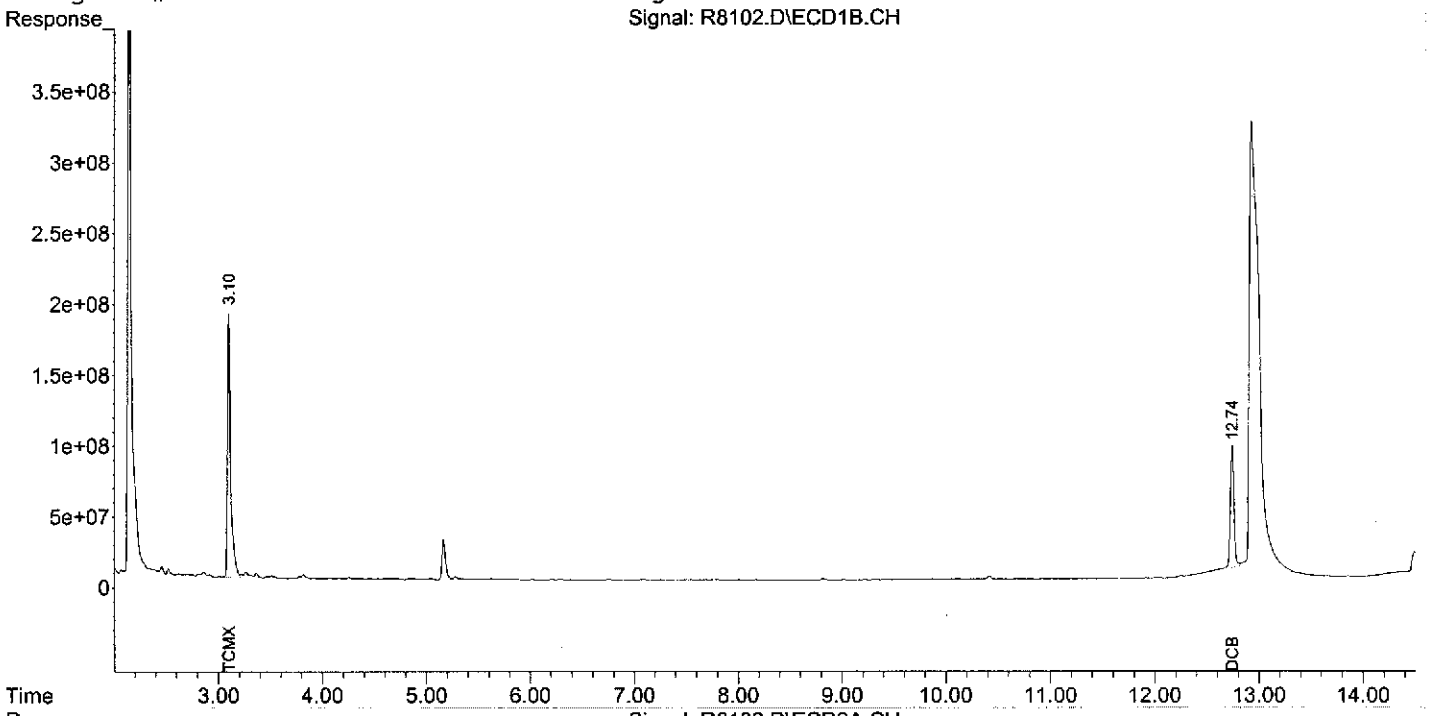
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

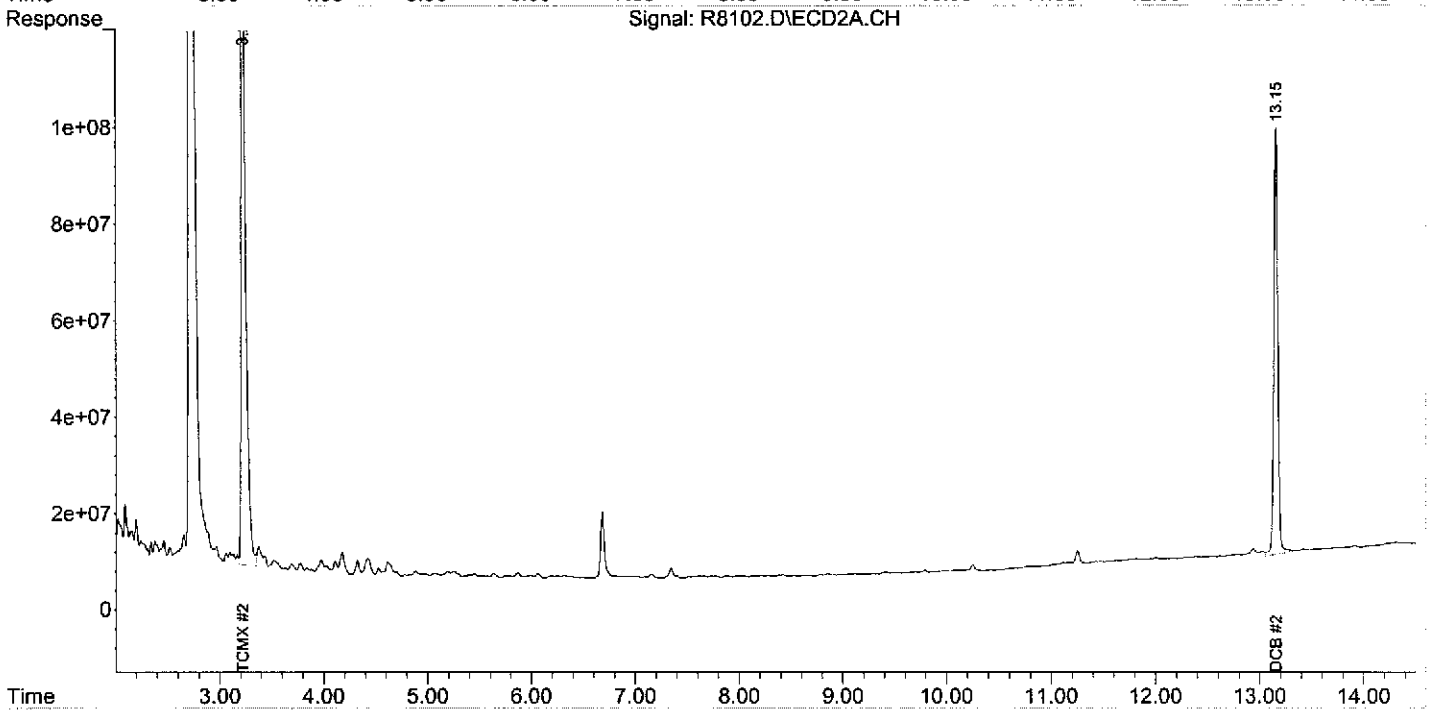
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\R8102.D\ECD1B.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\R8102.D\ECD2A.CH
Acq On : 18 Nov 2009 12:00 Operator: JP
Sample : TP7/4.25-4,11437-002,S,30.00g,18.2,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 12:42 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8090.D\ECD1B.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8090.D\ECD2A.CH
Acq On : 17 Nov 2009 18:29 Operator: JP
Sample : TP5-1/3.17,11437-003,S,30.00g,38.6,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 17 18:44:18 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.12	3.22	6130.9E6	8235.1E6	88.241	102.467
Spiked Amount 100.000	Range 75 - 125		Recovery =		88.24%	102.47%
2) S DCB	12.75	13.15	833.8E6	1091.0E6	50.051	59.908m
Spiked Amount 100.000			Recovery =		50.05%	59.91%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

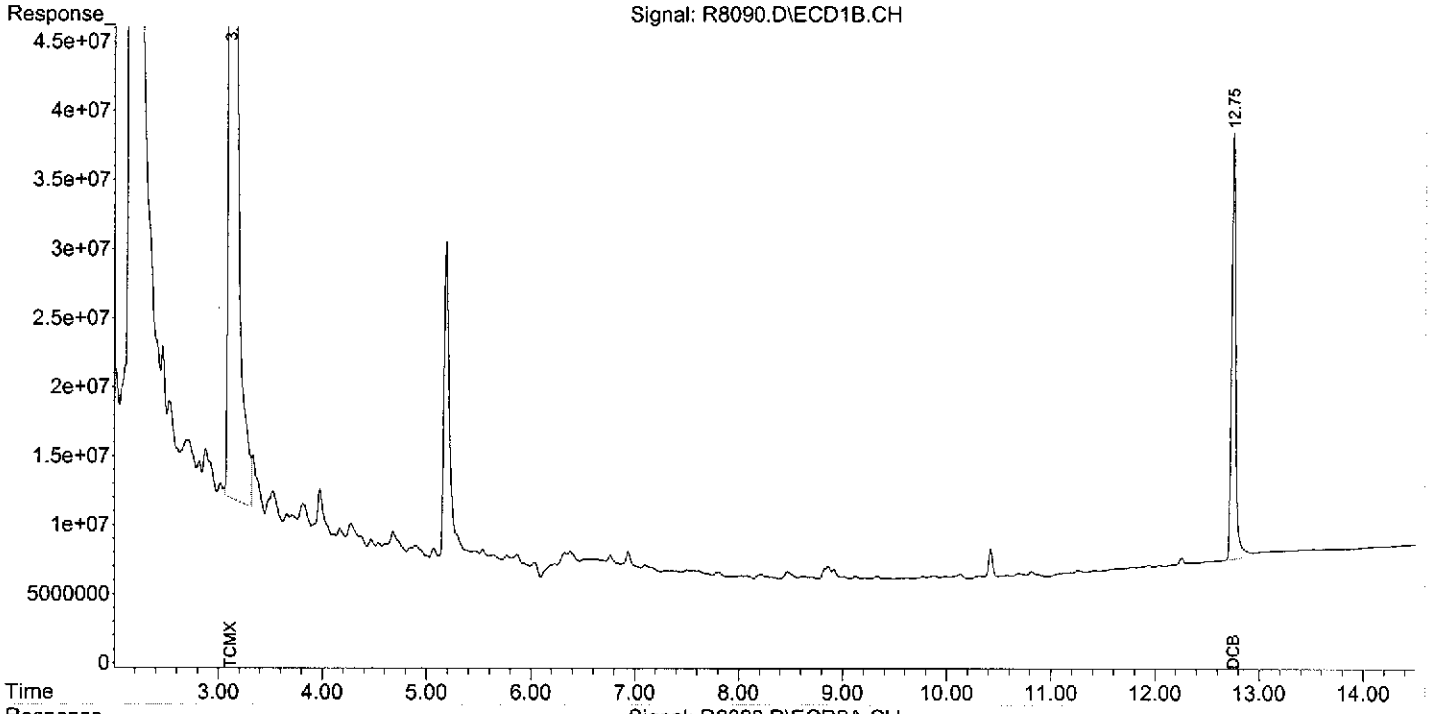
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

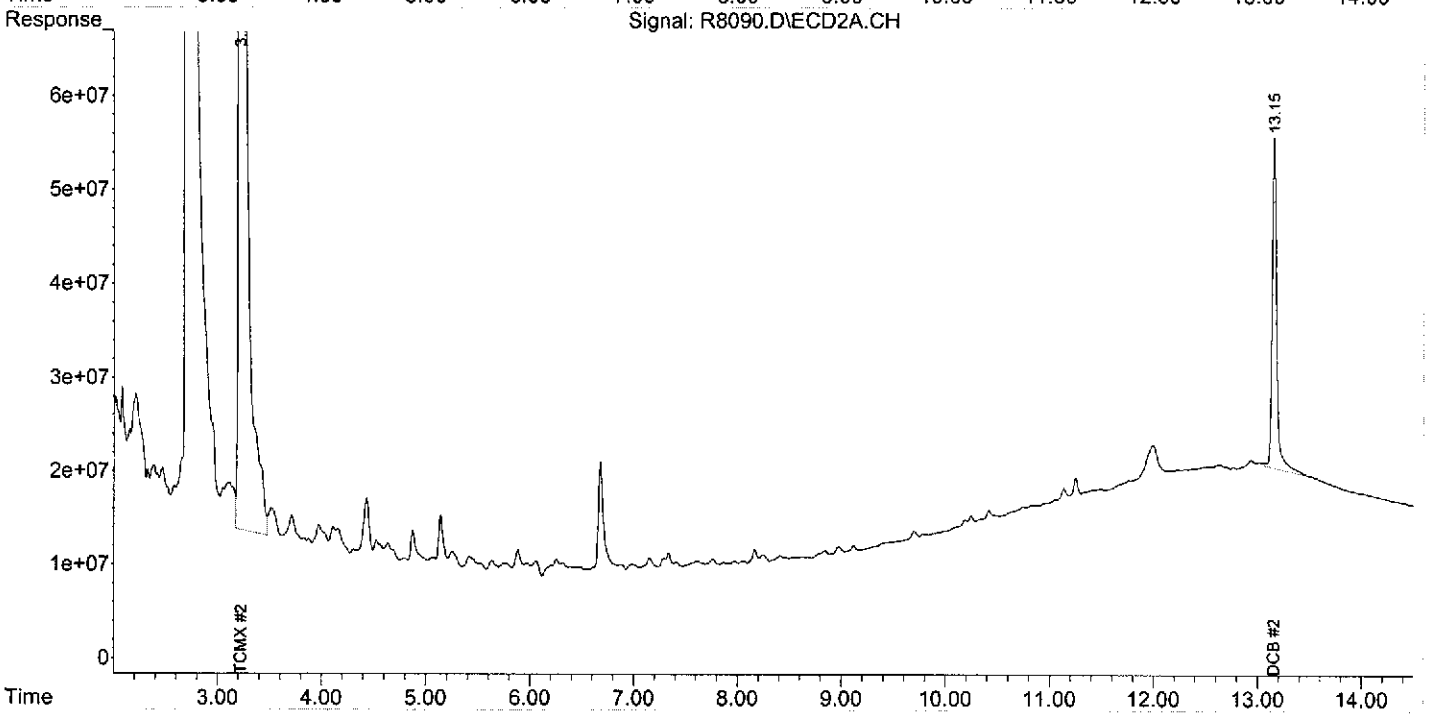
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8090.D\ECD1B.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8090.D\ECD2A.CH
Acq On : 17 Nov 2009 18:29 Operator: JP
Sample : TP5-1/3.17,11437-003,S,30.00g,38.6,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:47 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8091.D\ECD1B.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8091.D\ECD2A.CH
Acq On : 17 Nov 2009 18:47 Operator: JP
Sample : TP5-2/5.67,11437-004,S,30.00g,46.1,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 17 19:01:41 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.12	3.22	5396.8E6	8070.0E6	77.675	100.412 #
Spiked Amount 100.000	Range 75 - 125		Recovery =		77.67%	100.41%
2) S DCB	12.75	13.15	925.2E6	1311.3E6	55.539	72.002 #
Spiked Amount 100.000			Recovery =		55.54%	72.00%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

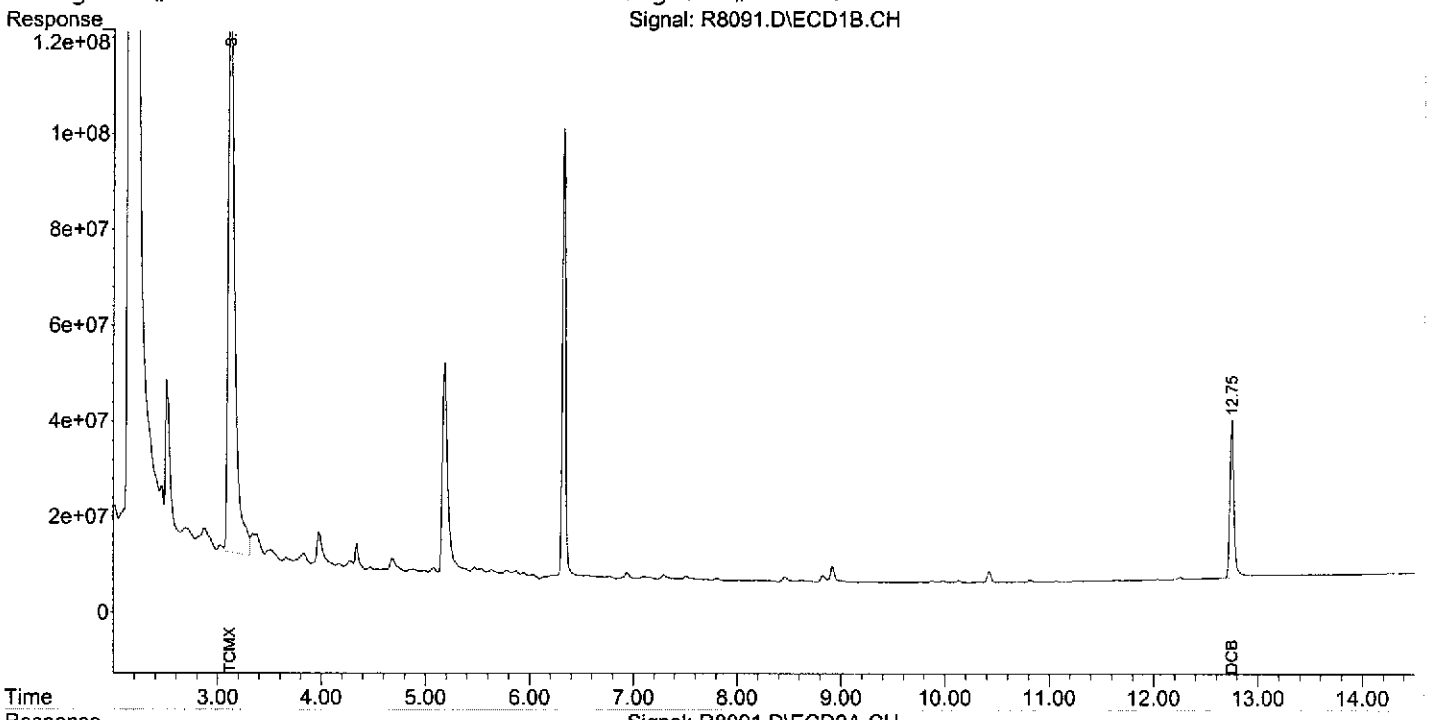
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

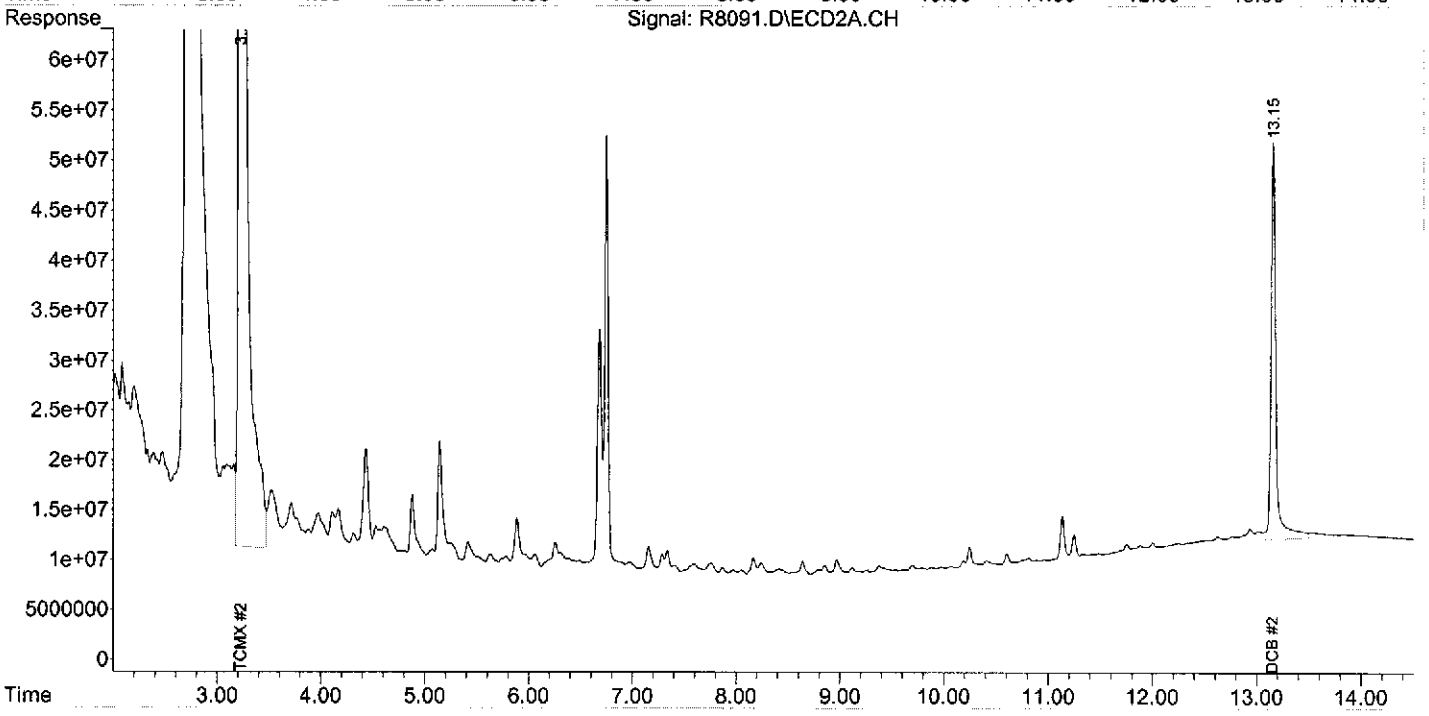
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8091.D\ECD1B.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8091.D\ECD2A.CH
Acq On : 17 Nov 2009 18:47 Operator: JP
Sample : TP5-2/5.67,11437-004,S,30.00g,46.1,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:47 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\R8103.D\ECD1B.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\R8103.D\ECD2A.CH
Acq On : 18 Nov 2009 12:18 Operator: JP
Sample : TP2-1/2-2.,11437-005,S,30.00g,16.5,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 12:33:35 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.10	3.21	4994.2E6	6722.5E6	71.881	83.646
Spiked Amount 100.000	Range 75 - 125		Recovery =		71.88%#	83.65%
2) S DCB	12.74	13.15	1948.7E6	2445.7E6	116.981m	134.295m
Spiked Amount 100.000			Recovery =		116.98%	134.29%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

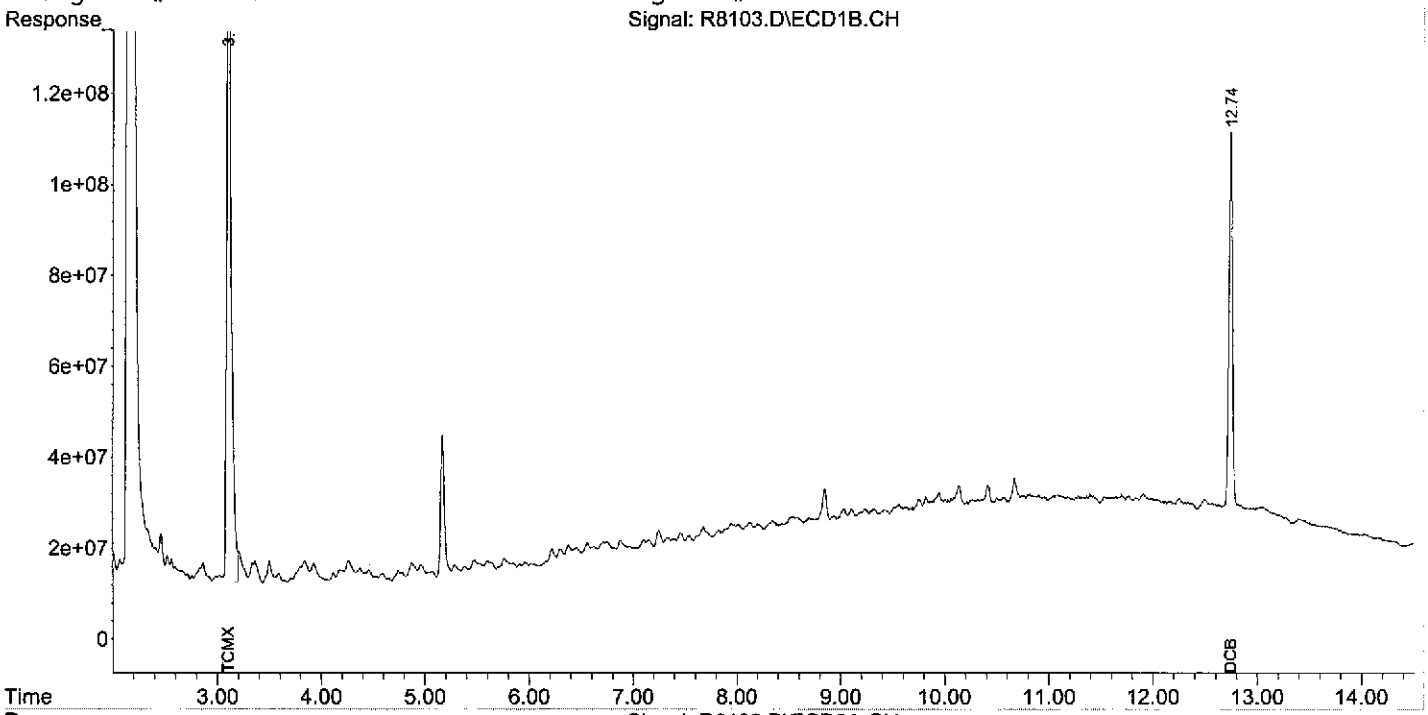
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

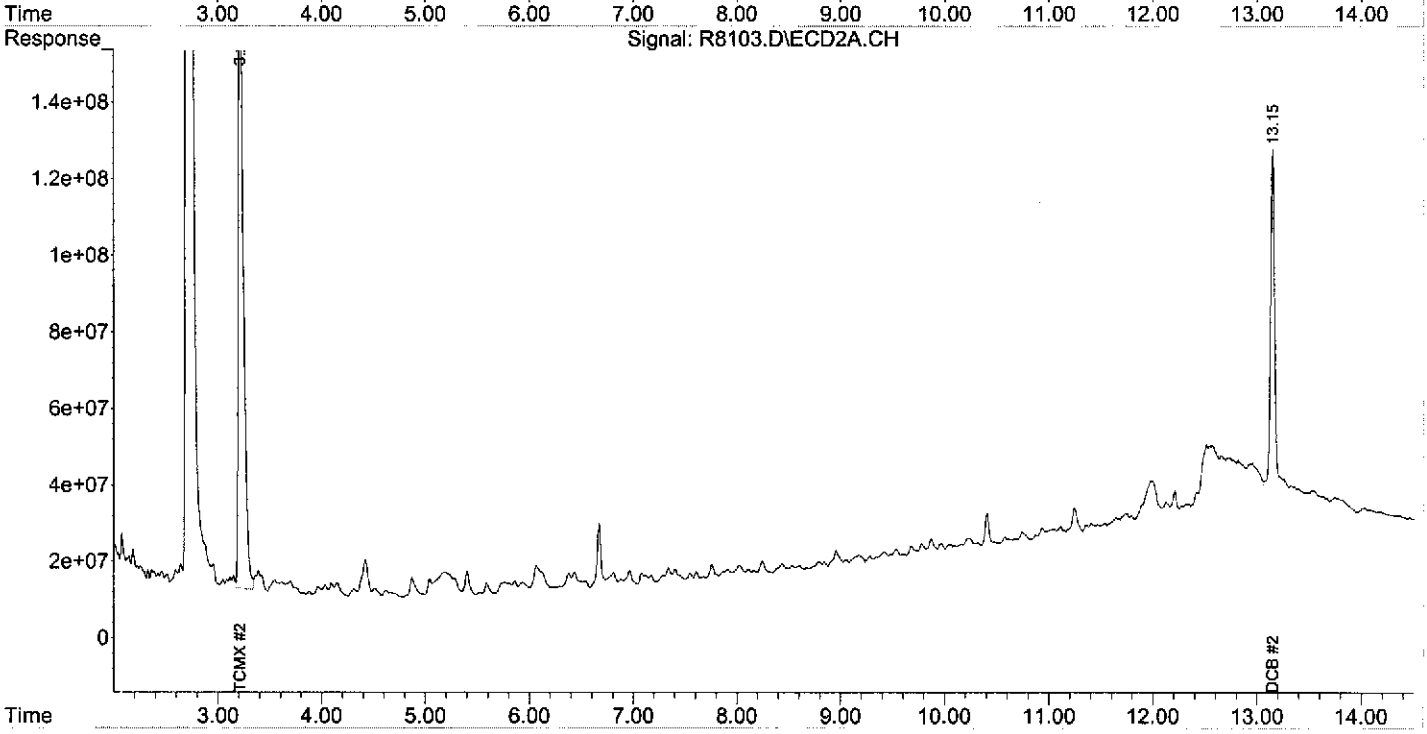
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\R8103.D\ECD1B.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\R8103.D\ECD2A.CH
Acq On : 18 Nov 2009 12:18 Operator: JP
Sample : TP2-1/2-2.,11437-005,S,30.00g,16.5,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 12:42 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8093.D\ECD1B.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8093.D\ECD2A.CH
Acq On : 17 Nov 2009 19:21 Operator: JP
Sample : TP2-2/3-3.,11437-006,S,30.00g,13.5,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 17 19:36:30 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

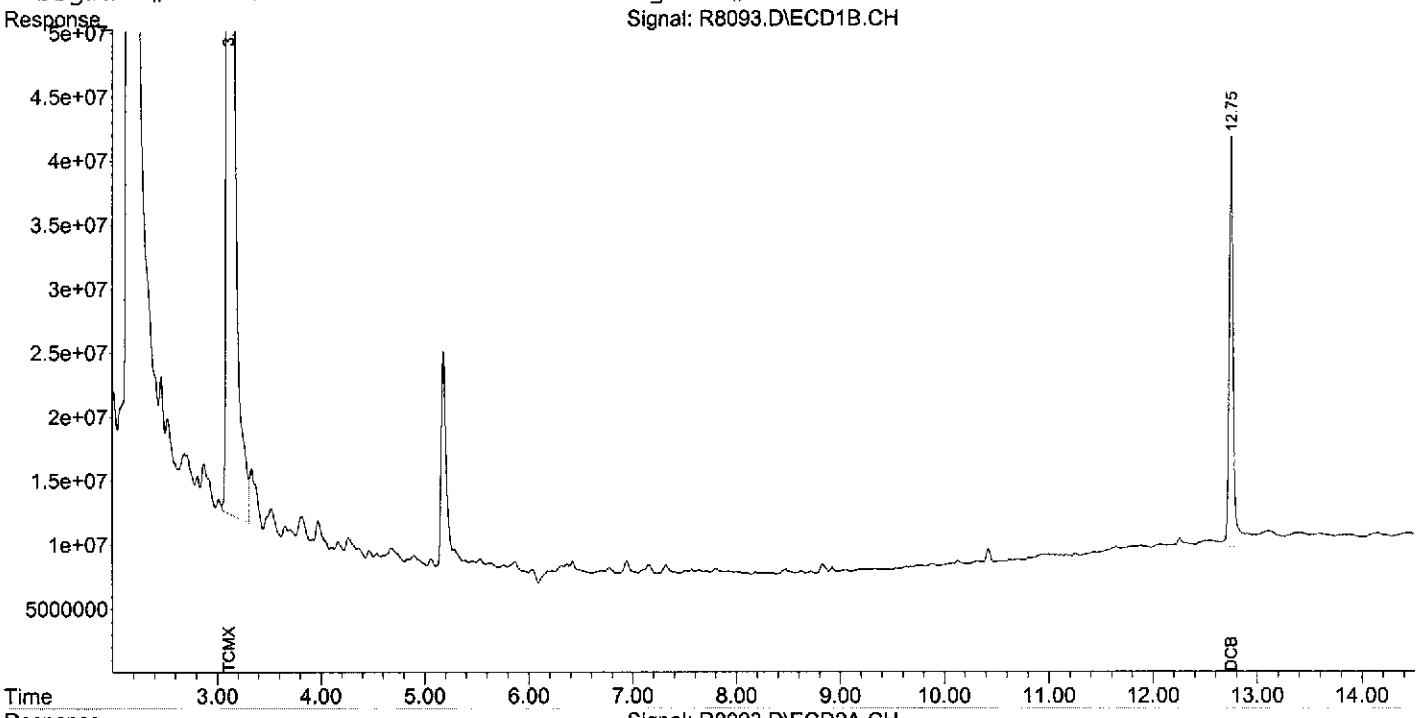
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.11	3.22	6228.2E6	8621.8E6	89.641	107.278
Spiked Amount 100.000	Range 75 - 125		Recovery =		89.64%	107.28%
2) S DCB	12.75	13.15	870.3E6	1108.2E6	52.245	60.854m
Spiked Amount 100.000			Recovery =		52.24%	60.85%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

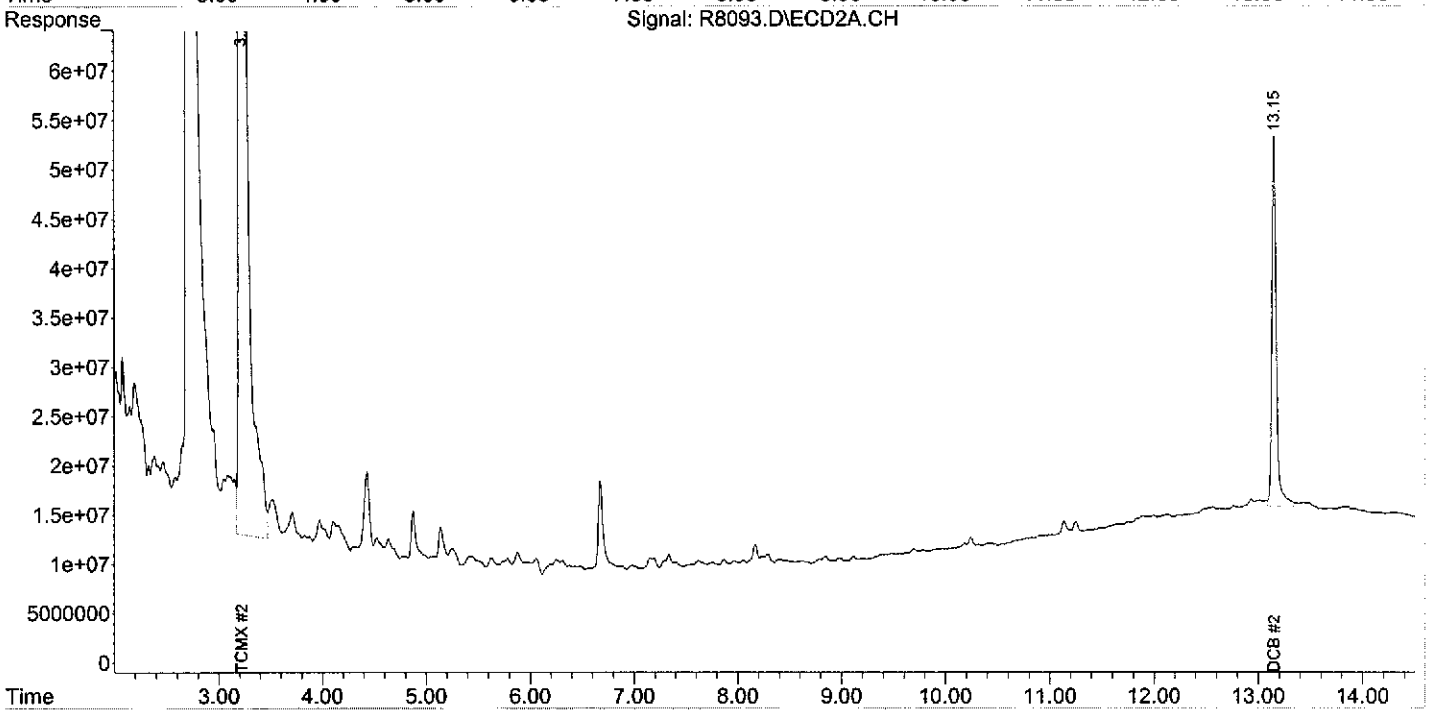
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8093.D\ECD1B.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8093.D\ECD2A.CH
Acq On : 17 Nov 2009 19:21 Operator: JP
Sample : TP2-2/3-3.,11437-006,S,30.00g,13.5,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:47 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\R8104.D\ECD1B.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\R8104.D\ECD2A.CH
Acq On : 18 Nov 2009 12:37 Operator: JP
Sample : TP1/4-4.5,11437-007,S,30.00g,25.4,11/17/ Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 12:51:39 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.10	3.21	5839.9E6	7365.2E6	84.053	91.643
Spiked Amount 100.000	Range 75 - 125		Recovery =		84.05%	91.64%
2) S DCB	12.74	13.14	1972.6E6	2252.7E6	118.419m	123.696m
Spiked Amount 100.000			Recovery =		118.42%	123.70%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

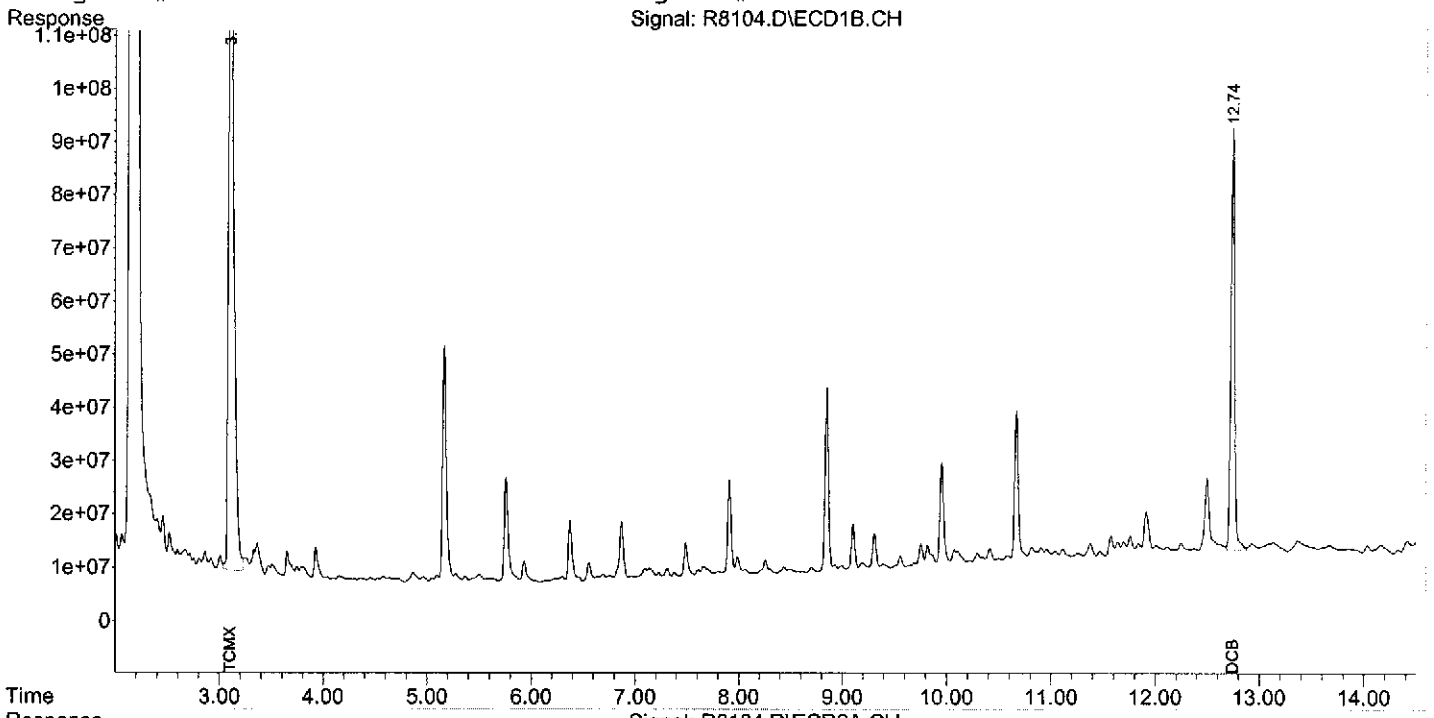
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

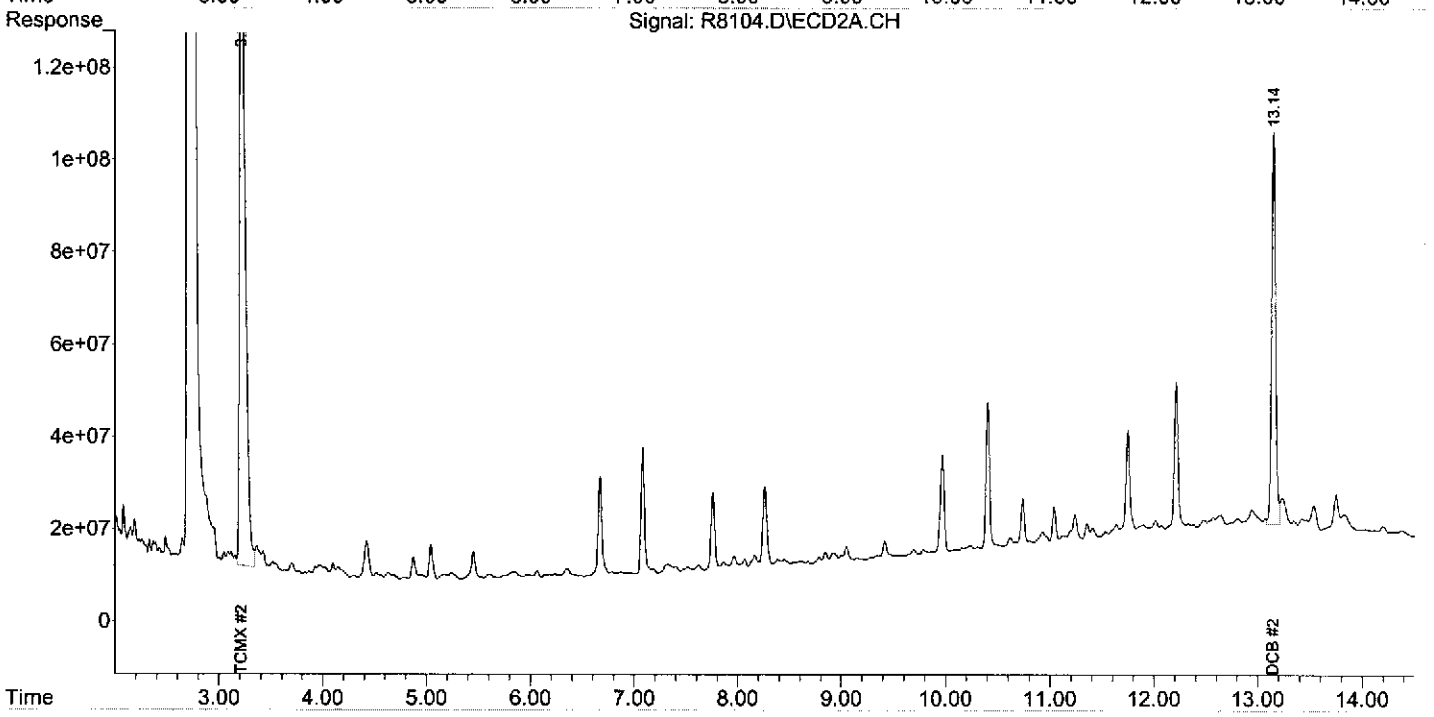
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\R8104.D\ECD1B.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\R8104.D\ECD2A.CH
Acq On : 18 Nov 2009 12:37 Operator: JP
Sample : TP1/4-4.5,11437-007,S,30.00g,25.4,11/17/ Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 13:31 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8095.D\ECD1B.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8095.D\ECD2A.CH
Acq On : 17 Nov 2009 19:56 Operator: JP
Sample : TP6/4.58-5,11437-008,S,30.00g,20.2,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 17 20:11:19 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

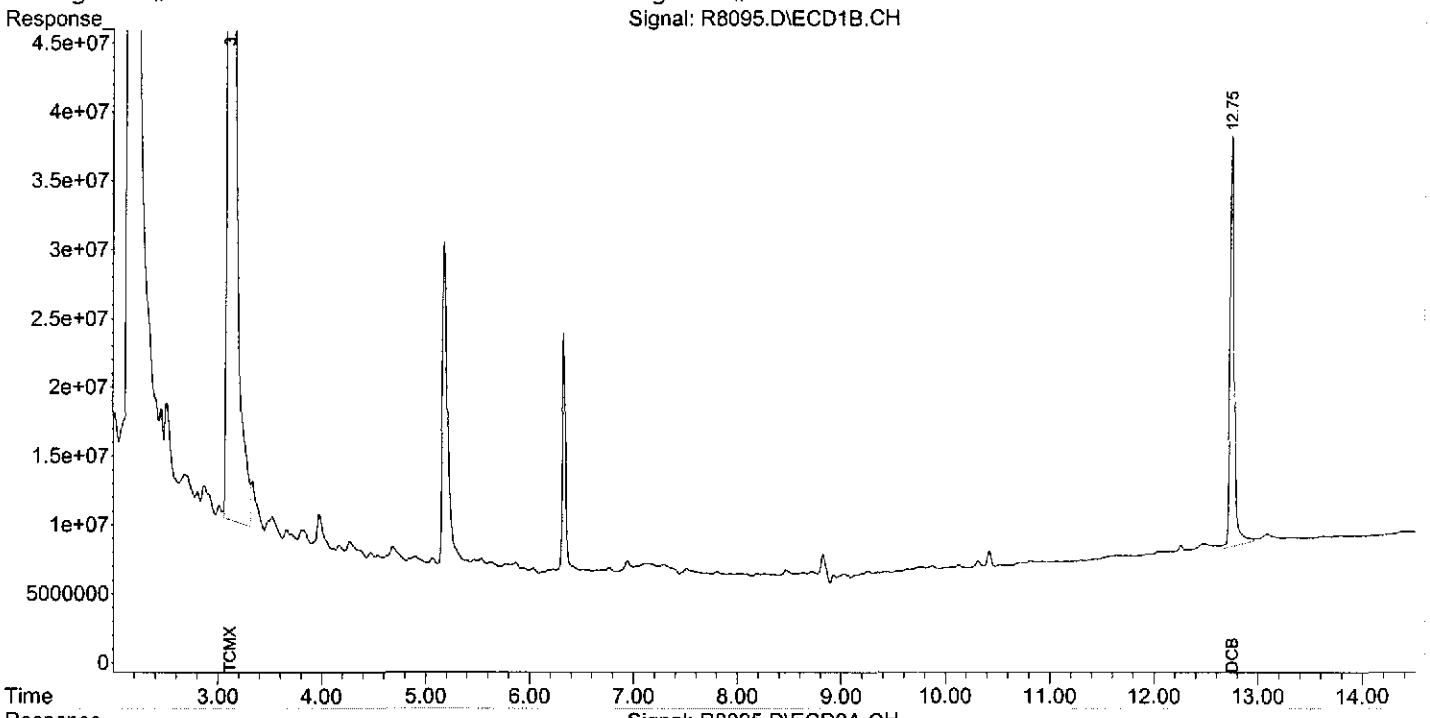
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.12	3.22	5945.4E6	8151.8E6	85.572	101.430
Spiked Amount 100.000	Range 75 - 125		Recovery =		85.57%	101.43%
2) S DCB	12.75	13.15	830.8E6	1048.4E6	49.871m	57.569m
Spiked Amount 100.000			Recovery =		49.87%	57.57%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

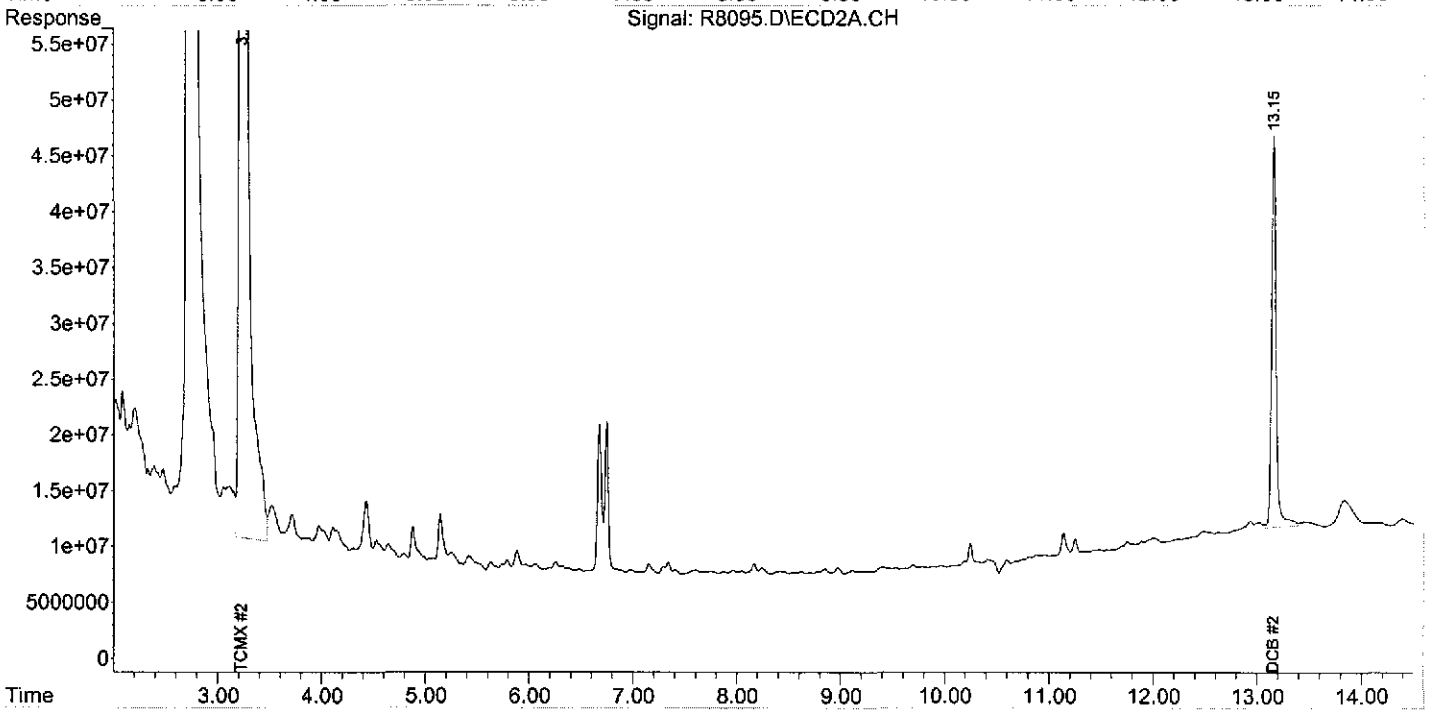
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8095.D\ECD1B.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8095.D\ECD2A.CH
Acq On : 17 Nov 2009 19:56 Operator: JP
Sample : TP6/4.58-5,11437-008,S,30.00g,20.2,11/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:48 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8088.D\ECD1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8088.D\ECD2A.CH
Acq On : 17 Nov 2009 17:54 Operator: JP
Sample : PCB,1117-BLK05,S,30.00g,0,11/17/09,1 Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 17 18:09:25 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

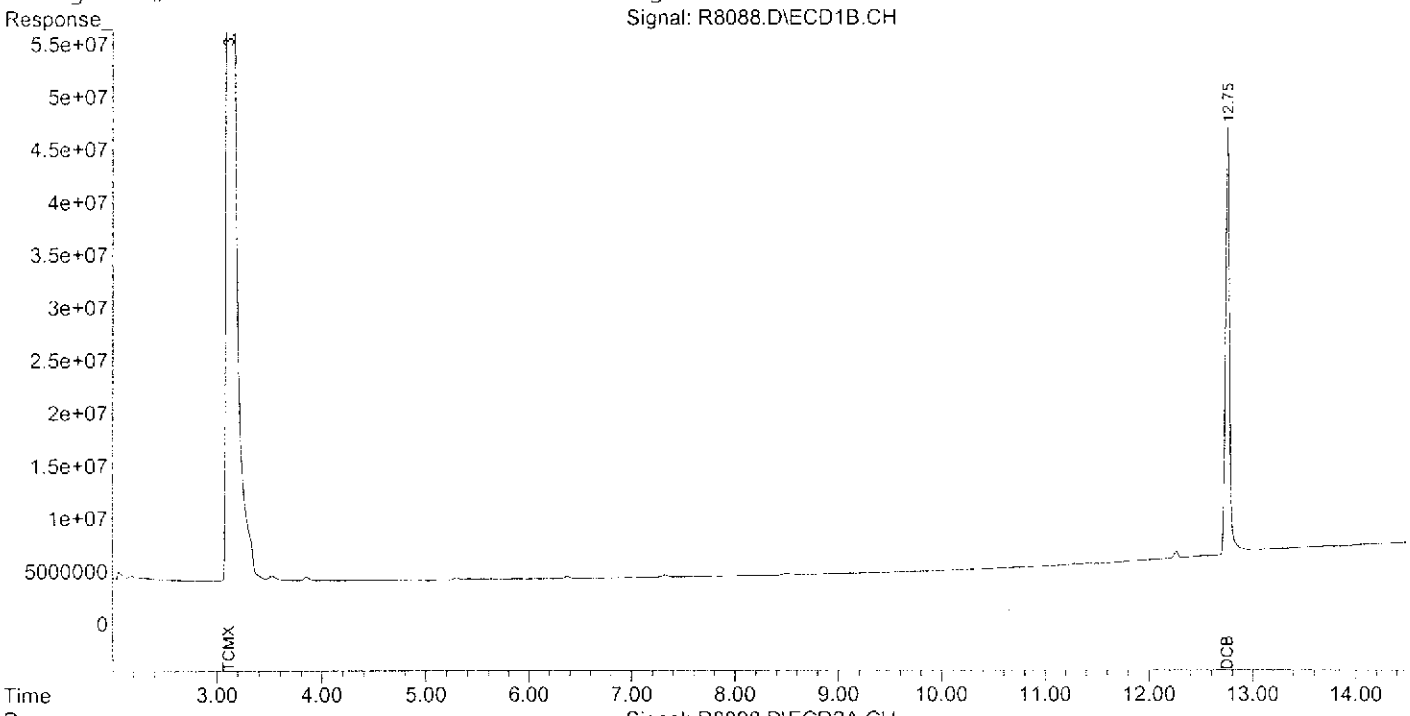
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.11	3.22	10044.8E6	12170.4E6	144.573	151.432
Spiked Amount 100.000	Range 75 - 125		Recovery =		144.57%#	151.43%#
2) S DCB	12.75	13.15	1125.7E6	1348.8E6	67.576	74.063
Spiked Amount 100.000			Recovery =		67.58%	74.06%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

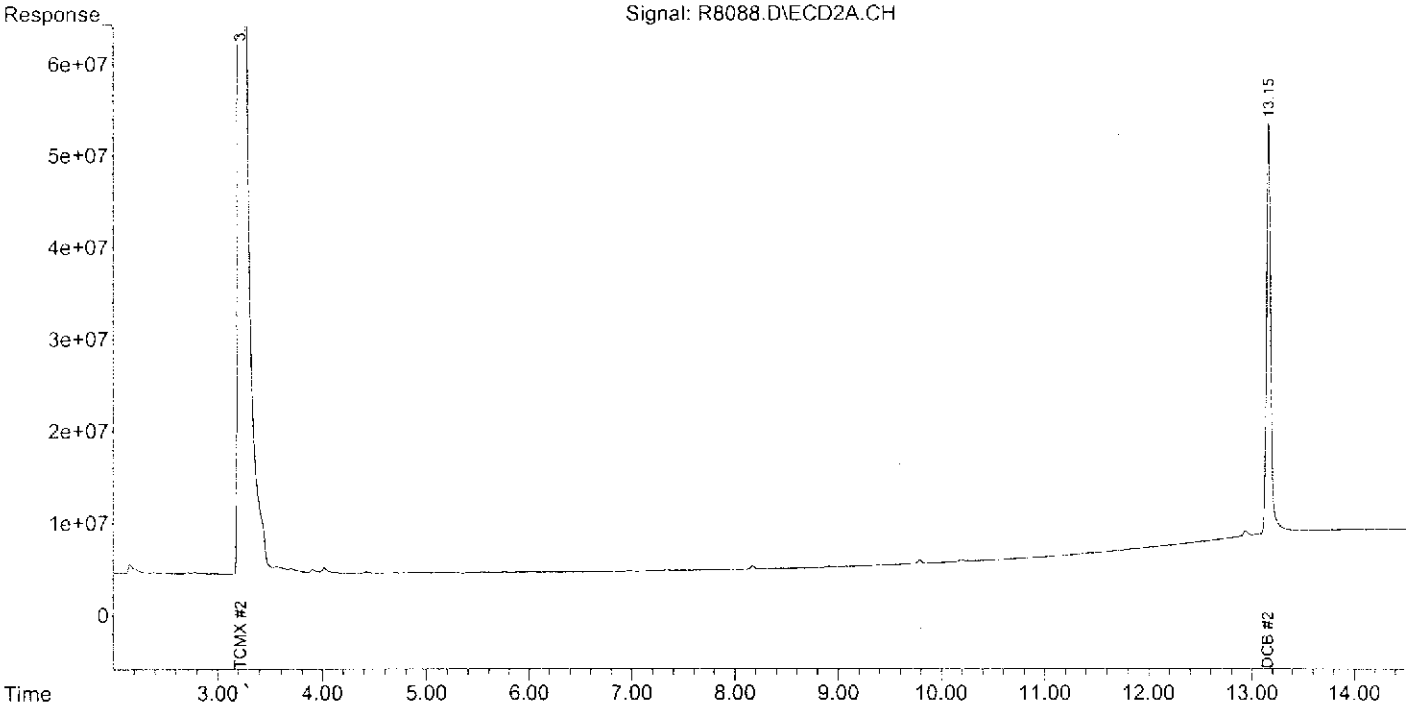
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8088.D\ECD1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8088.D\ECD2A.CH
Acq On : 17 Nov 2009 17:54 Operator: JP
Sample : PCB,1117-BLK05,S,30.00g,0,11/17/09,1 Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:41 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8087.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8087.D\ECD2A.CH
Acq On : 17 Nov 2009 17:37 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 17 17:51:57 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

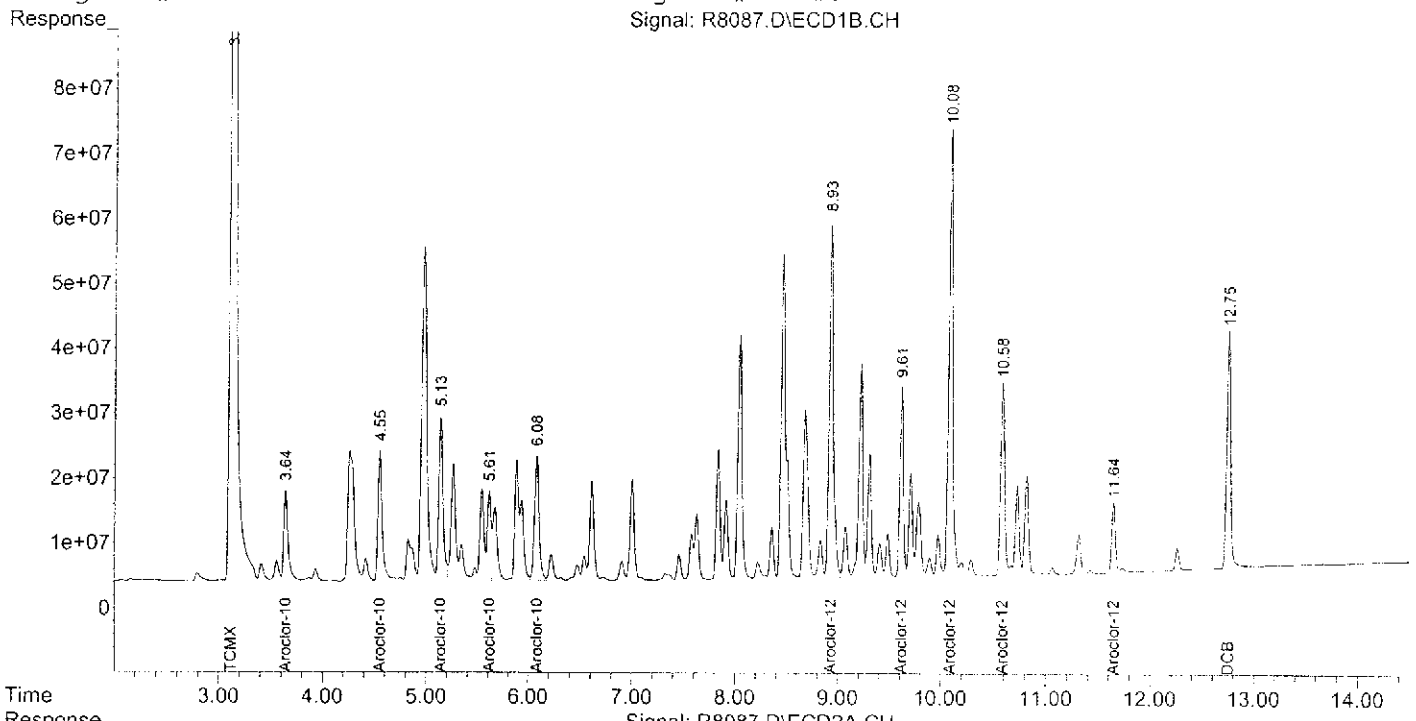
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.11	3.22	7621.1E6	9308.4E6	109.689	115.821
Spiked Amount 100.000	Range 75 - 125		Recovery =		109.69%	115.82%
2) S DCB	12.75	13.15	986.5E6	1093.2E6	59.220	60.030
Spiked Amount 100.000			Recovery =		59.22%	60.03%
Target Compounds						
3) L2 Aroclor-1016	3.64	4.11	424.8E6	533.7E6	565.075	593.512
4) L2 Aroclor-1016 {2}	4.55	4.77	578.7E6	1013.3E6	545.392	561.021
5) L2 Aroclor-1016 {3}	5.13	5.53	751.2E6	2145.4E6	544.425	565.913
6) L2 Aroclor-1016 {4}	5.61	5.77	364.3E6	873.0E6	511.326	533.324m
7) L2 Aroclor-1016 {5}	6.08	5.95	612.8E6	756.5E6	558.288	568.311m
Sum Aroclor-1016			2731.9E6	5321.8E6	2724.507	2822.080
Average Aroclor-1016					544.901	564.416
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	8.93	8.69	1607.3E6	1073.4E6	515.029	544.846
34) L8 Aroclor-1260 {2}	9.61	9.08	705.9E6	1211.4E6	472.800	540.869
35) L8 Aroclor-1260 {3}	10.09	10.31	1807.8E6	798.3E6	452.548	478.438
36) L8 Aroclor-1260 {4}	10.58	10.81	799.0E6	1401.8E6	413.682	431.350m
37) L8 Aroclor-1260 {5}	11.64	11.43	357.4E6	1098.3E6	417.835m	427.277m
Sum Aroclor-1260			5277.4E6	5583.3E6	2271.894	2422.780
Average Aroclor-1260					454.379	484.556

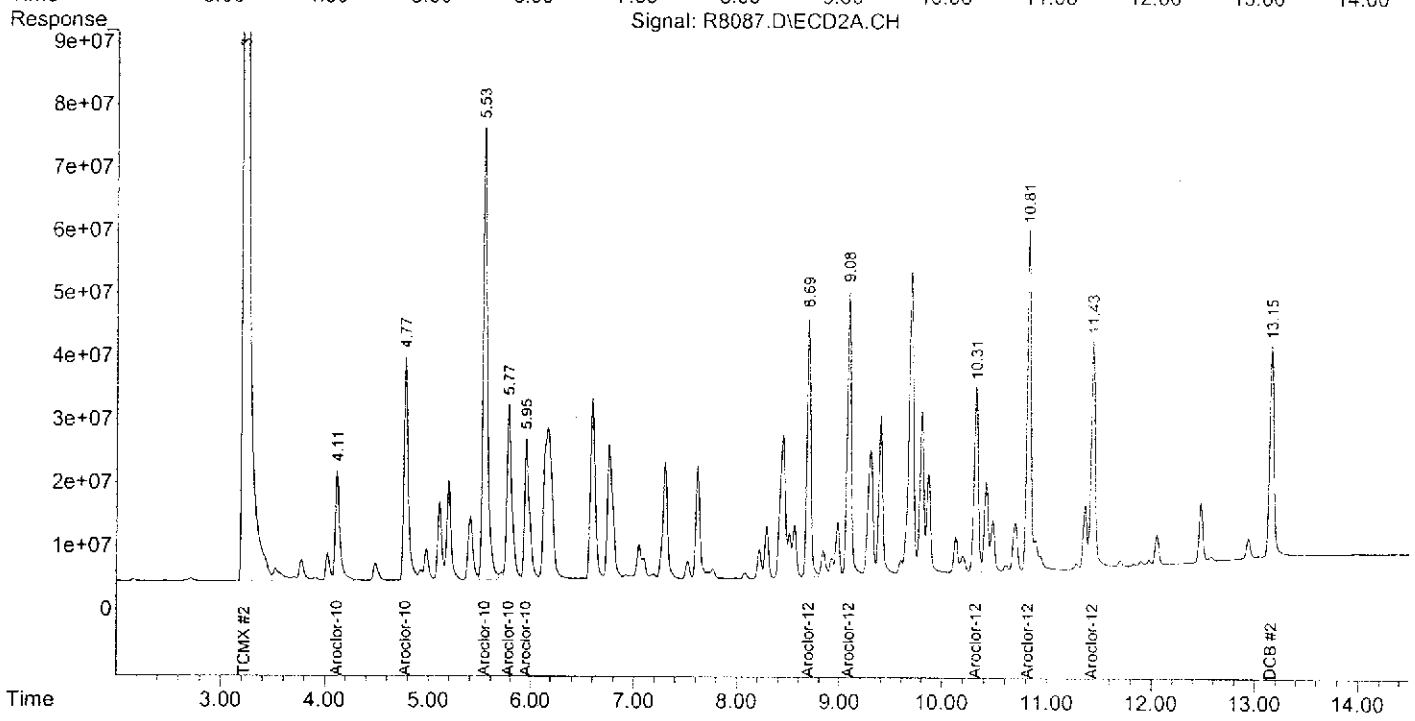
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8087.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8087.D\ECD2A.CH
Acq On : 17 Nov 2009 17:37 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 8:56 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8100.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8100.D\ECD2A.CH
Acq On : 17 Nov 2009 21:25 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 09:55:19 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

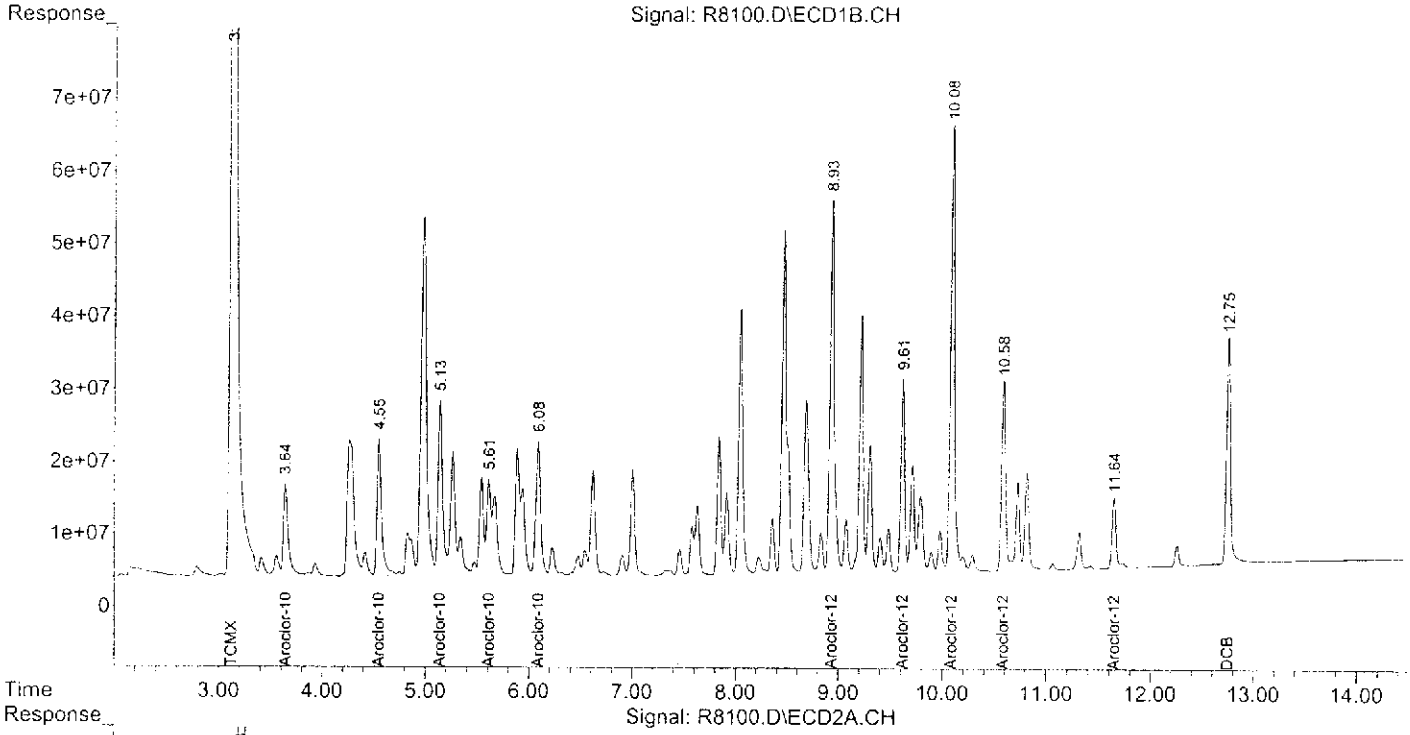
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.12	3.22	7618.7E6	9300.6E6	109.654	115.724
Spiked Amount 100.000	Range 75 - 125		Recovery =		109.65%	115.72%
2) S DCB	12.75	13.15	923.4E6	949.5E6	55.433	52.140
Spiked Amount 100.000			Recovery =		55.43%	52.14%
Target Compounds						
3) L2 Aroclor-1016	3.64	4.10	396.0E6	515.7E6	526.697	573.539m
4) L2 Aroclor-1016 (2)	4.55	4.77	588.9E6	1026.5E6	554.999	568.325
5) L2 Aroclor-1016 (3)	5.14	5.53	756.7E6	2186.4E6	548.370	576.744
6) L2 Aroclor-1016 (4)	5.61	5.77	362.0E6	959.1E6	508.024	585.881
7) L2 Aroclor-1016 (5)	6.08	5.94	611.9E6	811.1E6	557.413	609.338
Sum Aroclor-1016			2715.4E6	5498.8E6	2695.503	2913.828
Average Aroclor-1016					539.101	582.766
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	8.93	8.68	1537.4E6	1109.1E6	492.641	562.926
34) L8 Aroclor-1260 (2)	9.61	9.08	662.3E6	1248.9E6	443.579	557.603 #
35) L8 Aroclor-1260 (3)	10.08	10.31	1675.7E6	821.2E6	419.470m	492.153
36) L8 Aroclor-1260 (4)	10.58	10.81	798.2E6	1398.3E6	413.274m	430.259
37) L8 Aroclor-1260 (5)	11.64	11.42	354.5E6	1065.0E6	414.467m	414.323m
Sum Aroclor-1260			5028.1E6	5642.4E6	2183.430	2457.264
Average Aroclor-1260					436.686	491.453

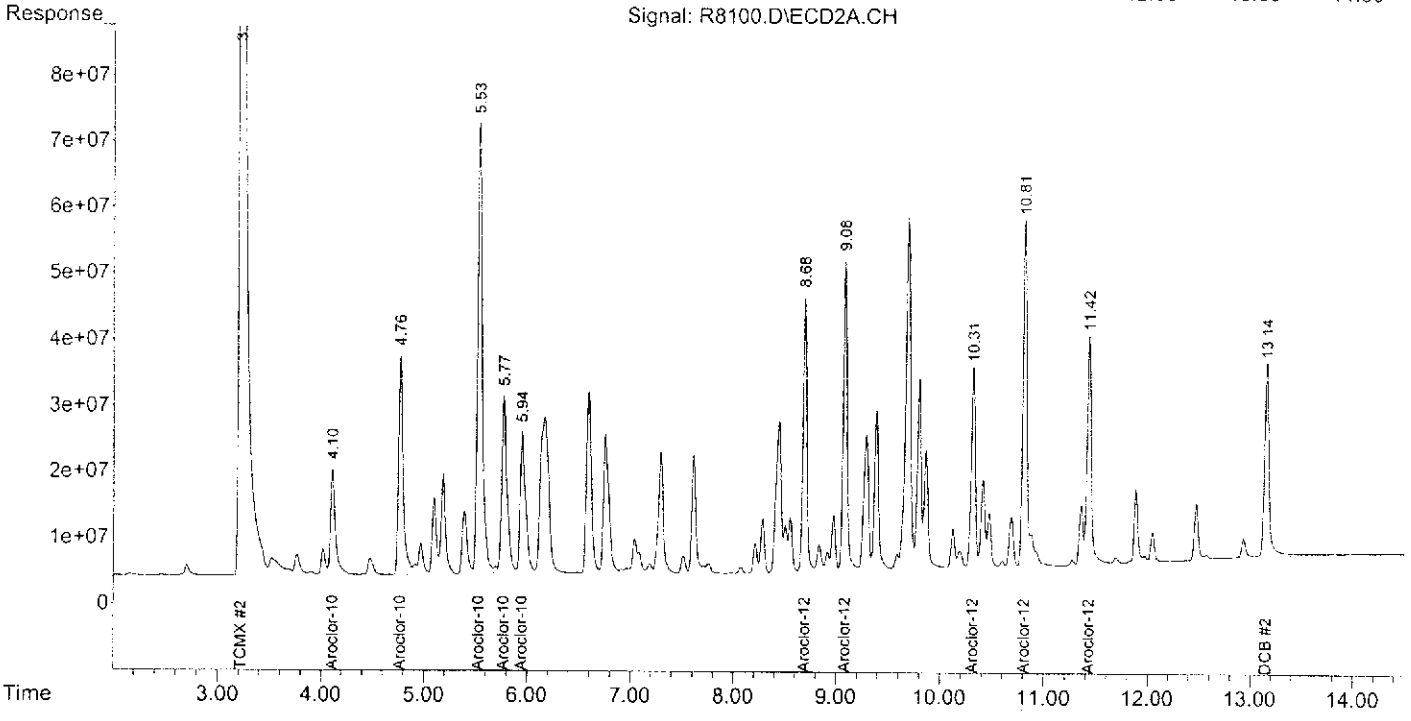
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\11-17-09\R8100.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\11-17-09\R8100.D\ECD2A.CH
Acq On : 17 Nov 2009 21:25 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 13:41 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\R8101.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\R8101.D\ECD2A.CH
Acq On : 18 Nov 2009 11:19 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 11:34:11 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

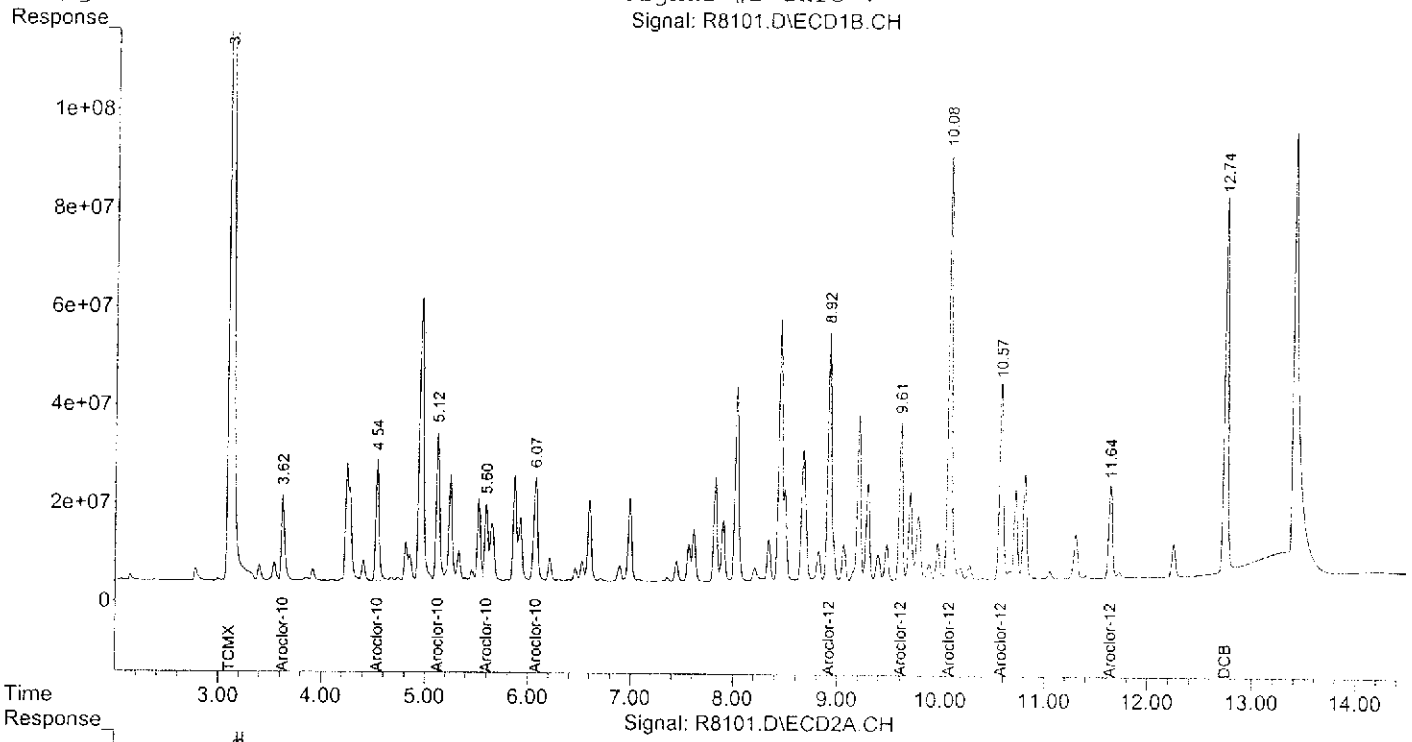
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.10	3.21	7422.0E6	8783.4E6	106.824	109.289
Spiked Amount 100.000	Range 75 - 125		Recovery =		106.82%	109.29%
2) S DCB	12.74	13.14	2045.1E6	2014.9E6	122.769	110.642
Spiked Amount 100.000			Recovery =		122.77%	110.64%
Target Compounds						
3) L2 Aroclor-1016	3.62	4.10	404.2E6	489.7E6	537.577	544.548
4) L2 Aroclor-1016 {2}	4.54	4.76	554.9E6	946.2E6	522.919	523.886
5) L2 Aroclor-1016 {3}	5.12	5.53	707.7E6	2007.7E6	512.872	529.601
6) L2 Aroclor-1016 {4}	5.60	5.76	351.2E6	879.2E6	492.834	537.102
7) L2 Aroclor-1016 {5}	6.07	5.94	578.3E6	742.8E6	526.802	558.042
Sum Aroclor-1016			2596.1E6	5065.6E6	2593.003	2693.178
Average Aroclor-1016					518.601	538.636
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	8.92	8.68	1355.2E6	1058.6E6	434.264	537.327
34) L8 Aroclor-1260 {2}	9.61	9.07	738.3E6	1220.7E6	494.540	545.038
35) L8 Aroclor-1260 {3}	10.08	10.31	2117.6E6	931.6E6	530.089	558.337
36) L8 Aroclor-1260 {4}	10.57	10.81	1022.9E6	1722.1E6	529.658	529.909
37) L8 Aroclor-1260 {5}	11.64	11.42	460.2E6	1411.2E6	538.033	548.985
Sum Aroclor-1260			5694.3E6	6344.3E6	2526.585	2719.596
Average Aroclor-1260					505.317	543.919

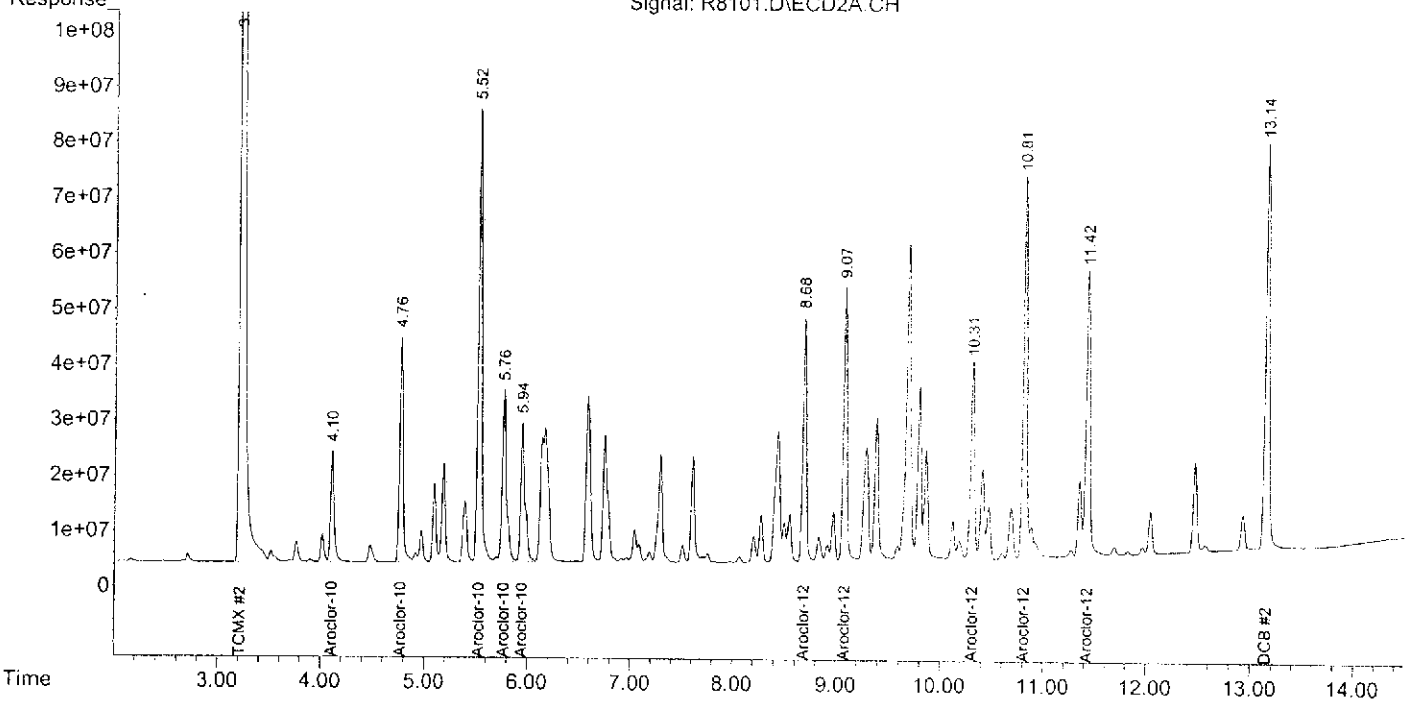
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\R8101.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\R8101.D\ECD2A.CH
Acq On : 18 Nov 2009 11:19 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 11:59 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\R8105.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\R8105.D\ECD2A.CH
Acq On : 18 Nov 2009 12:55 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 13:09:47 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

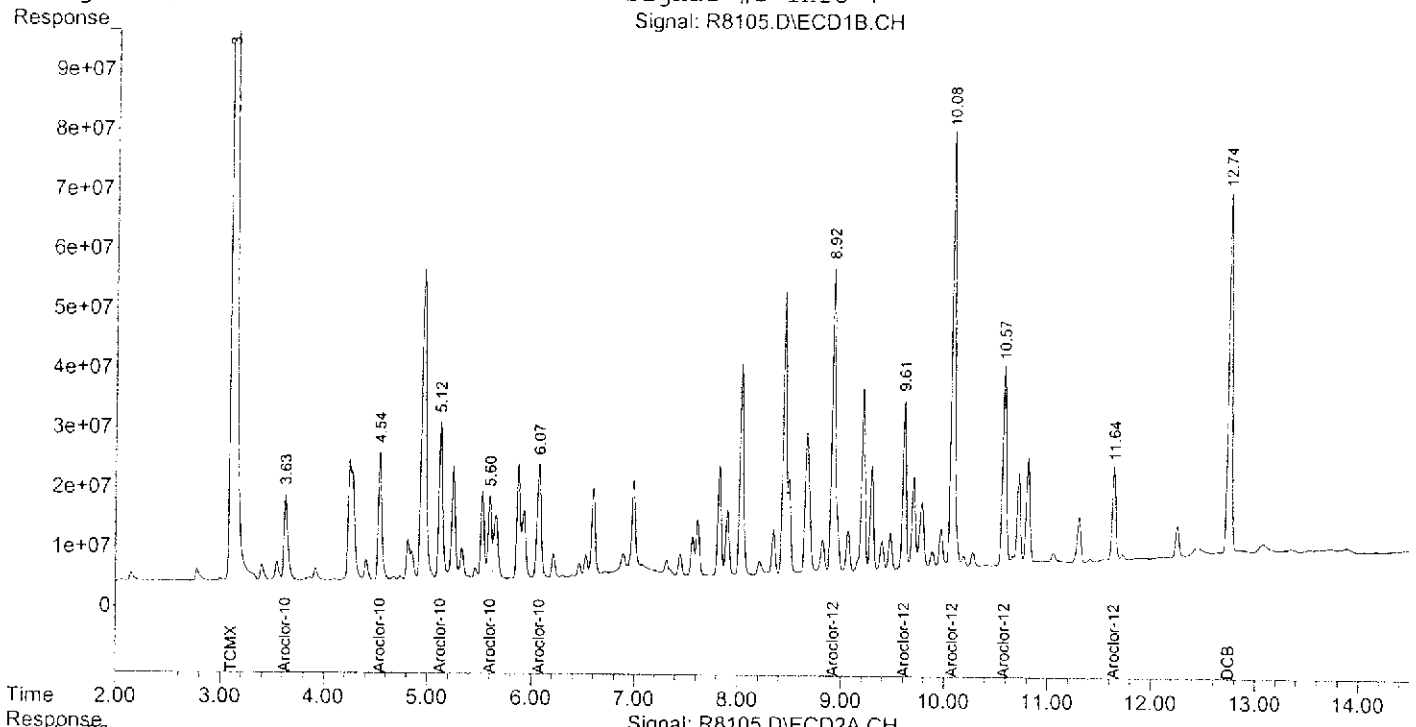
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.10	3.21	7130.6E6	8571.9E6	102.629	106.657
Spiked Amount 100.000	Range 75 - 125		Recovery =		102.63%	106.66%
2) S DCB	12.74	13.14	1553.9E6	2036.1E6	93.283	111.806
Spiked Amount 100.000			Recovery =		93.28%	111.81%
Target Compounds						
3) L2 Aroclor-1016	3.63	4.10	382.5E6	470.6E6	508.713	523.406
4) L2 Aroclor-1016 (2)	4.54	4.77	516.2E6	903.3E6	486.505	500.154
5) L2 Aroclor-1016 (3)	5.12	5.53	658.7E6	1894.8E6	477.358	499.819
6) L2 Aroclor-1016 (4)	5.60	5.77	322.7E6	816.8E6	452.820	498.967
7) L2 Aroclor-1016 (5)	6.07	5.94	525.9E6	684.2E6	479.088	514.050
Sum Aroclor-1016			2405.9E6	4769.8E6	2404.484	2536.396
Average Aroclor-1016					480.897	507.279
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	8.92	8.68	1372.9E6	913.1E6	439.914	463.448
34) L8 Aroclor-1260 (2)	9.61	9.08	660.5E6	1029.8E6	442.434	459.803
35) L8 Aroclor-1260 (3)	10.08	10.31	1785.2E6	825.6E6	446.877	494.783
36) L8 Aroclor-1260 (4)	10.57	10.81	855.6E6	1582.4E6	443.006	486.908
37) L8 Aroclor-1260 (5)	11.64	11.42	404.1E6	1314.3E6	472.440	511.284
Sum Aroclor-1260			5078.3E6	5665.1E6	2244.670	2416.226
Average Aroclor-1260					448.934	483.245

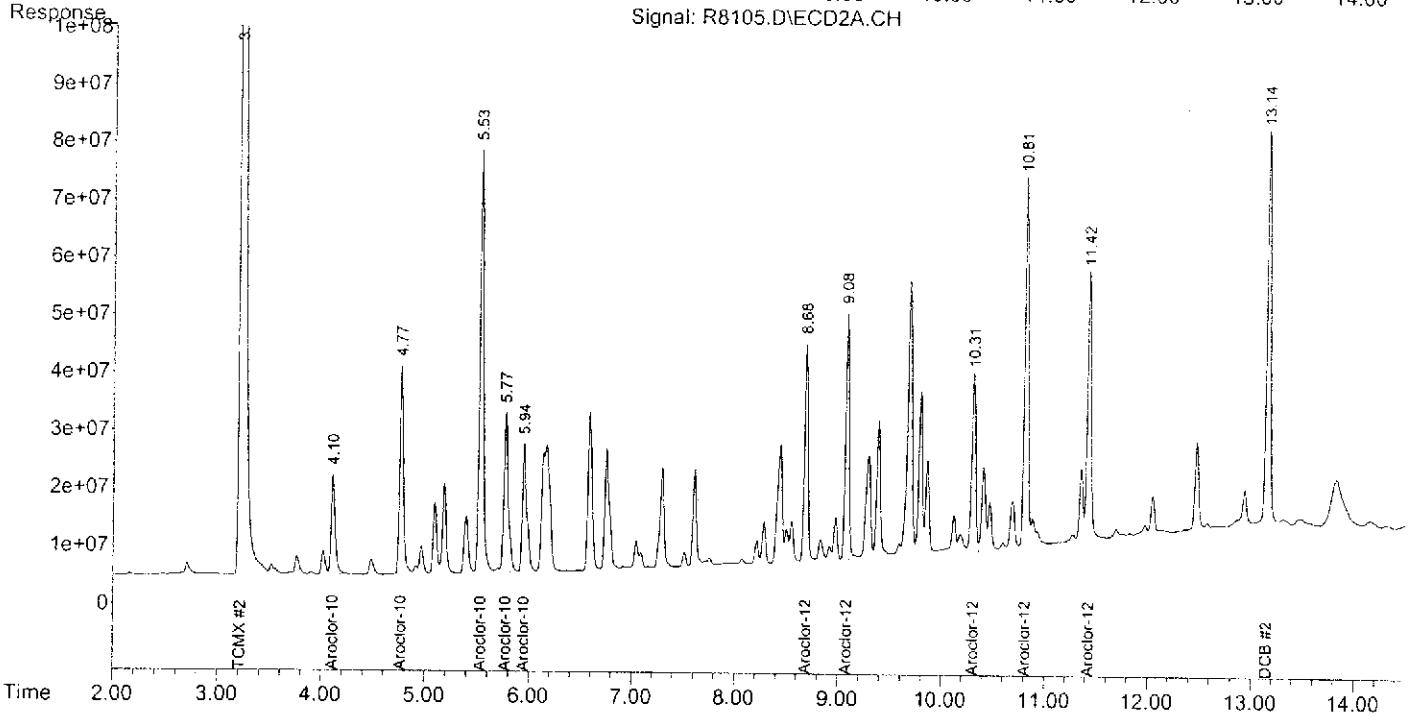
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\R8105.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\R8105.D\ECD2A.CH
Acq On : 18 Nov 2009 12:55 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 13:31 2009 Quant Results File: RPCB1109.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1109.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 10 10:36:00 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1109.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	P5848.D	Instrument ID:	GC-P
Date Extracted:	11/17/2009	Matrix:	SOIL
Date Analyzed:	11/18/2009	Time Analyzed:	09:23

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TP5-1/3.17	11437-003	11/18/2009	09:50
TP5-2/5.67	11437-004	11/18/2009	10:05
TP2-1/2-2.	11437-005	11/18/2009	10:31
TP2-2/3-3.	11437-006	11/18/2009	10:44
TP1/4-4.5	11437-007	11/18/2009	10:58
TP6/4.58-5	11437-008	11/18/2009	11:11
SP-1-1111-	11518-001	11/18/2009	11:25
TP7/4.25-4	11437-002	11/18/2009	11:38
Pest	11437-006-MS05	11/18/2009	11:52
Pest	11437-006-MSD05	11/18/2009	12:05
Pest	PBS1117-MS05	11/18/2009	12:19

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 1117-BLK05
Client ID: Pest
Date Received: NA
Date Extracted: 11/17/2009
Date Analyzed: 11/18/2009
Data file: P5848.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000167
beta-BHC	ND		0.000167
gamma-BHC (Lindane)	ND		0.000167
delta-BHC	ND		0.000167
Heptachlor	ND		0.000167
Aldrin	ND		0.000167
Heptachlor epoxide	ND		0.000167
Endosulfan I	ND		0.000167
4,4'-DDE	ND		0.000167
Dieldrin	ND		0.000167
Endrin	ND		0.000167
Endosulfan II	ND		0.000167
4,4'-DDD	ND		0.000167
Endrin aldehyde	ND		0.000167
Endosulfan sulfate	ND		0.000167
4,4'-DDT	ND		0.000167
Endrin ketone	ND		0.000167
Methoxychlor	ND		0.000167
alpha-Chlordane	ND		0.000167
gamma-Chlordane	ND		0.000167
Chlordane	ND		0.000501
Toxaphene	ND		0.000501

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/16/2009 **Instrument ID:** GC-P
GC Column (1st): RTX-CLP1

Data File: P5807.D P5806.D P5805.D P5804.D P5803.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.95	2.95	2.95	2.95	2.95	2.95	2.89	3.01
beta-BHC	3.31	3.30	3.30	3.31	3.30	3.31	3.25	3.37
gamma-BHC (Lindane	3.23	3.23	3.23	3.23	3.23	3.23	3.17	3.29
delta-BHC	3.46	3.46	3.46	3.46	3.46	3.46	3.40	3.52
Heptachlor	3.64	3.65	3.64	3.65	3.64	3.65	3.57	3.73
Aldrin	3.91	3.91	3.91	3.91	3.91	3.91	3.83	3.99
Heptachlor epoxide	4.45	4.45	4.45	4.45	4.45	4.45	4.37	4.53
Endosulfan I	4.80	4.81	4.81	4.81	4.80	4.81	4.73	4.89
4,4'-DDE	4.76	4.76	4.76	4.76	4.76	4.76	4.66	4.86
Dieldrin	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
Endrin	5.24	5.24	5.24	5.25	5.24	5.24	5.14	5.34
Endosulfan II	5.46	5.46	5.46	5.46	5.46	5.46	5.36	5.56
4,4'-DDD	5.32	5.32	5.32	5.32	5.32	5.32	5.22	5.42
Endrin aldehyde	5.87	5.87	5.87	5.87	5.87	5.87	5.75	5.99
Endosulfan sulfate	6.31	6.31	6.31	6.31	6.30	6.31	6.19	6.43
4,4'-DDT	5.59	5.59	5.59	5.59	5.59	5.59	5.47	5.71
Endrin ketone	6.59	6.59	6.59	6.59	6.59	6.59	6.47	6.71
Methoxychlor	6.07	6.08	6.08	6.08	6.08	6.07	5.95	6.19
alpha-Chlordane	4.68	4.68	4.68	4.68	4.68	4.68	4.60	4.76
gamma-Chlordane	4.56	4.56	4.56	4.56	4.56	4.56	4.48	4.64
Chlordane 500 ppb			3.58				3.50	3.66
Chlordane {2}			4.03				3.95	4.11
Chlordane {3}			4.56				4.48	4.64
Chlordane {4}			4.67				4.59	4.75
Chlordane {5}			5.39				5.31	5.47
Toxaphene 500 ppb			5.27				5.19	5.35
Toxaphene {2}			5.52				5.44	5.60
Toxaphene {3}			5.97				5.89	6.05
Toxaphene {4}			6.20				6.12	6.28
Toxaphene {5}			6.57				6.49	6.65

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/16/2009 **Instrument ID:** GC-P
GC Column (1st): RTX-CLP1

Data File: P5807.D P5806.D P5805.D P5804.D P5803.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	616216	683521	682483	676003	666049	664854	4.22
beta-BHC	226083	239151	233108	230102	230312	231751	2.09
gamma-BHC (Lindane	550653	600686	595916	595503	585957	585743	3.47
delta-BHC	528719	601516	587351	586097	580776	576892	4.85
Heptachlor	463260	551994	553272	553699	553488	535142	7.51
Aldrin	529088	569215	564128	547346	540316	550019	3.02
Heptachlor epoxide	518296	516822	513035	494903	483036	505218	3.07
Endosulfan I	521437	564923	528954	517856	494793	525593	4.84
4,4'-DDE	417659	454582	436792	443438	434153	437325	3.09
Dieldrin	524751	549814	515690	519573	486525	519271	4.36
Endrin	357372	396075	367563	396718	377110	378967	4.58
Endosulfan II	438633	462864	430144	428777	406905	433464	4.66
4,4'-DDD	417309	449079	419925	417305	390317	418787	4.97
Endrin aldehyde	313736	274209	255926	250757	230510	265028	11.83
Endosulfan sulfate	356428	395994	376471	371614	351481	370398	4.77
4,4'-DDT	289268	312761	306624	350171	340773	319920	7.84
Endrin ketone	529910	508168	488539	477955	445410	489996	6.50
Methoxychlor	115222	140745	143918	160766	154312	142992	12.22
alpha-Chlordane	483495	505881	488902	481955	468747	485796	2.77
gamma-Chlordane	520126	531329	518962	502763	490501	512736	3.13
Chlordane 500 ppb			17527				
Chlordane {2}			23799				
Chlordane {3}			62101				
Chlordane {4}			101789				
Chlordane {5}			20448				
Toxaphene 500 ppb			6040				
Toxaphene {2}			9531				
Toxaphene {3}			18324				
Toxaphene {4}			15164				
Toxaphene {5}			14572				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/16/2009 **Instrument ID:** GC-P
GC Column (2nd): RTX-CLP2

Data File: P5807.C P5806.C P5805.C P5804.C P5803.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	3.63	3.63	3.63	3.63	3.63	3.63	3.57	3.69
beta-BHC	4.06	4.06	4.06	4.06	4.06	4.06	4.00	4.12
gamma-BHC (Lindane	3.98	3.98	3.98	3.99	3.99	3.98	3.92	4.04
delta-BHC	4.35	4.35	4.35	4.35	4.35	4.35	4.29	4.41
Heptachlor	4.42	4.43	4.43	4.43	4.43	4.43	4.35	4.51
Aldrin	4.75	4.75	4.75	4.75	4.75	4.75	4.67	4.83
Heptachlor epoxide	5.32	5.32	5.32	5.32	5.32	5.32	5.24	5.40
Endosulfan I	5.73	5.73	5.73	5.73	5.73	5.73	5.65	5.81
4,4'-DDE	5.83	5.83	5.83	5.83	5.83	5.83	5.73	5.93
Dieldrin	6.01	6.01	6.01	6.01	6.01	6.01	5.91	6.11
Endrin	6.33	6.33	6.33	6.33	6.33	6.33	6.23	6.43
Endosulfan II	6.55	6.55	6.55	6.55	6.55	6.55	6.45	6.65
4,4'-DDD	6.43	6.43	6.43	6.44	6.44	6.43	6.33	6.53
Endrin aldehyde	6.91	6.91	6.91	6.91	6.91	6.91	6.79	7.03
Endosulfan sulfate	7.21	7.21	7.21	7.21	7.21	7.21	7.09	7.33
4,4'-DDT	6.77	6.77	6.77	6.77	6.77	6.77	6.65	6.89
Endrin ketone	7.80	7.80	7.80	7.80	7.81	7.80	7.68	7.92
Methoxychlor	7.51	7.51	7.51	7.51	7.51	7.51	7.39	7.63
alpha-Chlordane	5.66	5.67	5.67	5.67	5.67	5.67	5.59	5.75
gamma-Chlordane	5.51	5.52	5.52	5.52	5.52	5.52	5.44	5.60
Chlordane 500 ppb			4.28				4.20	4.36
Chlordane {2}			4.89				4.81	4.97
Chlordane {3}			5.52				5.44	5.60
Chlordane {4}			5.61				5.53	5.69
Chlordane {5}			5.67				5.59	5.75
Toxaphene 500 ppb			6.00				5.92	6.08
Toxaphene {2}			6.65				6.57	6.73
Toxaphene {3}			6.93				6.85	7.01
Toxaphene {4}			7.49				7.41	7.57
Toxaphene {5}			7.93				7.85	8.01

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/16/2009 **Instrument ID:** GC-P
GC Column (2nd): RTX-CLP2

Data File: P5807.C P5806.C P5805.C P5804.C P5803.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	2609750	3042123	3000734	2931352	2886779	2894148	5.87
beta-BHC	1084582	1027151	980657	953260	927032	994536	6.28
gamma-BHC (Lindane	2355996	2598301	2543723	2483057	2420855	2480386	3.87
delta-BHC	2154930	2463756	2376206	2325837	2271981	2318542	4.98
Heptachlor	1910354	2206902	2160711	2108583	2042105	2085731	5.54
Aldrin	2089140	2297951	2220027	2082173	2014376	2140733	5.38
Heptachlor epoxide	2013747	2029756	1942551	1800485	1729245	1903157	6.98
Endosulfan I	1702068	1698474	1689166	1575810	1537337	1640571	4.76
4,4'-DDE	1624310	1791934	1749164	1677394	1624260	1693412	4.44
Dieldrin	1837591	1951091	1893123	1782907	1728036	1838550	4.78
Endrin	1368338	1458649	1390748	1360414	1324086	1380447	3.61
Endosulfan II	1599219	1566678	1492523	1395642	1353468	1481506	7.16
4,4'-DDD	1478803	1494119	1451737	1359979	1315332	1419994	5.51
Endrin aldehyde	948386	818237	784593	743015	732262	805299	10.80
Endosulfan sulfate	1401773	1329087	1275460	1143774	1187492	1267517	8.24
4,4'-DDT	1071714	1070685	1042183	1083851	1078896	1069466	1.51
Endrin ketone	1513045	1459348	1408485	1159258	1214633	1350954	11.51
Methoxychlor	438926	518856	468432	424663	478843	465944	7.89
alpha-Chlordane	1909933	1869109	1797671	1712796	1661682	1790238	5.80
gamma-Chlordane	1954216	1992127	1929269	1832522	1788599	1899347	4.50
Chlordane 500 ppb			74278				
Chlordane {2}			85034				
Chlordane {3}			221966				
Chlordane {4}			190488				
Chlordane {5}			185490				
Toxaphene 500 ppb			13691				
Toxaphene {2}			35254				
Toxaphene {3}			41554				
Toxaphene {4}			51609				
Toxaphene {5}			38034				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 11/18/2009 **Instrument ID:** GC-P

Data File: P5845.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.95	2.89	3.01	664854	659582	0.79
beta-BHC	3.31	3.25	3.37	231751	254455	9.80
gamma-BHC (Lindan	3.23	3.17	3.29	585743	559863	4.42
delta-BHC	3.46	3.40	3.52	576892	580634	0.65
Heptachlor	3.65	3.57	3.73	535142	533144	0.37
Aldrin	3.91	3.83	3.99	550019	547032	0.54
Heptachlor epoxide	4.45	4.37	4.53	505218	492027	2.61
Endosulfan I	4.81	4.73	4.89	525593	598443	13.86
4,4'-DDE	4.76	4.66	4.86	437325	394298	9.84
Dieldrin	5.03	4.93	5.13	519271	518547	0.14
Endrin	5.25	5.14	5.34	378967	323826	14.55
Endosulfan II	5.46	5.36	5.56	433464	437048	0.83
4,4'-DDD	5.32	5.22	5.42	418787	424876	1.45
Endrin aldehyde	5.87	5.75	5.99	265028	282269	6.51
Endosulfan sulfate	6.31	6.19	6.43	370398	370102	0.08
4,4'-DDT	5.59	5.47	5.71	319920	290296	9.26
Endrin ketone	6.59	6.47	6.71	489996	483656	1.29
Methoxychlor	6.08	5.95	6.19	142992	130027	9.07
alpha-Chlordane	4.68	4.60	4.76	485796	472536	2.73
gamma-Chlordane	4.56	4.48	4.64	512736	513579	0.16
					Average %D	4.45
Chlordane 500 ppb	3.58	3.50	3.66	17527	16624	5.15
Chlordane {2}	4.04	3.95	4.11	23799	21748	8.62
Chlordane {3}	4.57	4.48	4.64	62101	61884	0.35
Chlordane {4}	4.68	4.59	4.75	101789	102914	1.11
Chlordane {5}	5.40	5.31	5.47	20448	20799	1.72
Toxaphene 500 ppb	5.28	5.19	5.35	6040	5592	7.42
Toxaphene {2}	5.52	5.44	5.60	9531	8261	13.33
Toxaphene {3}	5.98	5.89	6.05	18324	17644	3.71
Toxaphene {4}	6.20	6.12	6.28	15164	13579	10.46
Toxaphene {5}	6.57	6.49	6.65	14572	14275	2.04
					Average %D	5.39

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 11/18/2009 **Instrument ID:** GC-P

Data File: P5845.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	3.64	3.57	3.69	2894148	2912663	0.64
beta-BHC	4.06	4.00	4.12	994536	1001038	0.65
gamma-BHC (Lindan	3.99	3.92	4.04	2480386	2466281	0.57
delta-BHC	4.36	4.29	4.41	2318542	2329935	0.49
Heptachlor	4.43	4.35	4.51	2085731	2073345	0.59
Aldrin	4.76	4.67	4.83	2140733	2123430	0.81
Heptachlor epoxide	5.33	5.24	5.40	1903157	1891420	0.62
Endosulfan I	5.73	5.65	5.81	1640571	1577191	3.86
4,4'-DDE	5.84	5.73	5.93	1693412	1678985	0.85
Dieldrin	6.02	5.91	6.11	1838550	1760360	4.25
Endrin	6.34	6.23	6.43	1380447	1136529	17.67
Endosulfan II	6.56	6.45	6.65	1481506	1358743	8.29
4,4'-DDD	6.44	6.33	6.53	1419994	1311352	7.65
Endrin aldehyde	6.92	6.79	7.03	805299	820739	1.92
Endosulfan sulfate	7.22	7.09	7.33	1267517	1198184	5.47
4,4'-DDT	6.78	6.65	6.89	1069466	961879	10.06
Endrin ketone	7.81	7.68	7.92	1350954	1306144	3.32
Methoxychlor	7.52	7.39	7.63	465944	403164	13.47
alpha-Chlordane	5.67	5.59	5.75	1790238	1717263	4.08
gamma-Chlordane	5.52	5.44	5.60	1899347	1866946	1.71
					Average %D	4.35
Chlordane 500 ppb	4.28	4.20	4.36	74278	79804	7.44
Chlordane {2}	4.90	4.81	4.97	85034	82632	2.82
Chlordane {3}	5.52	5.44	5.60	221966	227874	2.66
Chlordane {4}	5.62	5.53	5.69	190488	187590	1.52
Chlordane {5}	5.67	5.59	5.75	185490	194678	4.95
Toxaphene 500 ppb	6.01	5.92	6.08	13691	13376	2.30
Toxaphene {2}	6.66	6.57	6.73	35254	39895	13.16
Toxaphene {3}	6.94	6.85	7.01	41554	39197	5.67
Toxaphene {4}	7.50	7.41	7.57	51609	46305	10.28
Toxaphene {5}	7.93	7.85	8.01	38034	35601	6.40
					Average %D	5.72

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 11/18/2009 **Instrument ID:** GC-P

Data File: P5861.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.96	2.89	3.01	664854	696276	4.73
beta-BHC	3.31	3.25	3.37	231751	256807	10.81
gamma-BHC (Lindan	3.23	3.17	3.29	585743	581434	0.74
delta-BHC	3.47	3.40	3.52	576892	620907	7.63
Heptachlor	3.65	3.57	3.73	535142	535453	0.06
Aldrin	3.92	3.83	3.99	550019	575108	4.56
Heptachlor epoxide	4.45	4.37	4.53	505218	524448	3.81
Endosulfan I	4.81	4.73	4.89	525593	588200	11.91
4,4'-DDE	4.77	4.66	4.86	437325	395111	9.65
Dieldrin	5.03	4.93	5.13	519271	550607	6.03
Endrin	5.25	5.14	5.34	378967	345966	8.71
Endosulfan II	5.47	5.36	5.56	433464	464676	7.20
4,4'-DDD	5.33	5.22	5.42	418787	462720	10.49
Endrin aldehyde	5.88	5.75	5.99	265028	289566	9.26
Endosulfan sulfate	6.31	6.19	6.43	370398	394648	6.55
4,4'-DDT	5.60	5.47	5.71	319920	296721	7.25
Endrin ketone	6.59	6.47	6.71	489996	495850	1.19
Methoxychlor	6.08	5.95	6.19	142992	127852	10.59
alpha-Chlordane	4.69	4.60	4.76	485796	493490	1.58
gamma-Chlordane	4.57	4.48	4.64	512736	543460	5.99
					Average %D	6.44

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 11/18/2009 **Instrument ID:** GC-P

Data File: P5861.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	3.64	3.57	3.69	2894148	3296933	13.92
beta-BHC	4.06	4.00	4.12	994536	1173992	18.04
gamma-BHC (Lindan	3.99	3.92	4.04	2480386	2789768	12.47
delta-BHC	4.35	4.29	4.41	2318542	2706579	16.74
Heptachlor	4.43	4.35	4.51	2085731	2074876	0.52
Aldrin	4.76	4.67	4.83	2140733	2414007	12.77
Heptachlor epoxide	5.33	5.24	5.40	1903157	2157635	13.37
Endosulfan I	5.73	5.65	5.81	1640571	1871602	14.08
4,4'-DDE	5.83	5.73	5.93	1693412	1942521	14.71
Dieldrin	6.02	5.91	6.11	1838550	2103934	14.43
Endrin	6.34	6.23	6.43	1380447	1444525	4.64
Endosulfan II	6.56	6.45	6.65	1481506	1685112	13.74
4,4'-DDD	6.44	6.33	6.53	1419994	1582170	11.42
Endrin aldehyde	6.91	6.79	7.03	805299	913876	13.48
Endosulfan sulfate	7.21	7.09	7.33	1267517	1411766	11.38
4,4'-DDT	6.78	6.65	6.89	1069466	1141827	6.77
Endrin ketone	7.81	7.68	7.92	1350954	1472308	8.98
Methoxychlor	7.52	7.39	7.63	465944	407028	12.64
alpha-Chlordane	5.67	5.59	5.75	1790238	1963540	9.68
gamma-Chlordane	5.52	5.44	5.60	1899347	2171176	14.31
					Average %D	11.91

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 11/18/2009

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	1117-BLK05	SOIL	124		105		124		112	
TP5-1/3.17	11437-003	SOIL	84		89		86		100	
TP5-2/5.67	11437-004	SOIL	84		93		74		104	
TP2-1/2-2.	11437-005	SOIL	86		83		79		82	
TP2-2/3-3.	11437-006	SOIL	85		95		82		92	
TP1/4-4.5	11437-007	SOIL	88		97		85		97	
TP6/4.58-5	11437-008	SOIL	77		80		78		88	
SP-1-1111-	11518-001	SOIL	92		98		91		100	
TP7/4.25-4	11437-002	SOIL	69		75		53		80	
Pest	11437-006-MS05	SOIL	87		87		87		99	
Pest	11437-006-MSD05	SOIL	80		75		83		85	
Pest	PBS1117-MS05	SOIL	118		93		122		108	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	23-172	13-170

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PESTICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 11437-006-MSD05

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Linda	100.0	0.0	60.2	60	41 - 148
Heptachlor	100.0	0.0	76.1	76	37 - 164
Aldrin	100.0	0.0	76.5	77	37 - 151
Dieldrin	100.0	0.0	70.6	71	52 - 143
Endrin	100.0	0.0	88.1	88	54 - 166
4,4'-DDT	100.0	0.0	96.1	96	23 - 196

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Linda	0.0	59.3	59	2	18	41 - 148
Heptachlor	0.0	71.8	72	5	21	37 - 164
Aldrin	0.0	75.6	76	1	19	37 - 151
Dieldrin	0.0	69.9	70	1	15	52 - 143
Endrin	0.0	84.7	85	3	19	54 - 166
4,4'-DDT	0.0	90.4	90	6	29	23 - 196

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __6__ outside limits

Spike Recovery: __0___ out of __12__ outside limits

SOIL PESTICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS1117-MS05

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Linda	100.0	0.0	83.3	83	41 - 148
Heptachlor	100.0	0.0	104.2	104	37 - 164
Aldrin	100.0	0.0	105.5	106	37 - 151
Dieldrin	100.0	0.0	90.8	91	52 - 143
Endrin	100.0	0.0	102.7	103	54 - 166
4,4'-DDT	100.0	0.0	117.5	118	23 - 196

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __6__ outside limits

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-P **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.48 **DCB 1** 7.66 **TCMX 2** 3.03 **DCB 2** 9.23

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	1117-BLK05	11/18/2009	09:23	2.48		7.66		3.03		9.23	
TP5-1/3.17	11437-003	11/18/2009	09:50	2.48		7.67		3.03		9.23	
TP5-2/5.67	11437-004	11/18/2009	10:05	2.48		7.67		3.04		9.23	
TP2-1/2-2.	11437-005	11/18/2009	10:31	2.47		7.66		3.04		9.24	
TP2-2/3-3.	11437-006	11/18/2009	10:44	2.48		7.66		3.03		9.23	
TP1/4-4.5	11437-007	11/18/2009	10:58	2.48		7.66		3.03		9.23	
TP6/4.58-5	11437-008	11/18/2009	11:11	2.48		7.66		3.03		9.23	
SP-1-1111-	11518-001	11/18/2009	11:25	2.48		7.66		3.03		9.23	
TP7/4.25-4	11437-002	11/18/2009	11:38	2.48		7.67		3.03		9.23	
Pest	11437-006-MS05	11/18/2009	11:52	2.48		7.67		3.03		9.23	
Pest	11437-006-MSD05	11/18/2009	12:05	2.48		7.67		3.03		9.23	
Pest	PBS1117-MS05	11/18/2009	12:19	2.48		7.67		3.03		9.23	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 11/18/2009

Data file: P5844.D Wed Nov 18 08:29:43 2009

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	31529204	Endrin (1)	38087763	9.40	11.18
DDD	3270287	Endrin ketone	2505196		
DDE	0	Endrin aldehyde	2290545		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	112780519	Endrin (2)	124234545	6.60	10.77
DDD	7971365	Endrin ketone	7561059		
DDE	0	Endrin aldehyde	7430926		

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5857.D\ECD1B.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5857.D\ECD2A.CH
Acq On : 18 Nov 2009 11:38 am Operator: IB
Sample : TP7/4.25-4,11437-002,S,30.00g,18.2,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 11:49:28 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.48	3.03	51961823	181.4E6	69.003	53.370
Spiked Amount 100.000			Recovery	=	69.00%	53.37%
2) S DCB	7.67	9.23	18789117	59564033	75.176m	80.267
Spiked Amount 100.000			Recovery	=	75.18%	80.27%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

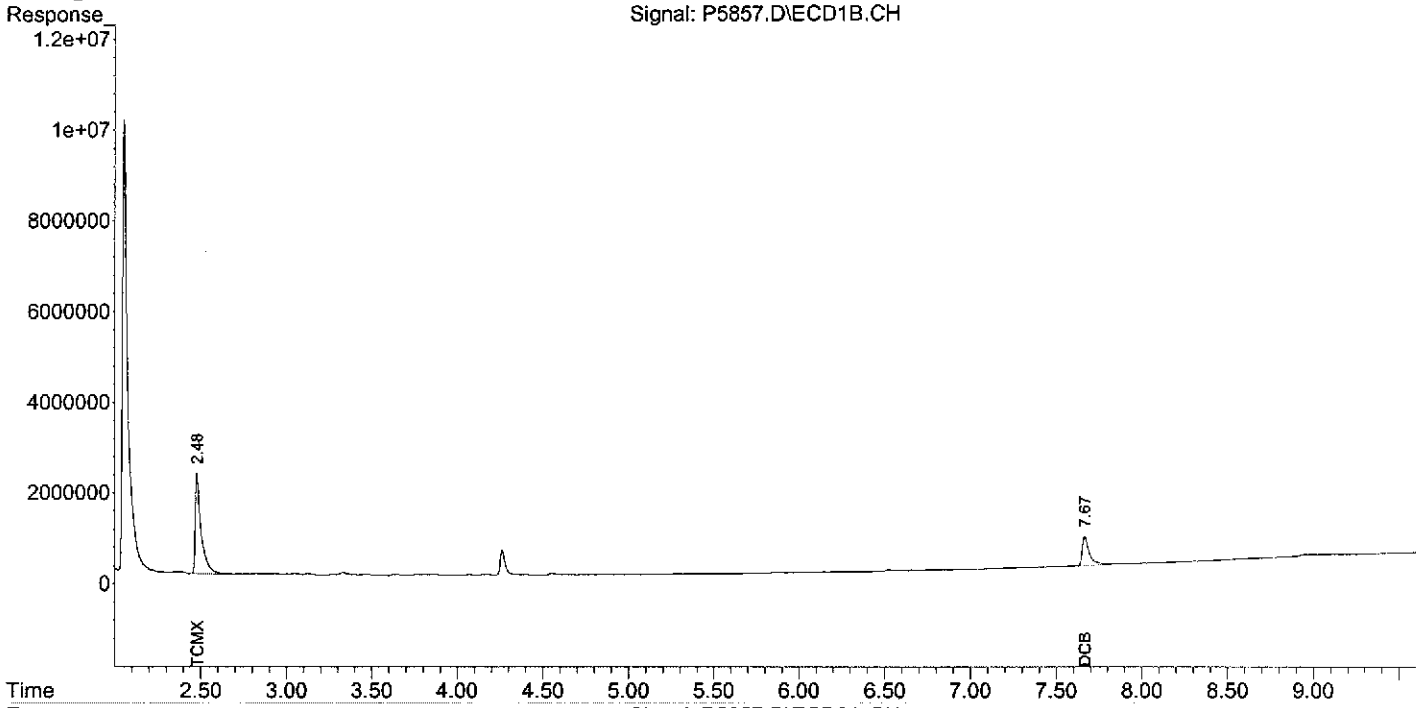
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

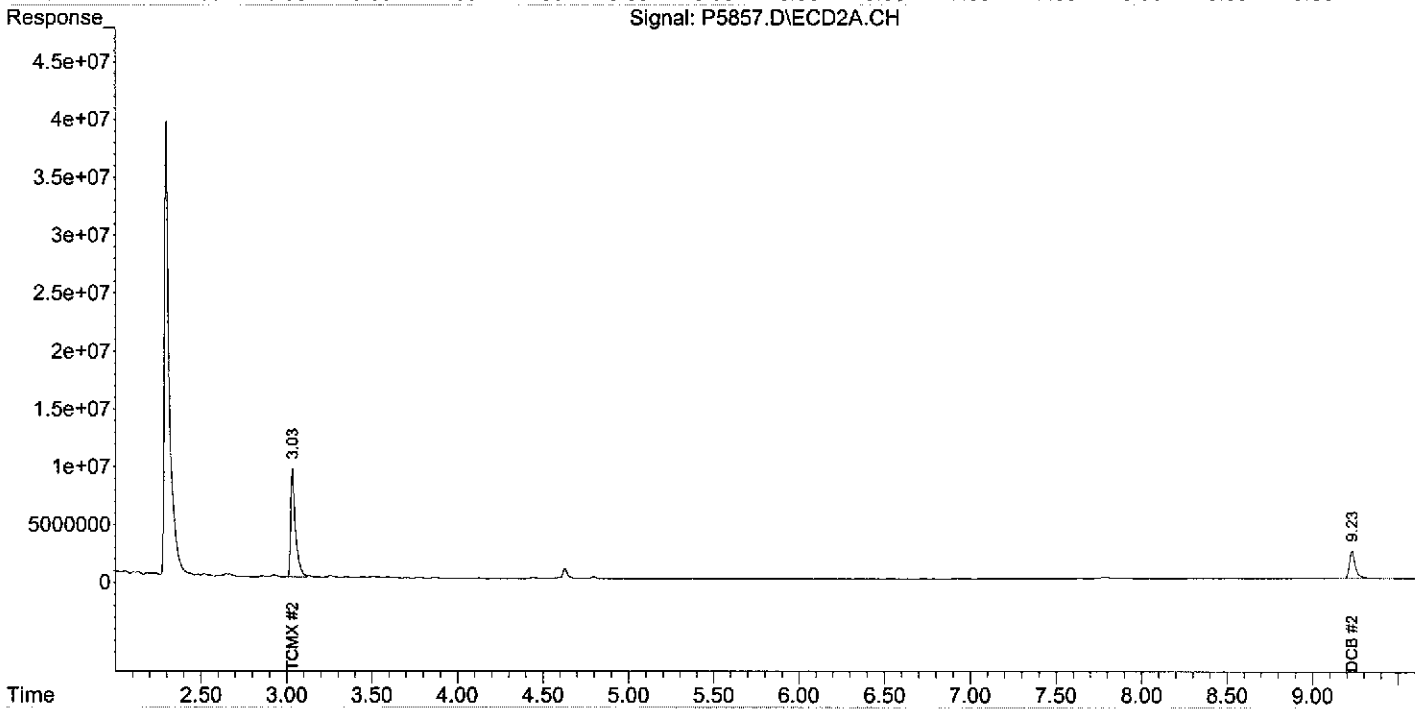
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5857.D\ECD1B.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5857.D\ECD2A.CH
Acq On : 18 Nov 2009 11:38 am Operator: IB
Sample : TP7/4.25-4,11437-002,S,30.00g,18.2,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 11:54 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5850.D\ECD1B.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5850.D\ECD2A.CH
Acq On : 18 Nov 2009 9:50 am Operator: IB
Sample : TP5-1/3.17,11437-003,S,30.00g,38.6,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:00:50 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.48	3.03	63176208	291.2E6	83.895	85.696
Spiked Amount 100.000			Recovery	=	83.89%	85.70%
2) S DCB	7.67	9.23	22177674	74466057	88.733	100.348
Spiked Amount 100.000			Recovery	=	88.73%	100.35%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

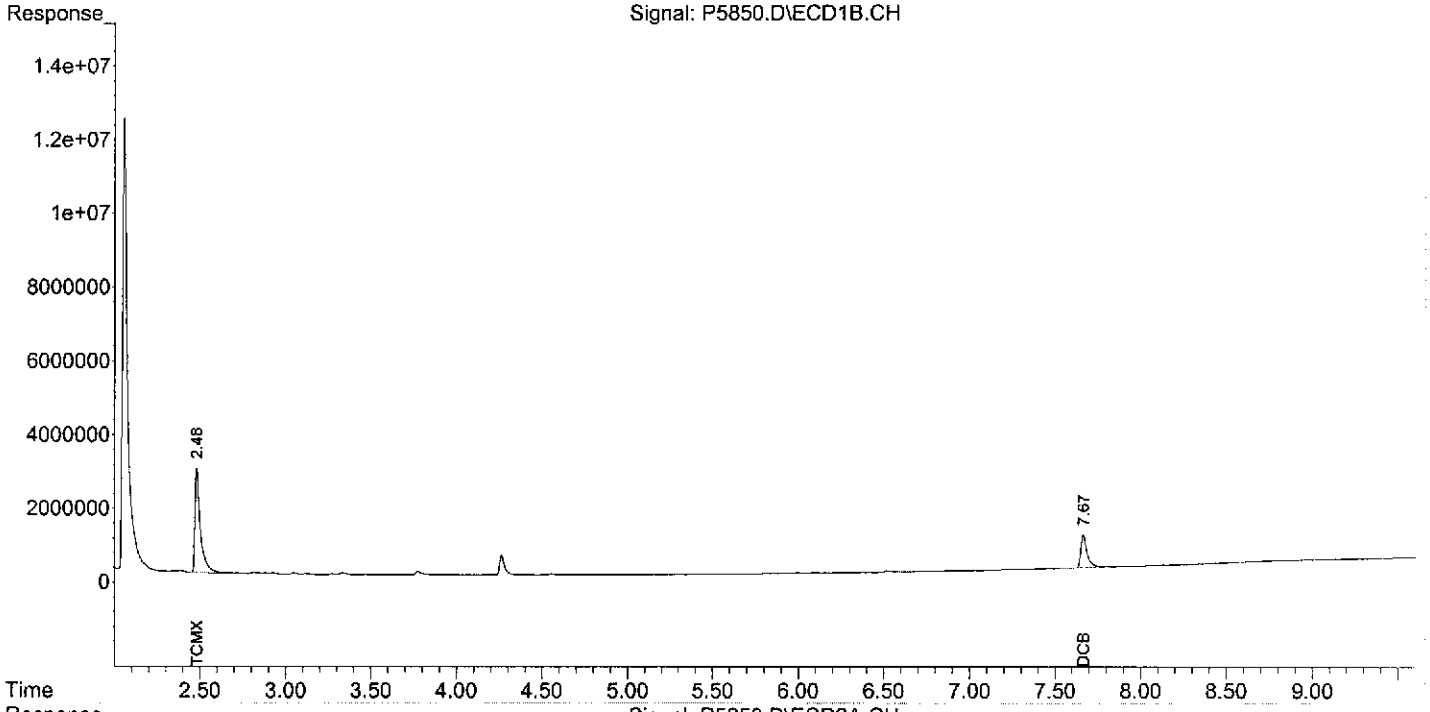
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

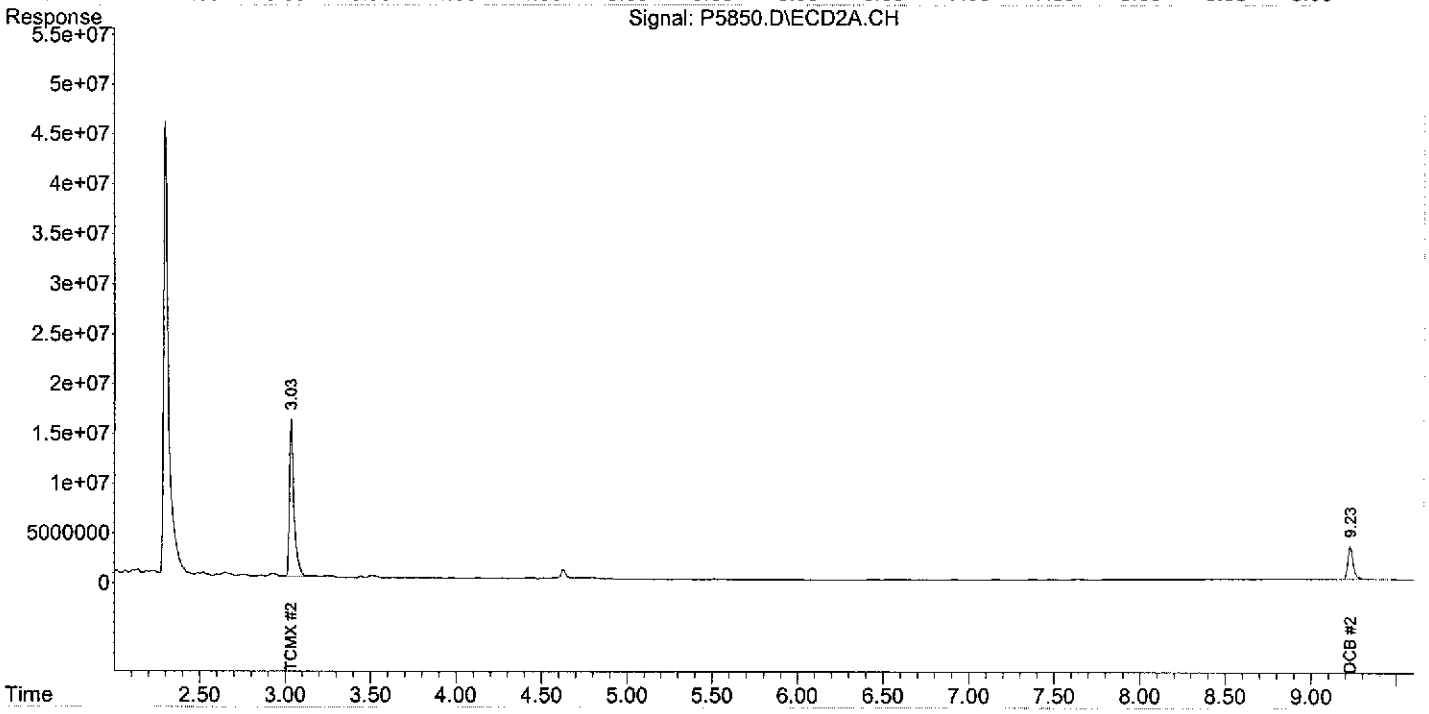
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5850.D\ECD1B.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5850.D\ECD2A.CH
Acq On : 18 Nov 2009 9:50 am Operator: IB
Sample : TP5-1/3.17,11437-003,S,30.00g,38.6,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:01 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5851.D\ECD1B.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5851.D\ECD2A.CH
Acq On : 18 Nov 2009 10:05 am Operator: IB
Sample : TP5-2/5.67,11437-004,S,30.00g,46.1,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:16:45 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.48	3.04	63243113	250.8E6	83.984	73.811
Spiked Amount 100.000			Recovery	=	83.98%	73.81%
2) S DCB	7.67	9.23	23347992	76867494	93.416	103.584
Spiked Amount 100.000			Recovery	=	93.42%	103.58%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

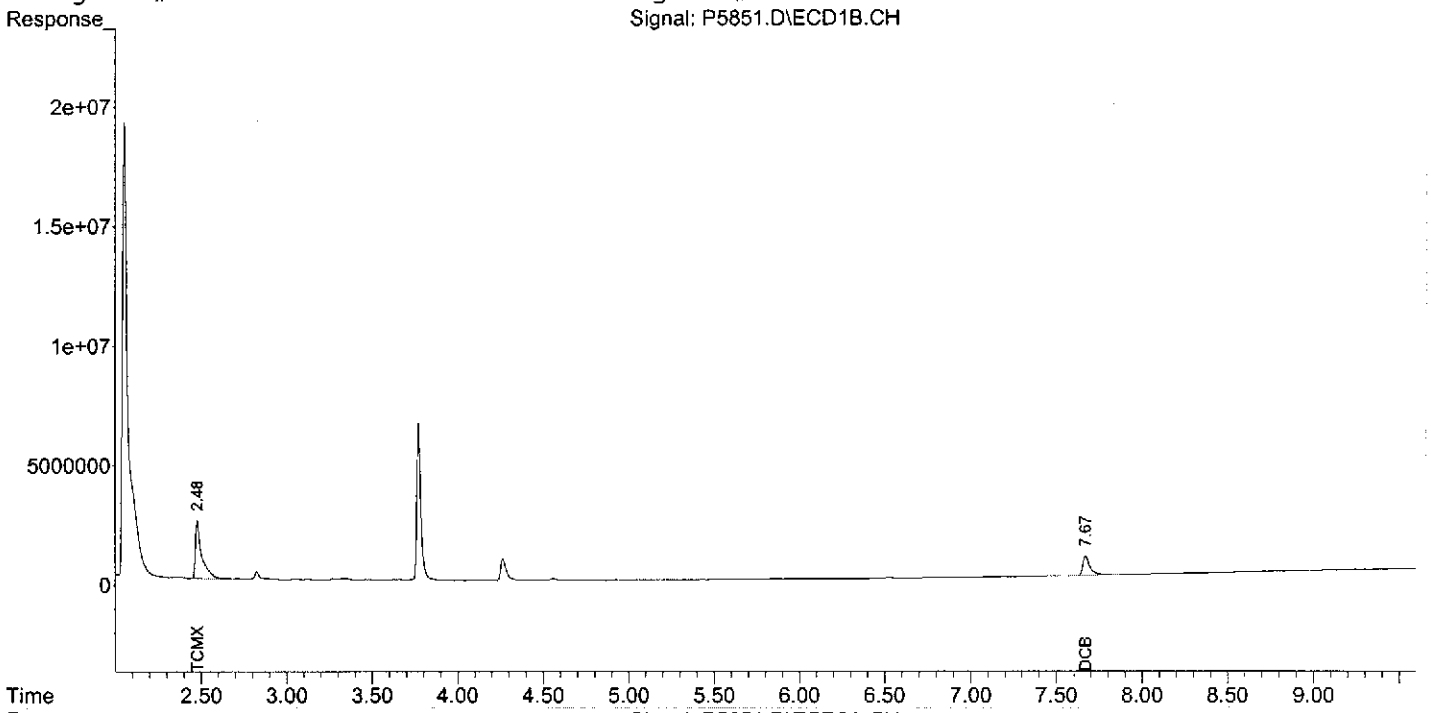
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

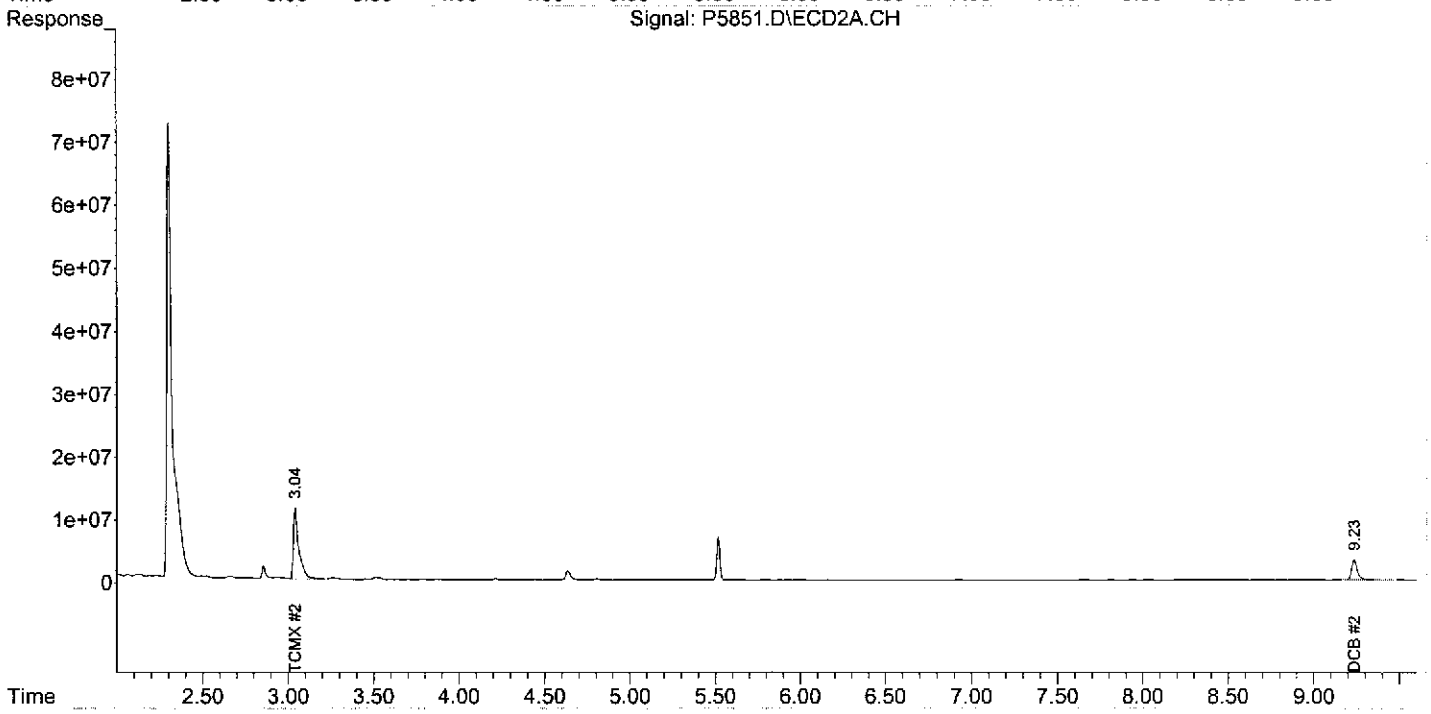
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5851.D\ECD1B.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5851.D\ECD2A.CH
Acq On : 18 Nov 2009 10:05 am Operator: IB
Sample : TP5-2/5.67,11437-004,S,30.00g,46.1,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:31 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5852.D\ECD1B.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5852.D\ECD2A.CH
Acq On : 18 Nov 2009 10:31 am Operator: IB
Sample : TP2-1/2-2.,11437-005,S,30.00g,16.5,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:42:10 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.47	3.04	64409720	268.6E6	85.533	79.030
Spiked Amount 100.000			Recovery	=	85.53%	79.03%
2) S DCB	7.66	9.24	20673443	61170100	82.715m	82.431
Spiked Amount 100.000			Recovery	=	82.72%	82.43%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

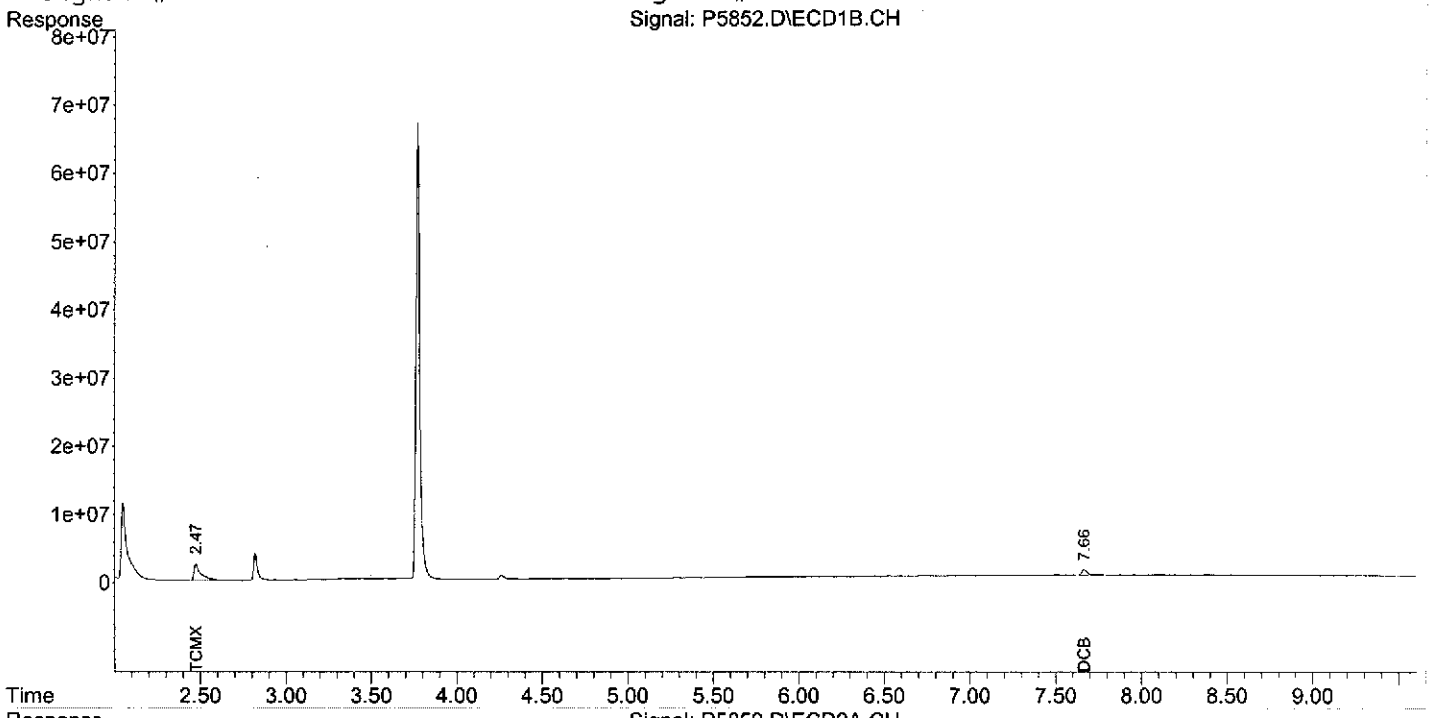
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

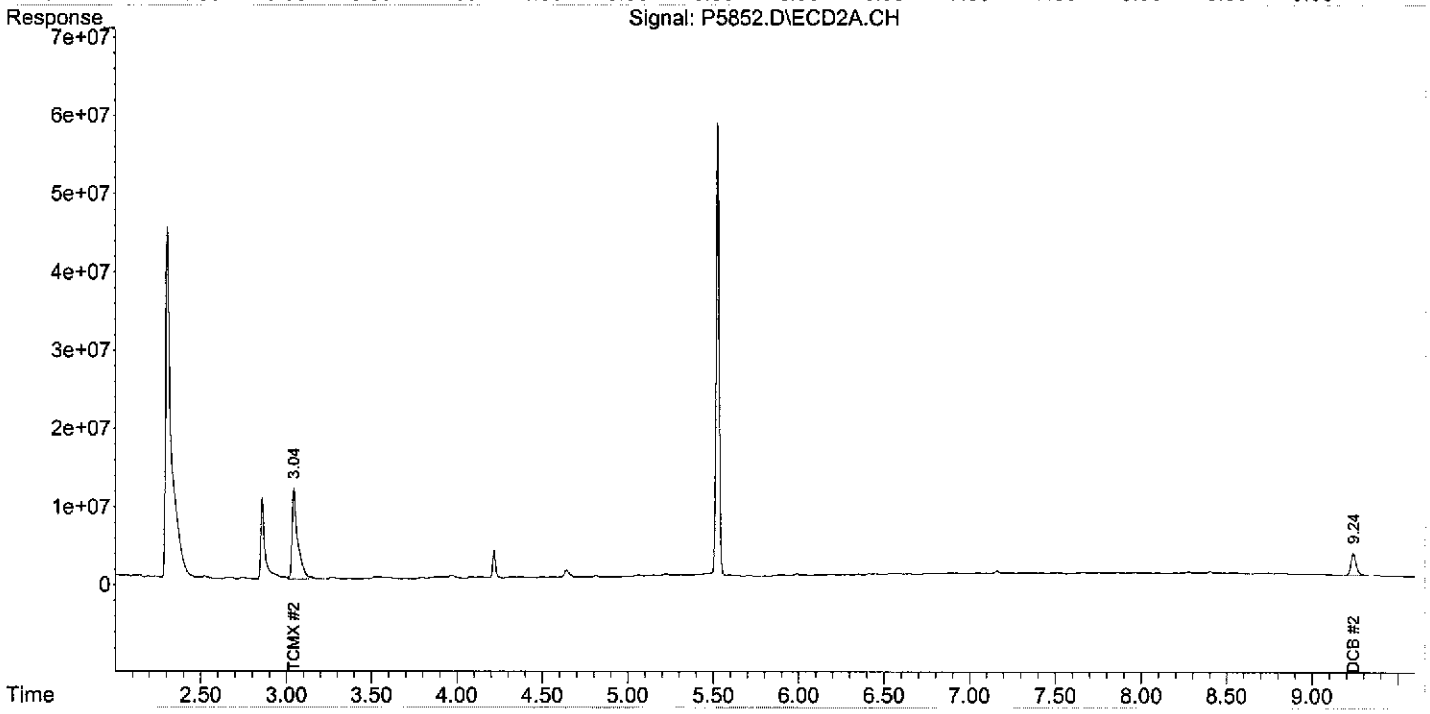
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5852.D\ECD1B.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5852.D\ECD2A.CH
Acq On : 18 Nov 2009 10:31 am Operator: IB
Sample : TP2-1/2-2.,11437-005,S,30.00g,16.5,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:44 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5853.D\ECD1B.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5853.D\ECD2A.CH
Acq On : 18 Nov 2009 10:44 am Operator: IB
Sample : TP2-2/3-3.,11437-006,S,30.00g,13.5,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:56:01 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.48	3.03	64311858	280.1E6	85.403	82.418
Spiked Amount 100.000			Recovery =		85.40%	82.42%
2) S DCB	7.66	9.23	23622685	68157946	94.515	91.848
Spiked Amount 100.000			Recovery =		94.52%	91.85%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

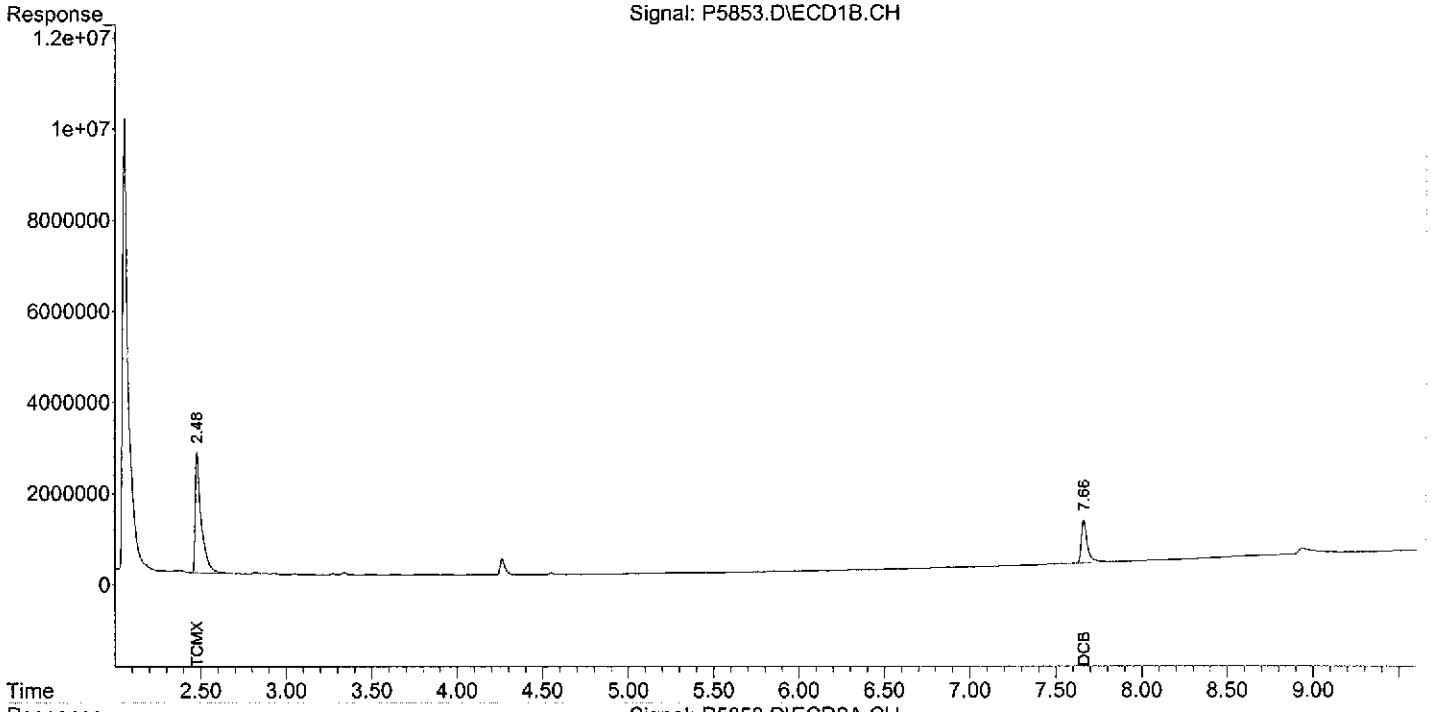
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

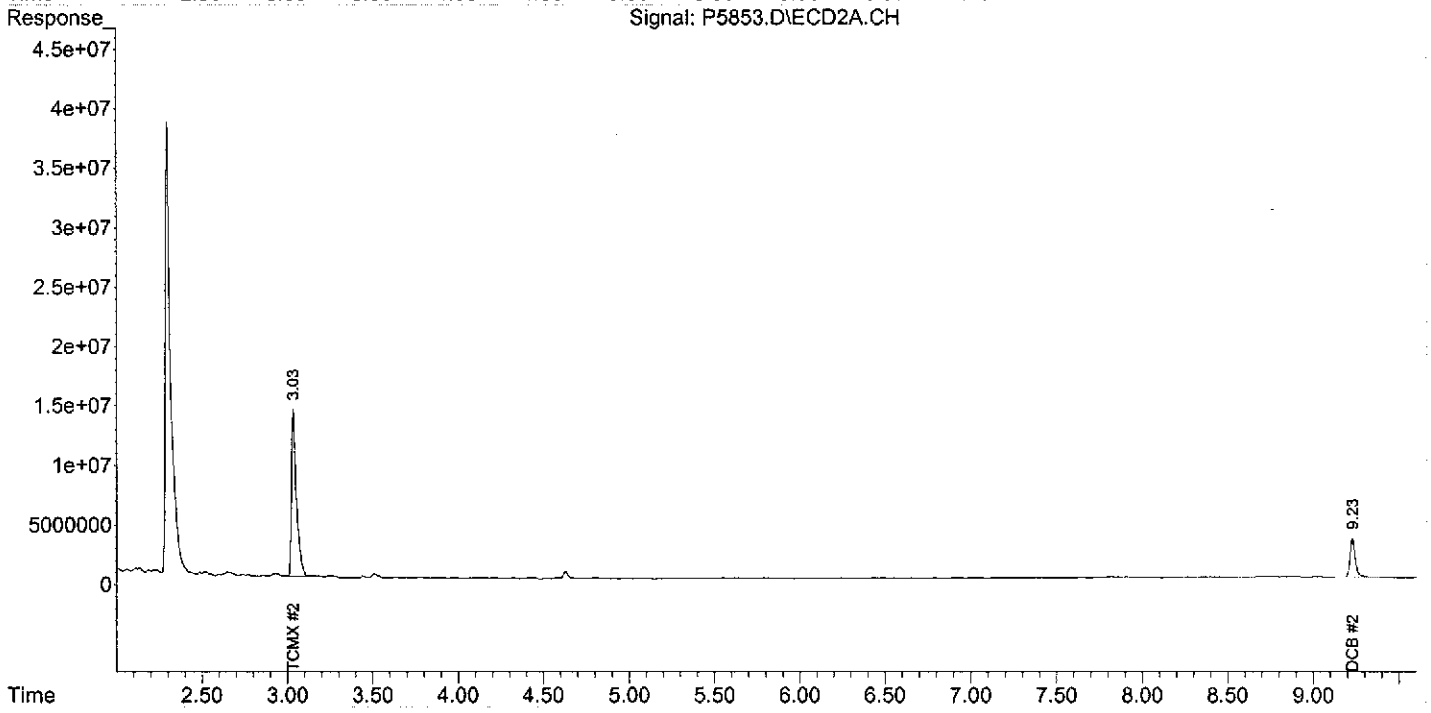
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5853.D\ECD1B.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5853.D\ECD2A.CH
Acq On : 18 Nov 2009 10:44 am Operator: IB
Sample : TP2-2/3-3.,11437-006,S,30.00g,13.5,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 10:56 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5854.D\ECD1B.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5854.D\ECD2A.CH
Acq On : 18 Nov 2009 10:58 am Operator: IB
Sample : TP1/4-4.5,11437-007,S,30.00g,25.4,11/17/ Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 11:09:05 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1)	S TCMX		2.48	3.03	66497866	288.7E6	88.306	84.949
	Spiked Amount	100.000			Recovery	=	88.31%	84.95%
2)	S DCB		7.66	9.23	24320948	71647970	97.308	96.551
	Spiked Amount	100.000			Recovery	=	97.31%	96.55%
	Target Compounds							
11)	T 4,4'-DDE		4.76	5.83	1267091	3716492	2.897m	2.195m
18)	T 4,4'-DDT		5.59	6.77	2567822	8086346	8.240m	7.624
	Sum Chlordane				0	0	N.D.	N.D.
	Average Chlordane						0.000	0.000
	Sum Toxaphene				0	0	N.D.	N.D.
	Average Toxaphene						0.000	0.000

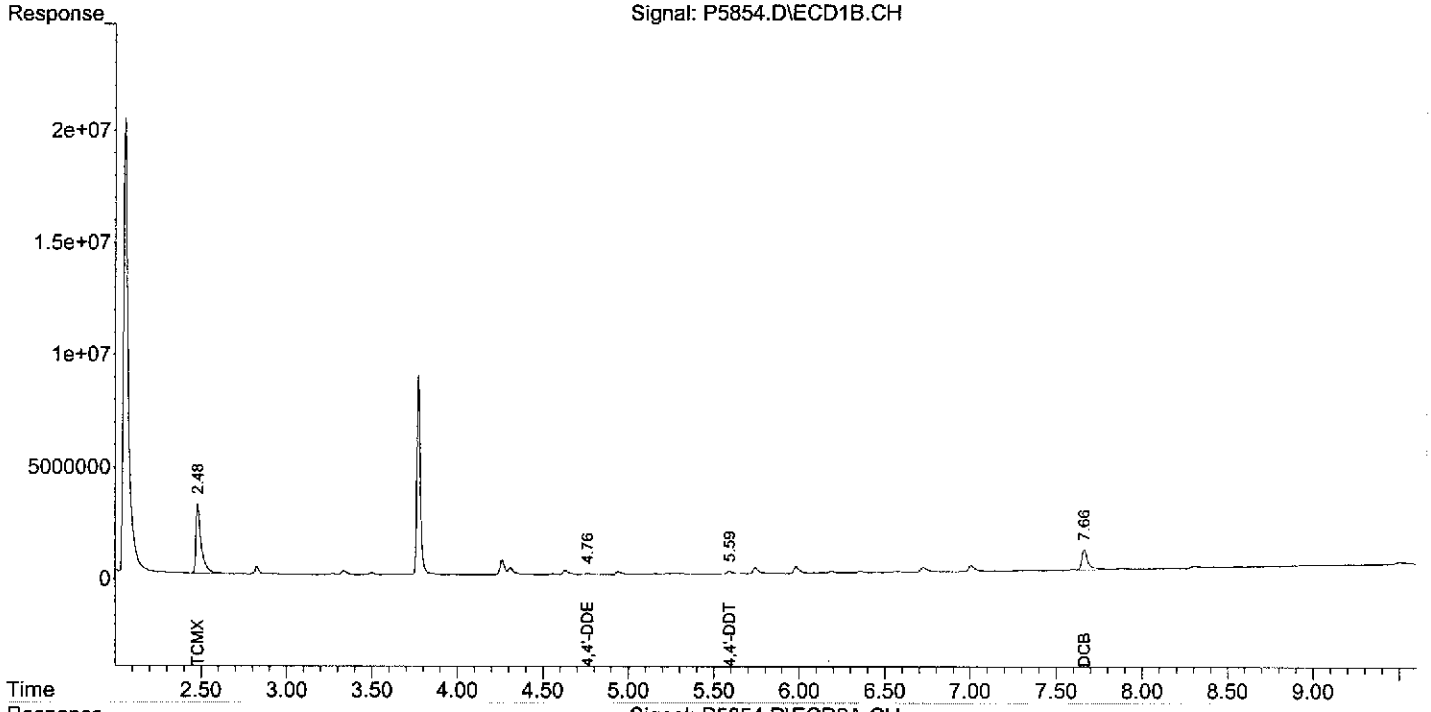
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

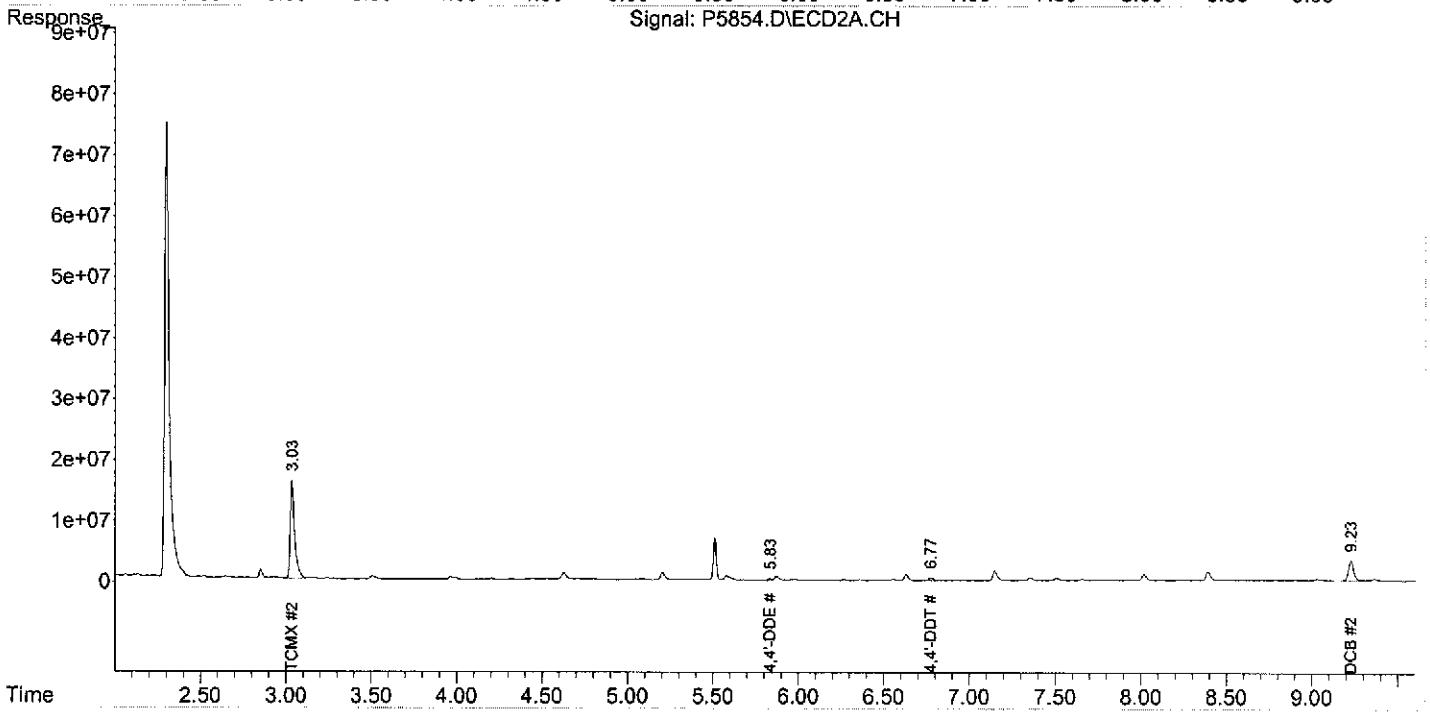
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5854.D\ECD1B.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5854.D\ECD2A.CH
Acq On : 18 Nov 2009 10:58 am Operator: IB
Sample : TP1/4-4.5,11437-007,S,30.00g,25.4,11/17/ Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 11:12 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5855.D\ECD1B.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5855.D\ECD2A.CH
Acq On : 18 Nov 2009 11:11 am Operator: IB
Sample : TP6/4.58-5,11437-008,S,30.00g,20.2,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 11:22:26 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.48	3.03	58250664	264.5E6	77.354	77.827
Spiked Amount 100.000			Recovery	=	77.35%	77.83%
2) S DCB	7.66	9.23	19909789	65014226	79.659	87.611
Spiked Amount 100.000			Recovery	=	79.66%	87.61%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

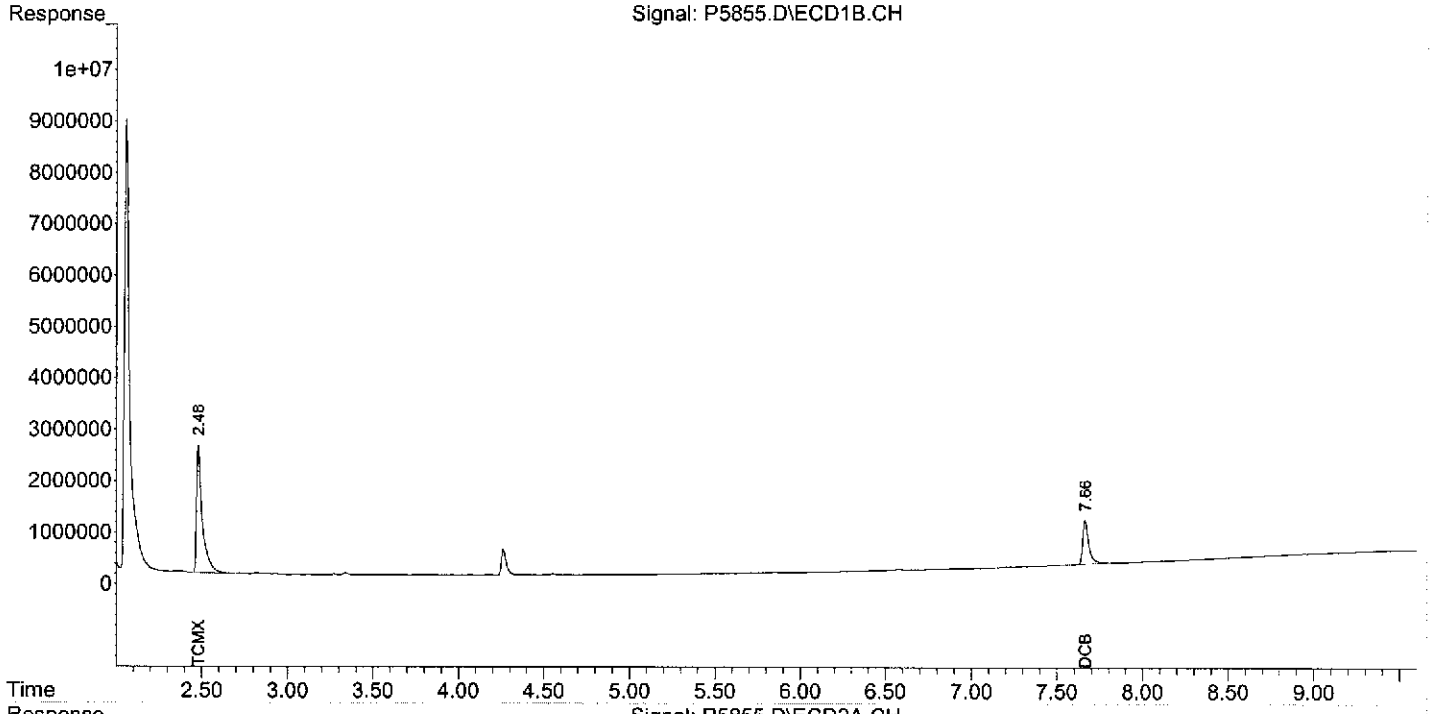
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

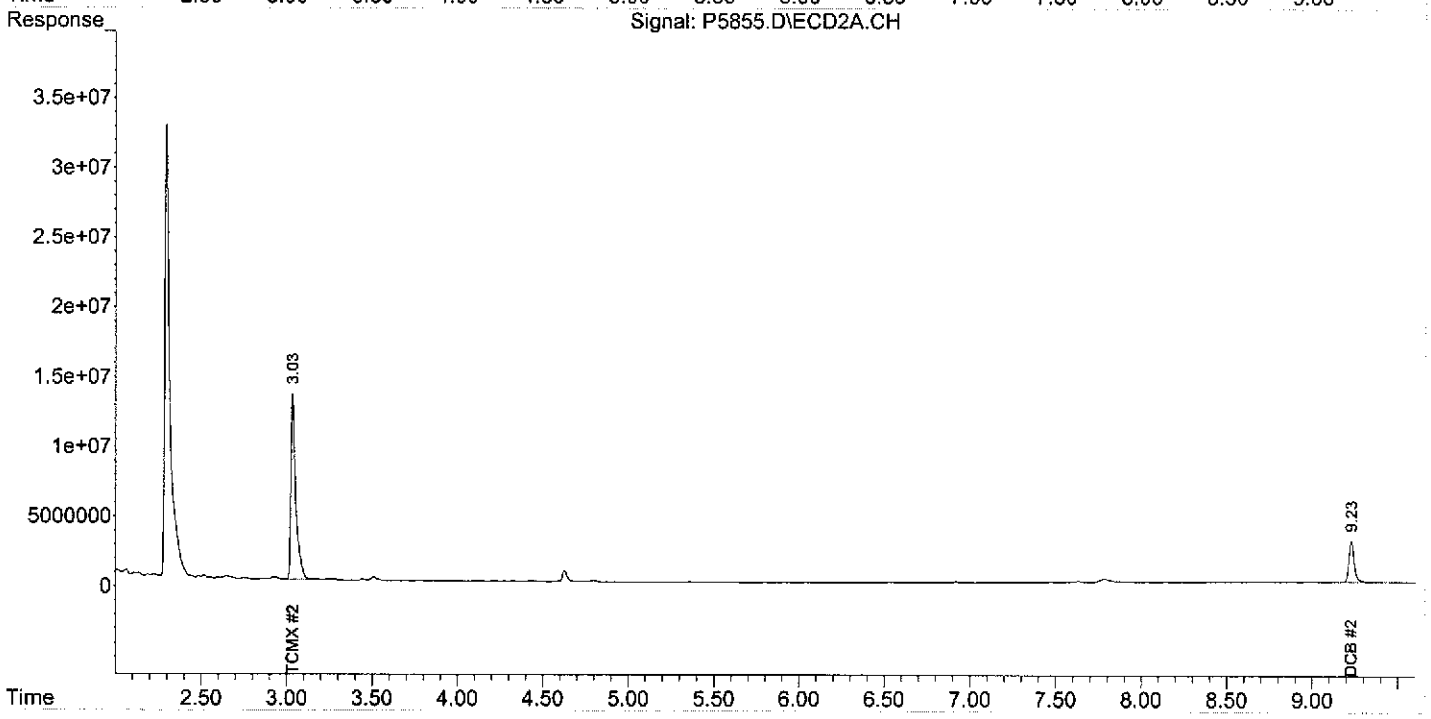
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5855.D\ECD1B.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5855.D\ECD2A.CH
Acq On : 18 Nov 2009 11:11 am Operator: IB
Sample : TP6/4.58-5,11437-008,S,30.00g,20.2,11/17 Inst : GC_P
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 11:30 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5848.D\ECD1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5848.D\ECD2A.CH
Acq On : 18 Nov 2009 9:23 am Operator: IB
Sample : Pest,1117-BLK05,S,30.00g,0,11/17/09,1 Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 09:33:55 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.48	3.03	93629274	420.0E6	124.335	123.584
Spiked Amount 100.000			Recovery	=	124.33%	123.58%
2) S DCB	7.66	9.23	26152276	82777545	104.636	111.549
Spiked Amount 100.000			Recovery	=	104.64%	111.55%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

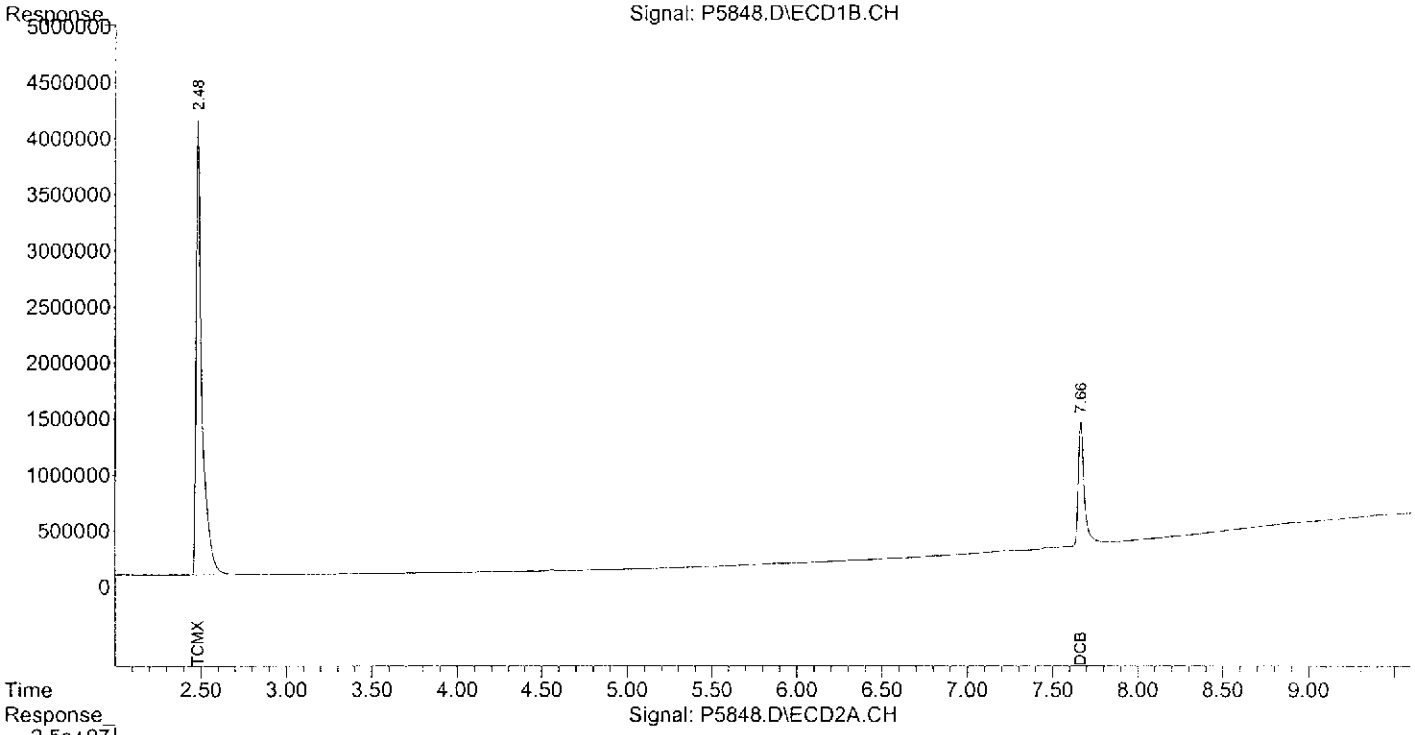
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
P5848.D PPST1116.M Wed Nov 18 13:38:50 2009 GC_P

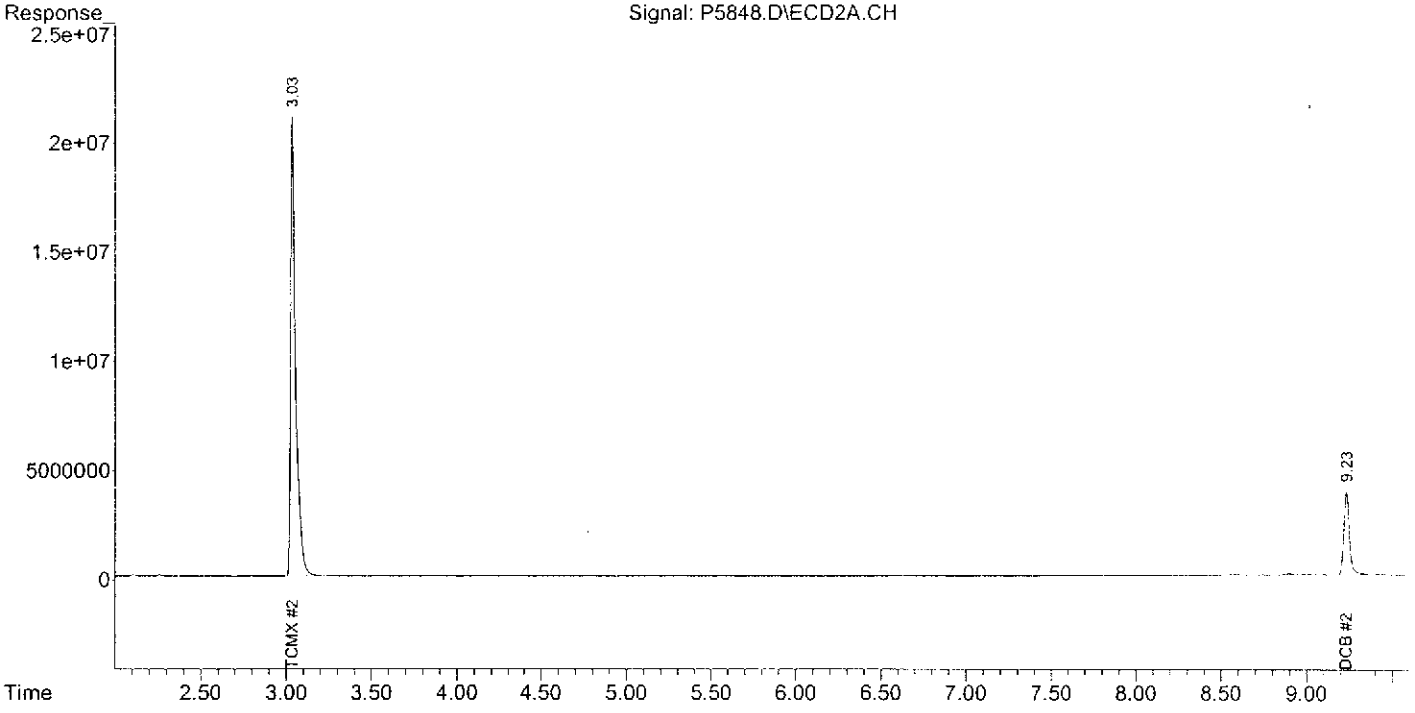
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5848.D\ECD1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5848.D\ECD2A.CH
Acq On : 18 Nov 2009 9:23 am Operator: IB
Sample : Pest,1117-BLK05,S,30.00g,0,11/17/09,1 Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 9:46 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5845.D\ECD1B.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5845.D\ECD2A.CH
Acq On : 18 Nov 2009 8:32 am Operator: IB
Sample : PEST_C_IAS_3514,100_PPB Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 08:42:55 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 17 15:46:36 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	2.48	3.04	71987941	328.8E6	95.597	96.755
	Spiked Amount 100.000			Recovery	=	95.60%	96.75%
2) S	DCB	7.66	9.23	16380586	54710437	65.539	73.726
	Spiked Amount 100.000			Recovery	=	65.54%	73.73%
	Target Compounds						
3) T	alpha-BHC	2.95	3.64	65958226	291.3E6	99.207	100.640
4) T	beta-BHC	3.31	4.06	25445512	100.1E6	109.797	100.654
5) T	gamma-BHC (Linda	3.23	3.99	55986301	246.6E6	95.582	99.431
6) T	delta-BHC	3.46	4.36	58063367	233.0E6	101.680	100.491
7) T	Heptachlor	3.65	4.43	53314358	207.3E6	99.626	99.406
8) T	Aldrin	3.91	4.76	54703246	212.3E6	99.457	99.192
9) T	Heptachlor epoxi	4.45	5.33	49202685	189.1E6	100.788	99.383
10) T	Endosulfan I	4.81	5.73	59844324	157.7E6	113.861	96.137
11) T	4,4'-DDE	4.76	5.84	39429811	167.9E6	90.161	99.148
12) T	Dieldrin	5.03	6.02	51854713	176.0E6	102.705	95.747
13) T	Endrin	5.25	6.34	32382633	113.7E6	88.904	82.330m
14) T	Endosulfan II	5.46	6.56	43704827	135.9E6	100.827	91.714
15) T	4,4'-DDD	5.32	6.44	42487633	131.1E6	101.454	92.349
16) T	Endrin aldehyde	5.87	6.92	28226859	82073920	105.513	101.917
17) T	Endosulfan sulfa	6.31	7.22	37010231	119.8E6	99.920	94.530
18) T	4,4'-DDT	5.59	6.78	29029594	96187939	93.154	90.691
19) T	Endrin ketone	6.59	7.81	48365591	130.6E6	98.658	96.683
20) T	Methoxychlor	6.08	7.52	13002672	40316389	92.215	85.114m
21) T	alpha-Chlordane	4.68	5.67	47253586	171.7E6	97.270	95.924
22) T	gamma-Chlordane	4.56	5.52	51357916	186.7E6	100.164	98.294
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

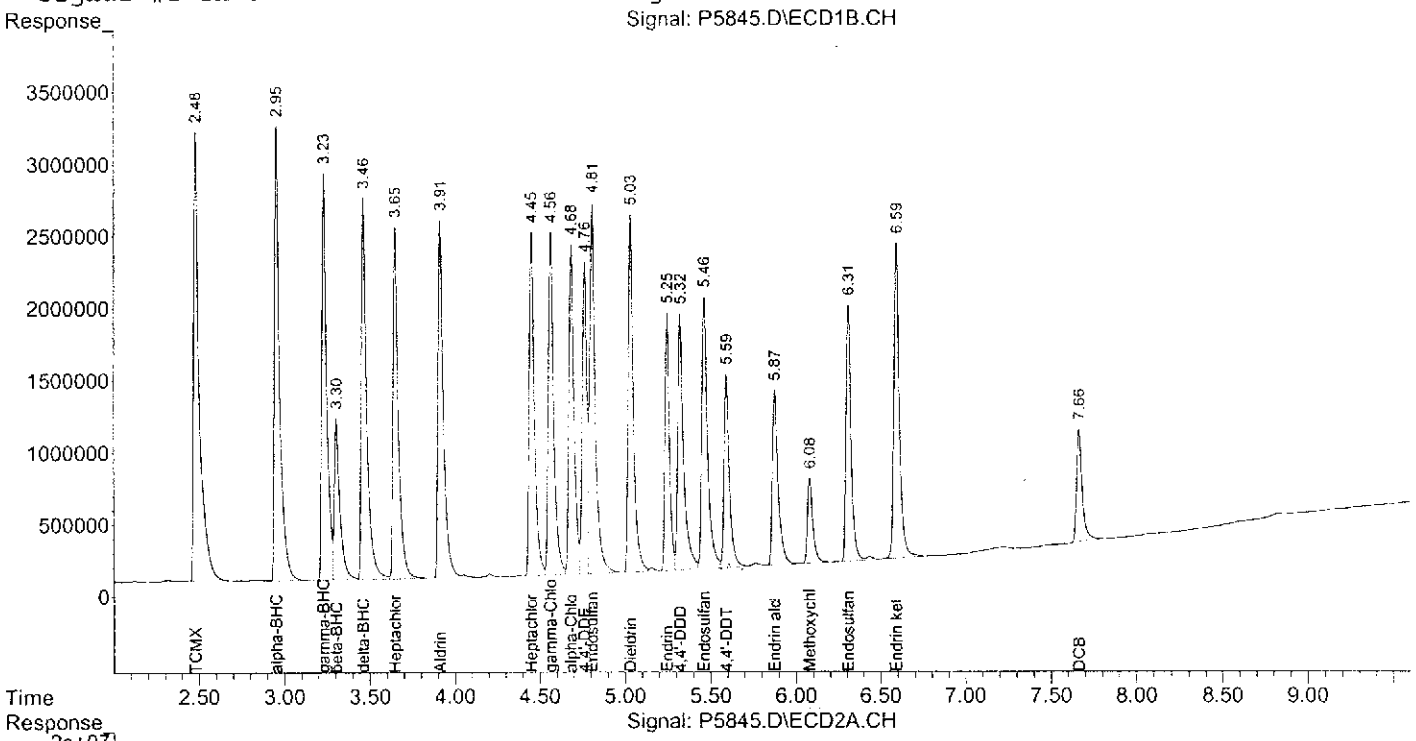
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

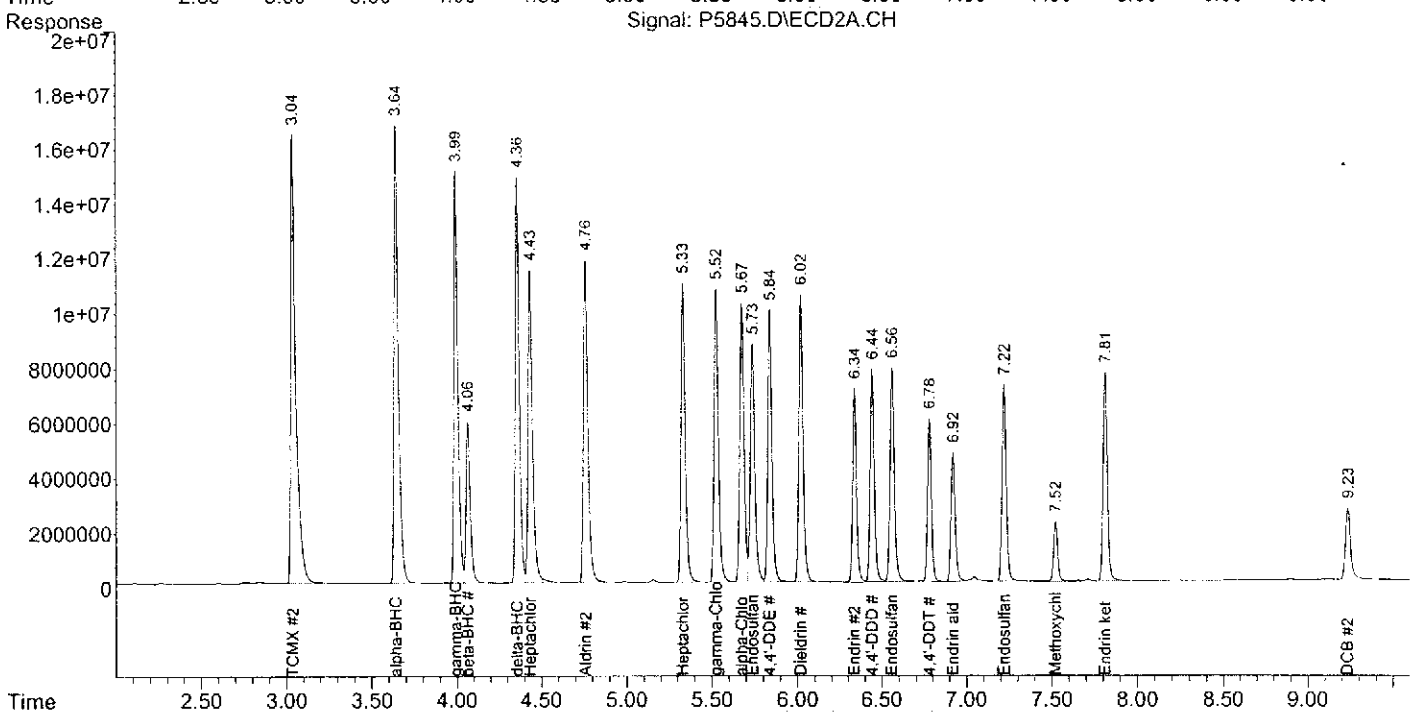
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5845.D\ECD1B.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5845.D\ECD2A.CH
Acq On : 18 Nov 2009 8:32 am Operator: IB
Sample : PEST_C_IAS_3514,100_PPB Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 8:54 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Tue Nov 17 15:46:36 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5846.D\ECD1B.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5846.D\ECD2A.CH
Acq On : 18 Nov 2009 8:56 am Operator: IB
Sample : TOX_C_IAS_3504,0.5_PPM Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 09:06:54 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.47	3.04	69991649	338.3E6	92.946	99.539
Spiked Amount 100.000			Recovery	=	92.95%	99.54%
2) S DCB	7.67	9.24	17314864	53044245	69.277	71.481
Spiked Amount 100.000			Recovery	=	69.28%	71.48%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
28) L2 Toxaphene	5.28	6.01	2795945	6687754	462.922	488.488
29) L2 Toxaphene {2}	5.52	6.66	4130611	19947436	433.366	565.815 #
30) L2 Toxaphene {3}	5.98	6.94	8821950	19598457	481.446	471.633
31) L2 Toxaphene {4}	6.20	7.50	6789317	23152471	447.716m	448.617m
32) L2 Toxaphene {5}	6.57	7.93	7137575	17800486	489.814m	468.017m
Sum Toxaphene			29675399	87186603	N.D.	N.D.
Average Toxaphene					463.053	488.514

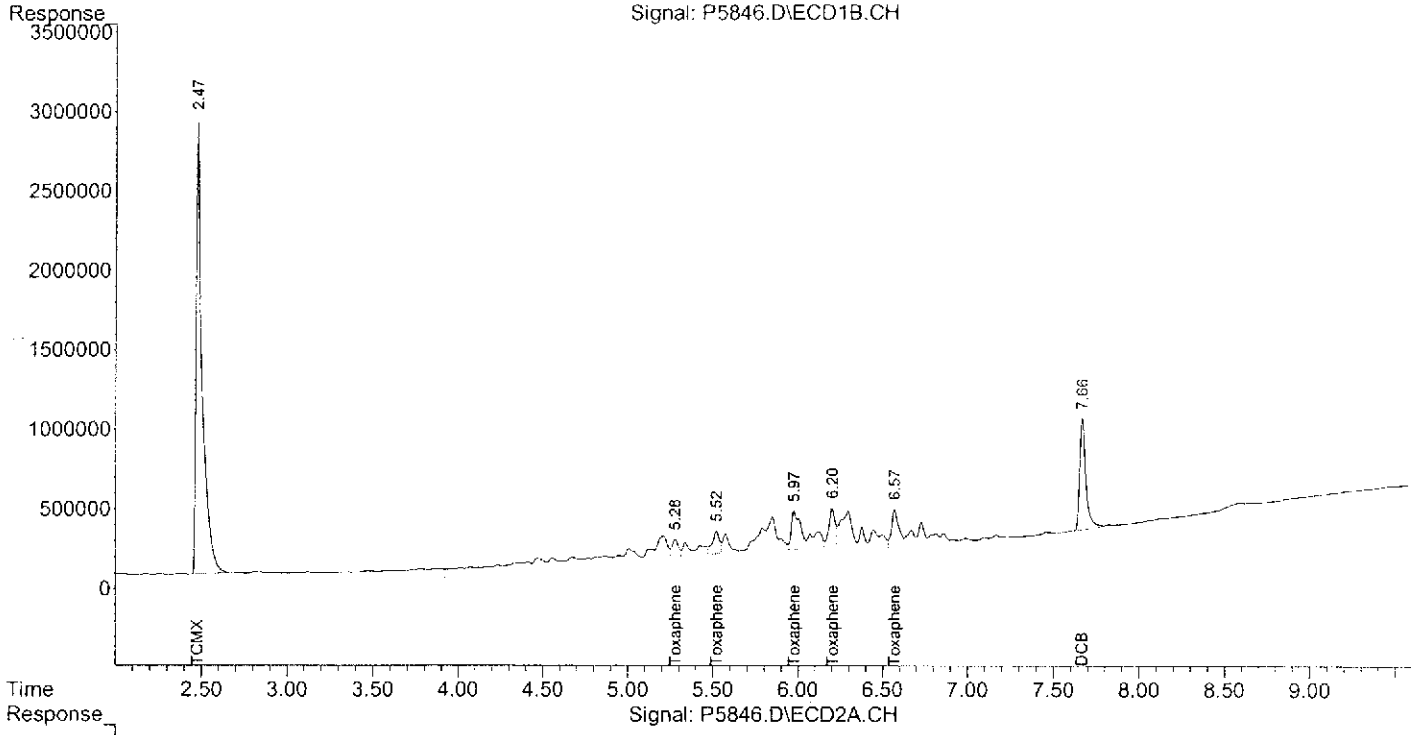
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

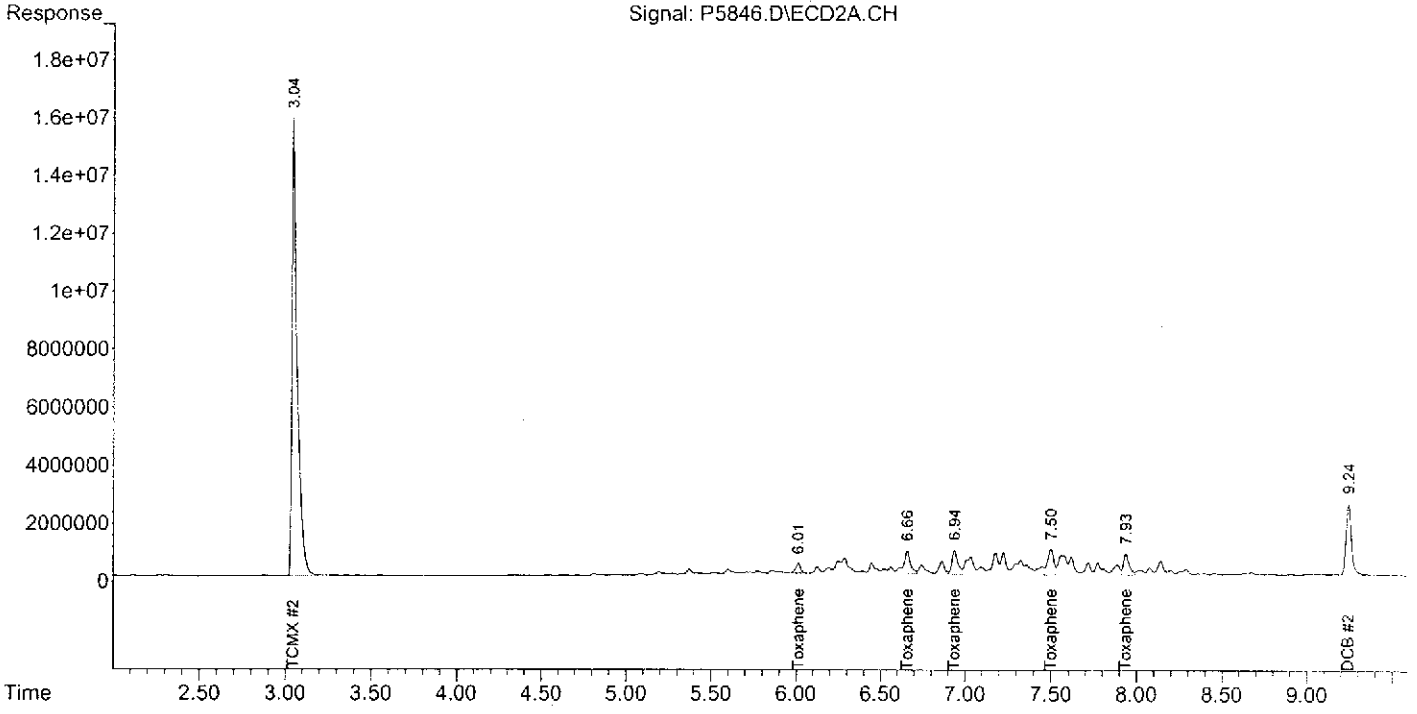
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5846.D\ECD1B.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5846.D\ECD2A.CH
Acq On : 18 Nov 2009 8:56 am Operator: IB
Sample : TOX_C_IAS_3504,0.5_PPM Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 9:07 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5847.D\ECD1B.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5847.D\ECD2A.CH
Acq On : 18 Nov 2009 9:09 am Operator: IB
Sample : CHLOR_C_IAS_3503,0.5_PPM Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 09:20:24 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1)	S TCMX	2.48	3.03	75091725	356.5E6	99.718	104.903
	Spiked Amount 100.000			Recovery	=	99.72%	104.90%
2)	S DCB	7.66	9.23	18791266	60510009	75.184	81.542
	Spiked Amount 100.000			Recovery	=	75.18%	81.54%
	Target Compounds						
23)	L1 Chlordane	3.58	4.28	8311752	39901911	474.235	537.194
24)	L1 Chlordane {2}	4.04	4.90	10874233	41316005	456.921	485.879
25)	L1 Chlordane {3}	4.57	5.52	30941798	113.9E6	498.254	513.308
26)	L1 Chlordane {4}	4.68	5.62	51457210	93794794	505.530	492.392
27)	L1 Chlordane {5}	5.40	5.67	10399664	97338931	508.593	524.767
	Sum Chlordane			112.0E6	386.3E6	2443.533	2553.540
	Average Chlordane					488.707	510.708
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

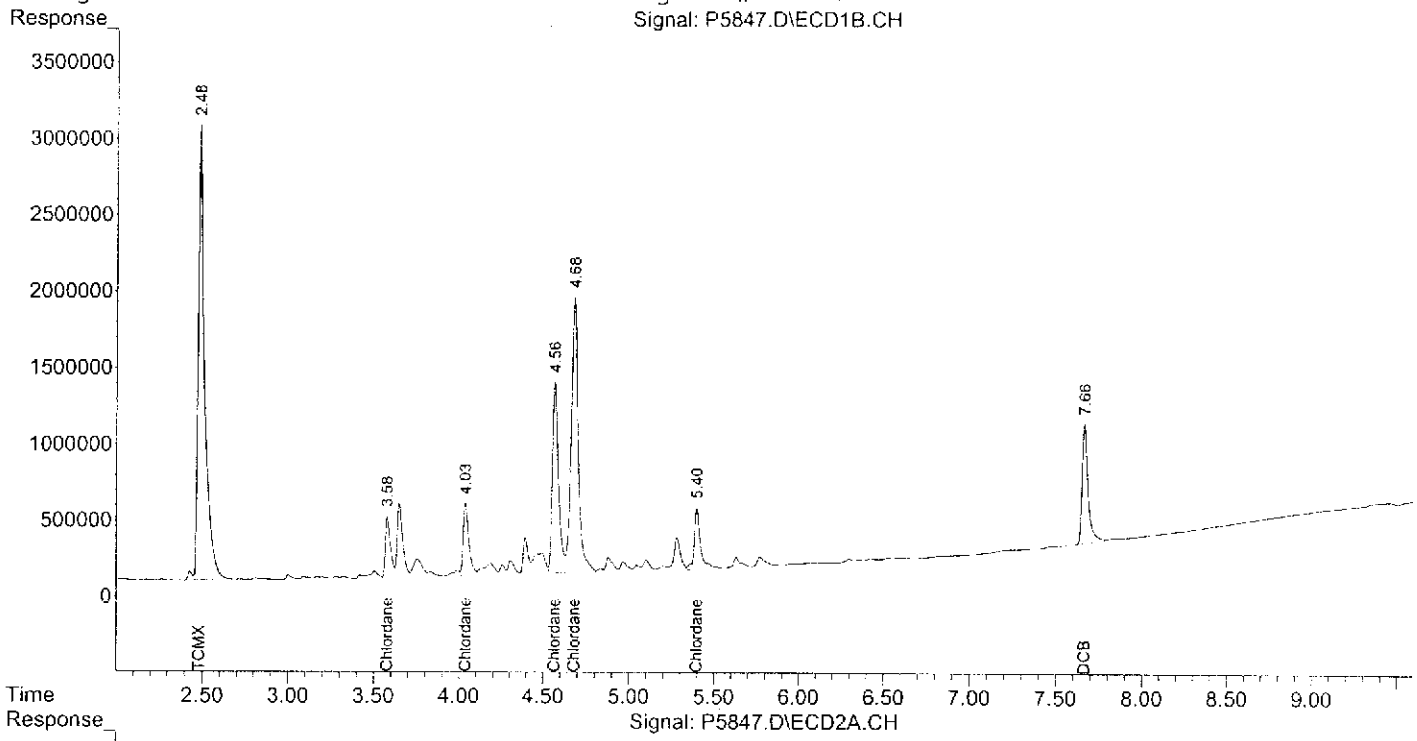
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

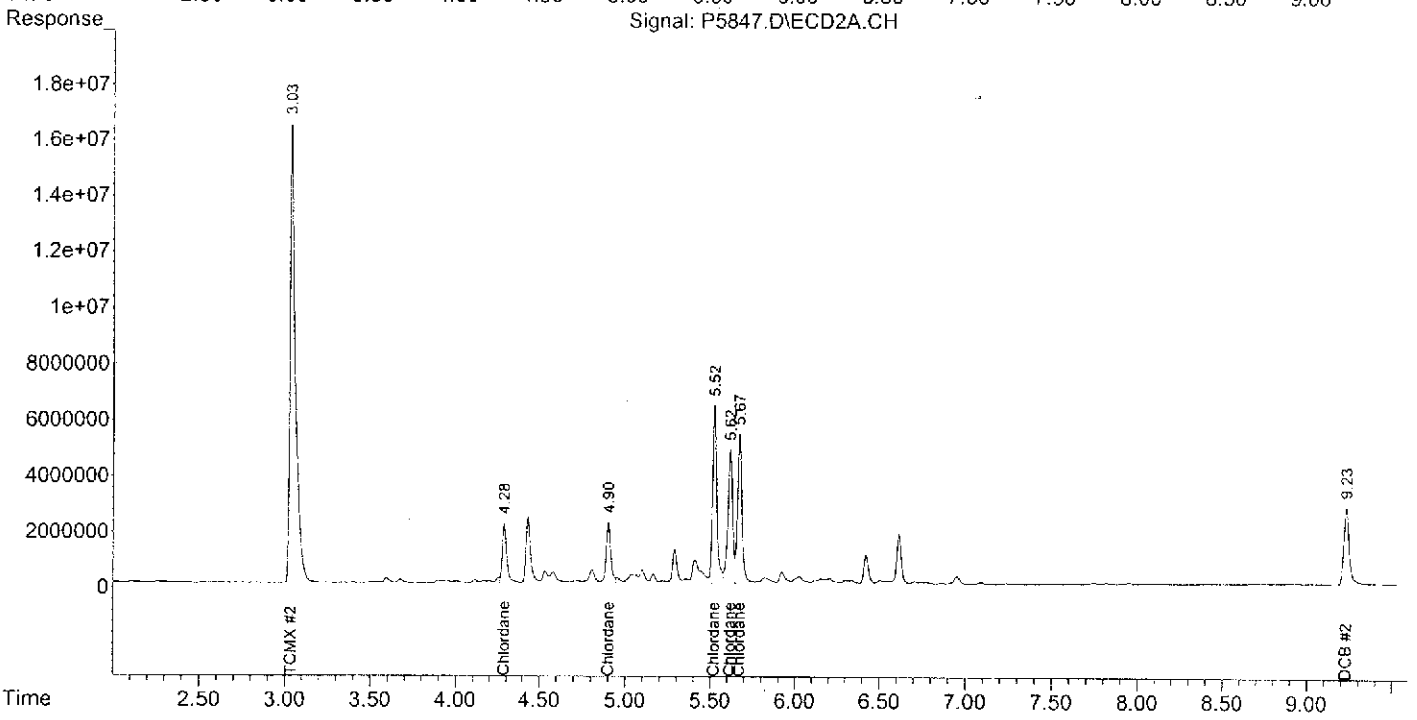
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5847.D\ECD1B.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5847.D\ECD2A.CH
Acq On : 18 Nov 2009 9:09 am Operator: IB
Sample : CHLOR_C_IAS_3503,0.5_PPM Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 13:42 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5861.D\ECD1B.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5861.D\ECD2A.CH
Acq On : 18 Nov 2009 12:32 pm Operator: IB
Sample : PEST_C_IAS_3514,100_PPB Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 12:43:20 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Initial Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	2.48	3.03	76568378	368.5E6	101.679	108.430
Spiked Amount	100.000			Recovery	=	101.68%	108.43%
2) S	DCB	7.67	9.23	16595844	54523402	66.400m	73.474
Spiked Amount	100.000			Recovery	=	66.40%	73.47%
	Target Compounds						
3) T	alpha-BHC	2.96	3.64	69627597	329.7E6	104.726	113.917
4) T	beta-BHC	3.31	4.06	25680723	117.4E6	110.812m	118.044
5) T	gamma-BHC (Linda	3.23	3.99	58143394	279.0E6	99.264	112.473
6) T	delta-BHC	3.47	4.35	62090728	270.7E6	108.733	116.736
7) T	Heptachlor	3.65	4.43	53545327	207.5E6	100.058	99.480
8) T	Aldrin	3.92	4.76	57510829	241.4E6	104.562	112.765
9) T	Heptachlor epoxi	4.45	5.33	52444833	215.8E6	107.429	113.371
10) T	Endosulfan I	4.81	5.73	58819960	187.2E6	111.912m	114.082m
11) T	4,4'-DDE	4.77	5.83	39511104	194.3E6	90.347	114.710m#
12) T	Dieldrin	5.03	6.02	55060686	210.4E6	109.054	114.434
13) T	Endrin	5.25	6.34	34596592	144.5E6	94.983	104.642
14) T	Endosulfan II	5.47	6.56	46467598	168.5E6	107.200	113.743
15) T	4,4'-DDD	5.33	6.44	46272049	158.2E6	110.491	111.421m
16) T	Endrin aldehyde	5.88	6.91	28956650	91387557	108.241	113.483m
17) T	Endosulfan sulfa	6.31	7.21	39464759	141.2E6	106.547	111.380
18) T	4,4'-DDT	5.60	6.78	29672128	114.2E6	95.216	107.658
19) T	Endrin ketone	6.59	7.81	49585000	147.2E6	101.146	108.983
20) T	Methoxychlor	6.08	7.52	12785226	40702776	90.673	85.930
21) T	alpha-Chlordane	4.69	5.67	49349014	196.4E6	101.584	109.680
22) T	gamma-Chlordane	4.57	5.52	54346018	217.1E6	105.992	114.312
Sum Chlordane				0	0	N.D.	N.D.
Average Chlordane						0.000	0.000
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

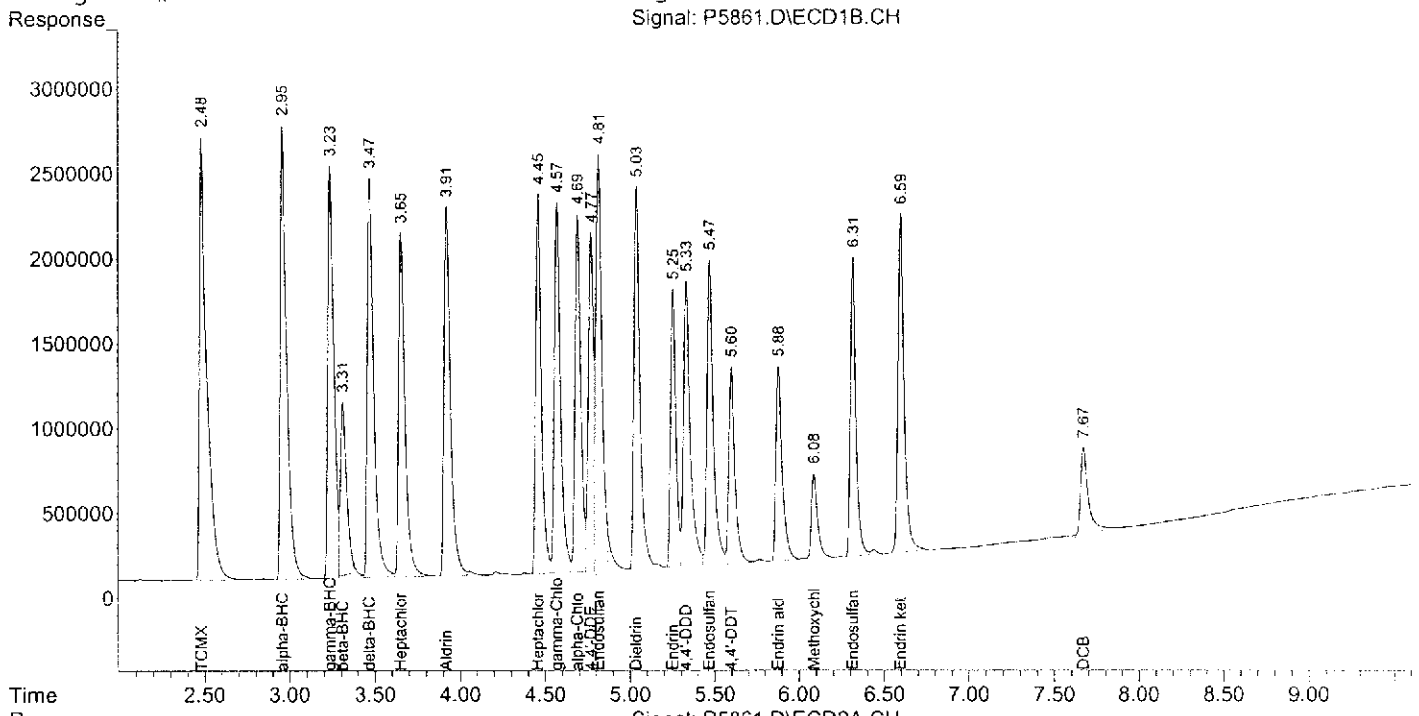
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

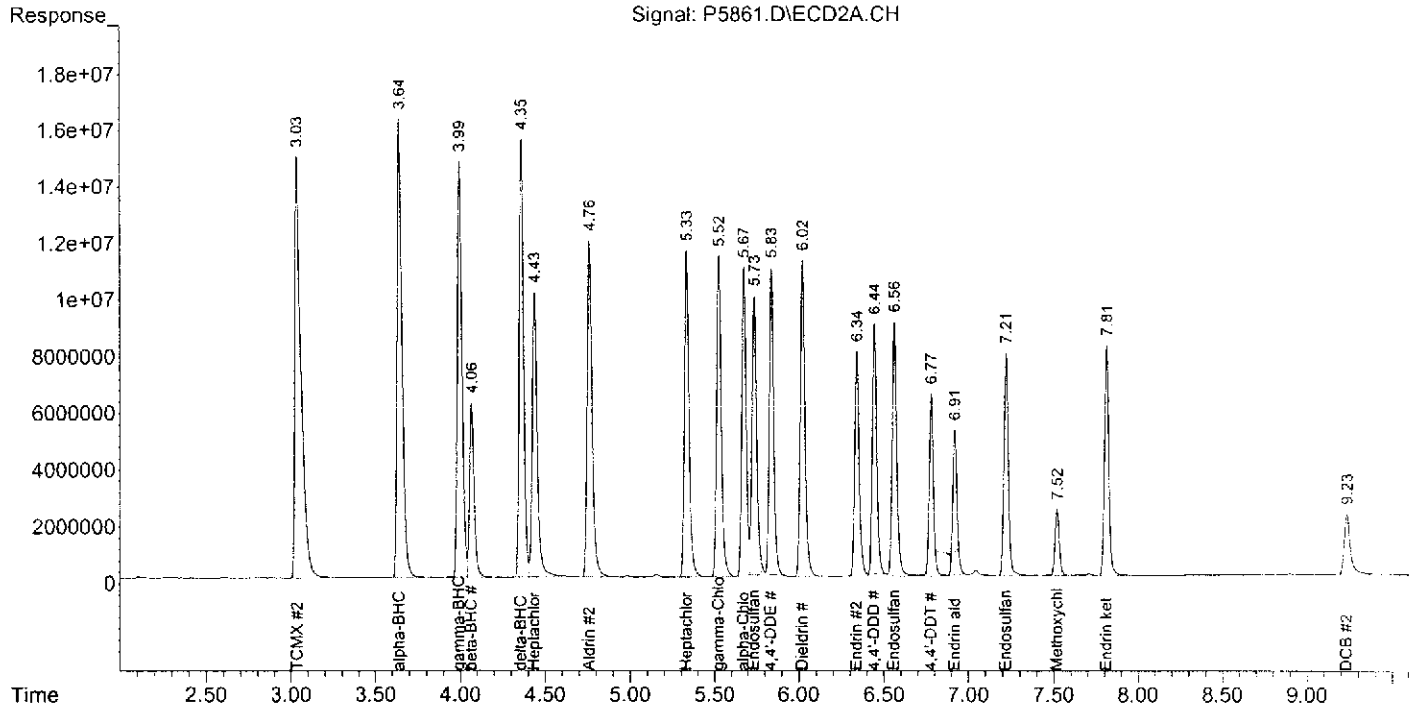
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\11-18-09\P5861.D\ECD1B.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\11-18-09\P5861.D\ECD2A.CH
Acq On : 18 Nov 2009 12:32 pm Operator: IB
Sample : PEST_C_IAS_3514,100_PPB Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 18 13:11 2009 Quant Results File: PPST1116.RES

Quant Method : C:\MSDCHEM\1\METHODS\PPST1116.M (Chemstation Integrator)
Title :
Last Update : Wed Nov 18 08:54:53 2009
Response via : Multiple Level Calibration
DataAcq Meth : PPST1116.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





NJ-QAM-25 METHOD BLANK SUMMARY

Lab File ID: Z7241.D

Instrument ID: GC-Z

Date Extracted: 11/12/2009

Matrix: SOIL

Date Analyzed: 11/12/2009

Time Analyzed: 14:23

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PK1/8	11464-001	11/12/2009	14:39
PK2/8	11464-002	11/12/2009	14:54
TP7/4.25	11437-002	11/12/2009	15:09
TP5-1/3.	11437-003	11/12/2009	15:24
TP5-2/5.	11437-004	11/12/2009	15:39
TP2-1/2-	11437-005	11/12/2009	15:54
TP2-2/3-	11437-006	11/12/2009	16:09
TP1/4-4.	11437-007	11/12/2009	16:25
TP6/4.58	11437-008	11/12/2009	16:40
QAM	11437-003-MS02	11/12/2009	16:55
QAM	11437-003-MSD02	11/12/2009	17:10
QAM	QBS1112-MS02	11/12/2009	17:25

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: NA

Lab ID: 1112-BLK02
Client ID: QAM
Date Received: NA
Date Extracted: 11/12/2009
Date Analyzed: 11/12/2009
Data file: Z7241.D

GC Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Total TPHC	ND		2.00

QAM-025 INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/29/2009

Instrument ID: GC-Z

GC Column : DB-5

Data File: Z7005.D Z7004.D Z7006.D Z7002.D Z7001.D

Compound	RT OF STANDARDS 2000	5000	20000	50000	100000	MEAN RT	RT WINDOW FROM	TO
n-Octane (C8)	0.77	0.78	0.78	0.78	0.78	0.78	0.71	0.85
n-Decane (C10)	1.71	1.71	1.71	1.71	1.71	1.71	1.64	1.78
n-Dodecane (C12)	2.34	2.34	2.34	2.34	2.34	2.34	2.27	2.41
n-Tetradecane (C14)	2.82	2.82	2.82	2.82	2.82	2.82	2.75	2.89
n-Hexadecane (C16)	3.23	3.23	3.23	3.23	3.23	3.23	3.16	3.30
n-Heptadecane (C17)	3.41	3.41	3.41	3.42	3.42	3.42	3.35	3.49
Pristane	3.43	3.43	3.43	3.43	3.43	3.43	3.36	3.50
n-Octadecane (C18)	3.59	3.61	3.59	3.59	3.59	3.60	3.53	3.67
Phytane	3.61	3.61	3.61	3.61	3.61	3.61	3.54	3.68
n-Eicosane (C20)	3.93	3.93	3.93	3.93	3.93	3.93	3.86	4.00
n-Dotriacontane (C32)	5.62	5.62	5.62	5.62	5.62	5.62	5.55	5.69
n-Tetracontane (C40)	7.27	7.27	7.27	7.27	7.28	7.27	7.20	7.34
TPH-QAM025	4.00	4.00	4.00	4.00	4.00	4.00	3.93	4.07

Compound	CALIBRATION FACTORS 2000	5000	20000	50000	100000	MEAN	%RSD
n-Octane (C8)	198	255	289	272	260	255	13.50
n-Decane (C10)	262	275	296	282	262	275	5.32
n-Dodecane (C12)	235	260	289	277	256	264	7.90
n-Tetradecane (C14)	255	269	297	281	260	273	6.21
n-Hexadecane (C16)	279	280	297	280	259	279	4.80
n-Heptadecane (C17)	228	268	288	263	261	261	8.27
Pristane	273	281	294	285	265	280	3.92
n-Octadecane (C18)	235	285	286	272	260	268	7.83
Phytane	277	285	298	274	256	278	5.56
n-Eicosane (C20)	249	268	291	267	254	266	6.03
n-Dotriacontane (C32)	194	254	218	196	243	221	12.37
n-Tetracontane (C40)	156	223	161	151	215	181	19.25
TPH-QAM025	237	267	275	258	254	258	5.62

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 11/12/2009 Instrument ID: GC-Z

Data File: Z7239.D GC Column : DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
n-Octane (C8)	0.78	0.71	0.85	255	233	8.62
n-Decane (C10)	1.70	1.63	1.77	275	236	14.11
n-Dodecane (C12)	2.33	2.26	2.40	264	233	11.60
n-Tetradecane (C14)	2.82	2.75	2.89	273	237	13.08
n-Hexadecane (C16)	3.23	3.16	3.30	279	236	15.32
n-Heptadecane (C17)	3.42	3.35	3.49	261	232	11.42
Pristane	3.43	3.36	3.50	280	255	8.91
n-Octadecane (C18)	3.59	3.52	3.66	268	225	15.82
Phytane	3.61	3.54	3.68	278	262	5.97
n-Eicosane (C20)	3.93	3.86	4.00	266	238	10.43
n-Dotriacontane (C32)	5.63	5.56	5.70	221	229	3.40
n-Tetracontane (C40)	7.30	7.23	7.37	181	168	7.24
TPH-QAM025	4.00	3.93	4.07	258	232	10.22
				Average %RSD		12.36

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 11/12/2009 Instrument ID: GC-Z

Data File: Z7254.D GC Column : DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
n-Octane (C8)	0.78	0.71	0.85	255	235	7.76
n-Decane (C10)	1.70	1.63	1.77	275	260	5.50
n-Dodecane (C12)	2.33	2.26	2.40	264	258	2.23
n-Tetradecane (C14)	2.81	2.74	2.88	273	262	4.04
n-Hexadecane (C16)	3.23	3.16	3.30	279	262	6.10
n-Heptadecane (C17)	3.41	3.34	3.48	261	260	0.38
Pristane	3.42	3.35	3.49	280	280	0.26
n-Octadecane (C18)	3.59	3.52	3.66	268	248	7.16
Phytane	3.61	3.54	3.68	278	292	4.85
n-Eicosane (C20)	3.93	3.86	4.00	266	267	0.51
n-Dotriacontane (C32)	5.62	5.55	5.69	221	249	12.75
n-Tetracontane (C40)	7.29	7.22	7.36	181	191	5.52
TPH-QAM025	4.00	3.93	4.07	258	255	1.13
				Average %RSD		4.18

NJ-QAM-25 SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 11/12/2009

Client ID	Lab Sample ID	Matrix	CHB % rec	#	OTP % rec	#
QAM	1112-BLK02	SOIL	110		126	
PK1/8	11464-001	SOIL	104		103	
PK2/8	11464-002	SOIL	101		108	
TP7/4.25	11437-002	SOIL	111		107	
TP5-1/3.	11437-003	SOIL	104		105	
TP5-2/5.	11437-004	SOIL	89		102	
TP2-1/2-	11437-005	SOIL	86		102	
TP2-2/3-	11437-006	SOIL	95		103	
TP1/4-4.	11437-007	SOIL	107		102	
TP6/4.58	11437-008	SOIL	98		102	
QAM	11437-003-MS02	SOIL	106		102	
QAM	11437-003-MSD02	SOIL	109		103	
QAM	QBS1112-MS02	SOIL	96		118	

Surrogate QC Limits	Soil	Aqueous
CHB = Chlorobenzene	15-158	15-158
OTP = o-Terphenyl	15-159	15-159

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL NJ-QAM-25 MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 11437-003-MSD02

Compound	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC #	QC LIMITS REC.
TPH-QAM025	240.0	0.0	310.4	129	41 - 148

Compound	SAMPLE CONC. (mg/Kg)	MSD CONC. (mg/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
TPH-QAM025	0.0	295.7	123	5	18	41 - 148

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __1__ outside limits

Spike Recovery: __0___ out of __2__ outside limits

SOIL NJ-QAM-25 BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: QBS1112-MS02

Compound	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC #	QC LIMITS REC.
TPH-QAM025	240.0	0.0	294.2	123	41 - 148

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __1__ outside limits

NJ-QAM-25 RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Z **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

CHB 1.02 **OTP** 3.80

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	CHB RT	#	OTP RT	#
QAM	1112-BLK02	11/12/2009	14:23	1.02		3.80	
PK1/8	11464-001	11/12/2009	14:39	1.02		3.80	
PK2/8	11464-002	11/12/2009	14:54	1.02		3.80	
TP7/4.25	11437-002	11/12/2009	15:09	1.02		3.80	
TP5-1/3.	11437-003	11/12/2009	15:24	1.02		3.80	
TP5-2/5.	11437-004	11/12/2009	15:39	1.02		3.80	
TP2-1/2-	11437-005	11/12/2009	15:54	1.02		3.80	
TP2-2/3-	11437-006	11/12/2009	16:09	1.02		3.80	
TP1/4-4.	11437-007	11/12/2009	16:25	1.02		3.80	
TP6/4.58	11437-008	11/12/2009	16:40	1.02		3.80	
QAM	11437-003-MS02	11/12/2009	16:55	1.02		3.80	
QAM	11437-003-MSD02	11/12/2009	17:10	1.02		3.80	
QAM	QBS1112-MS02	11/12/2009	17:25	1.02		3.80	

Surrogate QC Limits

CHB = Chlorobenzene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7244.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 15:09
Operator : LIZ
Sample : TP7/4.25,11437-002,S,10.72g,18.2,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 15:49:07 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Chlorobenzene	1.02	4565044	22.271 ng m
Spiked Amount 20.000		Recovery =	111.36%
15) S o-Terphenyl	3.80	6790363	21.379 ng m
Spiked Amount 20.000		Recovery =	106.90%
Target Compounds			
14) H Total TPHC	4.00	14386186	55.683 ng

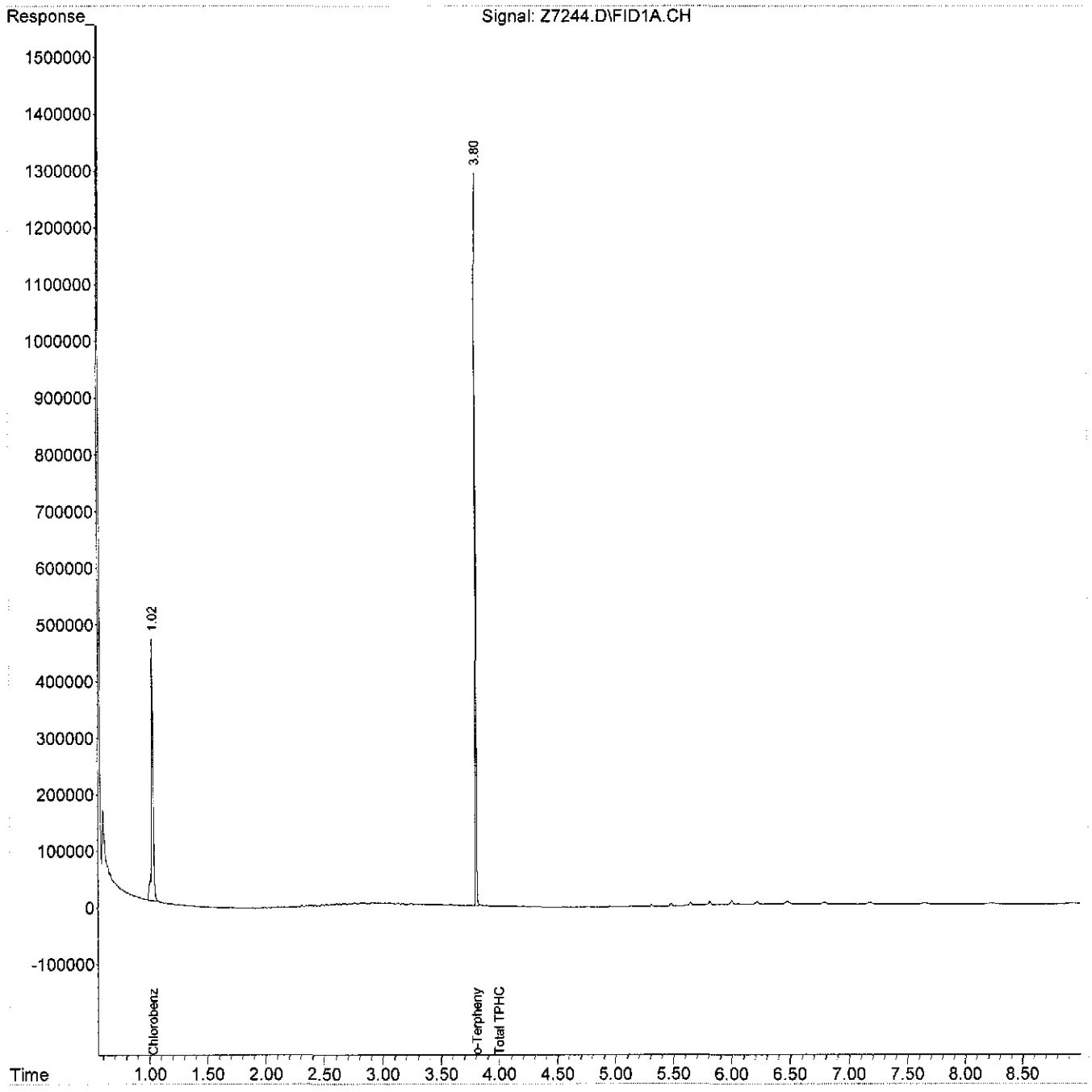
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7244.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 15:09
Operator : LIZ
Sample : TP7/4.25,11437-002,S,10.72g,18.2,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 15:49:07 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7245.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 15:24
Operator : LIZ
Sample : TP5-1/3.,11437-003,S,10.05g,38.6,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 13 09:18:17 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	1.02	4250996	20.739	ng	m
Spiked Amount 20.000		Recovery = 103.70%			
15) S o-Terphenyl	3.80	6659578	20.967	ng	
Spiked Amount 20.000		Recovery = 104.83%			
Target Compounds					

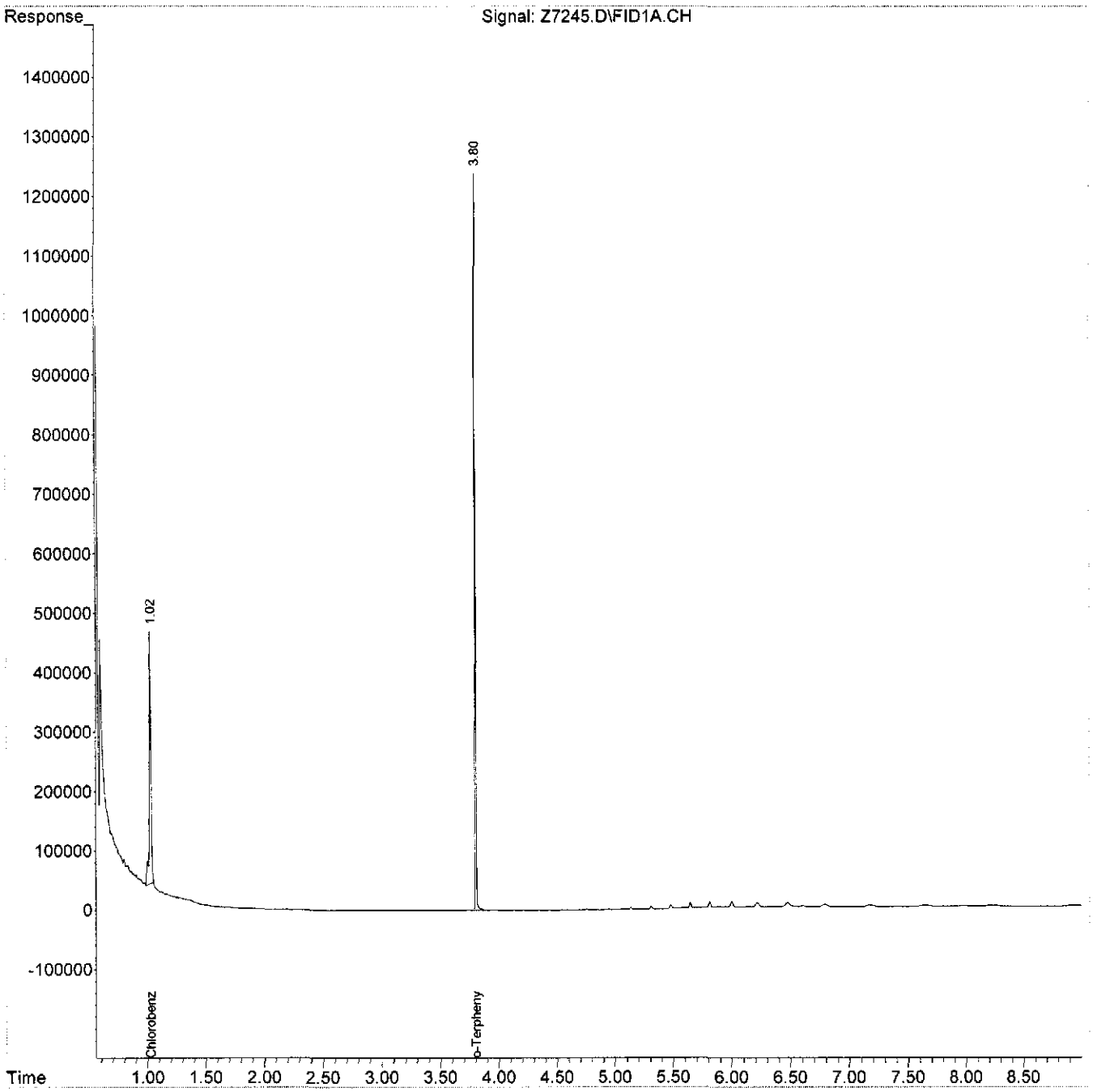
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7245.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 15:24
Operator : LIZ
Sample : TP5-1/3.,11437-003,S,10.05g,38.6,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 13 09:18:17 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7246.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 15:39
Operator : LIZ
Sample : TP5-2/5.,11437-004,S,10.33g,46.1,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 16:21:41 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Chlorobenzene	1.02	3657150	17.842 ng m
Spiked Amount 20.000		Recovery =	89.21%
15) S o-Terphenyl	3.80	6493193	20.443 ng
Spiked Amount 20.000		Recovery =	102.22%
Target Compounds			

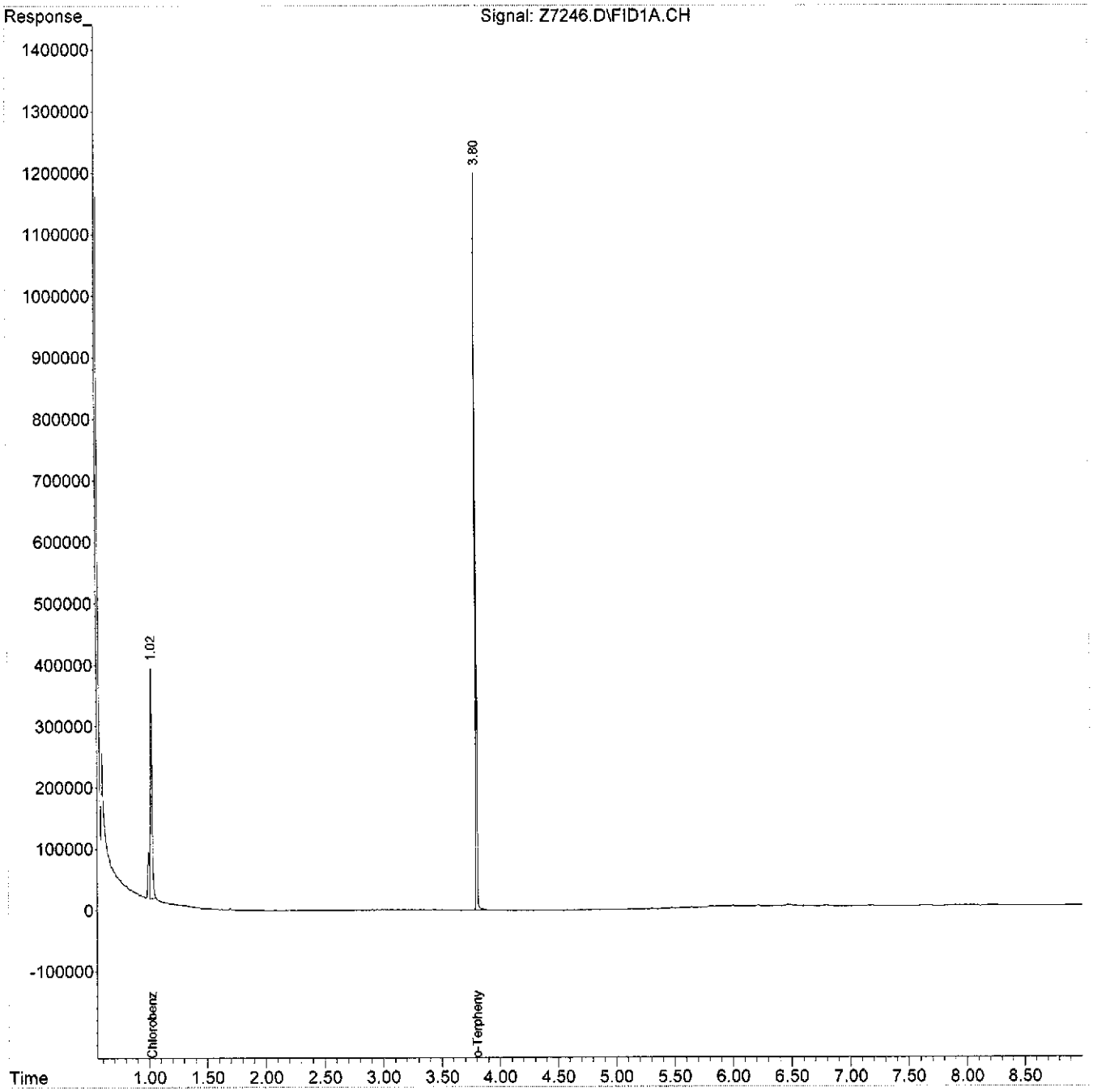
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7246.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 15:39
Operator : LIZ
Sample : TP5-2/5.,11437-004,S,10.33g,46.1,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant. Time: Nov 12 16:21:41 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7247.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 15:54
Operator : LIZ
Sample : TP2-1/2-,11437-005,S,10.02g,16.5,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 16:22:24 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	1.02	3531952	17.231	ng	m
Spiked Amount 20.000		Recovery = 86.16%			
15) S o-Terphenyl	3.80	6495343	20.450	ng	
Spiked Amount 20.000		Recovery = 102.25%			
Target Compounds					

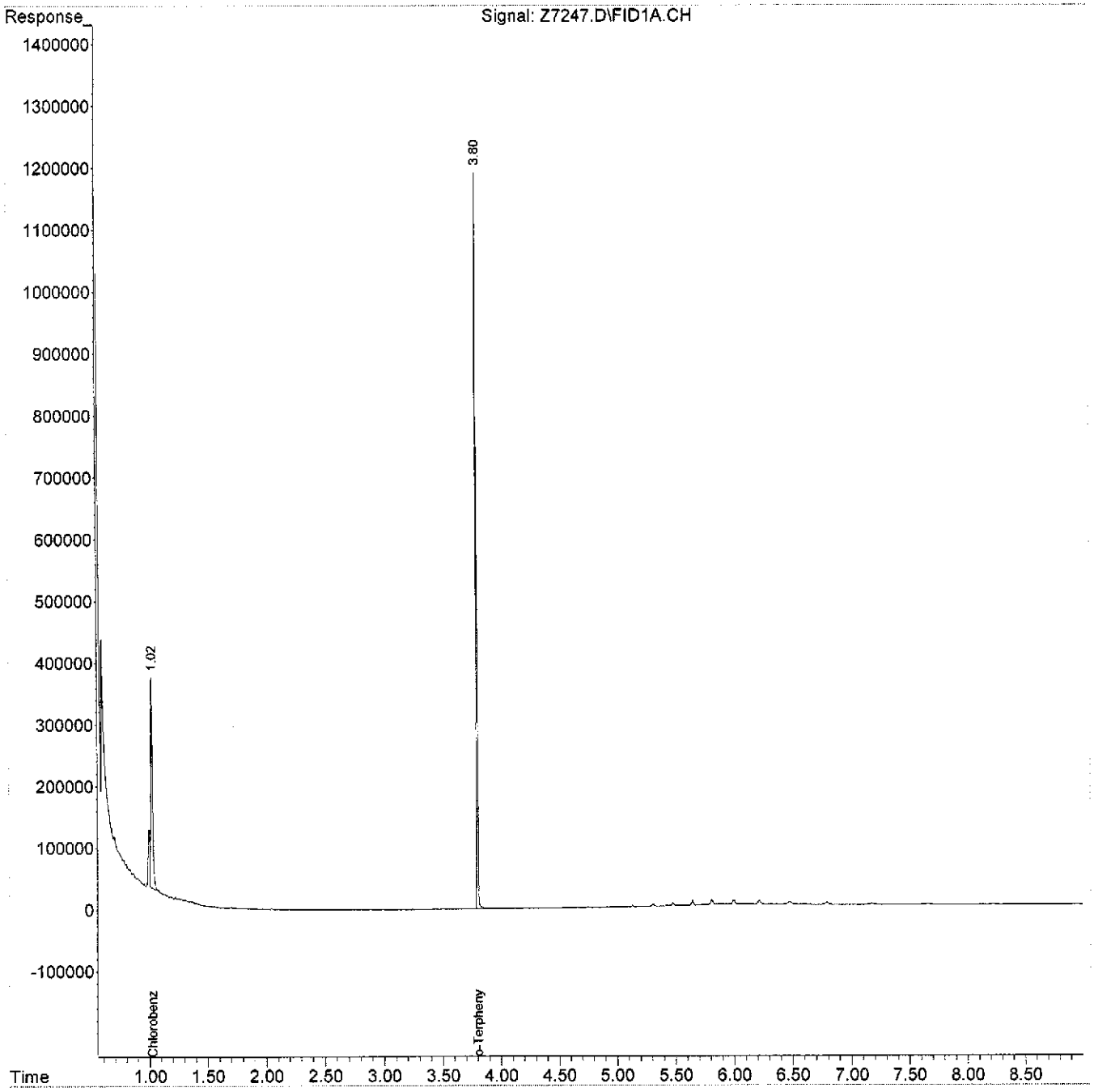
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7247.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 15:54
Operator : LIZ
Sample : TP2-1/2-,11437-005,S,10.02g,16.5,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 16:22:24 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7248.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 16:09
Operator : LIZ
Sample : TP2-2/3-,11437-006,S,10.27g,13.5,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 11 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 16:38:41 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	1.02	3895349	19.004	ng	m
Spiked Amount 20.000		Recovery = 95.02%			
15) S o-Terphenyl	3.80	6560144	20.654	ng	
Spiked Amount 20.000		Recovery = 103.27%			
Target Compounds					

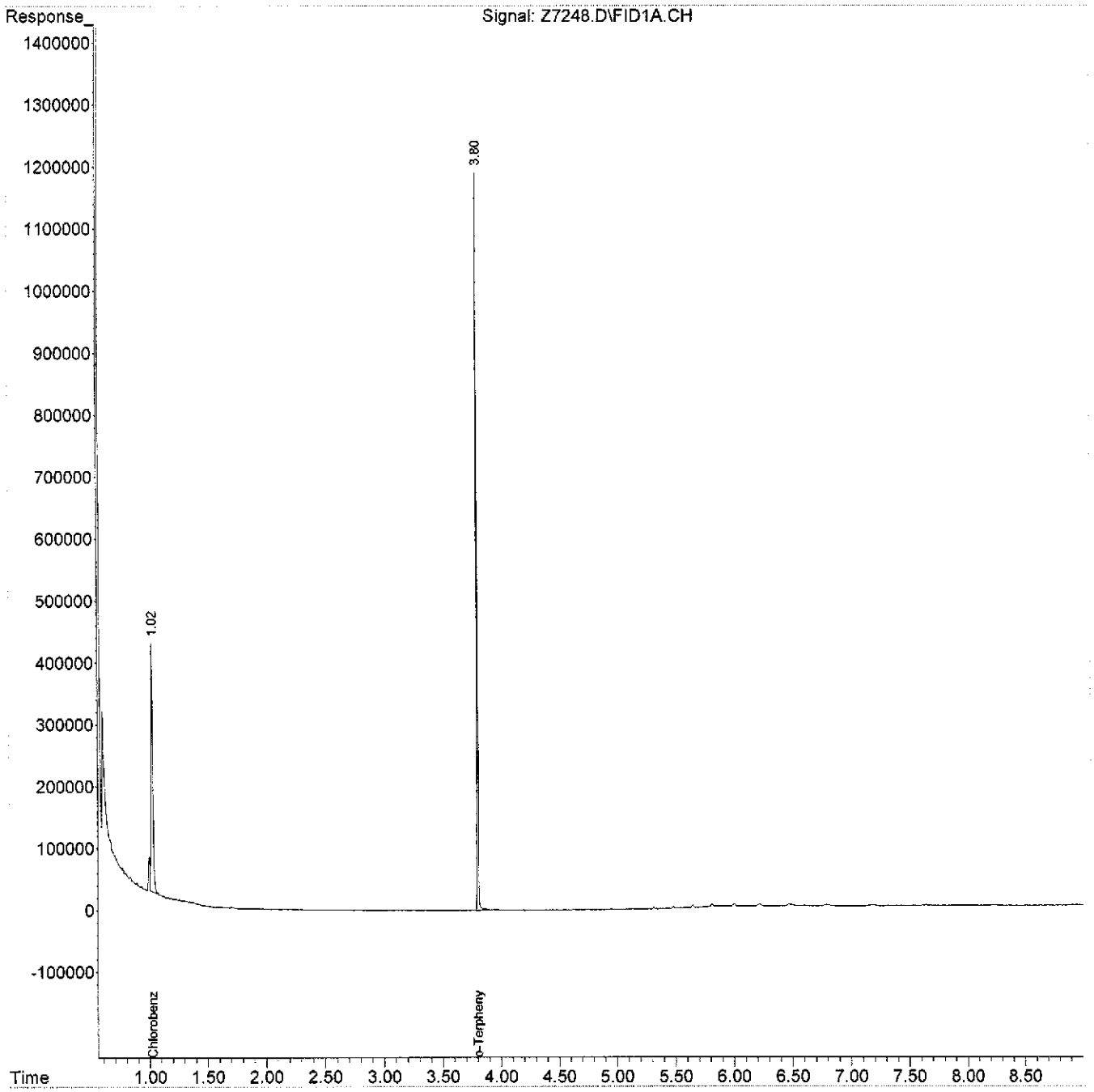
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7248.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 16:09
Operator : LIZ
Sample : TP2-2/3-,11437-006,S,10.27g,13.5,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 11 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 16:38:41 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7249.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 16:25
Operator : LIZ
Sample : TP1/4-4.,11437-007,S,10.52g,25.4,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 13 08:44:27 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Oct 29 13:50:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Chlorobenzene	1.02	4391112	21.423 ng
Spiked Amount 20.000		Recovery =	107.11%
15) S o-Terphenyl	3.80	6454299	20.321 ng
Spiked Amount 20.000		Recovery =	101.61%
Target Compounds			

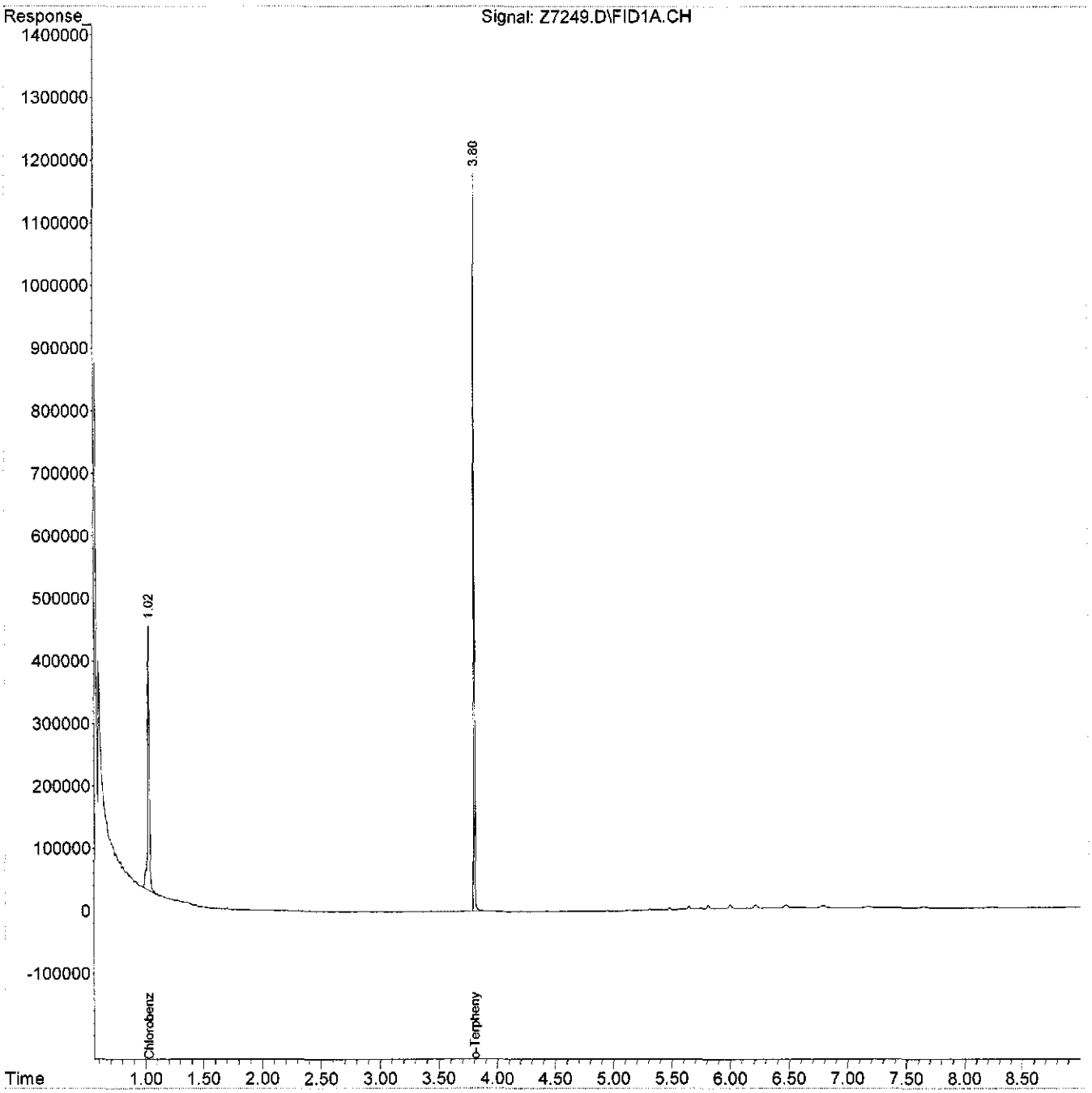
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7249.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 16:25
Operator : LIZ
Sample : TP1/4-4.,11437-007,S,10.52g,25.4,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 13 08:44:27 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Oct 29 13:50:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7250.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 16:40
Operator : LIZ
Sample : TP6/4.58,11437-008,S,10.37g,20.2,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 13 08:44:51 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Oct 29 13:50:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Chlorobenzene	1.02	3995442	19.492 ng m
Spiked Amount 20.000		Recovery =	97.46%
15) S o-Terphenyl	3.80	6499334	20.463 ng
Spiked Amount 20.000		Recovery =	102.32%
Target Compounds			

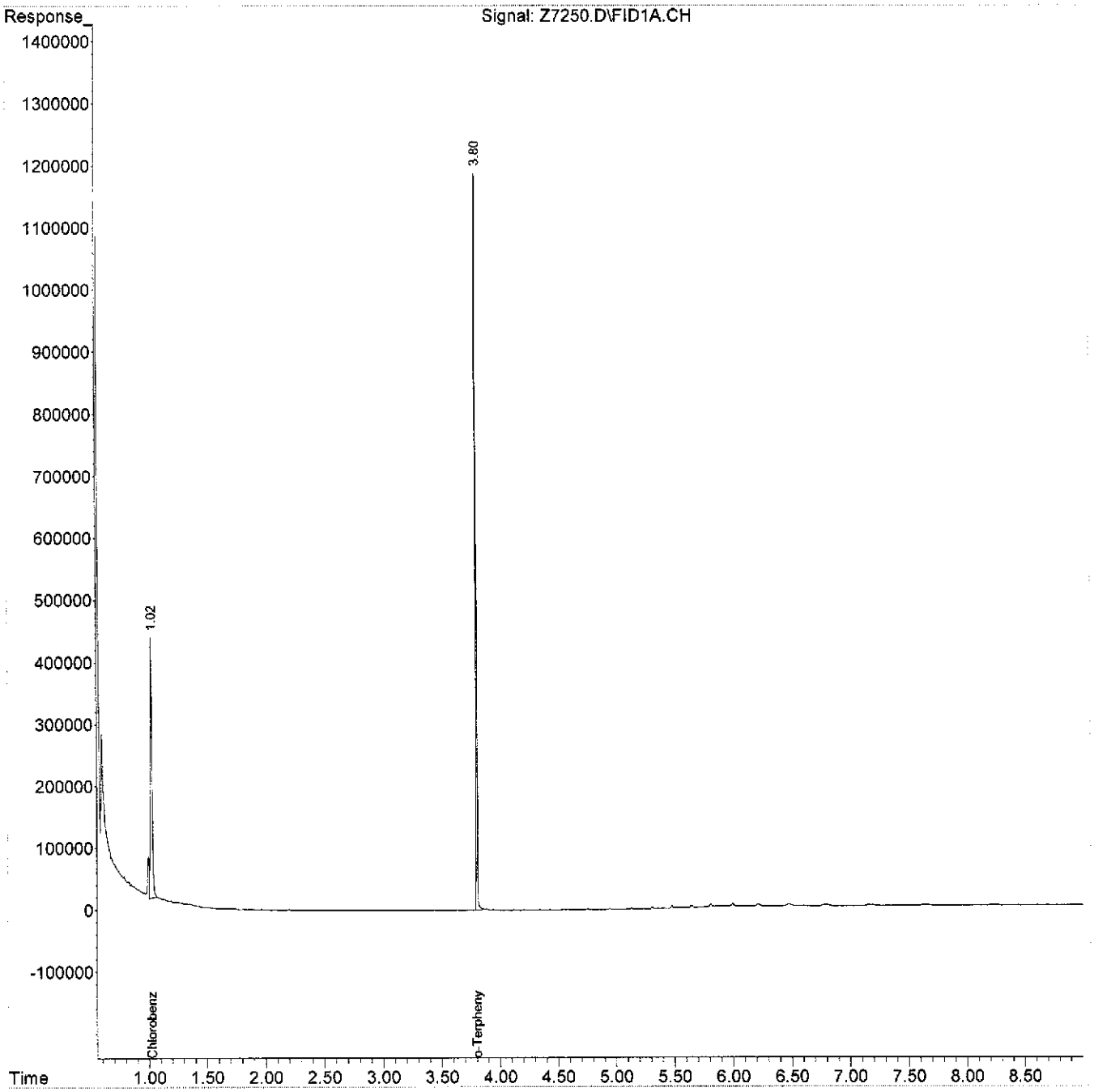
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7250.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 16:40
Operator : LIZ
Sample : TP6/4.58,11437-008,S,10.37g,20.2,11/12/09,20
Misc : PENNJERSEY/PALMER,11/09/09,11/10/09,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 13 08:44:51 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Oct 29 13:50:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7241.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 14:23
Operator : LIZ
Sample : QAM,1112-BLK02,S,30.00g,0,11/12/09,20
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 14:53:23 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	1.02	4496809	21.938	ng	m
Spiked Amount 20.000		Recovery = 109.69%			
15) S o-Terphenyl	3.80	7976830	25.115	ng	m
Spiked Amount 20.000		Recovery = 125.57%			
Target Compounds					

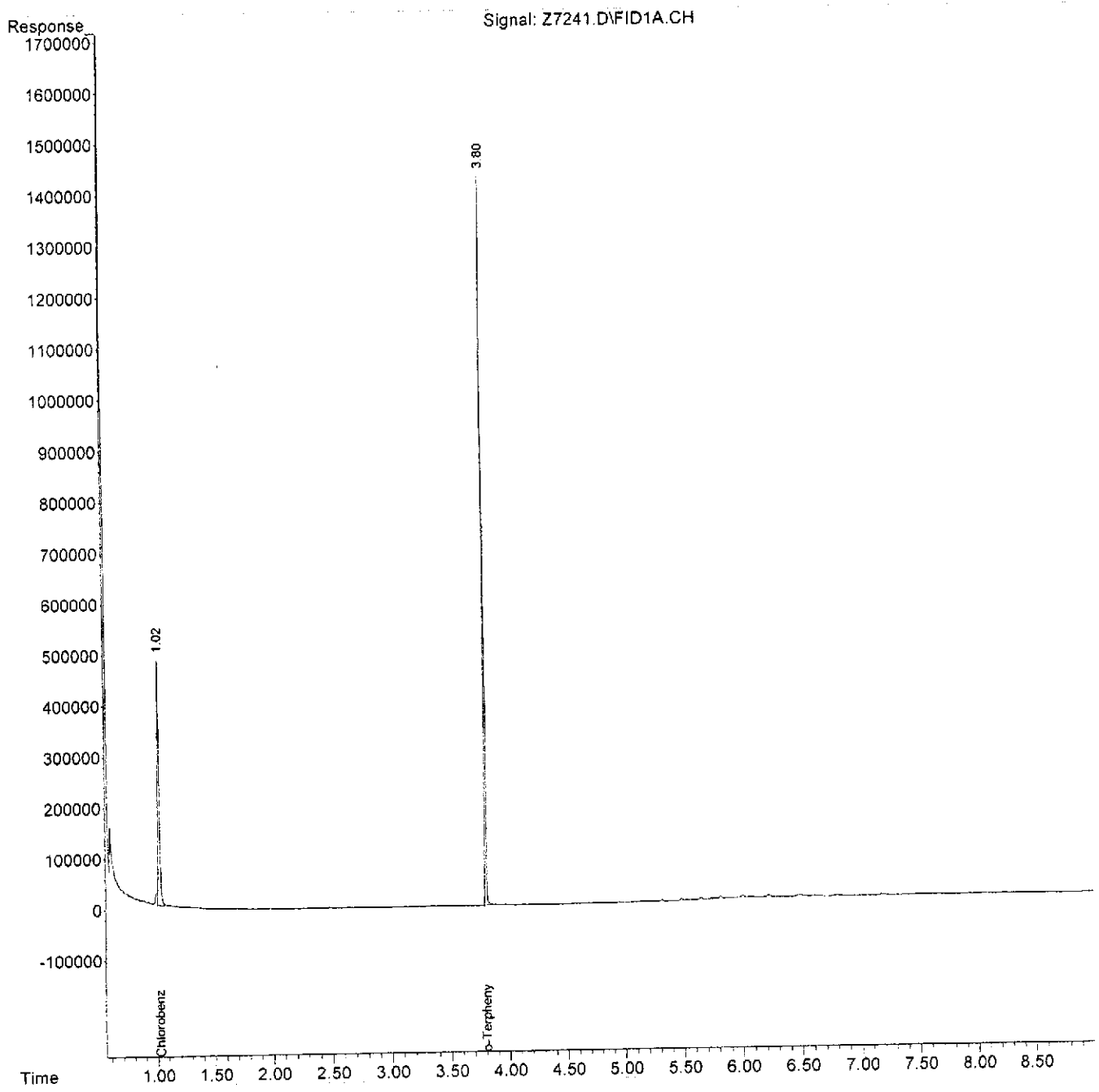
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7241.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 14:23
Operator : LIZ
Sample : QAM,1112-BLK02,S,30.00g,0,11/12/09,20
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 14:53:23 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7239.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 13:40
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 14:38:37 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S Chlorobenzene	1.01	3931671	19.181	ng	
	Spiked Amount 20.000		Recovery =	95.91%		
15)	S o-Terphenyl	3.80	6135573	19.318	ng	
	Spiked Amount 20.000		Recovery =	96.59%		
	Target Compounds					
2)	T n-Octane (C8)	0.78	4658692	18.276	ng	
3)	T n-Decane (C10)	1.70	4728913	17.179	ng	
4)	T n-Dodecane (C12)	2.33	4658959	17.679	ng	
5)	T n-Tetradecane (C14)	2.82	4738017	17.384	ng	
6)	T n-Hexadecane (C16)	3.23	4722720	16.937	ng	
7)	T n-Heptadecane (17)	3.42	4631795	17.716	ng	m
8)	T Pristane	3.43	5094390	18.218	ng	m
9)	T n-Octadecane (C18)	3.59	4504985	16.837	ng	m
10)	T Phytane	3.61	5231266	18.805	ng	m
11)	T n-Eicosane (C20)	3.93	4761028	17.913	ng	
12)	T n-Dotriacontane (C32)	5.63	4571877	20.680	ng	
13)	T n-Tetracontane (40)	7.30	3366725	18.553	ng	
14)	H Total TPHC	4.00	68369139	264.627	ng	

(f)=RT Delta > 1/2 Window

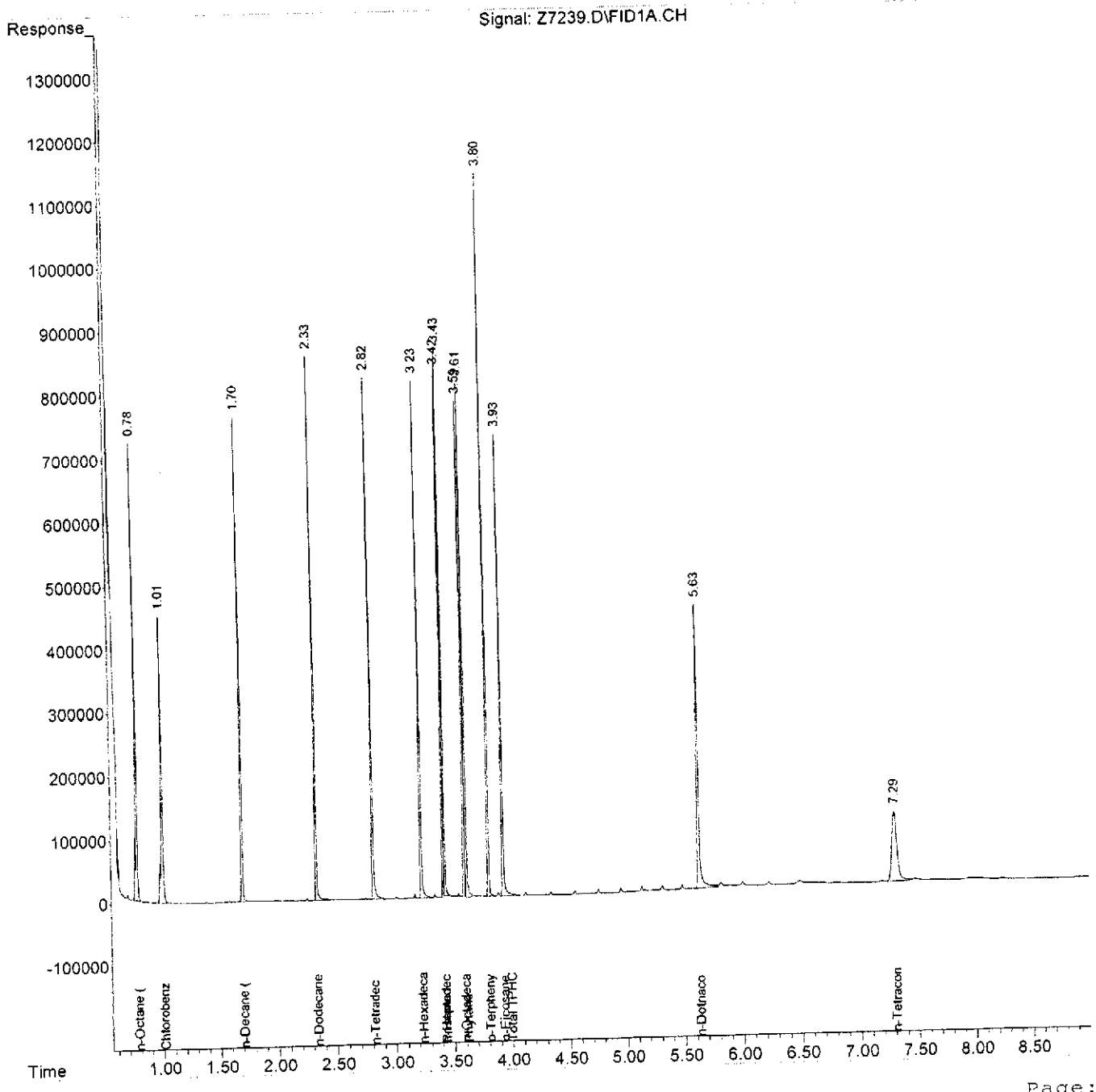
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7239.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 13:40
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 14:38:37 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7254.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 17:41
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 13 09:01:06 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Oct 29 13:50:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
	System Monitoring Compounds				
1) S	Chlorobenzene	1.01	4331225	21.130 ng	
Spiked Amount	20.000		Recovery =	105.65%	
15) S	o-Terphenyl	3.80	6796552	21.399 ng	
Spiked Amount	20.000		Recovery =	106.99%	
	Target Compounds				
2) T	n-Octane (C8)	0.78	4702774	18.449 ng	
3) T	n-Decane (C10)	1.70	5202853	18.900 ng	
4) T	n-Dodecane (C12)	2.33	5153318	19.555 ng	
5) T	n-Tetradecane (C14)	2.81	5230917	19.193 ng	
6) T	n-Hexadecane (C16)	3.23	5236821	18.780 ng	
7) T	n-Heptadecane (17)	3.41	5209138	19.924 ng	m
8) T	Pristane	3.42	5607081	20.052 ng	m
9) T	n-Octadecane (C18)	3.59	4968118	18.567 ng	
10) T	Phytane	3.61	5833362	20.970 ng	
11) T	n-Eicosane (C20)	3.93	5342769	20.102 ng	
12) T	n-Dotriacontane (C32)	5.62	4985312	22.550 ng	m
13) T	n-Tetracontane (40)	7.29	3829754	21.104 ng	
14) H	Total TPHC	4.00	100638324	389.527 ng	

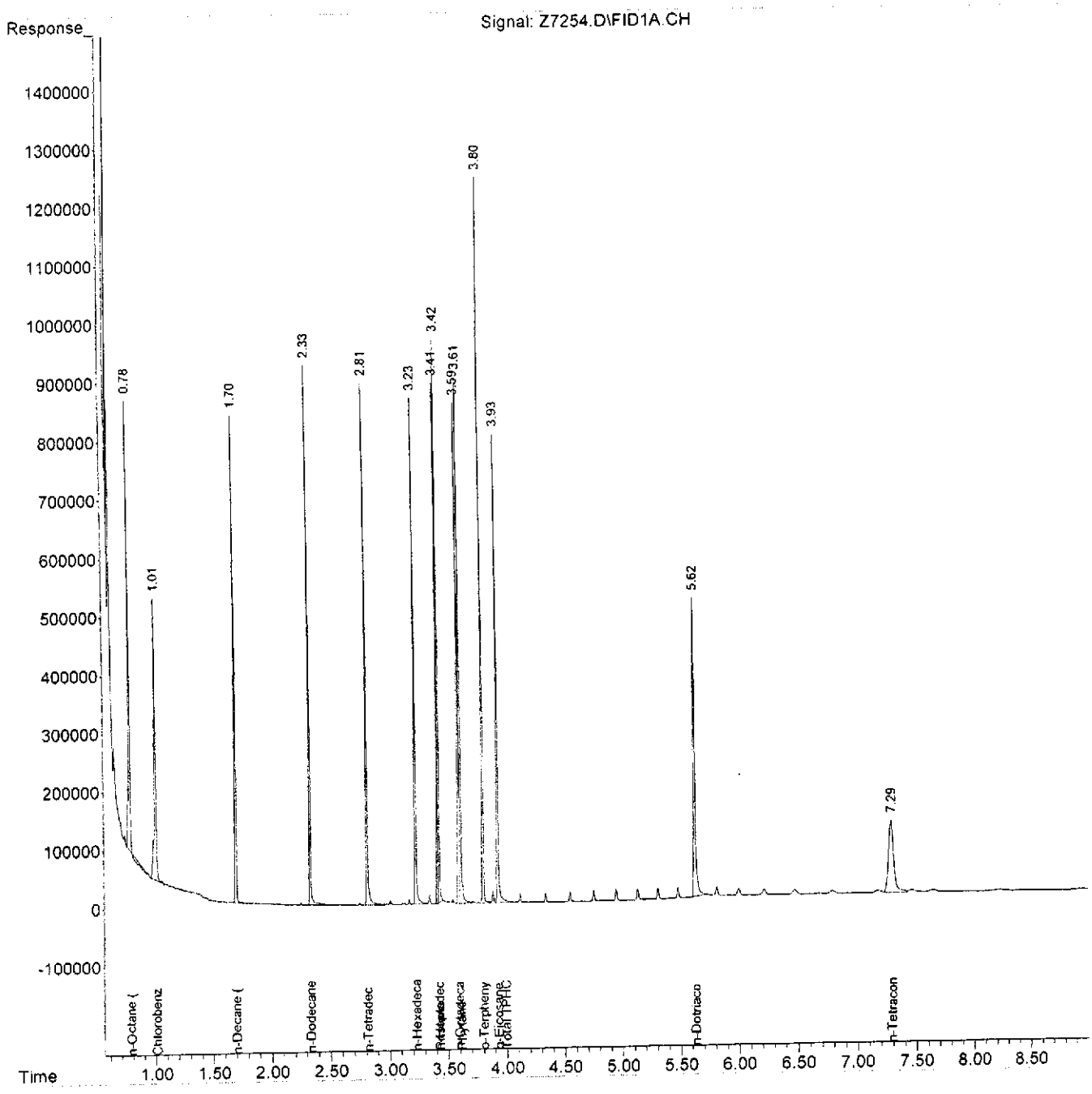
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7254.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 17:41
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 13 09:01:06 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Oct 29 13:50:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7238.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 12:49
Operator : LIZ
Sample : QAM-025_C_IAS_3459,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 14:37:49 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S Chlorobenzene	1.01	4803778	23.436	ng	m
	Spiked Amount 20.000		Recovery =	117.18%		
15)	S o-Terphenyl	3.80	7653054	24.095	ng	m
	Spiked Amount 20.000		Recovery =	120.47%		
	Target Compounds					
2)	T n-Octane (C8)	0.79	5563000	21.823	ng	
3)	T n-Decane (C10)	1.70	5681098	20.638	ng	
4)	T n-Dodecane (C12)	2.33	5648104	21.432	ng	
5)	T n-Tetradecane (C14)	2.82	5731356	21.029	ng	
6)	T n-Hexadecane (C16)	3.23	5709169	20.474	ng	
7)	T n-Heptadecane (17)	3.41	4969596	19.008	ng	m
8)	T Pristane	3.43	5782323	20.678	ng	m
9)	T n-Octadecane (C18)	3.59	5434214	20.309	ng	
10)	T Phytane	3.61	6054955	21.766	ng	
11)	T n-Eicosane (C20)	3.93	5562580	20.929	ng	
12)	T n-Dotriacontane (C32)	5.62	5012501	22.673	ng	m
13)	T n-Tetracontane (40)	7.29	4373915	24.103	ng	m
14)	H Total TPHC	4.00	85997724	332.860	ng	

(f)=RT Delta > 1/2 Window

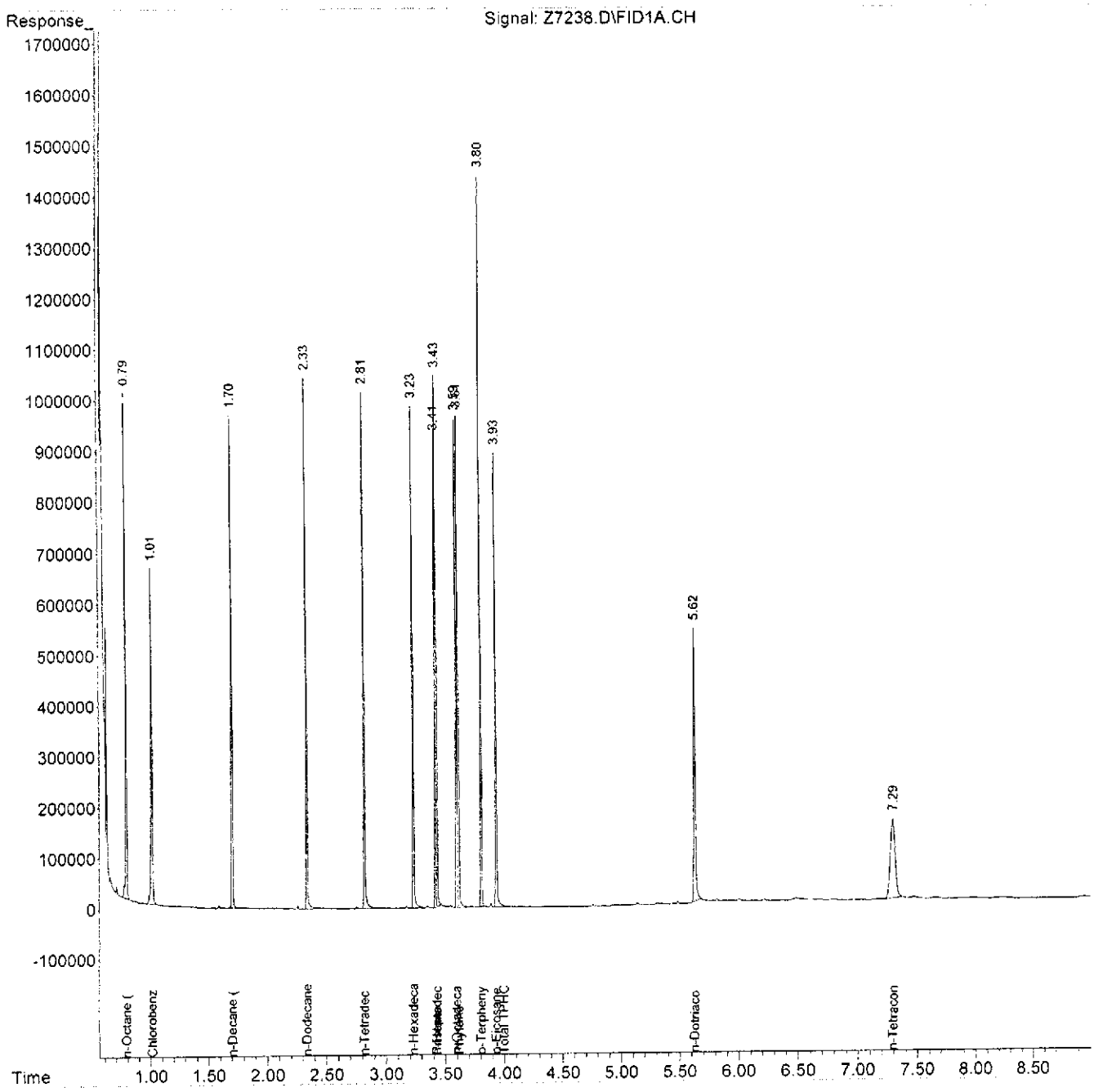
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\11-12-09\
Data File : Z7238.D
Signal(s) : FID1A.CH
Acq On : 12 Nov 2009 12:49
Operator : LIZ
Sample : QAM-025_C_IAS_3459,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Nov 12 14:37:49 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1029.M
Quant Title :
QLast Update : Thu Nov 12 14:36:20 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 489

Associated Lab Case for Blank 1: 11399, 11404, 11434, 11436, 11437, 11470

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	10.0	ND
Antimony	1.00	ND
Arsenic	1.00	ND
Barium	10.0	ND
Beryllium	0.500	ND
Cadmium	0.250	ND
Calcium	50.0	ND
Chromium	2.00	ND
Cobalt	2.00	ND
Copper	2.00	ND
Iron	25.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	1.00	ND
Mercury	0.013	ND
Nickel	1.00	ND
Potassium	50.0	ND
Selenium	2.00	ND
Silver	0.500	ND
Sodium	100	ND
Thallium	0.250	ND
Vanadium	2.00	ND
Zinc	2.00	ND

Associated Sample for Blank 1:

11399-001; 11404-001; 11434-001~003; 11436-001~004
11437-002~008; 11470-006,012,018,024

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 489
Lab Case: 11340, 11437, 11436, 11434, 11404, 11470, 11399, 11451, 11340, 11481

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	0.010	ND	ND	ND	ND	ND	ND
Antimony	0.001	ND	ND	ND	ND	ND	ND
Arsenic	0.001	ND	ND	ND	ND	ND	ND
Barium	0.010	ND	ND	ND	ND	ND	ND
Beryllium	0.0005	ND	ND	ND	ND	ND	ND
Cadmium	0.00025	ND	ND	ND	ND	ND	ND
Calcium	0.050	ND	ND	ND	ND	ND	ND
Chromium	0.002	ND	ND	ND	ND	ND	ND
Cobalt	0.002	ND	ND	ND	ND	ND	ND
Copper	0.002	ND	ND	ND	ND	ND	ND
Iron	0.025	ND	ND	ND	ND	ND	ND
Lead	0.0005	ND	ND	ND	ND	ND	ND
Magnesium	0.050	ND	ND	ND	ND	ND	ND
Manganese	0.001	ND	ND	ND	ND	ND	ND
Mercury	0.00025	ND	ND	ND	ND	ND	ND
Nickel	0.001	ND	ND	ND	ND	ND	ND
Potassium	0.050	ND	ND	ND	ND	ND	ND
Selenium	0.002	ND	ND	ND	ND	ND	ND
Silver	0.0005	ND	ND	ND	ND	ND	ND
Sodium	0.100	ND	ND	ND	ND	ND	ND
Thallium	0.00025	ND	ND	ND	ND	ND	ND
Vanadium	0.002	ND	ND	ND	ND	ND	ND
Zinc	0.002	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 489
Lab Case: 11340, 11437, 11436, 11434, 11404, 11470, 11399, 11451, 11340, 11481

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	CCB	CCB	CCB	CCB		
Aluminum	0.010	ND	ND	ND	ND		
Antimony	0.001	ND	ND	ND	ND		
Arsenic	0.001	ND	ND	ND	ND		
Barium	0.010	ND	ND	ND	ND		
Beryllium	0.0005	ND	ND	ND	ND		
Cadmium	0.00025	ND	ND	ND	ND		
Calcium	0.050	ND	ND	ND	ND		
Chromium	0.002	ND	ND	ND	ND		
Cobalt	0.002	ND	ND	ND	ND		
Copper	0.002	ND	ND	ND	ND		
Iron	0.025	ND	ND	ND	ND		
Lead	0.0005	ND	ND	ND	ND		
Magnesium	0.050	ND	ND	ND	ND		
Manganese	0.001	ND	ND	ND	ND		
Nickel	0.001	ND	ND	ND	ND		
Potassium	0.050	ND	ND	ND	ND		
Selenium	0.002	ND	ND	ND	ND		
Silver	0.0005	ND	ND	ND	ND		
Sodium	0.100	ND	ND	ND	ND		
Thallium	0.00025	ND	ND	ND	ND		
Vanadium	0.002	ND	ND	ND	ND		
Zinc	0.002	ND	ND	ND	ND		

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 489
Lab Case: 11340, 11437, 11436, 11434, 11404, 11470, 11399, 11451, 11340, 11481

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	10.0	400	372	93.0	383	95.8	376	94.0	371	92.8
Antimony	1.00	120	114	95.0	115	95.8	119	99.2	115	95.8
Arsenic	1.00	20.0	18.9	94.5	18.8	94.0	18.5	92.5	18.1	90.5
Barium	10.0	400	377	94.3	376	94.0	384	96.0	377	94.3
Beryllium	0.500	10.0	9.41	94.1	9.16	91.6	9.61	96.1	9.23	92.3
Cadmium	0.250	10.0	9.60	96.0	9.76	97.6	9.79	97.9	9.41	94.1
Calcium	50.0	10000	9630	96.3	9820	98.2	9660	96.6	9450	94.5
Chromium	2.00	20.0	19.1	95.5	19.3	96.5	19.1	95.5	18.5	92.5
Cobalt	2.00	100	97.5	97.5	98.2	98.2	95.9	95.9	93.4	93.4
Copper	2.00	50.0	47.5	95.0	47.5	95.0	46.2	92.4	45.4	90.8
Iron	25.0	200	215	108	215	108	215	108	206	103
Lead	0.500	10.0	9.48	94.8	9.46	94.6	9.79	97.9	9.43	94.3
Magnesium	50.0	10000	9170	91.7	9300	93.0	9130	91.3	9800	98.0
Manganese	1.00	30.0	28.7	95.7	29.2	97.3	28.7	95.7	28.0	93.3
Mercury	0.250	5.00	5.17	103	5.16	103	5.31	106	5.29	106
Nickel	1.00	80.0	76.4	95.5	76.9	96.1	75.3	94.1	73.2	91.5
Potassium	50.0	10000	9530	95.3	9710	97.1	9580	95.8	9420	94.2
Selenium	2.00	10.0	9.73	97.3	9.85	98.5	10.4	104	9.72	97.2
Silver	0.500	20.0	19.1	95.5	19.5	97.5	19.8	99.0	19.2	96.0
Sodium	100	10000	9680	96.8	9990	99.9	9780	97.8	9510	95.1
Thallium	0.250	20.0	19.4	97.0	19.3	96.5	20.0	100	19.3	96.5
Vanadium	2.00	100	97.1	97.1	98.1	98.1	96.9	96.9	94.2	94.2
Zinc	2.00	40.0	39.6	99.0	39.8	99.5	40.1	100	38.6	96.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 489
Lab Case: 11340, 11437, 11436, 11434, 11404, 11470, 11399, 11451, 11340, 11481

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R
Aluminum	10.0	400	369	92.3	368	92.0	376	94.0	374	93.5
Antimony	1.00	120	114	95.0	117	97.5	112	93.3	112	93.3
Arsenic	1.00	20.0	18.0	90.0	18.2	91.0	18.2	91.0	18.5	92.5
Barium	10.0	400	376	94.0	382	95.5	373	93.3	375	93.8
Beryllium	0.500	10.0	9.42	94.2	9.37	93.7	9.32	93.2	9.42	94.2
Cadmium	0.250	10.0	9.64	96.4	9.85	98.5	10.1	101	9.93	99.3
Calcium	50.0	10000	9440	94.4	9520	95.2	9480	94.8	9470	94.7
Chromium	2.00	20.0	18.2	91.0	18.2	91.0	18.1	90.5	18.3	91.5
Cobalt	2.00	100	92.7	92.7	92.2	92.2	92.1	92.1	93.2	93.2
Copper	2.00	50.0	48.7	97.4	48.8	97.6	48.3	96.6	49.4	98.8
Iron	25.0	200	206	103	203	102	204	102	206	103
Lead	0.500	10.0	9.73	97.3	9.83	98.3	9.62	96.2	9.72	97.2
Magnesium	50.0	10000	9880	98.8	9840	98.4	9710	97.1	9790	97.9
Manganese	1.00	30.0	27.8	92.7	27.7	92.3	27.8	92.7	28.2	94.0
Mercury	0.250	5.00	5.51	110	5.38	108				
Nickel	1.00	80.0	72.4	90.5	72.1	90.1	72.2	90.3	73.0	91.3
Potassium	50.0	10000	9370	93.7	9340	93.4	9180	91.8	9370	93.7
Selenium	2.00	10.0	9.19	91.9	9.69	96.9	9.07	90.7	9.05	90.5
Silver	0.500	20.0	19.3	96.5	19.6	98.0	19.5	97.5	19.3	96.5
Sodium	100	10000	9400	94.0	9470	94.7	9160	91.6	9230	92.3
Thallium	0.250	20.0	19.8	99.0	19.9	99.5	19.8	99.0	20.0	100
Vanadium	2.00	100	93.3	93.3	92.6	92.6	93.0	93.0	93.3	93.3
Zinc	2.00	40.0	39.0	97.5	38.1	95.3	37.3	93.3	38.0	95.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 489
Lab Case: 11340, 11437, 11436, 11434, 11404, 11470, 11399, 11451, 11340, 11481

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	FOUND	% R	FOUND	% R
Aluminum	10.0	400	384	96.0	383	95.8				
Antimony	1.00	120	109	90.8	112	93.3				
Arsenic	1.00	20.0	19.1	95.5	19.1	95.5				
Barium	10.0	400	366	91.5	372	93.0				
Beryllium	0.500	10.0	9.24	92.4	9.29	92.9				
Cadmium	0.250	10.0	9.90	99.0	10.1	101				
Calcium	50.0	10000	9800	98.0	9090	90.9				
Chromium	2.00	20.0	18.7	93.5	19.2	96.0				
Cobalt	2.00	100	95.6	95.6	97.8	97.8				
Copper	2.00	50.0	45.9	91.8	47.6	95.2				
Iron	25.0	200	210	105	196	98.0				
Lead	0.500	10.0	9.47	94.7	9.66	96.6				
Magnesium	50.0	10000	9210	92.1	9210	92.1				
Manganese	1.00	30.0	28.3	94.3	27.1	90.3				
Nickel	1.00	80.0	74.0	92.5	76.8	96.0				
Potassium	50.0	10000	9640	96.4	9860	98.6				
Selenium	2.00	10.0	10.1	101	9.54	95.4				
Silver	0.500	20.0	18.8	94.0	19.5	97.5				
Sodium	100	10000	9340	93.4	9660	96.6				
Thallium	0.250	20.0	19.4	97.0	19.7	98.5				
Vanadium	2.00	100	95.6	95.6	98.6	98.6				
Zinc	2.00	40.0	39.4	98.5	36.9	92.3				

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 489
Lab Case: 11340, 11437, 11436, 11434, 11404, 11470, 11399, 11451, 11340, 11481

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	107000	108000	108	NA
Iron	100000	-	103000	103000	103	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2250	2260	113	NA
Titanium	2000	-	2100	2130	107	NA
Silver	-	20.0	-	19.8	99.0	80-120
Arsenic	-	20.0	-	20.8	104	80-120
Cadmium	-	20.0	-	20.7	104	80-120
Cobalt	-	20.0	-	20.2	101	80-120
Chromium	-	20.0	-	21.0	105	80-120
Copper	-	20.0	-	19.9	99.5	80-120
Manganese	-	20.0	-	21.4	107	80-120
Nickel	-	20.0	-	20.0	100	80-120
Zinc	-	20.0	-	21.5	108	80-120

%R = Percent Recovery

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 489
Lab Case: 11399, 11404, 11434, 11436, 11437, 11470, 11340, 11451, 11481

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	14400	14700	NC	232					75-125
Antimony	45.8	ND	98.7	46.4					75-125
Arsenic	44.3	2.71	89.6	46.4	37.6	ND	92.2	40.8	75-125
Barium	85.2	40.2	97.0	46.4	46.7	ND	114	40.8	75-125
Beryllium	43.9	ND	94.6	46.4	39.0	0.771	93.7	40.8	75-125
Cadmium	42.6	ND	91.8	46.4	39.5	0.337	96.0	40.8	75-125
Calcium	1200	1010	81.9	232					75-125
Chromium	59.0	17.4	89.7	46.4					75-125
Cobalt	48.8	6.59	91.0	46.4					75-125
Copper	66.9	25.6	89.0	46.4	38.9	3.51	86.7	40.8	75-125
Iron	18000	18700	NC	232					75-125
Lead	50.5	5.98	95.9	46.4	44.4	3.72	99.7	40.8	75-125
Magnesium	2340	2210	NC	232					75-125
Manganese	380	353	NC	46.4	335	297	93.1	40.8	75-125
Mercury	0.290	0.023	92.1	0.290	0.261	ND	102	0.255	75-125
Nickel	55.3	13.4	90.3	46.4	39.6	2.96	89.8	40.8	75-125
Potassium	956	772	79.3	232					75-125
Selenium	43.1	ND	92.9	46.4	40.4	ND	99.0	40.8	75-125
Silver	40.5	ND	87.3	46.4	35.7	ND	87.5	40.8	75-125
Sodium	251	ND	108	232					75-125
Thallium	45.4	ND	97.8	46.4					75-125
Vanadium	69.2	28.4	87.9	46.4					75-125
Zinc	1600	1620	NC	46.4	57.0	20.9	88.5	40.8	75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 11437-006
QC Sample 1 for following samples:
11399-001; 11404-001; 11434-001~003; 11436-001~004
11437-002~008; 11470-006,012,018,024

QC Sample 2 11451-001
QC Sample 2 for following samples:
11340-003~006; 11451-001~006; 11481-001

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 489
Lab Case: 11399, 11404, 11434, 11436, 11437, 11470, 11340, 11451, 11481

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	14700	14500	1.37				
Antimony	NA	ND	ND	NC				
Arsenic	20	2.71	2.77	2.19	NA	ND	ND	NC
Barium	20	40.2	41.0	1.97	NA	ND	ND	NC
Beryllium	NA	ND	ND	NC	20	0.771	0.775	0.517
Cadmium	NA	ND	ND	NC	20	0.337	0.325	3.63
Calcium	20	1010	1010	0				
Chromium	20	17.4	17.8	2.27				
Cobalt	20	6.59	6.57	0.304				
Copper	20	25.6	25.5	0.391	20	3.51	3.39	3.48
Iron	20	18700	18800	0.533				
Lead	20	5.98	6.00	0.334	20	3.72	3.71	0.269
Magnesium	20	2210	2240	1.35				
Manganese	20	353	356	0.846	20	297	305	2.66
Mercury	20	0.023	0.025	8.33	NA	ND	ND	NC
Nickel	20	13.4	13.1	2.26	20	2.96	3.17	6.85
Potassium	20	772	783	1.41				
Selenium	NA	ND	ND	NC	NA	ND	ND	NC
Silver	NA	ND	ND	NC	NA	ND	ND	NC
Sodium	NA	ND	ND	NC				
Thallium	NA	ND	ND	NC				
Vanadium	20	28.4	28.6	0.702				
Zinc	20	1620	1620	0	20	20.9	20.4	2.42

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 11437-006
QC Sample 1 for following samples:
11399-001; 11404-001; 11434-001~003; 11436-001~004
11437-002~008; 11470-006,012,018,024

QC Sample 2 11451-001
QC Sample 2 for following samples:
11340-003~006; 11451-001~006; 11481-001

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 489
Lab Case: 11399, 11404, 11434, 11436, 11437, 11470, 11340, 11451, 11481

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	BSS1			BSS2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	183	91.5			
Antimony	40.0	39.6	99.0			
Arsenic	40.0	36.2	90.5	40.0	36.6	91.5
Barium	40.0	38.4	96.0	40.0	37.1	92.8
Beryllium	40.0	37.1	92.8	40.0	35.8	89.5
Cadmium	40.0	37.3	93.3	40.0	38.2	95.5
Calcium	200	191	95.5			
Chromium	40.0	36.4	91.0			
Cobalt	40.0	37.7	94.3			
Copper	40.0	36.9	92.3	40.0	36.9	92.3
Iron	200	191	95.5			
Lead	40.0	38.2	95.5	40.0	38.2	95.5
Magnesium	200	175	87.5			
Manganese	40.0	36.8	92.0	40.0	36.5	91.3
Mercury	0.250	0.242	96.8	0.250	0.281	112
Nickel	40.0	37.6	94.0	40.0	37.5	93.8
Potassium	200	184	92.0			
Selenium	40.0	36.1	90.3	40.0	35.7	89.3
Silver	40.0	34.5	86.3	40.0	36.6	91.5
Sodium	200	179	89.5			
Thallium	40.0	39.0	97.5			
Vanadium	40.0	36.6	91.5			
Zinc	40.0	37.0	92.5	40.0	36.7	91.8

(1) Control Limits % Recovery = 85-115%

BSS1	BSS2
11399-001; 11404-001; 11434-001~003; 11436-001~004	11340-003~006; 11451-001~006; 11481-001
11437-002~008; 11470-006,012,018,024	

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 489
Lab Case: 11399, 11404, 11434, 11436, 11437, 11470

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION SR	SERIAL DILUTION SDR	% Difference	POST SPIKE SPR	POST SPIKE SA	% Recovery
Aluminum	14700	14300	2.76			
Antimony	ND			47.4	46.4	102
Arsenic	2.71			49.2	46.4	100.0
Barium	40.2			97.4	46.4	123.0
Beryllium	ND			46.0	46.4	99.1
Cadmium	ND			44.5	46.4	95.9
Calcium	1010	1050	3.88			
Chromium	17.4			67.4	46.4	108.0
Cobalt	6.59			55.1	46.4	105.0
Copper	25.6			77.4	46.4	112.0
Iron	18700	19300	3.16			
Lead	5.98			55.2	46.4	106.0
Magnesium	2210	2270	2.68			
Manganese	353	362	2.52			
Nickel	13.4			62.4	46.4	106.0
Potassium	772			1750	928	105.0
Selenium	ND			46.9	46.4	101
Silver	ND			44.1	46.4	95.0
Sodium	ND			1090	928	117
Thallium	ND			49.1	46.4	106
Vanadium	28.4			81.0	46.4	113.0
Zinc	1620	1640	1.23			

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 11437-006
QC Sample 1 for following samples:
11399-001; 11404-001; 11434-001~003; 11436-001~004
11437-002~008; 11470-006,012,018,024

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869
11/12/2009

Certified for NJDEP, NY(DOH)
NJ ID#14751
NY ID#11402

General Chemistry Quality Control

Matrix: Soil
Units: Soil-mg/Kg

Batch ID: AP013-0097

Blank

Parameter	Method Blank	MDL	Analysis Date
Cyanide, Total	ND	1.00	11/12/09

Duplicate Recovery

Parameter	QC Sample	Result	Duplicate Result	RPD	RPD Limits
Cyanide, Total	11470-006S	13.8	12.5	10	20

Spike Recovery

Parameter	QC Sample	Result	Spike Added	Spike Result	%Spike Recovery	%Rec. Limits
Cyanide, Total	11470-006	ND	13.8	13.8	100	75 - 125

The above blank result applies to the follow samples:

E09-11470-006
E09-11470-006D
E09-11470-006S
E09-11470-006SD
E09-11470-012
E09-11470-018
E09-11470-024
E09-11341-001
E09-11437-002
E09-11437-003
E09-11437-004
E09-11437-005
E09-11437-006
E09-11437-007
E09-11437-008
E09-11436-001
E09-11436-002
E09-11436-003
E09-11436-004

++ = No Flash - Sample boiled at 100C
NA = Not Applicable
ND = Not Detected
NC = Non calculable RPD due to value less than the detection limit
No = Does Not Ignite
Yes = Sample Ignites

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Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC-PA
Address:	2034 E. WELLINGTON RD.
	NEWTOWN PA
Telephone #:	2158601231
Fax #:	215 860 9988
Project Manager:	M. BROGAN
Sampler:	M. BROGAN
Project Name:	[redacted] PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax 2 wk/Std — Results needed by: STD
24 hr* 48 hr* 72 hr* 1 wk*

Hard Copy 3 wk/Std — STD
Other *call for price

Rush TAT Charge **
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

EDD's
SRP. dbf format
SRP.wk1 format
lab approved custom EDD
NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TCL,TAL	VO+10	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
TRIP		11/9/09		AQ	1	1		✓					1			
TP7	4.25-4.75		9:30	S	4	2	✓						1	2	1	
TPS-1	3.17-3.67		10:00			3	✓						1	2	1	
TP5-2	5.67-6.17		10:30			4	✓						1	2	1	
TP2-1	2-2.5		11:30			5	✓						1	2	1	
TP2-2	3-3.5		12:00			6	✓						1	2	1	
TP1	4-4.5		1:00			7	✓						1	2	1	
TP6	4.58-5.08		2:00			8	✓						1	2	1	

ANALYTICAL PARAMETERS

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company
Relinquished by: [signature]	11/10/09	2:45	Received by: [signature]
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

Lab Case # 11437

PAGE: 1 of 1

COPIES - WHITE & YELLOW; CLIENT COPY - PINK

PROJECT INFORMATION

E 0 9 - 1 1 4 3 7

Case No. E09-11437 **Project** PALMER

Customer	**PennJersey Environmental Consulting**	**P.O. #**	
Contact	Mike Brogan	**Received**	11/10/2009 14:45
EMail	pecinc@aol.com;nagorbm@yaho	☑ EMail EDDs	**Verbal Due** 11/24/2009
Phone	(973) 664-1199 **Fax** 1(973)664-1127		**Report Due** 12/3/2009

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Mike Brogan

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Mike Brogan

Report Format **Reduced**

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
11437-001	TRIP	n/a	11/9/2009	Soil	mg/Kg	1
11437-002	TP7	4.25 / 4.75	11/9/2009@09:30	Soil	mg/Kg	4
11437-003	TP5-1	3.17 / 3.67	11/9/2009@10:00	Soil	mg/Kg	4
11437-004	TP5-2	5.67 / 6.17	11/9/2009@10:30	Soil	mg/Kg	4
11437-005	TP2-1	2 / 2.5	11/9/2009@11:30	Soil	mg/Kg	4
11437-006	TP2-2	3 / 3.5	11/9/2009@12:00	Soil	mg/Kg	4
11437-007	TP1	4 / 4.5	11/9/2009@13:00	Soil	mg/Kg	4
11437-008	TP6	4.58 / 5.08	11/9/2009@14:00	Soil	mg/Kg	4

Sample #	Tests	Status	QA Method
001	TCL VOA + 10	Run	8260B
002	TCL VO+10	Run	8260B
"	TCL BNA+20	Run	8270C
"	PCB	Run	8082
"	TCL Pesticides	Run	8081A
"	TPH-QAM025	Run	QAM-025
"	TAL Metals	In Process	6020/7471A
"	Cyanide, Total	Run	9012A
003	TCL VO+10	Run	8260B
"	TCL BNA+20	Run	8270C
"	PCB	Run	8082
"	TCL Pesticides	Run	8081A
"	TPH-QAM025	Run	QAM-025
"	TAL Metals	In Process	6020/7471A
"	Cyanide, Total	Run	9012A
004	TCL VO+10	Run	8260B
"	TCL BNA+20	Run	8270C
"	PCB	Run	8082
"	TCL Pesticides	Run	8081A
"	TPH-QAM025	Run	QAM-025
"	TAL Metals	In Process	6020/7471A
"	Cyanide, Total	Run	9012A

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PROJECT INFORMATION

E 0 9 - 1 1 4 3 7

Case No. E09-11437 **Project** PALMER

Sample #	Tests	Status	QA Method
005	TCL VO+10	Run	8260B
"	TCL BNA+20	Run	8270C
"	PCB	Run	8082
"	TCL Pesticides	Run	8081A
"	TPH-QAM025	Run	QAM-025
"	TAL Metals	In Process	6020/7471A
"	Cyanide, Total	Run	9012A
006	TCL VO+10	Run	8260B
"	TCL BNA+20	Run	8270C
"	PCB	Run	8082
"	TCL Pesticides	Run	8081A
"	TPH-QAM025	Run	QAM-025
"	TAL Metals	In Process	6020/7471A
"	Cyanide, Total	Run	9012A
007	TCL VO+10	Run	8260B
"	TCL BNA+20	Run	8270C
"	PCB	Run	8082
"	TCL Pesticides	Run	8081A
"	TPH-QAM025	Run	QAM-025
"	TAL Metals	In Process	6020/7471A
"	Cyanide, Total	Run	9012A
008	TCL VO+10	Run	8260B
"	TCL BNA+20	Run	8270C
"	PCB	Run	8082
"	TCL Pesticides	Run	8081A
"	TPH-QAM025	Run	QAM-025
"	TAL Metals	In Process	6020/7471A
"	Cyanide, Total	Run	9012A

11/11/2009 12:39 by mark - REV 1

PER MIKE BROGAN, ADD TPH-QAM ANALYSIS TO SAMPLES #002 - 008.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 09** **11437** CLIENT: PEC - PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE

Comments

KEY
✓ = YES/NA
✗ = NO

✓	Bottles Intact
✓	no-Missing Bottles
✓	no-Extra Bottles
✓	Sufficient Sample Volume
✓	no-headspace/bubbles in VOs
✓	Labels intact/correct
✓	pH Check (exclude VOs)[1]
✓	Correct bottles/preservative
✓	Sufficient Holding/Prep Time[1]
	Sample to be Subcontracted
✓	**Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [signature] DATE 11/10/09

CORRECTIVE ACTION REQUIRED: **YES** (SEE BELOW) **NO**

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES Date/ Time: NO

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KJ DATE 11/10/09

Laboratory Custody Chronicle

IAL Case No.
E09-11437

Client PennJersey Environmental Consulting

Project PALMER

Received On 11/10/2009@14:45

Department: Volatiles			*Prep. Date*	*Analyst*	*Analysis Date*	*Analyst*
TCL VO+10	11437-002	Soil	n/a	n/a	11/10/09	Xing
"	-003	"	n/a	n/a	11/10/09	Xing
"	-004	"	n/a	n/a	11/10/09	Xing
"	-005	"	n/a	n/a	11/10/09	Xing
"	-006	"	n/a	n/a	11/10/09	Xing
"	-007	"	n/a	n/a	11/10/09	Xing
"	-008	"	n/a	n/a	11/10/09	Xing
TCL VOA + 10	-001	Soil	n/a	n/a	11/12/09	Xing

Department: Semivolatiles			*Prep. Date*	*Analyst*	*Analysis Date*	*Analyst*
TCL BNA+20	-002	Soil	11/13/09	Kou-Liang	11/13/09	JC
"	-003	"	11/13/09	Kou-Liang	11/13/09	JC
"	-004	"	11/13/09	Kou-Liang	11/13/09	JC
"	-005	"	11/13/09	Kou-Liang	11/13/09	JC
"	-006	"	11/13/09	Kou-Liang	11/13/09	JC
"	-007	"	11/13/09	Kou-Liang	11/13/09	JC
"	-008	"	11/13/09	Kou-Liang	11/13/09	JC

Department: GC			*Prep. Date*	*Analyst*	*Analysis Date*	*Analyst*
PCB	-002	Soil	11/17/09	Archimede	11/18/09	Sylvia
"	-003	"	11/17/09	Archimede	11/17/09	Sylvia
"	-004	"	11/17/09	Archimede	11/17/09	Sylvia
"	-005	"	11/17/09	Archimede	11/18/09	Sylvia
"	-006	"	11/17/09	Archimede	11/17/09	Sylvia
"	-007	"	11/17/09	Archimede	11/18/09	Sylvia
"	-008	"	11/17/09	Archimede	11/17/09	Sylvia
TCL Pesticides	-002	Soil	11/17/09	Archimede	11/18/09	Iwona
"	-003	"	11/17/09	Archimede	11/18/09	Iwona
"	-004	"	11/17/09	Archimede	11/18/09	Iwona
"	-005	"	11/17/09	Archimede	11/18/09	Iwona
"	-006	"	11/17/09	Archimede	11/18/09	Iwona
"	-007	"	11/17/09	Archimede	11/18/09	Iwona
"	-008	"	11/17/09	Archimede	11/18/09	Iwona
TPH-QAM025	-002	Soil	11/12/09	Archimede	11/12/09	Margaret
"	-003	"	11/12/09	Archimede	11/12/09	Margaret
"	-004	"	11/12/09	Archimede	11/12/09	Margaret
"	-005	"	11/12/09	Archimede	11/12/09	Margaret
"	-006	"	11/12/09	Archimede	11/12/09	Margaret
"	-007	"	11/12/09	Archimede	11/12/09	Margaret
"	-008	"	11/12/09	Archimede	11/12/09	Margaret

Department: Metals			*Prep. Date*	*Analyst*	*Analysis Date*	*Analyst*
TAL Metals	-002	Soil	11/11/09	Lisa	11/12/09	Wei
"	-003	"	11/11/09	Lisa	11/12/09	Wei
"	-004	"	11/11/09	Lisa	11/12/09	Wei

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Laboratory Custody Chronicle

IAL Case No.

E09-11437

Client PennJersey Environmental Consulting

Project PALMER

Received On 11/10/2009@14:45

"	-005	"	11/11/09	Lisa	11/12/09	Wei
"	-006	"	11/11/09	Lisa	11/12/09	Wei
"	-007	"	11/11/09	Lisa	11/12/09	Wei
"	-008	"	11/11/09	Lisa	11/12/09	Wei

Department: Wet Chemistry			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Cyanide, Total	-002	Soil	n/a	n/a	11/12/09	Geeta
"	-003	"	n/a	n/a	11/12/09	Geeta
"	-004	"	n/a	n/a	11/12/09	Geeta
"	-005	"	n/a	n/a	11/12/09	Geeta
"	-006	"	n/a	n/a	11/12/09	Geeta
"	-007	"	n/a	n/a	11/12/09	Geeta
"	-008	"	n/a	n/a	11/12/09	Geeta

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IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E09-12542**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy R QA Program

Sample Summary

IAL Case No.

E09-12542

Client PennJersey Environmental Consulting

Project PALMER

Received On 12/10/2009@13:35

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
12542-001	SB1	n/a	12/ 8/2009@09:30	Soil	4
12542-002	T4-1	5.5/6	12/ 8/2009@13:45	Soil	1
12542-003	T4-2	5.5/6	12/ 8/2009@13:55	Soil	1
12542-004	T4-3	5.5/6	12/ 8/2009@14:05	Soil	1
12542-005	T4-4	5.5/6	12/ 8/2009@14:15	Soil	1
12542-006	T4-5	5.5/6	12/ 8/2009@14:25	Soil	1
12542-007	T5-1	5.5/6	12/ 8/2009@14:35	Soil	1
12542-008	T5-2	5.5/6	12/ 8/2009@14:45	Soil	1
12542-009	T5-3	5.5/6	12/ 8/2009@14:55	Soil	1
12542-010	T5-4	5.5/6	12/ 8/2009@15:05	Soil	1
12542-011	T5-5	5.5/6	12/ 8/2009@15:15	Soil	1
12542-012	T3-1	6/6.5	12/ 8/2009@16:00	Soil	4
12542-013	T3-2	6/6.5	12/ 8/2009@16:05	Soil	4
12542-014	T3-3	6/6.5	12/ 8/2009@16:10	Soil	4
12542-015	T3-4	6/6.5	12/ 8/2009@16:15	Soil	4
12542-016	TRIP	n/a	12/ 8/2009	Aqueous	1

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received one (1) aqueous and fifteen (15) soil sample(s) from PennJersey Environmental Consulting (Project: PALMER) on December 10, 2009 for the analysis of:

(5) PP VOA + 10 + Cis 1,2-DCE
(1) TCL VO+10
(3) PAH
(1) TCL BNA+20
(1) PCB
(1) TCL Pesticides
(10) TPH-DRO-72 HR
(1) TPH-QAM025
(1) TAL Metals
(4) Metal - Lead
(1) Cyanide, Total

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

1/7/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E09-12542

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E09 - 12542

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	GC/MS Tuning Specifications: a. BFB Passed		✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4.	GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5.	GC/MS Calibration Requirements: a. Calibration Check Compounds		na
	b. System Performance Check Compounds		na
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
	If not met, were the calculations checked and the results qualified as "estimated"?		na
8.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		na
9.	Internal Standard Area/Retention Time Shift meet criteria		✓
10.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		na
11.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12.	Sample Dilution Performed		✓

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other
	✓		

13. Comments:

Organics Manager

12/16/09
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS SEMIVOLATILE ANALYSIS

Lab Case Number: E09 - 12542

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. DFTPP Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series.		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
a. B/N Fraction		
b. Acid Fraction		
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
a. B/N Fraction		
b. Acid Fraction		
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
a. B/N Fraction		
b. Acid Fraction		
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
11. Analysis Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
12. Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

12-18-09
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S

Lab Case Number: E09 - 12542

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. Standards Summary submitted.		✓
3. Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5. Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7. Retention Time Shift Meet Criteria (if applicable).		✓
8. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

12/14/09
Date

rev 01/09

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PESTICIDES

Lab Case Number: E09 - 12542

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		V
2.	Standards Summary submitted.		V
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		V
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	V	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		V
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range: MS, MSD failed criteria due to matrix interference	V	
7.	Retention Time Shift Meet Criteria (if applicable).		V
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		V
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		V

Comments:
BL Spk. passed criteria

Organic Manager

12/17/08
Date

rev 01/09

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - Miscellaneous
Including Hydrocarbons, Metabolic Acids, and Gas Screens

Lab Case Number: E09 - 12542

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. Standards Summary submitted.		✓
3. Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
5. Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
6. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
7. Retention Time Shift Meet Criteria (if applicable).		✓
8. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
9. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		

Comments:

Organic Manager

12-14-09
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - Miscellaneous
Including Hydrocarbons, Metabolic Acids, and Gas Screens

Lab Case Number: E09-12542

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		

Comments: QAm

Organic Manager

12-14-09
Date

rev 01/09

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
METAL ANALYSIS

Lab Case Number: E09-12542

		No	Yes
1.	Calibration Summary Meet Criteria.		✓
2.	ICP Interference Check Sample Results Meets Criteria (if applicable)		✓
3.	Serial Dilution/Post Spike Summary Submitted (if applicable) / Meets Criteria		✓
4.	Internal Standards Meet Criteria (if applicable)		✓
5.	Laboratory Control Sample Summary Submitted (if applicable) / Meets Criteria		✓
6.	Blank Contamination: If yes, list compounds and concentrations in each blank:	✓	
7.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).		✓
8.	Extraction Holding Time Met. If not, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not, list number of days exceeded for each sample:		✓

Additional Comments:

Wei Cheng
Inorganic Manager

December 11, 2009
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E09-12542

	Lab ID:	12542-016	
	Client ID:	TRIP	
	Matrix:	Aqueous	
	Sampled Date	12/8/09	
PARAMETER(Units)	Conc	Q	MDL
Volatiles + Cis 1,2-DCE (Units)	*(mg/L-ppm)*		
cis-1,2-Dichloroethene	ND		0.100
TOTAL VO's:	ND		
TOTAL TIC's:	ND		
TOTAL VO's & TIC's:	ND		

	Lab ID:	12542-001		12542-002		12542-003		12542-004	
	Client ID:	SB1		T4-1		T4-2		T4-3	
	Depth:			5.5/6		5.5/6		5.5/6	
	Matrix:	Soil		Soil		Soil		Soil	
	Sampled Date	12/8/09		12/8/09		12/8/09		12/8/09	
PARAMETER(Units)	Conc	Q	MDL	Conc	Q MDL	Conc	Q MDL	Conc	Q MDL
Volatiles (Units)	*(mg/Kg-ppm)*								
Toluene	1.51		0.201	~	~	~	~	~	~
TOTAL VO's:	1.51								
TOTAL TIC's:	27.1			~	~	~	~	~	~
TOTAL VO's & TIC's:	28.6			~	~	~	~	~	~
Semivolatiles - BNA (Units)	*(mg/Kg-ppm)*								
4-Methylphenol	1.06		0.132	~	~	~	~	~	~
Naphthalene	0.131	J	0.132	~	~	~	~	~	~
Phenanthrene	0.386		0.132	~	~	~	~	~	~
Anthracene	0.091	J	0.132	~	~	~	~	~	~
Fluoranthene	0.444		0.132	~	~	~	~	~	~
Pyrene	0.457		0.132	~	~	~	~	~	~
Benzo[a]anthracene	0.292		0.132	~	~	~	~	~	~
Chrysene	0.392		0.132	~	~	~	~	~	~
Benzo[b]fluoranthene	0.133		0.132	~	~	~	~	~	~
Benzo[k]fluoranthene	0.109	J	0.132	~	~	~	~	~	~
Benzo[a]pyrene	0.120	J	0.132	~	~	~	~	~	~
Indeno[1,2,3-cd]pyrene	0.080	J	0.132	~	~	~	~	~	~
Benzo[g,h,i]perylene	0.093	J	0.132	~	~	~	~	~	~
TOTAL BNA'S:	3.79	J							
TOTAL TIC's:	164			~	~	~	~	~	~
TOTAL BNA'S & TIC's:	168	J		~	~	~	~	~	~
Semivolatiles - PAH (Units)				*(mg/Kg-ppm)*					
Naphthalene	~		~	0.596	0.031	~	~	~	~
Acenaphthylene	~		~	1.13	0.093	~	~	~	~
Acenaphthene	~		~	5.30	0.010	~	~	~	~
Fluorene	~		~	6.26	0.024	~	~	~	~
Phenanthrene	~		~	21.1	0.060	~	~	~	~
Anthracene	~		~	3.72	0.023	~	~	~	~
Fluoranthene	~		~	3.48	0.036	~	~	~	~
Pyrene	~		~	15.6	0.036	~	~	~	~
Benzo[a]anthracene	~		~	3.00	0.048	~	~	~	~
Chrysene	~		~	3.78	0.080	~	~	~	~
Benzo[b]fluoranthene	~		~	0.735	0.075	~	~	~	~
Benzo[k]fluoranthene	~		~	0.323	0.050	~	~	~	~
Benzo[a]pyrene	~		~	2.05	0.048	~	~	~	~
Indeno[1,2,3-cd]pyrene	~		~	0.275	0.046	~	~	~	~
Dibenz[a,h]anthracene	~		~	0.217	0.046	~	~	~	~
Benzo[g,h,i]perylene	~		~	0.819	0.074	~	~	~	~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E09-12542

	Lab ID:	12542-001			12542-002			12542-003			12542-004		
	Client ID:	SB1			T4-1			T4-2			T4-3		
	Depth:				5.5/6			5.5/6			5.5/6		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	12/8/09			12/8/09			12/8/09			12/8/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)		*(mg/Kg-ppm)*											
Aroclor-1016		ND		0.00132	~		~	~		~	~		~
Aroclor-1221		ND		0.00132	~		~	~		~	~		~
Aroclor-1232		ND		0.00132	~		~	~		~	~		~
Aroclor-1242		ND		0.00132	~		~	~		~	~		~
Aroclor-1248		ND		0.00132	~		~	~		~	~		~
Aroclor-1254		ND		0.00132	~		~	~		~	~		~
Aroclor-1260		ND		0.00132	~		~	~		~	~		~
Hydrocarbons (Units)					*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO		~		~	8130		350	394		68.5	ND		68.8
Hydrocarbons (Units)		*(mg/Kg-ppm)*											
Total TPHC		1810		11.8	~		~	~		~	~		~
Pesticides (Units)		*(mg/Kg-ppm)*											
alpha-BHC		ND		0.000331	~		~	~		~	~		~
beta-BHC		ND		0.000331	~		~	~		~	~		~
gamma-BHC (Lindane)		ND		0.000331	~		~	~		~	~		~
delta-BHC		ND		0.000331	~		~	~		~	~		~
Heptachlor		ND		0.000331	~		~	~		~	~		~
Aldrin		ND		0.000331	~		~	~		~	~		~
Heptachlor epoxide		ND		0.000331	~		~	~		~	~		~
Endosulfan I		ND		0.000331	~		~	~		~	~		~
4,4'-DDE		ND		0.000331	~		~	~		~	~		~
Dieldrin		ND		0.000331	~		~	~		~	~		~
Endrin		ND		0.000331	~		~	~		~	~		~
Endosulfan II		ND		0.000331	~		~	~		~	~		~
4,4'-DDD		ND		0.000331	~		~	~		~	~		~
Endrin aldehyde		ND		0.000331	~		~	~		~	~		~
Endosulfan sulfate		ND		0.000331	~		~	~		~	~		~
4,4'-DDT		ND		0.000331	~		~	~		~	~		~
Endrin ketone		ND		0.000331	~		~	~		~	~		~
Methoxychlor		ND		0.000331	~		~	~		~	~		~
alpha-Chlordane		ND		0.000331	~		~	~		~	~		~
gamma-Chlordane		ND		0.000331	~		~	~		~	~		~
Toxaphene		ND		0.000993	~		~	~		~	~		~
Metals (Units)		*(mg/Kg-ppm)*											
Aluminum		15000		21.6	~		~	~		~	~		~
Antimony		3.16		2.16	~		~	~		~	~		~
Arsenic		146		2.16	~		~	~		~	~		~
Barium		155		21.6	~		~	~		~	~		~
Beryllium		3.42		1.08	~		~	~		~	~		~
Cadmium		23.1		0.539	~		~	~		~	~		~
Calcium		20600		108	~		~	~		~	~		~
Chromium		33.8		4.31	~		~	~		~	~		~
Cobalt		15.6		4.31	~		~	~		~	~		~
Copper		317		4.31	~		~	~		~	~		~
Iron		91900		53.9	~		~	~		~	~		~
Lead		671		1.08	~		~	~		~	~		~
Magnesium		4900		108	~		~	~		~	~		~
Manganese		28400		2.16	~		~	~		~	~		~

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E09-12542

	Lab ID:	12542-001			12542-002			12542-003			12542-004		
	Client ID:	SB1			T4-1			T4-2			T4-3		
	Depth:				5.5/6			5.5/6			5.5/6		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	12/8/09			12/8/09			12/8/09			12/8/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)		*(mg/Kg-ppm)*											
Mercury		2.98		0.028	~		~	~		~	~		~
Nickel		30.4		2.16	~		~	~		~	~		~
Potassium		604		108	~		~	~		~	~		~
Selenium		18.6		4.31	~		~	~		~	~		~
Silver		2.08		1.08	~		~	~		~	~		~
Sodium		ND		216	~		~	~		~	~		~
Thallium		ND		0.539	~		~	~		~	~		~
Vanadium		21.1		4.31	~		~	~		~	~		~
Zinc		230000		43.1	~		~	~		~	~		~
General Analytical (Units)													
Cyanide, Total(mg/Kg-ppm)		6.07		2.01	~		~	~		~	~		~

	Lab ID:	12542-005			12542-006			12542-007			12542-008		
	Client ID:	T4-4			T4-5			T5-1			T5-2		
	Depth:	5.5/6			5.5/6			5.5/6			5.5/6		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	12/8/09			12/8/09			12/8/09			12/8/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO		ND		71.5	ND		67.4	356		70.0	ND		68.3

	Lab ID:	12542-009			12542-010			12542-011			12542-012		
	Client ID:	T5-3			T5-4			T5-5			T3-1		
	Depth:	5.5/6			5.5/6			5.5/6			6/6.5		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	12/8/09			12/8/09			12/8/09			12/8/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles + Cis 1,2-DCE (Units)											*(mg/Kg-ppm)*		
cis-1,2-Dichloroethene		~		~	~		~	~		~	ND		0.477
Benzene		~		~	~		~	~		~	1.18		0.238
Ethylbenzene		~		~	~		~	~		~	37.5		0.477
Total Xylenes		~		~	~		~	~		~	19.3		0.477
TOTAL VO's:											58.0		
TOTAL TIC's:		~		~	~		~	~		~	719		
TOTAL VO's & TIC's:		~		~	~		~	~		~	777		
Semivolatiles - PAH (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*								
Naphthalene		ND		0.028	ND		0.010	~		~	~		~
Acenaphthylene		ND		0.086	ND		0.032	~		~	~		~
Acenaphthene		ND		0.0095	ND		0.00348	~		~	~		~
Fluorene		ND		0.022	ND		0.00805	~		~	~		~
Phenanthrene		0.205		0.056	ND		0.020	~		~	~		~
Anthracene		ND		0.021	ND		0.00782	~		~	~		~
Fluoranthene		1.44		0.033	ND		0.012	~		~	~		~
Pyrene		3.18		0.033	ND		0.012	~		~	~		~
Benzo[a]anthracene		1.75		0.044	ND		0.016	~		~	~		~
Chrysene		1.94		0.074	ND		0.027	~		~	~		~
Benzo[b]fluoranthene		1.82		0.070	ND		0.025	~		~	~		~
Benzo[k]fluoranthene		1.75		0.047	ND		0.017	~		~	~		~
Benzo[a]pyrene		2.22		0.044	ND		0.016	~		~	~		~
Indeno[1,2,3-cd]pyrene		0.872		0.042	ND		0.015	~		~	~		~
Dibenz[a,h]anthracene		0.342		0.042	ND		0.015	~		~	~		~
Benzo[g,h,i]perylene		1.02		0.068	ND		0.025	~		~	~		~

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.
SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E09-12542

	Lab ID:	12542-009			12542-010			12542-011			12542-012		
	Client ID:	T5-3			T5-4			T5-5			T3-1		
	Depth:	5.5/6			5.5/6			5.5/6			6/6.5		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	12/8/09			12/8/09			12/8/09			12/8/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*					
TPH-DRO		6380		64.7	598		70.8	ND		70.1	~		~
Metals (Units)											*(mg/Kg-ppm)*		
Lead		~		~	~		~	~		~	61.2		0.604

	Lab ID:	12542-013			12542-014			12542-015		
	Client ID:	T3-2			T3-3			T3-4		
	Depth:	6/6.5			6/6.5			6/6.5		
	Matrix:	Soil			Soil			Soil		
	Sampled Date	12/8/09			12/8/09			12/8/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles + Cis 1,2-DCE (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
cis-1,2-Dichloroethene		ND		0.108	ND		0.531	ND		0.084
Ethylbenzene		ND		0.108	4.17		0.531	0.339		0.084
TOTAL VO's:		ND			4.17			0.339		
TOTAL TIC's:		177			445			137		
TOTAL VO's & TIC's:		177			449			137		
Metals (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Lead		9.81		0.620	10.9		0.599	16.3		0.641

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-001
Client ID: SB1
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Data file: J6568.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 50.3

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.201
Chloromethane	ND		0.201
Vinyl chloride	ND		0.201
Bromomethane	ND		0.201
Chloroethane	ND		0.201
Trichlorofluoromethane	ND		0.201
1,1-Dichloroethene	ND		0.201
Acetone	ND		0.503
Carbon disulfide	ND		0.201
Methylene chloride	ND		0.201
trans-1,2-Dichloroethene	ND		0.201
Methyl tert-butyl ether (MTBE)	ND		0.201
1,1-Dichloroethane	ND		0.201
cis-1,2-Dichloroethene	ND		0.201
2-Butanone (MEK)	ND		0.201
Bromochloromethane	ND		0.201
Chloroform	ND		0.201
1,1,1-Trichloroethane	ND		0.201
Carbon tetrachloride	ND		0.201
1,2-Dichloroethane (EDC)	ND		0.201
Benzene	ND		0.101
Trichloroethene	ND		0.201
1,2-Dichloropropane	ND		0.201
Bromodichloromethane	ND		0.201
cis-1,3-Dichloropropene	ND		0.201
4-Methyl-2-pentanone (MIBK)	ND		0.201

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-001
Client ID: SB1
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Data file: J6568.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 50.3

Compound	Concentration	Q	MDL
Toluene	1.51		0.201
trans-1,3-Dichloropropene	ND		0.201
1,1,2-Trichloroethane	ND		0.201
Tetrachloroethene	ND		0.201
2-Hexanone	ND		0.402
Dibromochloromethane	ND		0.201
1,2-Dibromoethane (EDB)	ND		0.201
Chlorobenzene	ND		0.201
Ethylbenzene	ND		0.201
Total Xylenes	ND		0.201
Styrene	ND		0.201
Bromoform	ND		0.201
Isopropylbenzene	ND		0.201
1,1,2,2-Tetrachloroethane	ND		0.201
1,3-Dichlorobenzene	ND		0.201
1,4-Dichlorobenzene	ND		0.201
1,2-Dichlorobenzene	ND		0.201
1,2-Dibromo-3-chloropropane	ND		0.201
1,2,4-Trichlorobenzene	ND		0.201
1,2,3-Trichlorobenzene	ND		0.201
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.201
Methyl acetate	ND		0.201
Cyclohexane	ND		0.201
Methylcyclohexane	ND		0.201
Total Target Compounds:	1.51		

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-001
Client ID: SB1
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Date File: J6568.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 50.3

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown	1.85	12.09
	Unknown alkane	1.51	13.13
	Unknown cyclic hydrocarbon	2.13	14.91
	Unknown alkane	3.50	15.06
	Unknown cyclic hydrocarbon	4.21	15.57
	Unknown alkane	3.58	15.75
	Unknown cyclic hydrocarbon	1.77	16.26
	Unknown cyclic hydrocarbon	2.90	16.69
	Unknown alkane	2.27	16.91
	Unknown cyclic hydrocarbon	3.40	17.95

Total TICs = 27.1

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-012
Client ID: T3-1/6-6.5
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Data file: J6571.D

GC/MS Column: DB-624
Sample wt/vol: 0.012g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 12.6

Compound	Concentration	Q	MDL
Chloromethane	ND		0.477
Vinyl chloride	ND		0.477
Bromomethane	ND		0.477
Chloroethane	ND		0.477
Trichlorofluoromethane	ND		0.477
Acrolein	ND		0.477
1,1-Dichloroethene	ND		0.477
Methylene chloride	ND		0.477
Acrylonitrile	ND		0.477
trans-1,2-Dichloroethene	ND		0.477
1,1-Dichloroethane	ND		0.477
cis-1,2-Dichloroethene	ND		0.477
Chloroform	ND		0.477
1,1,1-Trichloroethane	ND		0.477
Carbon tetrachloride	ND		0.477
1,2-Dichloroethane (EDC)	ND		0.477
Benzene	1.18		0.238
Trichloroethene	ND		0.477
1,2-Dichloropropane	ND		0.477
Bromodichloromethane	ND		0.477
2-Chloroethyl vinyl ether	ND		0.477
cis-1,3-Dichloropropene	ND		0.477
Toluene	ND		0.477
trans-1,3-Dichloropropene	ND		0.477
1,1,2-Trichloroethane	ND		0.477
Tetrachloroethene	ND		0.477
Dibromochloromethane	ND		0.477
Chlorobenzene	ND		0.477
Ethylbenzene	37.5		0.477
Total Xylenes	19.3		0.477
Bromoform	ND		0.477
1,1,2,2-Tetrachloroethane	ND		0.477
1,3-Dichlorobenzene	ND		0.477
1,4-Dichlorobenzene	ND		0.477
1,2-Dichlorobenzene	ND		0.477

Total Target Compounds: 58.0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-012
Client ID: T3-1/6-6.5
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Date File: J6571.D

GC/MS Column: DB-624
Sample wt/vol: 0.012g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	108	12.50
	Unknown aromatic	66.0	13.02
	Unknown aromatic	54.3	13.36
	Unknown aromatic	44.6	14.41
	Unknown aromatic	88.7	14.91
	Unknown alkane	127	15.07
000091-20-3	Naphthalene	79.2	15.62
	Unknown alkane	52.9	15.76
	Unknown aromatic	44.1	16.27
	Unknown aromatic	54.3	16.84

Total TICs = 719

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-013
Client ID: T3-2/6-6.5
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Data file: J6570.D

GC/MS Column: DB-624
Sample wt/vol: 0.057g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.9

Compound	Concentration	Q	MDL
Chloromethane	ND		0.108
Vinyl chloride	ND		0.108
Bromomethane	ND		0.108
Chloroethane	ND		0.108
Trichlorofluoromethane	ND		0.108
Acrolein	ND		0.108
1,1-Dichloroethene	ND		0.108
Methylene chloride	ND		0.108
Acrylonitrile	ND		0.108
trans-1,2-Dichloroethene	ND		0.108
1,1-Dichloroethane	ND		0.108
cis-1,2-Dichloroethene	ND		0.108
Chloroform	ND		0.108
1,1,1-Trichloroethane	ND		0.108
Carbon tetrachloride	ND		0.108
1,2-Dichloroethane (EDC)	ND		0.108
Benzene	ND		0.054
Trichloroethene	ND		0.108
1,2-Dichloropropane	ND		0.108
Bromodichloromethane	ND		0.108
2-Chloroethyl vinyl ether	ND		0.108
cis-1,3-Dichloropropene	ND		0.108
Toluene	ND		0.108
trans-1,3-Dichloropropene	ND		0.108
1,1,2-Trichloroethane	ND		0.108
Tetrachloroethene	ND		0.108
Dibromochloromethane	ND		0.108
Chlorobenzene	ND		0.108
Ethylbenzene	ND		0.108
Total Xylenes	ND		0.108
Bromoform	ND		0.108
1,1,2,2-Tetrachloroethane	ND		0.108
1,3-Dichlorobenzene	ND		0.108
1,4-Dichlorobenzene	ND		0.108
1,2-Dichlorobenzene	ND		0.108

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-013
Client ID: T3-2/6-6.5
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Date File: J6570.D

GC/MS Column: DB-624
Sample wt/vol: 0.057g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.9

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	14.8	13.36
	Unknown aromatic	14.5	14.16
	Unknown aromatic	12.2	14.43
	Unknown aromatic	21.9	14.91
	Unknown alkane	42.0	15.07
	Unknown cyclic hydrocarbon	12.3	15.58
	Unknown alkane	19.4	15.76
	Unknown aromatic	15.7	16.27
	Unknown alkane	11.8	16.92
	Unknown aromatic	12.7	17.05

Total TICs = 177

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-014
Client ID: T3-3/6-6.5
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Data file: J6572.D

GC/MS Column: DB-624
Sample wt/vol: 0.011g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 14.4

Compound	Concentration	Q	MDL
Chloromethane	ND		0.531
Vinyl chloride	ND		0.531
Bromomethane	ND		0.531
Chloroethane	ND		0.531
Trichlorofluoromethane	ND		0.531
Acrolein	ND		0.531
1,1-Dichloroethene	ND		0.531
Methylene chloride	ND		0.531
Acrylonitrile	ND		0.531
trans-1,2-Dichloroethene	ND		0.531
1,1-Dichloroethane	ND		0.531
cis-1,2-Dichloroethene	ND		0.531
Chloroform	ND		0.531
1,1,1-Trichloroethane	ND		0.531
Carbon tetrachloride	ND		0.531
1,2-Dichloroethane (EDC)	ND		0.531
Benzene	ND		0.266
Trichloroethene	ND		0.531
1,2-Dichloropropane	ND		0.531
Bromodichloromethane	ND		0.531
2-Chloroethyl vinyl ether	ND		0.531
cis-1,3-Dichloropropene	ND		0.531
Toluene	ND		0.531
trans-1,3-Dichloropropene	ND		0.531
1,1,2-Trichloroethane	ND		0.531
Tetrachloroethene	ND		0.531
Dibromochloromethane	ND		0.531
Chlorobenzene	ND		0.531
Ethylbenzene	4.17		0.531
Total Xylenes	ND		0.531
Bromoform	ND		0.531
1,1,2,2-Tetrachloroethane	ND		0.531
1,3-Dichlorobenzene	ND		0.531
1,4-Dichlorobenzene	ND		0.531
1,2-Dichlorobenzene	ND		0.531

Total Target Compounds: 4.17

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-014
Client ID: T3-3/6-6.5
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Date File: J6572.D

GC/MS Column: DB-624
Sample wt/vol: 0.011g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 14.4

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	31.8	13.36
	Unknown aromatic	37.4	14.42
	Unknown aromatic	63.9	14.91
	Unknown alkane	76.8	15.07
	Unknown aromatic	26.9	15.35
000091-20-3	Naphthalene	62.2	15.62
	Unknown aromatic	29.9	16.27
	Unknown aromatic	45.1	16.84
	Unknown aromatic	37.0	17.05
	Unknown aromatic	33.7	18.40

Total TICs = 445

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-015
Client ID: T3-4/6-6.5
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Data file: J6569.D

GC/MS Column: DB-624
Sample wt/vol: 0.072g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.6

Compound	Concentration	Q	MDL
Chloromethane	ND		0.084
Vinyl chloride	ND		0.084
Bromomethane	ND		0.084
Chloroethane	ND		0.084
Trichlorofluoromethane	ND		0.084
Acrolein	ND		0.084
1,1-Dichloroethene	ND		0.084
Methylene chloride	ND		0.084
Acrylonitrile	ND		0.084
trans-1,2-Dichloroethene	ND		0.084
1,1-Dichloroethane	ND		0.084
cis-1,2-Dichloroethene	ND		0.084
Chloroform	ND		0.084
1,1,1-Trichloroethane	ND		0.084
Carbon tetrachloride	ND		0.084
1,2-Dichloroethane (EDC)	ND		0.084
Benzene	ND		0.042
Trichloroethene	ND		0.084
1,2-Dichloropropane	ND		0.084
Bromodichloromethane	ND		0.084
2-Chloroethyl vinyl ether	ND		0.084
cis-1,3-Dichloropropene	ND		0.084
Toluene	ND		0.084
trans-1,3-Dichloropropene	ND		0.084
1,1,2-Trichloroethane	ND		0.084
Tetrachloroethene	ND		0.084
Dibromochloromethane	ND		0.084
Chlorobenzene	ND		0.084
Ethylbenzene	0.339		0.084
Total Xylenes	ND		0.084
Bromoform	ND		0.084
1,1,2,2-Tetrachloroethane	ND		0.084
1,3-Dichlorobenzene	ND		0.084
1,4-Dichlorobenzene	ND		0.084
1,2-Dichlorobenzene	ND		0.084

Total Target Compounds: 0.339

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-015
Client ID: T3-4/6-6.5
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Date File: J6569.D

GC/MS Column: DB-624
Sample wt/vol: 0.072g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.6

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	13.2	12.49
	Unknown aromatic	11.5	13.36
	Unknown aromatic	13.1	13.73
	Unknown aromatic	11.1	14.42
	Unknown aromatic	21.0	14.91
	Unknown alkane	26.9	15.07
	Unknown alkane	9.93	15.76
	Unknown aromatic	10.3	16.27
	Unknown aromatic	10.9	16.84
	Unknown aromatic	9.36	17.05

Total TICs = 137

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-016
Client ID: TRIP
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Data file: J6567.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Chloromethane	ND		0.100
Vinyl chloride	ND		0.100
Bromomethane	ND		0.100
Chloroethane	ND		0.100
Trichlorofluoromethane	ND		0.100
Acrolein	ND		0.100
1,1-Dichloroethene	ND		0.100
Methylene chloride	ND		0.100
Acrylonitrile	ND		0.100
trans-1,2-Dichloroethene	ND		0.100
1,1-Dichloroethane	ND		0.100
cis-1,2-Dichloroethene	ND		0.100
Chloroform	ND		0.100
1,1,1-Trichloroethane	ND		0.100
Carbon tetrachloride	ND		0.100
1,2-Dichloroethane (EDC)	ND		0.100
Benzene	ND		0.050
Trichloroethene	ND		0.100
1,2-Dichloropropane	ND		0.100
Bromodichloromethane	ND		0.100
2-Chloroethyl vinyl ether	ND		0.100
cis-1,3-Dichloropropene	ND		0.100
Toluene	ND		0.100
trans-1,3-Dichloropropene	ND		0.100
1,1,2-Trichloroethane	ND		0.100
Tetrachloroethene	ND		0.100
Dibromochloromethane	ND		0.100
Chlorobenzene	ND		0.100
Ethylbenzene	ND		0.100
Total Xylenes	ND		0.100
Bromoform	ND		0.100
1,1,2,2-Tetrachloroethane	ND		0.100
1,3-Dichlorobenzene	ND		0.100
1,4-Dichlorobenzene	ND		0.100
1,2-Dichlorobenzene	ND		0.100

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-016
Client ID: TRIP
Date Received: 12/10/2009
Date Analyzed: 12/11/2009
Data file: J6567.D

GC/MS Column: DB-624
Sample wt/vol: 0.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-001
Client ID: SB1
Date Received: 12/10/2009
Date Extracted: 12/15/2009
Date Analyzed: 12/15/2009
Data file: C8004.D

GC/MS Column: DB-5
Sample wt/vol: 15.20g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 50.3

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.132
Phenol	ND		0.132
Bis(2-chloroethyl) ether	ND		0.132
2-Chlorophenol	ND		0.132
2-Methylphenol	ND		0.132
Bis(2-chloroisopropyl) ether	ND		0.132
4-Methylphenol	1.06		0.132
N-Nitrosodi-n-propylamine	ND		0.132
Acetophenone	ND		0.132
Hexachloroethane	ND		0.132
Nitrobenzene	ND		0.132
Isophorone	ND		0.132
2-Nitrophenol	ND		0.132
2,4-Dimethylphenol	ND		0.132
Bis(2-chloroethoxy) methane	ND		0.132
2,4-Dichlorophenol	ND		0.132
Naphthalene	0.131	J	0.132
4-Chloroaniline	ND		0.132
Hexachlorobutadiene	ND		0.132
Caprolactam	ND		0.132
4-Chloro-3-methylphenol	ND		0.132
2-Methylnaphthalene	ND		0.132
Hexachlorocyclopentadiene	ND		0.132
2,4,6-Trichlorophenol	ND		0.132
2,4,5-Trichlorophenol	ND		0.132
1,1'-Biphenyl	ND		0.132
2-Chloronaphthalene	ND		0.132
2-Nitroaniline	ND		0.132
Dimethyl phthalate	ND		0.132

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-001
Client ID: SB1
Date Received: 12/10/2009
Date Extracted: 12/15/2009
Date Analyzed: 12/15/2009
Data file: C8004.D

GC/MS Column: DB-5
Sample wt/vol: 15.20g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 50.3

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.132
Acenaphthylene	ND		0.132
3-Nitroaniline	ND		0.132
Acenaphthene	ND		0.132
2,4-Dinitrophenol	ND		0.132
4-Nitrophenol	ND		0.132
2,4-Dinitrotoluene	ND		0.132
Dibenzofuran	ND		0.132
Diethyl phthalate	ND		0.132
Fluorene	ND		0.132
4-Chlorophenyl phenyl ether	ND		0.132
4-Nitroaniline	ND		0.132
1,2,4,5-Tetrachlorobenzene	ND		0.132
4,6-Dinitro-2-methylphenol	ND		0.132
N-Nitrosodiphenylamine	ND		0.132
4-Bromophenyl phenyl ether	ND		0.132
Hexachlorobenzene	ND		0.132
Atrazine	ND		0.132
Pentachlorophenol	ND		0.132
Phenanthrene	0.386		0.132
Anthracene	0.091	J	0.132
Carbazole	ND		0.132
Di-n-butyl phthalate	ND		0.132
Fluoranthene	0.444		0.132
Pyrene	0.457		0.132
Butyl benzyl phthalate	ND		0.132
3,3'-Dichlorobenzidine	ND		0.132
Benzo[a]anthracene	0.292		0.132
Chrysene	0.392		0.132
Bis(2-ethylhexyl) phthalate	ND		0.132
Di-n-octyl phthalate	ND		0.132
Benzo[b]fluoranthene	0.133		0.132
Benzo[k]fluoranthene	0.109	J	0.132
Benzo[a]pyrene	0.120	J	0.132
Indeno[1,2,3-cd]pyrene	0.080	J	0.132
Dibenz[a,h]anthracene	ND		0.132
Benzo[g,h,i]perylene	0.093	J	0.132
Total Target Compounds:	3.79	J	

0029

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-001
Client ID: SB1
Date Received: 12/10/2009
Date Extracted: 12/15/2009
Date Analyzed: 12/15/2009
Date File: C8004.D

GC/MS Column: DB-5
Sample wt/vol: 15.20g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 50.3

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	1.73	1.42
	Unknown alkane	1.20	3.46
	Unknown alkane	2.71	3.50
	Unknown	1.44	3.56
	Unknown	1.59	3.76
	Unknown alkane	3.04	3.94
	Unknown alkane	1.52	4.31
	Substituted benzene	3.14	4.76
	Substituted benzene	31.9	4.83
	Unknown	42.3	4.89
	Unknown aromatic	51.6	4.94
	Unknown	2.87	4.98
	Unknown	1.34	5.16
	Unknown	1.38	5.39
	Unknown	2.77	5.64
	Unknown	1.44	5.78
	Unknown	2.29	5.87
	Unknown	3.90	5.94
	Unknown	3.15	6.60
	Unknown	2.24	8.15

Total TICs = 164

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-002
Client ID: T4-1/5.5-6
Date Received: 12/10/2009
Date Extracted: 12/17/2009
Date Analyzed: 12/17/2009
Data file: C8042.D

GC/MS Column: DB-5
Sample wt/vol: 5.21g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.1

Compound	Concentration	Q	MDL
Naphthalene	0.596		0.031
Acenaphthylene	1.13		0.093
Acenaphthene	5.30		0.010
Fluorene	6.26		0.024
Phenanthrene	21.1		0.060
Anthracene	3.72		0.023
Fluoranthene	3.48		0.036
Pyrene	15.6		0.036
Benzo[a]anthracene	3.00		0.048
Chrysene	3.78		0.080
Benzo[b]fluoranthene	0.735		0.075
Benzo[k]fluoranthene	0.323		0.050
Benzo[a]pyrene	2.05		0.048
Indeno[1,2,3-cd]pyrene	0.275		0.046
Dibenz[a,h]anthracene	0.217		0.046
Benzo[g,h,i]perylene	0.819		0.074

Total Target Compounds: 68.4

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-009
Client ID: T5-3/5.5-6
Date Received: 12/10/2009
Date Extracted: 12/17/2009
Date Analyzed: 12/17/2009
Data file: C8043.D

GC/MS Column: DB-5
Sample wt/vol: 5.48g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.6

Compound	Concentration	Q	MDL
Naphthalene	ND		0.028
Acenaphthylene	ND		0.086
Acenaphthene	ND		0.0095
Fluorene	ND		0.022
Phenanthrene	0.205		0.056
Anthracene	ND		0.021
Fluoranthene	1.44		0.033
Pyrene	3.18		0.033
Benzo[a]anthracene	1.75		0.044
Chrysene	1.94		0.074
Benzo[b]fluoranthene	1.82		0.070
Benzo[k]fluoranthene	1.75		0.047
Benzo[a]pyrene	2.22		0.044
Indeno[1,2,3-cd]pyrene	0.872		0.042
Dibenz[a,h]anthracene	0.342		0.042
Benzo[g,h,i]perylene	1.02		0.068
Total Target Compounds:	16.5		

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-010
Client ID: T5-4/5.5-6
Date Received: 12/10/2009
Date Extracted: 12/17/2009
Date Analyzed: 12/17/2009
Data file: C8044.D

GC/MS Column: DB-5
Sample wt/vol: 15.34g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 15.8

Compound	Concentration	Q	MDL
Naphthalene	ND		0.010
Acenaphthylene	ND		0.032
Acenaphthene	ND		0.00348
Fluorene	ND		0.00805
Phenanthrene	ND		0.020
Anthracene	ND		0.00782
Fluoranthene	ND		0.012
Pyrene	ND		0.012
Benzo[a]anthracene	ND		0.016
Chrysene	ND		0.027
Benzo[b]fluoranthene	ND		0.025
Benzo[k]fluoranthene	ND		0.017
Benzo[a]pyrene	ND		0.016
Indeno[1,2,3-cd]pyrene	ND		0.015
Dibenz[a,h]anthracene	ND		0.015
Benzo[g,h,i]perylene	ND		0.025

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-001
Client ID: SB1
Date Received: 12/10/2009
Date Extracted: 12/11/2009
Date Analyzed: 12/11/2009
Data file: R8328.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.39g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 50.3

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.00132
Aroclor-1221	ND		0.00132
Aroclor-1232	ND		0.00132
Aroclor-1242	ND		0.00132
Aroclor-1248	ND		0.00132
Aroclor-1254	ND		0.00132
Aroclor-1260	ND		0.00132
Total PCBs:	ND		

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-001
Client ID: SB1
Date Received: 12/10/2009
Date Extracted: 12/11/2009
Date Analyzed: 12/11/2009
Data file: V7031.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.39g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 50.3

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000331
beta-BHC	ND		0.000331
gamma-BHC (Lindane)	ND		0.000331
delta-BHC	ND		0.000331
Heptachlor	ND		0.000331
Aldrin	ND		0.000331
Heptachlor epoxide	ND		0.000331
Endosulfan I	ND		0.000331
4,4'-DDE	ND		0.000331
Dieldrin	ND		0.000331
Endrin	ND		0.000331
Endosulfan II	ND		0.000331
4,4'-DDD	ND		0.000331
Endrin aldehyde	ND		0.000331
Endosulfan sulfate	ND		0.000331
4,4'-DDT	ND		0.000331
Endrin ketone	ND		0.000331
Methoxychlor	ND		0.000331
alpha-Chlordane	ND		0.000331
gamma-Chlordane	ND		0.000331
Toxaphene	ND		0.000993

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12542-002	GC Column:	DB-5
Client ID:	T4-1/5.5	Sample wt/vol:	10.21g
Date Received:	12/10/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	5
Date Analyzed:	12/14/2009	% Moisture:	16.1
Data File:	Q4620.D		

Compound	Concentration	Q	MDL
TPH-DRO	8,130		350

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12542-003	GC Column:	DB-5
Client ID:	T4-2/5.5	Sample wt/vol:	10.14g
Date Received:	12/10/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	1
Date Analyzed:	12/11/2009	% Moisture:	13.6
Data File:	Q4540.D		

Compound	Concentration	Q	MDL
TPH-DRO	394		68.5

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12542-004	GC Column:	DB-5
Client ID:	T4-3/5.5	Sample wt/vol:	10.34g
Date Received:	12/10/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	1
Date Analyzed:	12/11/2009	% Moisture:	15.6
Data File:	Q4541.D		

Compound	Concentration	Q	MDL
TPH-DRO	ND		68.8

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12542-005	GC Column:	DB-5
Client ID:	T4-4/5.5	Sample wt/vol:	10.24g
Date Received:	12/10/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	1
Date Analyzed:	12/11/2009	% Moisture:	18.0
Data File:	Q4542.D		

Compound	Concentration	Q	MDL
TPH-DRO	ND		71.5

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12542-006	GC Column:	DB-5
Client ID:	T4-5/5.5	Sample wt/vol:	10.25g
Date Received:	12/10/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	1
Date Analyzed:	12/11/2009	% Moisture:	13.1
Data File:	Q4543.D		

Compound	Concentration	Q	MDL
TPH-DRO	ND		67.4

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12542-007	GC Column:	DB-5
Client ID:	T5-1/5.5	Sample wt/vol:	10.30g
Date Received:	12/10/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	1
Date Analyzed:	12/11/2009	% Moisture:	16.8
Data File:	Q4544.D		

Compound	Concentration	Q	MDL
TPH-DRO	356		70.0

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12542-008	GC Column:	DB-5
Client ID:	T5-2/5.5	Sample wt/vol:	10.74g
Date Received:	12/10/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	1
Date Analyzed:	12/11/2009	% Moisture:	18.2
Data File:	Q4545.D		

Compound	Concentration	Q	MDL
TPH-DRO	ND		68.3

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12542-009	GC Column:	DB-5
Client ID:	T5-3/5.5	Sample wt/vol:	10.74g
Date Received:	12/10/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	1
Date Analyzed:	12/11/2009	% Moisture:	13.6
Data File:	Q4546.D		

Compound	Concentration	Q	MDL
TPH-DRO	6,380		64.7

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12542-010	GC Column:	DB-5
Client ID:	T5-4/5.5	Sample wt/vol:	10.07g
Date Received:	12/10/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	1
Date Analyzed:	12/11/2009	% Moisture:	15.8
Data File:	Q4547.D		

Compound	Concentration	Q	MDL
TPH-DRO	598		70.8

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12542-011	GC Column:	DB-5
Client ID:	T5-5/5.5	Sample wt/vol:	10.51g
Date Received:	12/10/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	1
Date Analyzed:	12/11/2009	% Moisture:	18.6
Data File:	Q4548.D		

Compound	Concentration	Q	MDL
TPH-DRO	ND		70.1

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 12542-001
Client ID: SB1
Date Received: 12/10/2009
Date Extracted: 12/11/2009
Date Analyzed: 12/11/2009
Data file: Z7700.D

GC Column: DB-5
Sample wt/vol: 10.19g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 50.3

Compound	Concentration	Q	MDL
Total TPHC	1810		11.8

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E09-12542-001
Client ID: SB1
Date Received: 12/10/2009
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 50.3
Batch #: 527

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Aluminum	15000		1	21.6	12/11/09	6020
Antimony	3.16		1	2.16	12/11/09	6020
Arsenic	146		1	2.16	12/11/09	6020
Barium	155		1	21.6	12/11/09	6020
Beryllium	3.42		1	1.08	12/11/09	6020
Cadmium	23.1		1	0.539	12/11/09	6020
Calcium	20600		1	108	12/11/09	6020
Chromium	33.8		1	4.31	12/11/09	6020
Cobalt	15.6		1	4.31	12/11/09	6020
Copper	317		1	4.31	12/11/09	6020
Iron	91900		1	53.9	12/11/09	6020
Lead	671		1	1.08	12/11/09	6020
Magnesium	4900		1	108	12/11/09	6020
Manganese	28400		1	2.16	12/11/09	6020
Mercury	2.98		1	0.028	12/11/09	7471A
Nickel	30.4		1	2.16	12/11/09	6020
Potassium	604		1	108	12/11/09	6020
Selenium	18.6		1	4.31	12/11/09	6020
Silver	2.08		1	1.08	12/11/09	6020
Sodium	ND		1	216	12/11/09	6020
Thallium	ND		1	0.539	12/11/09	6020
Vanadium	21.1		1	4.31	12/11/09	6020
Zinc	230000		10	43.1	12/11/09	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Lead

Client/Project: PENNJERSEYPALMER

Batch #: 527
Date Received: 12/10/2009
Method: 6020

Lab ID	Client ID	Result	Q	DF	Matrix-Unit	MDL	% Moist	Date Analyzed
12542-012	T3-1	61.2		1	Soil-mg/Kg	0.604	12.6	12/11/09
12542-013	T3-2	9.81		1	Soil-mg/Kg	0.620	18.9	12/11/09
12542-014	T3-3	10.9		1	Soil-mg/Kg	0.599	14.4	12/11/09
12542-015	T3-4	16.3		1	Soil-mg/Kg	0.641	17.6	12/11/09

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Cyanide, Total

Client/Project: PENNJERSEY/PALMER

Date Received: 12/10/09 13:35

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	% Solid	Date Analyzed
12542-001	SB1	6.07		1	Soil-mg/Kg	2.01	49.7	12/11/09 10:07

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J6458.D BFB Injection Date: 12/04/2009

Inst ID: MSD_J BFB Injection Time: 9:20

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.7			
75	30.0 - 60.0% of mass 95	50.4			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	0.1	(	0.2	)1
174	Great than 50.0% of mass 95	56.4			
175	5.0 - 9.0% of mass 174	4.2	(	7.4	)1
176	95.0 - 101.0% of mass 174	54.9	(	97.3	)1
177	5.0 - 9.0% of mass 176	3.6	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB	STD-20PPB	J6460.D	12/04/2009	11:10
100PPB	STD-100PPB	J6464.D	12/04/2009	13:20
150PPB	STD-150PPB	J6465.D	12/04/2009	13:53
200PPB	STD-200PPB	J6466.D	12/04/2009	14:25
5PPB	STD-5PPB	J6467.D	12/04/2009	14:57
1PPB	STD-1PPB	J6468.D	12/04/2009	15:31

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J6555.D

BFB Injection Date: 12/11/2009

Inst ID: MSD_J

BFB Injection Time: 9:32

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.3			
75	30.0 - 60.0% of mass 95	50.4			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.9			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	58.2			
175	5.0 - 9.0% of mass 174	4.4	(	7.5	)1
176	95.0 - 101.0% of mass 174	55.5	(	95.3	)1
177	5.0 - 9.0% of mass 176	3.6	(	6.5	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	J6556.D	12/11/2009	10:07
NA	METHOD-BLK	J6558.D	12/11/2009	11:11
4-STOCKPILE	12458-004	J6559.D	12/11/2009	11:43
WC-01	12523-001	J6560.D	12/11/2009	14:18
MCCLAREY-WC	12305-001	J6561.D	12/11/2009	14:50
LCS-50PPB	BLK-SPK	J6562.D	12/11/2009	15:22
WEI-COMP	12203-007	J6563.D	12/11/2009	15:54
S-WASTE-2	12439-001	J6564.D	12/11/2009	16:27
MS	12458-004MS	J6565.D	12/11/2009	16:59
MSD	12458-004MSD	J6566.D	12/11/2009	17:31
TRIP	12542-016	J6567.D	12/11/2009	18:03
SB1	12542-001	J6568.D	12/11/2009	18:36
T3-4/6-6.5	12542-015	J6569.D	12/11/2009	19:08
T3-2/6-6.5	12542-013	J6570.D	12/11/2009	19:41
T3-1/6-6.5	12542-012	J6571.D	12/11/2009	20:13
T3-3/6-6.5	12542-014	J6572.D	12/11/2009	20:45
GP-2/15	12451-002	J6573.D	12/11/2009	21:17

VOLATILE METHOD BLANK SUMMARY

Lab File ID: J6558.D

Instrument ID: MSD_J

Date Analyzed: 12/11/2009

Time Analyzed: 11:11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
4-STOCKPILE	12458-004	12/11/2009	11:43
WC-01	12523-001	12/11/2009	14:18
MCCLAREY-WC	12305-001	12/11/2009	14:50
LCS-50PPB	BLK-SPK	12/11/2009	15:22
WEI-COMP	12203-007	12/11/2009	15:54
S-WASTE-2	12439-001	12/11/2009	16:27
MS	12458-004MS	12/11/2009	16:59
MSD	12458-004MSD	12/11/2009	17:31
TRIP	12542-016	12/11/2009	18:03
SB1	12542-001	12/11/2009	18:36
T3-4/6-6.5	12542-015	12/11/2009	19:08
T3-2/6-6.5	12542-013	12/11/2009	19:41
T3-1/6-6.5	12542-012	12/11/2009	20:13
T3-3/6-6.5	12542-014	12/11/2009	20:45
GP-2/15	12451-002	12/11/2009	21:17

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: NA
Date Received:
Date Analyzed: 12/11/2009
Data file: J6558.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 50
% Moisture: 0

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.050
Chloromethane	ND		0.050
Vinyl chloride	ND		0.050
Bromomethane	ND		0.050
Chloroethane	ND		0.050
Trichlorofluoromethane	ND		0.050
1,1-Dichloroethene	ND		0.050
Acetone	ND		0.125
Carbon disulfide	ND		0.050
Methylene chloride	ND		0.050
trans-1,2-Dichloroethene	ND		0.050
Methyl tert-butyl ether (MTBE)	ND		0.050
1,1-Dichloroethane	ND		0.050
cis-1,2-Dichloroethene	ND		0.050
2-Butanone (MEK)	ND		0.050
Bromochloromethane	ND		0.050
Chloroform	ND		0.050
1,1,1-Trichloroethane	ND		0.050
Carbon tetrachloride	ND		0.050
1,2-Dichloroethane (EDC)	ND		0.050
Benzene	ND		0.025
Trichloroethene	ND		0.050
1,2-Dichloropropane	ND		0.050
Bromodichloromethane	ND		0.050
cis-1,3-Dichloropropene	ND		0.050
4-Methyl-2-pentanone (MIBK)	ND		0.050

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: NA
Date Received:
Date Analyzed: 12/11/2009
Data file: J6558.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 50
% Moisture: 0

Compound	Concentration	Q	MDL
Toluene	ND		0.050
trans-1,3-Dichloropropene	ND		0.050
1,1,2-Trichloroethane	ND		0.050
Tetrachloroethene	ND		0.050
2-Hexanone	ND		0.100
Dibromochloromethane	ND		0.050
1,2-Dibromoethane (EDB)	ND		0.050
Chlorobenzene	ND		0.050
Ethylbenzene	ND		0.050
Total Xylenes	ND		0.050
Styrene	ND		0.050
Bromoform	ND		0.050
Isopropylbenzene	ND		0.050
1,1,2,2-Tetrachloroethane	ND		0.050
1,3-Dichlorobenzene	ND		0.050
1,4-Dichlorobenzene	ND		0.050
1,2-Dichlorobenzene	ND		0.050
1,2-Dibromo-3-chloropropane	ND		0.050
1,2,4-Trichlorobenzene	ND		0.050
1,2,3-Trichlorobenzene	ND		0.050
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050
Methyl acetate	ND		0.050
Cyclohexane	ND		0.050
Methylcyclohexane	ND		0.050

Total Target Compounds: 0

0054

Response Factor Report MSD_J

Method Path : C:\MSDCHEM\1\METHODS\
Method File : JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Fri Dec 04 16:21:17 2009
Response Via : Initial Calibration

Calibration Files
5 =J6467.D 100 =J6464.D 20 =J6460.D
150 =J6465.D 200 =J6466.D 1 =J6468.D

		Compound	5	100	20	150	200	1	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluorom	0.912	0.887	0.847	0.796	0.883	0.820	0.858	5.16
3)	P	Chloromethane	0.871	0.687	0.841	0.770	0.808	0.961	0.823	11.27
4)	C	Vinyl chloride	0.764	0.618	0.704	0.604	0.646	0.603	0.657	9.89
5)	T	Bromomethane	0.312	0.297	0.286	0.283	0.256	0.321	0.293	7.90
6)	T	Chloroethane	0.262	0.336	0.377	0.322	0.297	0.284	0.313	13.13
7)	T	Trichlorofluorome	0.695	0.697	0.672	0.770	0.731	0.704	0.711	4.81
8)	T	Acrolein	0.044	0.042	0.049	0.042	0.042	0.049	0.044	8.49
9)	MC	1,1-Dichloroethen	0.344	0.500	0.458	0.506	0.482	0.474	0.461	13.00
10)	T	Acetone	0.193	0.160	0.194	0.161	0.170	0.232	0.185	14.79
11)	T	Carbon disulfide	1.891	1.653	1.694	1.636	1.618	1.644	1.689	6.05
12)	T	Vinyl acetate	1.476	1.298	1.372	1.284	1.260	1.574	1.377	9.03
13)	T	Methylene chlorid	0.583	0.550	0.610	0.556	0.539	0.571	0.568	4.54
14)	T	Acrylonitrile	0.172	0.165	0.184	0.162	0.165	0.196	0.174	7.53
15)	T	tert-Butyl alcoho	0.060	0.053	0.055	0.052	0.053	0.065	0.057	8.98
16)	T	trans-1,2-Dichlor	0.397	0.428	0.408	0.406	0.416	0.497	0.425	8.58
17)	T	Methyl tert-butyl	1.405	1.409	1.487	1.411	1.419	1.631	1.460	6.11
18)	P	1,1-Dichloroethan	0.823	0.732	0.795	0.713	0.721	0.881	0.777	8.66
19)	T	Diisopropyl ether	1.451	1.228	1.268	1.216	1.219	1.522	1.317	10.18
20)	T	cis-1,2-Dichloroe	0.487	0.402	0.427	0.385	0.385	0.439	0.421	9.32
21)	T	2,2-Dichloropropa	0.465	0.363	0.389	0.344	0.334	0.440	0.389	13.64
22)	T	2-Butanone (MEK)	0.243	0.212	0.224	0.212	0.204	0.268	0.227	10.63
23)	T	Bromochloromethan	0.334	0.296	0.316	0.290	0.285	0.351	0.312	8.53
25)	C	Chloroform	1.230	1.062	1.141	1.039	1.036	1.346	1.142	10.90
26)	T	1,1,1-Trichloroet	0.876	0.746	0.749	0.726	0.750	0.848	0.782	8.05
27)	T	Carbon tetrachlor	0.659	0.590	0.570	0.581	0.612	0.634	0.608	5.62
28)	T	1,1-Dichloroprope	0.871	0.783	0.747	0.750	0.768	0.913	0.805	8.66
29)	T	1,2-Dichloroethan	1.087	0.931	0.955	0.895	0.887	1.193	0.991	12.33
30)	S	1,2-Dichloroethan	0.638	0.591	0.619	0.573	0.569	0.663	0.609	6.18
31)	I	1,4-Difluorobenzene	----------ISTD----------							
32)	M	Benzene	1.446	1.297	1.336	1.257	1.241	1.577	1.359	9.51
33)	M	Trichloroethene	0.359	0.317	0.311	0.316	0.316	0.430	0.341	13.79
34)	C	1,2-Dichloropropa	0.373	0.342	0.348	0.338	0.335	0.407	0.357	7.86
35)	T	Dibromomethane	0.234	0.214	0.216	0.210	0.209	0.284	0.228	12.70
36)	T	1,4-Dioxane	0.005	0.006	0.006	0.005	0.005	0.005	0.005	12.05
37)	T	Bromodichlorometh	0.414	0.400	0.390	0.402	0.404	0.465	0.412	6.55
38)	T	2-Chloroethyl vin	0.165	0.223	0.171	0.224	0.193	0.191	0.195	12.78
39)	T	cis-1,3-Dichlorop	0.444	0.514	0.461	0.512	0.514	0.419	0.477	8.75
40)	T	4-Methyl-2-pentan	0.302	0.364	0.308	0.365	0.370	0.284	0.332	11.56
41)	S	Toluene-d8	0.979	1.022	1.017	1.022	1.014	0.979	1.005	2.08
42)	MC	Toluene	0.867	0.778	0.789	0.760	0.753	1.045	0.832	13.47
43)	T	trans-1,3-Dichlor	0.406	0.495	0.431	0.500	0.502	0.430	0.461	9.37
44)	T	1,1,2-Trichloroet	0.271	0.254	0.255	0.248	0.246	0.291	0.261	6.60
45)	T	Tetrachloroethene	0.259	0.232	0.218	0.222	0.229	0.279	0.240	10.06
46)	T	1,3-Dichloropropa	0.546	0.543	0.517	0.535	0.530	0.540	0.535	1.93
47)	T	2-Hexanone	0.250	0.298	0.254	0.290	0.292	0.227	0.268	10.78
48)	T	Dibromochlorometh	0.241	0.281	0.250	0.290	0.298	0.251	0.268	8.91
49)	T	1,2-Dibromoethane	0.289	0.296	0.280	0.297	0.298	0.308	0.295	3.17
50)	I	Chlorobenzene-d5	----------ISTD----------							
51)	MP	Chlorobenzene	0.971	0.800	0.837	0.775	0.773	0.980	0.856	11.17
52)	T	1,1,1,2-Tetrachlo	0.276	0.258	0.249	0.258	0.262	0.284	0.265	4.96

53)	C	Ethylbenzene	1.465	1.419	1.366	1.389	1.402	1.543	1.431	4.52
54)	T	m,p-Xylene	0.566	0.509	0.516	0.488	0.486	0.520	0.514	5.67
55)	T	o-Xylene	0.475	0.507	0.486	0.504	0.507	0.439	0.486	5.48
56)	T	Styrene	0.912	0.940	0.916	0.930	0.931	0.708	0.889	10.08
57)	P	Bromoform	0.143	0.167	0.139	0.183	0.166	0.136	0.156	12.28
58)	T	Isopropylbenzene	1.066	1.224	1.085	1.249	1.312	0.943	1.147	12.07
59)	S	Bromofluorobenzen	0.583	0.610	0.588	0.638	0.664	0.566	0.608	6.08
60)	P	1,1,2,2-Tetrachlo	0.525	0.492	0.486	0.488	0.487	0.563	0.507	6.14
61)	T	Bromobenzene	0.375	0.335	0.331	0.336	0.341	0.414	0.355	9.25
62)	T	1,2,3-Trichloropr	0.366	0.345	0.328	0.352	0.362	0.394	0.358	6.29
63)	T	n-Propylbenzene	1.672	1.668	1.541	1.689	1.766	1.704	1.673	4.40
64)	T	2-Chlorotoluene	1.191	1.132	1.063	1.144	1.171	1.253	1.159	5.46
65)	T	1,3,5-Trimethylbe	1.169	1.208	1.112	1.204	1.218	1.019	1.155	6.66
66)	T	4-Chlorotoluene	1.571	1.391	1.358	1.380	1.384	1.522	1.434	6.20
67)	T	tert-Butylbenzene	0.770	0.889	0.735	0.889	0.923	0.665	0.812	12.75
68)	T	1,2,4-Trimethylbe	1.355	1.367	1.277	1.327	1.344	1.060	1.288	9.01
69)	T	sec-Butylbenzene	1.402	1.393	1.223	1.345	1.394	1.232	1.332	6.22
70)	T	1,3-Dichlorobenze	0.863	0.742	0.719	0.714	0.724	0.950	0.785	12.51
71)	T	4-Isopropyltoluen	1.266	1.219	1.126	1.161	1.199	1.018	1.165	7.44
72)	T	1,4-Dichlorobenze	0.915	0.804	0.795	0.771	0.770	1.019	0.846	11.90
73)	T	n-Butylbenzene	0.730	0.625	0.597	0.576	0.577	0.572	0.613	9.92
74)	T	1,2-Dichlorobenze	0.934	0.768	0.784	0.722	0.704	1.001	0.819	14.74
75)	T	1,2-Dibromo-3-chl	0.094	0.114	0.090	0.114	0.115	0.102	0.105	10.76
76)	T	1,2,4-Trichlorobe	0.449	0.379	0.353	0.362	0.359	0.472	0.396	13.01
77)	T	Hexachlorobutadie	0.173	0.135	0.157	0.125	0.132	0.146	0.145	12.31
78)	T	Naphthalene	1.478	1.548	1.334	1.472	1.474	1.143	1.408	10.45
79)	T	1,2,3-Trichlorobe	0.446	0.382	0.368	0.362	0.362	0.451	0.395	10.60
80)	T	1,1,2-Trichloro-1	0.128	0.174	0.137	0.145	0.143	0.148	0.146	10.53
81)	T	Methyl acetate	0.256	0.190	0.182	0.184	0.181	0.210	0.201	14.67
82)	T	Cyclohexane	0.558	0.493	0.445	0.443	0.556	0.510	0.501	10.10
83)	T	Methylcyclohexane	0.285	0.283	0.218	0.254	0.286	0.314	0.273	12.08

(#) = Out of Range

JAW1204.M Fri Dec 04 16:21:20 2009 RT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6556.D
Acq On : 11 Dec 2009 10:07
Operator : BINXU
Sample : 100PPB,STD-100PPB,A,5ml,100
Misc : HEXION/GWTS_SHUTDO,12/07/09,12/08/09,
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 16 14:19:47 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	94	0.00
2	T	Dichlorodifluoromethane	0.858	0.694	19.1	74	0.00
3	P	Chloromethane	0.823	0.689	16.3	95	0.00
4	C	Vinyl chloride	0.657	0.531	19.2	81	0.00
5	T	Bromomethane	0.293	0.302	-3.1	96	0.00
6	T	Chloroethane	0.313	0.355	-13.4	100	-0.01
7	T	Trichlorofluoromethane	0.711	0.724	-1.8	98	-0.01
8	T	Acrolein	0.044	0.039	11.4	88	-0.01
9	MC	1,1-Dichloroethene	0.461	0.499	-8.2	94	-0.01
10	T	Acetone	0.185	0.173	6.5	102	-0.01
11	T	Carbon disulfide	1.689	1.567	7.2	90	-0.01
12	T	Vinyl acetate	1.377	1.210	12.1	88	0.00
13	T	Methylene chloride	0.568	0.553	2.6	95	-0.01
14	T	Acrylonitrile	0.174	0.164	5.7	94	0.00
15	T	tert-Butyl alcohol (TBA)	0.057	0.046	19.3	81	-0.01
16	T	trans-1,2-Dichloroethene	0.425	0.399	6.1	88	0.00
17	T	Methyl tert-butyl ether (MT	1.460	1.331	8.8	89	-0.01
18	P	1,1-Dichloroethane	0.777	0.768	1.2	99	0.00
19	T	Diisopropyl ether (DIPE)	1.317	1.282	2.7	99	-0.01
20	T	cis-1,2-Dichloroethene	0.421	0.416	1.2	98	0.00
21	T	2,2-Dichloropropane	0.389	0.407	-4.6	106	0.00
22	T	2-Butanone (MEK)	0.227	0.210	7.5	93	0.00
23	T	Bromochloromethane	0.312	0.295	5.4	94	0.00
25	C	Chloroform	1.142	1.084	5.1	96	0.00
26	T	1,1,1-Trichloroethane	0.782	0.801	-2.4	101	0.00
27	T	Carbon tetrachloride	0.608	0.670	-10.2	107	0.00
28	T	1,1-Dichloropropene	0.805	0.790	1.9	95	-0.01
29	T	1,2-Dichloroethane (EDC)	0.991	0.934	5.8	95	0.00
30	S	1,2-Dichloroethane-d4	0.609	0.576	5.4	92	-0.01
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	96	0.00
32	M	Benzene	1.359	1.308	3.8	96	0.00
33	M	Trichloroethene	0.341	0.318	6.7	96	0.00
34	C	1,2-Dichloropropane	0.357	0.346	3.1	97	0.00
35	T	Dibromomethane	0.228	0.213	6.6	95	0.00
37	T	Bromodichloromethane	0.412	0.414	-0.5	99	0.00
38	T	2-Chloroethyl vinyl ether	0.195	0.200	-2.6	86	0.00
39	T	cis-1,3-Dichloropropene	0.477	0.515	-8.0	96	-0.01
40	T	4-Methyl-2-pentanone (MIBK)	0.332	0.323	2.7	85	0.00
41	S	Toluene-d8	1.005	1.052	-4.7	98	0.00
42	MC	Toluene	0.832	0.813	2.3	100	-0.01
43	T	trans-1,3-Dichloropropene	0.461	0.498	-8.0	96	-0.01
44	T	1,1,2-Trichloroethane	0.261	0.255	2.3	96	-0.01
45	T	Tetrachloroethene	0.240	0.244	-1.7	101	0.00
46	T	1,3-Dichloropropane	0.535	0.547	-2.2	96	-0.01
47	T	2-Hexanone	0.268	0.260	3.0	84	-0.01

48	T	Dibromochloromethane	0.268	0.298	-11.2	102	0.00
49	T	1,2-Dibromoethane (EDB)	0.295	0.300	-1.7	97	-0.01
50	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
51	MP	Chlorobenzene	0.856	0.809	5.5	103	0.00
52	T	1,1,1,2-Tetrachloroethane	0.265	0.265	0.0	104	0.00
53	C	Ethylbenzene	1.431	1.424	0.5	102	-0.01
54	T	m,p-Xylene	0.514	0.508	1.2	101	0.00
55	T	o-Xylene	0.486	0.515	-6.0	103	0.00
56	T	Styrene	0.889	0.935	-5.2	101	0.00
57	P	Bromoform	0.156	0.165	-5.8	100	0.00
58	T	Isopropylbenzene	1.147	1.275	-11.2	106	0.00
59	S	Bromofluorobenzene	0.608	0.637	-4.8	106	0.00
60	P	1,1,2,2-Tetrachloroethane	0.507	0.468	7.7	96	0.00
61	T	Bromobenzene	0.355	0.345	2.8	105	0.00
62	T	1,2,3-Trichloropropane	0.358	0.320	10.6	94	0.00
63	T	n-Propylbenzene	1.673	1.737	-3.8	106	0.00
64	T	2-Chlorotoluene	1.159	1.177	-1.6	105	0.00
65	T	1,3,5-Trimethylbenzene	1.155	1.248	-8.1	105	0.00
66	T	4-Chlorotoluene	1.434	1.418	1.1	103	0.00
67	T	tert-Butylbenzene	0.812	0.939	-15.6	107	0.00
68	T	1,2,4-Trimethylbenzene	1.288	1.378	-7.0	102	0.00
69	T	sec-Butylbenzene	1.332	1.438	-8.0	105	-0.01
70	T	1,3-Dichlorobenzene	0.785	0.754	3.9	103	0.00
71	T	4-Isopropyltoluene	1.165	1.253	-7.6	104	-0.01
72	T	1,4-Dichlorobenzene	0.846	0.809	4.4	102	0.00
73	T	n-Butylbenzene	0.613	0.632	-3.1	103	0.00
74	T	1,2-Dichlorobenzene	0.819	0.759	7.3	100	0.00
75	T	1,2-Dibromo-3-chloropropane	0.105	0.106	-1.0	94	0.00
76	T	1,2,4-Trichlorobenzene	0.396	0.381	3.8	102	0.00
77	T	Hexachlorobutadiene	0.145	0.143	1.4	108	0.00
78	T	Naphthalene	1.408	1.443	-2.5	95	0.00
79	T	1,2,3-Trichlorobenzene	0.395	0.375	5.1	99	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.146	0.165	-13.0	96	0.00
81	T	Methyl acetate	0.201	0.183	9.0	98	0.00
82	T	Cyclohexane	0.501	0.437	12.8	90	0.00
83	T	Methylcyclohexane	0.273	0.243	11.0	87	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

JAW1204.M Wed Dec 16 14:19:52 2009 RT1

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/11/2009

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD-BLK	SOIL	J6558.D	113	95	87
12458-004	SOIL	J6559.D	114	96	85
12523-001	SOIL	J6560.D	106	100	92
12305-001	SOIL	J6561.D	106	96	95
BLK-SPK	MEOH	J6562.D	96	102	99
12203-007	SOIL	J6563.D	105	97	97
12439-001	SOIL	J6564.D	102	99	98
12458-004MS	SOIL	J6565.D	104	96	94
12458-004MSD	SOIL	J6566.D	103	96	94
12542-016	MEOH	J6567.D	103	96	91
12542-001	MEOH	J6568.D	103	97	95
12542-015	MEOH	J6569.D	100	104	96
12542-013	MEOH	J6570.D	101	101	95
12542-012	MEOH	J6571.D	98	104	95
12542-014	MEOH	J6572.D	99	101	96
12451-002	SOIL	J6573.D	96	99	100

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	50-162	39-183
SMC2 = Toluene-d8	50 ppb	79-109	58-143
SMC3 = Bromofluorobenzene	50 ppb	58-120	50-152

Column to be used to flag recovery values

SOIL VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12458-004

Batch No.: J1211

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	47.2	94	41 - 131
Benzene	50.0	0.0	45.7	91	48 - 144
Trichloroethene	50.0	0.0	43.8	88	49 - 131
Toluene	50.0	0.0	45.5	91	50 - 138
Chlorobenzene	50.0	0.0	46.6	93	52 - 135

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD #	% REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	49.5		99	5	22	41 - 131
Benzene	0.0	46.3		93	2	22	48 - 144
Trichloroethene	0.0	44.7		89	1	21	49 - 131
Toluene	0.0	46.0		92	1	21	50 - 138
Chlorobenzene	0.0	47.3		95	2	21	52 - 135

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J6464.D Date Analyzed: 12/04/2009

Instrument ID: MSD_J Time Analyzed: 13:20

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	310757	5.95	572208	6.76	589041	10.10
	UPPER LIMIT	621514	6.45	1144416	7.26	1178082	10.60
	LOWER LIMIT	155378.5	5.45	286104	6.26	294520.5	9.60
	LAB SAMPLE ID						
01	STD-20PPB	309974	5.95	586691	6.76	593976	10.10
02	STD-150PPB	336848	5.94	616634	6.76	642331	10.10
03	STD-200PPB	343018	5.94	629734	6.76	655545	10.10
04	STD-5PPB	318657	5.95	600423	6.76	600348	10.10
05	STD-1PPB	294664	5.95	566967	6.76	575744	10.10
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J6556.D Date Analyzed: 12/11/2009

Instrument ID: MSD_J Time Analyzed: 10:07

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	293255		5.94		547351		6.76		597438		10.10	
	UPPER LIMIT	586510		6.44		1094702		7.26		1194876		10.60	
	LOWER LIMIT	146627.5		5.44		273675.5		6.26		298719		9.60	
	LAB SAMPLE ID												
01	METHOD-BLK	248579		5.94		492109		6.76		529139		10.10	
02	12458-004	237775		5.95		468330		6.76		516355		10.10	
03	12523-001	262399		5.94		505872		6.76		555188		10.09	
04	12305-001	282744		5.94		541209		6.76		575717		10.09	
05	BLK-SPK	329624		5.94		620167		6.76		649192		10.09	
06	12203-007	314002		5.94		600480		6.76		637448		10.09	
07	12439-001	324025		5.94		613356		6.76		657340		10.09	
08	12458-004MS	330219		5.94		634743		6.76		651666		10.09	
09	12458-004MSD	320891		5.94		620290		6.76		646457		10.09	
10	12542-016	241327		5.94		457148		6.76		477481		10.09	
11	12542-001	315145		5.94		599269		6.76		624070		10.09	
12	12542-015	338392		5.94		639452		6.76		705615		10.09	
13	12542-013	307647		5.94		584731		6.76		628729		10.09	
14	12542-012	349920		5.94		656670		6.76		712581		10.09	
15	12542-014	337482		5.94		631391		6.76		674814		10.09	
16	12451-002	342507		5.94		639796		6.76		678343		10.09	
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 15 11:09:56 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration

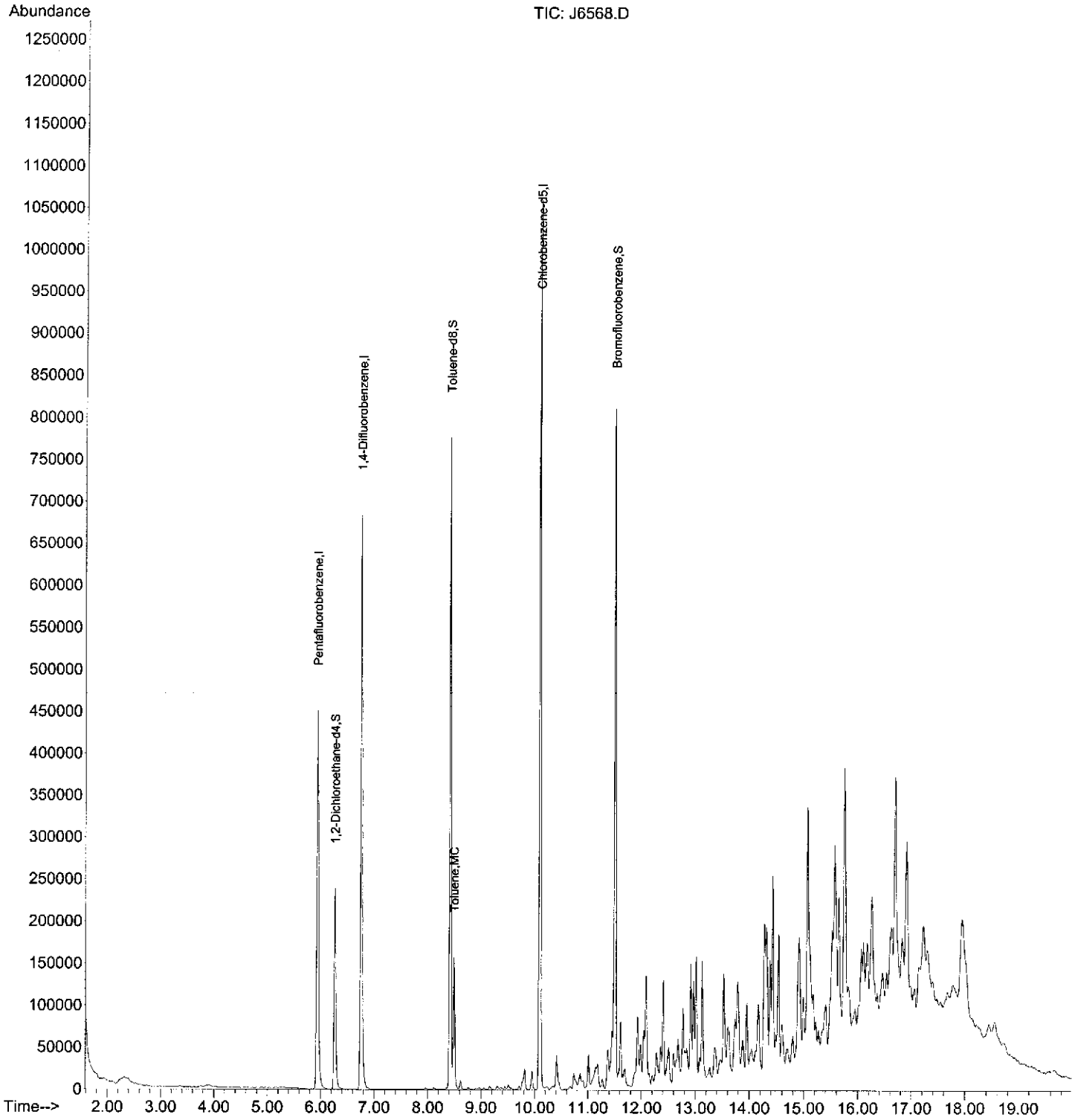
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.94	168	315145	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.76	114	599269	50.00	UG	0.00
50) Chlorobenzene-d5	10.09	117	624070	50.00	UG	-0.01
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.26	65	197202	51.38	UG	-0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 102.76%			
41) Toluene-d8	8.42	98	583556	48.43	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 96.86%			
59) Bromofluorobenzene	11.51	95	359439	47.37	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 94.74%			
Target Compounds						Qvalue
42) Toluene	8.49	92	74966	7.52	UG	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 15 11:09:56 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration



0064

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.314	57	73	92	rBB9	8347	91385	4.55%	0.452%
2	5.939	423	431	453	rBB	451638	1052827	52.46%	5.211%
3	6.263	456	463	483	rBB	239198	532793	26.55%	2.637%
4	6.760	503	512	530	rBB	684580	1482118	73.85%	7.336%
5	8.420	671	676	680	rBB	762521	1459901	72.75%	7.226%
6	8.491	680	683	688	rBB	140699	249429	12.43%	1.235%
7	9.808	806	813	820	rBB3	24813	69307	3.45%	0.343%
8	9.949	820	827	835	rBB	22281	43887	2.19%	0.217%
9	10.091	836	841	852	rBB	1059375	2006852	100.00%	9.933%
10	10.415	869	873	882	rBB2	38806	90002	4.48%	0.445%
11	10.739	901	905	912	rBB3	16863	46198	2.30%	0.229%
12	10.851	912	916	920	rBB	12202	25140	1.25%	0.124%
13	11.013	926	932	936	rBB	38613	68792	3.43%	0.340%
14	11.185	936	949	954	rBB4	26775	128294	6.39%	0.635%
15	11.276	954	958	962	rBB3	10084	21528	1.07%	0.107%
16	11.377	963	968	971	rBB2	33687	78450	3.91%	0.388%
17	11.499	971	980	985	rBB	794074	1695798	84.50%	8.394%
18	11.610	985	991	995	rBB	66196	117531	5.86%	0.582%
19	11.681	995	998	1005	rBB5	13955	29043	1.45%	0.144%
20	11.924	1013	1022	1026	rBB	66110	154470	7.70%	0.765%
21	11.985	1026	1028	1031	rBB	28875	43045	2.14%	0.213%
22	12.086	1031	1038	1047	rBB4	121239	367939	18.33%	1.821%
23	12.278	1052	1057	1062	rBB4	29261	71099	3.54%	0.352%
24	12.359	1062	1065	1067	rBB	23830	36805	1.83%	0.182%
25	12.410	1067	1070	1073	rBB	105174	169985	8.47%	0.841%
26	12.511	1073	1080	1085	rBB4	38741	109725	5.47%	0.543%
27	12.602	1085	1089	1091	rBB	22673	45848	2.28%	0.227%
28	12.684	1091	1097	1102	rBB3	36952	81258	4.05%	0.402%
29	12.775	1102	1106	1109	rBB2	63548	110294	5.50%	0.546%
30	12.916	1117	1120	1123	rBB	112782	185148	9.23%	0.916%
31	12.967	1123	1125	1127	rBB	75763	104236	5.19%	0.516%
32	13.018	1127	1130	1133	rBB	117536	174339	8.69%	0.863%
33	13.129	1134	1141	1148	rBB	136748	298925	14.90%	1.480%
34	13.271	1148	1155	1158	rBB6	11586	28620	1.43%	0.142%
35	13.362	1158	1164	1169	rBB5	33607	102303	5.10%	0.506%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	13.463	1170	1174	1176	rBB5	8137	25284	1.26%	0.125%
37	13.524	1177	1180	1185	rBB	103456	207044	10.32%	1.025%
38	13.605	1185	1188	1193	rBB3	41383	118621	5.91%	0.587%
39	13.737	1197	1201	1203	rBB4	26850	70969	3.54%	0.351%
40	13.787	1203	1206	1211	rBB2	71889	154085	7.68%	0.763%
41	13.878	1211	1215	1219	rBB4	31321	65099	3.24%	0.322%
42	13.959	1219	1223	1226	rBB	75793	147972	7.37%	0.732%
43	14.040	1226	1231	1236	rBB4	17561	53337	2.66%	0.264%
44	14.162	1236	1243	1249	rBB5	74498	227474	11.33%	1.126%
45	14.273	1251	1254	1256	rBB	84124	174592	8.70%	0.864%
46	14.314	1256	1258	1261	rBB3	73596	104485	5.21%	0.517%
47	14.375	1262	1264	1267	rBB	85245	134415	6.70%	0.665%
48	14.425	1267	1269	1272	rBB	176731	256943	12.80%	1.272%
49	14.537	1273	1280	1283	rBB	141930	286695	14.29%	1.419%
50	14.597	1283	1286	1292	rBB4	40825	105839	5.27%	0.524%
51	14.689	1292	1295	1301	rBB6	17728	52678	2.62%	0.261%
52	14.800	1301	1306	1309	rBB3	27906	66872	3.33%	0.331%
53	14.911	1309	1317	1322	rBB3	131496	426330	21.24%	2.110%
54	14.992	1322	1325	1328	rBB	47511	84892	4.23%	0.420%
55	15.063	1328	1332	1341	rBB2	259068	697758	34.77%	3.454%
56	15.175	1341	1343	1345	rBB	27275	25620	1.28%	0.127%
57	15.266	1350	1352	1355	rBB3	15391	21931	1.09%	0.109%
58	15.397	1355	1365	1370	rBB5	47885	192034	9.57%	0.951%
59	15.570	1370	1382	1387	rBB5	188379	839313	41.82%	4.154%
60	15.650	1387	1390	1395	rBB2	119173	208586	10.39%	1.032%
61	15.752	1396	1400	1406	rBB	283450	713311	35.54%	3.531%
62	15.823	1406	1407	1412	rBB3	11997	22827	1.14%	0.113%
63	15.954	1412	1420	1422	rBB7	18534	57360	2.86%	0.284%
64	16.066	1428	1431	1433	rBB3	43952	96370	4.80%	0.477%
65	16.106	1433	1435	1438	rBB	40462	60031	2.99%	0.297%
66	16.177	1438	1442	1445	rBB4	50732	111914	5.58%	0.554%
67	16.258	1445	1450	1458	rBB4	115702	351276	17.50%	1.739%
68	16.461	1464	1470	1474	rBB6	34662	112307	5.60%	0.556%
69	16.542	1474	1478	1480	rBB4	23448	47043	2.34%	0.233%
70	16.623	1480	1486	1489	rBB4	46197	161098	8.03%	0.797%
71	16.694	1489	1493	1502	rBB	219780	577094	28.76%	2.856%
72	16.825	1502	1506	1510	rBB3	39939	91721	4.57%	0.454%
73	16.906	1510	1514	1525	rBB2	159540	453029	22.57%	2.242%
74	17.058	1526	1529	1532	rBB5	17730	35853	1.79%	0.177%
75	17.139	1533	1537	1540	rBB4	22059	66596	3.32%	0.330%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

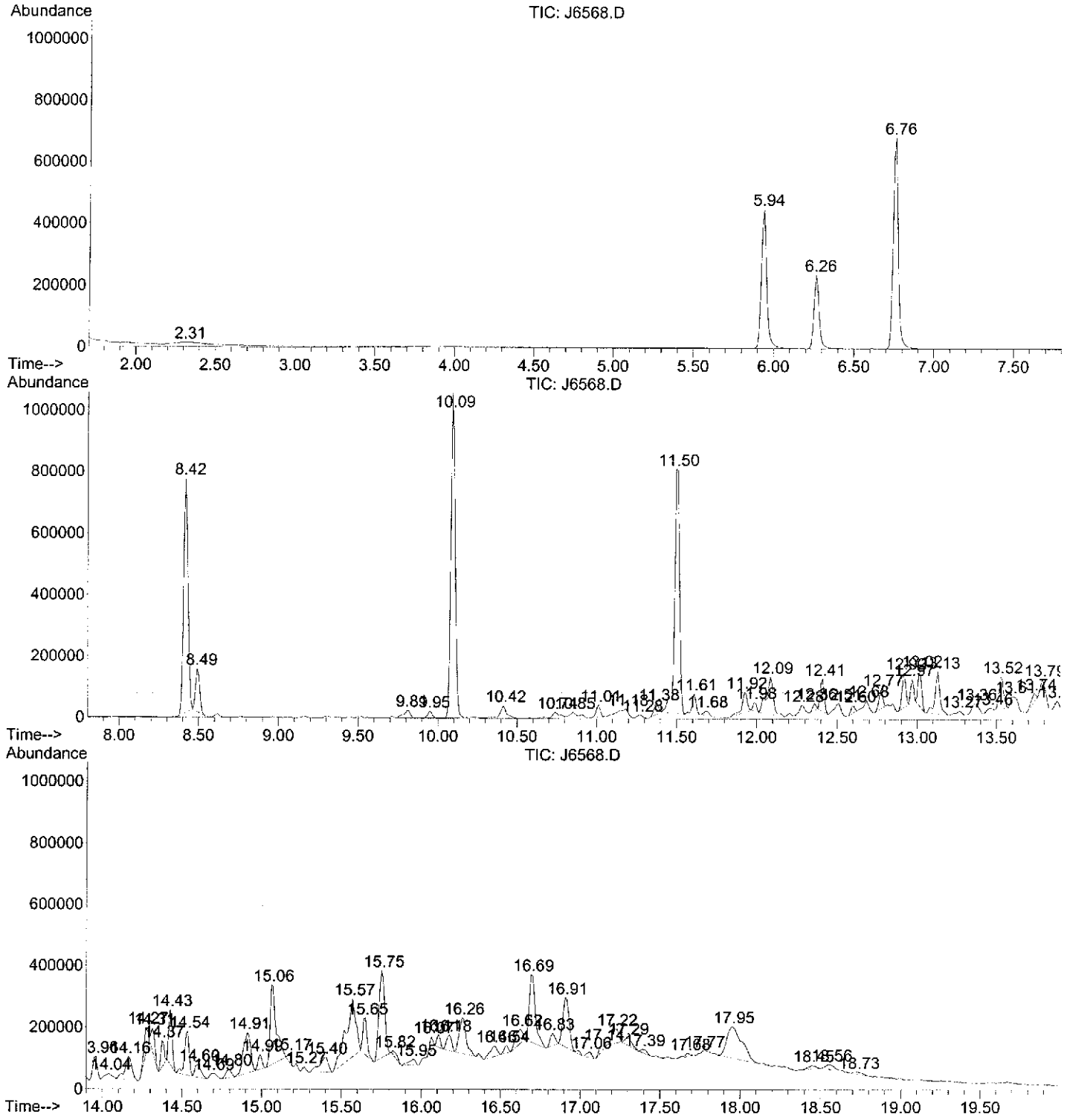
76	17.220	1540	1545	1549	rBB2	45931	126827	6.32%	0.628%
77	17.291	1549	1552	1560	rBB7	20875	64362	3.21%	0.319%
78	17.392	1560	1562	1567	rBB5	10437	26074	1.30%	0.129%
79	17.676	1582	1590	1593	rBB6	9034	30232	1.51%	0.150%
80	17.767	1593	1599	1609	rBB9	14173	68167	3.40%	0.337%
81	17.949	1609	1617	1641	rBB5	102059	677204	33.74%	3.352%
82	18.445	1660	1666	1672	rBB5	11958	41028	2.04%	0.203%
83	18.557	1672	1677	1690	rBB5	16041	66210	3.30%	0.328%
84	18.729	1690	1694	1701	rBB9	6549	23175	1.15%	0.115%

Sum of corrected areas: 20203291

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



0068

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

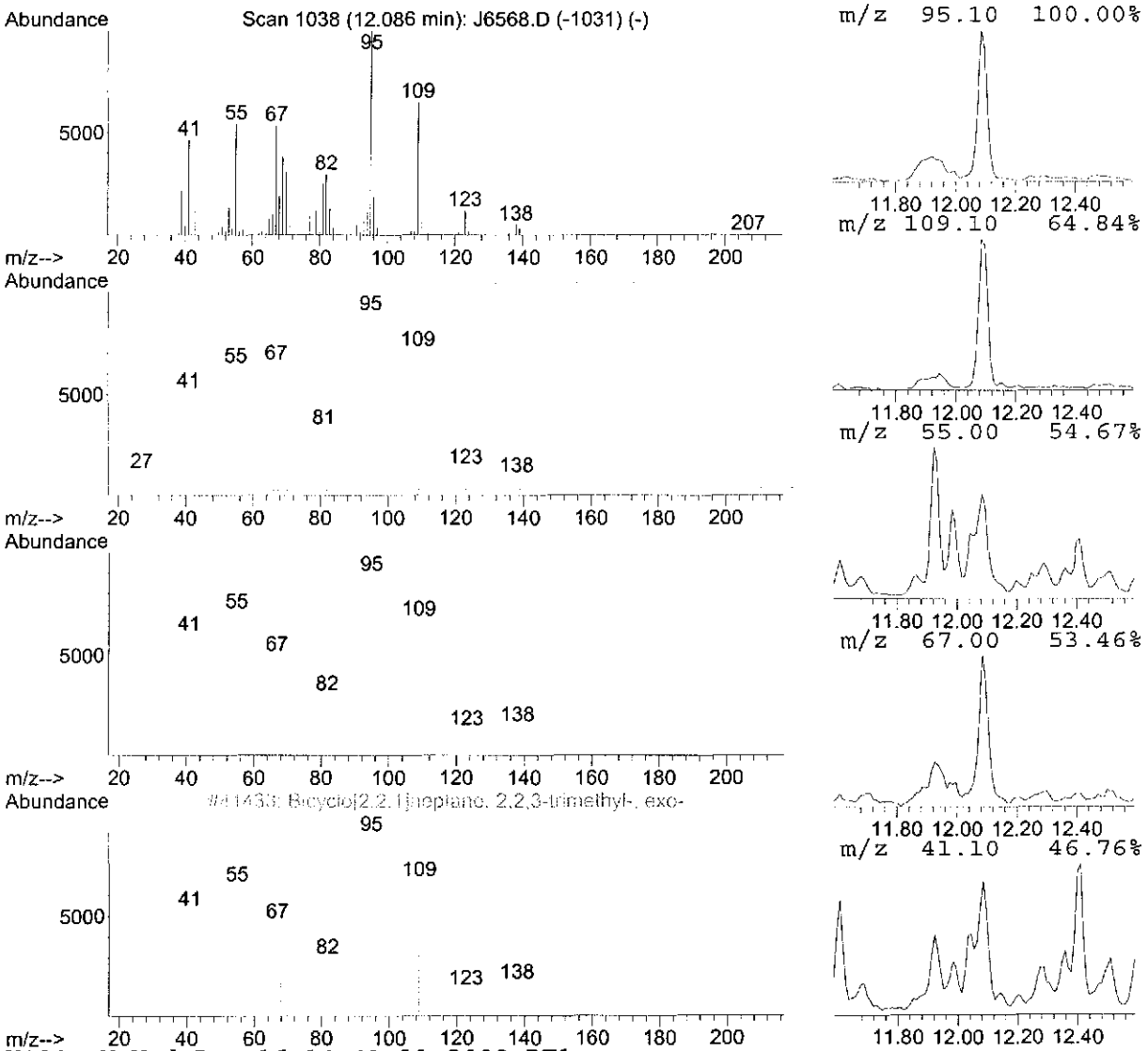
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Unknown Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.09	9.17 UG	367939	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[2.2.1]heptane, 2,2,3-tri...	138	C10H18	000473-19-8	94
2	Bicyclo[2.2.1]heptane, 2,2,3-tri...	138	C10H18	020536-40-7	90
3	Bicyclo[2.2.1]heptane, 2,2,3-tri...	138	C10H18	020536-41-8	83
4	Cyclohexene, 1-methyl-3-(1-methy...	138	C10H18	013828-31-4	53
5	1,3-Dimethyl-1-cyclohexene	110	C8H14	002808-76-6	49



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

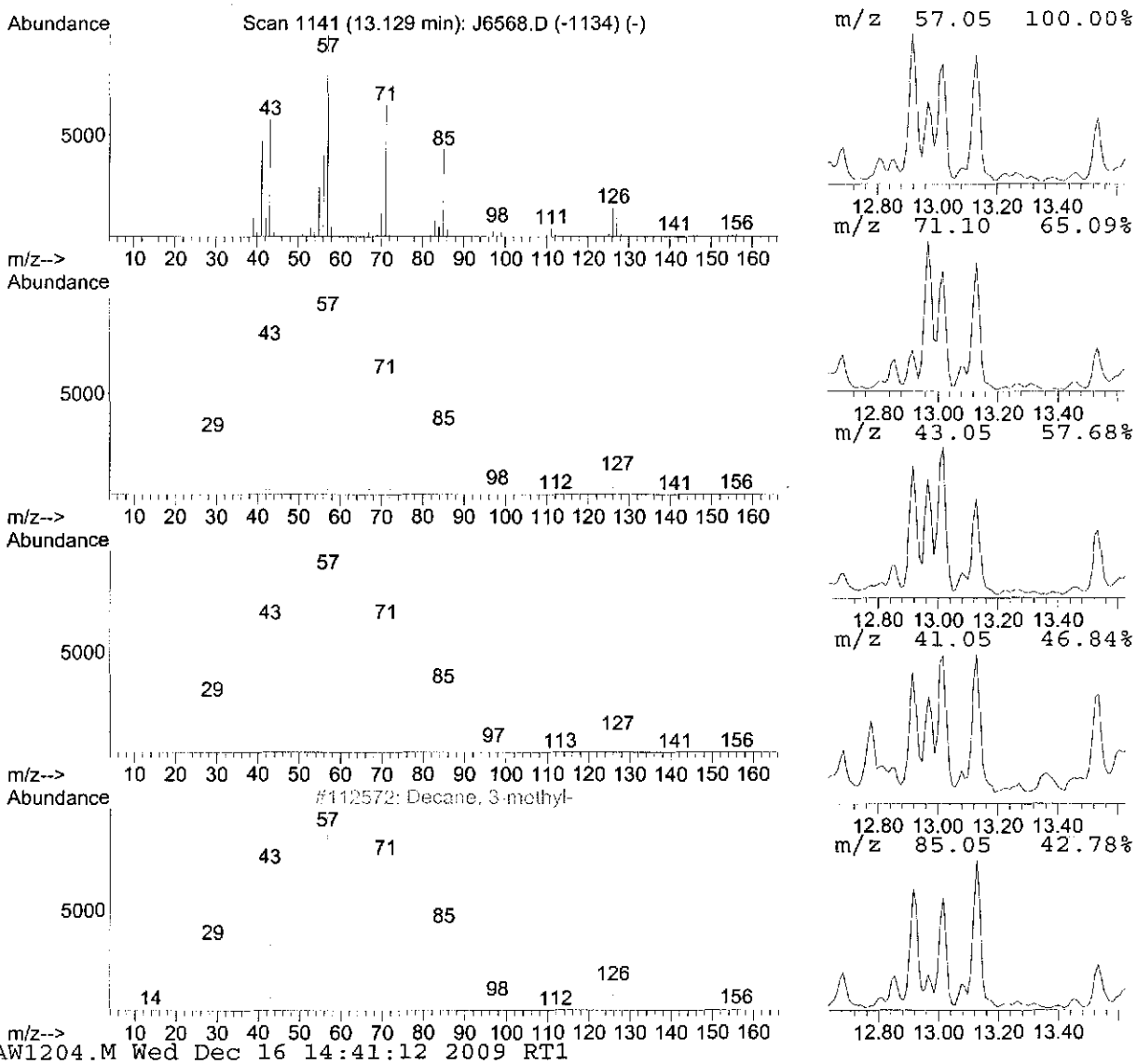
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown alkane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.13	7.45 UG	298925	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane, 3-methyl-	156	C11H24	013151-34-3	94
2	Nonane, 3,7-dimethyl-	156	C11H24	017302-32-8	72
3	Decane, 3-methyl-	156	C11H24	013151-34-3	70
4	Octane, 5-ethyl-2-methyl-	156	C11H24	062016-18-6	59
5	Hexadecane	226	C16H34	000544-76-3	53



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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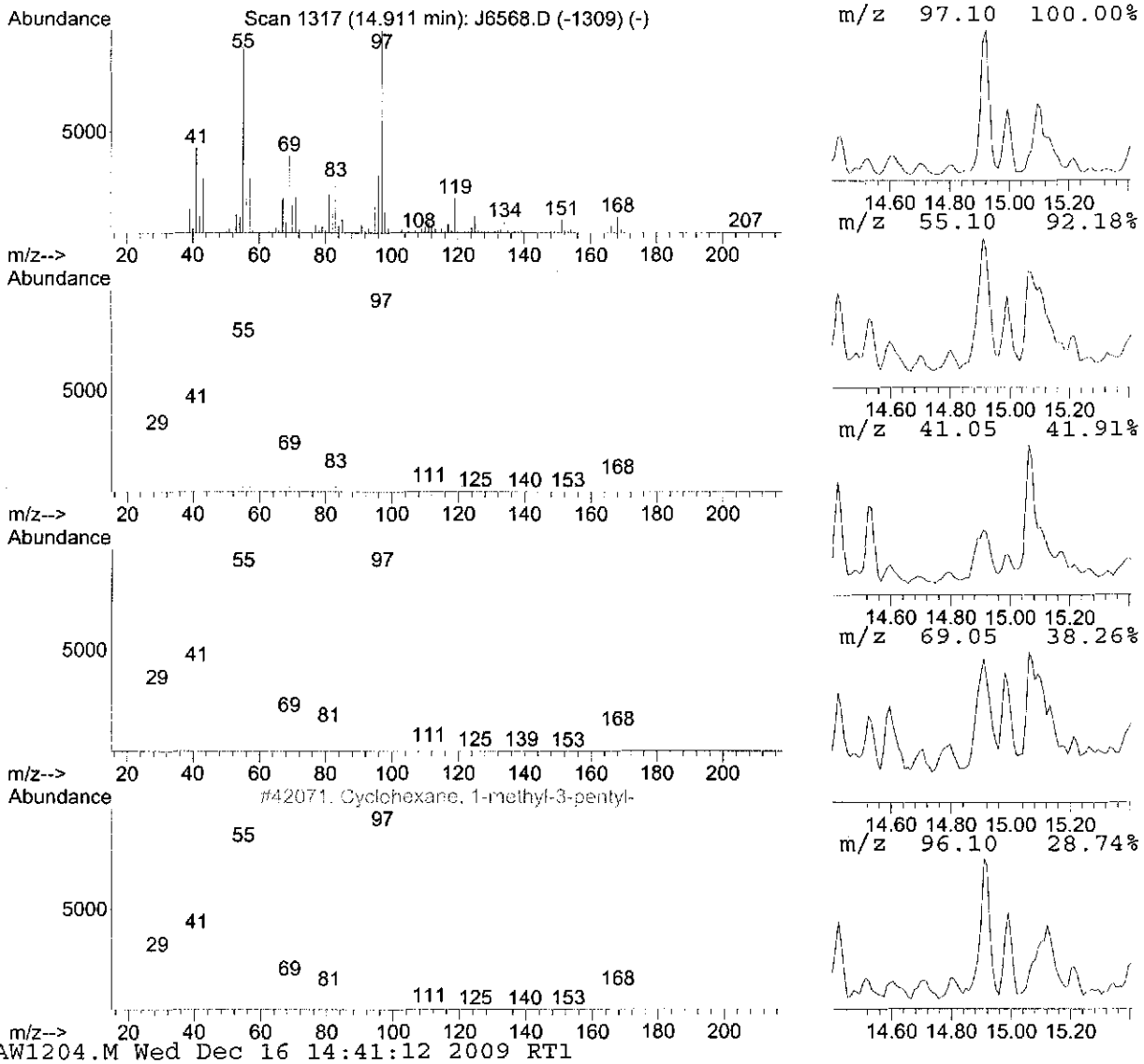
Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.91	10.62 UG	426330	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1-methyl-2-pentyl-	168	C12H24	054411-01-7	81
2	Cyclohexane, 1-methyl-2-pentyl-	168	C12H24	054411-01-7	64
3	Cyclohexane, 1-methyl-3-pentyl-	168	C12H24	054411-02-8	64
4	Cyclohexane, 1-methyl-2-propyl-	140	C10H20	004291-79-6	53
5	Cyclohexane, 1-ethyl-4-methyl-, ...	126	C9H18	006236-88-0	53



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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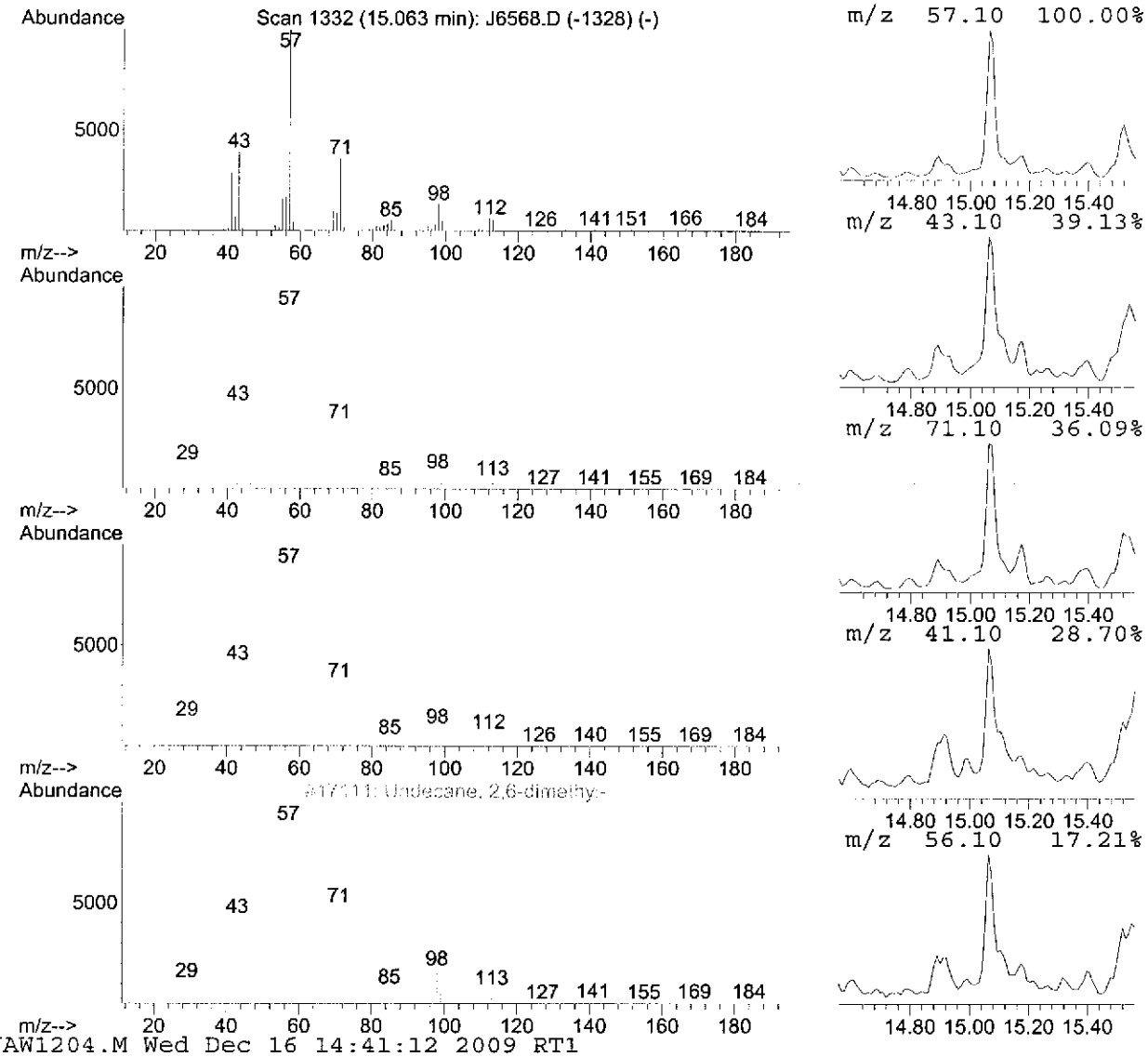
Peak Number 4 Unknown alkane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.06	17.38 UG	697758	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	95
2	Dodecane, 6-methyl-	184	C13H28	006044-71-9	94
3	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	80
4	Undecane, 3,6-dimethyl-	184	C13H28	017301-28-9	76
5	Tridecane, 6-methyl-	198	C14H30	013287-21-3	72



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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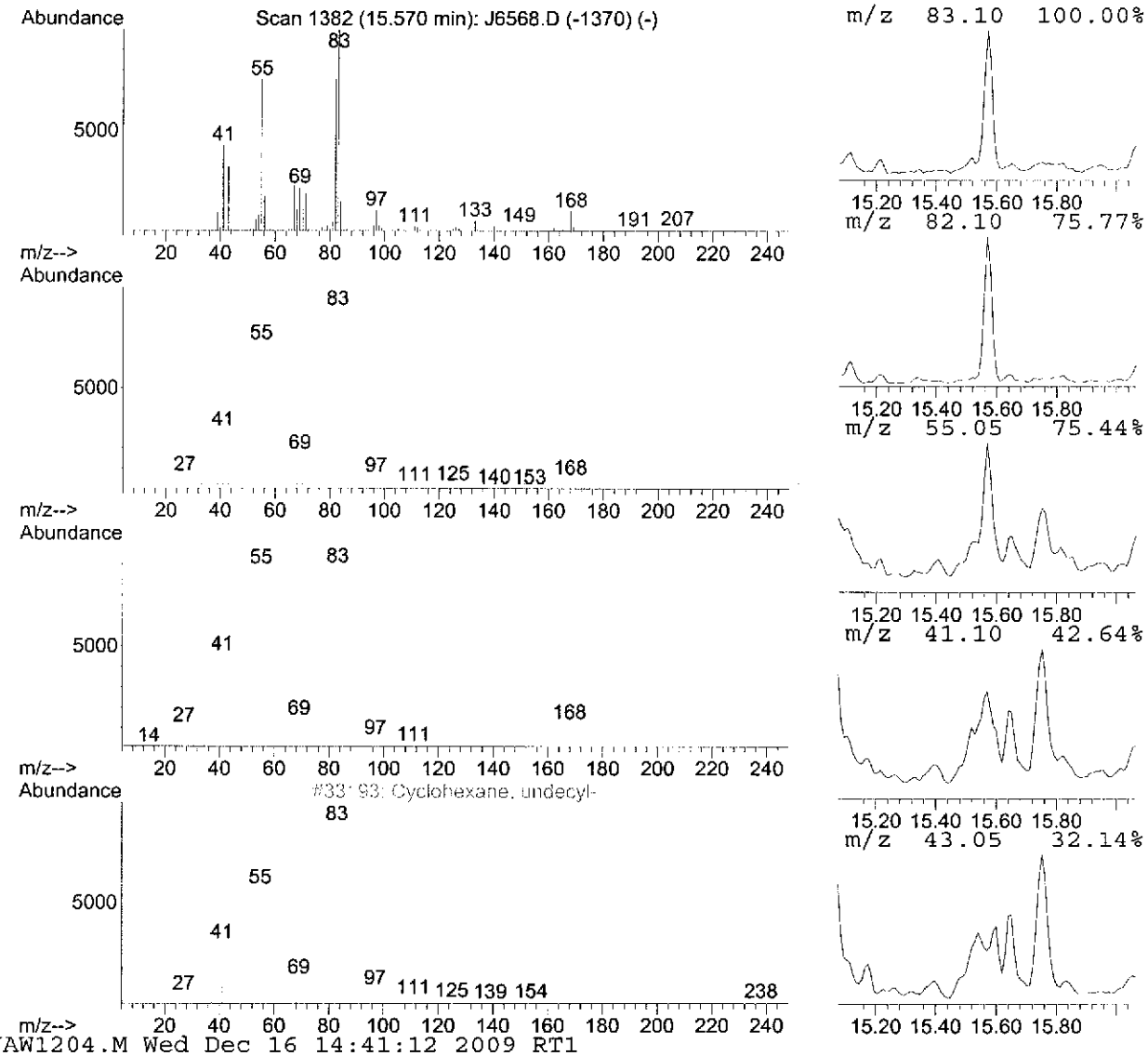
Peak Number 5 Unknown cyclic hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.57	20.91 UG	839313	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, (4-methylpentyl)-	168	C12H24	061142-20-9	90
2	Cyclohexane, hexyl-	168	C12H24	004292-75-5	87
3	Cyclohexane, undecyl-	238	C17H34	054105-66-7	86
4	Cyclohexane, octyl-	196	C14H28	001795-15-9	80
5	Cyclohexane, pentyl-	154	C11H22	004292-92-6	72



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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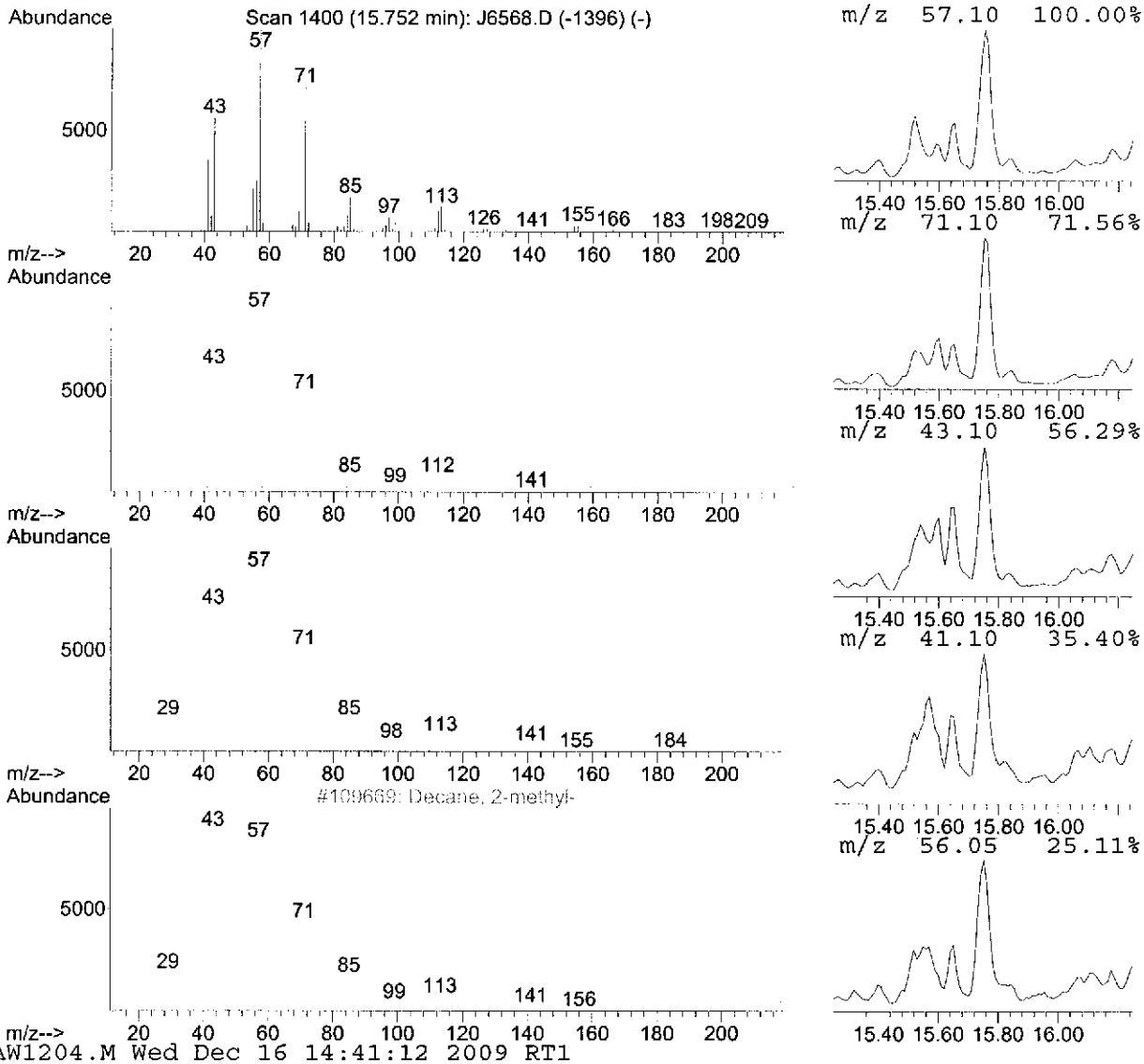
Peak Number 6 Unknown alkane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.75	17.77 UG	713311	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane, 2,6,7-trimethyl-	184	C13H28	062108-25-2	83
2	Undecane, 4,6-dimethyl-	184	C13H28	017312-82-2	74
3	Decane, 2-methyl-	156	C11H24	006975-98-0	72
4	Decane, 3,4-dimethyl-	170	C12H26	017312-45-7	72
5	Dodecane, 4,6-dimethyl-	198	C14H30	061141-72-8	64



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

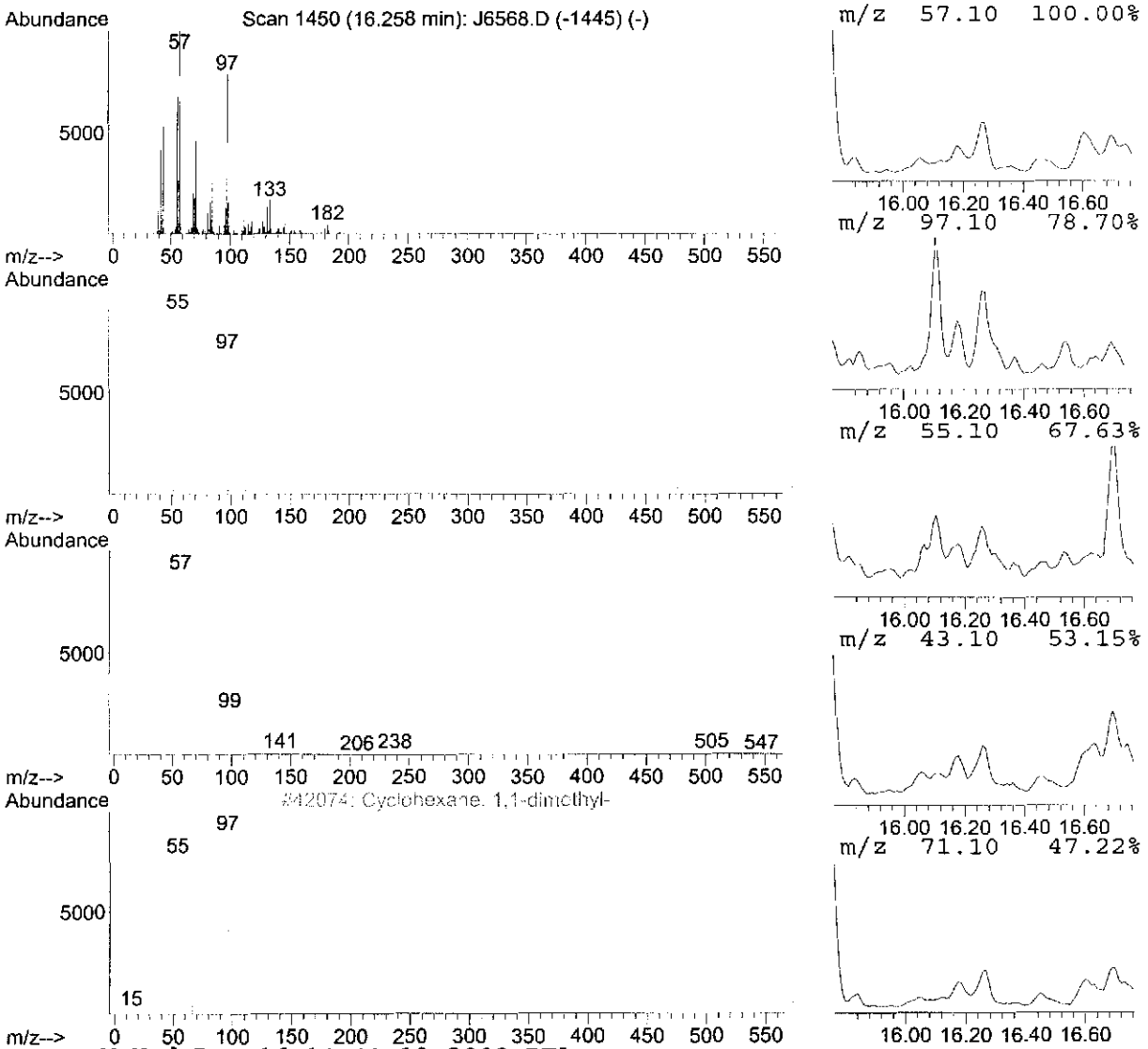
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 7 Unknown cyclic hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.26	8.75 UG	351276	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,4-dimethyl-	112	C8H16	000589-90-2	50
2	Tetracontane, 3,5,24-trimethyl-	605	C43H88	055162-61-3	49
3	Cyclohexane, 1,1-dimethyl-	112	C8H16	000590-66-9	43
4	Cyclohexane, 1,1-dimethyl-	112	C8H16	000590-66-9	43
5	Cyclohexane, 1-ethyl-2-methyl-	126	C9H18	003728-54-9	35



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

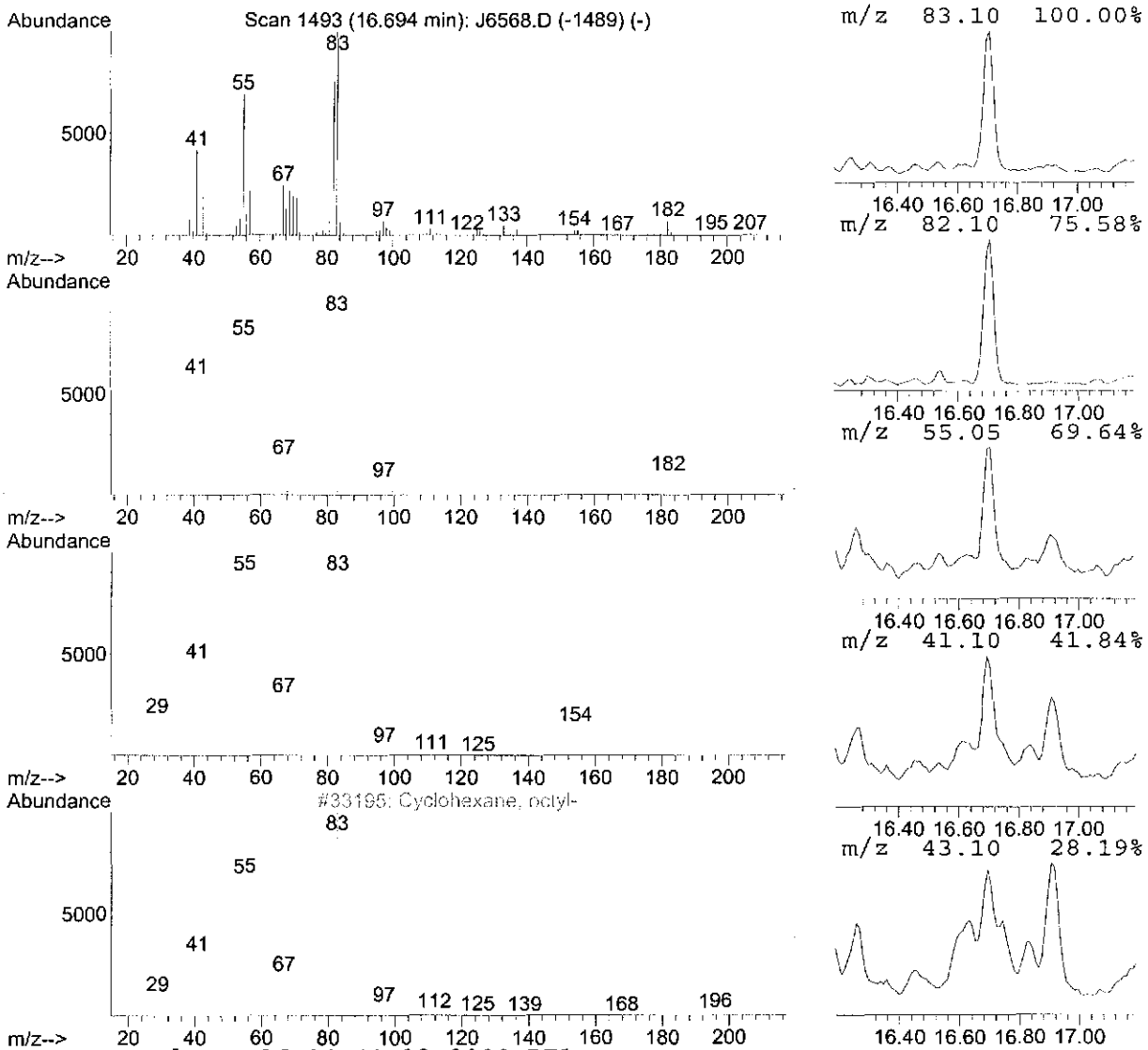
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 8 Unknown cyclic hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.69	14.38 UG	577094	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptylcyclohexane	182	C13H26	005617-41-4	81
2	Cyclohexane, pentyl-	154	C11H22	004292-92-6	64
3	Cyclohexane, octyl-	196	C14H28	001795-15-9	64
4	Cyclohexane, (1-methylethyl)-	126	C9H18	000696-29-7	64
5	Cyclohexane, propyl-	126	C9H18	001678-92-8	59



Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

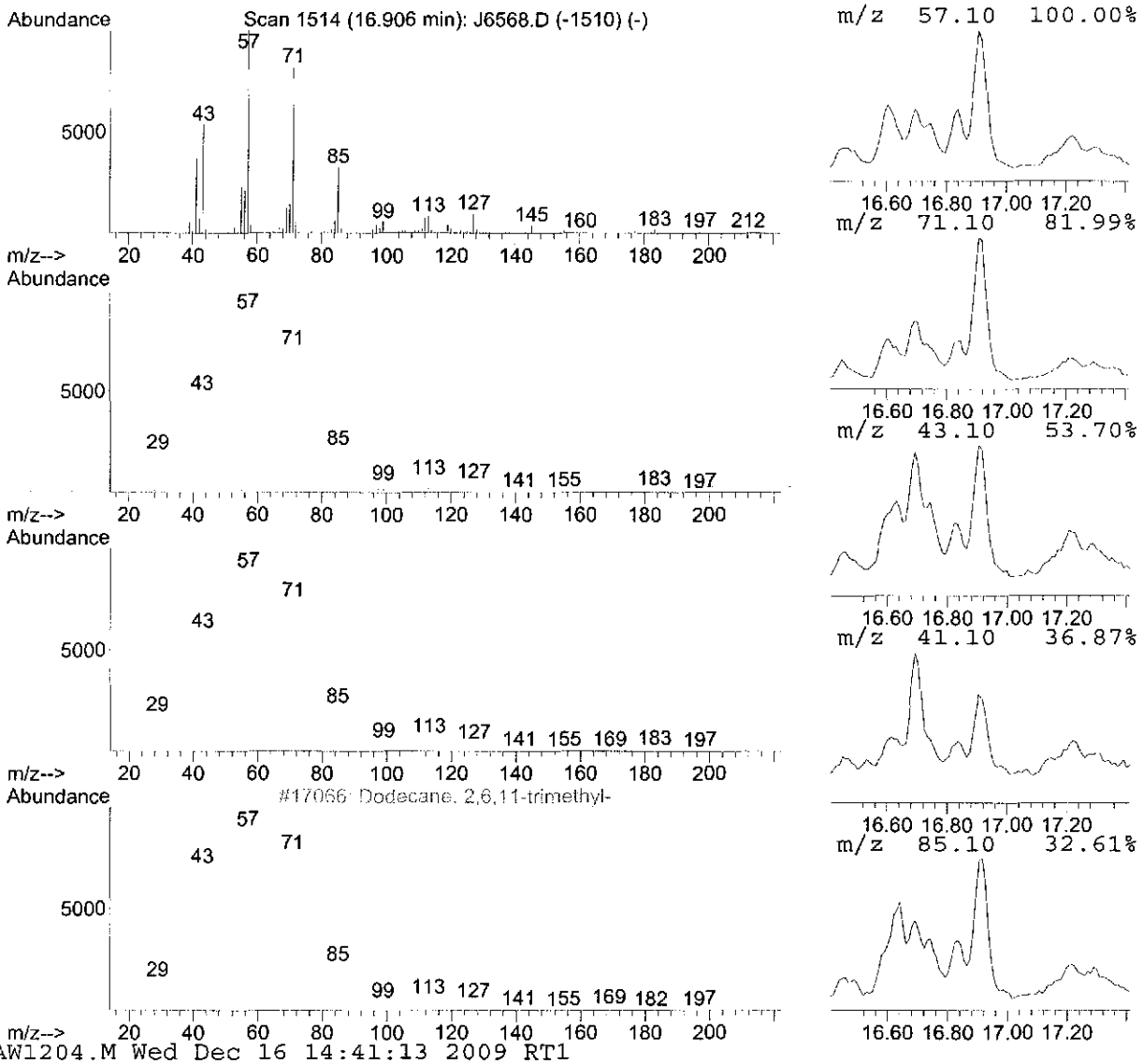
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 9 Unknown alkane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.91	11.29 UG	453029	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane, 2,6,10-trimethyl-	212	C15H32	003891-98-3	86
2	Dodecane, 2,7,10-trimethyl-	212	C15H32	074645-98-0	86
3	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	86
4	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	76
5	Decane, 5-propyl-	184	C13H28	017312-62-8	64



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6568.D
Acq On : 11 Dec 2009 18:36
Operator : BINXU
Sample : SB1,12542-001,M,0.05g,50.3
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

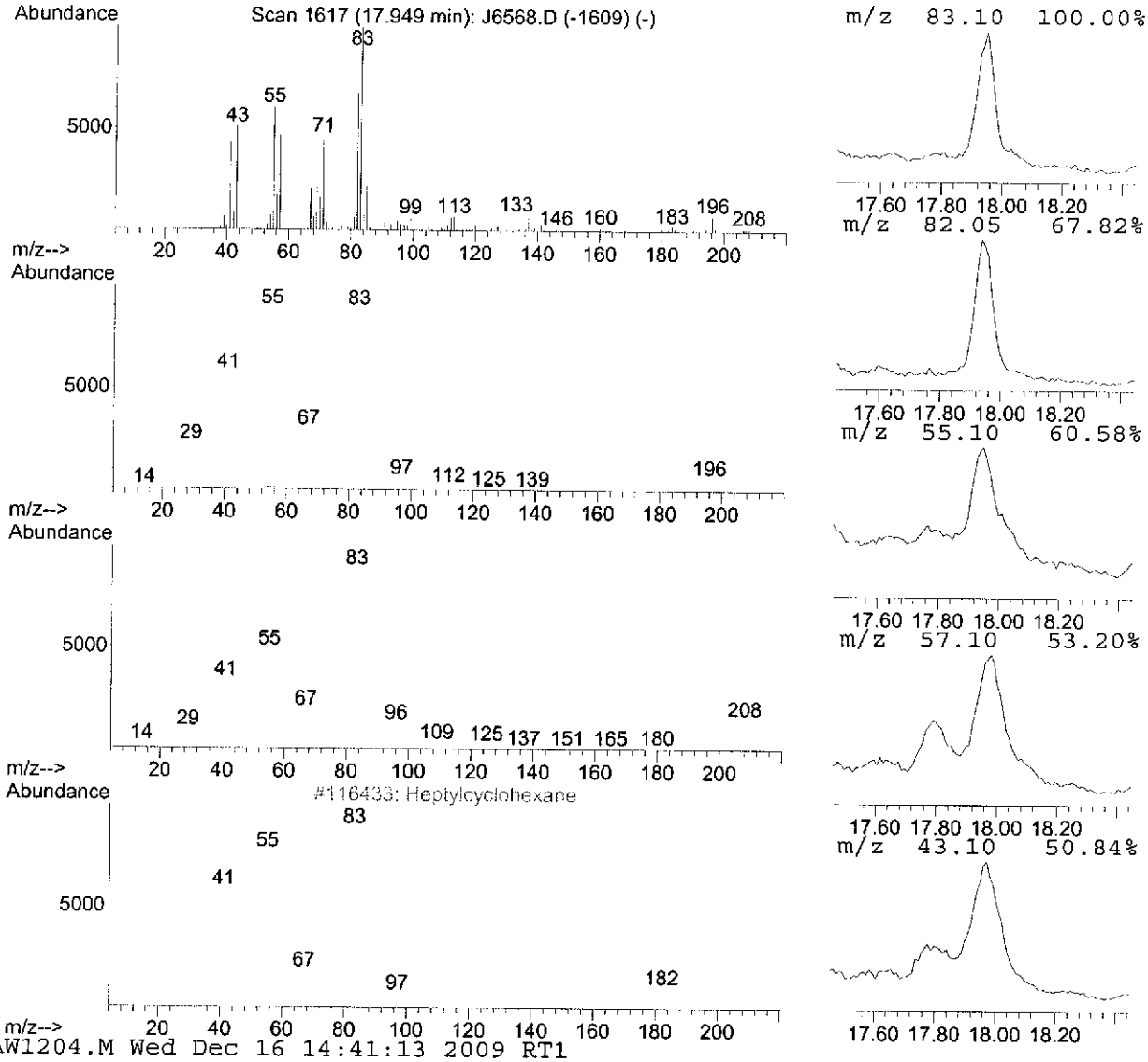
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 10 Unknown cyclic hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.95	16.87 UG	677204	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, octyl-	196	C14H28	001795-15-9	58
2	Cyclohexane, 1,1'-(1,3-propanedi...	208	C15H28	003178-24-3	58
3	Heptylcyclohexane	182	C13H26	005617-41-4	52
4	Cyclohexane, propyl-	126	C9H18	001678-92-8	50
5	Cyclohexane, butyl-	140	C10H20	001678-93-9	47



0078

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 15 11:14:05 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration

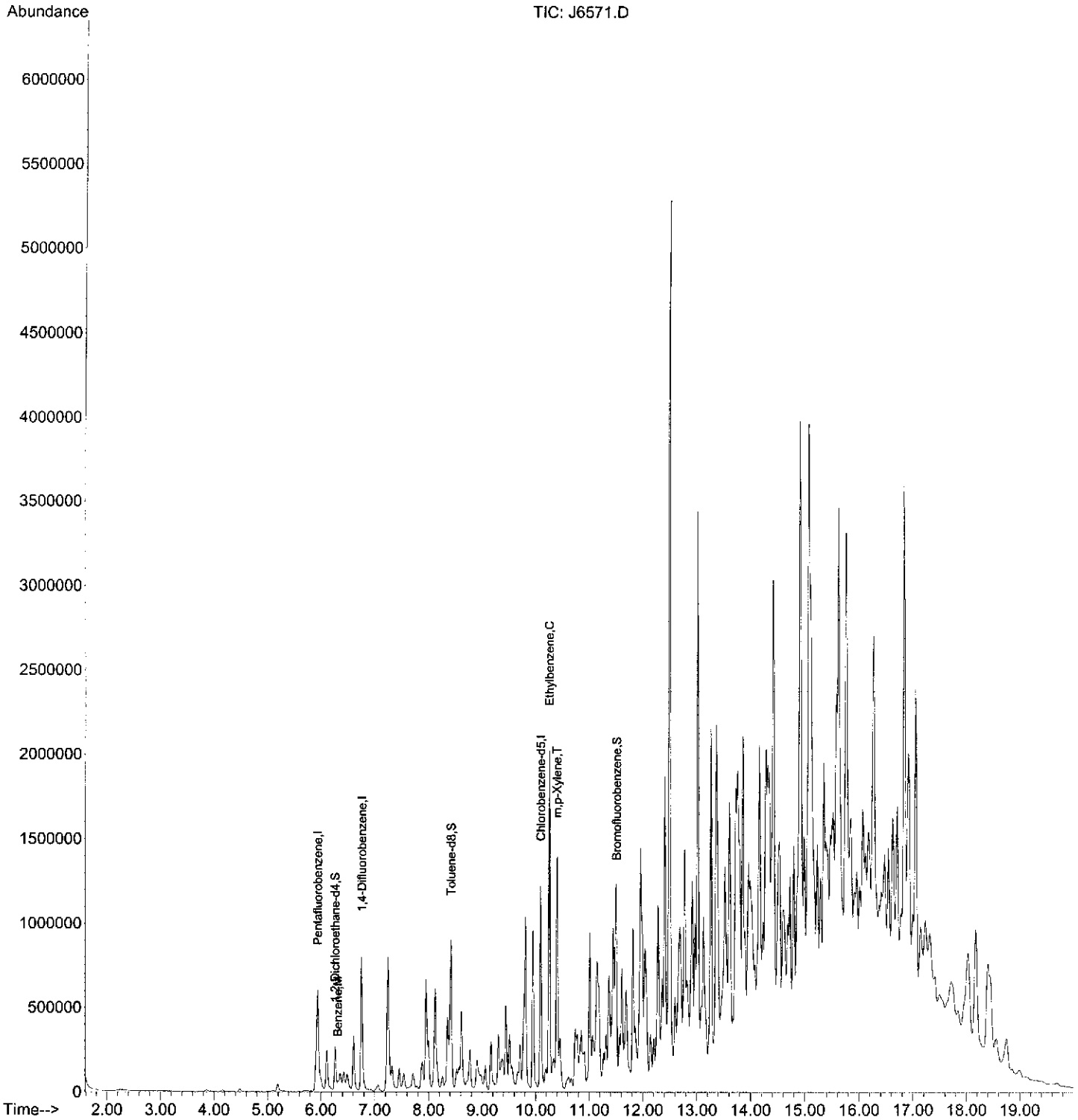
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.94	168	349920	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.76	114	656670	50.00	UG	0.00
50) Chlorobenzene-d5	10.09	117	712581	50.00	UG	-0.01
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.26	65	208937	49.03	UG	-0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 98.06%			
41) Toluene-d8	8.42	98	684748	51.86	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 103.72%			
59) Bromofluorobenzene	11.51	95	413637	47.74	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 95.48%			
Target Compounds						Qvalue
32) Benzene	6.31	78	44092	2.47	UG	99
53) Ethylbenzene	10.25	91	1605767	78.76	UG	98
54) m,p-Xylene	10.39	106	296786	40.50	UG	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 15 11:14:05 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.939	422	431	443	rBB3	596846	1909593	15.57%	0.980%
2	6.111	443	448	459	rBB	227352	556674	4.54%	0.286%
3	6.263	459	463	467	rBB	231207	444630	3.63%	0.228%
4	6.608	493	497	507	rBB	316950	673795	5.50%	0.346%
5	6.760	507	512	526	rBB	794806	1785685	14.56%	0.916%
6	7.246	553	560	565	rBB2	744060	1830880	14.93%	0.939%
7	7.711	595	606	611	rBB3	82147	231339	1.89%	0.119%
8	7.884	618	623	626	rBB2	126984	331499	2.70%	0.170%
9	7.954	626	630	640	rBB2	611162	1713959	13.98%	0.879%
10	8.127	640	647	655	rBB	584067	1589034	12.96%	0.815%
11	8.349	666	669	672	rBB	269364	542562	4.43%	0.278%
12	8.420	672	676	680	rBB	740292	1332077	10.86%	0.683%
13	8.613	688	695	702	rBB2	407522	928920	7.58%	0.476%
14	8.775	702	711	718	rBB2	219733	568663	4.64%	0.292%
15	8.906	718	724	735	rBB6	155093	629646	5.14%	0.323%
16	9.058	735	739	744	rBB	124521	239419	1.95%	0.123%
17	9.170	745	750	757	rBB	269010	634849	5.18%	0.326%
18	9.301	760	763	767	rBB	257737	487544	3.98%	0.250%
19	9.443	774	777	781	rBB	415082	762746	6.22%	0.391%
20	9.514	781	784	794	rBB2	258500	689226	5.62%	0.354%
21	9.706	795	803	806	rBB2	217849	523551	4.27%	0.269%
22	9.807	806	813	822	rBB2	987066	2648285	21.60%	1.358%
23	9.949	822	827	836	rBB	934540	1863930	15.20%	0.956%
24	10.091	836	841	847	rBB	1185079	2308324	18.83%	1.184%
25	10.253	853	857	862	rBB	1909664	3469964	28.30%	1.780%
26	10.405	868	872	876	rBB2	1191475	2315496	18.89%	1.188%
27	10.739	902	905	907	rBB2	175273	354067	2.89%	0.182%
28	10.851	912	916	925	rBB4	229333	878380	7.16%	0.451%
29	11.013	928	932	935	rBB	784253	1408908	11.49%	0.723%
30	11.144	941	945	953	rBB4	585411	2239746	18.27%	1.149%
31	11.377	964	968	971	rBB3	426542	941730	7.68%	0.483%
32	11.448	971	975	977	rBB2	454798	723840	5.90%	0.371%
33	11.499	977	980	983	rBB2	820645	1393933	11.37%	0.715%
34	11.610	984	991	994	rBB	518884	1169868	9.54%	0.600%
35	11.691	994	999	1004	rBB4	412123	920380	7.51%	0.472%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	11.813	1008	1011	1020	rBB	831625	2004917	16.35%	1.028%
37	11.954	1020	1025	1031	rBB2	1136036	3275479	26.72%	1.680%
38	12.045	1031	1034	1040	rBB4	518410	1416031	11.55%	0.726%
39	12.147	1040	1044	1047	rBB3	206234	426401	3.48%	0.219%
40	12.207	1047	1050	1052	rBB2	152079	250529	2.04%	0.129%
41	12.278	1052	1057	1062	rBB3	863480	2058165	16.79%	1.056%
42	12.359	1062	1065	1067	rBB	248467	374992	3.06%	0.192%
43	12.410	1067	1070	1073	rBB	1419620	2392894	19.52%	1.227%
44	12.501	1074	1079	1085	rBB	4969060	10427716	85.05%	5.349%
45	12.602	1086	1089	1091	rBB	269829	498937	4.07%	0.256%
46	12.683	1091	1097	1102	rBB6	601065	2048744	16.71%	1.051%
47	12.774	1102	1106	1115	rBB2	1035685	2662404	21.71%	1.366%
48	12.916	1115	1120	1123	rBB2	795244	1785007	14.56%	0.916%
49	13.018	1123	1130	1134	rBB	3023291	6394661	52.16%	3.280%
50	13.129	1134	1141	1148	rBB3	744735	2218433	18.09%	1.138%
51	13.261	1149	1154	1159	rBB	1902407	3790589	30.92%	1.944%
52	13.362	1160	1164	1171	rBB4	1835940	5260832	42.91%	2.699%
53	13.524	1171	1180	1185	rBB2	771385	2109356	17.20%	1.082%
54	13.605	1185	1188	1193	rBB2	1163688	2661778	21.71%	1.365%
55	13.726	1197	1200	1201	rBB	407384	1196610	9.76%	0.614%
56	13.757	1201	1203	1210	rBB4	442924	1094528	8.93%	0.561%
57	13.848	1210	1212	1220	rBB2	1362376	2938244	23.96%	1.507%
58	13.959	1220	1223	1237	rBB4	790477	4105543	33.49%	2.106%
59	14.162	1237	1243	1247	rBB4	1342133	3139192	25.60%	1.610%
60	14.233	1247	1250	1251	rBB2	180302	257452	2.10%	0.132%
61	14.283	1252	1255	1257	rBB	573833	1365881	11.14%	0.701%
62	14.314	1257	1258	1263	rBB3	206979	689929	5.63%	0.354%
63	14.415	1264	1268	1273	rBB2	2042135	4320386	35.24%	2.216%
64	14.536	1273	1280	1283	rBB3	864919	2898621	23.64%	1.487%
65	14.607	1283	1287	1292	rBB4	432812	1385496	11.30%	0.711%
66	14.729	1292	1299	1302	rBB4	643539	1700332	13.87%	0.872%
67	14.800	1302	1306	1309	rBB4	808931	1561318	12.73%	0.801%
68	14.911	1309	1317	1322	rBB2	3034600	8591685	70.07%	4.407%
69	14.982	1322	1324	1327	rBB3	483196	821758	6.70%	0.422%
70	15.073	1327	1333	1345	rBB3	3032396	12260746	100.00%	6.289%
71	15.225	1345	1348	1351	rBB2	574589	927761	7.57%	0.476%
72	15.286	1351	1354	1356	rBB3	397699	699857	5.71%	0.359%
73	15.347	1357	1360	1363	rBB2	791909	1499426	12.23%	0.769%
74	15.387	1363	1364	1369	rBB4	99858	313821	2.56%	0.161%
75	15.519	1369	1377	1379	rBB5	336255	1389946	11.34%	0.713%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	15.620	1379	1387	1395	rBB2	2253904	7667164	62.53%	3.933%
77	15.762	1396	1401	1406	rBB	2084730	5124745	41.80%	2.629%
78	15.843	1406	1409	1412	rBB4	389515	776635	6.33%	0.398%
79	15.954	1418	1420	1423	rBB3	227742	308787	2.52%	0.158%
80	16.015	1423	1426	1428	rBB3	176414	345057	2.81%	0.177%
81	16.066	1428	1431	1434	rBB4	470513	937501	7.65%	0.481%
82	16.167	1439	1441	1446	rBB5	301296	770806	6.29%	0.395%
83	16.268	1446	1451	1458	rBB2	1569652	4273718	34.86%	2.192%
84	16.471	1467	1471	1475	rBB4	347939	712997	5.82%	0.366%
85	16.541	1475	1478	1481	rBB3	500014	898251	7.33%	0.461%
86	16.622	1482	1486	1490	rBB3	652067	1650477	13.46%	0.847%
87	16.703	1490	1494	1498	rBB	746994	1565692	12.77%	0.803%
88	16.835	1499	1507	1511	rBB	2500400	5264063	42.93%	2.700%
89	16.916	1511	1515	1520	rBB3	929110	2481082	20.24%	1.273%
90	17.048	1520	1528	1533	rBB	1632601	4269049	34.82%	2.190%
91	17.139	1533	1537	1542	rBB5	242097	653714	5.33%	0.335%
92	17.230	1542	1546	1550	rBB5	195499	476593	3.89%	0.244%
93	17.311	1550	1554	1560	rBB5	170147	476165	3.88%	0.244%
94	17.503	1568	1573	1582	rBB10	57011	245165	2.00%	0.126%
95	17.716	1583	1594	1603	rBB7	177785	1075303	8.77%	0.552%
96	18.030	1612	1625	1632	rBB8	460515	2487367	20.29%	1.276%
97	18.172	1632	1639	1651	rBB	647721	2299669	18.76%	1.180%
98	18.405	1653	1662	1673	rBB	496880	2977855	24.29%	1.528%
99	18.557	1673	1677	1685	rBB7	81384	242960	1.98%	0.125%
100	18.749	1687	1696	1704	rBB	166893	706541	5.76%	0.362%

Sum of corrected areas: 194946895

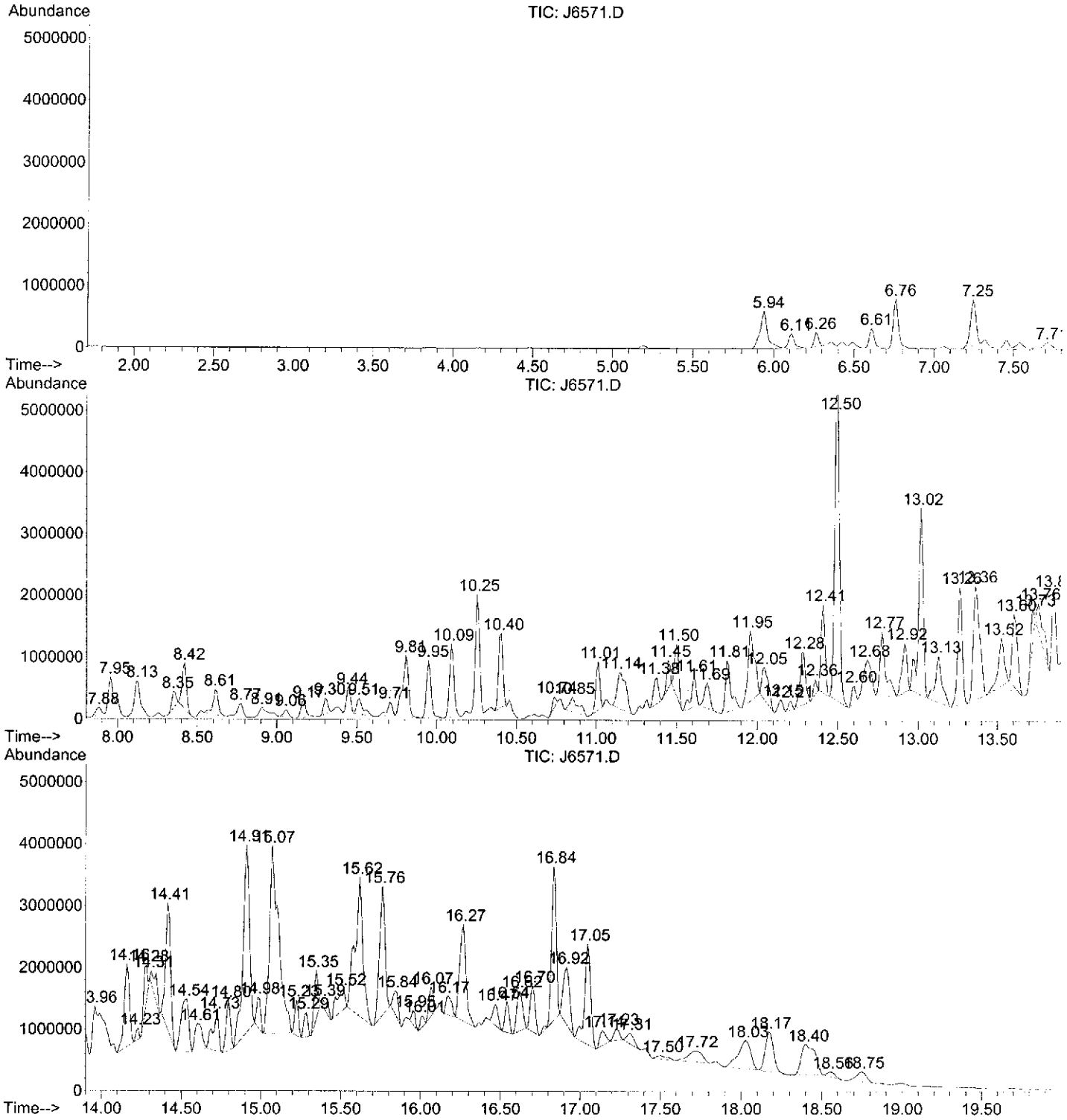
0083

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

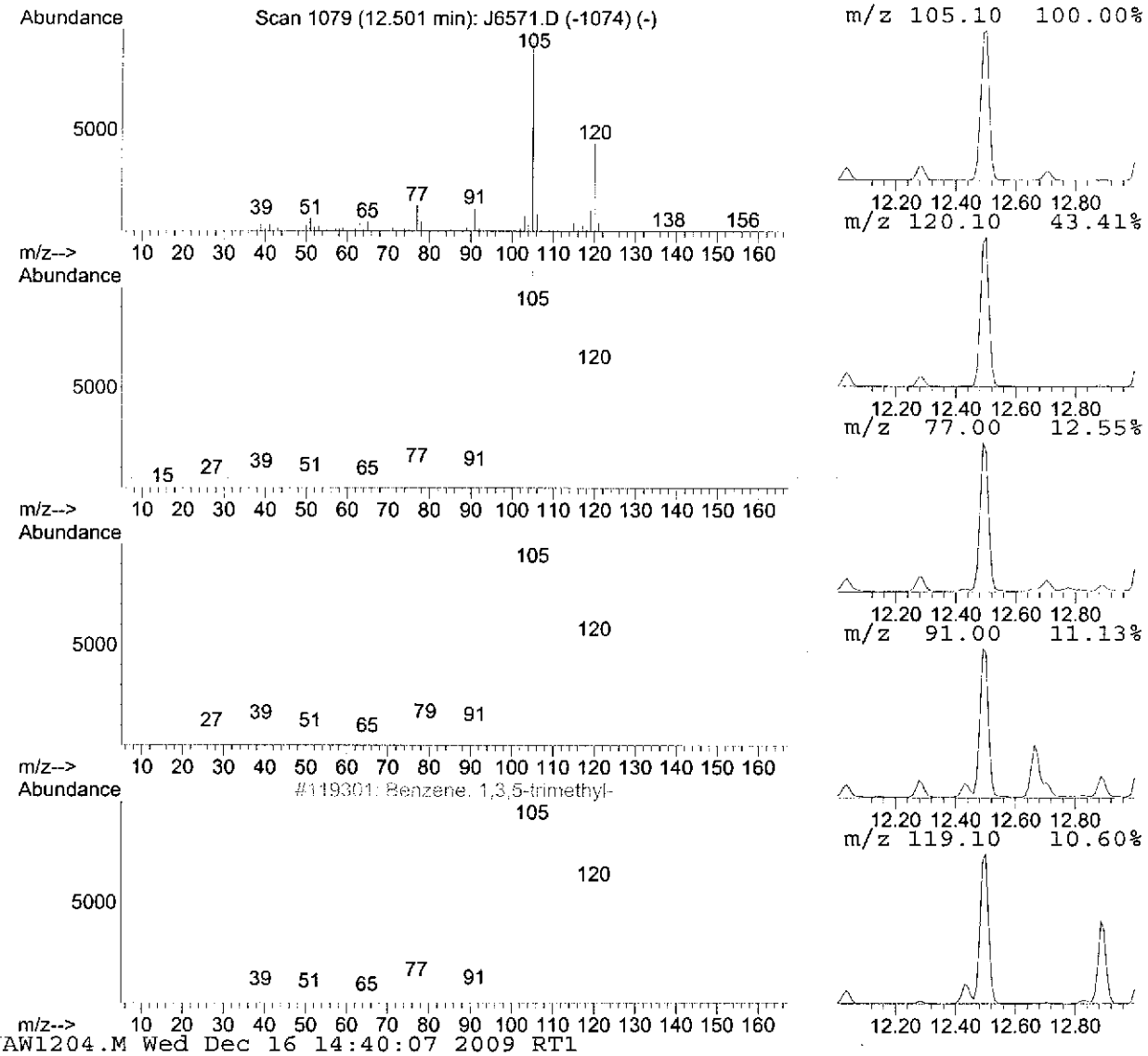
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.50	225.87 UG	10427700	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	94
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	94
4	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	93



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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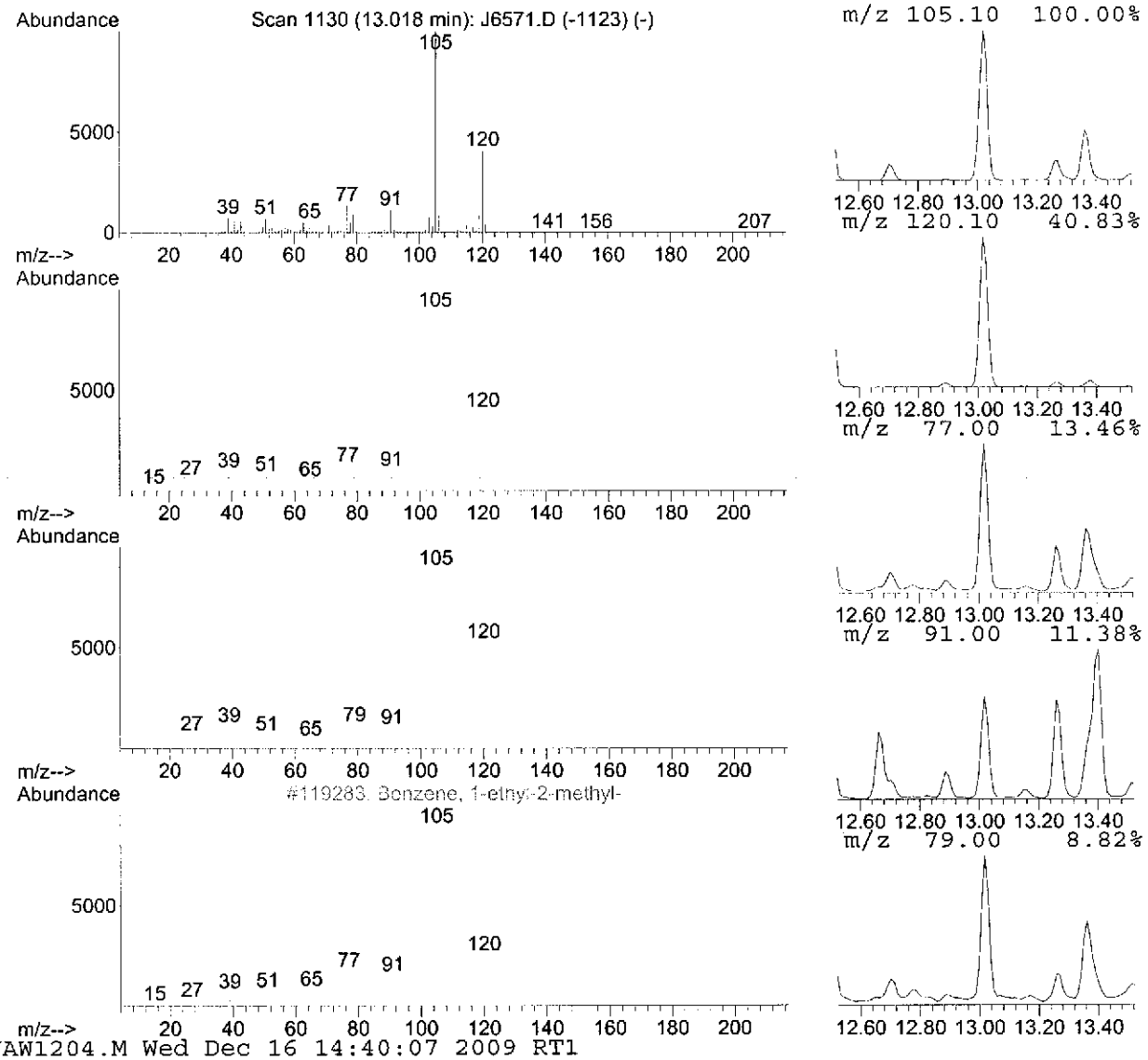
Peak Number 2 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.02	138.51 UG	6394660	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	95
3	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
5	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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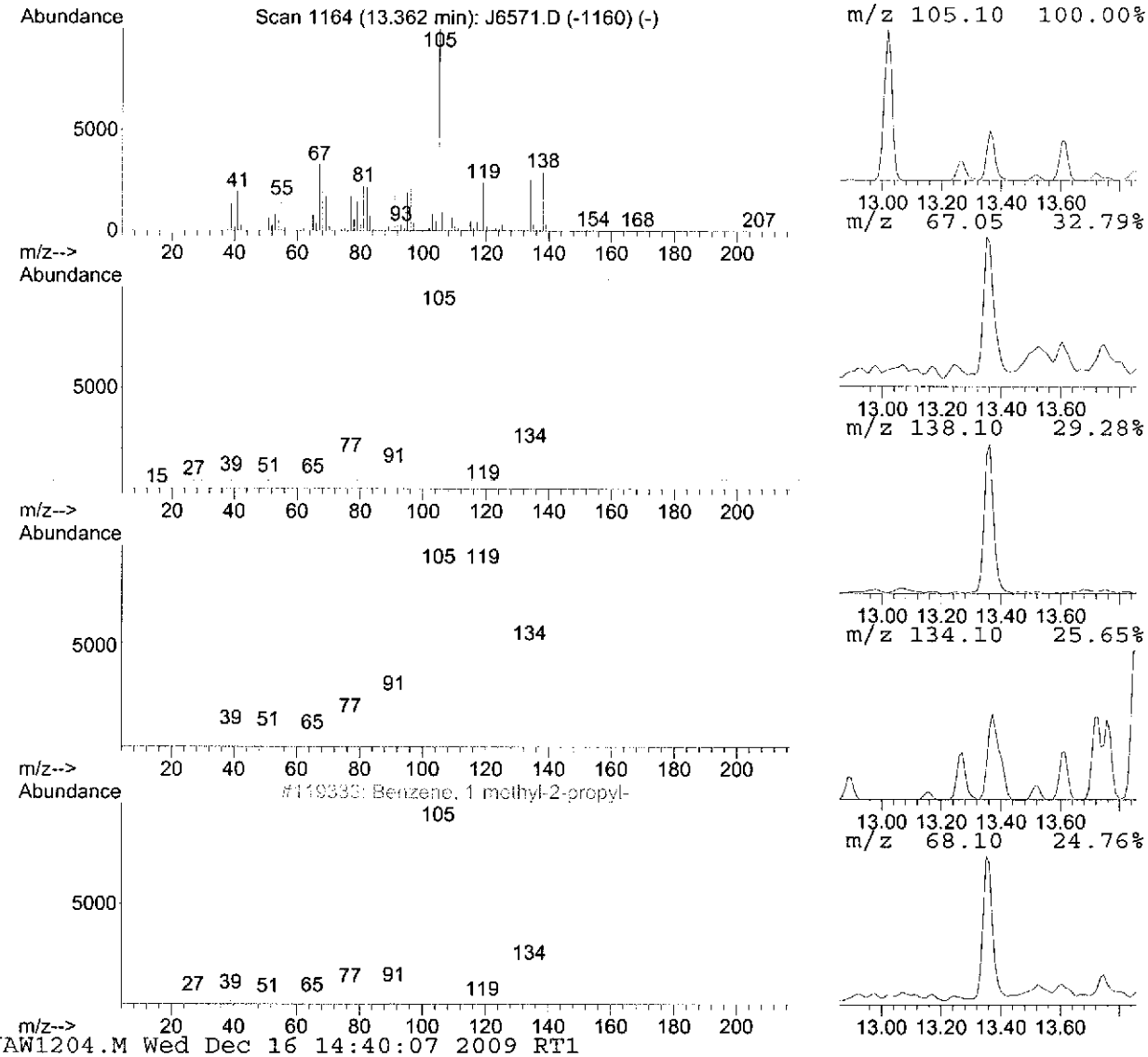
Peak Number 3 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.36	113.95 UG	5260830	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	35
2	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	22
3	Benzene, 1-methyl-2-propyl-	134	C10H14	001074-17-5	20
4	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	20
5	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	18



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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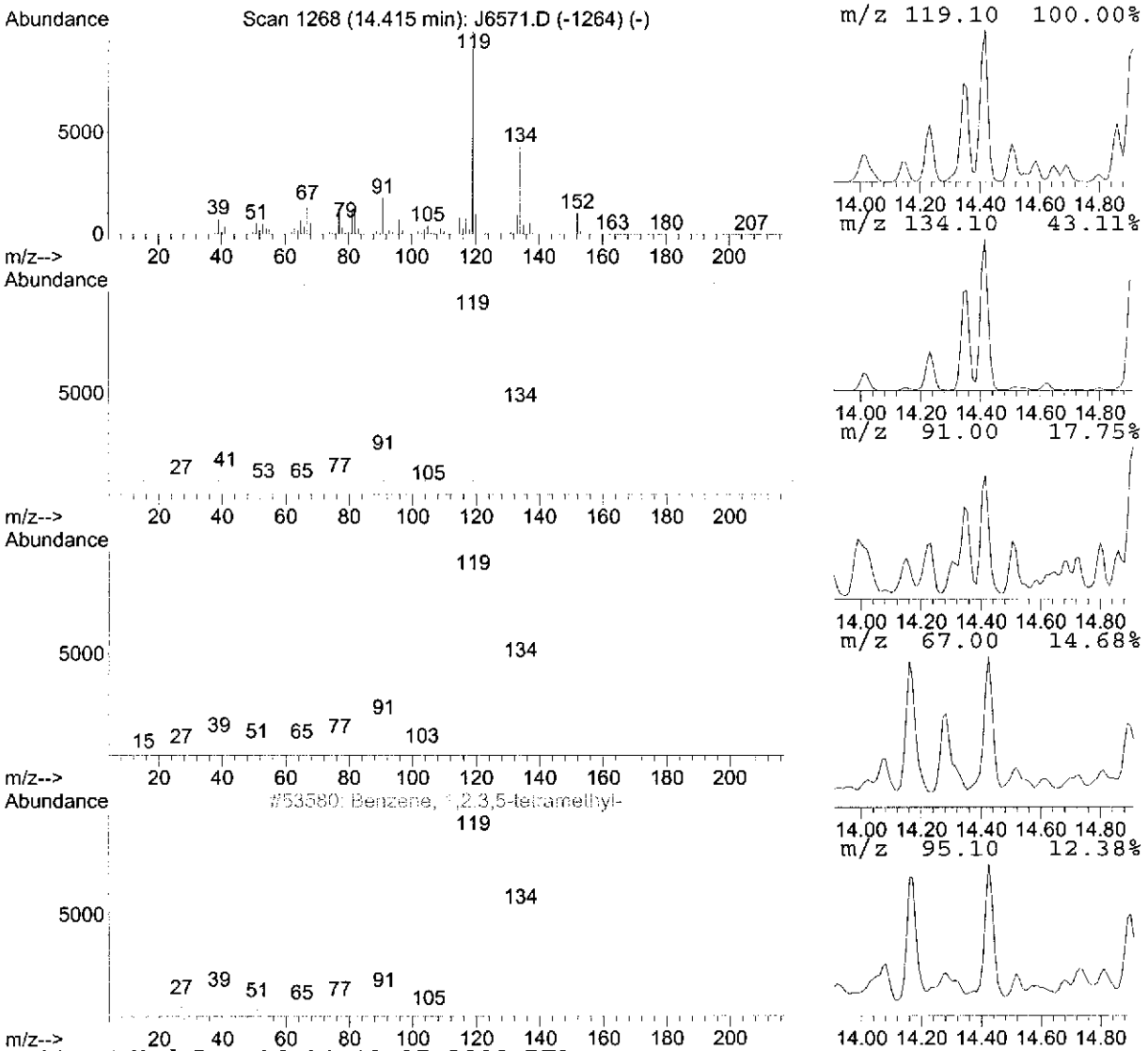
Peak Number 4 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.41	93.58 UG	4320390	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3-Cyclopentadiene, 1,2,3,4-tet...	134	C10H14	076089-59-3	95
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	95
3	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	93
5	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	93



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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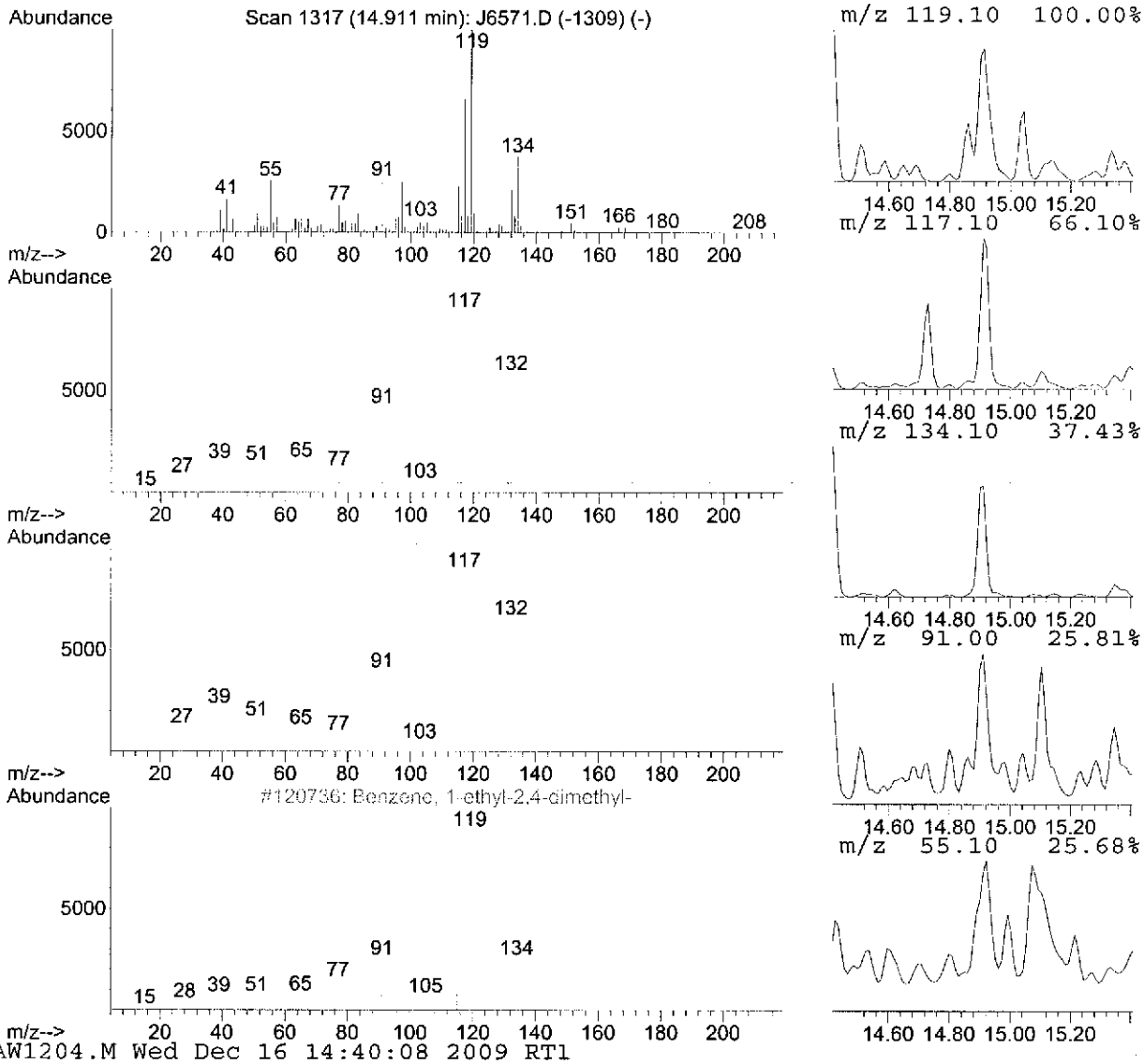
Peak Number 5 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.91	186.10 UG	8591690	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-butenyl-	132	C10H12	001560-06-1	83
2	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	55
3	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	55
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	55
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	55



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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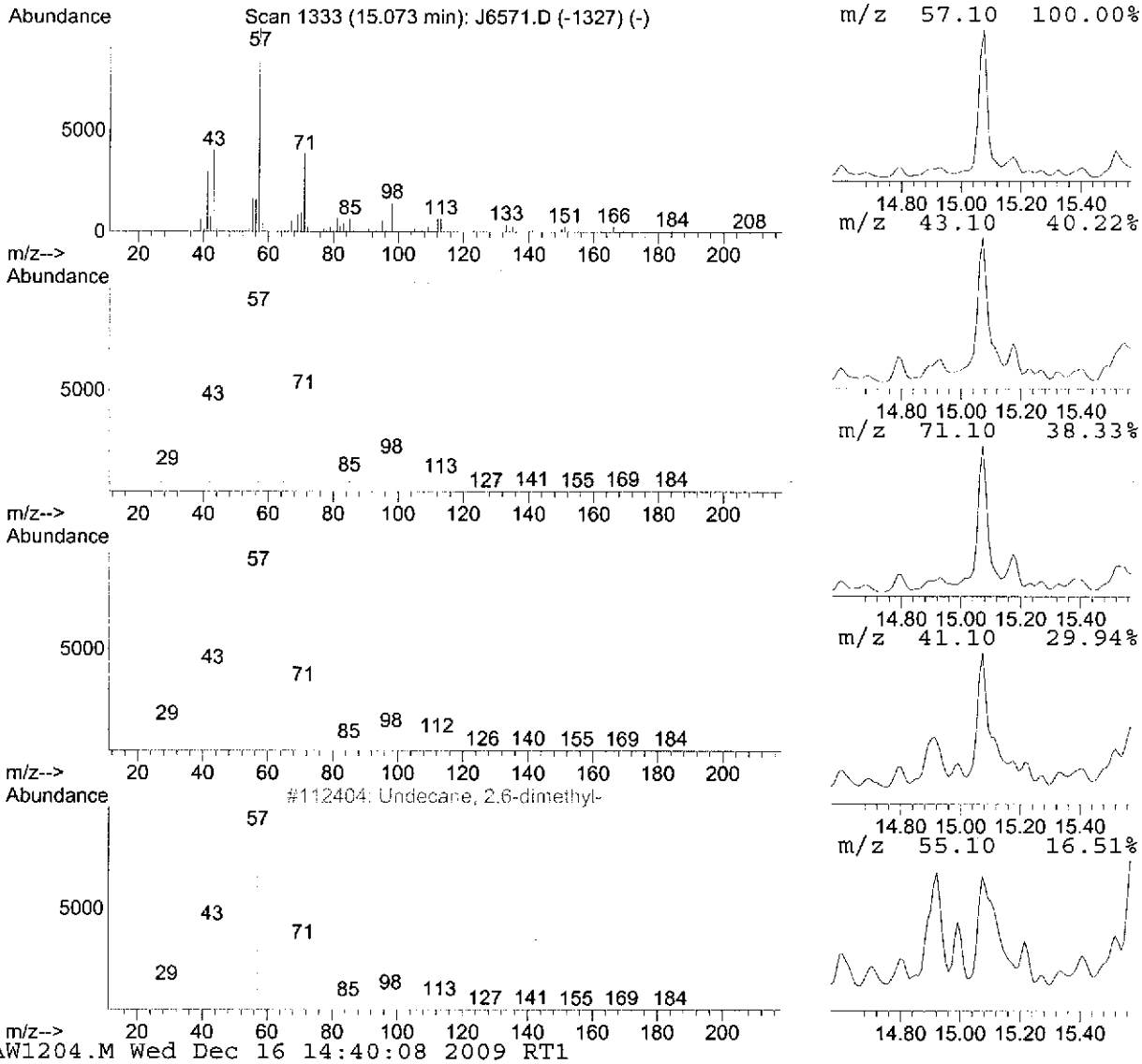
Peak Number 6 Unknown alkane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.07	265.58 UG	12260700	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	96
2	Dodecane, 6-methyl-	184	C13H28	006044-71-9	93
3	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	90
4	Undecane, 3,6-dimethyl-	184	C13H28	017301-28-9	76
5	Undecane, 2,5-dimethyl-	184	C13H28	017301-22-3	59



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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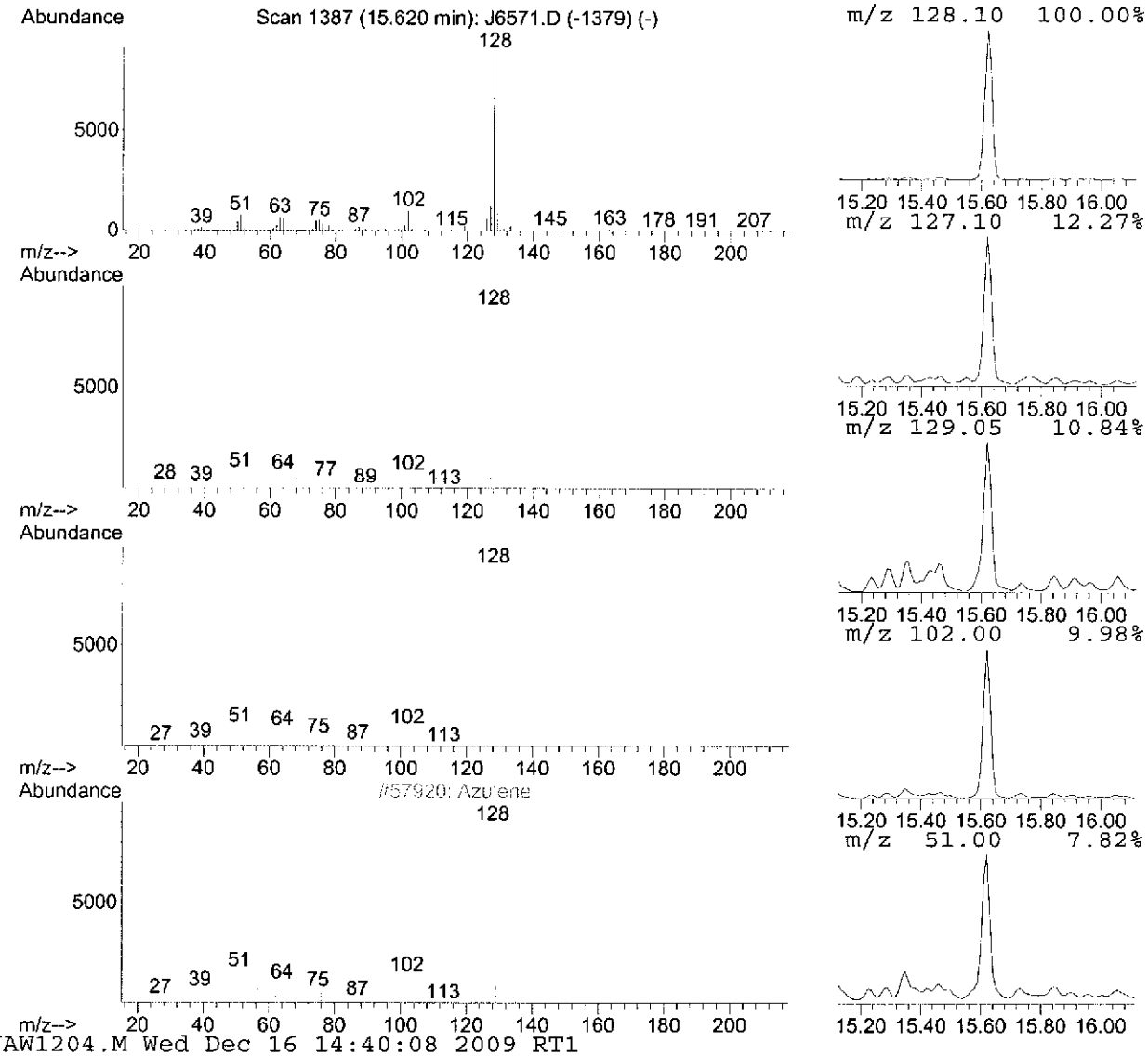
Peak Number 7 Naphthalene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.62	166.08 UG	7667160	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	95
2	Naphthalene	128	C10H8	000091-20-3	93
3	Azulene	128	C10H8	000275-51-4	91
4	Azulene	128	C10H8	000275-51-4	91
5	Azulene	128	C10H8	000275-51-4	91



0091

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

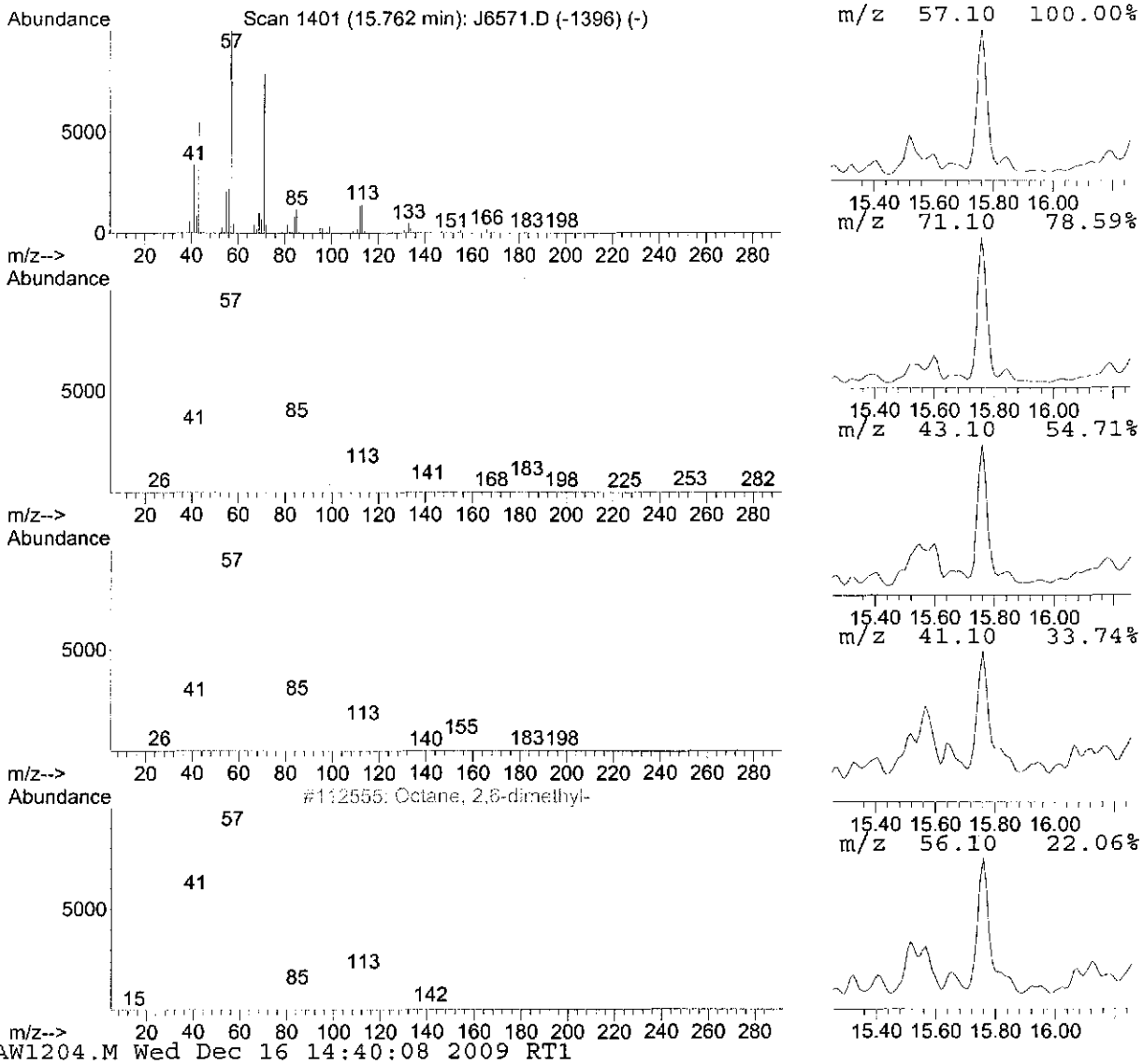
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 8 Unknown alkane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.76	111.01 UG	5124750	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	78
2	Dodecane, 4,6-dimethyl-	198	C14H30	061141-72-8	74
3	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	72
4	Hexadecane, 7-methyl-	240	C17H36	026730-20-1	64
5	Undecane, 6,6-dimethyl-	184	C13H28	017312-76-4	64



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

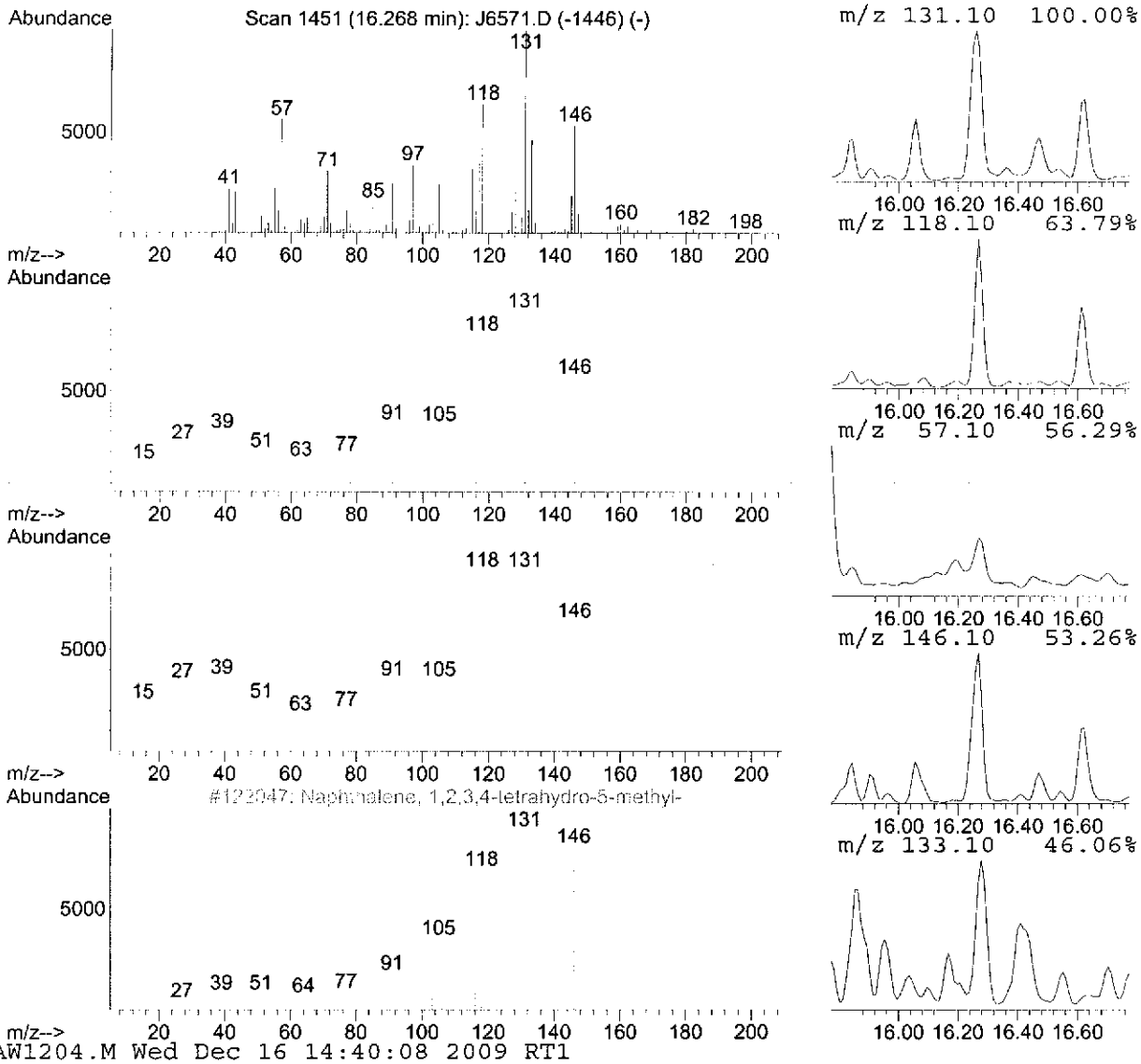
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 9 Unknown aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.27	92.57 UG	4273720	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	93
2	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	93
3	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	76
4	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	76
5	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	70



0093

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6571.D
Acq On : 11 Dec 2009 20:13
Operator : BINXU
Sample : T3-1/6-6.5,12542-012,M,0.012g,12.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

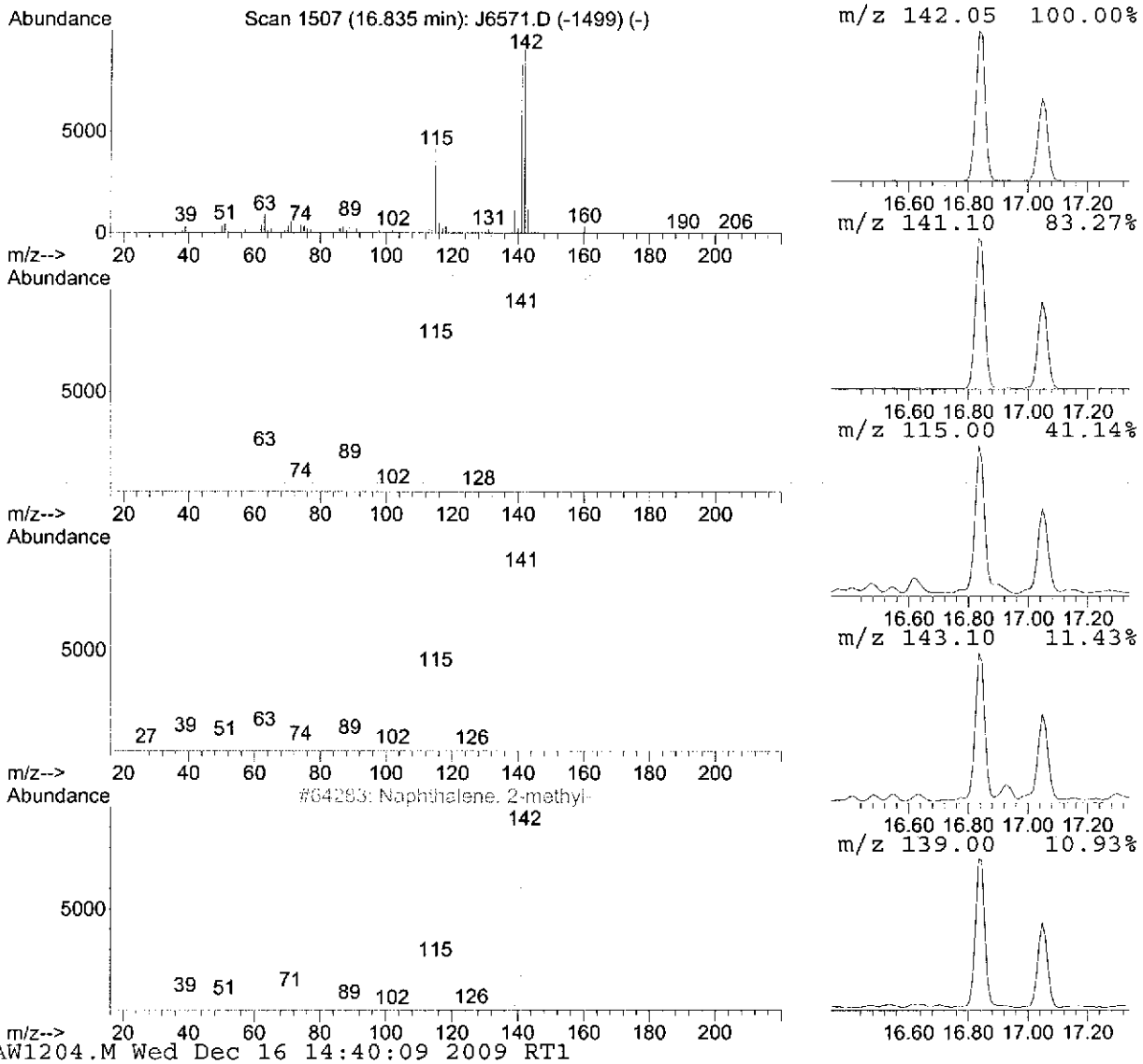
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 10 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.84	114.02 UG	5264060	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzocycloheptatriene	142	C11H10	000264-09-5	94
2	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	94
3	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	93
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
5	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	91



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 15 11:12:36 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.94	168	307647	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.76	114	584731	50.00	UG	0.00
50) Chlorobenzene-d5	10.09	117	628729	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.26	65	190027	50.72	UG	-0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 101.44%			
41) Toluene-d8	8.42	98	593978	50.52	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.04%			
59) Bromofluorobenzene	11.51	95	361825	47.33	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 94.66%			

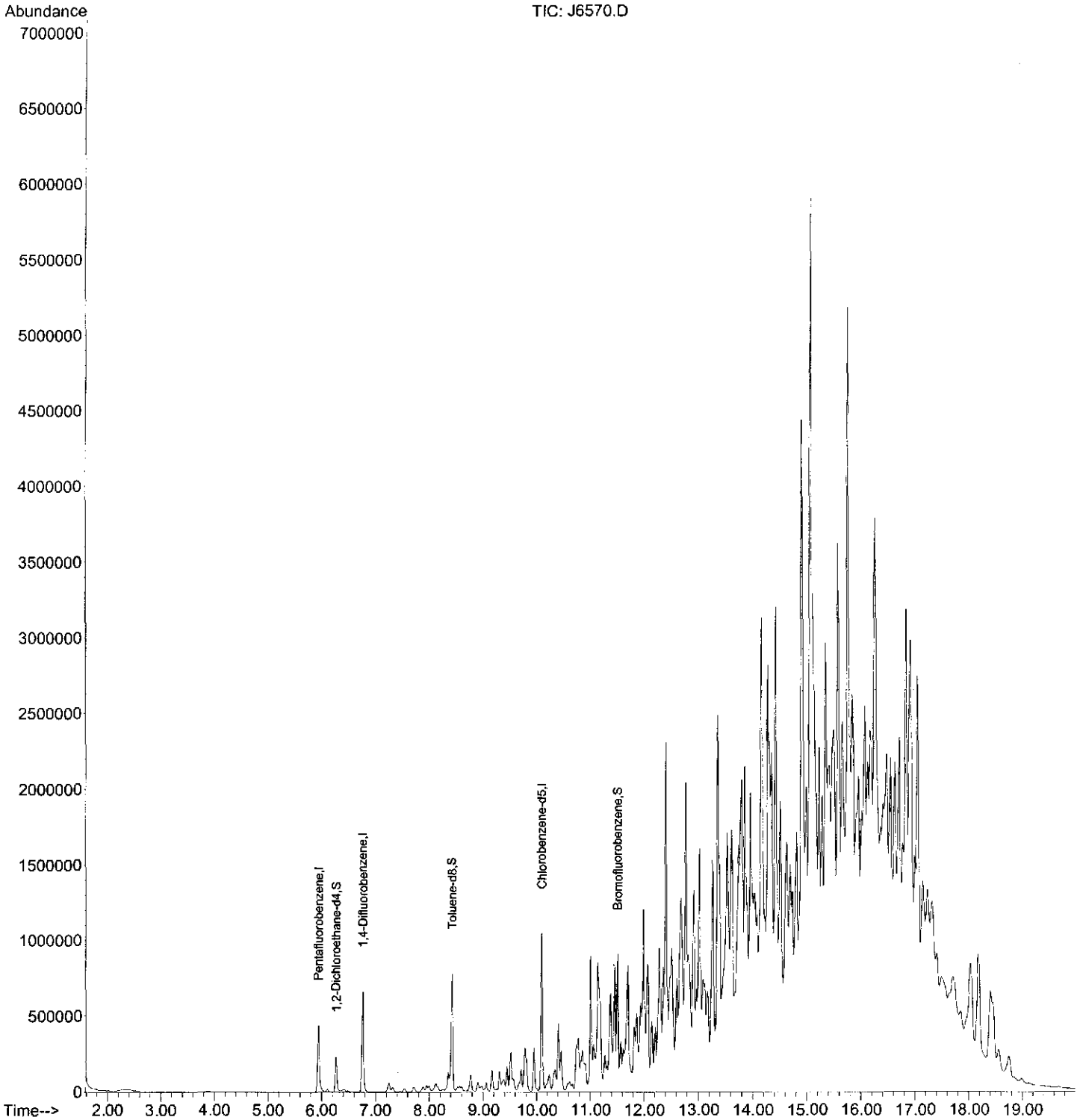
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 15 11:12:36 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.939	424	431	443	rBB	436729	1050347	6.67%	0.585%
2	6.263	458	463	469	rBB	226321	471631	2.99%	0.263%
3	6.760	506	512	533	rBB	657971	1443061	9.16%	0.804%
4	8.117	639	646	655	rBB2	47506	193725	1.23%	0.108%
5	8.420	672	676	681	rBB	723105	1379244	8.75%	0.768%
6	8.765	701	710	719	rBB2	104329	271829	1.73%	0.151%
7	9.160	745	749	756	rBB	134990	298328	1.89%	0.166%
8	9.301	760	763	766	rBB	103330	183861	1.17%	0.102%
9	9.443	774	777	780	rBB	127440	215607	1.37%	0.120%
10	9.514	780	784	795	rBB	225323	629044	3.99%	0.350%
11	9.706	795	803	806	rBB2	120017	302024	1.92%	0.168%
12	9.777	806	810	821	rBB2	266008	887950	5.64%	0.495%
13	9.949	822	827	835	rBB	286405	583236	3.70%	0.325%
14	10.091	835	841	847	rBB	1031134	2030541	12.89%	1.131%
15	10.233	847	855	860	rBB4	93402	287078	1.82%	0.160%
16	10.344	860	866	869	rBB3	89070	290898	1.85%	0.162%
17	10.405	869	872	875	rBB	337664	577402	3.66%	0.322%
18	10.456	875	877	882	rBB	163154	221642	1.41%	0.123%
19	10.780	901	909	912	rBB3	233899	948370	6.02%	0.528%
20	10.851	912	916	925	rBB4	148521	611926	3.88%	0.341%
21	11.013	928	932	935	rBB	747670	1321771	8.39%	0.736%
22	11.154	940	946	954	rBB2	696332	2487957	15.79%	1.386%
23	11.276	954	958	963	rBB2	132874	330776	2.10%	0.184%
24	11.377	963	968	971	rBB3	432541	1054724	6.69%	0.587%
25	11.448	971	975	978	rBB	581656	979166	6.22%	0.545%
26	11.509	978	981	984	rBB	698459	1105005	7.01%	0.615%
27	11.570	984	987	989	rBB3	161228	285240	1.81%	0.159%
28	11.691	993	999	1007	rBB3	636870	1567291	9.95%	0.873%
29	11.813	1009	1011	1013	rBB	183366	308616	1.96%	0.172%
30	11.853	1013	1015	1019	rBB2	205800	351283	2.23%	0.196%
31	11.934	1020	1023	1025	rBB3	185827	398692	2.53%	0.222%
32	11.985	1025	1028	1032	rBB	761855	1385932	8.80%	0.772%
33	12.056	1032	1035	1040	rBB3	541595	1321223	8.39%	0.736%
34	12.147	1040	1044	1047	rBB4	293521	632643	4.02%	0.352%
35	12.208	1047	1050	1052	rBB	209670	348376	2.21%	0.194%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	12.289	1052	1058	1062	rBB4	618302	1809837	11.49%	1.008%
37	12.410	1062	1070	1073	rBB	1863053	4059729	25.77%	2.261%
38	12.511	1073	1080	1086	rBB6	585200	1944751	12.34%	1.083%
39	12.603	1086	1089	1091	rBB2	346828	627044	3.98%	0.349%
40	12.684	1091	1097	1102	rBB7	745263	2448331	15.54%	1.364%
41	12.775	1102	1106	1116	rBB2	1509912	3968010	25.19%	2.210%
42	12.916	1116	1120	1124	rBB	851652	1742759	11.06%	0.971%
43	13.018	1124	1130	1134	rBB	1071962	2096955	13.31%	1.168%
44	13.089	1134	1137	1142	rBB4	215012	667917	4.24%	0.372%
45	13.170	1142	1145	1148	rBB3	246931	459907	2.92%	0.256%
46	13.261	1149	1154	1158	rBB	1164560	2484729	15.77%	1.384%
47	13.362	1159	1164	1171	rBB3	1992748	5558440	35.28%	3.096%
48	13.524	1171	1180	1185	rBB2	887172	2482551	15.76%	1.383%
49	13.605	1185	1188	1193	rBB4	921850	2319320	14.72%	1.292%
50	13.747	1197	1202	1203	rBB4	257339	1031723	6.55%	0.575%
51	13.797	1203	1207	1210	rBB2	823230	1634774	10.38%	0.910%
52	13.858	1210	1213	1220	rBB2	1154229	2581662	16.39%	1.438%
53	13.959	1220	1223	1228	rBB2	964610	2004391	12.72%	1.116%
54	14.030	1228	1230	1233	rBB3	140298	207254	1.32%	0.115%
55	14.162	1237	1243	1251	rBB8	2157667	5456352	34.63%	3.039%
56	14.283	1251	1255	1259	rBB2	1314811	3228225	20.49%	1.798%
57	14.344	1259	1261	1264	rBB2	655648	699089	4.44%	0.389%
58	14.425	1264	1269	1273	rBB3	2198768	4598867	29.19%	2.561%
59	14.506	1273	1277	1283	rBB3	1052367	2353373	14.94%	1.311%
60	14.618	1283	1288	1292	rBB4	733715	2176769	13.82%	1.212%
61	14.689	1292	1295	1301	rBB5	482578	1430999	9.08%	0.797%
62	14.800	1301	1306	1309	rBB5	756728	1648613	10.46%	0.918%
63	14.911	1309	1317	1322	rBB5	3089608	8220065	52.18%	4.578%
64	14.992	1322	1325	1327	rBB3	527141	796141	5.05%	0.443%
65	15.073	1327	1333	1345	rBB2	4460511	15754740	100.00%	8.775%
66	15.225	1345	1348	1351	rBB2	863679	1345093	8.54%	0.749%
67	15.286	1351	1354	1356	rBB3	600020	1044399	6.63%	0.582%
68	15.347	1357	1360	1363	rBB2	1283326	2410374	15.30%	1.342%
69	15.418	1363	1367	1369	rBB5	298042	616750	3.91%	0.343%
70	15.489	1369	1374	1379	rBB5	790549	2773296	17.60%	1.545%
71	15.580	1379	1383	1387	rBB3	2122511	4628807	29.38%	2.578%
72	15.651	1387	1390	1396	rBB5	830488	1898309	12.05%	1.057%
73	15.762	1396	1401	1406	rBB	3287423	7292680	46.29%	4.062%
74	15.843	1406	1409	1413	rBB4	752604	1572244	9.98%	0.876%
75	15.954	1413	1420	1423	rBB6	619619	1948925	12.37%	1.085%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	16.066	1423	1431	1434	rBB8	834521	2281026	14.48%	1.270%
77	16.116	1434	1436	1439	rBB3	314012	536174	3.40%	0.299%
78	16.177	1439	1442	1446	rBB5	470461	1239256	7.87%	0.690%
79	16.268	1446	1451	1458	rBB3	2004928	5877688	37.31%	3.274%
80	16.410	1463	1465	1467	rBB2	121117	215194	1.37%	0.120%
81	16.471	1467	1471	1475	rBB3	514559	1112950	7.06%	0.620%
82	16.542	1475	1478	1482	rBB3	708471	1287190	8.17%	0.717%
83	16.623	1482	1486	1490	rBB3	760983	1859142	11.80%	1.035%
84	16.704	1490	1494	1498	rBB	934031	1987046	12.61%	1.107%
85	16.835	1498	1507	1510	rBB2	1574544	3578942	22.72%	1.993%
86	16.916	1510	1515	1520	rBB3	1513268	4448362	28.24%	2.478%
87	17.048	1520	1528	1533	rBB3	1659746	4775260	30.31%	2.660%
88	17.139	1533	1537	1542	rBB5	350854	956311	6.07%	0.533%
89	17.230	1542	1546	1550	rBB6	222706	522542	3.32%	0.291%
90	17.311	1550	1554	1560	rBB5	237408	685003	4.35%	0.382%
91	17.402	1561	1563	1568	rBB2	90781	172747	1.10%	0.096%
92	17.494	1568	1572	1582	rBB2	84303	393227	2.50%	0.219%
93	17.706	1582	1593	1603	rBB4	200497	1092688	6.94%	0.609%
94	18.030	1612	1625	1632	rBB6	484720	2270307	14.41%	1.264%
95	18.172	1633	1639	1651	rBB	609179	2140060	13.58%	1.192%
96	18.395	1653	1661	1673	rBB	441680	2569401	16.31%	1.431%
97	18.557	1673	1677	1684	rBB6	86934	245905	1.56%	0.137%
98	18.749	1686	1696	1703	rBB2	126200	522746	3.32%	0.291%

Sum of corrected areas: 179549800

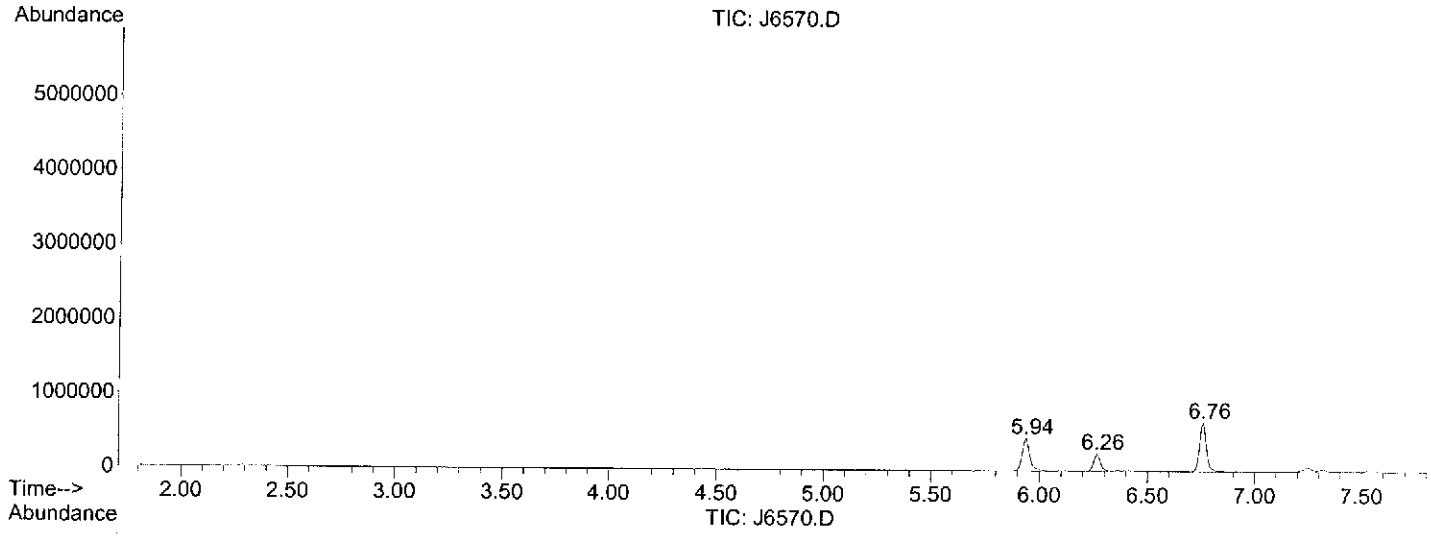
0099

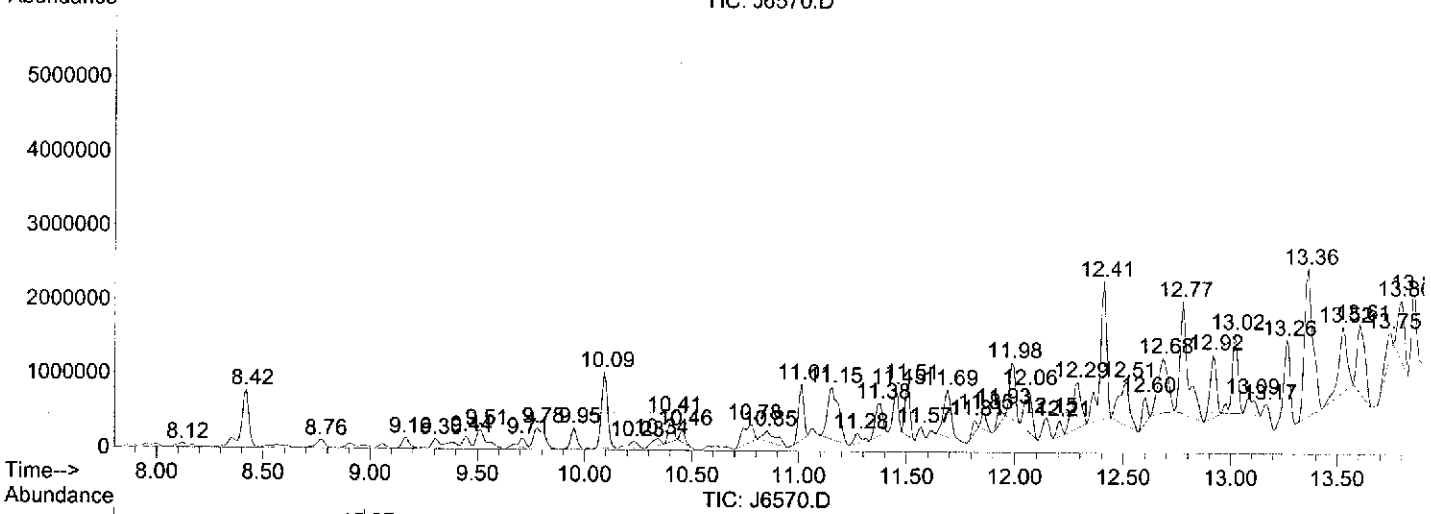
LSC Report - Integrated Chromatogram

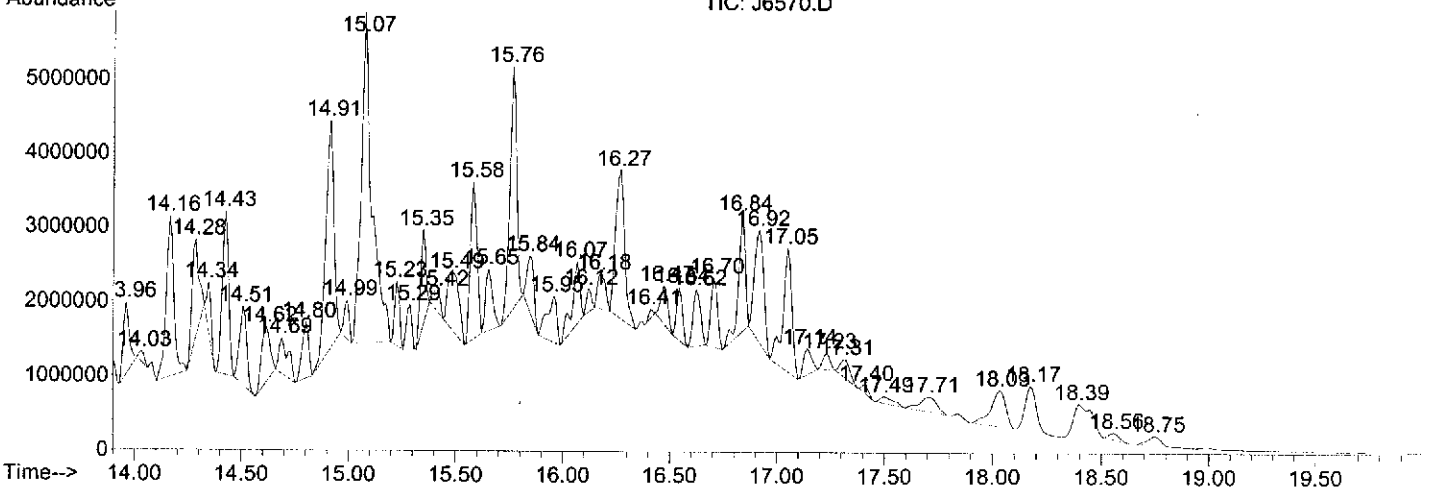
Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

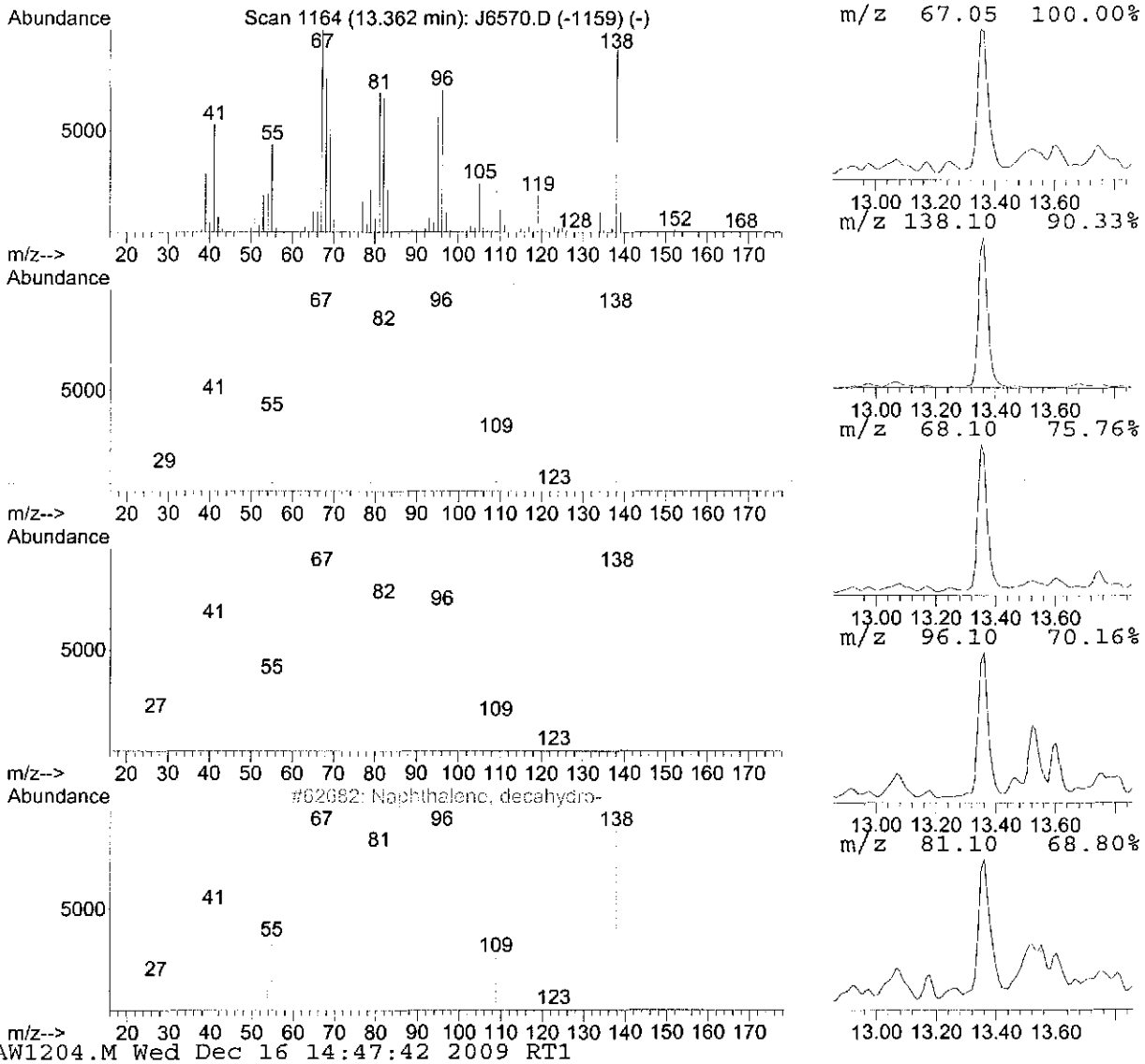
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.36	136.87 UG	5558440	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-	138	C10H18	000091-17-8	98
2	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	96
3	Naphthalene, decahydro-	138	C10H18	000091-17-8	96
4	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	96
5	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	96



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

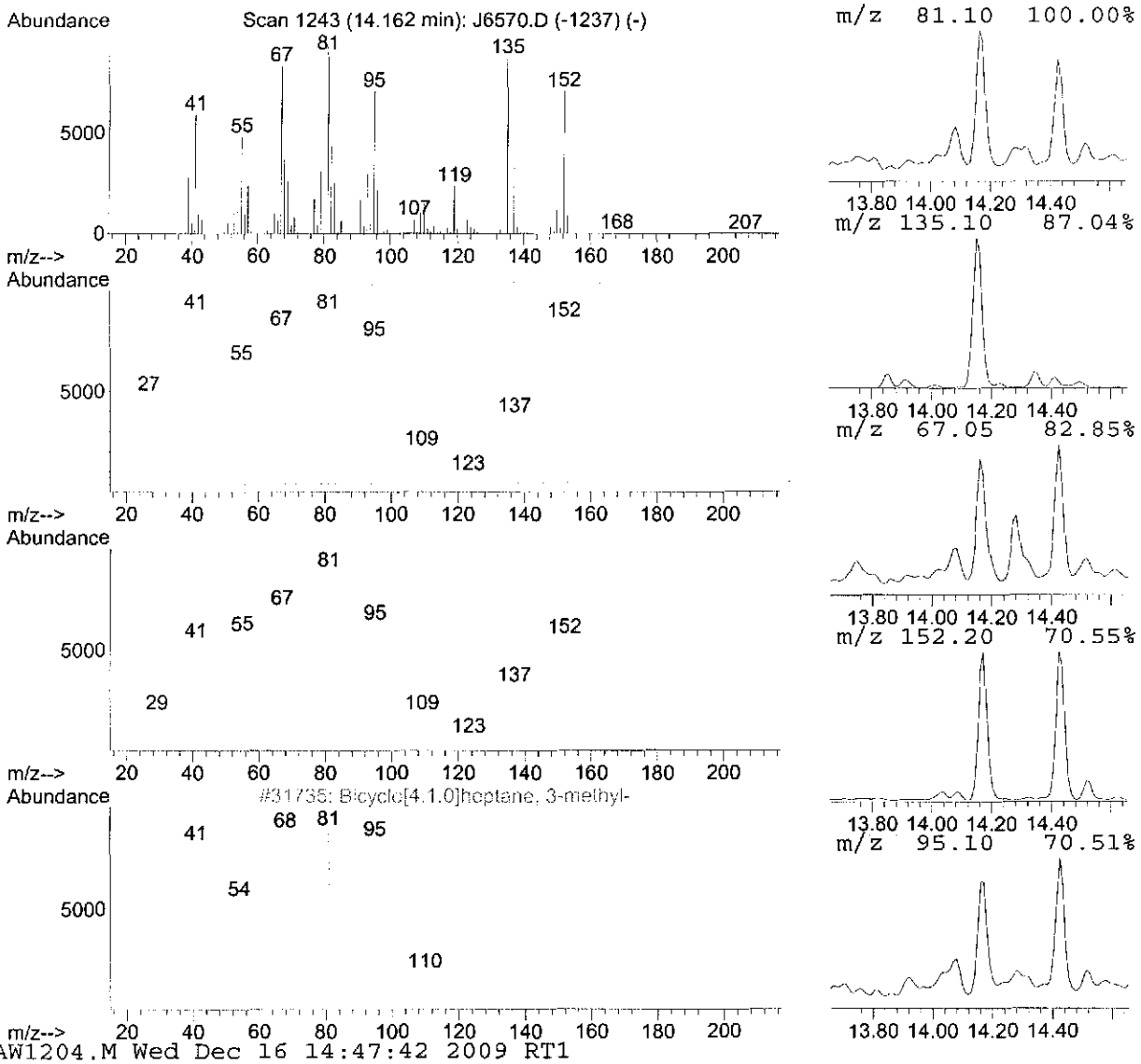
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.16	134.36 UG	5456350	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	86
2	trans-Decalin, 2-methyl-	152	C11H20	1000152-47-3	70
3	Bicyclo[4.1.0]heptane, 3-methyl-	110	C8H14	041977-47-3	64
4	Cyclohexanone, 5-methyl-2-(1-met...	152	C10H16O	015932-80-6	60
5	Pulegone	152	C10H16O	000089-82-7	60



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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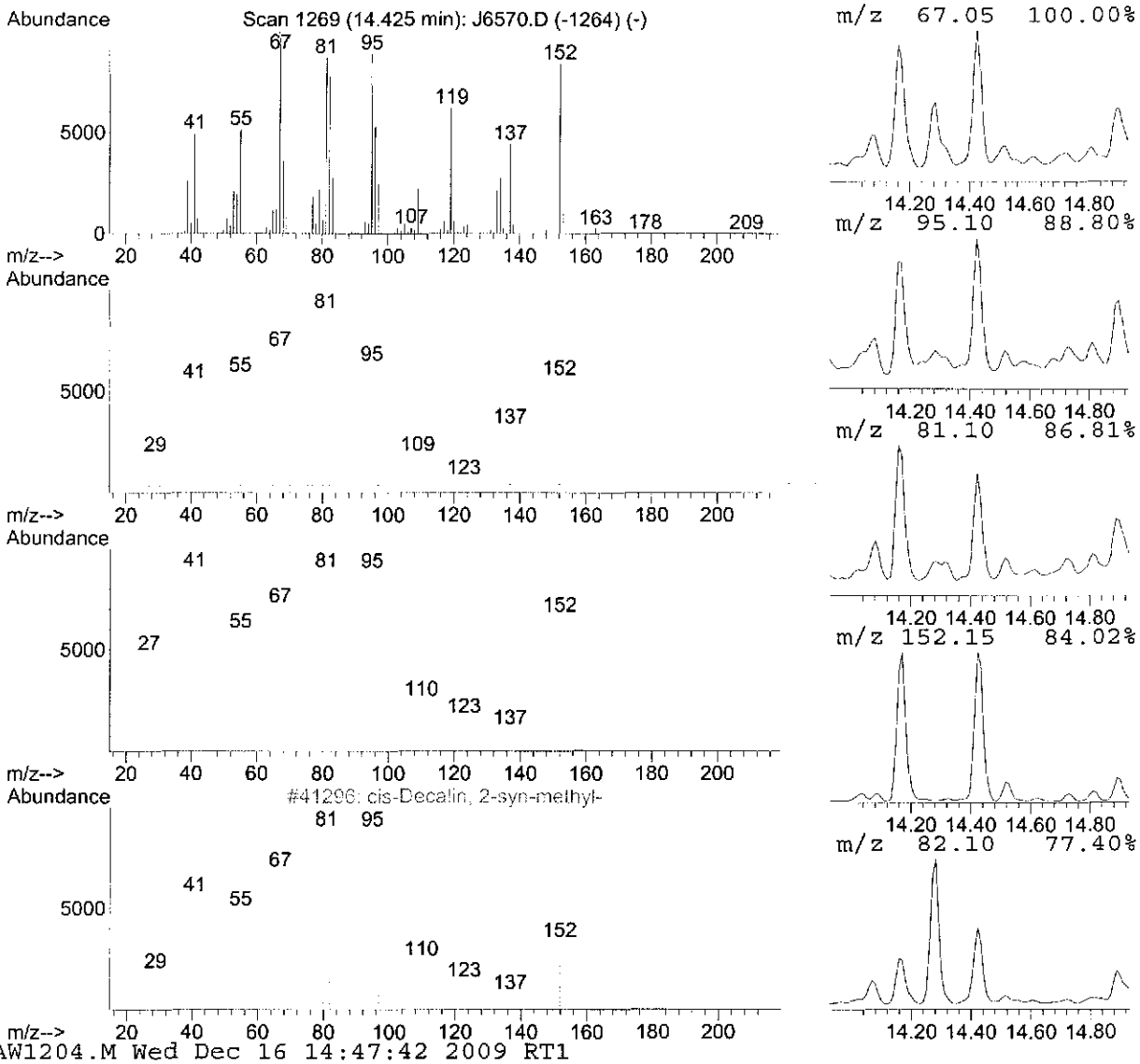
Peak Number 3 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.43	113.24 UG	4598870	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans-Decalin, 2-methyl-	152	C11H20	1000152-47-3	62
2	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	60
3	cis-Decalin, 2-syn-methyl-	152	C11H20	1000155-85-6	58
4	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	55
5	4,5-Nonadiene	124	C9H16	000821-74-9	45



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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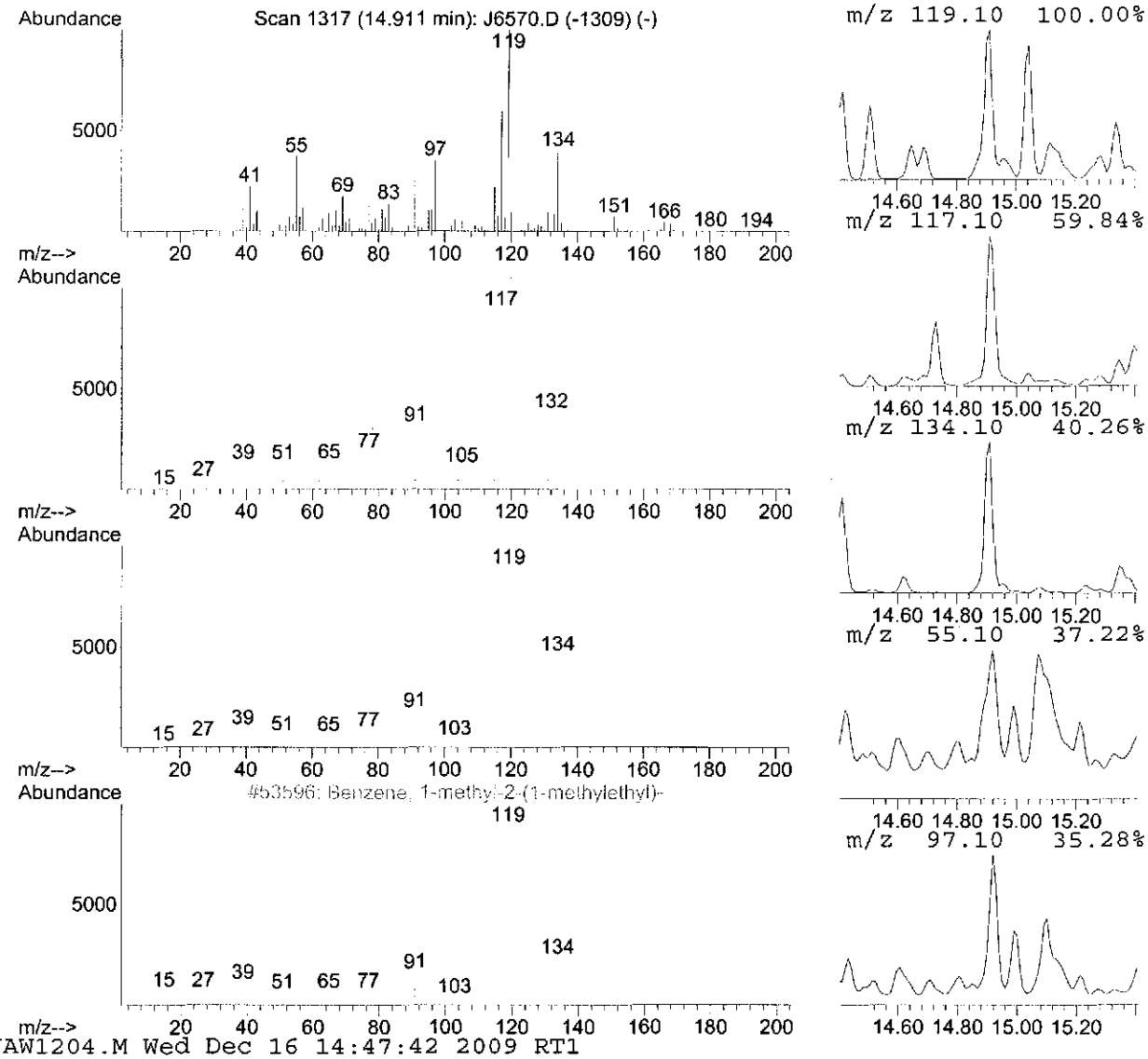
Peak Number 4 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.91	202.41 UG	8220070	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	60
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	55
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	55
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	55
5	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	55



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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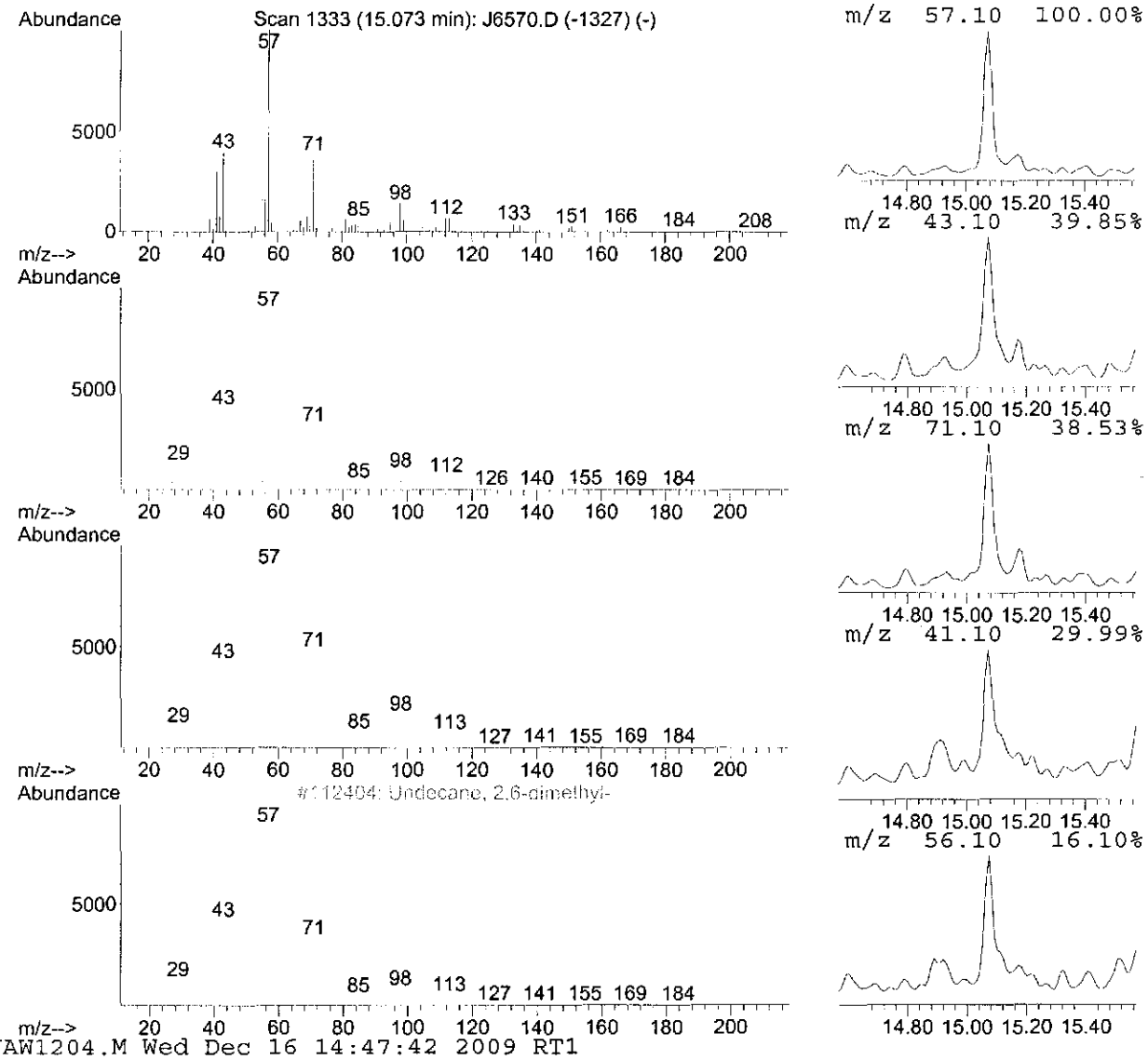
Peak Number 5 Unknown alkane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.07	387.94 UG	15754700	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane, 6-methyl-	184	C13H28	006044-71-9	95
2	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	95
3	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	86
4	Undecane, 3,6-dimethyl-	184	C13H28	017301-28-9	81
5	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	70



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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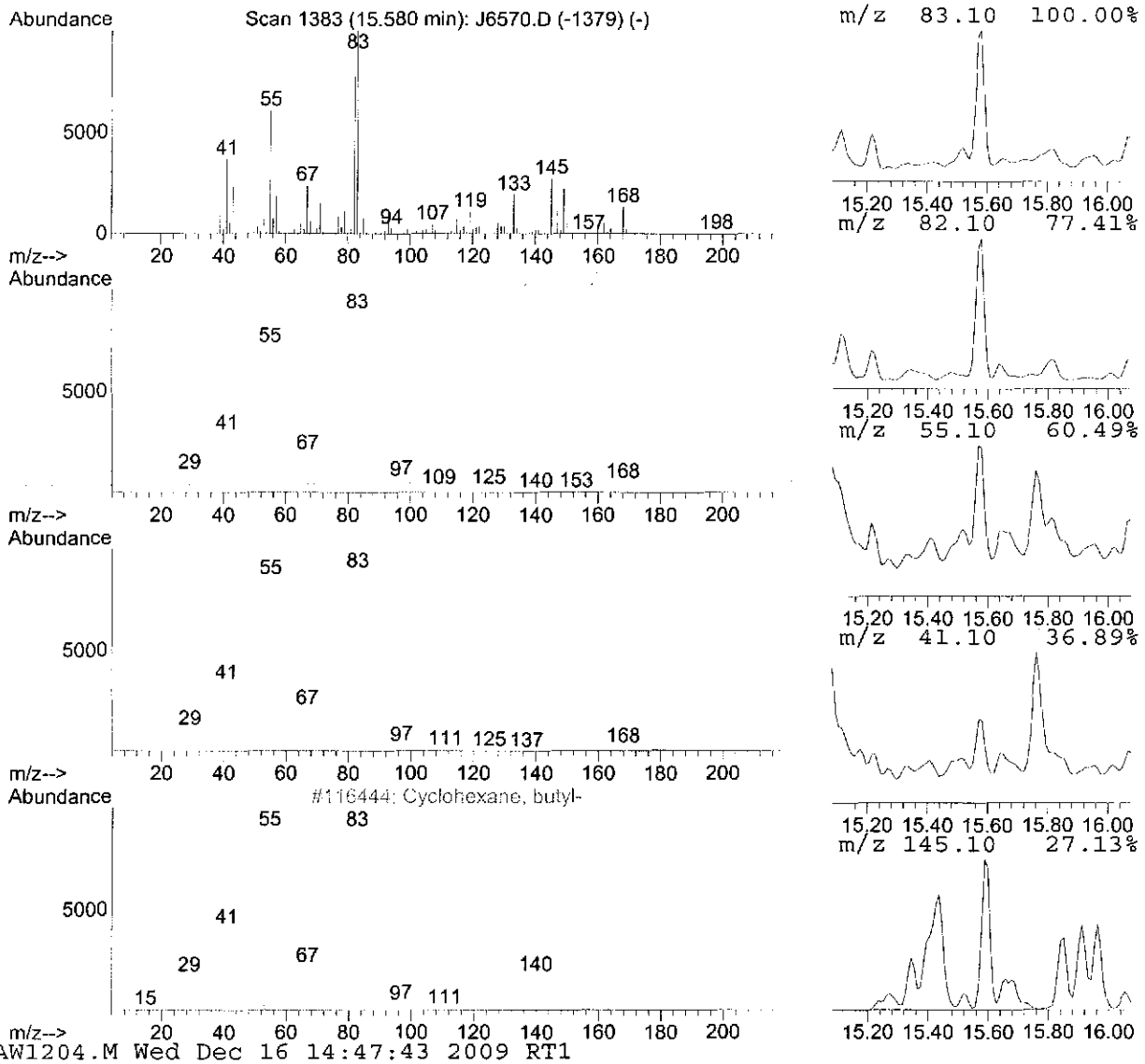
Peak Number 6 Unknown cyclic hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.58	113.98 UG	4628810	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, (4-methylpentyl)-	168	C12H24	061142-20-9	53
2	Cyclohexane, hexyl-	168	C12H24	004292-75-5	53
3	Cyclohexane, butyl-	140	C10H20	001678-93-9	50
4	Cyclohexane, octyl-	196	C14H28	001795-15-9	50
5	Cyclohexane, (1-methylethyl)-	126	C9H18	000696-29-7	50



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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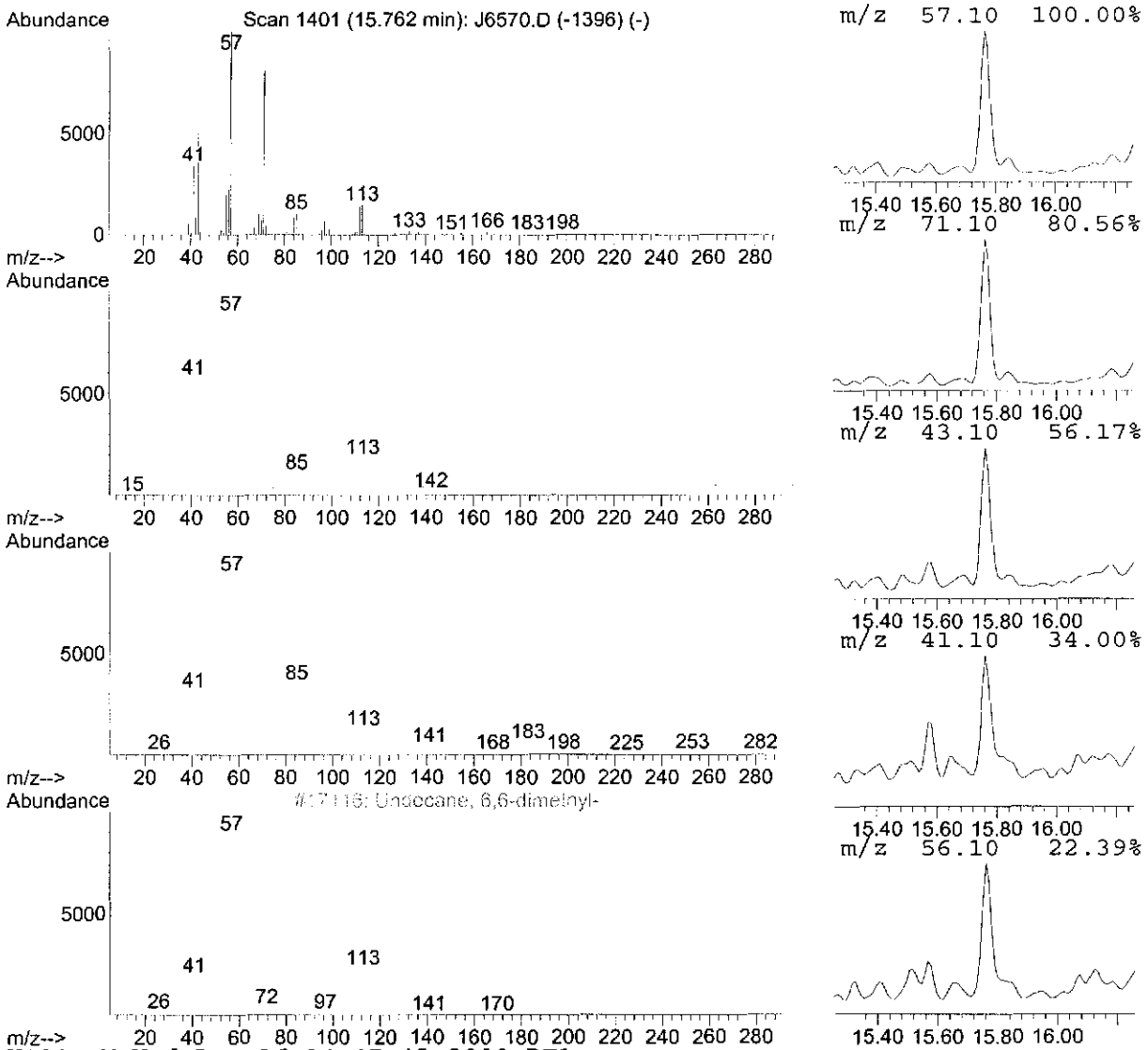
Peak Number 7 Unknown alkane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.76	179.58 UG	7292680	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	80
2	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	78
3	Undecane, 6,6-dimethyl-	184	C13H28	017312-76-4	72
4	Dodecane, 4,6-dimethyl-	198	C14H30	061141-72-8	72
5	Undecane, 5-methyl-	170	C12H26	001632-70-8	72



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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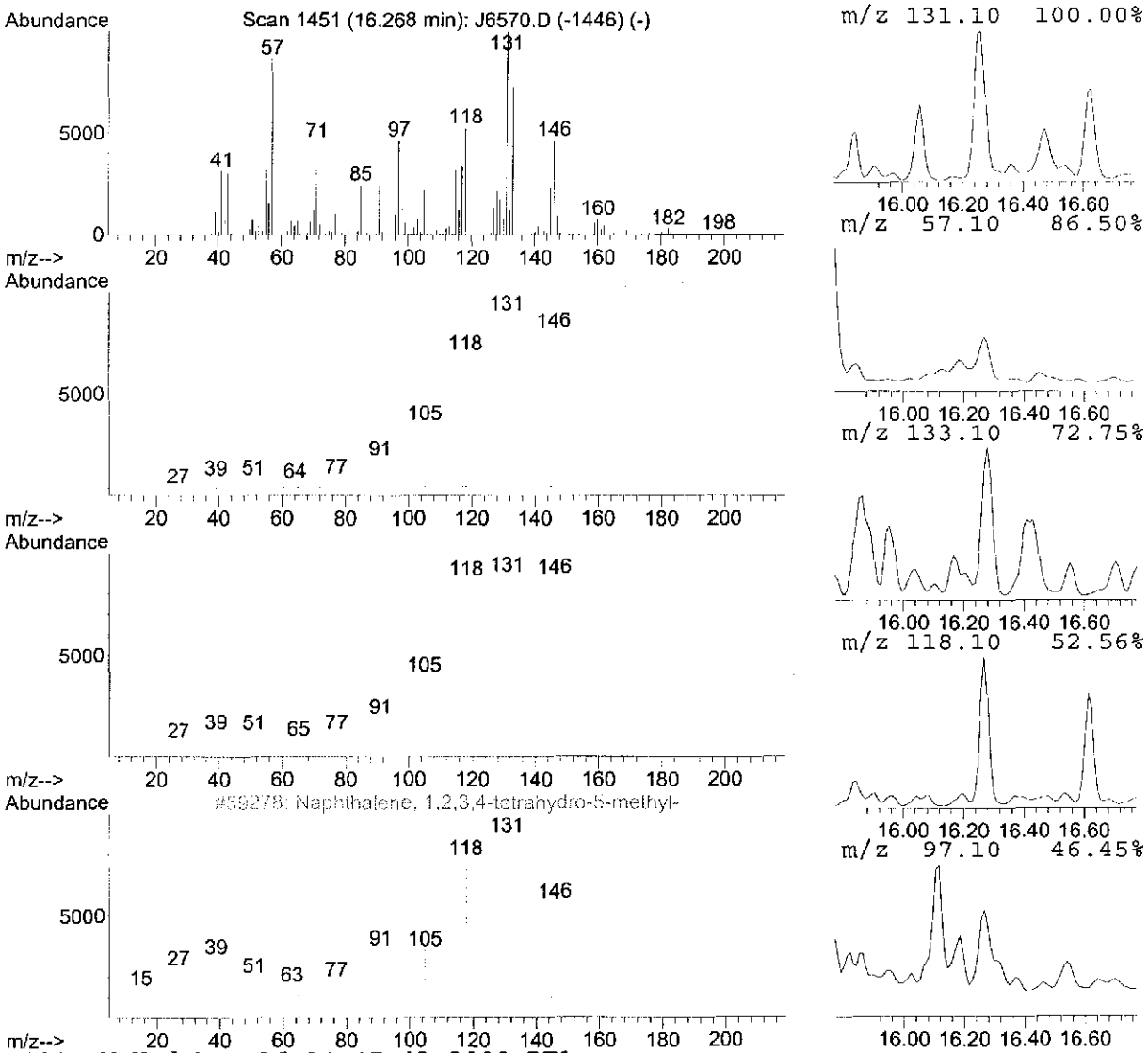
Peak Number 8 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.27	144.73 UG	5877690	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	45
2	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	43
3	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	42
4	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	42
5	1H-Inden-1-one, 2,3-dihydro-2-me...	146	C10H10O	017496-14-9	38



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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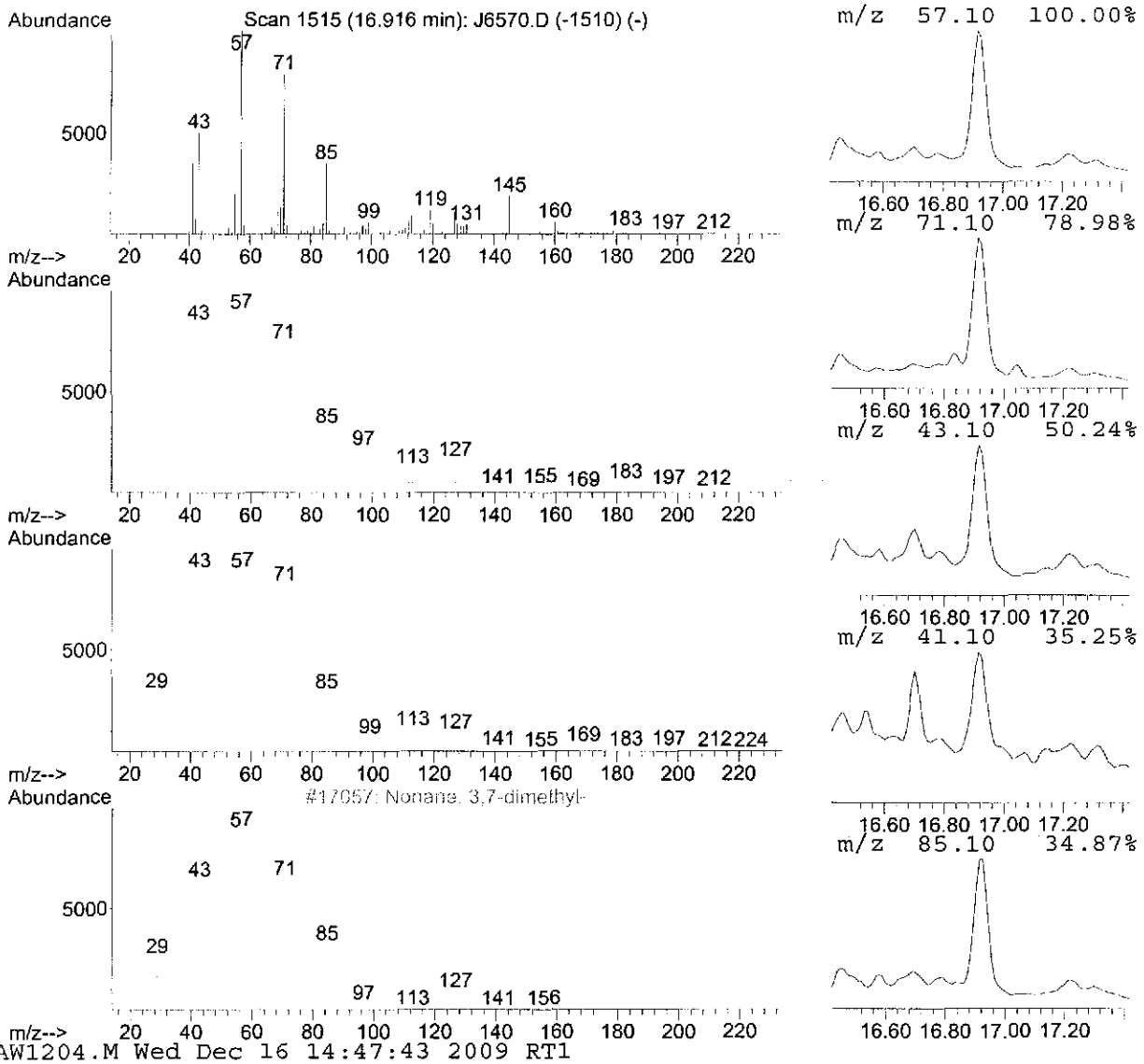
Peak Number 9 Unknown alkane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.92	109.54 UG	4448360	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane, 2,6,10-trimethyl-	212	C15H32	003891-98-3	90
2	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	90
3	Nonane, 3,7-dimethyl-	156	C11H24	017302-32-8	81
4	Dodecane, 2,7,10-trimethyl-	212	C15H32	074645-98-0	68
5	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	64



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6570.D
Acq On : 11 Dec 2009 19:41
Operator : BINXU
Sample : T3-2/6-6.5,12542-013,M,0.057g,18.9
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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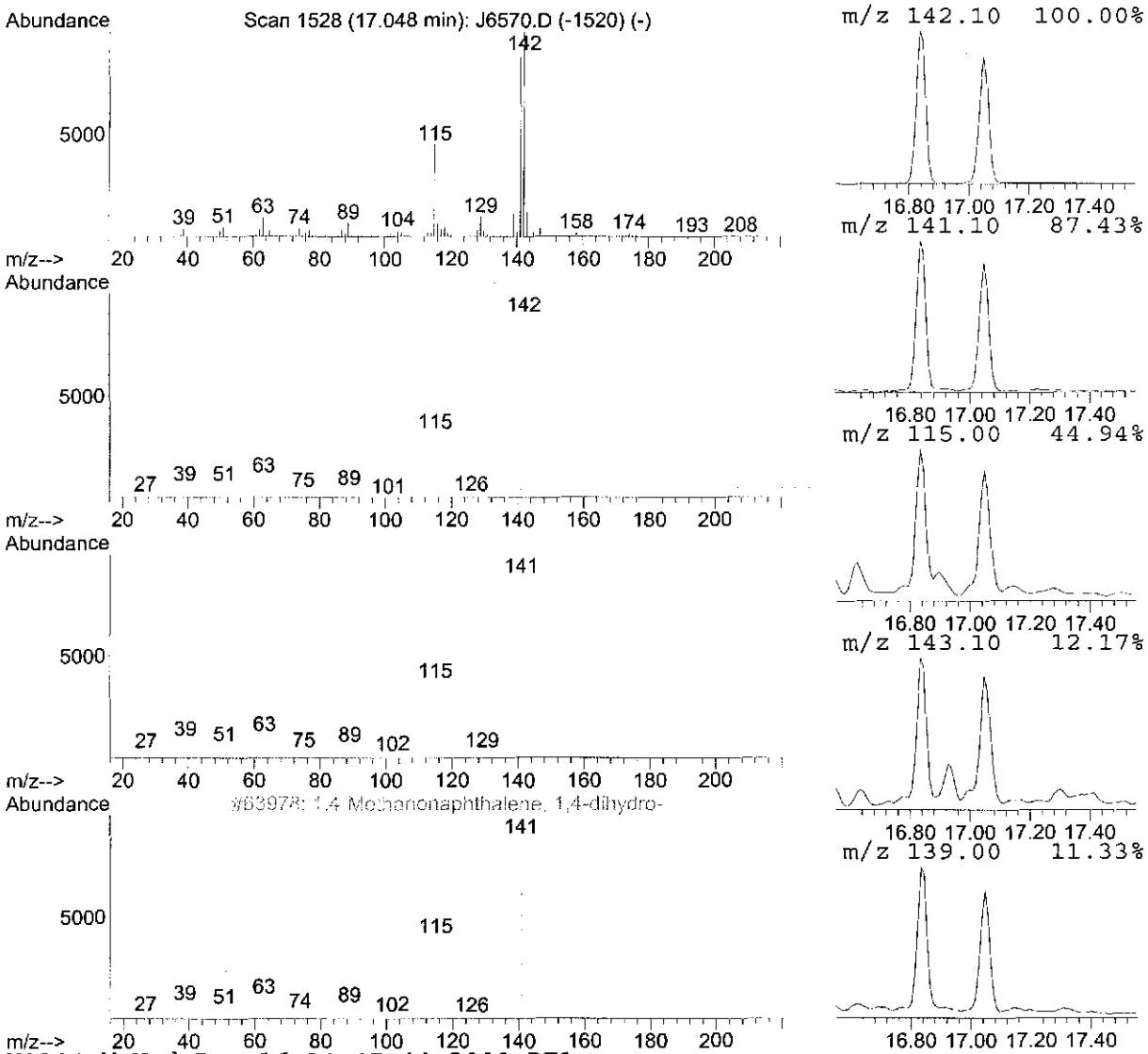
Peak Number 10 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.05	117.59 UG	4775260	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	90
2	Benzocycloheptatriene	142	C11H10	000264-09-5	87
3	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	87
4	Benzocycloheptatriene	142	C11H10	000264-09-5	87
5	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	81



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 15 11:15:25 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration

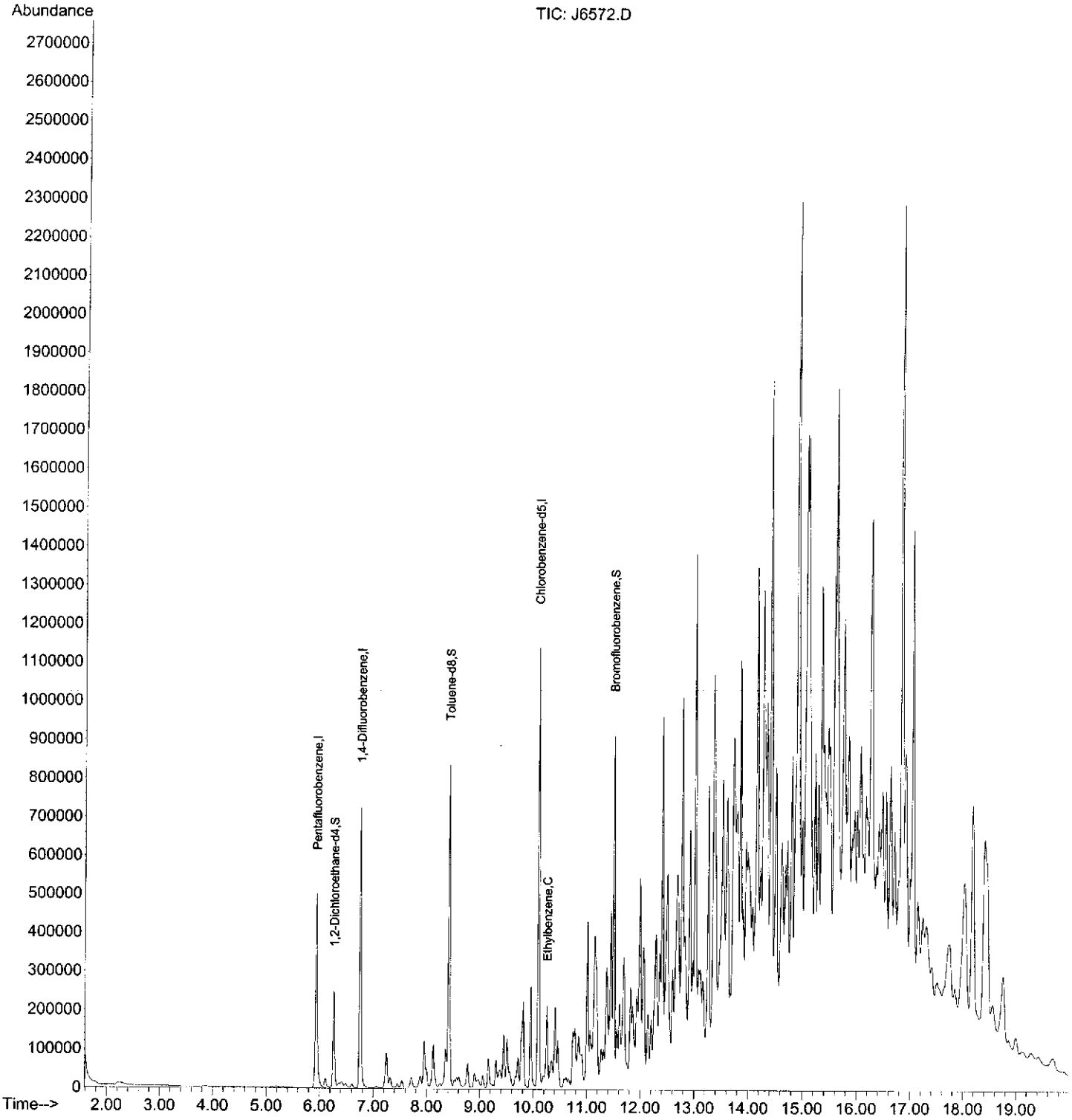
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.94	168	337482	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.76	114	631391	50.00	UG	0.00
50) Chlorobenzene-d5	10.09	117	674814	50.00	UG	-0.01
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.26	65	203550	49.52	UG	-0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 99.04%			
41) Toluene-d8	8.42	98	640839	50.47	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 100.94%			
59) Bromofluorobenzene	11.50	95	392724	47.86	UG	-0.01
Spiked Amount 50.000	Range 23 - 145		Recovery = 95.72%			
Target Compounds						Qvalue
53) Ethylbenzene	10.25	91	151500	7.85	UG	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 15 11:15:25 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.939	422	431	443	rBB	499554	1174278	18.75%	1.219%
2	6.263	458	463	469	rBB	245740	515661	8.23%	0.535%
3	6.760	506	512	531	rBB	725728	1565826	25.00%	1.625%
4	7.246	553	560	564	rBB2	82310	203140	3.24%	0.211%
5	7.955	626	630	640	rBB2	112675	308047	4.92%	0.320%
6	8.127	640	647	655	rBB	108126	290505	4.64%	0.301%
7	8.349	666	669	672	rBB	57977	113392	1.81%	0.118%
8	8.420	672	676	681	rBB	792941	1524924	24.34%	1.582%
9	8.775	702	711	718	rBB2	61068	156069	2.49%	0.162%
10	9.160	745	749	759	rBB	72734	173152	2.76%	0.180%
11	9.301	760	763	766	rBB	55835	105848	1.69%	0.110%
12	9.443	774	777	781	rBB	111323	198361	3.17%	0.206%
13	9.514	781	784	794	rBB	103576	258227	4.12%	0.268%
14	9.706	795	803	806	rBB2	67109	163996	2.62%	0.170%
15	9.808	806	813	821	rBB2	214599	651239	10.40%	0.676%
16	9.949	822	827	835	rBB	258551	519046	8.29%	0.539%
17	10.091	836	841	847	rBB	1129087	2164948	34.56%	2.247%
18	10.253	847	857	861	rBB	192535	425765	6.80%	0.442%
19	10.344	861	866	869	rBB2	37921	111100	1.77%	0.115%
20	10.405	869	872	875	rBB	156800	266262	4.25%	0.276%
21	10.780	901	909	912	rBB3	102351	439945	7.02%	0.457%
22	10.851	912	916	925	rBB4	79618	314370	5.02%	0.326%
23	11.013	928	932	935	rBB	362614	637375	10.17%	0.661%
24	11.154	941	946	953	rBB3	318674	1155759	18.45%	1.199%
25	11.377	964	968	971	rBB3	202148	464977	7.42%	0.483%
26	11.448	971	975	978	rBB2	297334	503465	8.04%	0.522%
27	11.499	978	980	984	rBB	764861	1335631	21.32%	1.386%
28	11.610	989	991	994	rBB2	110596	158791	2.53%	0.165%
29	11.691	994	999	1007	rBB4	249535	581803	9.29%	0.604%
30	11.813	1008	1011	1014	rBB	149027	248026	3.96%	0.257%
31	11.934	1020	1023	1025	rBB3	76568	166165	2.65%	0.172%
32	11.985	1025	1028	1032	rBB	358504	642591	10.26%	0.667%
33	12.056	1032	1035	1040	rBB3	235897	569560	9.09%	0.591%
34	12.147	1040	1044	1047	rBB3	121171	260453	4.16%	0.270%
35	12.208	1047	1050	1052	rBB	88772	148045	2.36%	0.154%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	12.289	1052	1058	1062	rBB4	259984	767494	12.25%	0.796%
37	12.410	1062	1070	1073	rBB	778739	1775791	28.35%	1.843%
38	12.501	1073	1079	1085	rBB4	401236	1201979	19.19%	1.247%
39	12.602	1086	1089	1091	rBB2	143608	269937	4.31%	0.280%
40	12.683	1091	1097	1102	rBB6	330298	1118781	17.86%	1.161%
41	12.775	1102	1106	1116	rBB2	785668	1967808	31.41%	2.042%
42	12.916	1116	1120	1124	rBB	452938	879616	14.04%	0.913%
43	13.018	1124	1130	1134	rBB	1136758	2053891	32.79%	2.131%
44	13.078	1134	1136	1142	rBB4	73577	247241	3.95%	0.257%
45	13.159	1142	1144	1148	rBB2	85932	160884	2.57%	0.167%
46	13.261	1149	1154	1158	rBB	637124	1288141	20.56%	1.337%
47	13.362	1158	1164	1171	rBB3	868253	2595488	41.43%	2.693%
48	13.524	1171	1180	1185	rBB2	463322	1271186	20.29%	1.319%
49	13.605	1185	1188	1193	rBB4	426049	1015250	16.21%	1.054%
50	13.726	1196	1200	1204	rBB3	450622	1230881	19.65%	1.277%
51	13.797	1204	1207	1210	rBB2	171551	234117	3.74%	0.243%
52	13.848	1210	1212	1220	rBB	697307	1365433	21.80%	1.417%
53	13.959	1220	1223	1225	rBB	166040	330251	5.27%	0.343%
54	13.990	1225	1226	1232	rBB3	69146	191769	3.06%	0.199%
55	14.162	1237	1243	1247	rBB4	928271	2045875	32.66%	2.123%
56	14.223	1247	1249	1251	rBB2	105639	151331	2.42%	0.157%
57	14.273	1251	1254	1259	rBB2	702210	1440693	23.00%	1.495%
58	14.344	1259	1261	1264	rBB2	374054	441390	7.05%	0.458%
59	14.415	1264	1268	1273	rBB2	1443631	3049985	48.69%	3.165%
60	14.506	1273	1277	1283	rBB2	520160	1166872	18.63%	1.211%
61	14.618	1283	1288	1292	rBB3	298718	807409	12.89%	0.838%
62	14.688	1292	1295	1297	rBB3	122825	220107	3.51%	0.228%
63	14.729	1297	1299	1301	rBB	212577	240865	3.84%	0.250%
64	14.800	1302	1306	1309	rBB3	489014	886929	14.16%	0.920%
65	14.911	1309	1317	1322	rBB2	1804823	5210497	83.18%	5.407%
66	14.992	1322	1325	1327	rBB2	198443	262468	4.19%	0.272%
67	15.073	1327	1333	1345	rBB8	1232495	6264380	100.00%	6.501%
68	15.225	1345	1348	1351	rBB2	412309	727224	11.61%	0.755%
69	15.286	1351	1354	1357	rBB2	320511	557150	8.89%	0.578%
70	15.347	1357	1360	1369	rBB3	772044	2190651	34.97%	2.273%
71	15.468	1369	1372	1379	rBB3	319223	1149845	18.36%	1.193%
72	15.620	1379	1387	1395	rBB2	1314002	5075341	81.02%	5.267%
73	15.762	1395	1401	1405	rBB4	585960	1557084	24.86%	1.616%
74	15.843	1405	1409	1413	rBB4	299611	646316	10.32%	0.671%
75	15.914	1413	1416	1418	rBB3	71483	152395	2.43%	0.158%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	15.954	1418	1420	1423	rBB3	131753	189563	3.03%	0.197%
77	16.005	1423	1425	1428	rBB2	164128	259758	4.15%	0.270%
78	16.066	1428	1431	1438	rBB6	300881	705233	11.26%	0.732%
79	16.167	1439	1441	1446	rBB4	185672	444396	7.09%	0.461%
80	16.268	1446	1451	1458	rBB2	907159	2443629	39.01%	2.536%
81	16.410	1458	1465	1468	rBB3	115861	294205	4.70%	0.305%
82	16.471	1468	1471	1475	rBB4	220530	451895	7.21%	0.469%
83	16.542	1475	1478	1482	rBB3	316853	577235	9.21%	0.599%
84	16.623	1482	1486	1491	rBB3	406875	1013795	16.18%	1.052%
85	16.704	1491	1494	1498	rBB3	228937	461338	7.36%	0.479%
86	16.835	1498	1507	1511	rBB	1714924	3679340	58.73%	3.818%
87	16.906	1511	1514	1519	rBB4	326381	883330	14.10%	0.917%
88	17.048	1520	1528	1533	rBB2	1103296	3016130	48.15%	3.130%
89	17.139	1533	1537	1543	rBB4	147974	412770	6.59%	0.428%
90	17.230	1543	1546	1550	rBB3	73773	182163	2.91%	0.189%
91	17.301	1550	1553	1560	rBB7	54436	159335	2.54%	0.165%
92	17.514	1568	1574	1582	rBB7	34894	151562	2.42%	0.157%
93	17.726	1582	1595	1603	rBB7	135454	810800	12.94%	0.841%
94	18.020	1612	1624	1633	rBB7	324851	1794812	28.65%	1.863%
95	18.172	1633	1639	1652	rBB	534939	1891159	30.19%	1.963%
96	18.405	1654	1662	1673	rBB2	458873	2743322	43.79%	2.847%
97	18.557	1673	1677	1684	rBB8	38375	113087	1.81%	0.117%
98	18.749	1686	1696	1704	rBB2	156574	700534	11.18%	0.727%
99	19.002	1714	1721	1726	rBB3	35253	123378	1.97%	0.128%
100	19.691	1780	1789	1802	rBB5	24930	134418	2.15%	0.139%

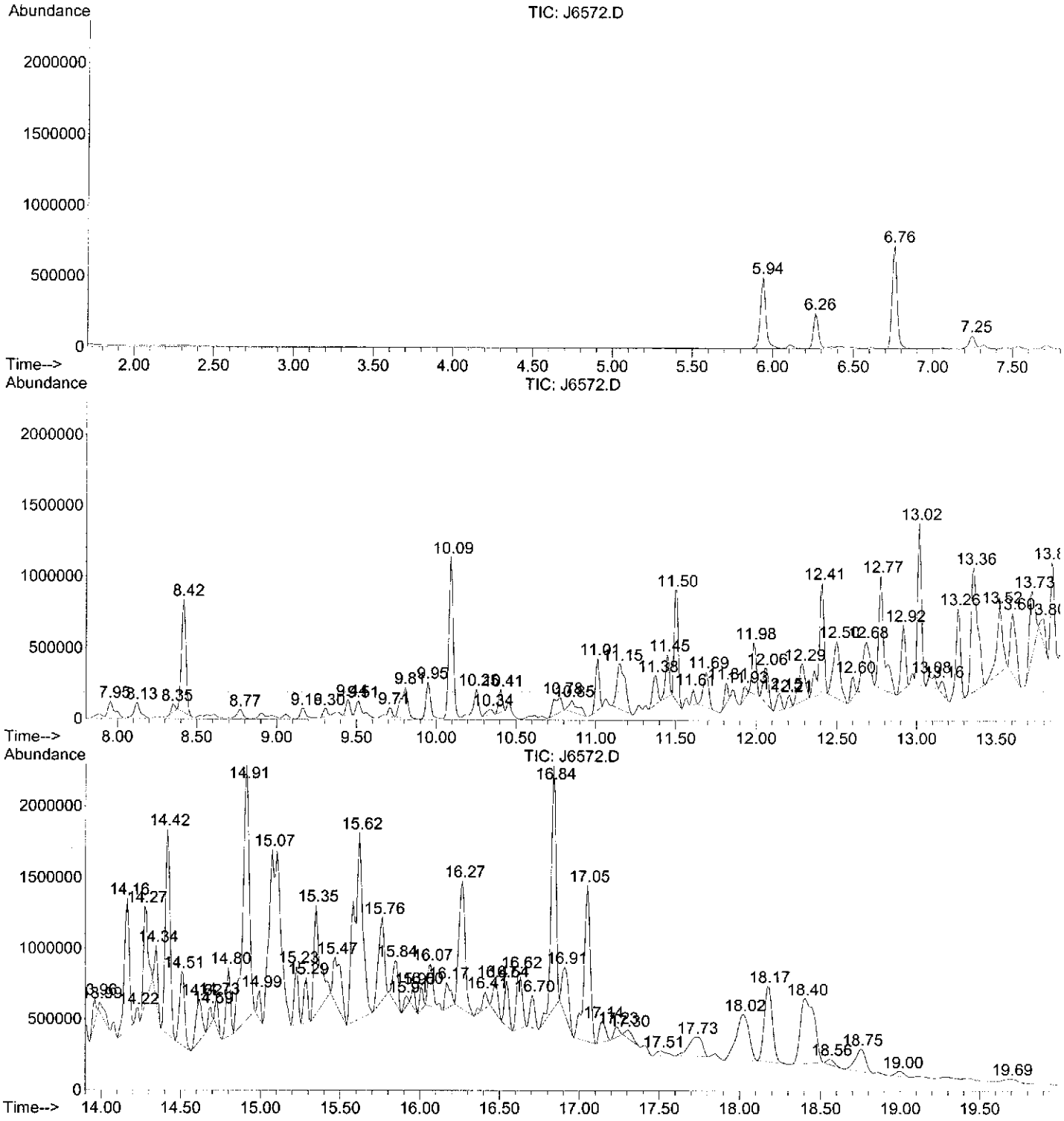
Sum of corrected areas: 96364674

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



0116

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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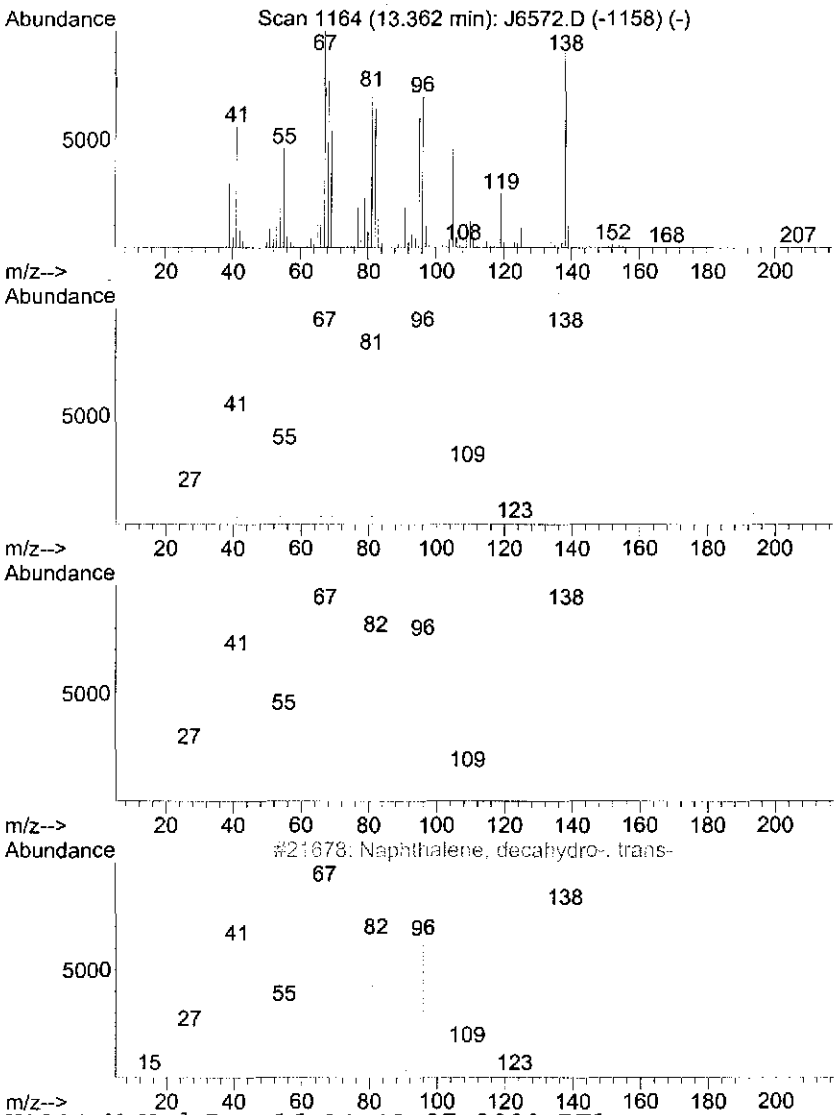
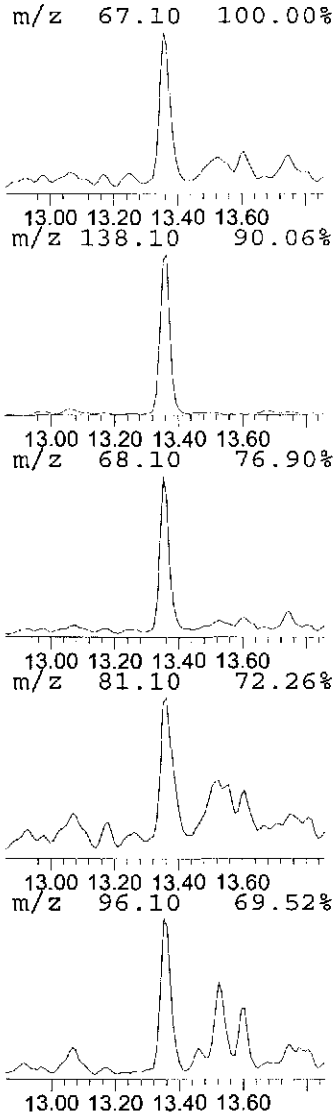
Peak Number 1 Unknown aromatic Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.36	59.94 UG	2595490	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-	138	C10H18	000091-17-8	96
2	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	96
3	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	96
4	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	96
5	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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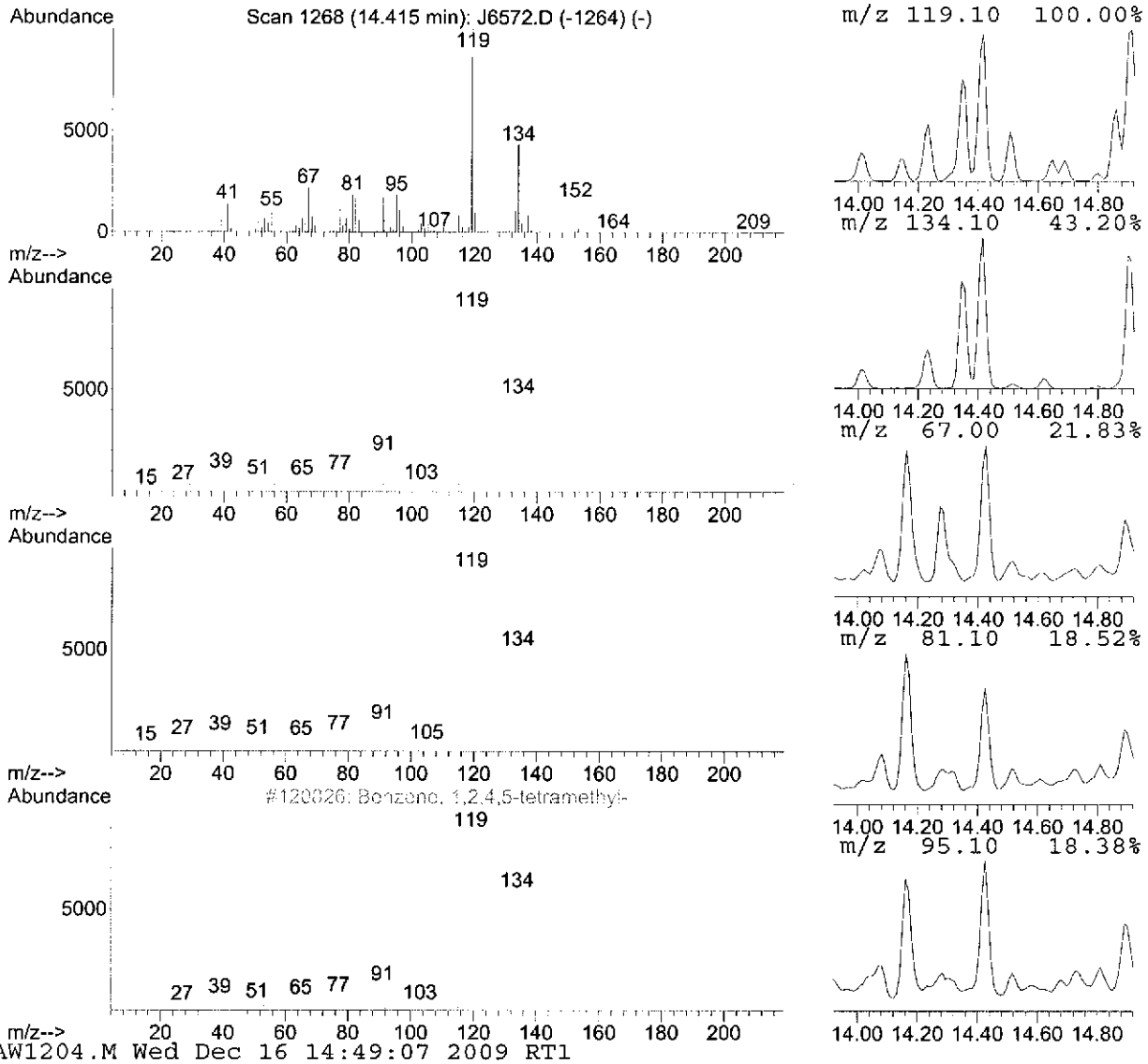
Peak Number 2 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.42	70.44 UG	3049990	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	95
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	93
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	93
4	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	93
5	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	92



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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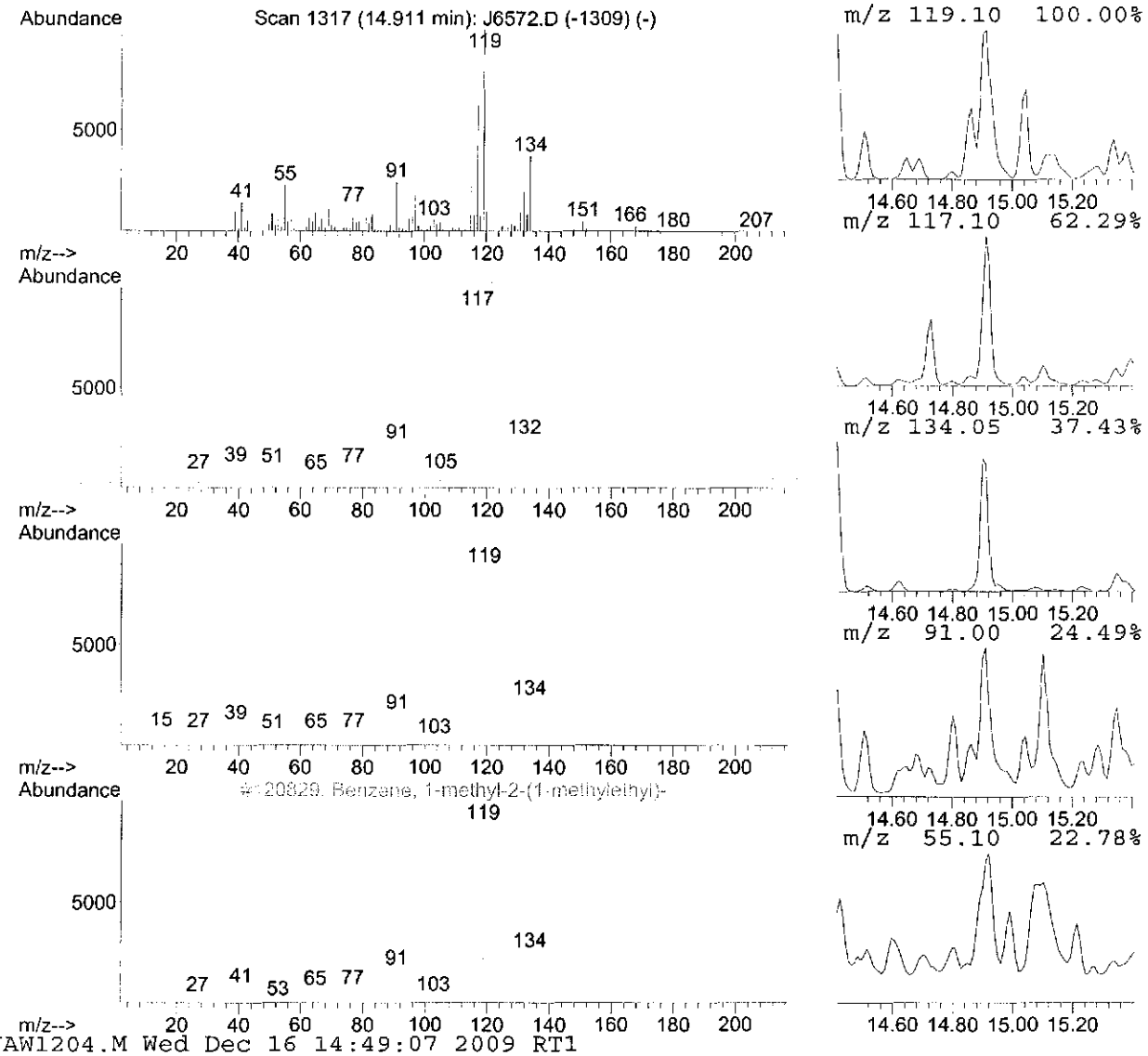
Peak Number 3 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.91	120.34 UG	5210500	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Phenylbut-1-ene	132	C10H12	000934-10-1	83
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	55
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	55
4	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	55
5	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	55



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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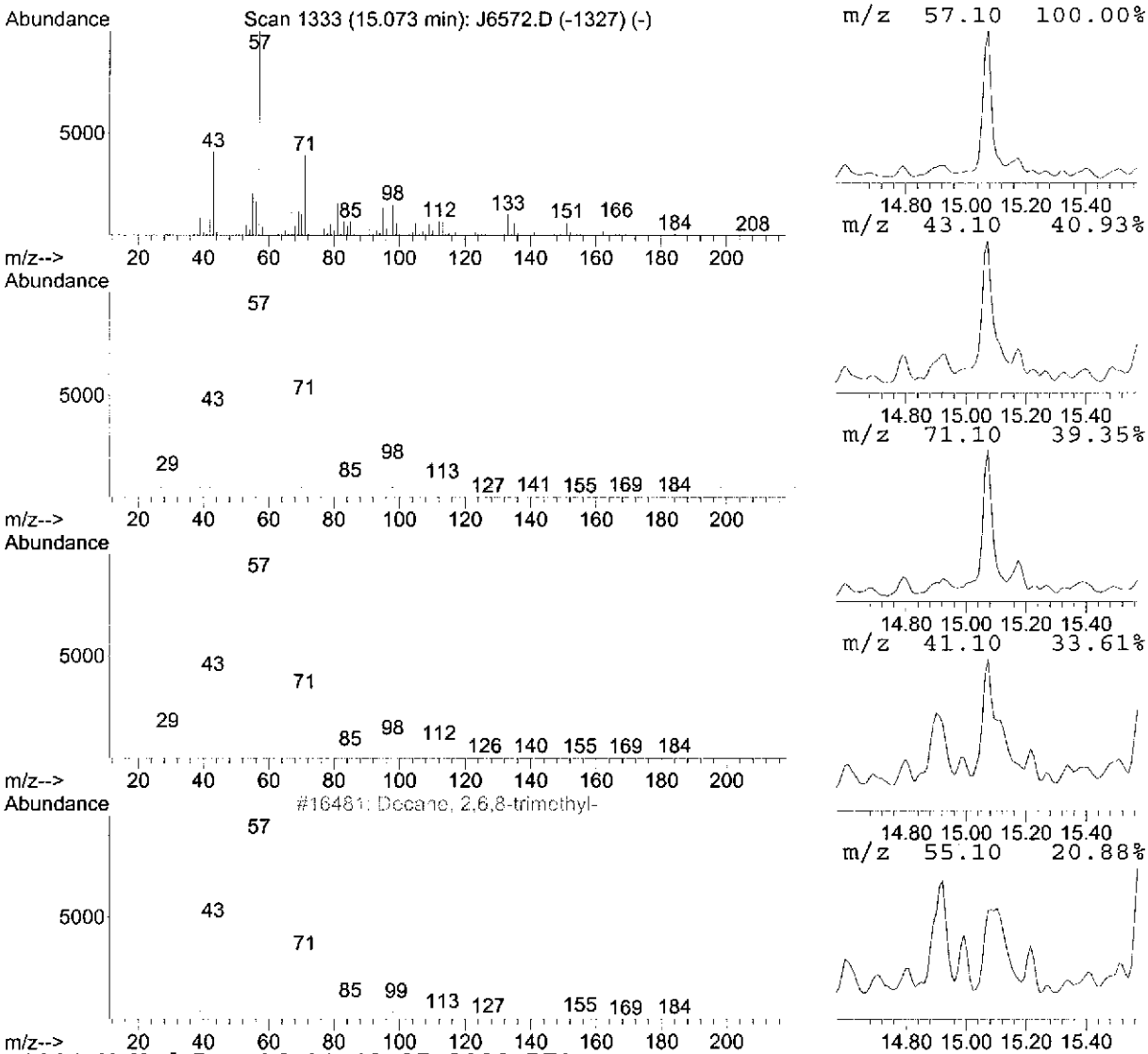
Peak Number 4 Unknown alkane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.07	144.68 UG	6264380	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	91
2	Dodecane, 6-methyl-	184	C13H28	006044-71-9	64
3	Decane, 2,6,8-trimethyl-	184	C13H28	062108-26-3	49
4	Nonane, 4-methyl-	142	C10H22	017301-94-9	47
5	Octane, 4-ethyl-	142	C10H22	015869-86-0	47



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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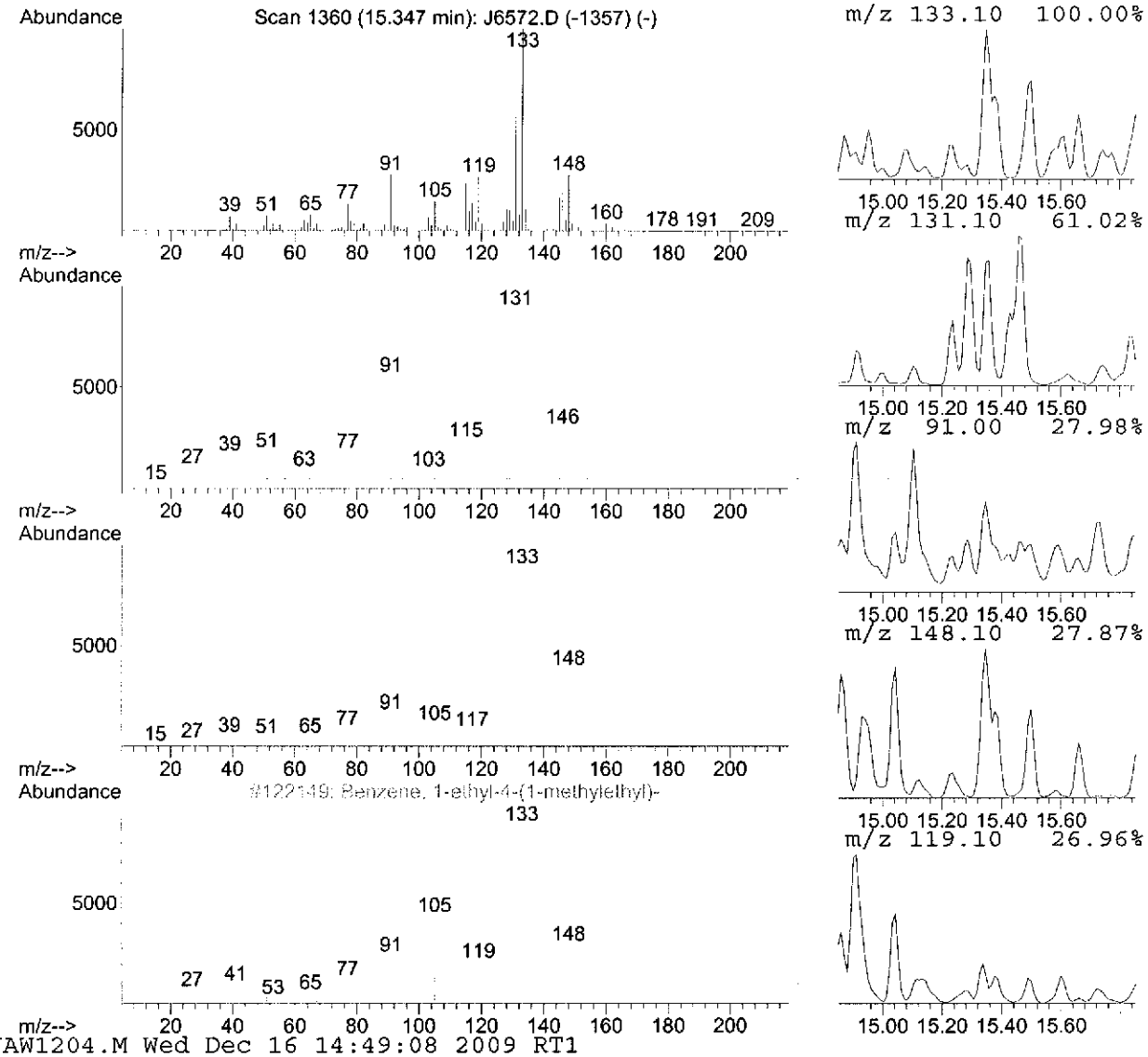
Peak Number 5 Unknown aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.35	50.59 UG	2190650	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methyl-1-butenyl)-	146	C11H14	053172-84-2	83
2	Benzene, pentamethyl-	148	C11H16	000700-12-9	55
3	Benzene, 1-ethyl-4-(1-methylethyl)-	148	C11H16	004218-48-8	53
4	Benzene, ethyl-1,2,4-trimethyl-	148	C11H16	054120-62-6	53
5	Benzene, 2,4-dimethyl-1-(1-methy...	148	C11H16	004706-89-2	49



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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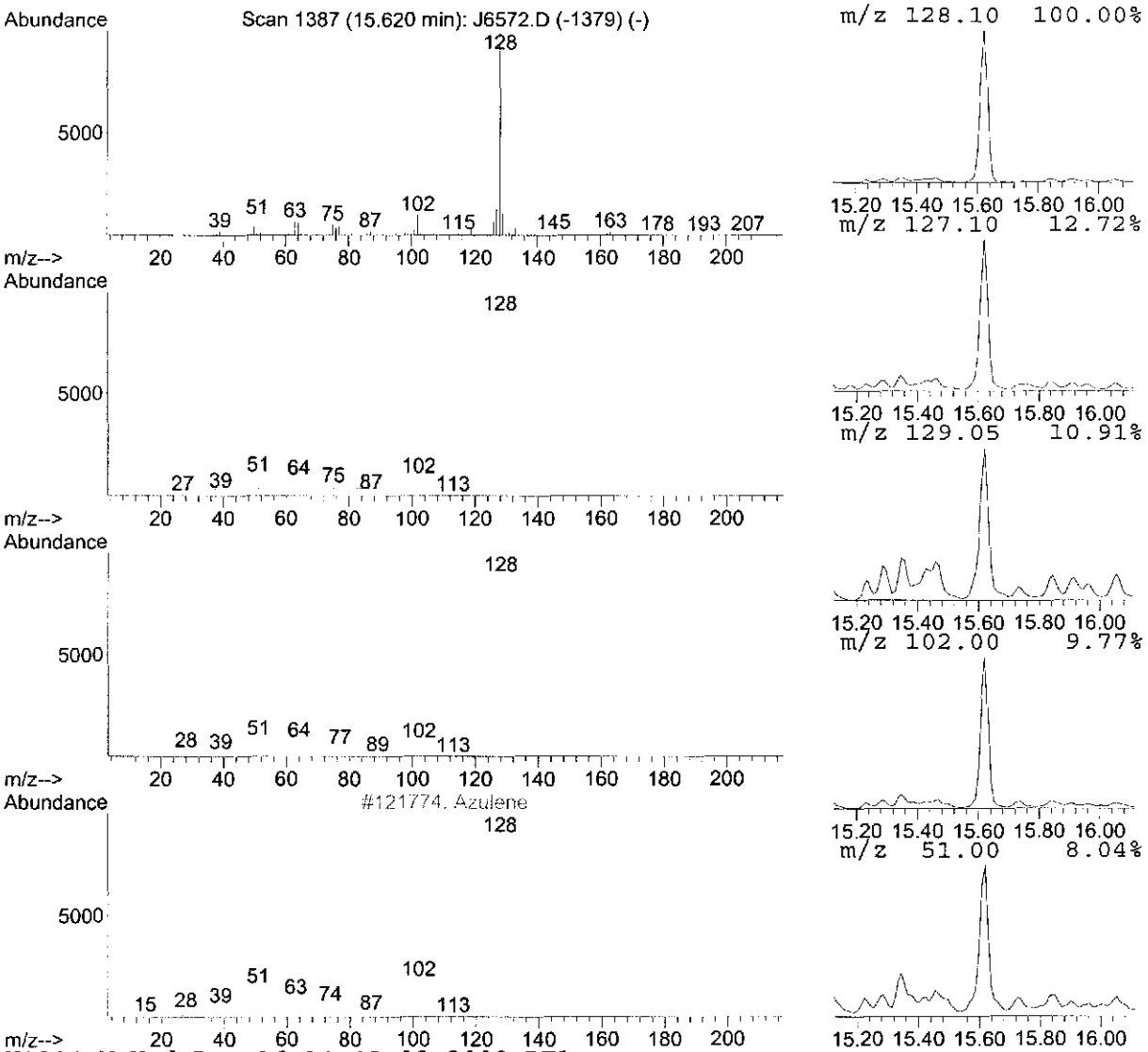
Peak Number 6 Naphthalene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.62	117.22 UG	5075340	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	95
2	Naphthalene	128	C10H8	000091-20-3	94
3	Azulene	128	C10H8	000275-51-4	90
4	Naphthalene	128	C10H8	000091-20-3	90
5	Azulene	128	C10H8	000275-51-4	90



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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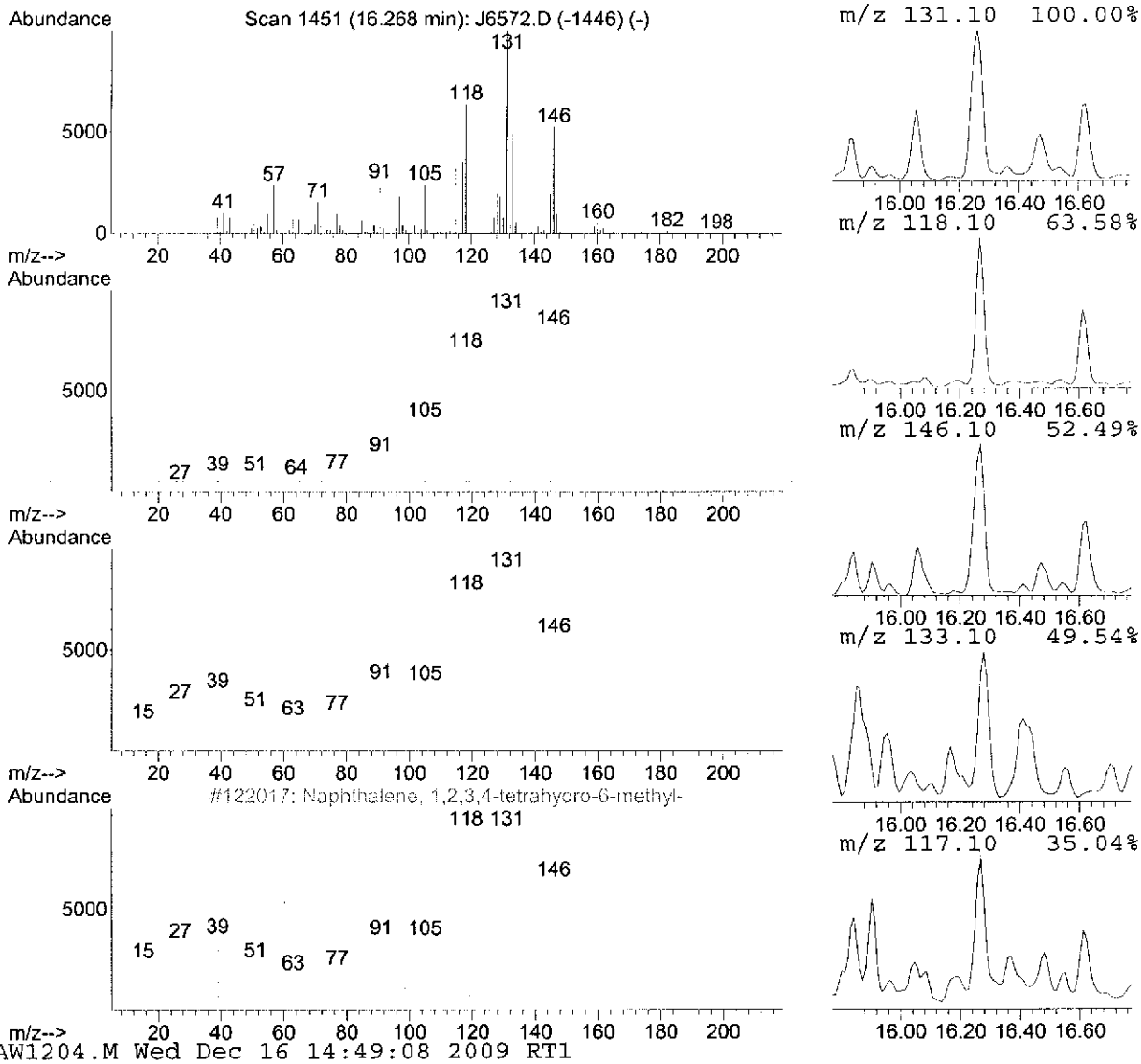
Peak Number 7 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.27	56.44 UG	2443630	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	95
2	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	93
3	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	92
4	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	81
5	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	81



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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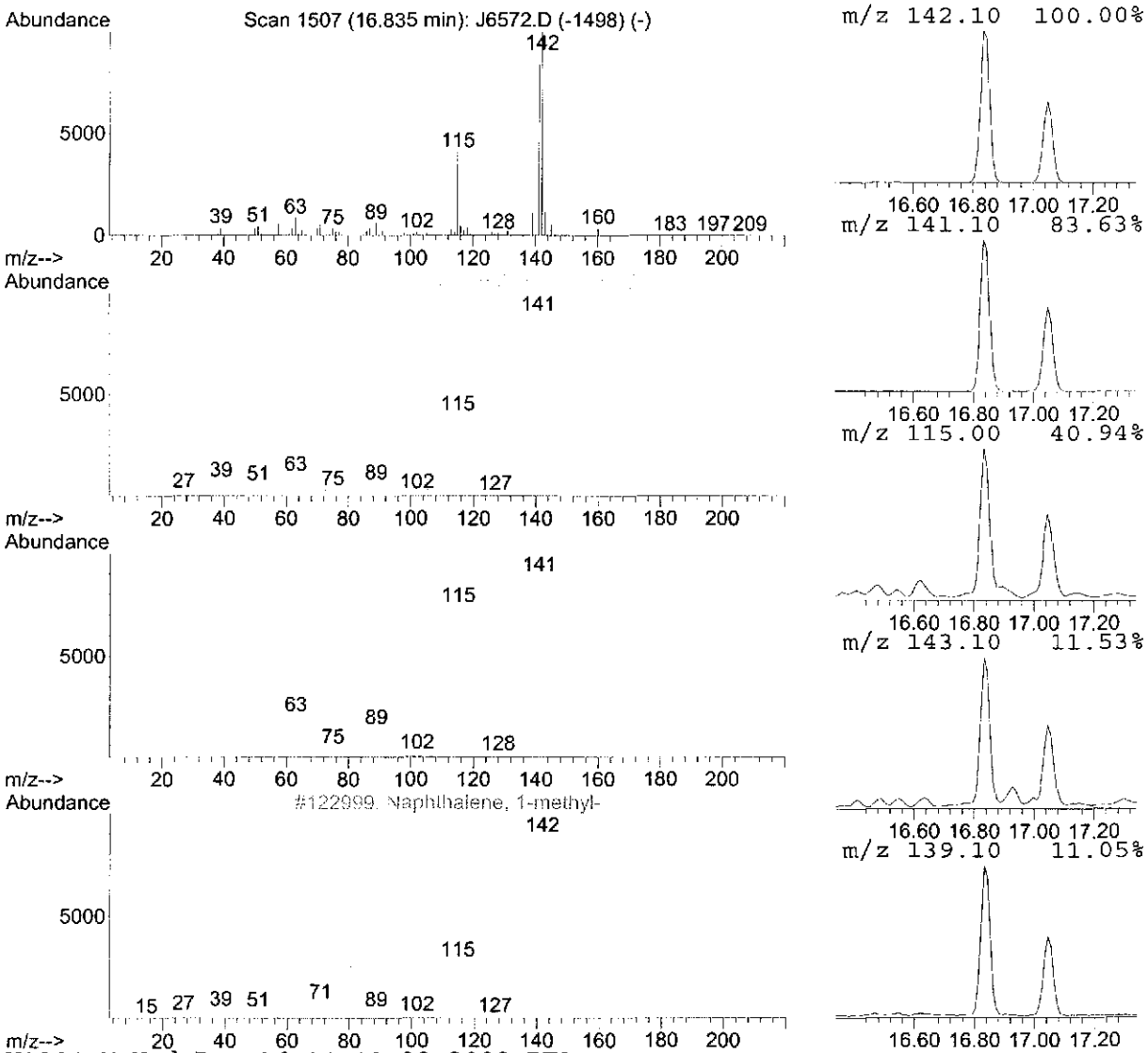
Peak Number 8 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.84	84.98 UG	3679340	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	93
2	Benzocycloheptatriene	142	C11H10	000264-09-5	93
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
4	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	91
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	90



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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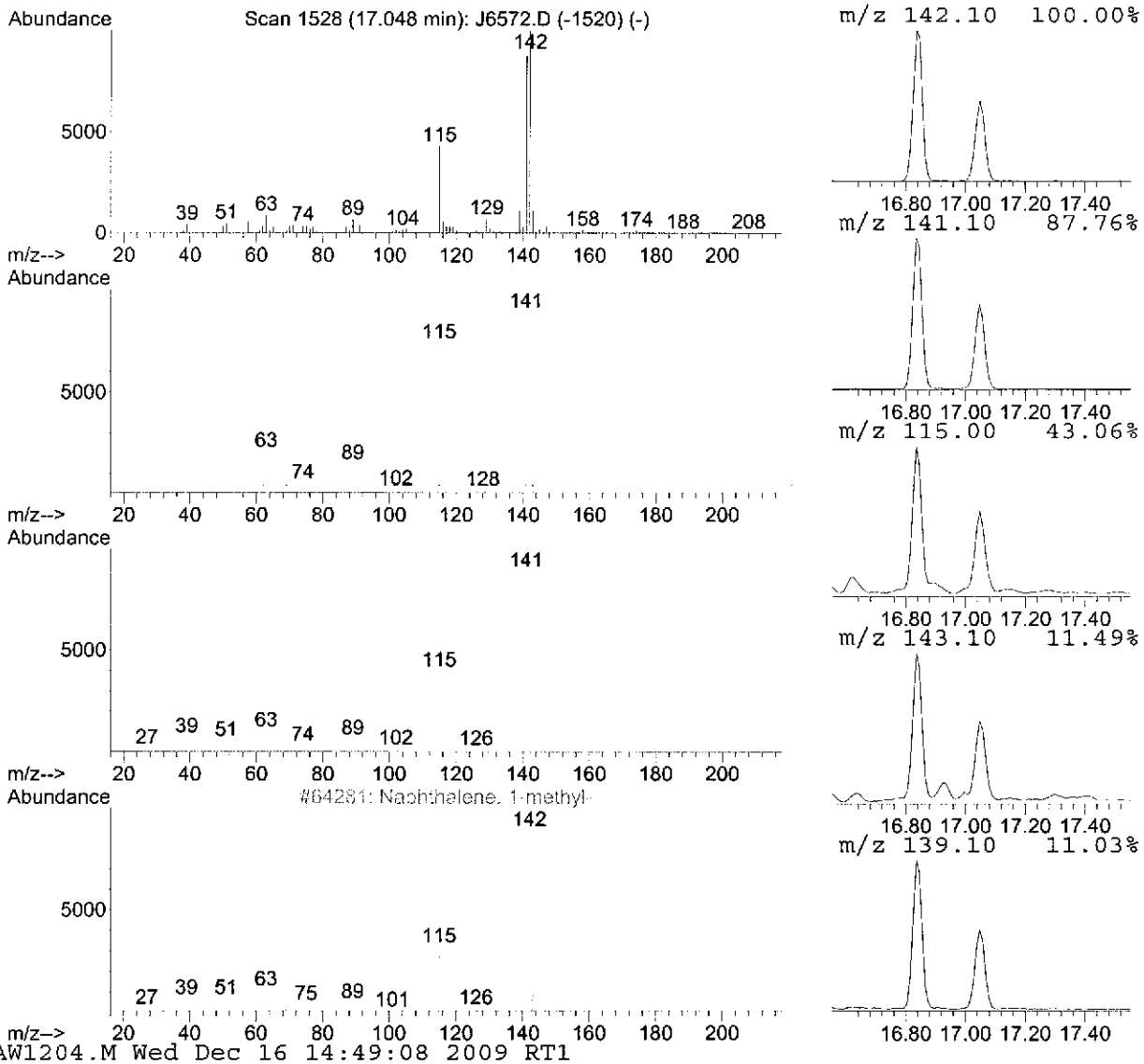
Peak Number 9 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.05	69.66 UG	3016130	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzocycloheptatriene	142	C11H10	000264-09-5	93
2	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	93
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
5	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	91



0125

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6572.D
Acq On : 11 Dec 2009 20:45
Operator : BINXU
Sample : T3-3/6-6.5,12542-014,M,0.011g,14.4
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

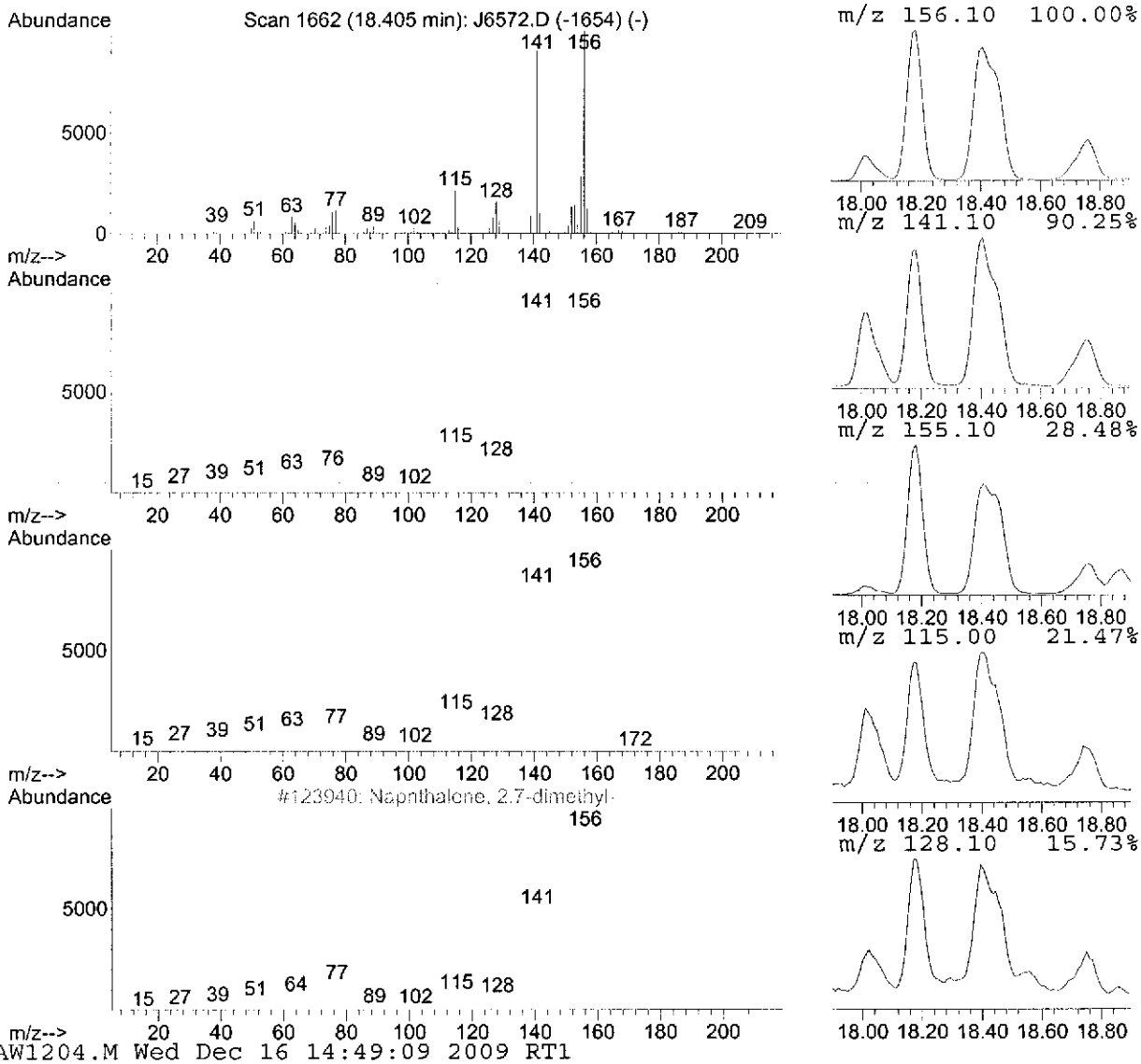
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 10 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.40	63.36 UG	2743320	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	98
2	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	98
3	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
4	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
5	Naphthalene, 1,4-dimethyl-	156	C12H12	000571-58-4	97



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 15 11:11:28 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.94	168	338392	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.76	114	639452	50.00	UG	0.00
50) Chlorobenzene-d5	10.09	117	705615	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.26	65	206342	50.07	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 100.14%			
41) Toluene-d8	8.42	98	666624	51.84	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 103.68%			
59) Bromofluorobenzene	11.51	95	411607	47.97	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 95.94%			
Target Compounds						Qvalue
53) Ethylbenzene	10.25	91	81230	4.02	UG	98

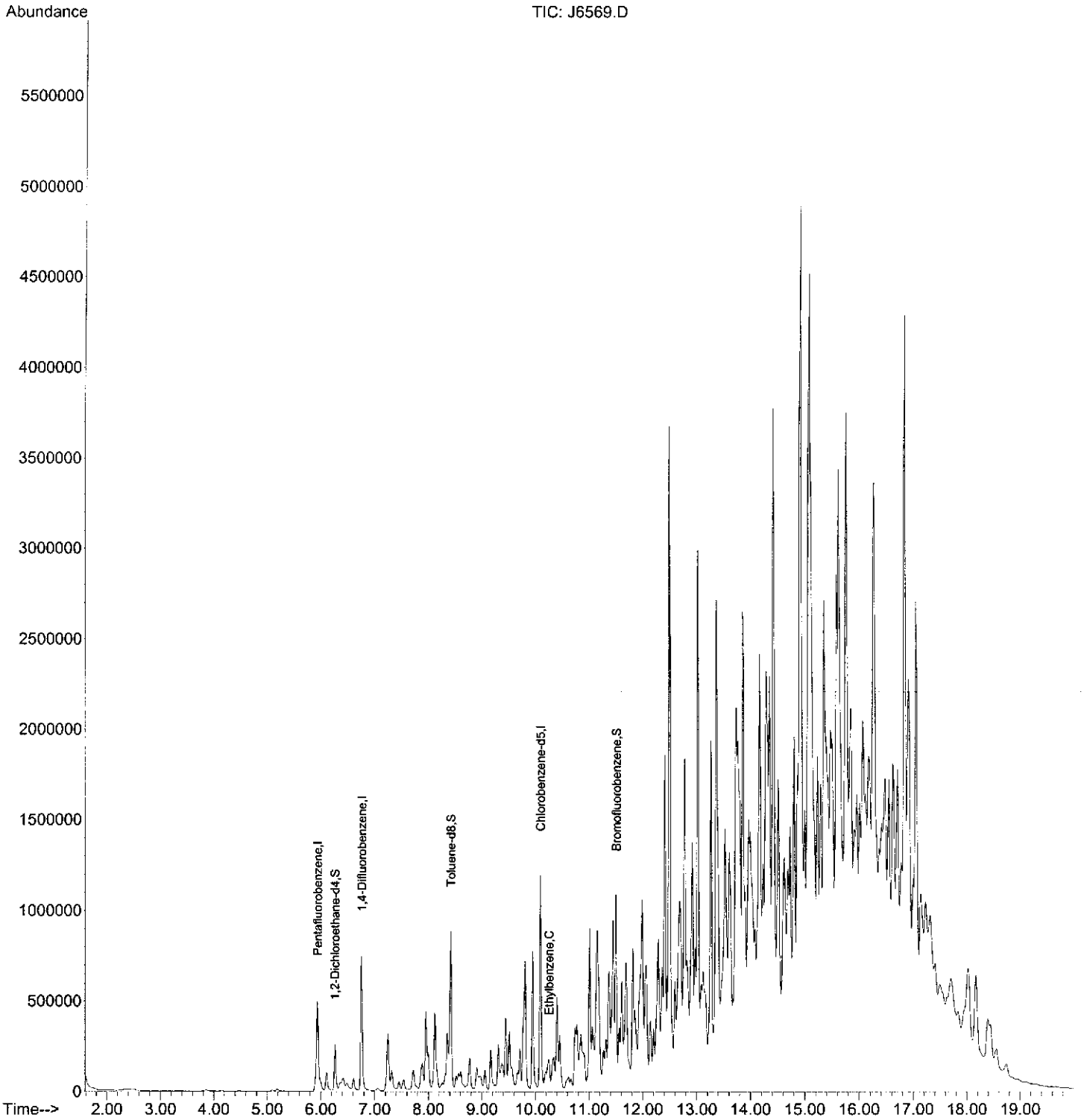
(#) = qualifier out of range (m) = manual integration (+) = signals summed

0127

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 15 11:11:28 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration



0128

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.940	421	431	443	rBB	500991	1411042	9.61%	0.728%
2	6.102	443	447	458	rBB	98217	247896	1.69%	0.128%
3	6.264	459	463	469	rBB	249752	508794	3.47%	0.263%
4	6.760	506	512	531	rBB	742690	1638292	11.16%	0.845%
5	7.246	553	560	564	rBB2	283863	709157	4.83%	0.366%
6	7.722	598	607	616	rBB2	102211	314915	2.15%	0.162%
7	7.884	617	623	626	rBB2	113931	314869	2.15%	0.162%
8	7.955	626	630	639	rBB2	392574	1130446	7.70%	0.583%
9	8.117	640	646	655	rBB	408612	1130756	7.70%	0.583%
10	8.350	666	669	672	rBB	175696	347850	2.37%	0.179%
11	8.420	672	676	680	rBB	765990	1395191	9.51%	0.720%
12	8.765	702	710	718	rBB2	166413	423079	2.88%	0.218%
13	9.160	745	749	757	rBB	209798	491534	3.35%	0.254%
14	9.301	760	763	767	rBB	196634	369159	2.52%	0.190%
15	9.443	774	777	781	rBB	326372	597574	4.07%	0.308%
16	9.514	781	784	794	rBB	255051	672466	4.58%	0.347%
17	9.706	795	803	806	rBB2	183743	458917	3.13%	0.237%
18	9.808	806	813	822	rBB2	693005	2028156	13.82%	1.046%
19	9.950	822	827	835	rBB	757030	1526124	10.40%	0.787%
20	10.091	836	841	847	rBB	1157843	2300233	15.67%	1.187%
21	10.253	847	857	860	rBB5	124109	498986	3.40%	0.257%
22	10.344	860	866	869	rBB3	102347	312152	2.13%	0.161%
23	10.405	869	872	875	rBB	385019	654996	4.46%	0.338%
24	10.456	875	877	882	rBB	185479	274379	1.87%	0.142%
25	10.770	902	908	912	rBB3	245194	1020638	6.95%	0.527%
26	10.851	912	916	925	rBB4	178123	737329	5.02%	0.380%
27	11.013	928	932	935	rBB	733339	1290857	8.79%	0.666%
28	11.155	941	946	953	rBB4	717905	2465184	16.80%	1.272%
29	11.377	964	968	971	rBB4	405397	925352	6.30%	0.477%
30	11.448	971	975	978	rBB2	591838	1066653	7.27%	0.550%
31	11.499	978	980	984	rBB	779492	1299920	8.86%	0.671%
32	11.570	984	987	989	rBB3	126323	235982	1.61%	0.122%
33	11.610	989	991	994	rBB	342023	493995	3.37%	0.255%
34	11.691	994	999	1007	rBB3	507374	1181165	8.05%	0.609%
35	11.813	1008	1011	1019	rBB2	641819	1724742	11.75%	0.890%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	11.985	1020	1028	1032	rBB3	749207	2418115	16.48%	1.248%
37	12.066	1032	1036	1040	rBB3	453557	1062232	7.24%	0.548%
38	12.147	1040	1044	1047	rBB3	235757	498809	3.40%	0.257%
39	12.208	1047	1050	1052	rBB2	160705	267580	1.82%	0.138%
40	12.289	1052	1058	1062	rBB4	561549	1561482	10.64%	0.806%
41	12.360	1062	1065	1067	rBB2	244678	380999	2.60%	0.197%
42	12.410	1067	1070	1073	rBB	1379081	2326642	15.85%	1.200%
43	12.491	1073	1078	1085	rBB	3317567	7230652	49.26%	3.731%
44	12.603	1086	1089	1091	rBB	275981	496139	3.38%	0.256%
45	12.684	1091	1097	1102	rBB6	616899	2201768	15.00%	1.136%
46	12.775	1102	1106	1115	rBB2	1380990	3262437	22.23%	1.683%
47	12.916	1115	1120	1123	rBB2	887175	1999058	13.62%	1.031%
48	13.018	1123	1130	1134	rBB	2509890	4908881	33.45%	2.533%
49	13.119	1134	1140	1148	rBB7	296120	1471525	10.03%	0.759%
50	13.261	1149	1154	1158	rBB	1646255	3304312	22.51%	1.705%
51	13.362	1159	1164	1171	rBB3	2325711	6276867	42.77%	3.239%
52	13.524	1171	1180	1185	rBB2	805025	2157032	14.70%	1.113%
53	13.605	1185	1188	1193	rBB3	677360	1746496	11.90%	0.901%
54	13.727	1196	1200	1210	rBB4	1471024	7163596	48.81%	3.696%
55	13.848	1210	1212	1220	rBB2	1737164	3568424	24.31%	1.841%
56	13.960	1220	1223	1233	rBB4	781258	3433771	23.40%	1.772%
57	14.162	1237	1243	1247	rBB4	1547650	3639231	24.79%	1.878%
58	14.233	1247	1250	1251	rBB2	244956	349853	2.38%	0.181%
59	14.284	1252	1255	1259	rBB2	999711	2579044	17.57%	1.331%
60	14.344	1259	1261	1264	rBB	873940	1094941	7.46%	0.565%
61	14.415	1264	1268	1273	rBB2	2874995	6044472	41.18%	3.119%
62	14.506	1273	1277	1283	rBB3	1063232	2432925	16.58%	1.255%
63	14.618	1283	1288	1292	rBB3	582120	1715808	11.69%	0.885%
64	14.689	1292	1295	1297	rBB3	232308	423326	2.88%	0.218%
65	14.729	1297	1299	1301	rBB	543895	613098	4.18%	0.316%
66	14.800	1302	1306	1309	rBB2	1201385	2271108	15.47%	1.172%
67	14.911	1309	1317	1323	rBB3	3876057	11485465	78.25%	5.926%
68	14.992	1323	1325	1327	rBB2	393849	480654	3.27%	0.248%
69	15.073	1327	1333	1345	rBB3	3428199	14677312	100.00%	7.573%
70	15.225	1345	1348	1351	rBB2	773360	1274135	8.68%	0.657%
71	15.286	1351	1354	1356	rBB2	588164	1002599	6.83%	0.517%
72	15.347	1357	1360	1369	rBB3	1503541	4680911	31.89%	2.415%
73	15.468	1369	1372	1379	rBB3	644445	2446954	16.67%	1.263%
74	15.580	1380	1383	1385	rBB2	883911	1959638	13.35%	1.011%
75	15.620	1385	1387	1393	rBB	1254483	1813279	12.35%	0.936%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	15.762	1395	1401	1405	rBB2	2288992	5421491	36.94%	2.797%
77	15.843	1405	1409	1413	rBB5	704020	1512211	10.30%	0.780%
78	15.914	1413	1416	1418	rBB3	110062	287091	1.96%	0.148%
79	15.954	1418	1420	1423	rBB3	313598	423066	2.88%	0.218%
80	16.005	1423	1425	1428	rBB3	312032	515962	3.52%	0.266%
81	16.066	1428	1431	1438	rBB6	636520	1721988	11.73%	0.888%
82	16.167	1438	1441	1446	rBB5	388952	1013459	6.90%	0.523%
83	16.268	1446	1451	1458	rBB2	2017120	5623581	38.31%	2.902%
84	16.410	1462	1465	1467	rBB2	106045	257934	1.76%	0.133%
85	16.471	1467	1471	1475	rBB3	430597	884545	6.03%	0.456%
86	16.542	1475	1478	1481	rBB2	605816	1073650	7.32%	0.554%
87	16.613	1482	1485	1490	rBB3	727537	1837274	12.52%	0.948%
88	16.704	1490	1494	1498	rBB	705758	1516216	10.33%	0.782%
89	16.835	1498	1507	1510	rBB	2914464	5948167	40.53%	3.069%
90	16.906	1510	1514	1519	rBB2	1043685	2806769	19.12%	1.448%
91	17.048	1520	1528	1533	rBB3	1897660	5111937	34.83%	2.638%
92	17.139	1533	1537	1542	rBB3	285054	829408	5.65%	0.428%
93	17.230	1542	1546	1549	rBB4	170242	390840	2.66%	0.202%
94	17.311	1549	1554	1560	rBB7	187129	525951	3.58%	0.271%
95	17.494	1568	1572	1581	rBB7	76138	326275	2.22%	0.168%
96	17.696	1582	1592	1602	rBB7	172233	971342	6.62%	0.501%
97	18.020	1611	1624	1632	rBB5	376219	1991204	13.57%	1.027%
98	18.172	1632	1639	1650	rBB	394343	1355119	9.23%	0.699%
99	18.395	1656	1661	1664	rBB	95538	320996	2.19%	0.166%
100	18.547	1672	1676	1683	rBB4	74812	223061	1.52%	0.115%

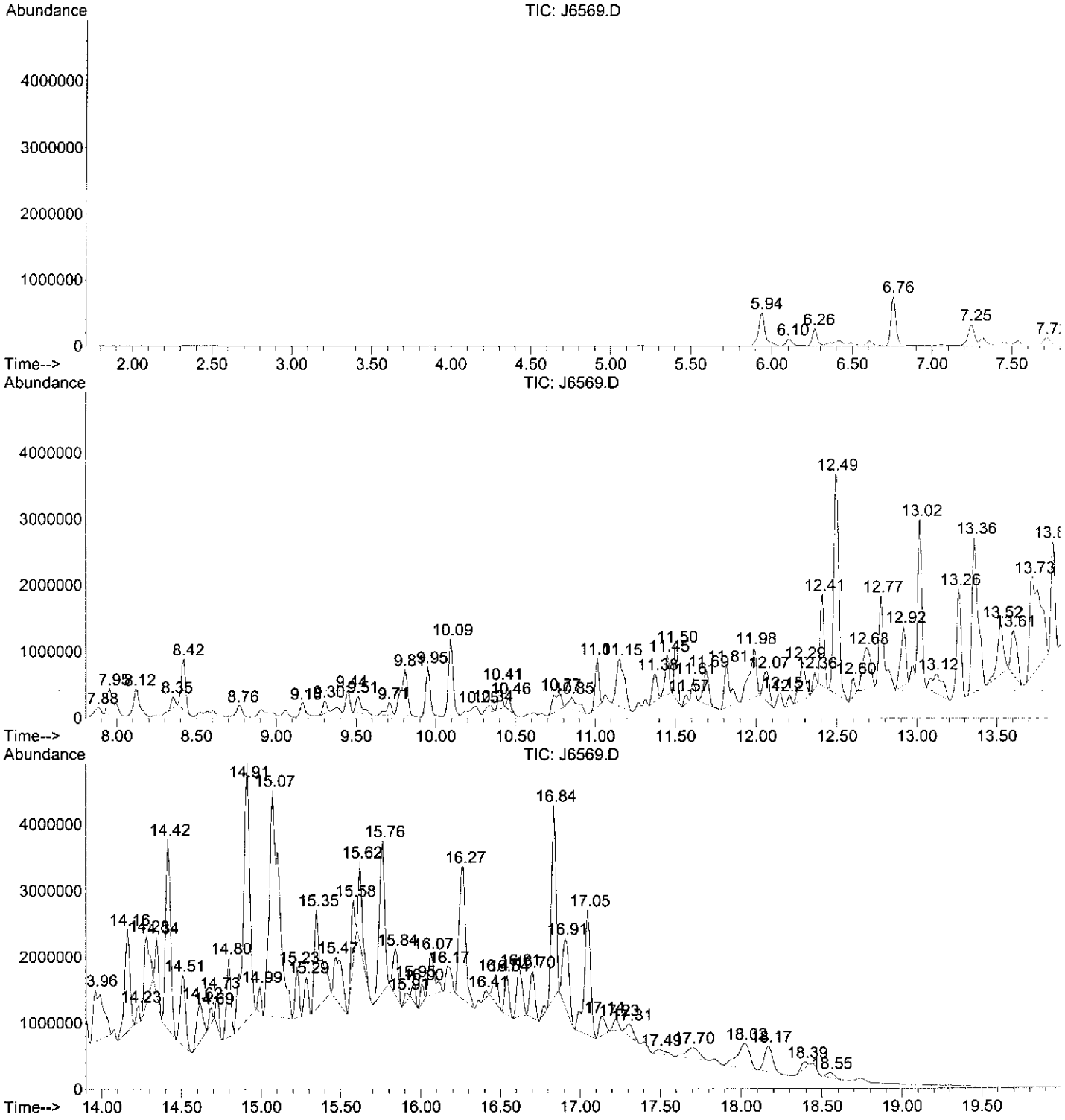
Sum of corrected areas: 193809887

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

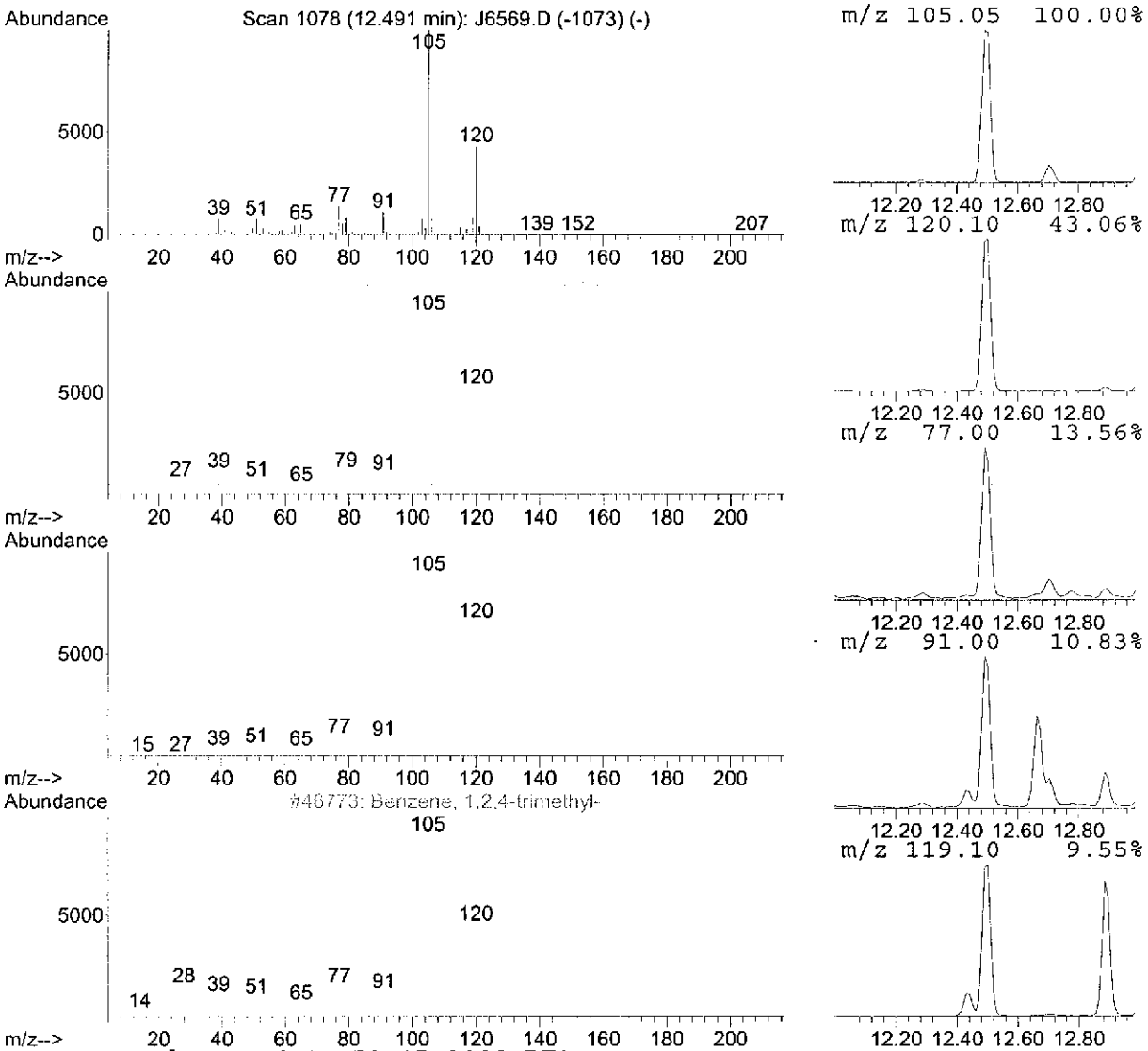
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.49	157.17 UG	7230650	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	97
2	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
3	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
5	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94



0133

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

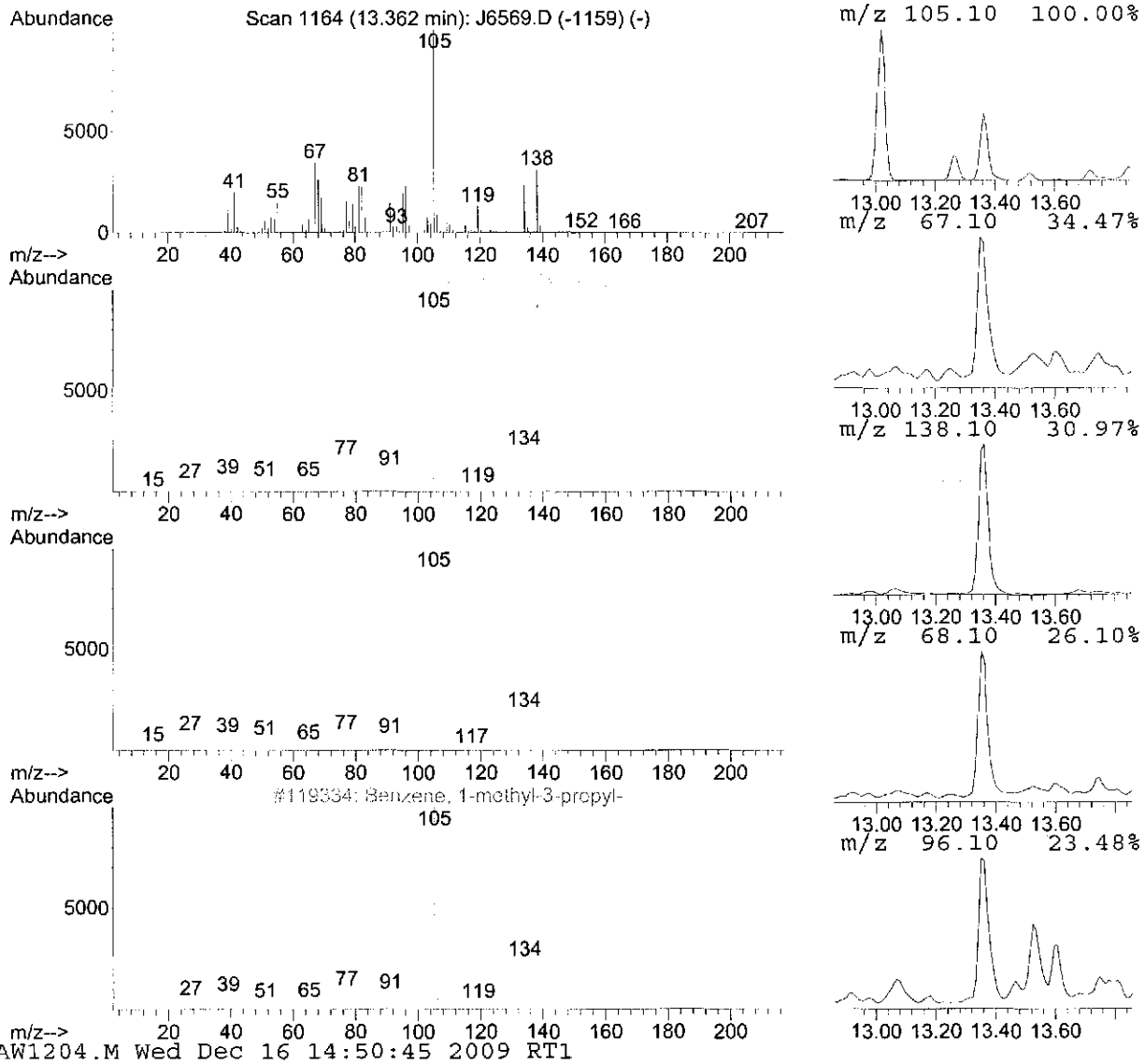
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.36	136.44 UG	6276870	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylpropyl)-	134	C10H14	000135-98-8	25
2	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	15
3	Benzene, 1-methyl-3-propyl-	134	C10H14	001074-43-7	15
4	Benzoic acid, (-)-menthyl ester	260	C17H24O2	1000158-46-9	12
5	cis-1,2-Bis(aminomethyl)cyclohexane	142	C8H18N2	070795-45-8	12



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

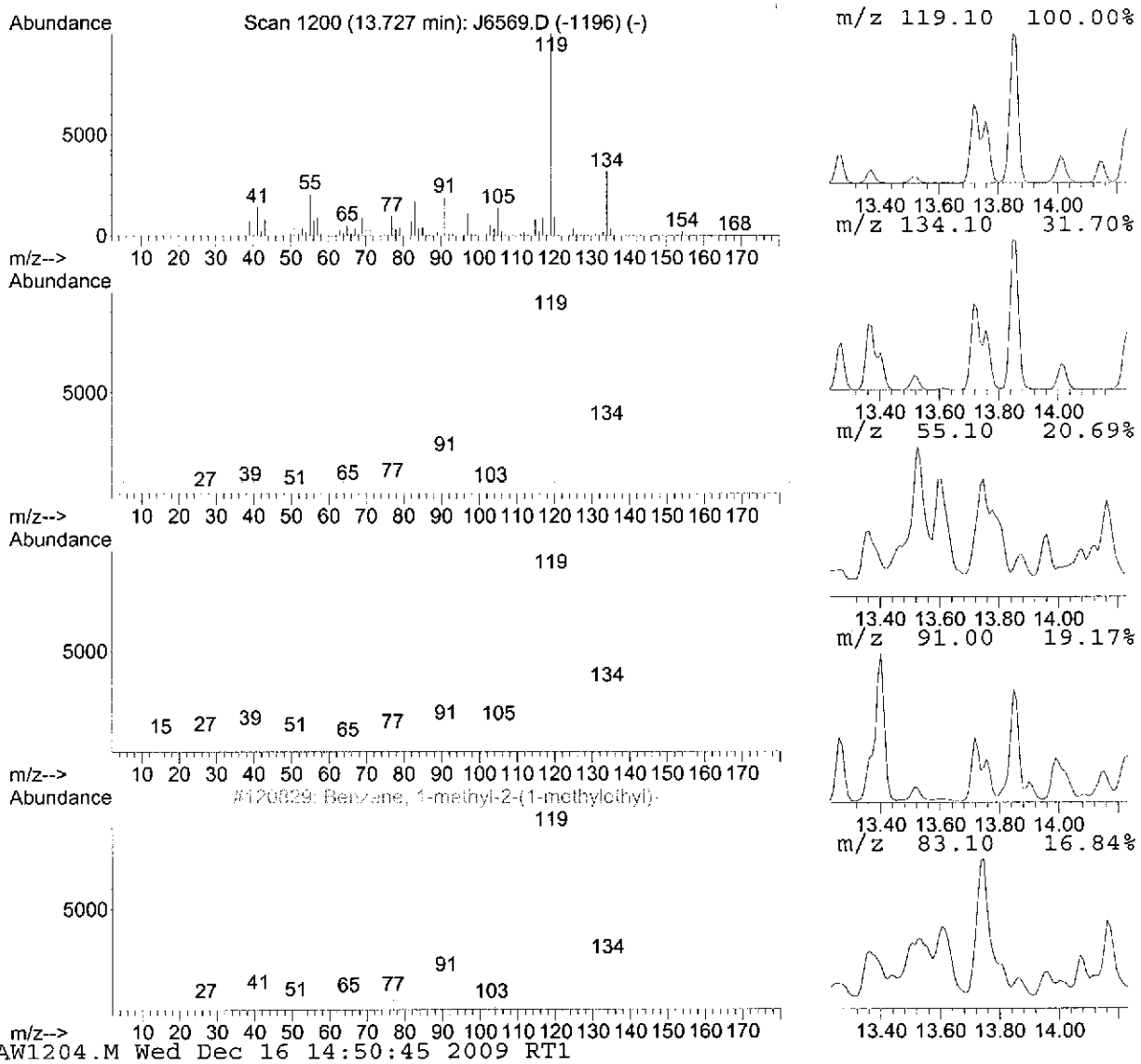
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 3 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.73	155.72 UG	7163600	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	95
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
4	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
5	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	94



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

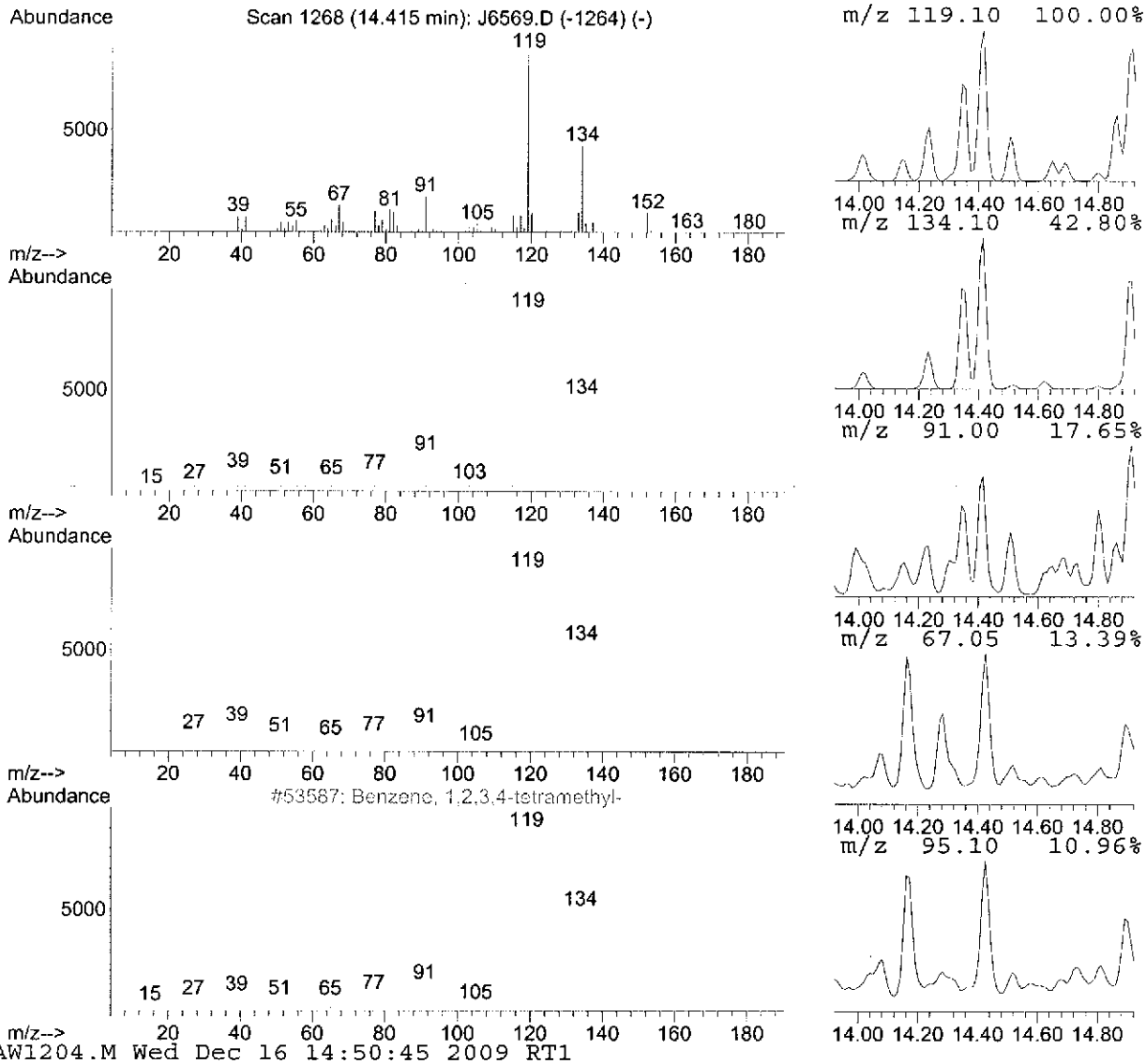
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 4 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.42	131.39 UG	6044470	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	95
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	93
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	90
5	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	90



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

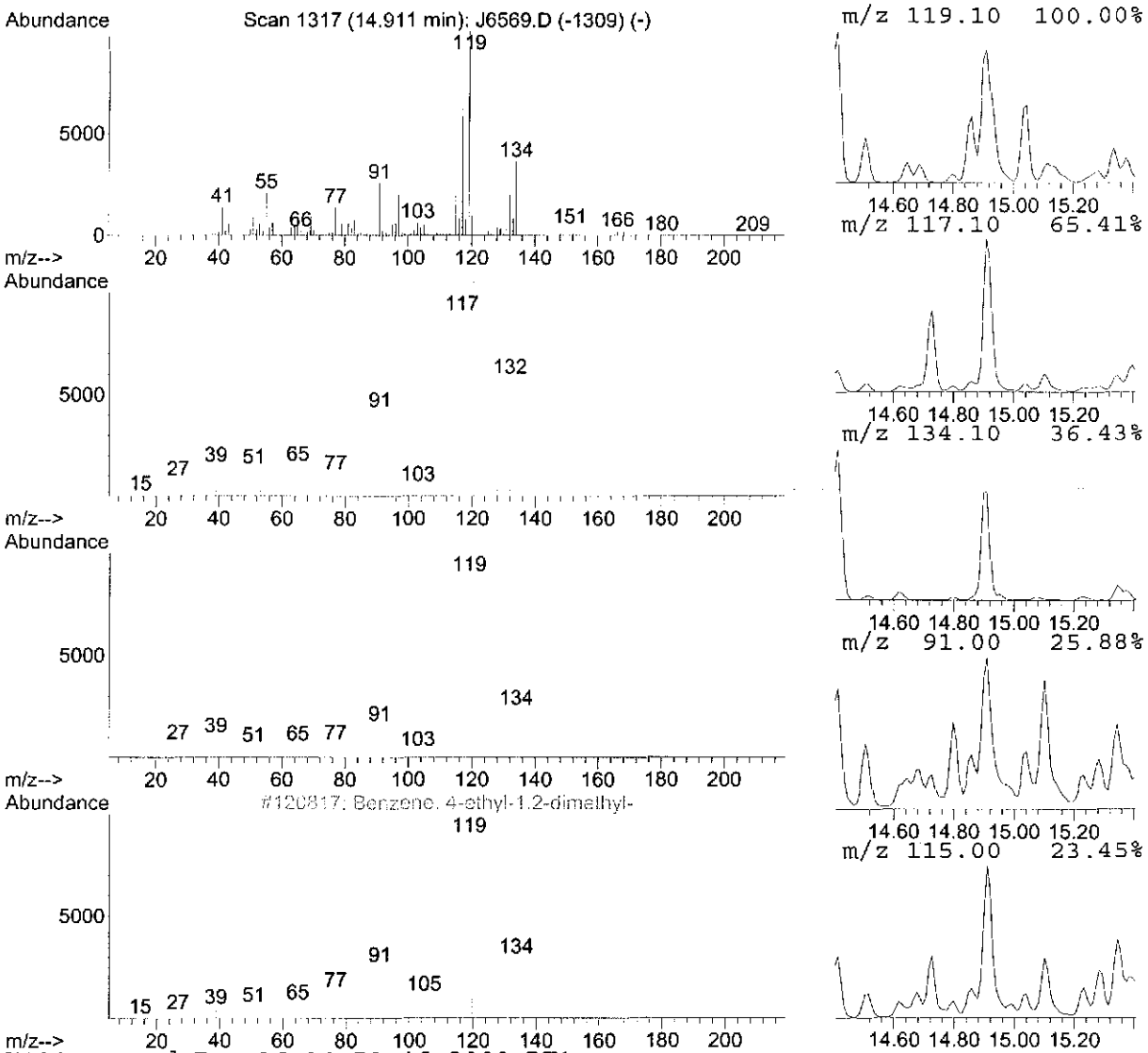
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 5 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.91	249.66 UG	11485500	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-butenyl-	132	C10H12	001560-06-1	83
2	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	55
3	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	55
4	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	55
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	55



0137

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

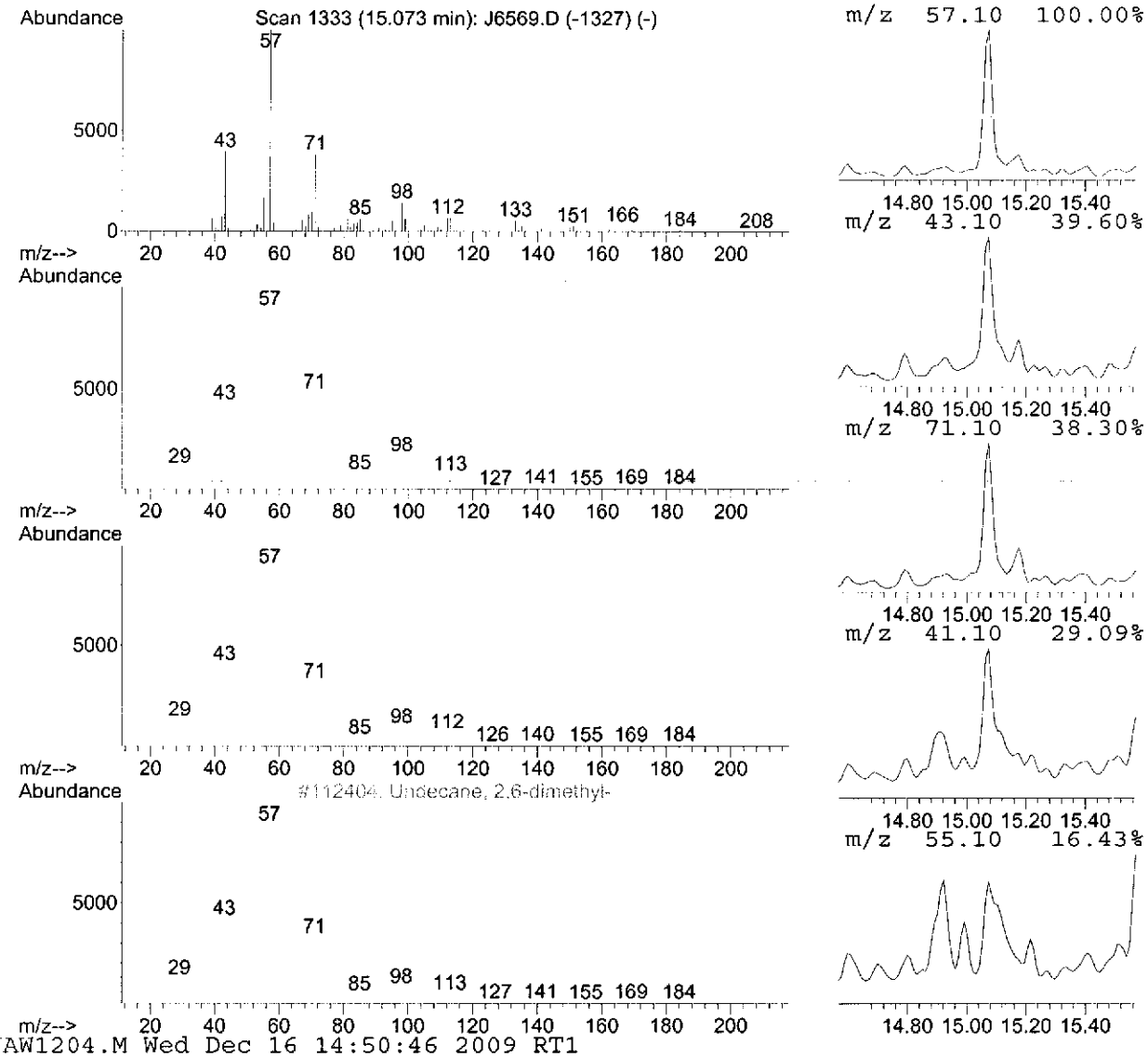
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 6 Unknown alkane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.07	319.04 UG	14677300	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	96
2	Dodecane, 6-methyl-	184	C13H28	006044-71-9	93
3	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	86
4	Undecane, 3,6-dimethyl-	184	C13H28	017301-28-9	76
5	Nonane, 4-methyl-	142	C10H22	017301-94-9	59



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

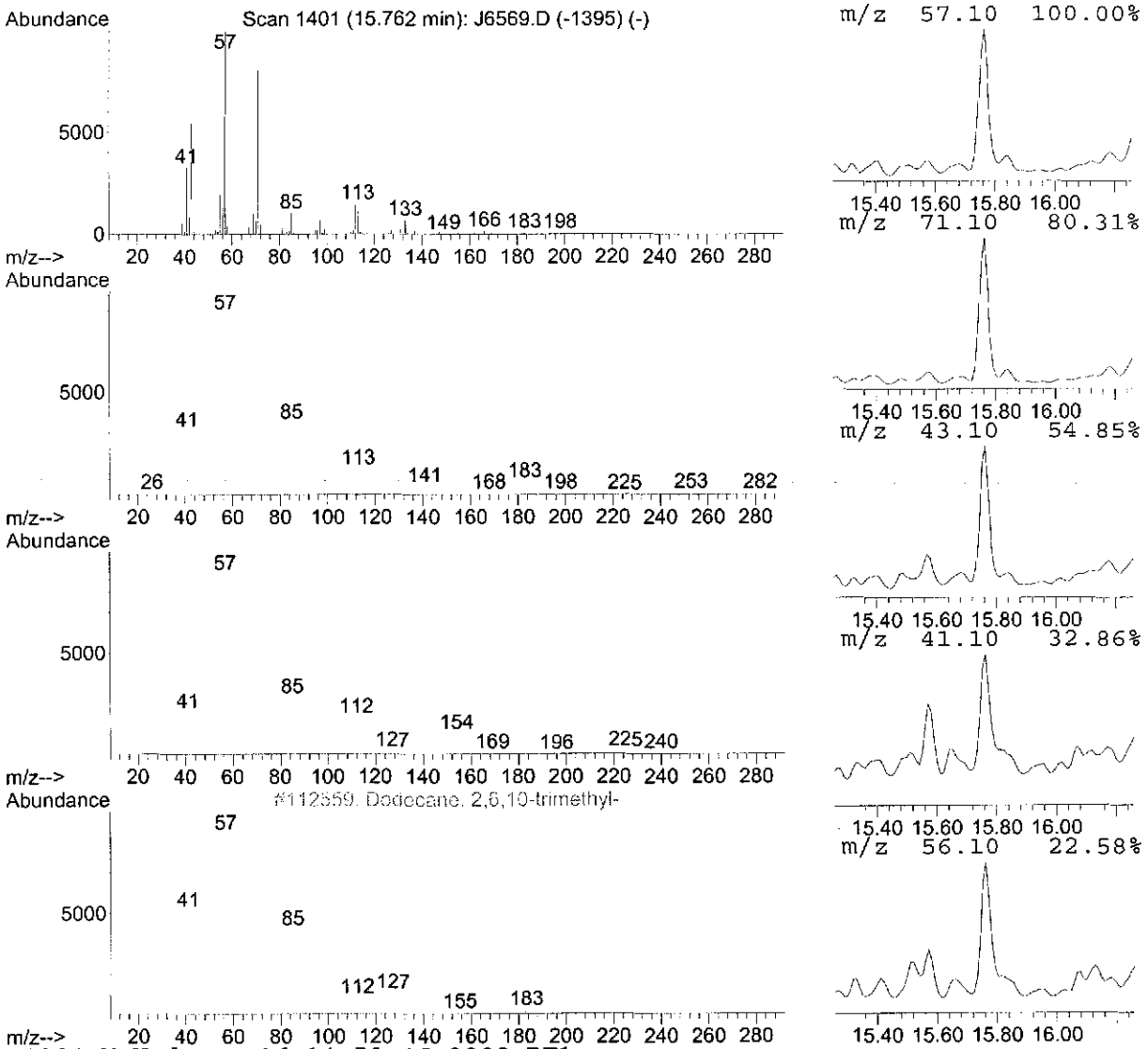
TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 7 Unknown alkane Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.76	117.85 UG	5421490	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	78
2	Hexadecane, 7-methyl-	240	C17H36	026730-20-1	64
3	Dodecane, 2,6,10-trimethyl-	212	C15H32	003891-98-3	64
4	Undecane, 6,6-dimethyl-	184	C13H28	017312-76-4	64
5	Octane, 3-ethyl-	142	C10H22	005881-17-4	59



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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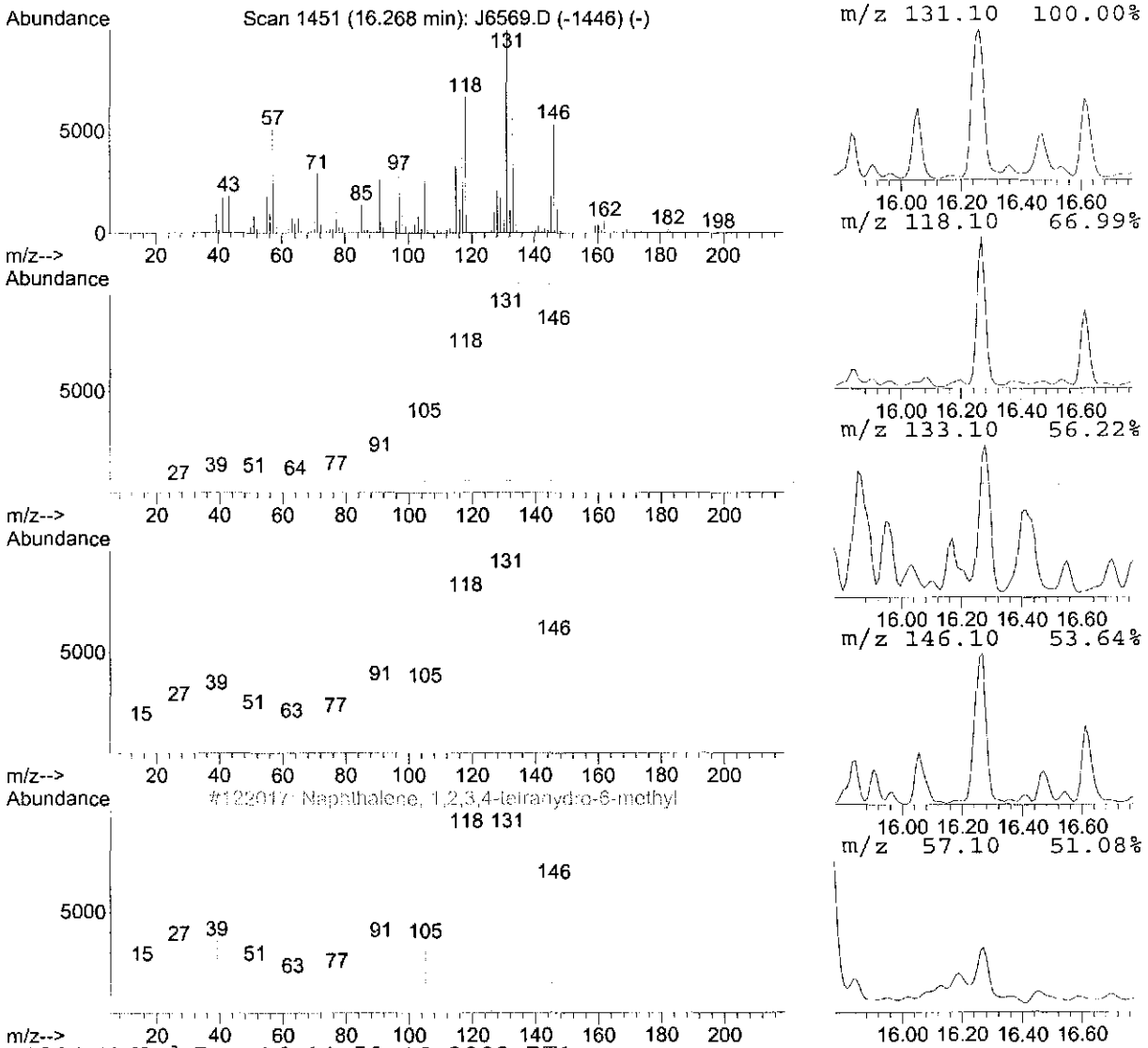
Peak Number 8 Unknown aromatic Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.27	122.24 UG	5623580	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	95
2	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	93
3	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	93
4	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	86
5	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	76



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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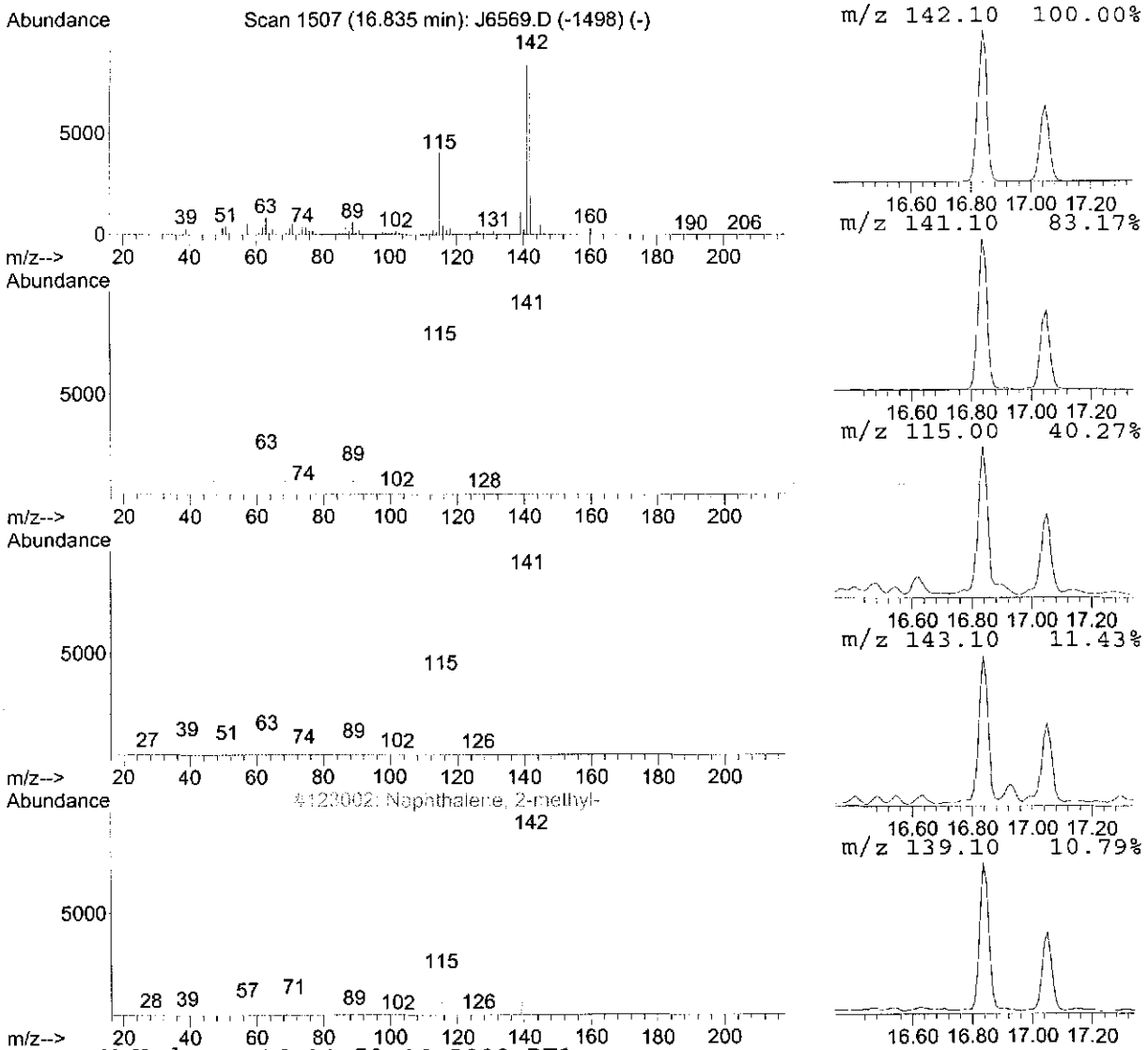
Peak Number 9 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.84	129.30 UG	5948170	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzocycloheptatriene	142	C11H10	000264-09-5	94
2	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	94
3	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
4	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	93
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6569.D
Acq On : 11 Dec 2009 19:08
Operator : BINXU
Sample : T3-4/6-6.5,12542-015,M,0.072g,17.6
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P

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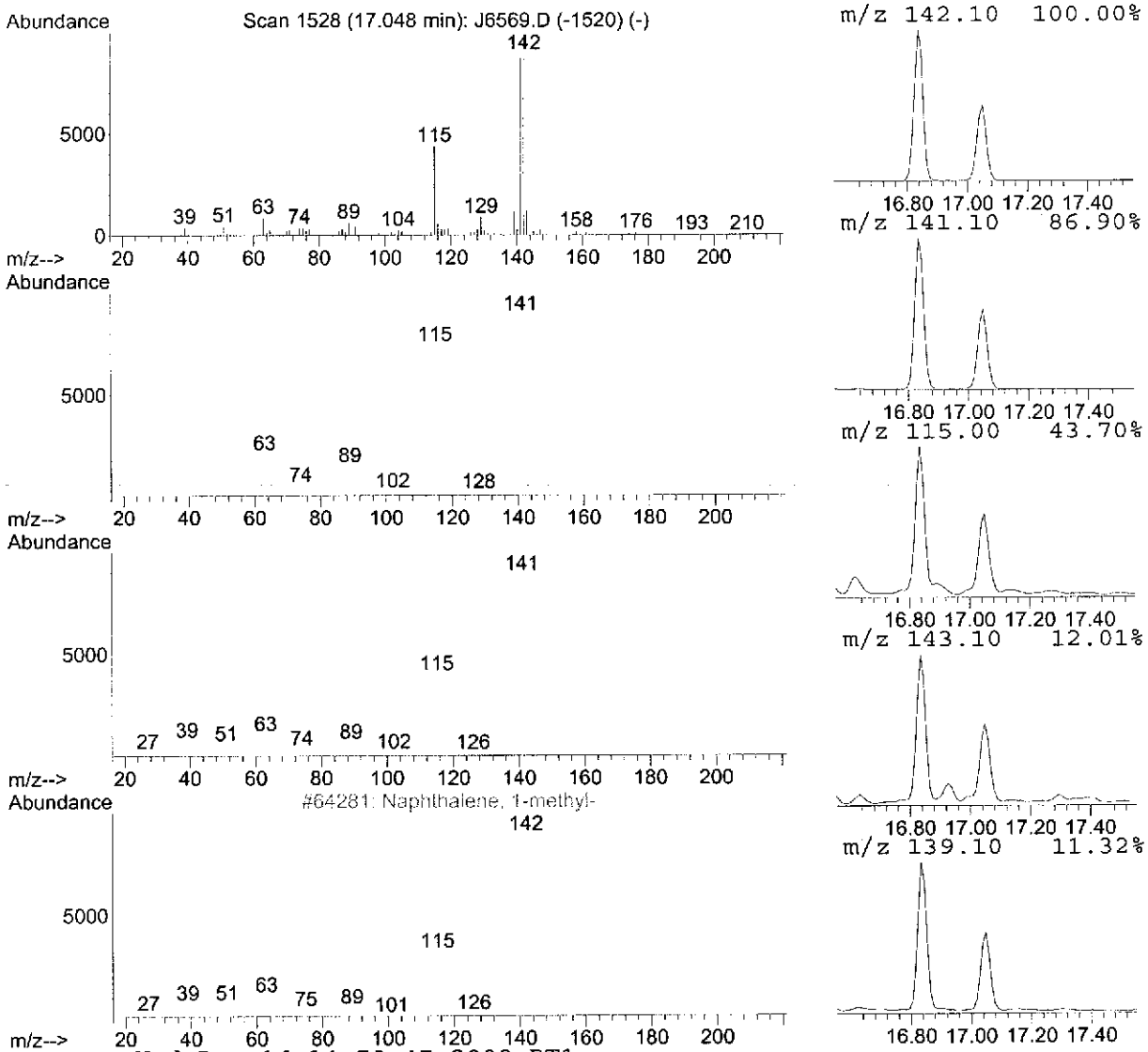
Peak Number 10 Unknown aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.05	111.12 UG	5111940	Chlorobenzene-d5	10.09

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzocycloheptatriene	142	C11H10	000264-09-5	94
2	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	94
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
5	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	87



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6567.D
Acq On : 11 Dec 2009 18:03
Operator : BINXU
Sample : TRIP,12542-016,M,0.05g,0
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 15 11:09:02 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.94	168	241327	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.76	114	457148	50.00	UG	0.00
50) Chlorobenzene-d5	10.09	117	477481	50.00	UG	-0.01
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.26	65	152058	51.74	UG	-0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 103.48%			
41) Toluene-d8	8.42	98	441548	48.03	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 96.06%			
59) Bromofluorobenzene	11.51	95	263957	45.46	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 90.92%			

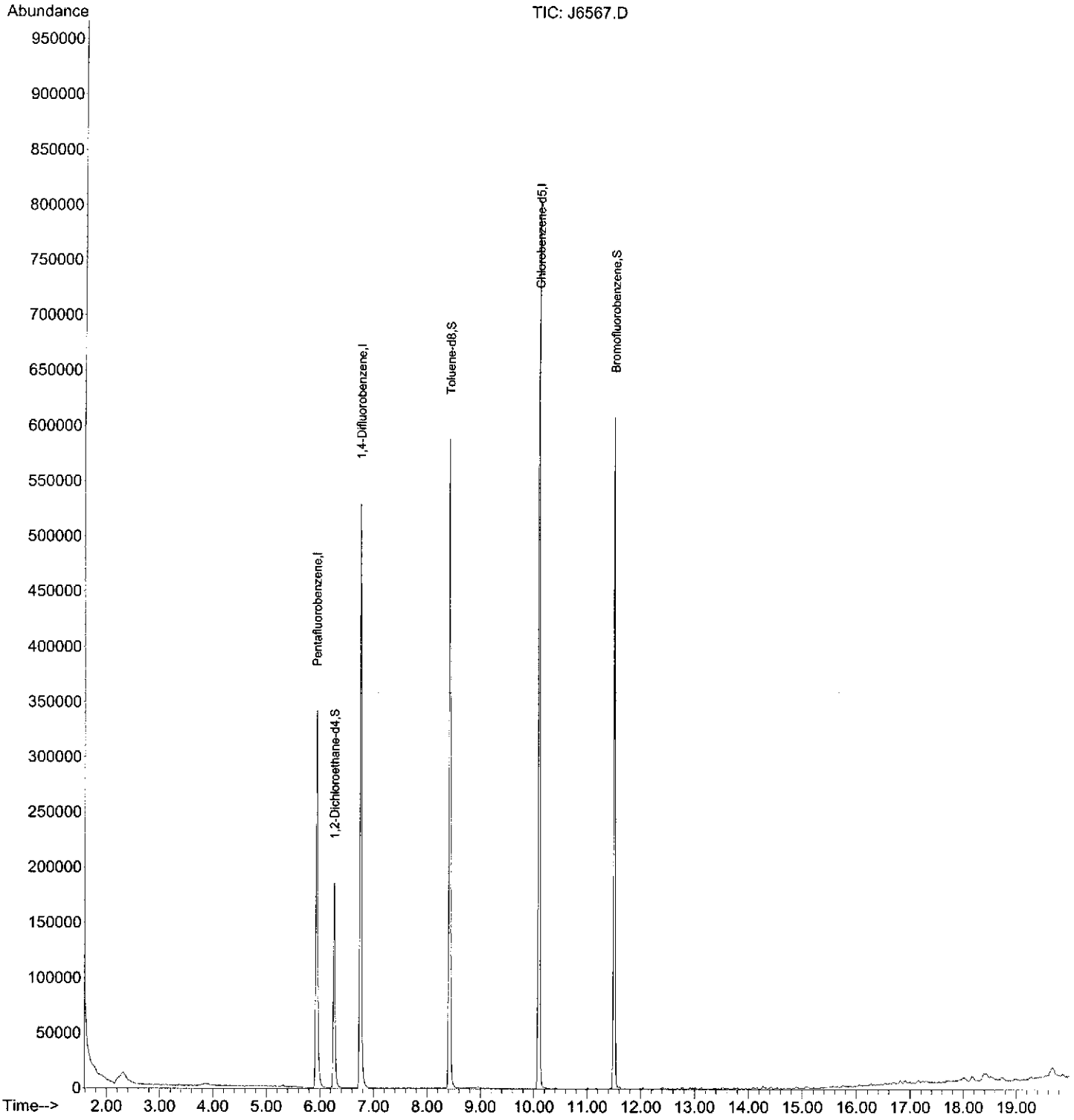
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6567.D
Acq On : 11 Dec 2009 18:03
Operator : BINXU
Sample : TRIP,12542-016,M,0.05g,0
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 15 11:09:02 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6567.D
Acq On : 11 Dec 2009 18:03
Operator : BINXU
Sample : TRIP,12542-016,M,0.05g,0
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.314	57	73	97	rBB7	10496	111613	7.32%	1.756%
2	5.939	419	431	456	rBB	341771	803140	52.67%	12.636%
3	6.263	456	463	482	rBB	185273	411241	26.97%	6.470%
4	6.760	505	512	530	rBB	529461	1127485	73.94%	17.740%
5	8.420	671	676	689	rBB	588471	1175450	77.09%	18.494%
6	10.091	835	841	856	rBB	805288	1524819	100.00%	23.991%
7	11.509	973	981	988	rBB	607644	1116930	73.25%	17.574%
8	18.020	1611	1624	1633	rBB	3708	22050	1.45%	0.347%
9	18.162	1633	1638	1648	rBB10	4417	17944	1.18%	0.282%
10	19.681	1776	1788	1803	rBB8	7712	45076	2.96%	0.709%

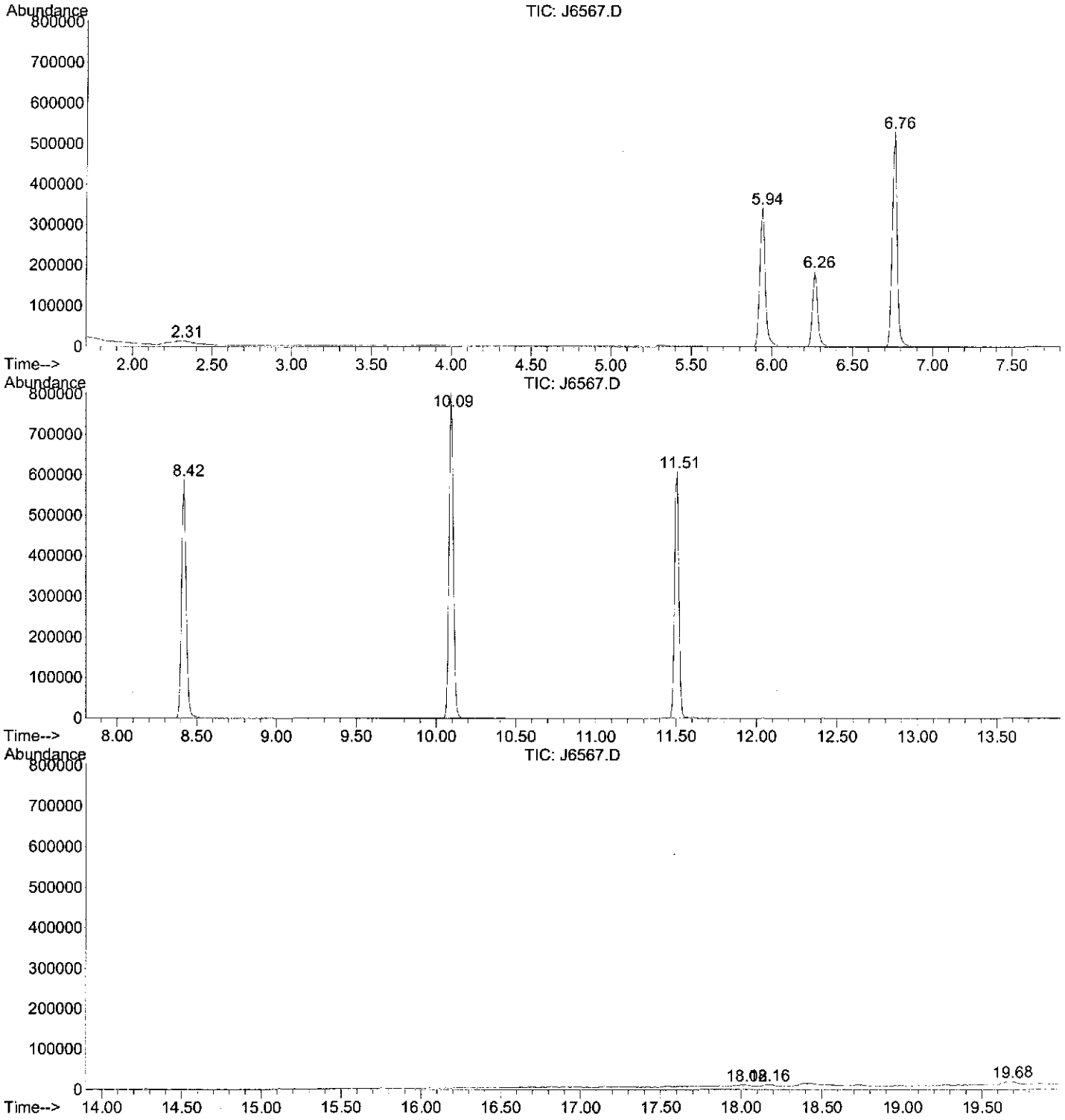
Sum of corrected areas: 6355748

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : J6567.D
Acq On : 11 Dec 2009 18:03
Operator : BINXU
Sample : TRIP,12542-016,M,0.05g,0
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P



0146

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6558.D
Acq On : 11 Dec 2009 11:11
Operator : BINXU
Sample : NA,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 11 14:40:29 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.94	168	248579	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.76	114	492109	50.00	UG	0.00
50) Chlorobenzene-d5	10.10	117	529139	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.26	65	171240	56.56	UG	-0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 113.12%			
41) Toluene-d8	8.42	98	471678	47.67	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 95.34%			
59) Bromofluorobenzene	11.51	95	281141	43.70	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 87.40%			

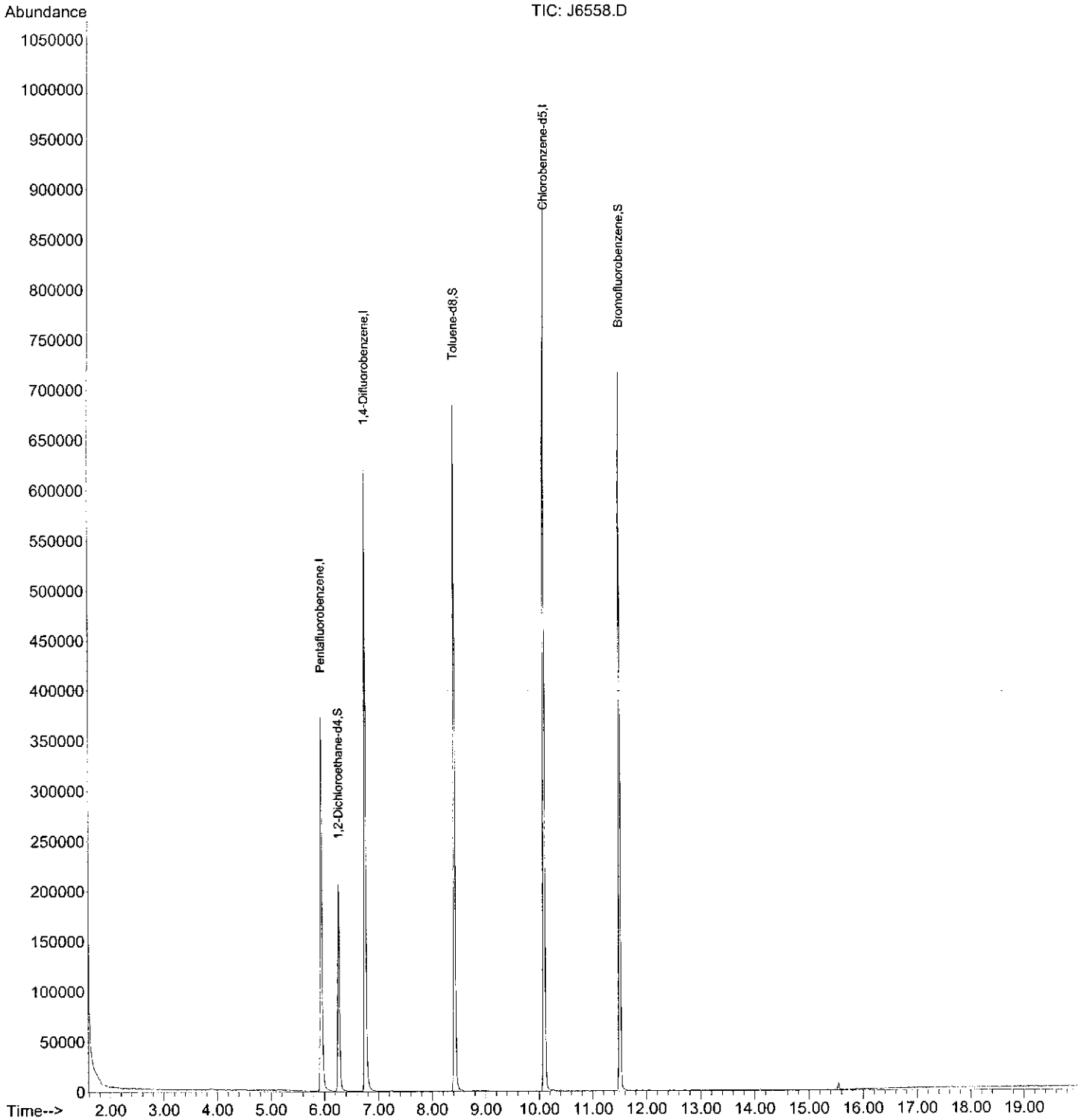
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6558.D
Acq On : 11 Dec 2009 11:11
Operator : BINXU
Sample : NA,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 11 14:40:29 2009
Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Dec 07 11:36:39 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6558.D
Acq On : 11 Dec 2009 11:11
Operator : BINXU
Sample : NA,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Tangent else baseline drop >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.939	426	431	453	rBB	372613	840015	49.73%	12.540%
2	6.263	458	463	480	rBB	206747	462984	27.41%	6.911%
3	6.760	507	512	527	rBB	619918	1213301	71.83%	18.112%
4	8.420	668	676	693	rBB	684718	1258090	74.48%	18.781%
5	10.091	836	841	855	rBB	890617	1689177	100.00%	25.216%
6	11.509	972	981	997	rBB	717035	1235265	73.13%	18.440%

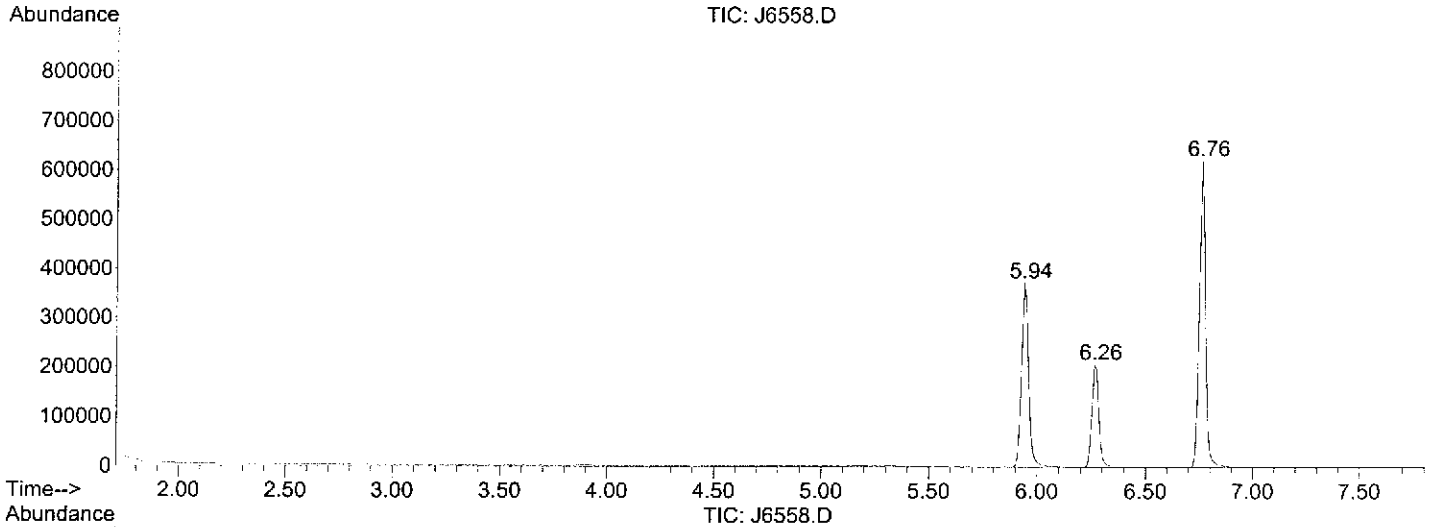
Sum of corrected areas: 6698832

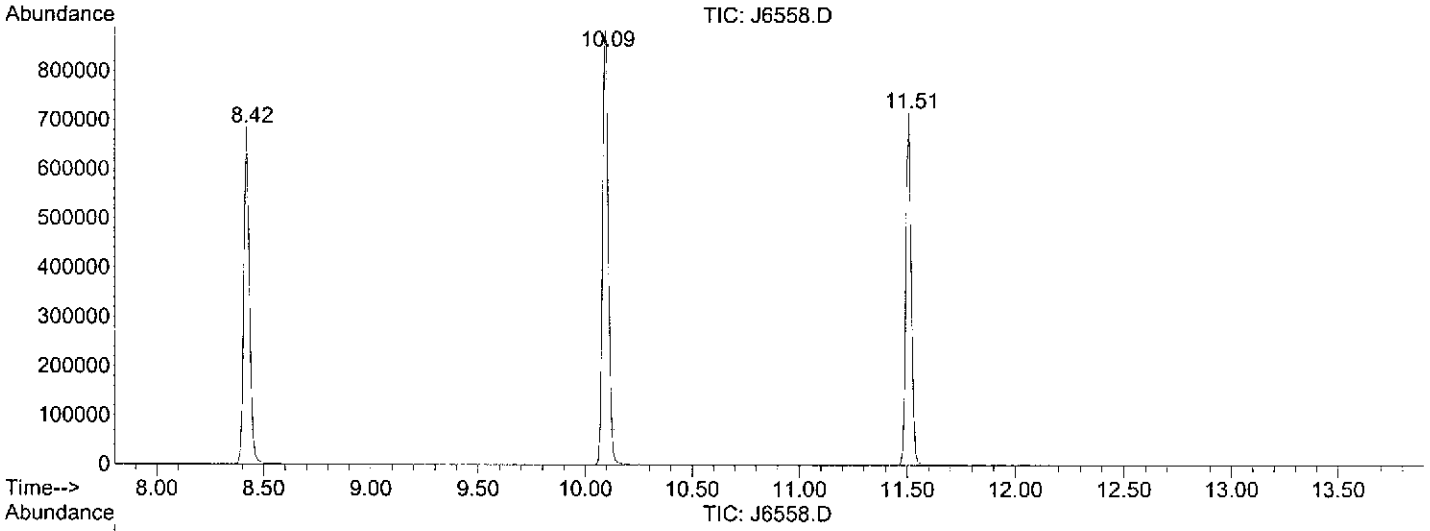
LSC Report - Integrated Chromatogram

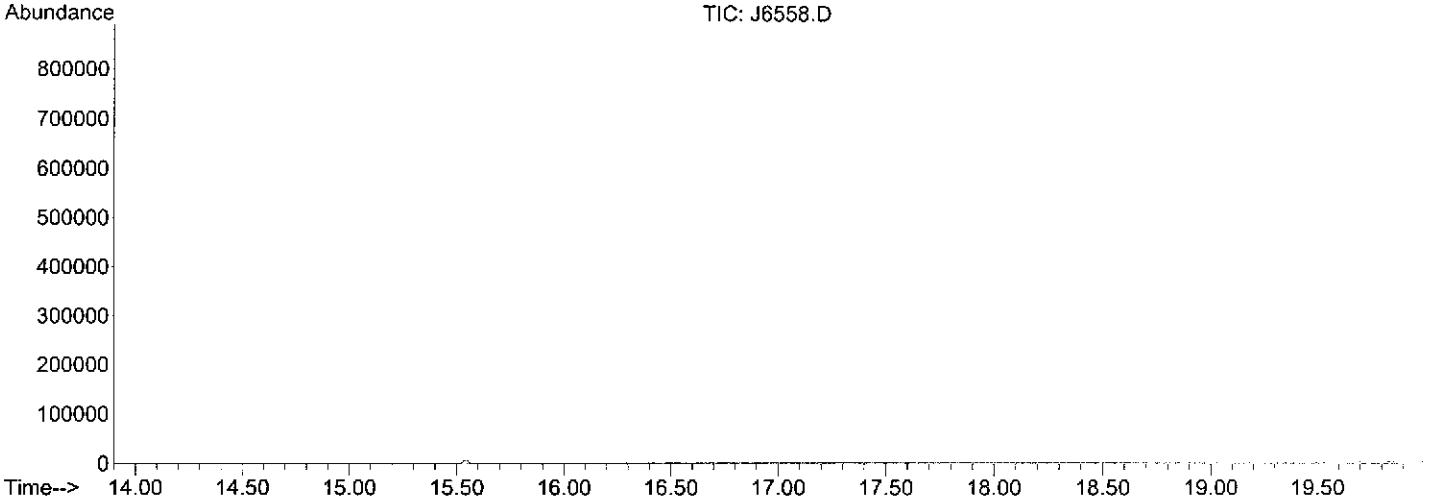
Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : J6558.D
Acq On : 11 Dec 2009 11:11
Operator : BINXU
Sample : NA,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\JAW1204.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST98.L
TIC Integration Parameters: LSCINT.P







SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7853.D DFTPP Injection Date : 12/07/2009

Inst ID: MSDC DFTPP Injection Time: 12:15

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	35.5			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	38.7			
70	Less than 2.0% of mass 69	0.2	(	0.6	)1
127	40.0 - 60.0% of mass 198	47.6			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.0			
275	10.0 - 30.0% of mass 198	24.0			
365	Greater than 1.0% of mass 198	2.3			
441	Present, but less than mass 443	9.88	(	72.2	)3
442	40.0 - 100.0% of mass 198	67.1			
443	17.0 - 23.0% of mass 442	13.7	(	20.4	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN119.09	40ngBNA_FOR_1	C7854.D	12/07/2009	12:24
ABN120.09	1ngBNA_FOR_12	C7855.D	12/07/2009	12:39
ABN121.09	10ngBNA_FOR_1	C7856.D	12/07/2009	12:55
ABN122.09	20ngBNA_FOR_1	C7857.D	12/07/2009	13:10
ABN123.09	80ngBNA_FOR_1	C7858.D	12/07/2009	13:25
ABN124.09	120ngBNA_FOR_	C7859.D	12/07/2009	13:41
ABN120.09	1ngBNA_FOR_12	C7860.D	12/07/2009	13:56
ABN122.09	1ngOLMO4_FOR	C7861.D	12/07/2009	14:11
ABN123.09	10ngOLMO4_FOI	C7862.D	12/07/2009	14:27
ABN124.09	20ngOLMO4_FOI	C7863.D	12/07/2009	14:42
ABN125.09	40ngOLMO4_FOI	C7864.D	12/07/2009	14:58
ABN126.09	80ngOLMO4_FOI	C7865.D	12/07/2009	15:13
ABN127.09	120ngOLMO4_FC	C7866.D	12/07/2009	15:30
ABN136.09	40ngBNAchk_FOI	C7867.D	12/07/2009	15:45
ABN137.09	40ngOLMO4chk_I	C7868.D	12/07/2009	16:00
.	Method_Blank	C7869.D	12/07/2009	16:16
.	LCS	C7870.D	12/07/2009	16:31
.	MS(12328-009)	C7871.D	12/07/2009	16:47
.	MSD(12328-009)	C7872.D	12/07/2009	17:02
B-PX2A/11.5	12330-001	C7873.D	12/07/2009	17:17
B5/6-6.5	12101-005	C7874.D	12/07/2009	17:33
#3C_WALL_-_S	12114-002	C7875.D	12/07/2009	17:48
TK-9A/1.5	12230-001	C7876.D	12/07/2009	18:03

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7853.D DFTPP Injection Date : 12/07/2009

Inst ID: MSDC DFTPP Injection Time: 12:15

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	35.5			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	38.7			
70	Less than 2.0% of mass 69	0.2	(	0.6	)1
127	40.0 - 60.0% of mass 198	47.6			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.0			
275	10.0 - 30.0% of mass 198	24.0			
365	Greater than 1.0% of mass 198	2.3			
441	Present, but less than mass 443	0.00	(	72.2	)3
442	40.0 - 100.0% of mass 198	67.1			
443	17.0 - 23.0% of mass 442	13.7	(	20.4	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
SB1/2-2.5	12328-001	C7877.D	12/07/2009	18:18
SB2/8-8.5	12328-002	C7878.D	12/07/2009	18:34
SB3/8-8.5	12328-003	C7879.D	12/07/2009	18:49
SB4/8-8.5	12328-004	C7880.D	12/07/2009	19:04
SB5/8-8.5	12328-005	C7881.D	12/07/2009	19:20
SB6/0.5-1	12328-006	C7882.D	12/07/2009	19:35
SB7/0.5-1	12328-007	C7883.D	12/07/2009	19:50
SB8/8-8.5	12328-008	C7884.D	12/07/2009	20:05
SB9/8-8.5	12328-009	C7885.D	12/07/2009	20:20
SB10/8-8.5	12328-010	C7886.D	12/07/2009	20:36
SB11/8-8.5	12328-011	C7887.D	12/07/2009	20:51
B8/5	12121-001	C7888.D	12/07/2009	21:06
RR2A/0.5-1	12321-001	C7889.D	12/07/2009	21:21
RR2B/0.5-1	12321-002	C7890.D	12/07/2009	21:37
RR2-3/2.92-3	12321-004	C7891.D	12/07/2009	21:52
ASP1	12322-001	C7892.D	12/07/2009	22:07
B8/5	12121-001	C7893.D	12/07/2009	22:22

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7996.D DFTPP Injection Date : 12/15/2009

Inst ID: MSDC DFTPP Injection Time: 10:56

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	38.0			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	41.7			
70	Less than 2.0% of mass 69	0.4	(	0.9	)1
127	40.0 - 60.0% of mass 198	49.1			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.7			
275	10.0 - 30.0% of mass 198	23.4			
365	Greater than 1.0% of mass 198	2.2			
441	Present, but less than mass 443	8.55	(	70.7	)3
442	40.0 - 100.0% of mass 198	59.9			
443	17.0 - 23.0% of mass 442	12.1	(	20.2	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN136.09	40ngBNAchk_FOI	C7997.D	12/15/2009	11:30
ABN137.09	40ngOLMO4chk_I	C7998.D	12/15/2009	11:45
4-STOCKPILE/	12458-004	C7999.D	12/15/2009	12:03
.	Method_Blank	C8000.D	12/15/2009	15:11
.	LCS	C8001.D	12/15/2009	15:26
.	MS(12208-001)	C8002.D	12/15/2009	15:41
.	MSD(12208-001)	C8003.D	12/15/2009	15:57
SB1	12542-001	C8004.D	12/15/2009	16:12
HOF-1B/8.5-9	12208-001	C8005.D	12/15/2009	16:28
NW-1B	12610-002	C8006.D	12/15/2009	16:43
NW-1C	12610-003	C8007.D	12/15/2009	16:58
NW-4B	12610-005	C8008.D	12/15/2009	17:14
NW-4C	12610-006	C8009.D	12/15/2009	17:29
NW-7B	12610-008	C8010.D	12/15/2009	17:45
NW-7C	12610-009	C8011.D	12/15/2009	18:00
SW-7B	12610-011	C8012.D	12/15/2009	18:16
SW-7C	12610-012	C8013.D	12/15/2009	18:31
SW-6B	12610-014	C8014.D	12/15/2009	18:46
SW-6C	12610-015	C8015.D	12/15/2009	19:02
SW-1B	12610-017	C8016.D	12/15/2009	19:17
SW-1C	12610-018	C8017.D	12/15/2009	19:32

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C8031.D DFTPP Injection Date : 12/17/2009

Inst ID: MSDC DFTPP Injection Time: 09:56

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	33.4			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	37.9			
70	Less than 2.0% of mass 69	0.2	(	0.6	)1
127	40.0 - 60.0% of mass 198	46.2			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.2			
275	10.0 - 30.0% of mass 198	26.0			
365	Greater than 1.0% of mass 198	2.3			
441	Present, but less than mass 443	10.77	(	72.4	)3
442	40.0 - 100.0% of mass 198	74.0			
443	17.0 - 23.0% of mass 442	14.9	(	20.1	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN136.09	40ngBNAchk_FOI	C8032.D	12/17/2009	10:14
ABN137.09	40ngOLMO4chk_I	C8033.D	12/17/2009	10:29
.	Method_Blank	C8034.D	12/17/2009	15:29
.	LCS	C8035.D	12/17/2009	15:44
.	MS(12450-004)	C8036.D	12/17/2009	16:00
.	MSD(12450-004)	C8037.D	12/17/2009	16:15
H03-2	12361-001	C8038.D	12/17/2009	16:31
B-30A(6)/5.5	12450-004	C8039.D	12/17/2009	16:46
B-12A(6)/5.5	12450-006	C8040.D	12/17/2009	17:01
B-31A(6)/5.5	12450-010	C8041.D	12/17/2009	17:16
T4-1/5.5-6	12542-002	C8042.D	12/17/2009	17:32
T5-3/5.5-6	12542-009	C8043.D	12/17/2009	17:47
T5-4/5.5-6	12542-010	C8044.D	12/17/2009	18:02
S-1	12713-001	C8045.D	12/17/2009	18:17
S-2	12713-002	C8046.D	12/17/2009	18:33
S-3	12713-003	C8047.D	12/17/2009	18:48
S-3/6-6.5	12646-003	C8048.D	12/17/2009	19:03

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C8000.D

Instrument ID: MSDC

Date Extracted: 12/15/09

Matrix: SOIL

Date Analyzed: 12/15/2009

Time Analyzed: 15:11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	12/15/2009	15:26
.	MS(12208-001)	12/15/2009	15:41
.	MSD(12208-001)	12/15/2009	15:57
SB1	12542-001	12/15/2009	16:12
HOF-1B/8.5-9	12208-001	12/15/2009	16:28
NW-1B	12610-002	12/15/2009	16:43
NW-1C	12610-003	12/15/2009	16:58
NW-4B	12610-005	12/15/2009	17:14
NW-4C	12610-006	12/15/2009	17:29
NW-7B	12610-008	12/15/2009	17:45
NW-7C	12610-009	12/15/2009	18:00
SW-7B	12610-011	12/15/2009	18:16
SW-7C	12610-012	12/15/2009	18:31
SW-6B	12610-014	12/15/2009	18:46
SW-6C	12610-015	12/15/2009	19:02
SW-1B	12610-017	12/15/2009	19:17
SW-1C	12610-018	12/15/2009	19:32

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/15/2009
Date Analyzed: 12/15/2009
Data file: C8000.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		0.033
Pyridine	ND		0.033
Benzaldehyde	ND		0.033
Phenol	ND		0.033
Aniline	ND		0.033
Bis(2-chloroethyl) ether	ND		0.033
2-Chlorophenol	ND		0.033
1,3-Dichlorobenzene	ND		0.033
1,4-Dichlorobenzene	ND		0.033
Benzyl alcohol	ND		0.033
1,2-Dichlorobenzene	ND		0.033
2-Methylphenol	ND		0.033
Bis(2-chloroisopropyl) ether	ND		0.033
4-Methylphenol	ND		0.033
N-Nitrosodi-n-propylamine	ND		0.033
Acetophenone	ND		0.033
Hexachloroethane	ND		0.033
Nitrobenzene	ND		0.033
Isophorone	ND		0.033
2-Nitrophenol	ND		0.033
2,4-Dimethylphenol	ND		0.033
Bis(2-chloroethoxy) methane	ND		0.033
Benzoic acid	ND		0.033
2,4-Dichlorophenol	ND		0.033
1,2,4-Trichlorobenzene	ND		0.033
Naphthalene	ND		0.033
4-Chloroaniline	ND		0.033
Hexachlorobutadiene	ND		0.033
Caprolactam	ND		0.033
4-Chloro-3-methylphenol	ND		0.033
2-Methylnaphthalene	ND		0.033
Hexachlorocyclopentadiene	ND		0.033
2,4,6-Trichlorophenol	ND		0.033
2,4,5-Trichlorophenol	ND		0.033
1,1'-Biphenyl	ND		0.033
2-Chloronaphthalene	ND		0.033
2-Nitroaniline	ND		0.033
Dimethyl phthalate	ND		0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/15/2009
Date Analyzed: 12/15/2009
Data file: C8000.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.033
Acenaphthylene	ND		0.033
3-Nitroaniline	ND		0.033
Acenaphthene	ND		0.033
2,4-Dinitrophenol	ND		0.033
4-Nitrophenol	ND		0.033
2,4-Dinitrotoluene	ND		0.033
Dibenzofuran	ND		0.033
Diethyl phthalate	ND		0.033
Fluorene	ND		0.033
4-Chlorophenyl phenyl ether	ND		0.033
4-Nitroaniline	ND		0.033
1,2,4,5-Tetrachlorobenzene	ND		0.033
4,6-Dinitro-2-methylphenol	ND		0.033
N-Nitrosodiphenylamine	ND		0.033
1,2-Diphenylhydrazine	ND		0.033
4-Bromophenyl phenyl ether	ND		0.033
Hexachlorobenzene	ND		0.033
Atrazine	ND		0.033
Pentachlorophenol	ND		0.033
Phenanthrene	ND		0.033
Anthracene	ND		0.033
Carbazole	ND		0.033
Di-n-butyl phthalate	ND		0.033
Fluoranthene	ND		0.033
Benzidine	ND		0.033
Pyrene	ND		0.033
3,3'-Dimethylbenzidine	ND		0.033
Butyl benzyl phthalate	ND		0.033
3,3'-Dichlorobenzidine	ND		0.033
Benzo[a]anthracene	ND		0.033
Chrysene	ND		0.033
Bis(2-ethylhexyl) phthalate	ND		0.033
Di-n-octyl phthalate	ND		0.033
Benzo[b]fluoranthene	ND		0.033
Benzo[k]fluoranthene	ND		0.033
Benzo[a]pyrene	ND		0.033
Indeno[1,2,3-cd]pyrene	ND		0.033
Dibenz[a,h]anthracene	ND		0.033
Benzo[g,h,i]perylene	ND		0.033

Total Target Compounds: 0

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/15/2009
Date Analyzed: 12/15/2009
Data file: C8000.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C8034.D Instrument ID: MSDC

Date Extracted: 12/17/09 Matrix: SOIL

Date Analyzed: 12/17/2009 Time Analyzed: 15:29

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	12/17/2009	15:44
.	MS(12450-004)	12/17/2009	16:00
.	MSD(12450-004)	12/17/2009	16:15
H03-2	12361-001	12/17/2009	16:31
B-30A(6)/5.5	12450-004	12/17/2009	16:46
B-12A(6)/5.5	12450-006	12/17/2009	17:01
B-31A(6)/5.5	12450-010	12/17/2009	17:16
T4-1/5.5-6	12542-002	12/17/2009	17:32
T5-3/5.5-6	12542-009	12/17/2009	17:47
T5-4/5.5-6	12542-010	12/17/2009	18:02
S-1	12713-001	12/17/2009	18:17
S-2	12713-002	12/17/2009	18:33
S-3	12713-003	12/17/2009	18:48
S-3/6-6.5	12646-003	12/17/2009	19:03

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/17/2009
Date Analyzed: 12/17/2009
Data file: C8034.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		0.033
Phenol	ND		0.033
Aniline	ND		0.033
Bis(2-chloroethyl) ether	ND		0.033
2-Chlorophenol	ND		0.033
1,3-Dichlorobenzene	ND		0.033
1,4-Dichlorobenzene	ND		0.033
Benzyl alcohol	ND		0.033
1,2-Dichlorobenzene	ND		0.033
2-Methylphenol	ND		0.033
Bis(2-chloroisopropyl) ether	ND		0.033
4-Methylphenol	ND		0.033
N-Nitrosodi-n-propylamine	ND		0.033
Hexachloroethane	ND		0.033
Nitrobenzene	ND		0.033
Isophorone	ND		0.033
2-Nitrophenol	ND		0.033
2,4-Dimethylphenol	ND		0.033
Bis(2-chloroethoxy) methane	ND		0.033
Benzoic acid	ND		0.033
2,4-Dichlorophenol	ND		0.033
1,2,4-Trichlorobenzene	ND		0.033
Naphthalene	ND		0.033
4-Chloroaniline	ND		0.033
Hexachlorobutadiene	ND		0.033
4-Chloro-3-methylphenol	ND		0.033
2-Methylnaphthalene	ND		0.033
Hexachlorocyclopentadiene	ND		0.033
2,4,6-Trichlorophenol	ND		0.033
2,4,5-Trichlorophenol	ND		0.033
2-Chloronaphthalene	ND		0.033
2-Nitroaniline	ND		0.033
Dimethyl phthalate	ND		0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/17/2009
Date Analyzed: 12/17/2009
Data file: C8034.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.033
Acenaphthylene	ND		0.033
3-Nitroaniline	ND		0.033
Acenaphthene	ND		0.033
2,4-Dinitrophenol	ND		0.033
4-Nitrophenol	ND		0.033
2,4-Dinitrotoluene	ND		0.033
Dibenzofuran	ND		0.033
Diethyl phthalate	ND		0.033
Fluorene	ND		0.033
4-Chlorophenyl phenyl ether	ND		0.033
4-Nitroaniline	ND		0.033
4,6-Dinitro-2-methylphenol	ND		0.033
N-Nitrosodiphenylamine	ND		0.033
1,2-Diphenylhydrazine	ND		0.033
4-Bromophenyl phenyl ether	ND		0.033
Hexachlorobenzene	ND		0.033
Pentachlorophenol	ND		0.033
Phenanthrene	ND		0.033
Anthracene	ND		0.033
Carbazole	ND		0.033
Di-n-butyl phthalate	ND		0.033
Fluoranthene	ND		0.033
Benzidine	ND		0.033
Pyrene	ND		0.033
3,3'-Dimethylbenzidine	ND		0.033
Butyl benzyl phthalate	ND		0.033
3,3'-Dichlorobenzidine	ND		0.033
Benzo[a]anthracene	ND		0.033
Chrysene	ND		0.033
Bis(2-ethylhexyl) phthalate	ND		0.033
Di-n-octyl phthalate	ND		0.033
Benzo[b]fluoranthene	ND		0.033
Benzo[k]fluoranthene	ND		0.033
Benzo[a]pyrene	ND		0.033
Indeno[1,2,3-cd]pyrene	ND		0.033
Dibenz[a,h]anthracene	ND		0.033
Benzo[g,h,i]perylene	ND		0.033

Total Target Compounds: 0

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Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS2109.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Dec 07 15:48:41 2009
Response Via : Initial Calibration

Calibration Files
120 =C7859.D 10 =C7856.D 20 =C7857.D
80 =C7858.D 1 =C7860.D 40 =C7854.D

		Compound	120	10	20	80	1	40	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.613	0.637	0.664	0.615	0.616	0.709	0.642	5.93
3)	T	Pyridine	0.696	0.692	0.715	0.654	0.592	0.722	0.679	7.14
4)	S	2-Fluorophenol	1.186	1.162	1.226	1.194	1.008	1.300	1.179	8.19
5)	T	Benzaldehyde	0.920	1.147	0.894	0.838	1.083	1.211	1.016	14.97
6)	S	Phenol-d5	1.509	1.417	1.436	1.463	1.354	1.608	1.464	5.94
7)	MC	Phenol	1.292	1.611	1.415	1.400	1.653	1.665	1.506	10.42
8)	T	Aniline	0.582	0.604	0.627	0.574	0.573	0.671	0.605	6.33
9)	T	Bis(2-chloroethyl	0.715	0.813	0.772	0.759	0.785	0.870	0.786	6.65
10)	M	2-Chlorophenol	1.337	1.364	1.336	1.290	1.431	1.428	1.364	4.10
11)	T	1,3-Dichlorobenze	1.427	1.527	1.588	1.393	1.698	1.718	1.559	8.67
12)	MC	1,4-Dichlorobenze	1.499	1.540	1.574	1.571	1.543	1.721	1.575	4.86
13)	T	Benzyl alcohol	0.765	0.822	0.844	0.827	0.753	0.870	0.813	5.62
14)	T	1,2-Dichlorobenze	1.428	1.453	1.494	1.456	1.468	1.581	1.480	3.66
15)	T	2-Methylphenol	0.765	0.822	0.844	0.827	0.753	0.870	0.813	5.62
16)	T	Bis(2-chloroisopr	1.057	1.196	1.240	1.087	1.204	1.304	1.182	7.89
17)	T	4-Methylphenol	1.181	1.167	1.236	1.072	1.296	1.301	1.209	7.24
18)	MP	N-Nitrosodi-n-pro	0.789	0.796	0.789	0.698	0.843	0.833	0.791	6.47
19)	T	Acetophenone	1.564	1.655	1.636	1.574	1.622	1.659	1.618	2.52
20)	T	3-Methylphenol	1.181	1.162	1.239	1.073	1.296	1.301	1.209	7.25
21)	T	Hexachloroethane	0.491	0.505	0.509	0.489	0.546	0.541	0.514	4.74
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.361	0.334	0.354	0.341	0.327	0.346	0.344	3.69
25)	T	Nitrobenzene	0.260	0.312	0.331	0.297	0.346	0.309	0.309	9.57
26)	T	Isophorone	0.553	0.587	0.607	0.559	0.590	0.606	0.584	3.93
27)	TC	2-Nitrophenol	0.177	0.181	0.190	0.194	0.174	0.216	0.188	8.07
28)	T	2,4-Dimethylpheno	0.317	0.314	0.324	0.283	0.311	0.376	0.321	9.47
29)	T	Bis(2-chloroethox	0.357	0.352	0.388	0.337	0.370	0.413	0.369	7.44
30)	T	Benzoic acid	0.173	0.133	0.164	0.173	0.170	0.186	0.166	10.77
31)	T	2,4-Dimethylanili	0.369	0.403	0.411	0.368	0.290	0.379	0.370	11.68
32)	TC	2,4-Dichloropheno	0.321	0.308	0.327	0.300	0.312	0.382	0.325	9.10
33)	M	1,2,4-Trichlorobe	0.363	0.382	0.386	0.354	0.391	0.410	0.381	5.31
34)	T	Naphthalene	1.020	1.092	1.163	1.021	1.060	1.065	1.070	4.96
35)	T	4-Chloroaniline	0.512	0.564	0.590	0.538	0.540	0.597	0.557	5.92
36)	T	4-Aminotoluene	0.517	0.593	0.613	0.498	0.405	0.537	0.527	14.11
37)	TC	Hexachlorobutadie	0.236	0.227	0.237	0.231	0.240	0.256	0.238	4.25
38)	T	Caprolactam	0.104	0.106	0.112	0.102	0.093	0.107	0.104	6.12
39)	T	2-Aminotoluene	0.517	0.593	0.613	0.498	0.405	0.537	0.527	14.11
40)	MC	4-Chloro-3-methyl	0.258	0.276	0.293	0.266	0.301	0.314	0.285	7.58
41)	T	2-Methylnaphthale	0.691	0.704	0.729	0.682	0.791	0.801	0.733	7.00
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.458	0.348	0.412	0.439	0.382	0.474	0.419	11.40
45)	TC	2,4,6-Trichloroph	0.366	0.364	0.396	0.385	0.375	0.440	0.388	7.28
46)	T	2,4,5-Trichloroph	0.414	0.411	0.430	0.418	0.424	0.473	0.428	5.33
47)	S	2-Fluorobiphenyl	1.421	1.486	1.482	1.382	1.474	1.468	1.452	2.87
48)	T	1,1'-Biphenyl	1.388	1.479	1.456	1.323	1.439	1.380	1.411	4.09
49)	T	2-Chloronaphthale	0.989	1.099	1.182	1.126	1.149	1.220	1.127	7.08
50)	T	2-Nitroaniline	0.199	0.217	0.225	0.225	0.220	0.267	0.226	9.99
51)	T	Dimethyl phthalat	1.195	1.295	1.286	1.155	1.258	1.392	1.263	6.58

52)	T	2,6-Dinitrotoluen	0.281	0.265	0.288	0.290	0.270	0.317	0.285	6.46
53)	T	Acenaphthylene	1.557	1.797	1.875	1.769	1.591	1.760	1.725	7.20
54)	T	3-Nitroaniline	0.336	0.332	0.357	0.362	0.318	0.411	0.353	9.36
55)	MC	Acenaphthene	0.950	1.121	1.168	1.078	1.060	1.100	1.079	6.82
56)	TP	2,4-Dinitrophenol	0.141	0.108	0.121	0.120	0.136	0.148	0.129	11.61
57)	MP	4-Nitrophenol	0.139	0.152	0.150	0.146	0.120	0.183	0.148	13.91
58)	M	2,4-Dinitrotoluen	0.366	0.330	0.348	0.349	0.306	0.416	0.352	10.63
59)	T	Dibenzofuran	1.572	1.643	1.669	1.566	1.690	1.834	1.662	5.91
60)	T	Diethyl phthalate	1.138	1.159	1.181	1.095	1.167	1.265	1.167	4.85
61)	T	Fluorene	1.174	1.333	1.344	1.203	1.228	1.305	1.265	5.70
62)	T	4-Chlorophenyl ph	0.680	0.713	0.755	0.704	0.725	0.800	0.729	5.80
63)	T	4-Nitroaniline	0.283	0.282	0.295	0.256	0.252	0.307	0.279	7.74
64)		1,2,4,5-Tetrachlo	0.634	0.652	0.697	0.647	0.601	0.640	0.645	4.85
65)	T	3,5-Dimethylpheno							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.120	0.082	0.094	0.113	0.098	0.117	0.104	14.47
68)	TC	N-Nitrosodiphenyl	0.554	0.532	0.564	0.540	0.577	0.620	0.565	5.65
69)	T	1,2-Diphenylhydra	0.538	0.546	0.576	0.553	0.568	0.623	0.567	5.40
70)	S	2,4,6-Tribromophe	0.228	0.211	0.213	0.223	0.188	0.222	0.214	6.65
71)	T	4-Bromophenyl phe	0.289	0.277	0.293	0.297	0.284	0.315	0.293	4.47
72)	T	Hexachlorobenzene	0.352	0.346	0.355	0.345	0.343	0.399	0.356	5.94
73)	T	Atrazine	0.194	0.220	0.236	0.210	0.150	0.208	0.203	14.58
74)	MC	Pentachlorophenol	0.185	0.160	0.171	0.179	0.144	0.210	0.175	13.05
75)	T	Phenanthrene	0.994	1.051	1.107	1.036	1.052	1.095	1.056	3.89
76)	T	Anthracene	1.057	1.107	1.145	1.008	1.005	1.106	1.071	5.36
77)	T	Carbazole	0.890	0.954	0.949	0.896	0.924	1.067	0.947	6.81
78)	T	Di-n-butyl phthal	1.022	1.061	1.104	1.053	1.032	1.195	1.078	5.93
79)	TC	Fluoranthene	0.987	1.160	1.135	1.052	0.998	1.124	1.076	6.88
80)	T	Benzidine	0.626	0.664	0.523	0.540	0.485	0.611	0.575	12.03
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.135	1.116	1.189	1.103	1.078	1.212	1.139	4.55
84)	S	Terphenyl-d14	1.035	1.071	1.102	1.059	1.093	1.070	1.072	2.23
85)	T	3,3'-Dimethylbenz	0.774	0.754	0.672	0.678	0.698	0.762	0.723	6.31
86)	T	Butyl benzyl phth	0.400	0.404	0.432	0.416	0.424	0.481	0.426	6.87
87)	T	3,3'-Dichlorobenz	0.316	0.350	0.363	0.335	0.325	0.317	0.334	5.68
88)	T	Benzo[a]anthracen	0.964	0.983	0.993	0.971	0.997	1.004	0.985	1.57
89)	T	Chrysene	0.906	0.952	0.974	0.937	1.008	1.118	0.982	7.61
90)	T	Bis(2-ethylhexyl)	0.553	0.558	0.587	0.566	0.587	0.640	0.582	5.47
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	0.827	0.951	1.010	0.852	0.992	1.120	0.958	11.30
94)	T	Benzo[b]fluoranth	1.073	1.127	1.061	1.058	0.965	1.143	1.071	5.88
95)	T	Benzo[k]fluoranth	0.978	1.018	1.077	0.979	0.962	1.042	1.009	4.39
96)	TC	Benzo[a]pyrene	0.876	0.864	0.880	0.865	0.877	1.000	0.894	5.87
97)	T	Indeno[1,2,3-cd]p	1.247	1.040	1.169	1.235	0.918	1.184	1.132	11.34
98)	T	Dibenz[a,h]anthra	1.047	0.896	0.972	1.044	0.844	1.026	0.972	8.72
99)	T	Benzo[g,h,i]peryl	0.994	0.831	0.923	0.987	0.910	0.974	0.937	6.63
100)	T	Hydroquinone							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

CS2109.M Mon Dec 07 15:48:46 2009 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C7997.D
Acq On : 15 Dec 2009 11:30
Operator : EDM
Sample : ABN136.09,40ngBNAchk_FOR_12/15/09
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Dec 15 11:46:05 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
2	T	N-Nitrosodimethylamine	0.642	0.665	-3.6	90	0.00
3	T	Pyridine	0.679	0.752	-10.8	100	0.00
4	S	2-Fluorophenol	1.179	1.226	-4.0	91	0.00
5	T	Benzaldehyde	1.016	0.956	5.9	95	0.00
6	S	Phenol-d5	1.464	1.603	-9.5	96	0.00
7	MC	Phenol	1.506	1.565	-3.9	91	0.00
8	T	Aniline	0.605	0.671	-10.9	96	0.00
9	T	Bis(2-chloroethyl) ether	0.786	0.839	-6.7	93	0.00
10	M	2-Chlorophenol	1.364	1.418	-4.0	96	0.00
11	T	1,3-Dichlorobenzene	1.559	1.750	-12.3	98	0.00
12	MC	1,4-Dichlorobenzene	1.575	1.607	-2.0	90	0.00
13	T	Benzyl alcohol	0.813	0.819	-0.7	91	0.00
14	T	1,2-Dichlorobenzene	1.480	1.502	-1.5	92	0.00
15	T	2-Methylphenol	0.813	0.819	-0.7	91	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.182	1.338	-13.2	99	0.00
17	T	4-Methylphenol	1.209	1.270	-5.0	94	0.00
18	MP	N-Nitrosodi-n-propylamine	0.791	0.879	-11.1	102	0.00
19	T	Acetophenone	1.618	1.576	2.6	92	0.00
20	T	3-Methylphenol	1.209	1.280	-5.9	95	0.00
21	T	Hexachloroethane	0.514	0.532	-3.5	95	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	95	0.00
24	S	Nitrobenzene-d5	0.344	0.358	-4.1	99	0.00
25	T	Nitrobenzene	0.309	0.340	-10.0	105	0.00
26	T	Isophorone	0.584	0.595	-1.9	94	0.00
27	TC	2-Nitrophenol	0.188	0.224	-19.1	99	0.00
28	T	2,4-Dimethylphenol	0.321	0.357	-11.2	91	0.00
29	T	Bis(2-chloroethoxy) methane	0.369	0.431	-16.8	99	0.00
30	T	Benzoic acid	0.166	0.195	-17.5	100	0.01
31	T	2,4-Dimethylaniline	0.370	0.364	1.6	91	0.00
32	TC	2,4-Dichlorophenol	0.325	0.364	-12.0	91	0.00
33	M	1,2,4-Trichlorobenzene	0.381	0.412	-8.1	96	0.00
34	T	Naphthalene	1.070	1.128	-5.4	101	0.00
35	T	4-Chloroaniline	0.557	0.612	-9.9	98	0.00
36	T	4-Aminotoluene	0.527	0.536	-1.7	95	0.00
37	TC	Hexachlorobutadiene	0.238	0.249	-4.6	93	0.00
38	T	Caprolactam	0.104	0.111	-6.7	100	0.01
39	T	2-Aminotoluene	0.527	0.536	-1.7	95	0.00
40	MC	4-Chloro-3-methylphenol	0.285	0.323	-13.3	98	0.00
41	T	2-Methylnaphthalene	0.733	0.794	-8.3	94	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	95	0.00
44	TP	Hexachlorocyclopentadiene	0.419	0.414	1.2	83	0.00
45	TC	2,4,6-Trichlorophenol	0.388	0.420	-8.2	91	0.00

46	T	2,4,5-Trichlorophenol	0.428	0.460	-7.5	92	0.00
47	S	2-Fluorobiphenyl	1.452	1.373	5.4	89	0.00
48	T	1,1'-Biphenyl	1.411	1.362	3.5	94	0.00
49	T	2-Chloronaphthalene	1.127	1.226	-8.8	95	0.00
50	T	2-Nitroaniline	0.226	0.261	-15.5	93	0.00
51	T	Dimethyl phthalate	1.263	1.297	-2.7	89	0.00
52	T	2,6-Dinitrotoluene	0.285	0.334	-17.2	100	0.00
53	T	Acenaphthylene	1.725	1.766	-2.4	95	0.00
54	T	3-Nitroaniline	0.353	0.417	-18.1	96	0.00
55	MC	Acenaphthene	1.079	1.103	-2.2	95	0.00
56	TP	2,4-Dinitrophenol	0.129	0.134	-3.9	86	0.00
57	MP	4-Nitrophenol	0.148	0.152	-2.7	79	0.00
58	M	2,4-Dinitrotoluene	0.352	0.400	-13.6	91	0.00
59	T	Dibenzofuran	1.662	1.786	-7.5	92	0.00
60	T	Diethyl phthalate	1.167	1.243	-6.5	93	0.00
61	T	Fluorene	1.265	1.299	-2.7	94	0.00
62	T	4-Chlorophenyl phenyl ether	0.729	0.778	-6.7	92	0.00
63	T	4-Nitroaniline	0.279	0.325	-16.5	100	0.00
64		1,2,4,5-Tetrachlorobenzene	0.645	0.604	6.4	90	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	94	0.00
67	T	4,6-Dinitro-2-methylphenol	0.104	0.123	-18.3	99	0.00
68	TC	N-Nitrosodiphenylamine	0.565	0.594	-5.1	90	0.00
69	T	1,2-Diphenylhydrazine	0.567	0.662	-16.8	100	0.00
70	S	2,4,6-Tribromophenol	0.214	0.209	2.3	88	0.00
71	T	4-Bromophenyl phenyl ether	0.293	0.306	-4.4	92	0.00
72	T	Hexachlorobenzene	0.356	0.365	-2.5	86	0.00
73	T	Atrazine	0.203	0.204	-0.5	93	0.00
74	MC	Pentachlorophenol	0.175	0.204	-16.6	91	0.00
75	T	Phenanthrene	1.056	1.057	-0.1	91	0.00
76	T	Anthracene	1.071	1.138	-6.3	97	0.00
77	T	Carbazole	0.947	1.056	-11.5	93	0.00
78	T	Di-n-butyl phthalate	1.078	1.205	-11.8	95	0.00
79	TC	Fluoranthene	1.076	1.124	-4.5	94	0.00
80	T	Benzidine	0.575	0.517	10.1	100	-0.02
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	97	-0.01
83	M	Pyrene	1.139	1.180	-3.6	95	0.00
84	S	Terphenyl-d14	1.072	1.005	6.3	92	0.00
85	T	3,3'-Dimethylbenzidine	0.723	0.592	18.1	99	-0.02
86	T	Butyl benzyl phthalate	0.426	0.484	-13.6	98	-0.01
87	T	3,3'-Dichlorobenzidine	0.334	0.325	2.7	100	-0.01
88	T	Benzo[a]anthracene	0.985	1.024	-4.0	99	0.00
89	T	Chrysene	0.982	1.119	-14.0	98	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.582	0.654	-12.4	99	-0.02
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	99	0.00
93	TC	Di-n-octyl phthalate	0.958	1.130	-18.0	99	-0.02
94	T	Benzo[b]fluoranthene	1.071	1.081	-0.9	93	0.00
95	T	Benzo[k]fluoranthene	1.009	1.048	-3.9	99	0.00
96	TC	Benzo[a]pyrene	0.894	1.013	-13.3	100	0.00
97	T	Indeno[1,2,3-cd]pyrene	1.132	1.250	-10.4	104	0.02
98	T	Dibenz[a,h]anthracene	0.972	1.074	-10.5	103	0.01
99	T	Benzo[g,h,i]perylene	0.937	1.051	-12.2	106	0.02
100	T	Hydroquinone					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2109.M Tue Dec 15 11:46:11 2009 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-17-09\
Data File : C8032.D
Acq On : 17 Dec 2009 10:14
Operator : EDM
Sample : ABN136.09,40ngBNAchk_FOR_12/17/09
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Dec 17 10:29:58 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00
2	T	N-Nitrosodimethylamine	0.642	0.689	-7.3	96	0.00
3	T	Pyridine	0.679	0.738	-8.7	101	0.00
4	S	2-Fluorophenol	1.179	1.192	-1.1	90	0.00
5	T	Benzaldehyde	1.016	0.963	5.2	102	0.00
6	S	Phenol-d5	1.464	1.586	-8.3	97	0.00
7	MC	Phenol	1.506	1.517	-0.7	90	0.00
8	T	Aniline	0.605	0.663	-9.6	97	0.00
9	T	Bis(2-chloroethyl) ether	0.786	0.872	-10.9	99	0.00
10	M	2-Chlorophenol	1.364	1.457	-6.8	101	0.00
11	T	1,3-Dichlorobenzene	1.559	1.667	-6.9	96	0.00
12	MC	1,4-Dichlorobenzene	1.575	1.663	-5.6	95	0.00
13	T	Benzyl alcohol	0.813	0.834	-2.6	95	0.00
14	T	1,2-Dichlorobenzene	1.480	1.532	-3.5	96	0.00
15	T	2-Methylphenol	0.813	0.834	-2.6	95	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.182	1.366	-15.6	103	0.00
17	T	4-Methylphenol	1.209	1.287	-6.5	98	0.00
18	MP	N-Nitrosodi-n-propylamine	0.791	0.858	-8.5	102	0.00
19	T	Acetophenone	1.618	1.598	1.2	95	0.00
20	T	3-Methylphenol	1.209	1.301	-7.6	99	0.00
21	T	Hexachloroethane	0.514	0.542	-5.4	99	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	99	0.00
24	S	Nitrobenzene-d5	0.344	0.355	-3.2	101	0.00
25	T	Nitrobenzene	0.309	0.356	-15.2	114	0.00
26	T	Isophorone	0.584	0.607	-3.9	99	0.00
27	TC	2-Nitrophenol	0.188	0.222	-18.1	101	0.00
28	T	2,4-Dimethylphenol	0.321	0.355	-10.6	93	0.00
29	T	Bis(2-chloroethoxy) methane	0.369	0.438	-18.7	105	0.00
30	T	Benzoic acid	0.166	0.192	-15.7	102	0.01
31	T	2,4-Dimethylaniline	0.370	0.351	5.1	91	0.00
32	TC	2,4-Dichlorophenol	0.325	0.358	-10.2	92	0.00
33	M	1,2,4-Trichlorobenzene	0.381	0.385	-1.0	93	0.00
34	T	Naphthalene	1.070	1.043	2.5	97	0.00
35	T	4-Chloroaniline	0.557	0.598	-7.4	99	0.00
36	T	4-Aminotoluene	0.527	0.536	-1.7	99	0.00
37	TC	Hexachlorobutadiene	0.238	0.243	-2.1	94	0.00
38	T	Caprolactam	0.104	0.108	-3.8	100	0.02
39	T	2-Aminotoluene	0.527	0.536	-1.7	99	0.00
40	MC	4-Chloro-3-methylphenol	0.285	0.321	-12.6	101	0.00
41	T	2-Methylnaphthalene	0.733	0.807	-10.1	100	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	95	0.02
44	TP	Hexachlorocyclopentadiene	0.419	0.394	6.0	79	0.00
45	TC	2,4,6-Trichlorophenol	0.388	0.421	-8.5	91	0.00

46	T	2,4,5-Trichlorophenol	0.428	0.462	-7.9	92	0.01
47	S	2-Fluorobiphenyl	1.452	1.448	0.3	93	0.00
48	T	1,1'-Biphenyl	1.411	1.452	-2.9	100	0.01
49	T	2-Chloronaphthalene	1.127	1.204	-6.8	93	0.01
50	T	2-Nitroaniline	0.226	0.264	-16.8	94	0.02
51	T	Dimethyl phthalate	1.263	1.365	-8.1	93	0.02
52	T	2,6-Dinitrotoluene	0.285	0.315	-10.5	94	0.02
53	T	Acenaphthylene	1.725	1.725	0.0	93	0.02
54	T	3-Nitroaniline	0.353	0.412	-16.7	95	0.02
55	MC	Acenaphthene	1.079	1.130	-4.7	97	0.02
56	TP	2,4-Dinitrophenol	0.129	0.150	-16.3	96	0.02
57	MP	4-Nitrophenol	0.148	0.164	-10.8	85	0.03
58	M	2,4-Dinitrotoluene	0.352	0.413	-17.3	94	0.02
59	T	Dibenzofuran	1.662	1.763	-6.1	91	0.02
60	T	Diethyl phthalate	1.167	1.269	-8.7	95	0.03
61	T	Fluorene	1.265	1.355	-7.1	98	0.04
62	T	4-Chlorophenyl phenyl ether	0.729	0.753	-3.3	89	0.03
63	T	4-Nitroaniline	0.279	0.327	-17.2	101	0.02
64		1,2,4,5-Tetrachlorobenzene	0.645	0.615	4.7	91	0.01
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	93	0.05
67	T	4,6-Dinitro-2-methylphenol	0.104	0.118	-13.5	93	0.04
68	TC	N-Nitrosodiphenylamine	0.565	0.608	-7.6	91	0.04
69	T	1,2-Diphenylhydrazine	0.567	0.674	-18.9	100	0.04
70	S	2,4,6-Tribromophenol	0.214	0.210	1.9	88	0.04
71	T	4-Bromophenyl phenyl ether	0.293	0.300	-2.4	88	0.04
72	T	Hexachlorobenzene	0.356	0.362	-1.7	84	0.04
73	T	Atrazine	0.203	0.166	18.2	74	0.05
74	MC	Pentachlorophenol	0.175	0.186	-6.3	82	0.05
75	T	Phenanthrene	1.056	1.065	-0.9	90	0.05
76	T	Anthracene	1.071	1.113	-3.9	93	0.05
77	T	Carbazole	0.947	1.051	-11.0	91	0.06
78	T	Di-n-butyl phthalate	1.078	1.221	-13.3	95	0.07
79	TC	Fluoranthene	1.076	1.105	-2.7	91	0.08
80	T	Benzidine	0.575	0.525	8.7	110	0.06
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	88	0.08
83	M	Pyrene	1.139	1.252	-9.9	91	0.08
84	S	Terphenyl-d14	1.072	1.055	1.6	87	0.09
85	T	3,3'-Dimethylbenzidine	0.723	0.614	15.1	111	0.10
86	T	Butyl benzyl phthalate	0.426	0.507	-19.0	93	0.12
87	T	3,3'-Dichlorobenzidine	0.334	0.345	-3.3	96	0.09
88	T	Benzo[a]anthracene	0.985	1.020	-3.6	89	0.09
89	T	Chrysene	0.982	1.127	-14.8	89	0.09
90	T	Bis(2-ethylhexyl) phthalate	0.582	0.679	-16.7	93	0.09
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	82	0.08
93	TC	Di-n-octyl phthalate	0.958	1.129	-17.8	82	0.07
94	T	Benzo[b]fluoranthene	1.071	1.019	4.9	73	0.08
95	T	Benzo[k]fluoranthene	1.009	1.189	-17.8	93	0.08
96	TC	Benzo[a]pyrene	0.894	1.019	-14.0	83	0.08
97	T	Indeno[1,2,3-cd]pyrene	1.132	1.176	-3.9	81	0.10
98	T	Dibenz[a,h]anthracene	0.972	1.015	-4.4	81	0.09
99	T	Benzo[g,h,i]perylene	0.937	0.981	-4.7	82	0.09
100	T	Hydroquinone					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/15/2009

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
Method_Blank	SOIL	C8000.D	83	89	73	73	72	74
LCS	SOIL	C8001.D	84	87	73	67	74	66
MS(12208-001)	SOIL	C8002.D	64	72	78	79	74	67
MSD(12208-001)	SOIL	C8003.D	64	70	76	77	75	68
12542-001	SOIL	C8004.D	59	71	58	67	81	68
12208-001	SOIL	C8005.D	N/A	N/A	82	75	N/A	69
12610-002	SOIL	C8006.D	N/A	N/A	51	57	N/A	72
12610-003	SOIL	C8007.D	N/A	N/A	55	63	N/A	66
12610-005	SOIL	C8008.D	N/A	N/A	62	71	N/A	68
12610-006	SOIL	C8009.D	N/A	N/A	59	70	N/A	69
12610-008	SOIL	C8010.D	N/A	N/A	50	62	N/A	52
12610-009	SOIL	C8011.D	N/A	N/A	53	64	N/A	58
12610-011	SOIL	C8012.D	N/A	N/A	55	65	N/A	60
12610-012	SOIL	C8013.D	N/A	N/A	57	66	N/A	64
12610-014	SOIL	C8014.D	N/A	N/A	64	72	N/A	62
12610-015	SOIL	C8015.D	N/A	N/A	60	74	N/A	66
12610-017	SOIL	C8016.D	N/A	N/A	56	69	N/A	63
12610-018	SOIL	C8017.D	N/A	N/A	54	68	N/A	61

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/17/2009

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
40ngOLMO4chk_FO		C8033.D	N/A	N/A	N/A	N/A	N/A	N/A
Method_Blank	SOIL	C8034.D	92	104	73	80	61	70
LCS	SOIL	C8035.D	70	75	70	68	56	54
MS(12450-004)	SOIL	C8036.D	69	83	67	75	79	64
MSD(12450-004)	SOIL	C8037.D	68	82	67	77	81	65
12361-001	SOIL	C8038.D	N/A	N/A	49	70	N/A	66
12450-004	SOIL	C8039.D	N/A	N/A	55	65	N/A	56
12450-006	SOIL	C8040.D	N/A	N/A	65	81	N/A	67
12450-010	SOIL	C8041.D	N/A	N/A	52	68	N/A	56
12542-002	SOIL	C8042.D	N/A	N/A	64	76	N/A	69
12542-009	SOIL	C8043.D	N/A	N/A	54	72	N/A	67
12542-010	SOIL	C8044.D	N/A	N/A	47	65	N/A	61
12713-001	SOIL	C8045.D	N/A	N/A	47	61	N/A	61
12713-002	SOIL	C8046.D	N/A	N/A	45	63	N/A	64
12713-003	SOIL	C8047.D	N/A	N/A	44	61	N/A	68
12646-003	SOIL	C8048.D	N/A	N/A	60	81	N/A	72

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SOIL SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12208-001 Batch No.: C121509S

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	100.0	0.0	75.2	75	35 - 116
2-Chlorophenol	100.0	0.0	72.5	73	37 - 112
1,4-Dichlorobenzene	50.0	0.0	34.6	69	29 - 102
N-Nitrosodi-n-propylamine	50.0	0.0	44.0	88	38 - 119
1,2,4-Trichlorobenzene	50.0	0.0	37.1	74	33 - 100
4-Chloro-3-methylphenol	100.0	0.0	102.3	102	42 - 118
Acenaphthene	50.0	0.0	49.5	99	20 - 132
4-Nitrophenol	100.0	0.0	108.9	109	31 - 123
2,4-Dinitrotoluene	50.0	0.0	48.7	97	24 - 130
Pentachlorophenol	100.0	0.0	96.4	96	29 - 113
Pyrene	50.0	0.0	44.9	90	31 - 133

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	REC.
Phenol	0.0	72.9	73	3	14	35 - 116
2-Chlorophenol	0.0	71.2	71	3	13	37 - 112
1,4-Dichlorobenzene	0.0	33.8	68	1	14	29 - 102
N-Nitrosodi-n-propylamine	0.0	42.8	86	2	14	38 - 119
1,2,4-Trichlorobenzene	0.0	38.2	76	3	12	33 - 100
4-Chloro-3-methylphenol	0.0	105.6	106	4	13	42 - 118
Acenaphthene	0.0	50.5	101	2	22	20 - 132
4-Nitrophenol	0.0	108.2	108	1	18	31 - 123
2,4-Dinitrotoluene	0.0	48.7	97	0	26	24 - 130
Pentachlorophenol	0.0	97.8	98	2	19	29 - 113
Pyrene	0.0	45.7	91	1	17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

SOIL SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12450-004 Batch No.: C121709S

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	100.0	0.0	68.3	68	35 - 116
2-Chlorophenol	100.0	0.0	66.0	66	37 - 112
1,4-Dichlorobenzene	50.0	0.0	33.7	67	29 - 102
N-Nitrosodi-n-propylamine	50.0	0.0	38.2	76	38 - 119
1,2,4-Trichlorobenzene	50.0	0.0	33.6	67	33 - 100
4-Chloro-3-methylphenol	100.0	0.0	71.1	71	42 - 118
Acenaphthene	50.0	0.0	40.1	80	20 - 132
4-Nitrophenol	100.0	0.0	60.0	60	31 - 123
2,4-Dinitrotoluene	50.0	0.0	24.8	50	24 - 130
Pentachlorophenol	100.0	0.0	67.2	67	29 - 113
Pyrene	50.0	3.0	36.7	67	31 - 133

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	0.0	64.3	64	6	14	35 - 116
2-Chlorophenol	0.0	64.5	65	2	13	37 - 112
1,4-Dichlorobenzene	0.0	32.7	65	3	14	29 - 102
N-Nitrosodi-n-propylamine	0.0	35.5	71	7	14	38 - 119
1,2,4-Trichlorobenzene	0.0	34.0	68	1	12	33 - 100
4-Chloro-3-methylphenol	0.0	71.7	72	1	13	42 - 118
Acenaphthene	0.0	40.7	81	1	22	20 - 132
4-Nitrophenol	0.0	60.4	60	0	18	31 - 123
2,4-Dinitrotoluene	0.0	24.9	50	0	26	24 - 130
Pentachlorophenol	0.0	71.5	72	7	19	29 - 113
Pyrene	3.0	36.9	68	1	17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D

Date Analyzed: 12/07/2009

Instrument ID: MSDC

Time Analyzed: 12:24

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	162597		2.34		604478		2.88		401345		3.67	
	UPPER LIMIT	325194		2.84		1208956		3.38		802690		4.17	
	LOWER LIMIT	81299		1.84		302239		2.38		200673		3.17	
	LAB SAMPLE ID												
01	1ngBNA_FOR_12/07	161046		2.34		613950		2.88		422518		3.68	
02	10ngBNA_FOR_12/0	134013		2.34		507102		2.88		334779		3.67	
03	20ngBNA_FOR_12/0	166984		2.34		620495		2.88		416432		3.67	
04	80ngBNA_FOR_12/0	154119		2.34		583659		2.88		374258		3.68	
05	120ngBNA_FOR_12/	132566		2.34		510056		2.88		338788		3.67	
06	1ngBNA_FOR_12/07	145165		2.34		554781		2.88		372219		3.67	
07	1ngOLMO4_FOR_12	161514		2.34		620803		2.88		406885		3.67	
08	10ngOLMO4_FOR_1	167594		2.34		657032		2.88		428998		3.67	
09	20ngOLMO4_FOR_1	164183		2.34		619956		2.88		405482		3.68	
10	40ngOLMO4_FOR_1	210902		2.34		794640		2.88		537659		3.67	
11	80ngOLMO4_FOR_1	147180		2.34		549812		2.88		353376		3.66	
12	120ngOLMO4_FOR_	155538		2.34		598425		2.88		407215		3.67	
13	40ngBNAchk_FOR_1	166646		2.34		626837		2.88		421202		3.67	
14	40ngOLMO4chk_FOR	204561		2.34		797884		2.88		529088		3.67	
15	Method_Blank	107791		2.34		414705		2.88		276231		3.67	
16	LCS	133491		2.34		482119		2.88		304965		3.69	
17	MS(12328-009)	192513		2.34		739249		2.88		482306		3.69	
18	MSD(12328-009)	180717		2.34		668850		2.88		438133		3.67	
19	12330-001	180452		2.34		654222		2.88		398693		3.67	
20	12101-005	191298		2.34		701938		2.88		463018		3.68	
21	12114-002	157081		2.34		572784		2.88		376821		3.67	
22	12230-001	188113		2.34		703714		2.88		436775		3.66	

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D

Date Analyzed: 12/07/2009

Instrument ID: MSDC

Time Analyzed: 12:24

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	698359		4.41		649998		6.12		547053		7.33	
	UPPER LIMIT	1396718		4.91		1299996		6.62		1094106		7.83	
	LOWER LIMIT	349180		3.91		324999		5.62		273527		6.83	
	LAB SAMPLE ID												
01	1ngBNA_FOR_12/07	765540		4.42		732166		6.14		611146		7.33	
02	10ngBNA_FOR_12/0	610596		4.41		643434		6.12		532425		7.31	
03	20ngBNA_FOR_12/0	721798		4.41		677635		6.12		548083		7.32	
04	80ngBNA_FOR_12/0	628074		4.42		563887		6.13		529269		7.32	
05	120ngBNA_FOR_12/	563188		4.41		495156		6.11		474086		7.31	
06	1ngBNA_FOR_12/07	673642		4.42		634346		6.13		512489		7.32	
07	1ngOLMO4_FOR_12	732807		4.42		689516		6.13		558748		7.32	
08	10ngOLMO4_FOR_1	753219		4.41		729193		6.12		551728		7.32	
09	20ngOLMO4_FOR_1	720073		4.42		674536		6.14		521008		7.33	
10	40ngOLMO4_FOR_1	911788		4.40		855441		6.09		689495		7.29	
11	80ngOLMO4_FOR_1	631060		4.39		602496		6.08		493600		7.28	
12	120ngOLMO4_FOR_	701966		4.41		644647		6.11		526043		7.30	
13	40ngBNAchk_FOR_1	719062		4.40		644122		6.09		521051		7.30	
14	40ngOLMO4chk_FOR	936029		4.40		880373		6.11		719032		7.30	
15	Method_Blank	501987		4.41		539398		6.11		458333		7.31	
16	LCS	516452		4.43		488133		6.15		413715		7.34	
17	MS(12328-009)	848976		4.44		894774		6.17		772588		7.37	
18	MSD(12328-009)	789336		4.42		839301		6.13		712766		7.32	
19	12330-001	682638		4.42		602887		6.13		518443		7.32	
20	12101-005	759272		4.42		675804		6.13		563530		7.32	
21	12114-002	607264		4.41		573704		6.11		488670		7.31	
22	12230-001	708197		4.39		601601		6.08		543784		7.29	

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D Date Analyzed: 12/07/2009

Instrument ID: MSDC Time Analyzed: 12:24

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	162597	2.34	604478	2.88	401345	3.67
	UPPER LIMIT	325194	2.84	1208956	3.38	802690	4.17
	LOWER LIMIT	81299	1.84	302239	2.38	200673	3.17
	LAB SAMPLE ID						
01	12328-001	151903	2.34	585954	2.88	378533	3.67
02	12328-002	160806	2.34	605836	2.88	384736	3.67
03	12328-003	185560	2.34	721039	2.88	459479	3.66
04	12328-004	172285	2.34	675455	2.88	431160	3.66
05	12328-005	127066	2.34	485184	2.88	314993	3.66
06	12328-006	167682	2.34	643793	2.88	398301	3.67
07	12328-007	176155	2.34	607647	2.88	315749	3.7
08	12328-008	150476	2.34	567309	2.88	339359	3.66
09	12328-009	137373	2.34	517961	2.88	318456	3.66
10	12328-010	155795	2.34	587885	2.88	363790	3.66
11	12328-011	148513	2.34	552096	2.88	329693	3.66
12	12121-001	153347	2.34	433344	2.88	314153	3.67
13	12321-001	136785	2.34	507737	2.88	311005	3.66
14	12321-002	136964	2.34	516170	2.88	310472	3.66
15	12321-004	153945	2.34	561226	2.88	328092	3.66
16	12322-001	155920	2.34	524029	2.88	276794	3.69
17	12121-001	149079	2.34	470567	2.88	282340	3.69
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D

Date Analyzed: 12/07/2009

Instrument ID: MSDC

Time Analyzed: 12:24

	50UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	698359	4.41	649998	6.12	547053	7.33
	UPPER LIMIT	1396718	4.91	1299996	6.62	1094106	7.83
	LOWER LIMIT	349180	3.91	324999	5.62	273527	6.83
	LAB SAMPLE ID						
01	12328-001	641214	4.40	571155	6.11	488814	7.3
02	12328-002	654993	4.40	600107	6.10	505532	7.3
03	12328-003	806060	4.39	697038	6.08	574040	7.28
04	12328-004	732929	4.38	631524	6.07	533832	7.27
05	12328-005	587017	4.40	590987	6.08	496531	7.29
06	12328-006	690451	4.39	616991	6.09	532043	7.28
07	12328-007	475477	4.46	584090	6.20	514804	7.39
08	12328-008	541472	4.38	520097	6.06	527047	7.27
09	12328-009	514630	4.38	519888	6.07	534270	7.27
10	12328-010	576313	4.40	548941	6.08	555036	7.29
11	12328-011	521426	4.38	500573	6.07	499197	7.28
12	12121-001	498466	4.39	555249	6.07	557340	7.27
13	12321-001	486140	4.37	479345	6.06	473325	7.26
14	12321-002	491304	4.37	494944	6.06	481344	7.26
15	12321-004	518133	4.38	496054	6.06	493304	7.28
16	12322-001	445108	4.44	587515	6.16	401279	7.37
17	12121-001	424115	4.44	535040	6.16	416059	7.35
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7997.D

Date Analyzed: 12/15/2009

Instrument ID: MSDC

Time Analyzed: 11:30

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	156883		2.34		575828		2.88		381112		3.67	
	UPPER LIMIT	313766		2.84		1151656		3.38		762224		4.17	
	LOWER LIMIT	78442		1.84		287914		2.38		190556		3.17	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	195960		2.34		739912		2.88		461889		3.67	
02	12458-004	157286		2.34		618700		2.88		397799		3.68	
03	Method_Blank	142676		2.34		556752		2.88		355389		3.68	
04	LCS	117858		2.34		454462		2.88		304584		3.68	
05	MS(12208-001)	150281		2.34		566657		2.88		333911		3.68	
06	MSD(12208-001)	139212		2.34		517435		2.88		311541		3.68	
07	12542-001	94887		2.34		387359		2.88		250815		3.67	
08	12208-001	138273		2.34		505038		2.88		319439		3.70	
09	12610-002	141805		2.34		572159		2.88		374724		3.67	
10	12610-003	115405		2.34		470531		2.88		302031		3.67	
11	12610-005	127807		2.34		517774		2.88		331848		3.67	
12	12610-006	95058		2.34		402253		2.88		254439		3.66	
13	12610-008	105219		2.34		408379		2.88		241354		3.66	
14	12610-009	122934		2.34		479169		2.88		282338		3.66	
15	12610-011	118321		2.34		460828		2.88		275783		3.66	
16	12610-012	94407		2.34		394736		2.88		251910		3.65	
17	12610-014	109172		2.34		403046		2.88		229511		3.65	
18	12610-015	117243		2.34		453643		2.88		261478		3.66	
19	12610-017	113595		2.34		448041		2.88		267292		3.66	
20	12610-018	139184		2.34		550850		2.88		329142		3.66	
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7997.D

Date Analyzed: 12/15/2009

Instrument ID: MSDC

Time Analyzed: 11:30

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	658470		4.41		632913		6.10		539235		7.31	
	UPPER LIMIT	1316940		4.91		1265826		6.60		1078470		7.81	
	LOWER LIMIT	329235		3.91		316457		5.60		269618		6.81	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	825712		4.39		829282		6.09		706238		7.29	
02	12458-004	680853		4.42		596336		6.13		570005		7.34	
03	Method_Blank	635561		4.43		622336		6.15		513473		7.35	
04	LCS	536044		4.42		497494		6.14		447024		7.34	
05	MS(12208-001)	515041		4.43		552954		6.12		589262		7.33	
06	MSD(12208-001)	490386		4.42		518359		6.11		548833		7.31	
07	12542-001	407617		4.42		411728		6.13		425698		7.34	
08	12208-001	488728		4.46		515581		6.17		557809		7.35	
09	12610-002	633086		4.40		548596		6.10		555009		7.31	
10	12610-003	515435		4.40		480671		6.09		493930		7.31	
11	12610-005	532289		4.39		558112		6.10		630892		7.29	
12	12610-006	398021		4.39		399896		6.09		425777		7.28	
13	12610-008	375757		4.39		463662		6.08		507745		7.29	
14	12610-009	432582		4.37		517519		6.07		560348		7.28	
15	12610-011	430539		4.37		488079		6.05		524553		7.27	
16	12610-012	394417		4.37		426703		6.05		455871		7.27	
17	12610-014	367960		4.37		475991		6.06		506078		7.30	
18	12610-015	400762		4.38		484592		6.07		559516		7.29	
19	12610-017	402959		4.38		472457		6.06		505579		7.27	
20	12610-018	505950		4.37		575736		6.06		610748		7.27	
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C8032.D

Date Analyzed: 12/17/2009

Instrument ID: MSDC

Time Analyzed: 10:14

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	160366		2.34		596467		2.88		380032		3.69	
	UPPER LIMIT	320732		2.84		1192934		3.38		760064		4.19	
	LOWER LIMIT	80183		1.84		298234		2.38		190016		3.19	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	208342		2.34		802740		2.88		506100		3.69	
02	Method_Blank	163850		2.34		649917		2.88		394031		3.67	
03	LCS	168586		2.34		657320		2.88		398543		3.67	
04	MS(12450-004)	145246		2.34		590203		2.88		359944		3.67	
05	MSD(12450-004)	138962		2.34		539011		2.88		317848		3.67	
06	12361-001	145343		2.34		612129		2.88		391351		3.68	
07	12450-004	135671		2.34		566169		2.88		328309		3.68	
08	12450-006	125838		2.34		541416		2.88		309400		3.66	
09	12450-010	135801		2.34		544845		2.88		294703		3.66	
10	12542-002	127666		2.34		538454		2.88		352733		3.67	
11	12542-009	116467		2.34		522881		2.88		337128		3.66	
12	12542-010	138625		2.34		586185		2.88		356284		3.68	
13	12713-001	125696		2.34		542943		2.88		351105		3.68	
14	12713-002	116161		2.34		481578		2.88		299541		3.67	
15	12713-003	100820		2.34		448852		2.88		299928		3.67	
16	12646-003	120004		2.34		476805		2.88		307337		3.67	
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C8032.D

Date Analyzed: 12/17/2009

Instrument ID: MSDC

Time Analyzed: 10:14

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	648457		4.46		571126		6.20		447148		7.40	
	UPPER LIMIT	1296914		4.96		1142252		6.70		894296		7.90	
	LOWER LIMIT	324229		3.96		285563		5.70		223574		6.90	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	893474		4.45		898376		6.18		745658		7.39	
02	Method_Blank	573032		4.42		542638		6.13		567649		7.33	
03	LCS	582849		4.40		602395		6.11		547099		7.31	
04	MS(12450-004)	532800		4.40		644847		6.12		668115		7.37	
05	MSD(12450-004)	487070		4.42		604063		6.15		613281		7.39	
06	12361-001	596799		4.43		603931		6.15		631408		7.35	
07	12450-004	525349		4.42		648575		6.16		679817		7.41	
08	12450-006	497934		4.39		639435		6.12		681436		7.39	
09	12450-010	451318		4.38		596171		6.09		598760		7.32	
10	12542-002	506401		4.39		601035		6.09		610215		7.31	
11	12542-009	550396		4.37		617871		6.07		617343		7.31	
12	12542-010	544669		4.44		596683		6.18		594190		7.37	
13	12713-001	573515		4.42		618299		6.14		616295		7.34	
14	12713-002	471835		4.40		519535		6.10		526294		7.31	
15	12713-003	498137		4.40		540343		6.10		544419		7.31	
16	12646-003	500716		4.40		543693		6.09		534645		7.30	
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 15 16:24:18 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

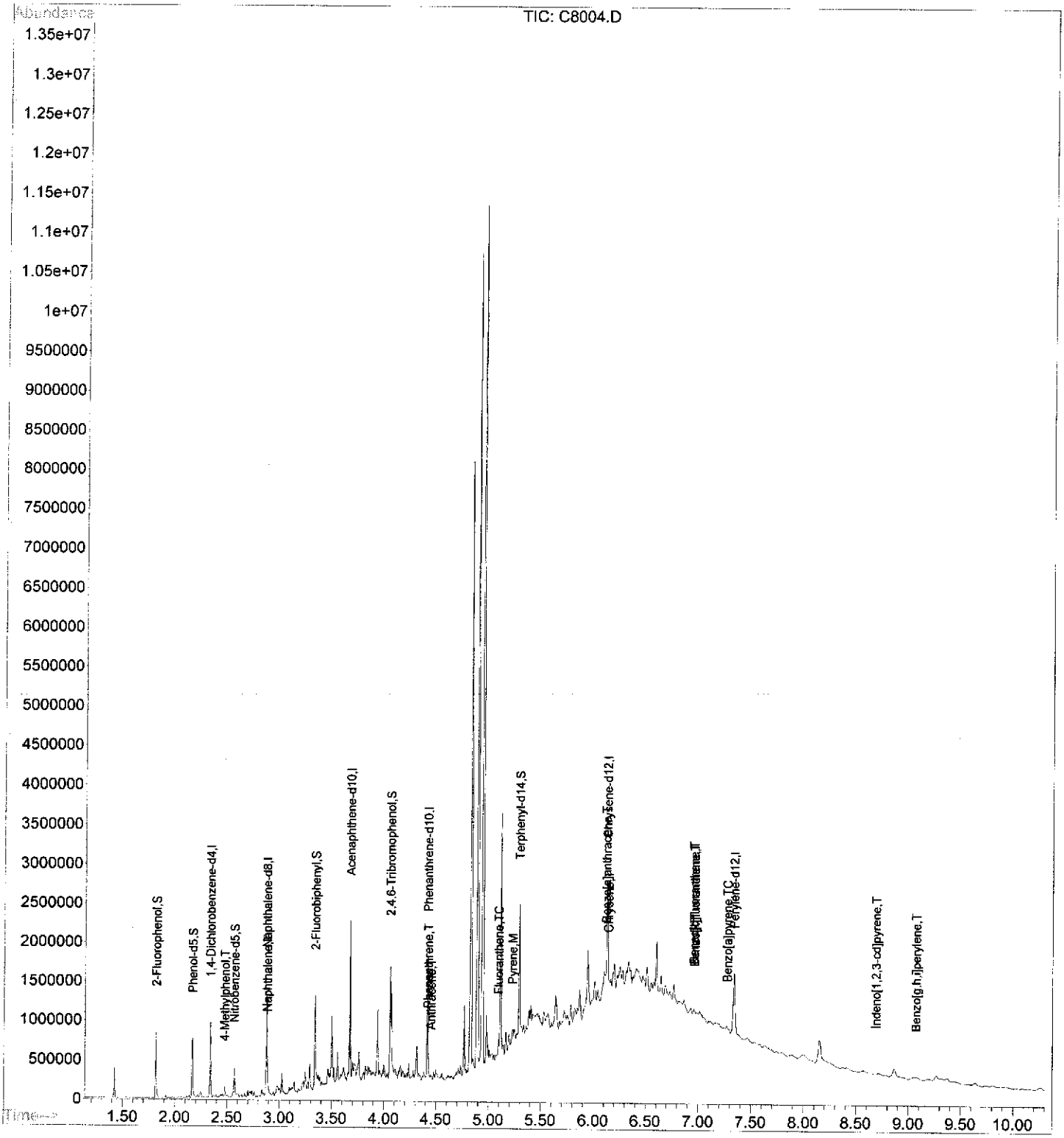
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.34	152	94887	40.00	UG		0.00
23) Naphthalene-d8	2.88	136	387359	40.00	UG		0.00
43) Acenaphthene-d10	3.67	164	250815	40.00	UG		0.00
66) Phenanthrene-d10	4.42	188	407617	40.00	UG		0.00
82) Chrysene-d12	6.13	240	411728	40.00	UG		0.01
92) Perylene-d12	7.34	264	425698	40.00	UG		0.02
System Monitoring Compounds							
4) 2-Fluorophenol	1.82	112	163764	58.54	UG		0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 58.54%				
6) Phenol-d5	2.17	99	246030	70.82	UG		0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 70.82%				
24) Nitrobenzene-d5	2.57	82	96035	28.85	UG		0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 57.70%				
47) 2-Fluorobiphenyl	3.34	172	307299	33.75	UG		0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 67.50%				
70) 2,4,6-Tribromophenol	4.06	330	175869	80.59	UG		0.00
Spiked Amount 100.000	Range 32 - 126		Recovery = 80.59%				
84) Terphenyl-d14	5.29	244	376631	34.15	UG		0.01
Spiked Amount 50.000	Range 32 - 135		Recovery = 68.30%				
Target Compounds							Qvalue
17) 4-Methylphenol	2.48	108	22899	7.99	UG		91
34) Naphthalene	2.89	128	10274	0.99	UG	#	63
75) Phenanthrene	4.43	178	31379	2.92	UG	#	94
76) Anthracene	4.45	178	7487	0.69	UG	#	94
79) Fluoranthene	5.09	202	36766m	3.35	UG		
83) Pyrene	5.23	202	40474	3.45	UG	#	82
88) Benzo[a]anthracene	6.11	228	22393	2.21	UG	#	82
89) Chrysene	6.15	228	29929	2.96	UG	#	82
94) Benzo[b]fluoranthene	6.96	252	11416m	1.00	UG		
95) Benzo[k]fluoranthene	6.97	252	8824m	0.82	UG		
96) Benzo[a]pyrene	7.28	252	8591	0.90	UG	#	57
97) Indeno[1,2,3-cd]pyrene	8.68	276	7258	0.60	UG	#	47
99) Benzo[g,h,i]perylene	9.08	276	6993	0.70	UG	#	52

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 15 16:24:18 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2109.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.424	52	55	57	rBV	374272	159815	1.73%	0.373%
2	1.819	127	129	136	rBV	848264	470215	5.10%	1.099%
3	2.166	191	194	200	rBV	763332	585875	6.35%	1.369%
4	2.337	223	226	230	rBV	951274	488772	5.30%	1.142%
5	2.567	268	269	272	rVB	337699	195177	2.12%	0.456%
6	2.877	324	327	333	rBV	1304973	852160	9.24%	1.991%
7	2.978	342	346	349	rBV4	125600	173825	1.88%	0.406%
8	3.026	353	355	358	rBV	270945	161787	1.75%	0.378%
9	3.245	394	396	400	rVB3	218192	180721	1.96%	0.422%
10	3.293	403	405	409	rVB	335600	231213	2.51%	0.540%
11	3.342	411	414	416	rBV	1172481	830757	9.00%	1.941%
12	3.464	434	437	440	rBV2	192044	210536	2.28%	0.492%
13	3.497	442	443	446	rVB2	782616	476826	5.17%	1.114%
14	3.555	451	454	457	rBV2	383027	253590	2.75%	0.593%
15	3.673	474	476	479	rVB	2001036	930602	10.09%	2.174%
16	3.700	479	481	482	rVV	204212	127225	1.38%	0.297%
17	3.716	482	484	487	rVV3	175834	187854	2.04%	0.439%
18	3.758	487	492	494	rVB2	332478	280158	3.04%	0.655%
19	3.822	502	504	507	rBV4	178209	182860	1.98%	0.427%
20	3.940	522	526	528	rBV	876156	535831	5.81%	1.252%
21	4.057	545	548	550	rBV	1504686	1164491	12.62%	2.721%
22	4.073	550	551	553	rVB	1095537	392468	4.25%	0.917%
23	4.159	565	567	569	rVB3	146532	117888	1.28%	0.275%
24	4.314	593	596	598	rVB	387786	271374	2.94%	0.634%
25	4.415	612	615	620	rVB	1531377	945996	10.25%	2.210%
26	4.763	678	680	683	rBV	867267	559662	6.07%	1.308%
27	4.827	688	692	694	rBV	7728769	5692237	61.69%	13.300%
28	4.848	694	696	700	rVB3	134287	118228	1.28%	0.276%
29	4.891	700	704	707	rBV	10350894	7560217	81.94%	17.665%
30	4.939	709	713	716	rVB	10890704	9226631	100.00%	21.558%
31	4.976	718	720	724	rBV	632464	513091	5.56%	1.199%
32	5.094	740	742	743	rBV	205817	130611	1.42%	0.305%
33	5.115	743	746	748	rVV	3054335	1930435	20.92%	4.511%
34	5.163	752	755	758	rBV2	298208	237820	2.58%	0.556%
35	5.195	758	761	763	rBV3	209368	218934	2.37%	0.512%
36	5.227	764	767	769	rBV2	178431	182883	1.98%	0.427%
37	5.292	777	779	782	rBV	1679065	1043352	11.31%	2.438%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS2109.M
Title : BNA CALIBRATION METHOD

38	5.388	794	797	798	rBV	254691	230282	2.50%	0.538%
39	5.404	798	800	801	rVB2	207499	135386	1.47%	0.316%
40	5.639	842	844	849	rVB3	435684	463756	5.03%	1.084%
41	5.783	869	871	874	rBV2	267950	242337	2.63%	0.566%
42	5.868	884	887	890	rVB	395710	384579	4.17%	0.899%
43	5.943	898	901	905	rVB	703107	656353	7.11%	1.534%
44	6.130	933	936	939	rVB	1251229	889223	9.64%	2.078%
45	6.600	1021	1024	1029	rVB	636369	529393	5.74%	1.237%
46	7.338	1158	1162	1169	rVB	788315	1015275	11.00%	2.372%
47	8.150	1311	1314	1324	rVB2	263366	429591	4.66%	1.004%

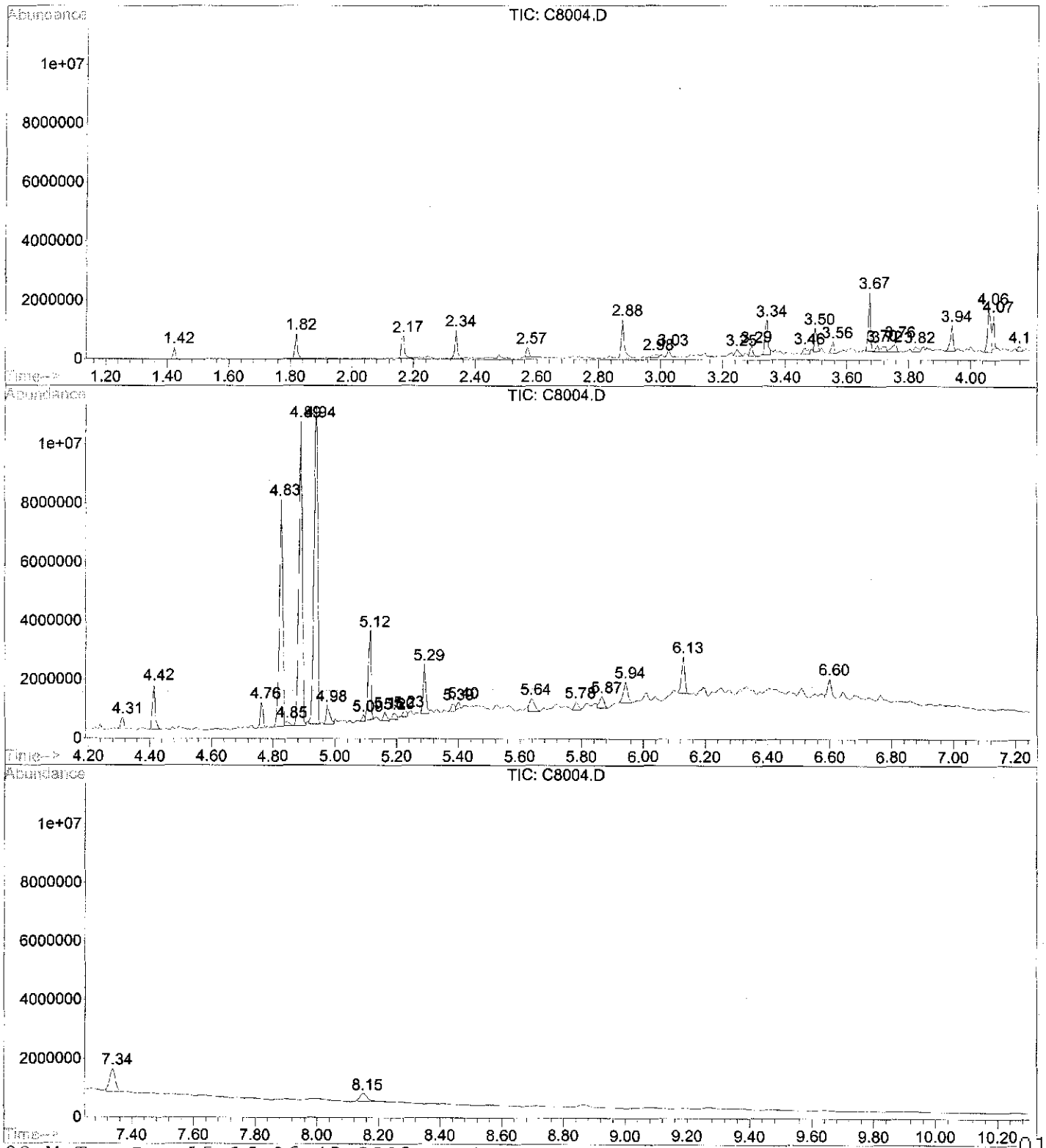
Sum of corrected areas: 42798292

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



00184

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
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Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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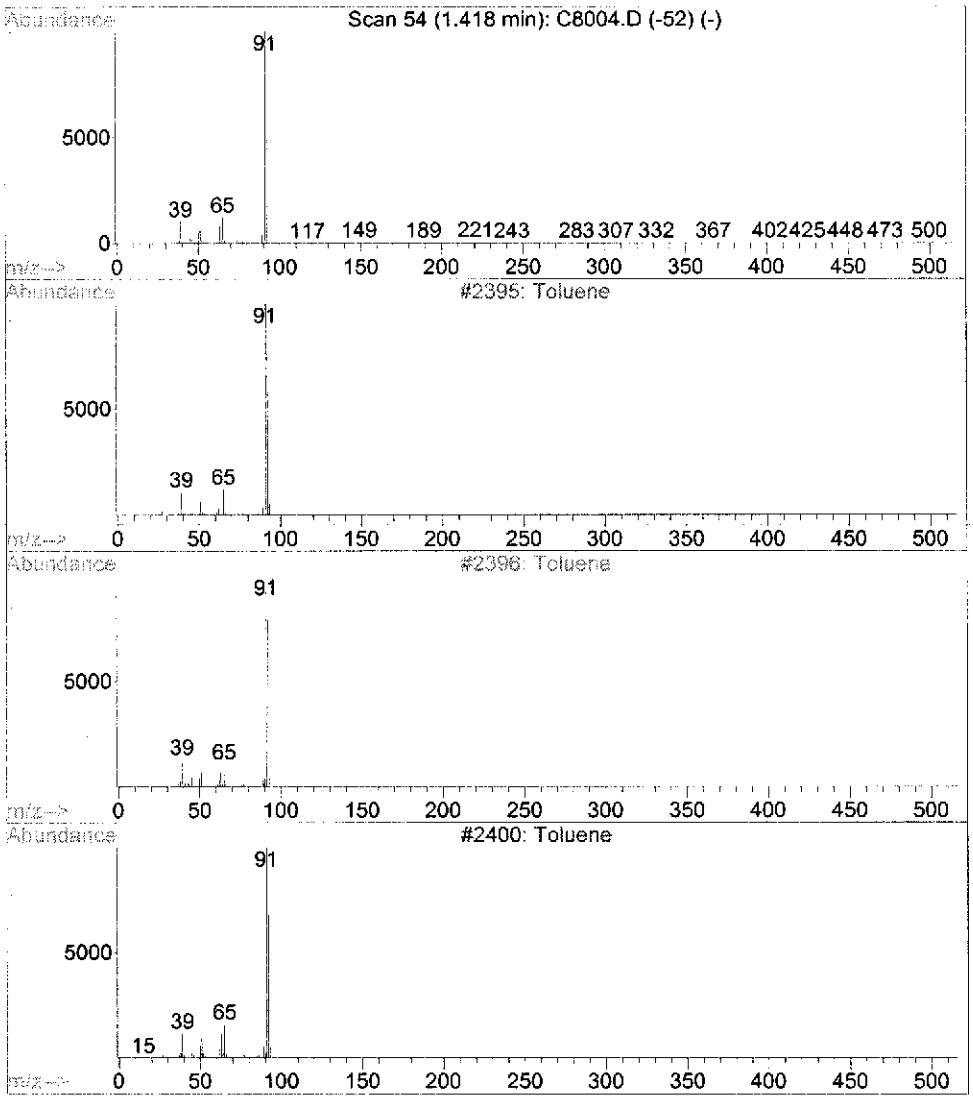
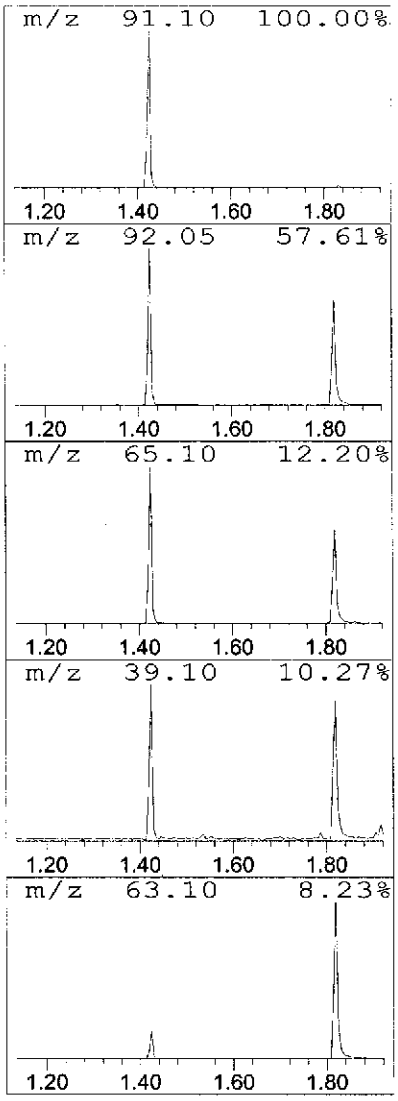
Peak Number 1 Substituted benzene Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.42	13.08 UG	159815	1,4-Dichlorobenzene-d4	2.34

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Toluene	92	C7H8	000108-88-3	94
2	Toluene	92	C7H8	000108-88-3	91
3	Toluene	92	C7H8	000108-88-3	91
4	Toluene	92	C7H8	000108-88-3	90
5	1,3,5-Cycloheptatriene	92	C7H8	000544-25-2	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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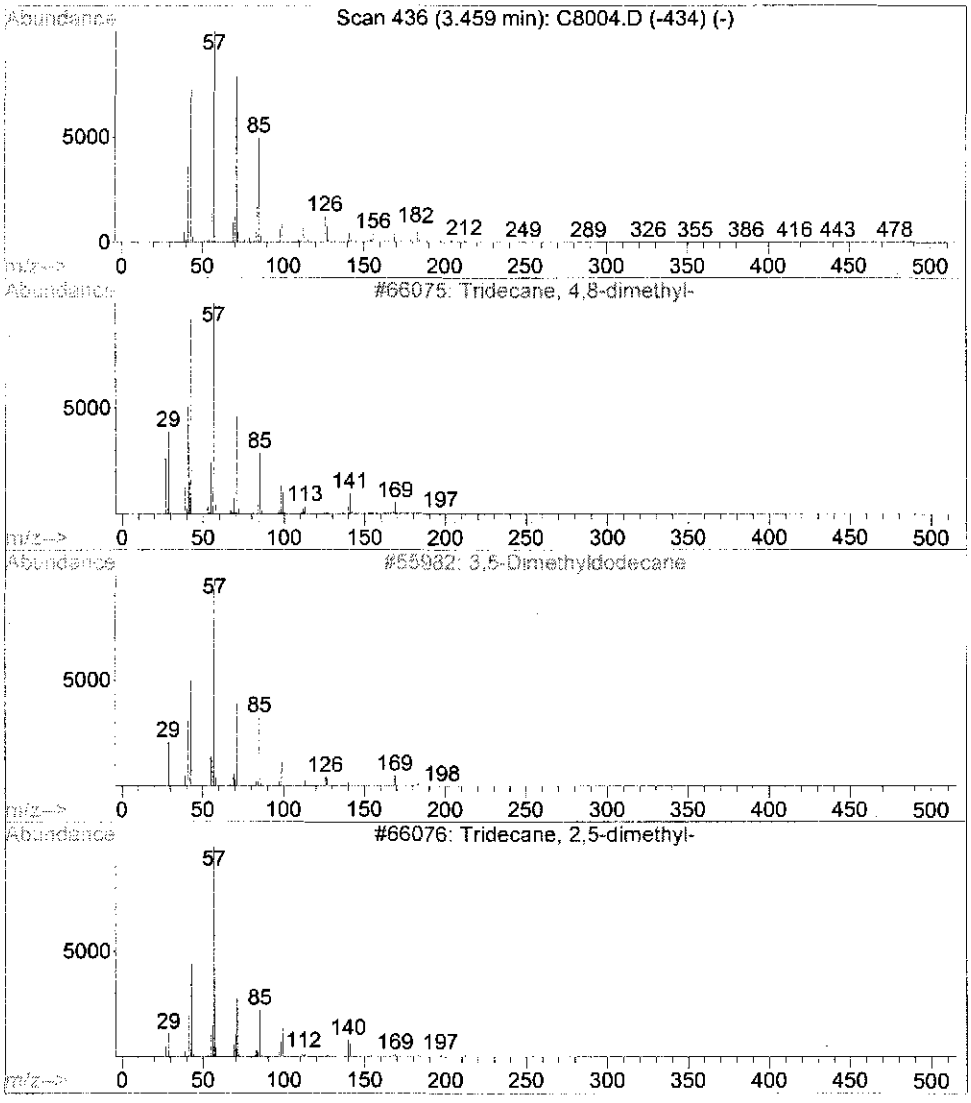
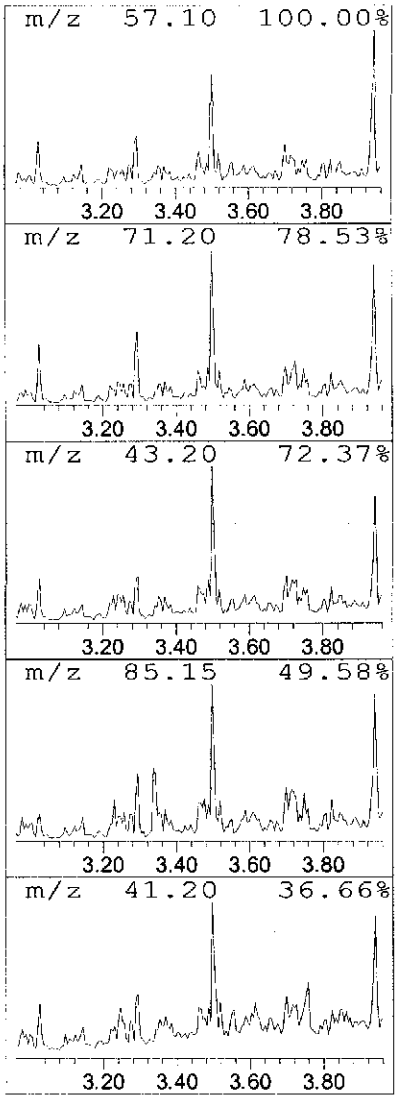
Peak Number 2 Unknown alkane Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.46	9.05 UG	210536	Acenaphthene-d10	3.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane, 4,8-dimethyl-	212	C15H32	055030-62-1	68
2	3,5-Dimethyldodecane	198	C14H30	107770-99-0	64
3	Tridecane, 2,5-dimethyl-	212	C15H32	056292-66-1	58
4	Tetradecane	198	C14H30	000629-59-4	53
5	Silane, trichlorooctadecyl-	386	C18H37Cl3Si	000112-04-9	53





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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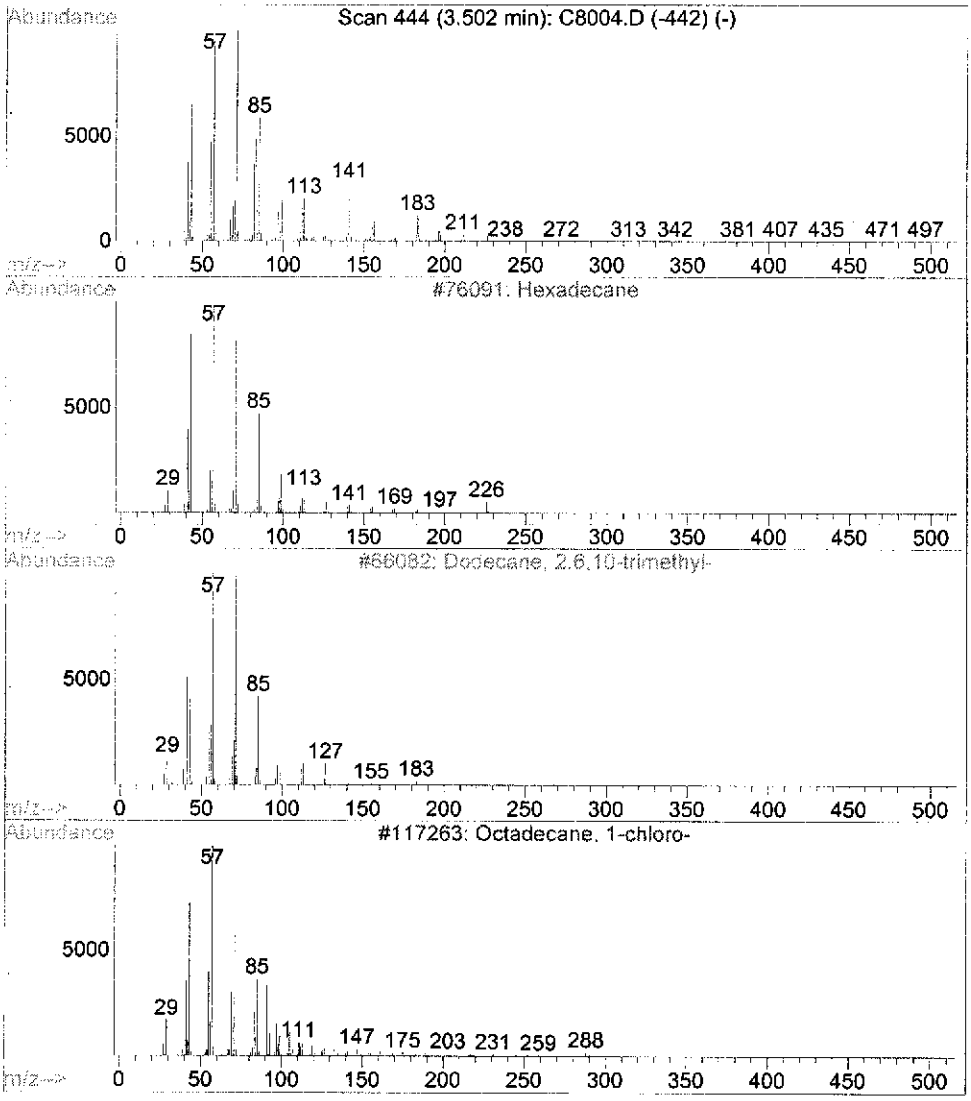
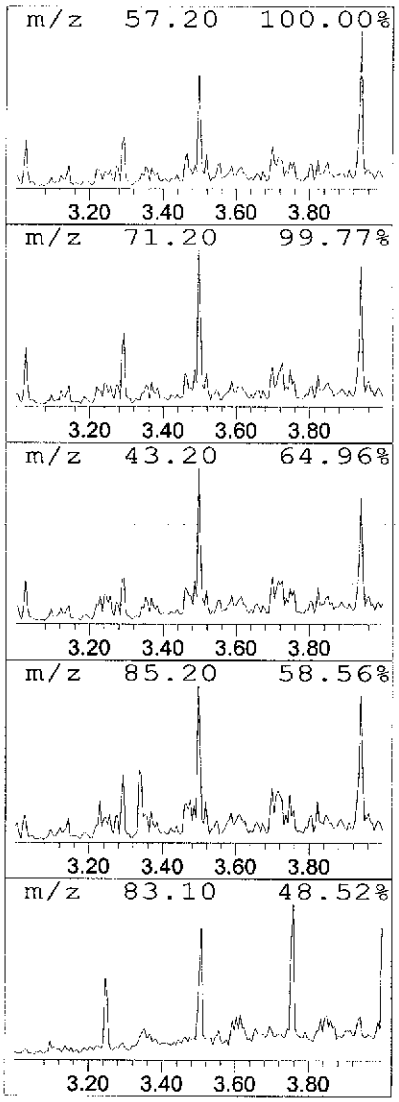
Peak Number 3 Unknown alkane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.50	20.50 UG	476826	Acenaphthene-d10	3.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane	226	C16H34	000544-76-3	87
2	Dodecane, 2,6,10-trimethyl-	212	C15H32	003891-98-3	86
3	Octadecane, 1-chloro-	288	C18H37Cl	003386-33-2	86
4	Hexadecane, 7,9-dimethyl-	254	C18H38	021164-95-4	83
5	Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44	054833-48-6	80





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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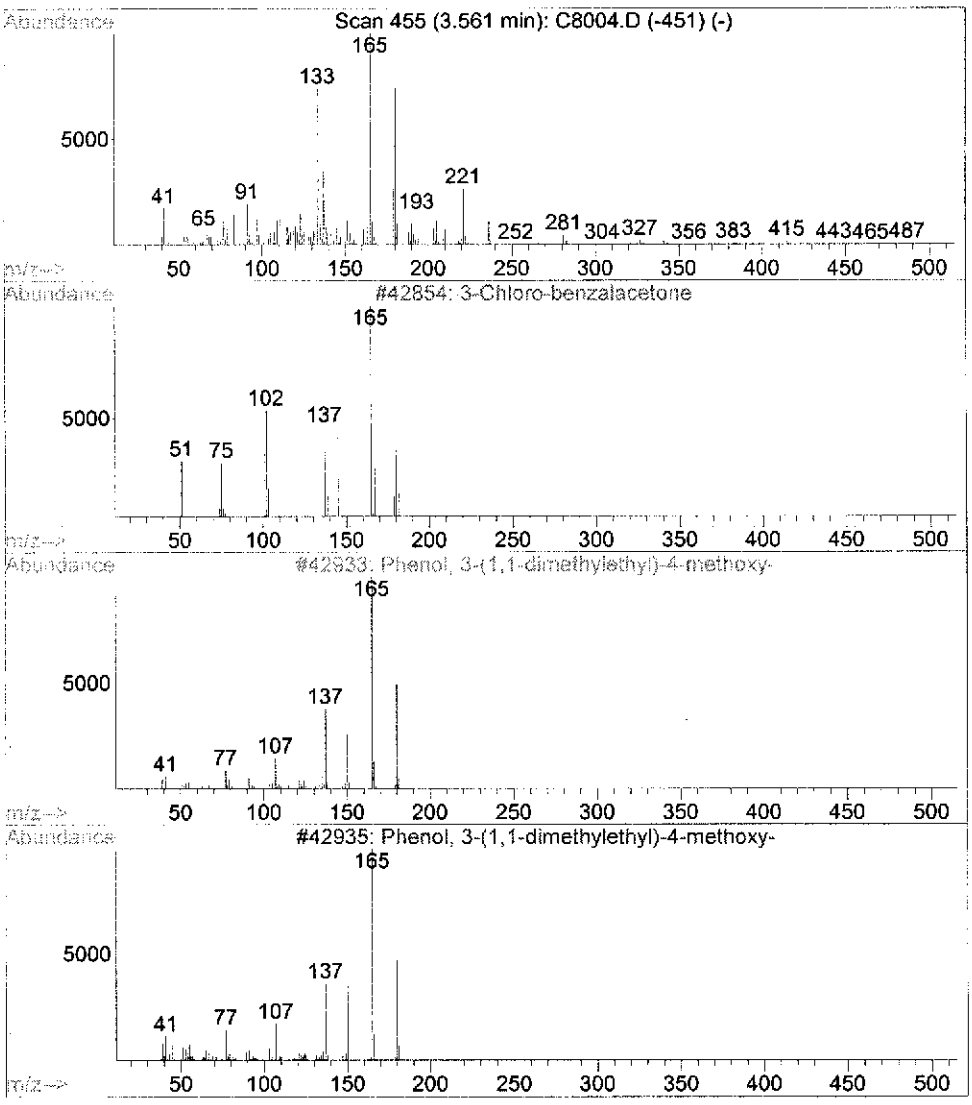
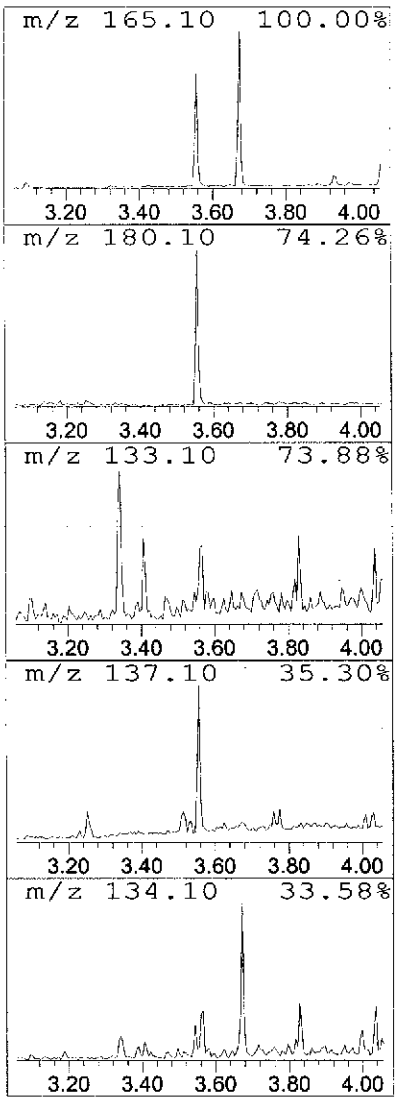
Peak Number 4 Unknown Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.56	10.90 UG	253590	Acenaphthene-d10	3.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Chloro-benzalacetone	180	C10H9ClO	1000146-90-5	70
2	Phenol, 3-(1,1-dimethylethyl)-4-...	180	C11H16O2	000088-32-4	70
3	Phenol, 3-(1,1-dimethylethyl)-4-...	180	C11H16O2	000088-32-4	62
4	3-tert-Butyl-4-hydroxyanisole	180	C11H16O2	000121-00-6	62
5	3-tert-Butyl-4-hydroxyanisole	180	C11H16O2	000121-00-6	62





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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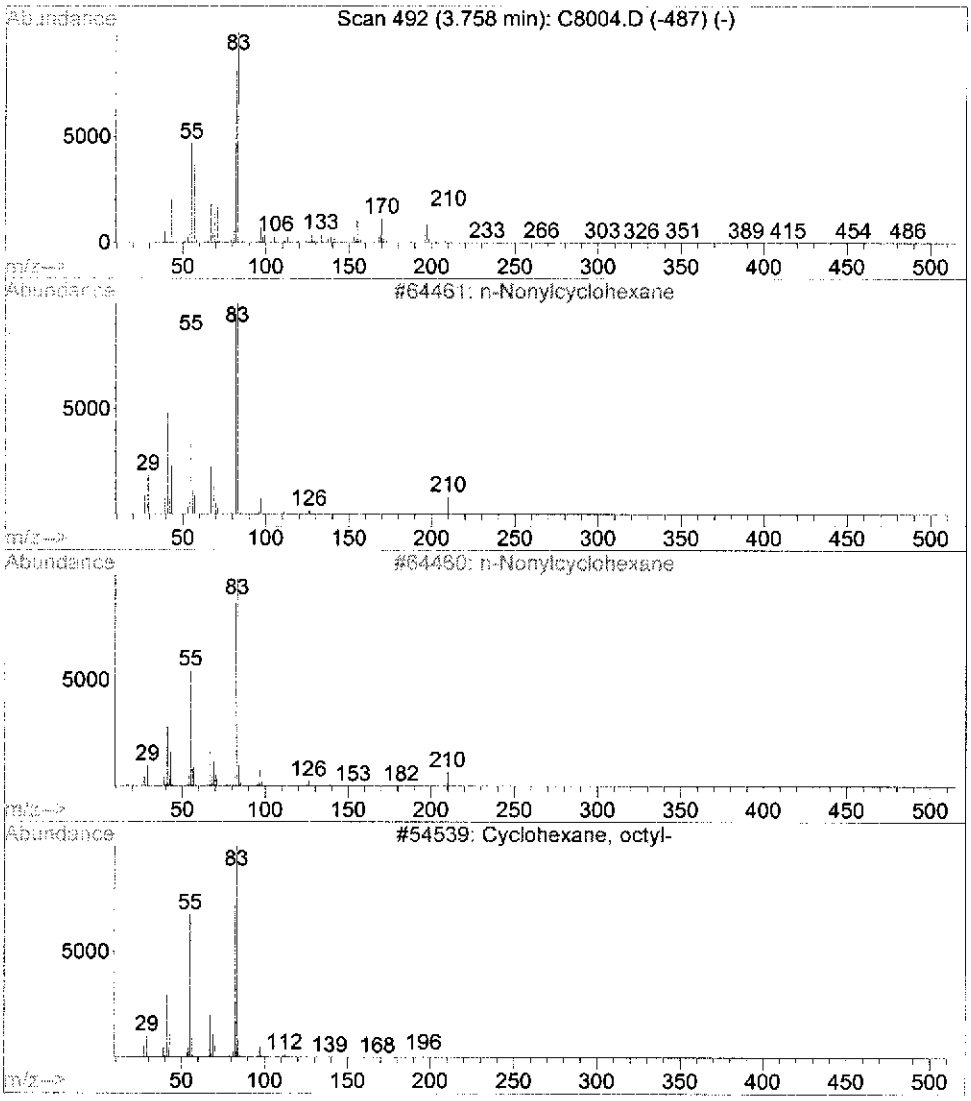
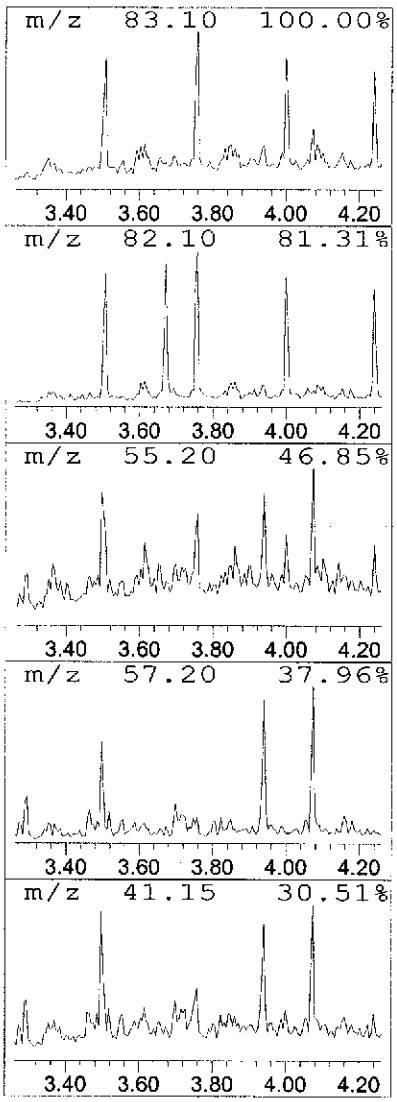
Peak Number 5 Unknown Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.76	12.04 UG	280158	Acenaphthene-d10	3.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Nonylcyclohexane	210	C15H30	002883-02-5	81
2	n-Nonylcyclohexane	210	C15H30	002883-02-5	81
3	Cyclohexane, octyl-	196	C14H28	001795-15-9	76
4	Cyclohexane, octyl-	196	C14H28	001795-15-9	74
5	Cyclohexane, octyl-	196	C14H28	001795-15-9	68





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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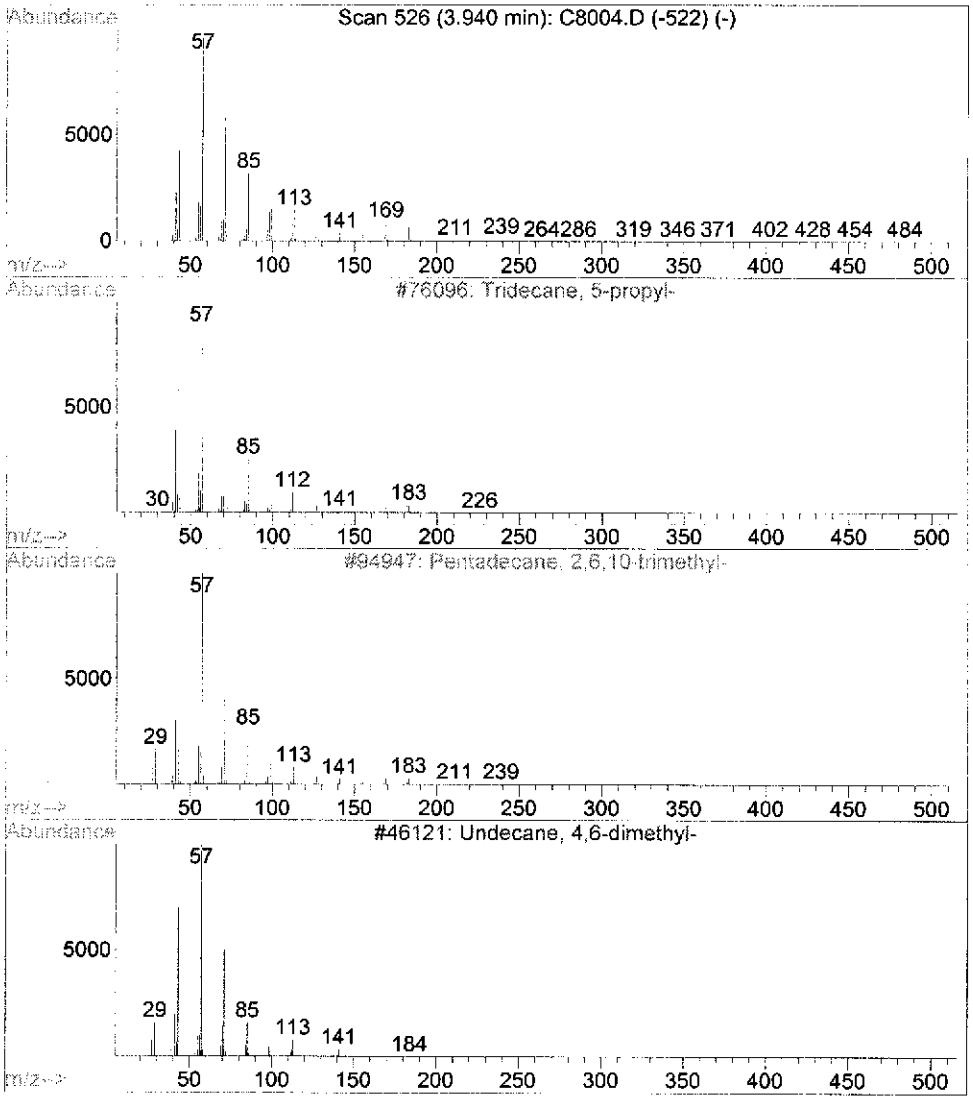
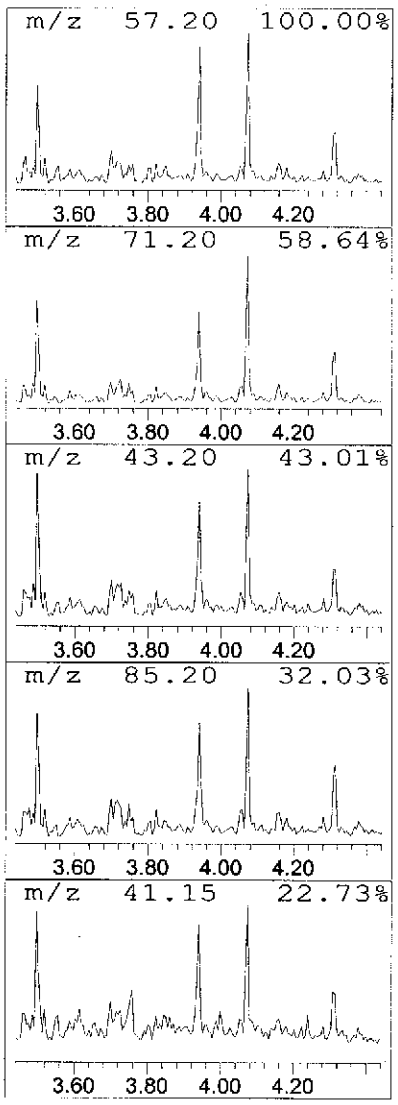
Peak Number 6 Unknown alkane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.94	23.03 UG	535831	Acenaphthene-d10	3.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane, 5-propyl-	226	C16H34	055045-11-9	87
2	Pentadecane, 2,6,10-trimethyl-	254	C18H38	003892-00-0	86
3	Undecane, 4,6-dimethyl-	184	C13H28	017312-82-2	81
4	Decane, 3,6-dimethyl-	170	C12H26	017312-53-7	76
5	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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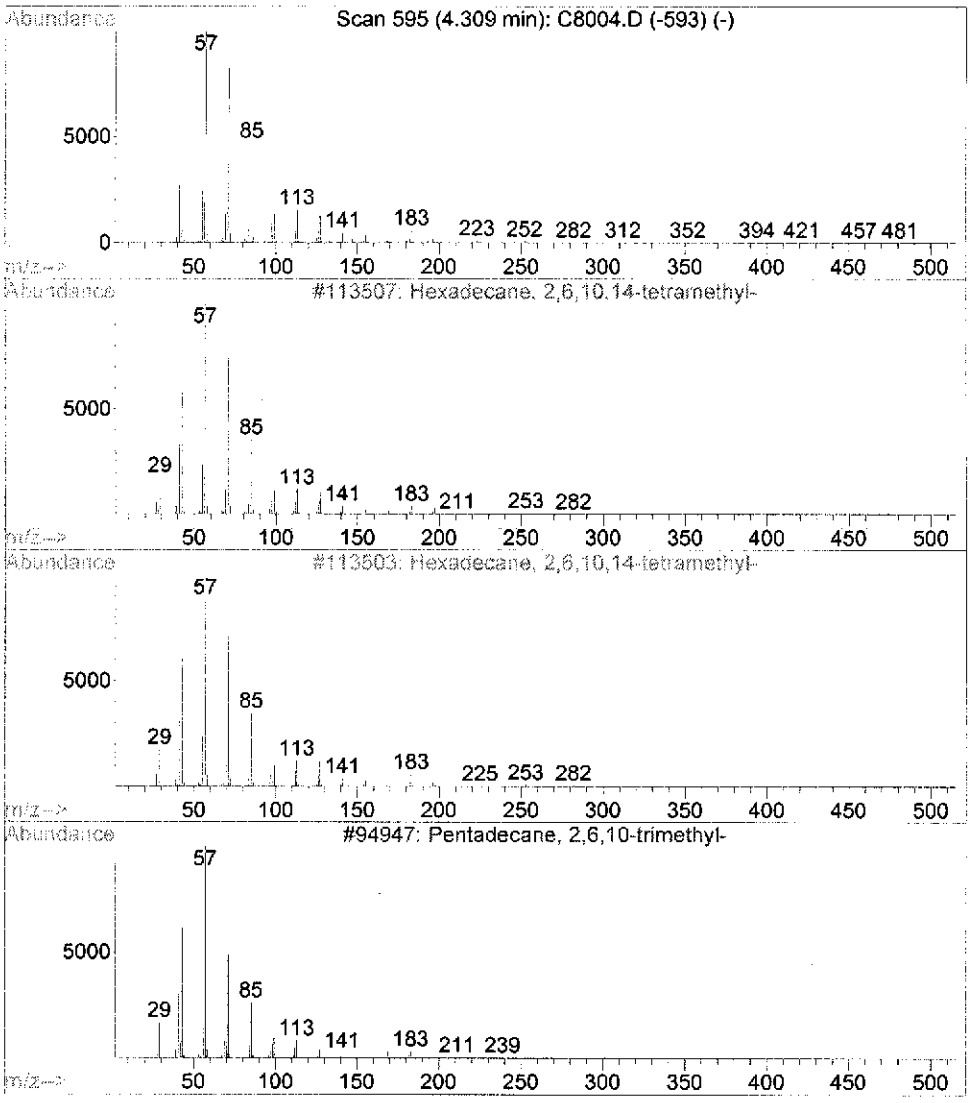
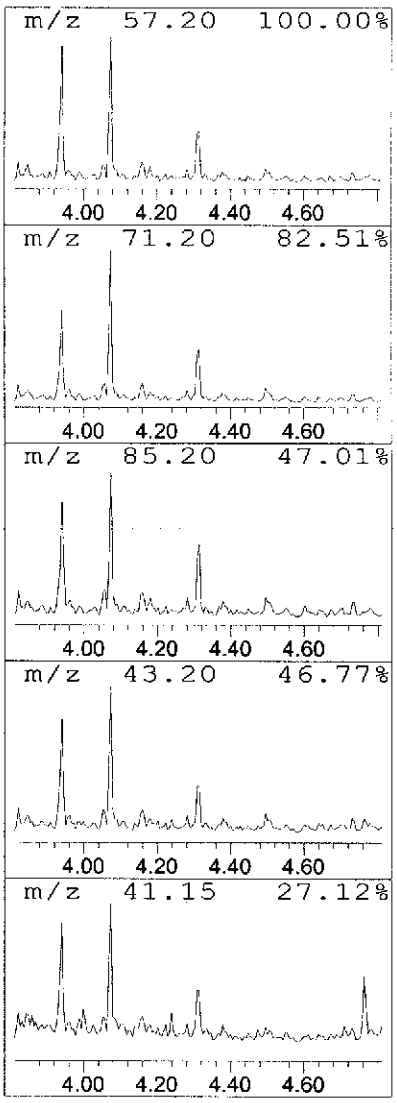
Peak Number 7 Unknown alkane Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.31	11.47 UG	271374	Phenanthrene-d10	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	98
2	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	97
3	Pentadecane, 2,6,10-trimethyl-	254	C18H38	003892-00-0	83
4	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	80
5	Tetracosane	338	C24H50	000646-31-1	80





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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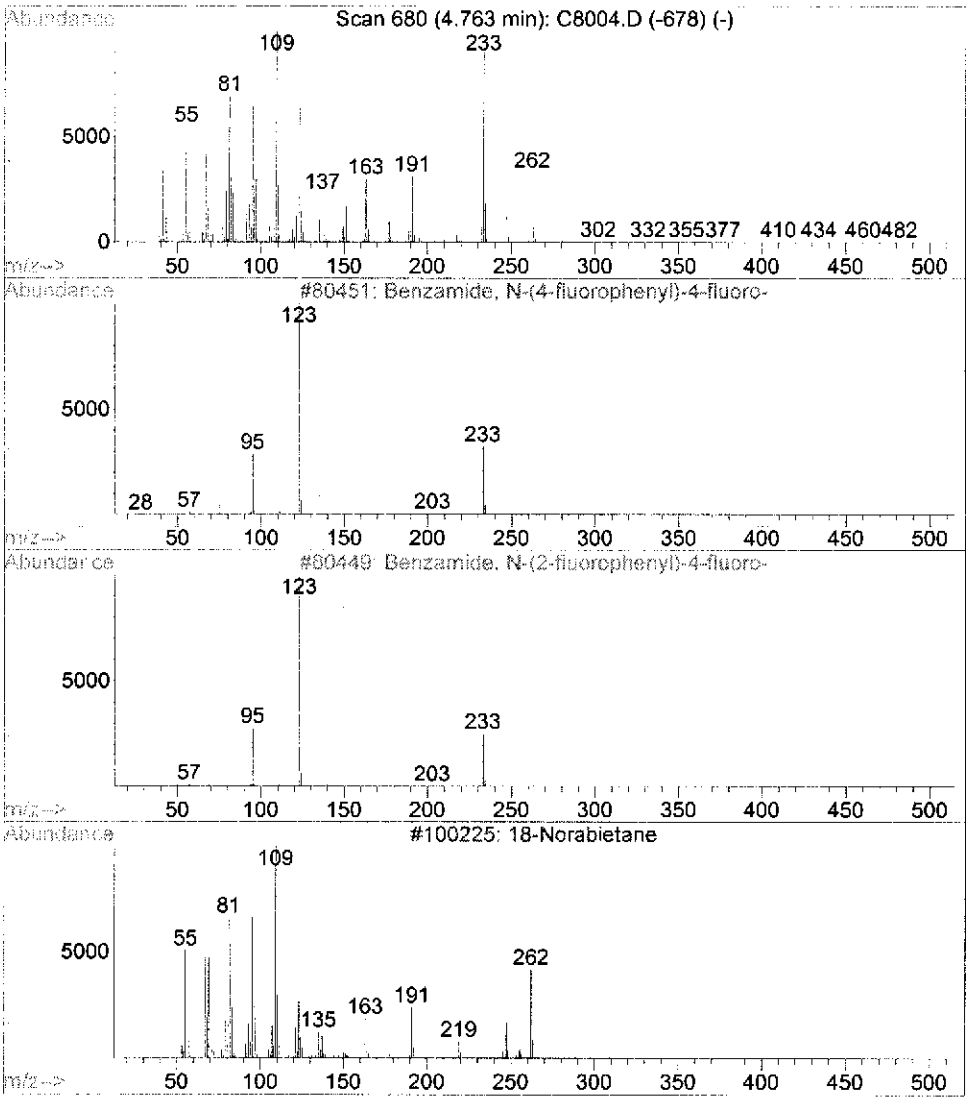
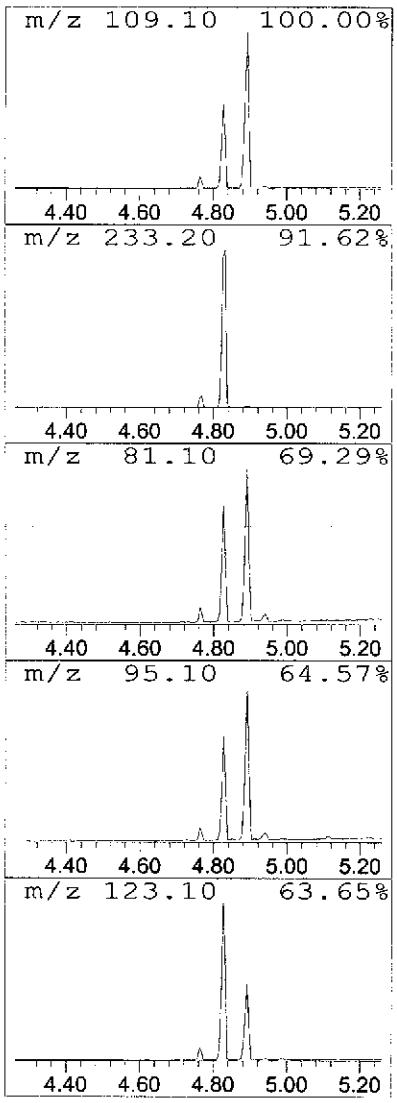
Peak Number 8 Substituted benzene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.76	23.66 UG	559662	Phenanthrene-d10	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzamide, N-(4-fluorophenyl)-4-...	233	C13H9F2NO	1000307-10-1	38
2	Benzamide, N-(2-fluorophenyl)-4-...	233	C13H9F2NO	1000308-30-2	38
3	18-Norabietane	262	C19H34	1000293-16-6	30
4	Bicyclo[2.2.1]heptan-2-one, 5-br...	230	C10H15BrO	010293-00-2	22
5	Ethanone, 1-(1,4-dimethyl-3-cycl...	152	C10H16O	043219-68-7	20





Library Search Compound Report

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Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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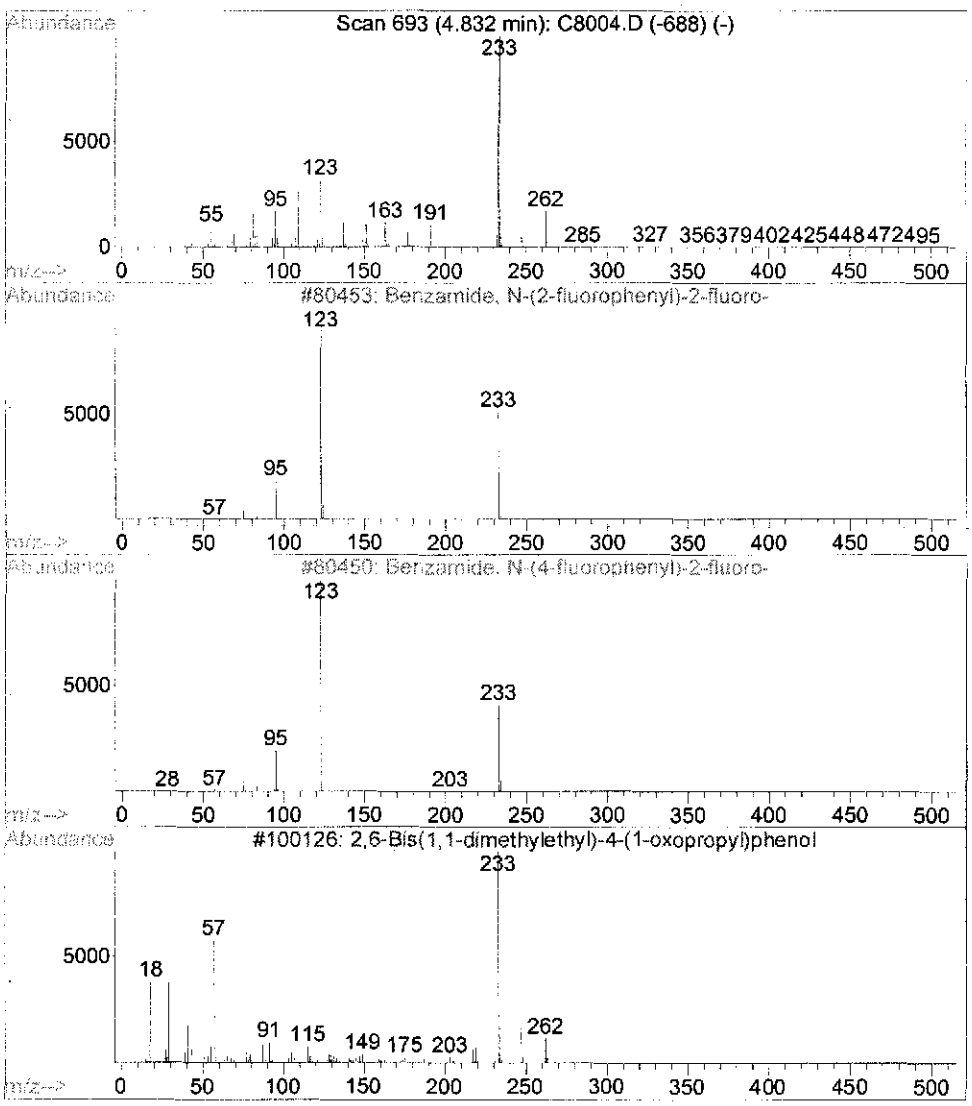
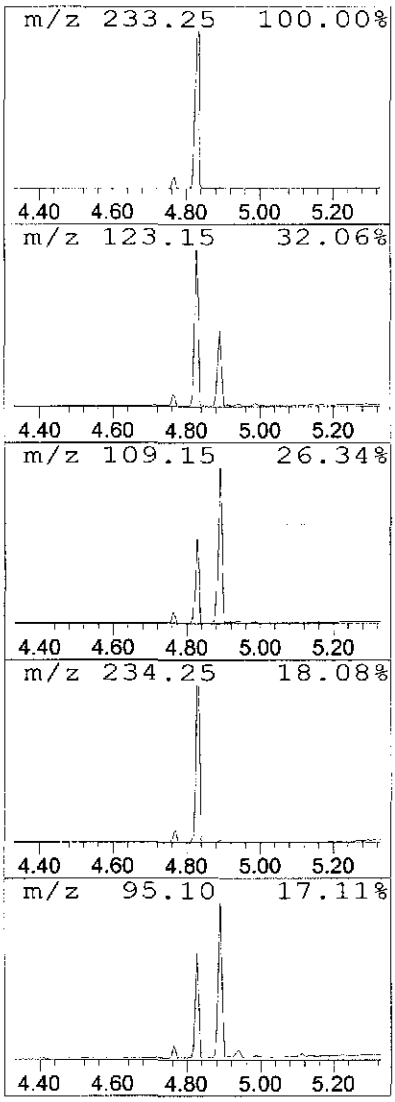
Peak Number 9 Substituted benzene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.83	240.69 UG	5692240	Phenanthrene-d10	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzamide, N-(2-fluorophenyl)-2-...	233	C13H9F2NO	1000308-09-1	52
2	Benzamide, N-(4-fluorophenyl)-2-...	233	C13H9F2NO	1000307-07-9	50
3	2,6-Bis(1,1-dimethylethyl)-4-(1-...	262	C17H26O2	014035-34-8	38
4	2,6-Bis(1,1-dimethylethyl)-4-(1-...	262	C17H26O2	014035-34-8	38
5	Furan-2-carboxaldehyde, 5-(3-nit...	233	C11H7NO5	073420-62-9	27





Library Search Compound Report

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Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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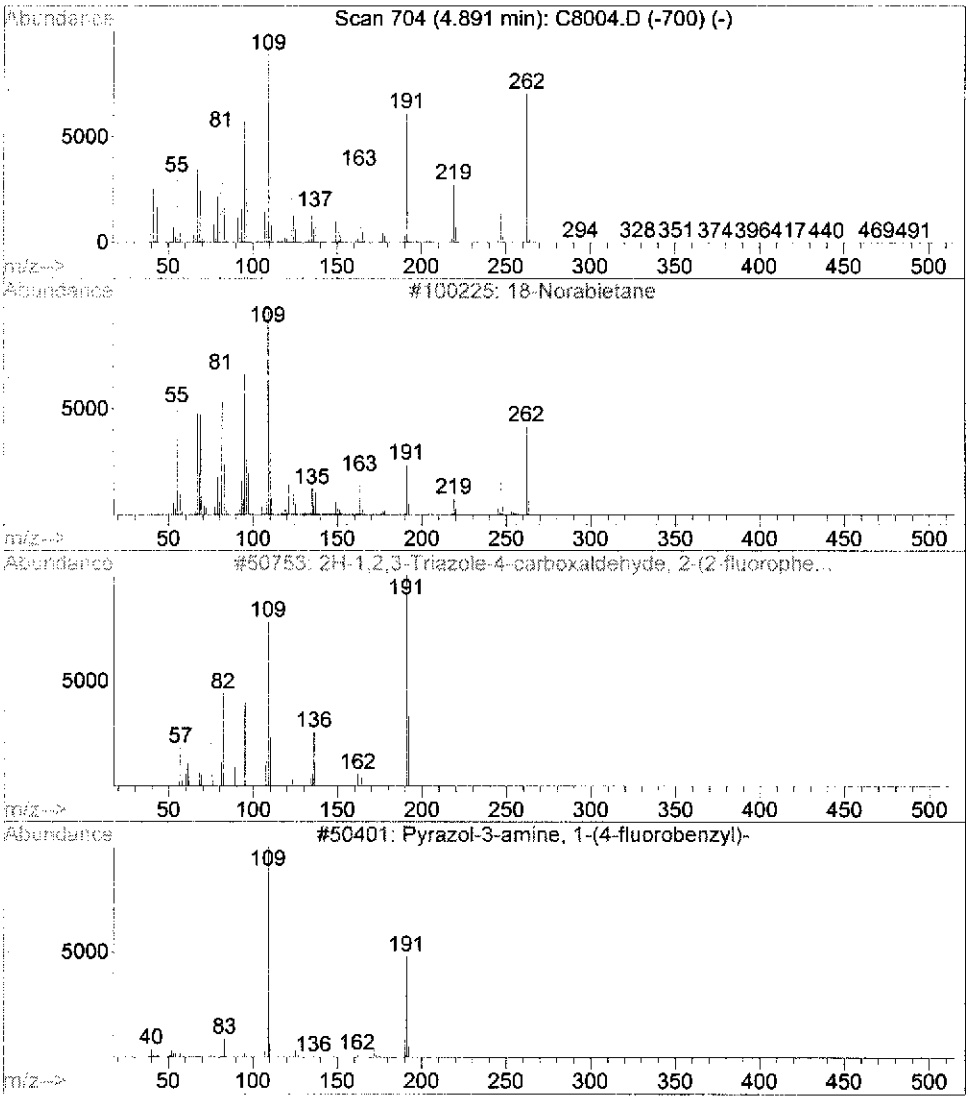
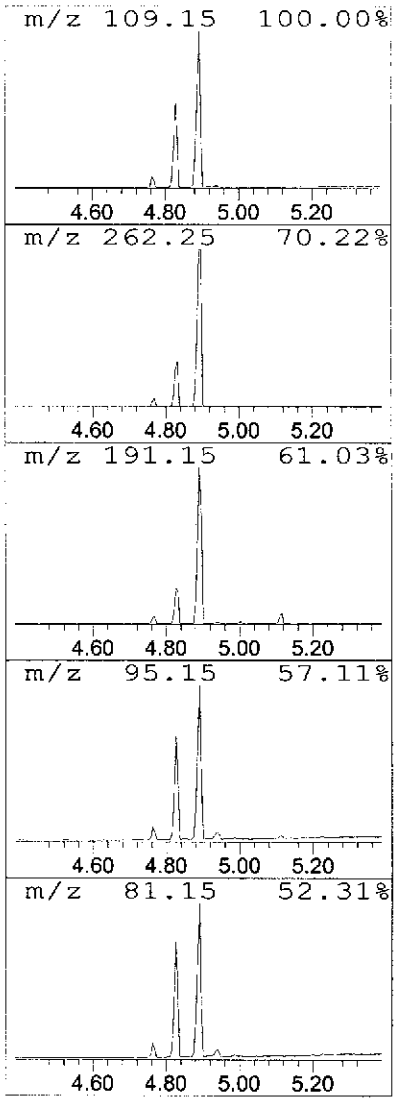
Peak Number 10 Unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.89	319.67 UG	7560220	Phenanthrene-d10	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	18-Norabietane	262	C19H34	1000293-16-6	90
2	2H-1,2,3-Triazole-4-carboxaldehy...	191	C9H6FN3O	051306-43-5	38
3	Pyrazol-3-amine, 1-(4-fluorobenz...	191	C10H10FN3	1000272-83-2	27
4	Pyrazol-4-amine, 1-(4-fluorobenz...	219	C12H14FN3	1000272-83-8	22
5	7H-Furo[3,2-g][1]benzopyran-7-on...	262	C13H10O6	027230-32-6	22





Library Search Compound Report

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Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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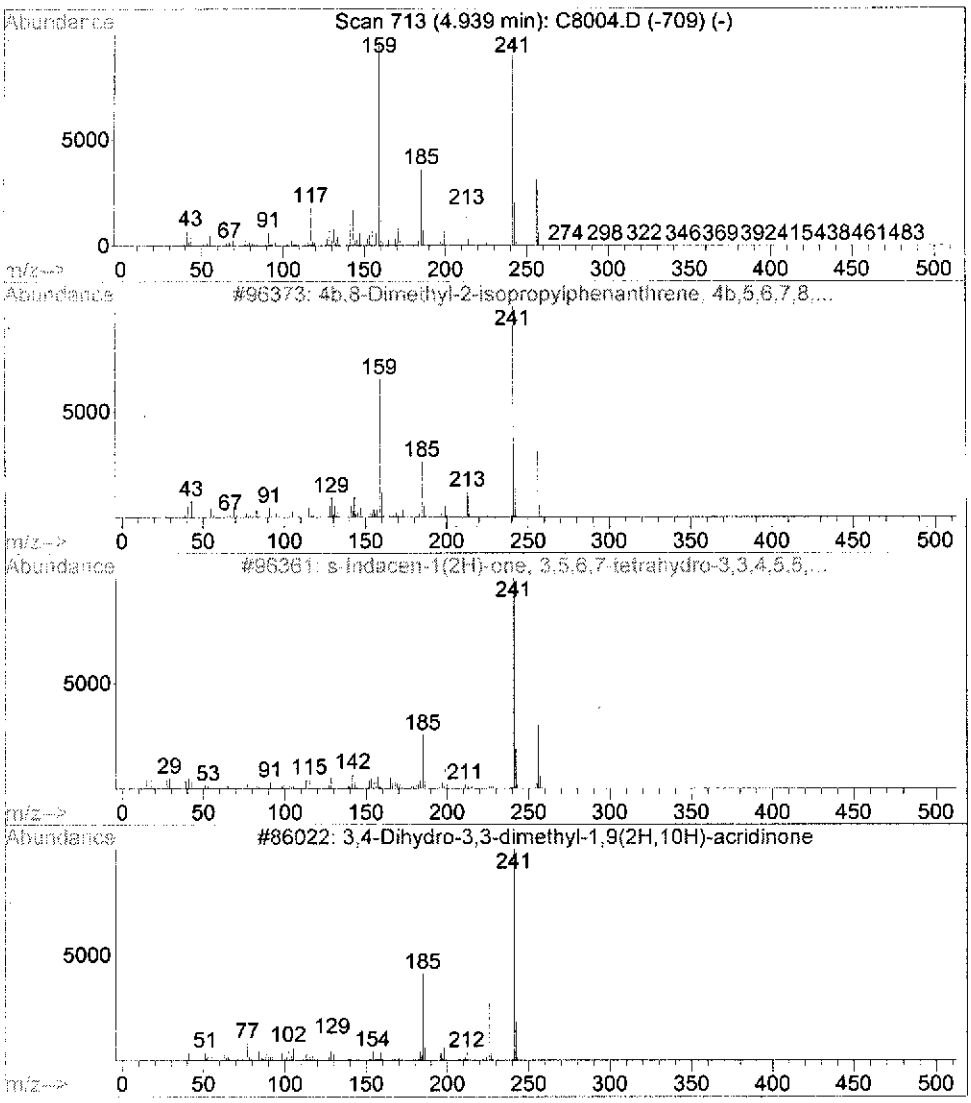
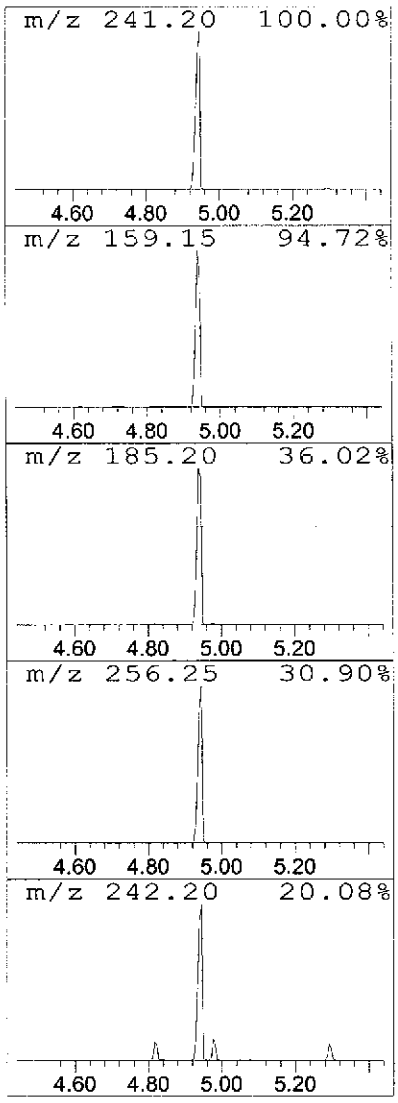
Peak Number 11 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.94	390.13 UG	9226630	Phenanthrene-d10	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4b,8-Dimethyl-2-isopropylphenant...	256	C19H28	1000197-14-1	99
2	s-Indacen-1(2H)-one, 3,5,6,7-tet...	256	C18H24O	038754-94-8	55
3	3,4-Dihydro-3,3-dimethyl-1,9(2H,...	241	C15H15NO2	1000212-95-2	43
4	1,1,3,3-Tetramethyl-1,3-disilaph...	256	C15H20Si2	032538-51-5	38
5	Ethanone, 1-[4-methoxy-3-(4-meth...	256	C16H16O3	116345-94-9	35





Library Search Compound Report

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Operator : EDM
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Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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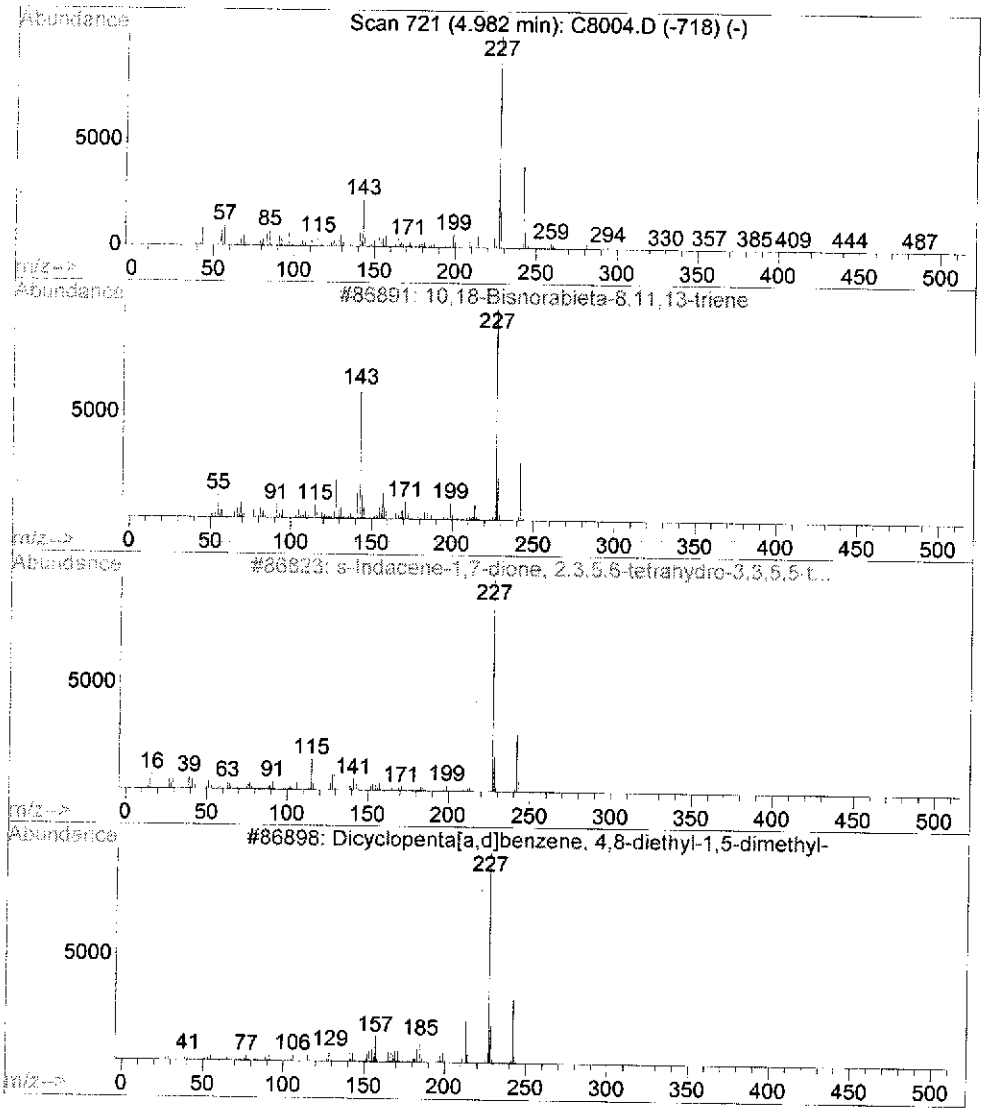
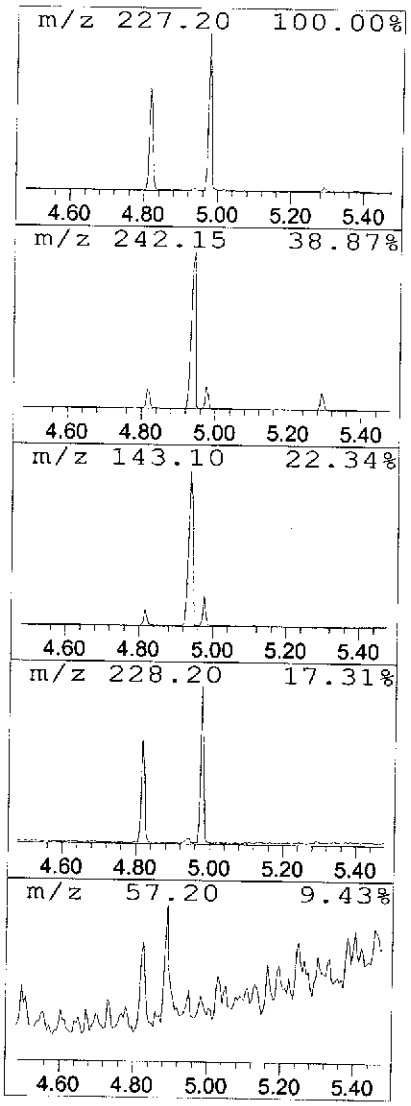
Peak Number 12 Unknown Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.98	21.70 UG	513091	Phenanthrene-d10	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	10,18-Bisnorabieta-8,11,13-triene	242	C18H26	032624-67-2	95
2	s-Indacene-1,7-dione, 2,3,5,6-te...	242	C16H18O2	055591-17-8	87
3	Dicyclopenta[a,d]benzene, 4,8-di...	242	C18H26	1000156-41-6	64
4	7-Diethylamino-2-oxo-2H-chromene...	242	C14H14N2O2	332411-59-3	58
5	2H-Naphtho[2,3-b]pyran-5,10-dion...	242	C15H14O3	004707-33-9	58





0196

Library Search Compound Report

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Data File : C8004.D
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Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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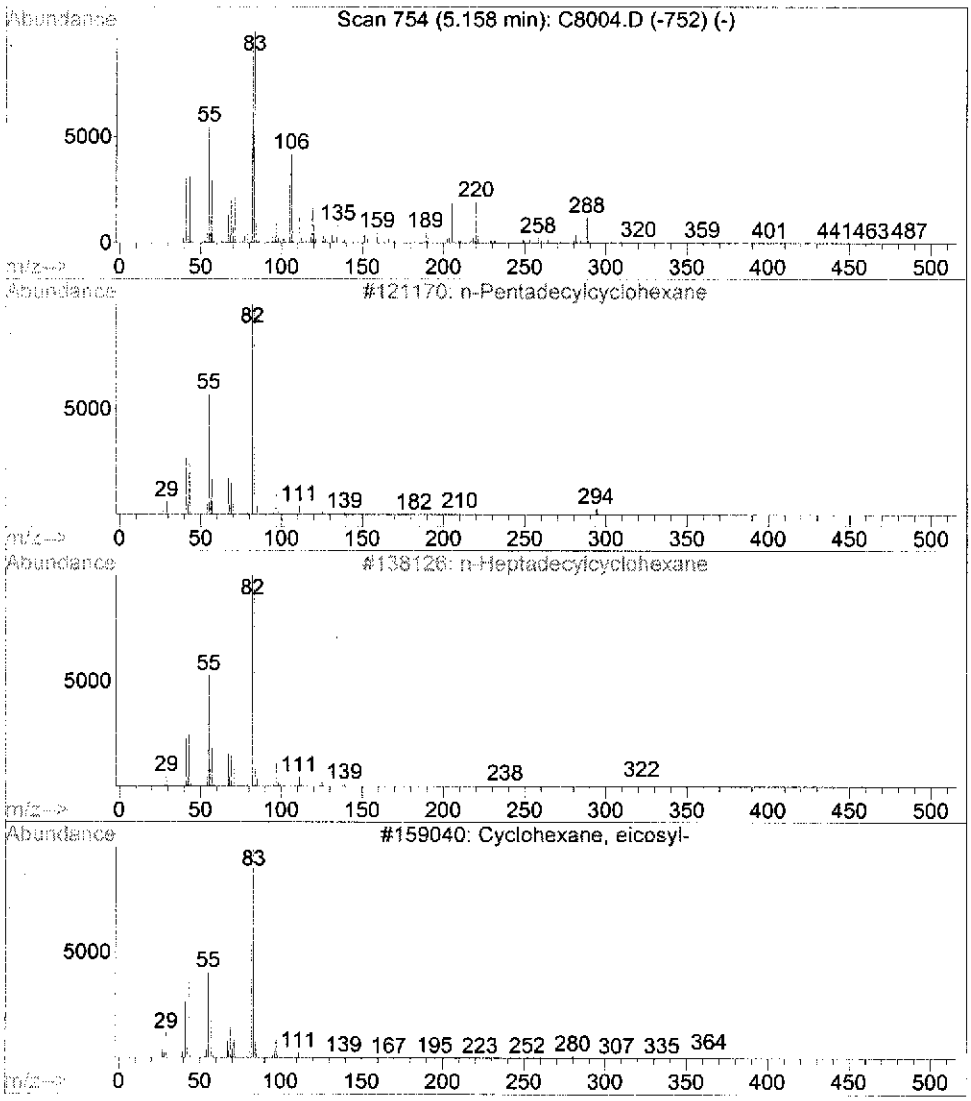
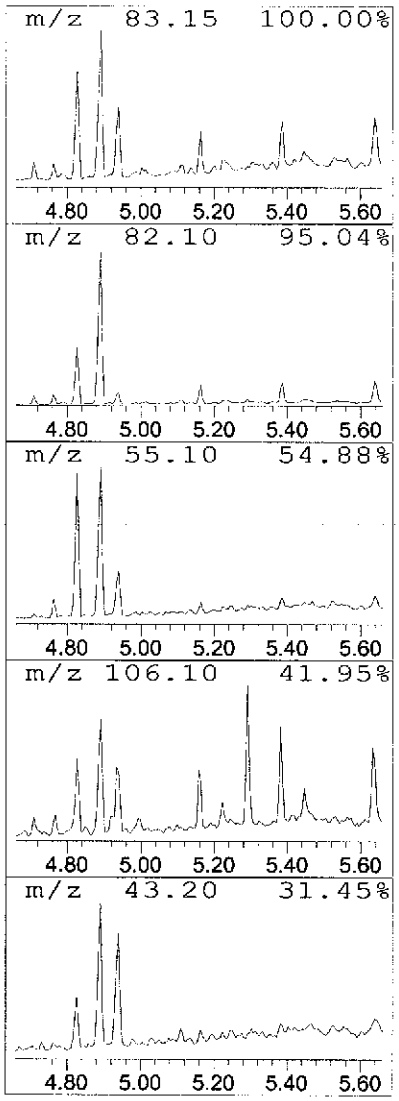
Peak Number 13 Unknown Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.16	10.06 UG	237820	Phenanthrene-d10	4.42

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Pentadecylcyclohexane	294	C21H42	006006-95-7	93
2	n-Heptadecylcyclohexane	322	C23H46	019781-73-8	72
3	Cyclohexane, eicosyl-	364	C26H52	004443-55-4	72
4	Dodecylcyclohexane	252	C18H36	001795-17-1	64
5	Heptylcyclohexane	182	C13H26	005617-41-4	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
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Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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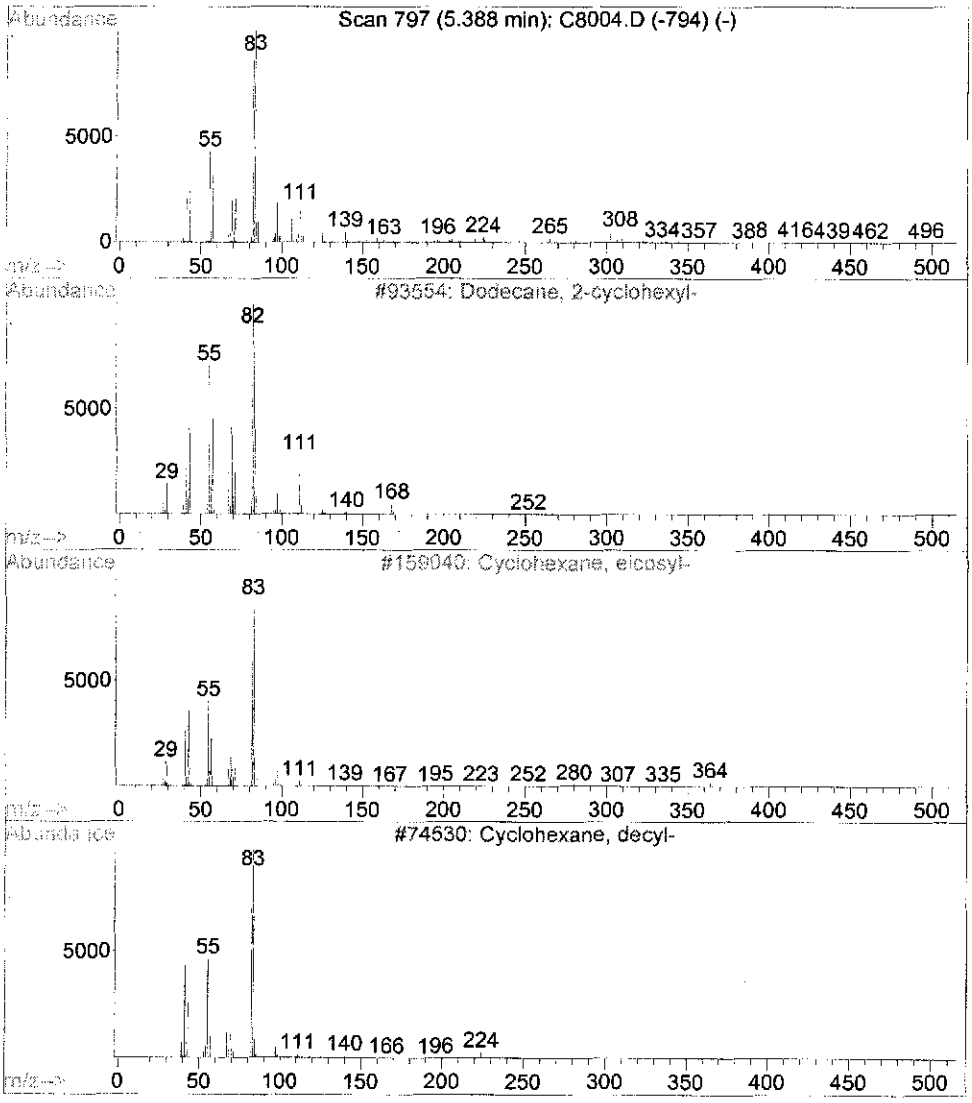
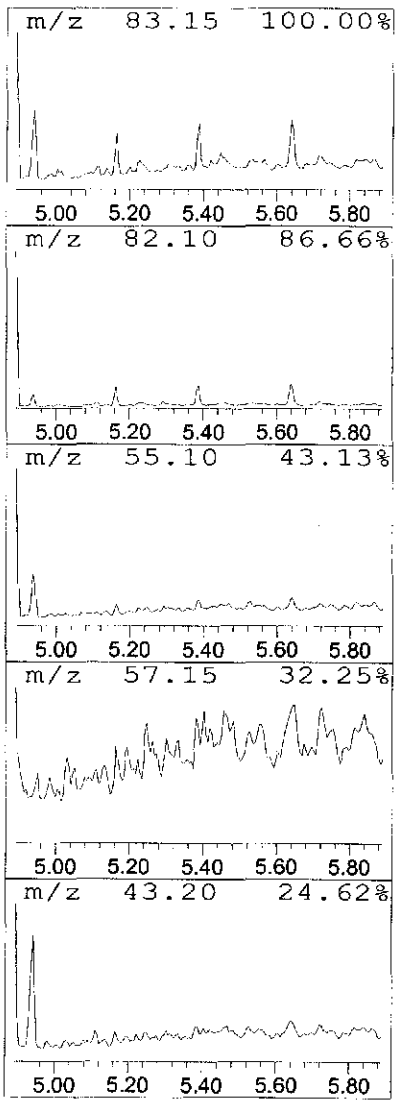
Peak Number 14 Unknown Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.39	10.36 UG	230282	Chrysene-d12	6.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane, 2-cyclohexyl-	252	C18H36	013151-82-1	80
2	Cyclohexane, eicosyl-	364	C26H52	004443-55-4	72
3	Cyclohexane, decyl-	224	C16H32	001795-16-0	68
4	n-Tridecylcyclohexane	266	C19H38	006006-33-3	68
5	n-Heptadecylcyclohexane	322	C23H46	019781-73-8	59





0198

Library Search Compound Report

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Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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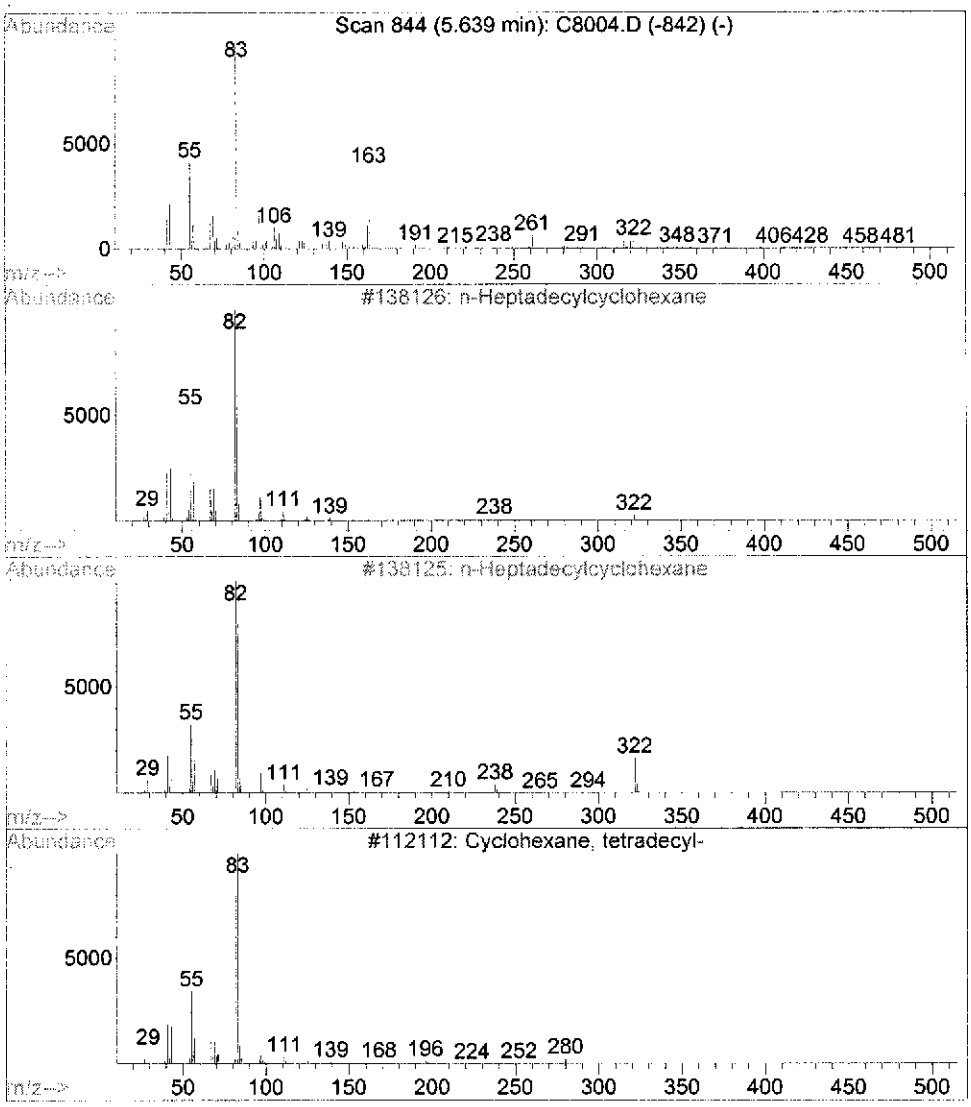
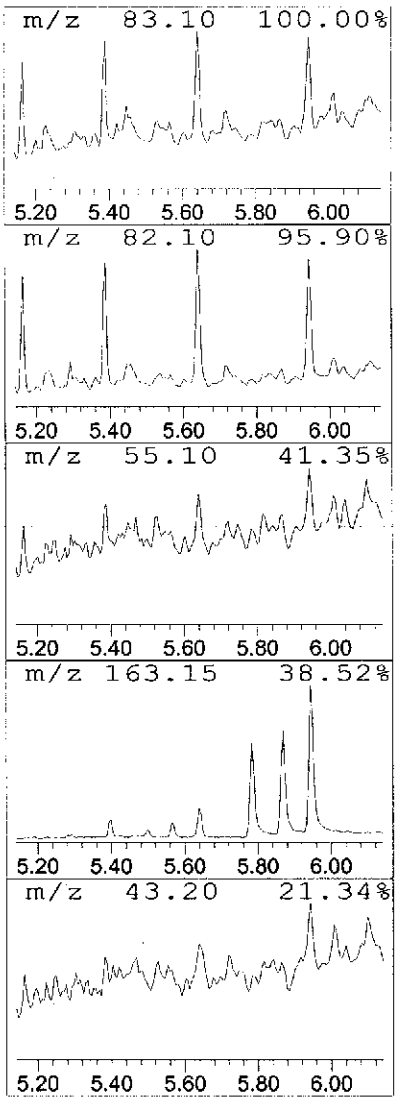
Peak Number 15 Unknown Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.64	20.86 UG	463756	Chrysene-d12	6.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Heptadecylcyclohexane	322	C23H46	019781-73-8	90
2	n-Heptadecylcyclohexane	322	C23H46	019781-73-8	70
3	Cyclohexane, tetradecyl-	280	C20H40	001795-18-2	64
4	Cyclohexane, 1,1'-(1,3-propanedi...	208	C15H28	003178-24-3	64
5	n-Tridecylcyclohexane	266	C19H38	006006-33-3	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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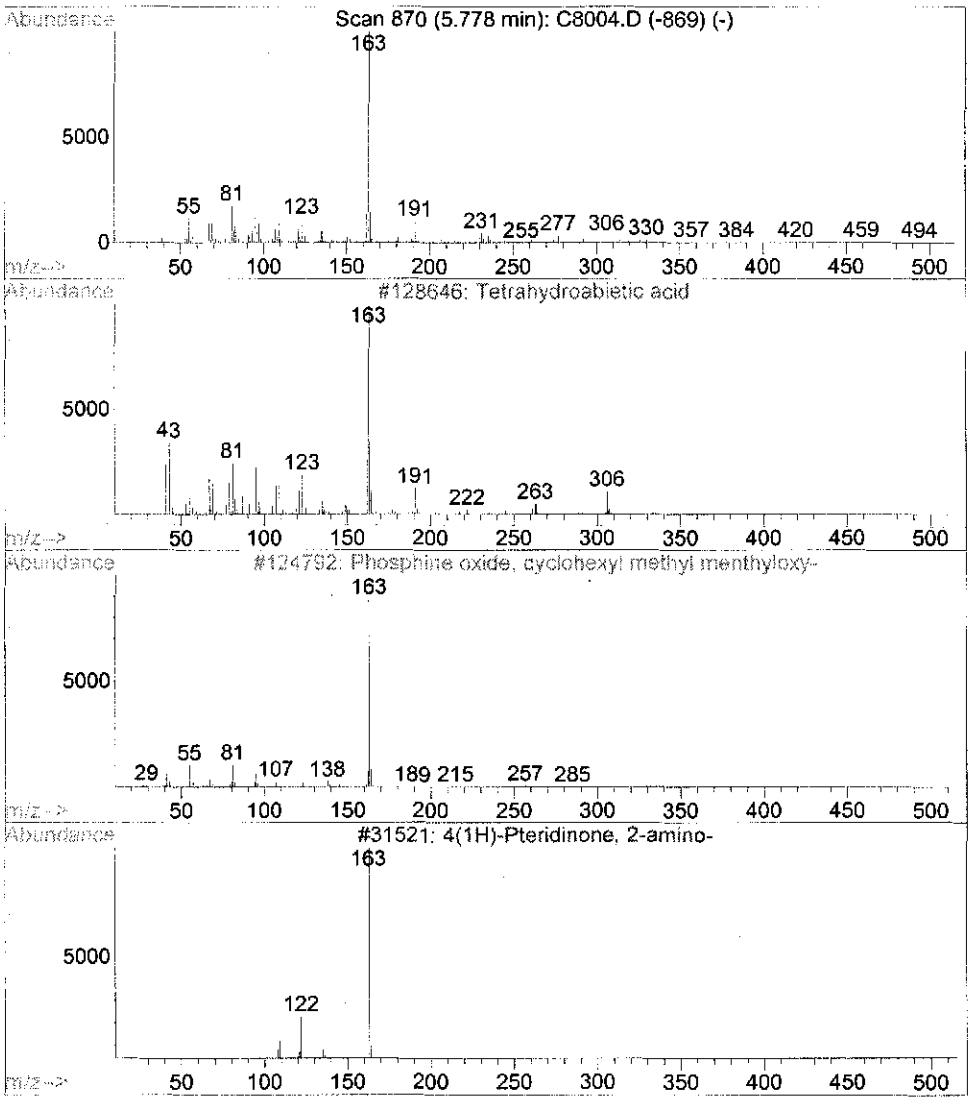
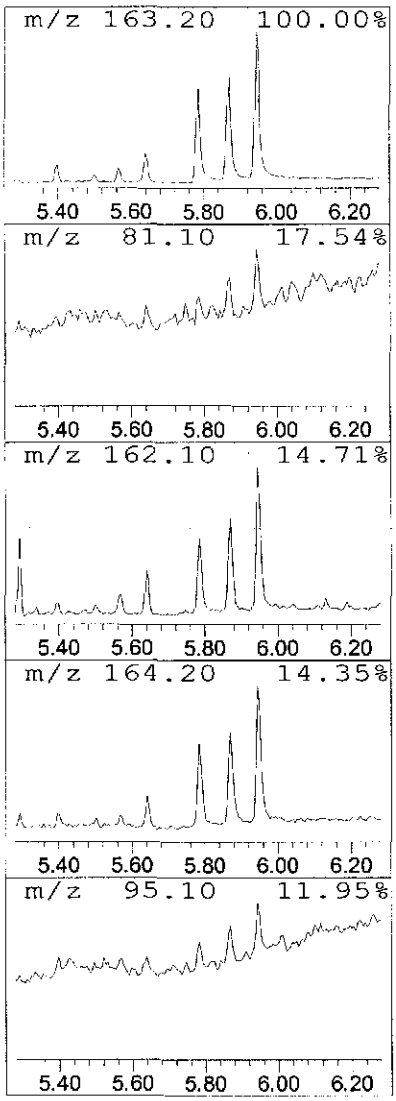
Peak Number 16 Unknown Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.78	10.90 UG	242337	Chrysene-d12	6.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetrahydroabietic acid	306	C20H34O2	1000251-96-9	64
2	Phosphine oxide, cyclohexyl meth...	300	C17H33O2P	1000195-73-8	58
3	4(1H)-Pteridinone, 2-amino-	163	C6H5N5O	002236-60-4	53
4	1,3-Dimethyl-5-n-propyl-adamantane	206	C15H26	019385-87-6	50
5	Benzonitrile, 2,4-dimethoxy-	163	C9H9NO2	004107-65-7	50





Library Search Compound Report

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Operator : EDM
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Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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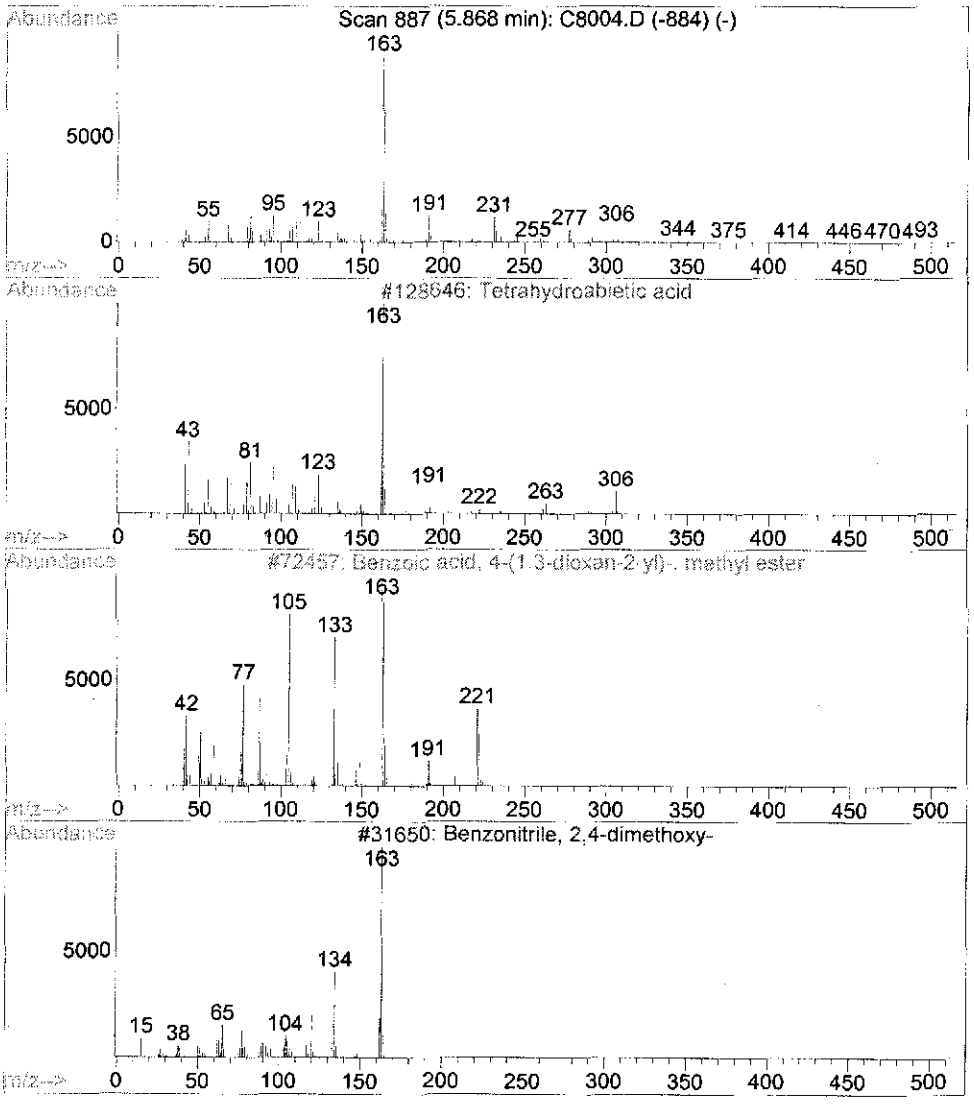
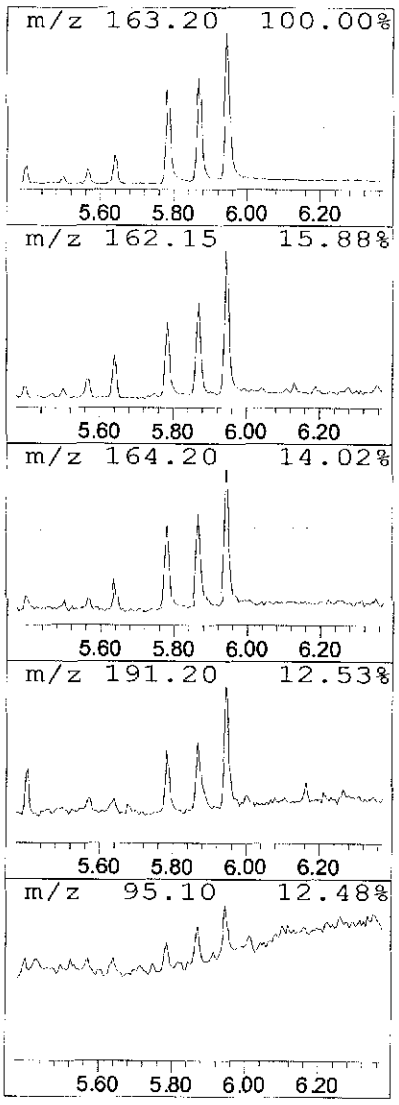
Peak Number 17 Unknown Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.87	17.30 UG	384579	Chrysene-d12	6.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetrahydroabietic acid	306	C20H34O2	1000251-96-9	78
2	Benzoic acid, 4-(1,3-dioxan-2-yl...	222	C12H14O4	135655-75-3	52
3	Benzonitrile, 2,4-dimethoxy-	163	C9H9NO2	004107-65-7	50
4	Phosphine oxide, cyclohexyl meth...	300	C17H33O2P	1000195-73-8	50
5	Benzonitrile, 2,4-dimethoxy-	163	C9H9NO2	004107-65-7	50





Library Search Compound Report

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Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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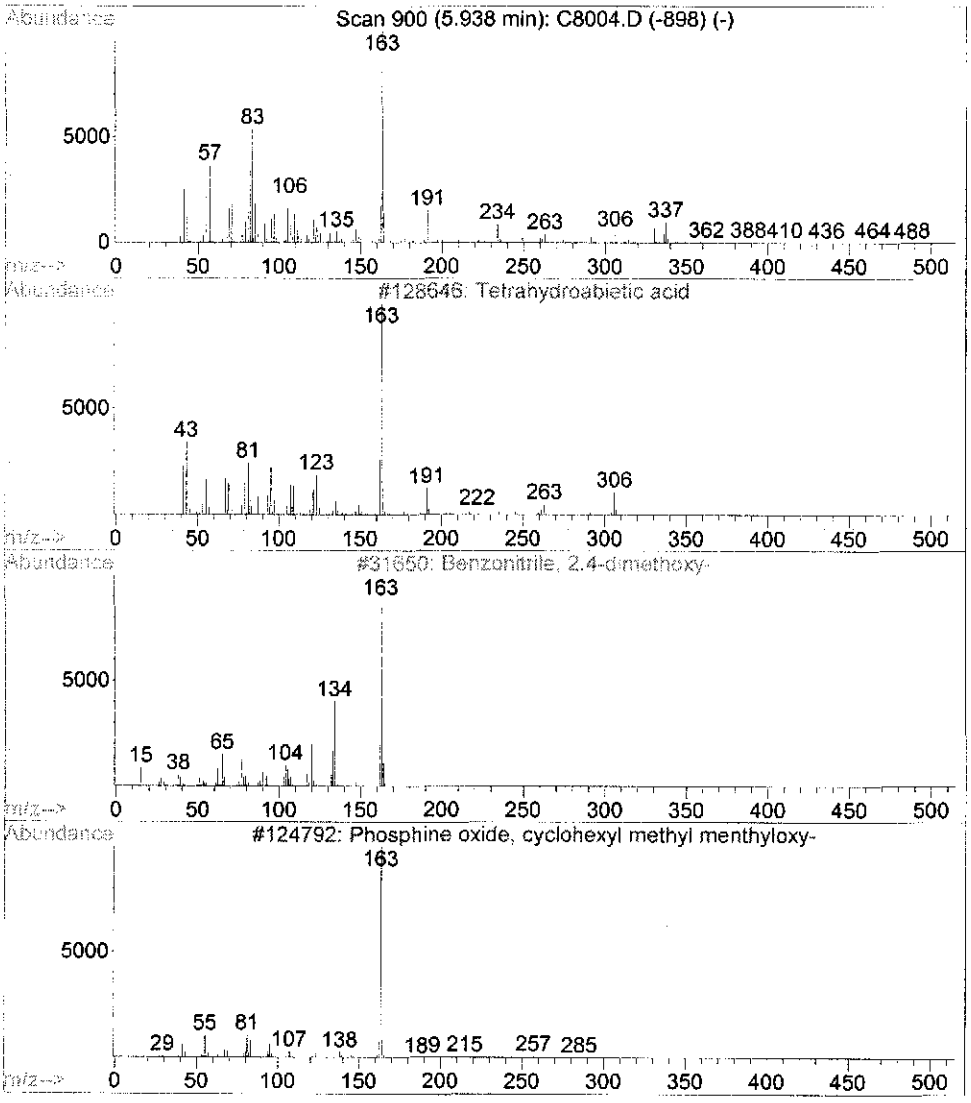
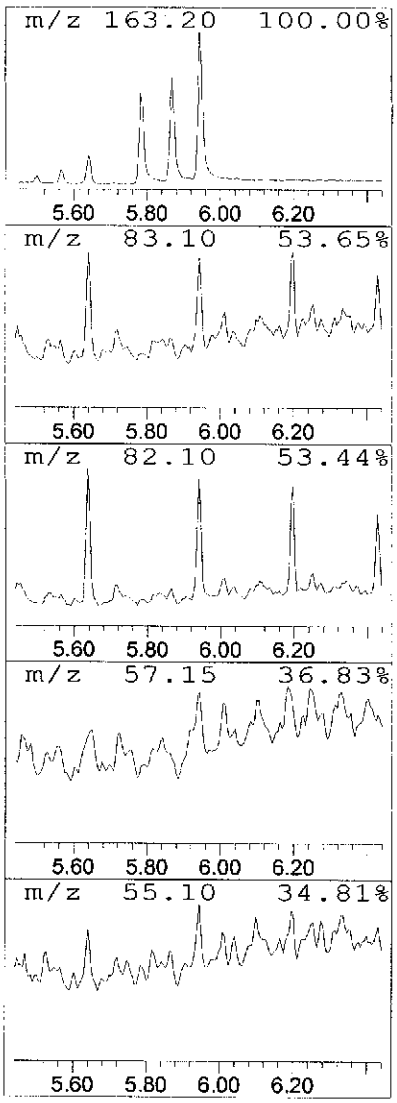
Peak Number 18 Unknown Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.94	29.52 UG	656353	Chrysene-d12	6.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetrahydroabietic acid	306	C20H34O2	1000251-96-9	49
2	Benzonitrile, 2,4-dimethoxy-	163	C9H9NO2	004107-65-7	35
3	Phosphine oxide, cyclohexyl meth...	300	C17H33O2P	1000195-73-8	35
4	Tetracyclo[5.4.3.0(7,11)]tetrade...	316	C20H28O3	1000196-42-3	32
5	1,3-Dimethyl-5-ethyladamantane	192	C14H24	001687-35-0	30





Library Search Compound Report

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Data File : C8004.D
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Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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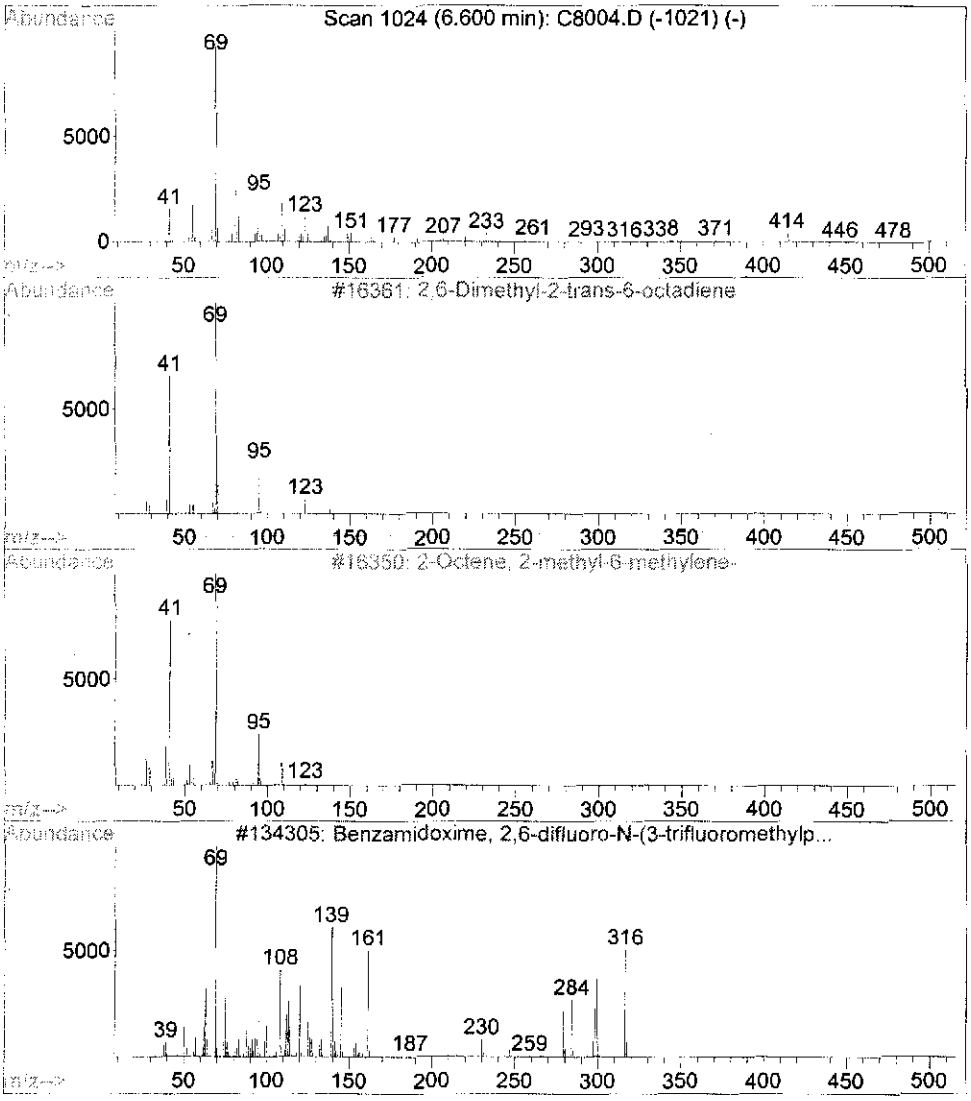
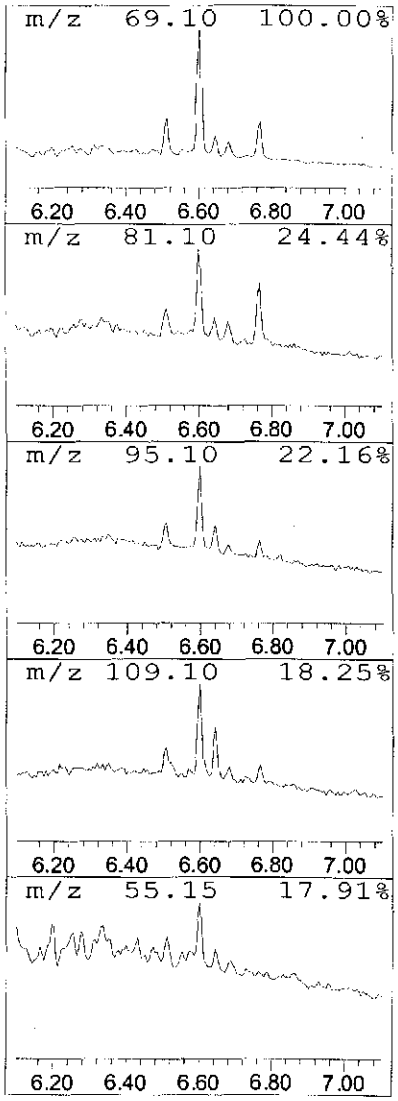
Peak Number 19 Unknown Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.60	23.81 UG	529393	Chrysene-d12	6.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,6-Dimethyl-2-trans-6-octadiene	138	C10H18	002609-23-6	59
2	2-Octene, 2-methyl-6-methylene-	138	C10H18	010054-09-8	59
3	Benzamidoxime, 2,6-difluoro-N-(3...	316	C14H9F5N2O	1000267-32-1	55
4	Cyclopropanemethanol, 2-methyl-2...	168	C11H20O	098678-70-7	53
5	7,11-Dimethyldodeca-2,6,10-trien...	208	C14H24O	125529-10-4	53





Library Search Compound Report

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Data File : C8004.D
Acq On : 15 Dec 2009 16:12
Operator : EDM
Sample : SB1,12542-001,S,15.20g,50.3,12/15/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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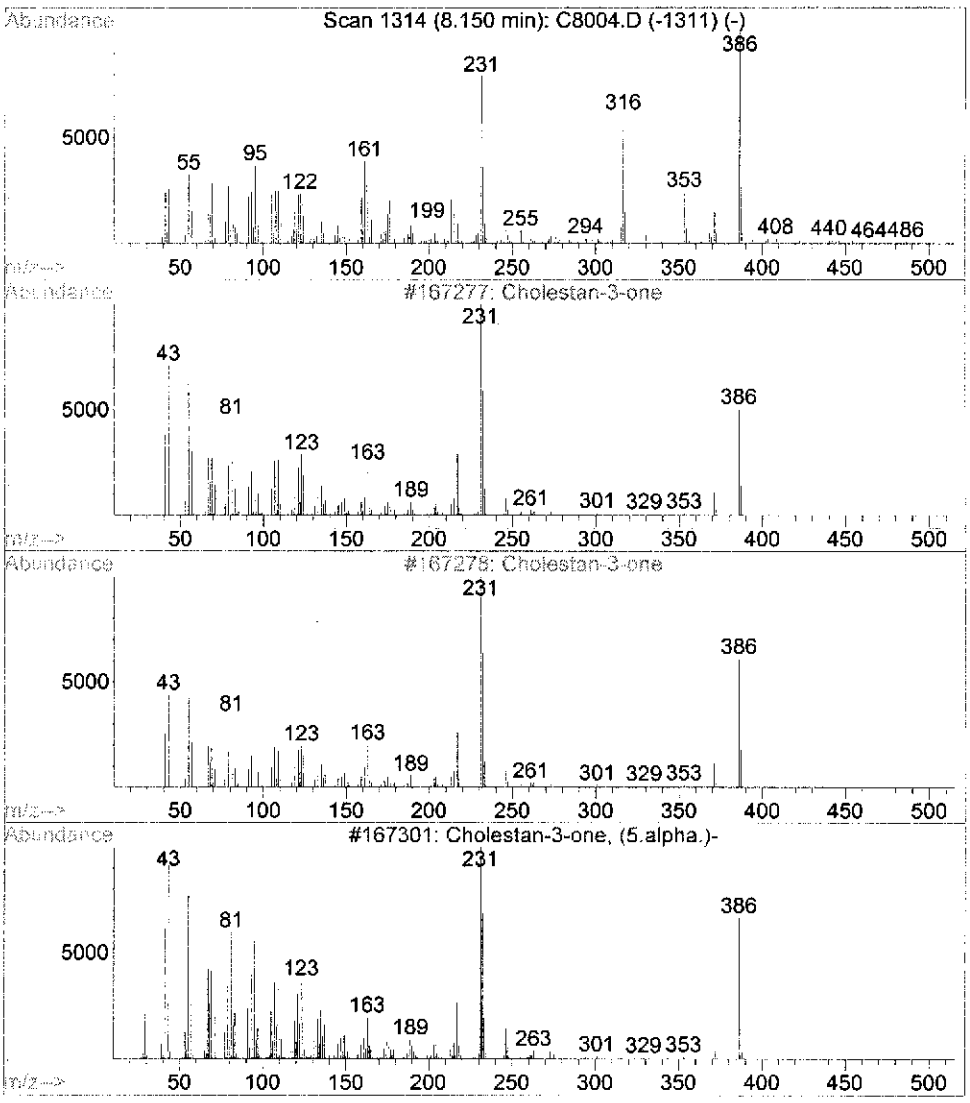
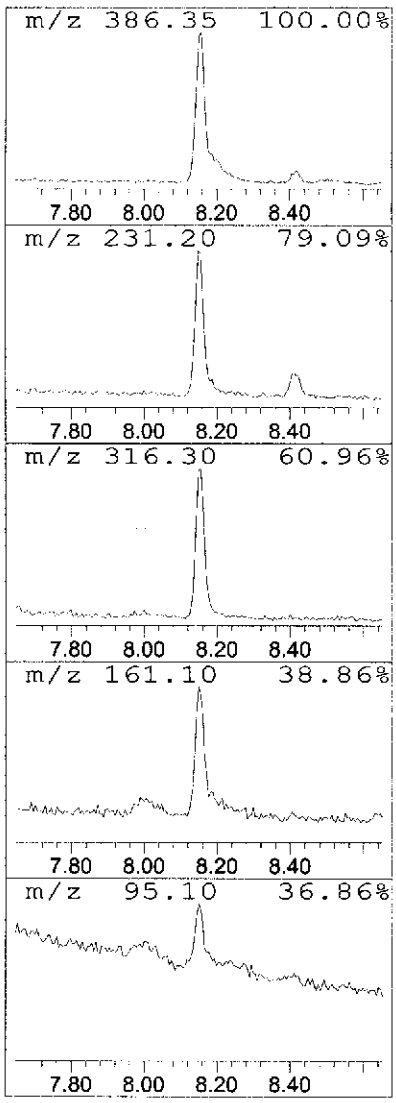
Peak Number 20 Unknown Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.15	16.93 UG	429591	Perylene-d12	7.34

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cholestan-3-one	386	C27H46O	015600-08-5	93
2	Cholestan-3-one	386	C27H46O	015600-08-5	92
3	Cholestan-3-one, (5.alpha.)-	386	C27H46O	000566-88-1	89
4	Cholestan-2-one	386	C27H46O	1000210-43-4	78
5	Cholestan-3-one	386	C27H46O	015600-08-5	70





Quantitation Report (QT Reviewed)

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Data File : C8042.D
Acq On : 17 Dec 2009 17:32
Operator : EDM
Sample : T4-1/5.5-6,12542-002,S,5.21g,16.1,12/17/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 17 18:06:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

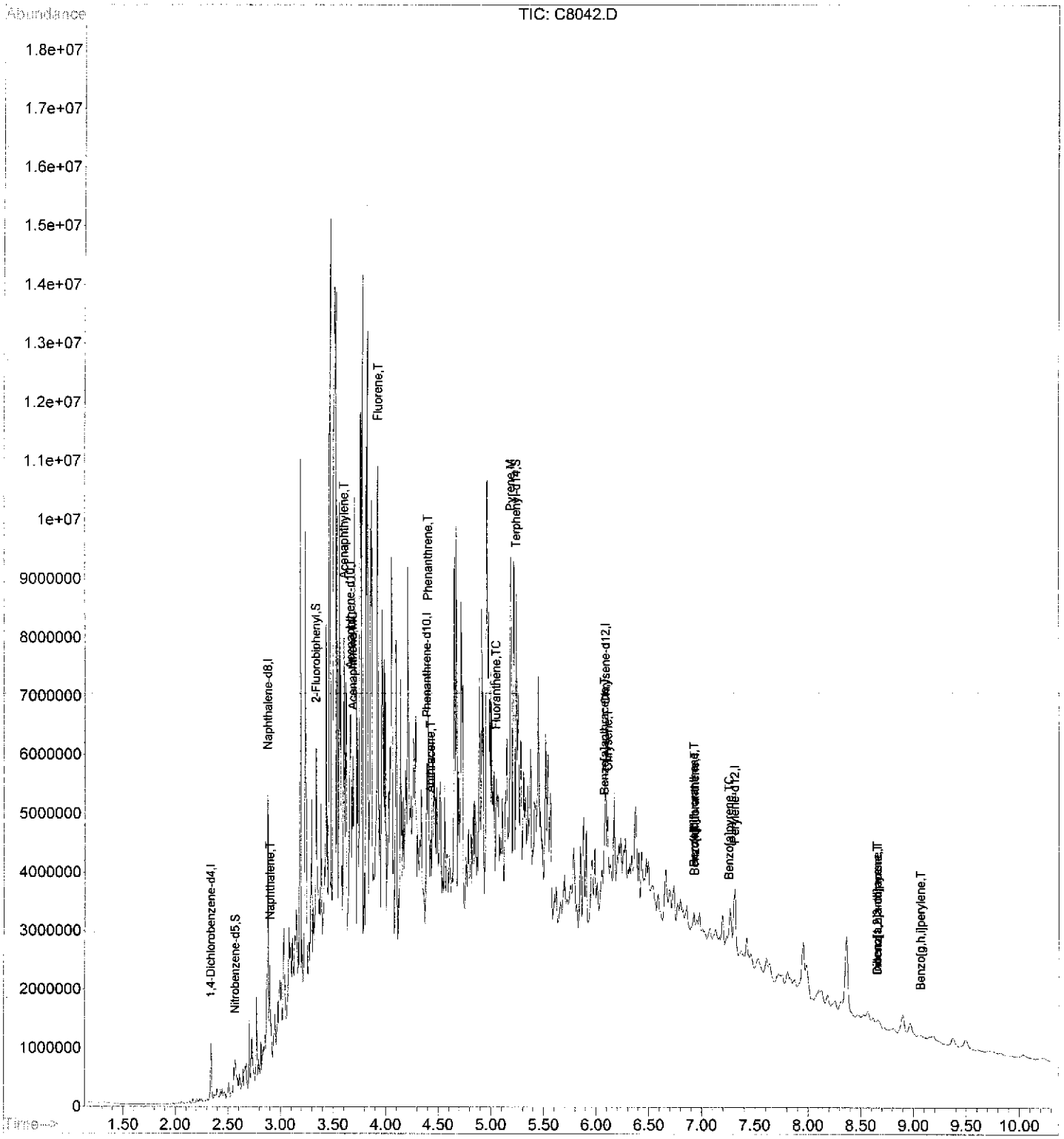
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.34	152	127666	40.00	UG	0.00
23) Naphthalene-d8	2.88	136	538454	40.00	UG	0.00
43) Acenaphthene-d10	3.67	164	352733	40.00	UG	0.00
66) Phenanthrene-d10	4.39	188	506401	40.00	UG	-0.02
82) Chrysene-d12	6.09	240	601035	40.00	UG	-0.03
92) Perylene-d12	7.31	264	610215	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 108		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.57	82	147443	31.86	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery =	63.72%		
47) 2-Fluorobiphenyl	3.34	172	484474	37.83	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery =	75.66%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery =	0.00%#		
84) Terphenyl-d14	5.24	244	551512	34.25	UG	-0.04
Spiked Amount 50.000	Range 32 - 135		Recovery =	68.50%		
Target Compounds						Qvalue
34) Naphthalene	2.90	128	37557	2.61	UG	# 44
53) Acenaphthylene	3.60	152	75395	4.96	UG	# 1
55) Acenaphthene	3.68	153	220577	23.18	UG	# 78
61) Fluorene	3.92	166	305046	27.35	UG	# 63
75) Phenanthrene	4.40	178	1231041	92.10	UG	# 86
76) Anthracene	4.42	178	220553	16.26	UG	# 82
79) Fluoranthene	5.05	202	207148	15.20	UG	# 68
83) Pyrene	5.18	202	1168353	68.28	UG	# 82
88) Benzo[a]anthracene	6.07	228	193987	13.10	UG	# 1
89) Chrysene	6.11	228	243751	16.51	UG	# 51
94) Benzo[b]fluoranthene	6.93	252	52508m	3.21	UG	
95) Benzo[k]fluoranthene	6.94	252	21767m	1.41	UG	
96) Benzo[a]pyrene	7.25	252	122460	8.98	UG	# 68
97) Indeno[1,2,3-cd]pyrene	8.66	276	20773	1.20	UG	# 10
98) Dibenz[a,h]anthracene	8.66	278	14087	0.95	UG	# 81
99) Benzo[g,h,i]perylene	9.07	276	51175	3.58	UG	# 37

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-17-09\
Data File : C8042.D
Acq On : 17 Dec 2009 17:32
Operator : EDM
Sample : T4-1/5.5-6,12542-002,S,5.21g,16.1,12/17/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 17 18:06:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-17-09\
Data File : C8043.D
Acq On : 17 Dec 2009 17:47
Operator : EDM
Sample : T5-3/5.5-6,12542-009,S,5.48g,13.6,12/17/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 17 18:08:26 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

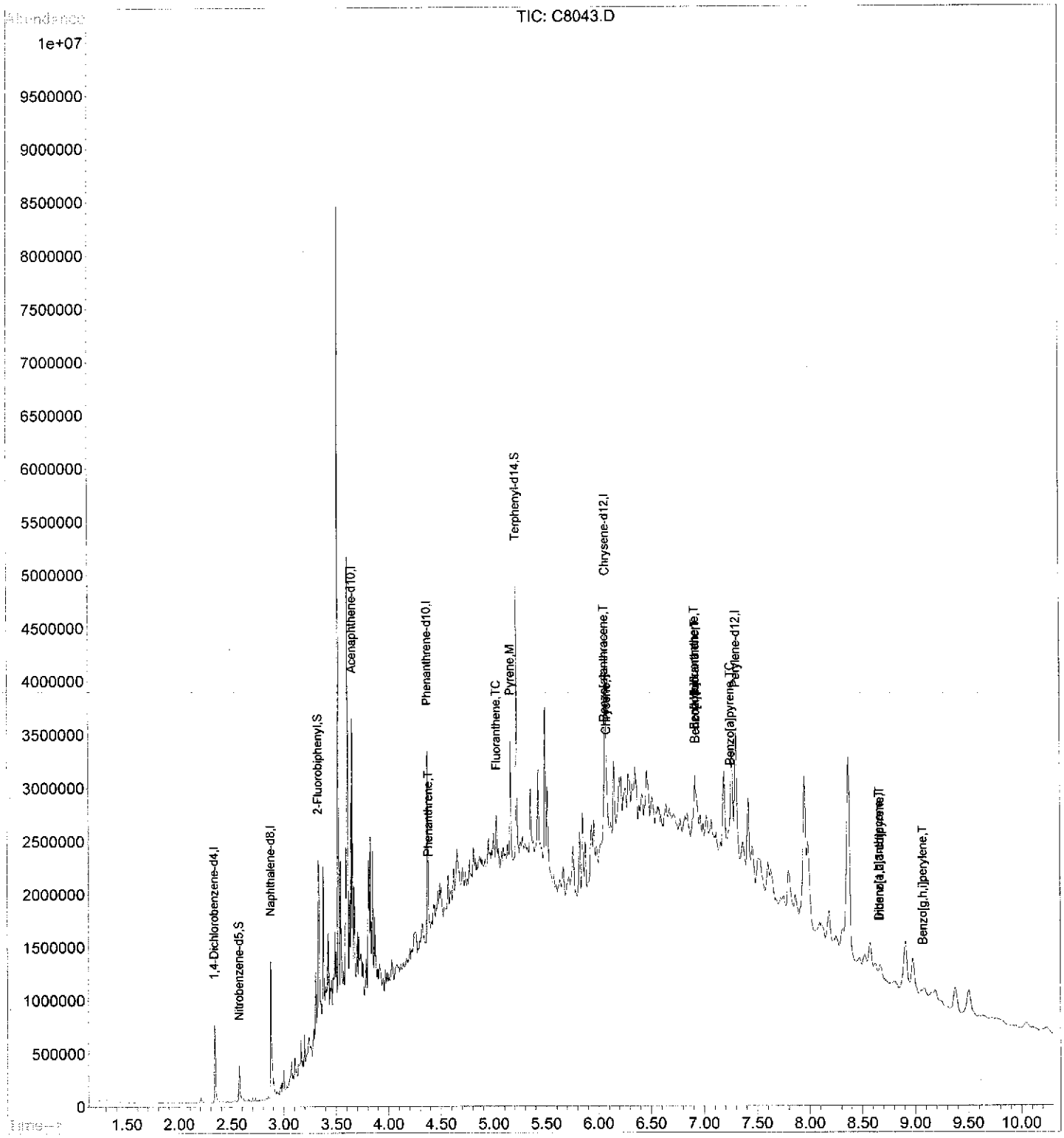
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.34	152	116467	40.00	UG	0.00
23) Naphthalene-d8	2.88	136	522881	40.00	UG	0.00
43) Acenaphthene-d10	3.66	164	337128	40.00	UG	-0.02
66) Phenanthrene-d10	4.37	188	550396	40.00	UG	-0.03
82) Chrysene-d12	6.07	240	617871	40.00	UG	-0.04
92) Perylene-d12	7.31	264	617343	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 108		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.57	82	121953	27.14	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery =	54.28%		
47) 2-Fluorobiphenyl	3.33	172	442188	36.13	UG	-0.01
Spiked Amount 50.000	Range 32 - 128		Recovery =	72.26%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery =	0.00%#		
84) Terphenyl-d14	5.22	244	553419	33.43	UG	-0.06
Spiked Amount 50.000	Range 32 - 135		Recovery =	66.86%		
Target Compounds						Qvalue
75) Phenanthrene	4.39	178	14101	0.97	UG	# 82
79) Fluoranthene	5.03	202	101293	6.84	UG	# 89
83) Pyrene	5.16	202	265227	15.08	UG	# 85
88) Benzo[a]anthracene	6.06	228	126230	8.29	UG	# 54
89) Chrysene	6.09	228	139122	9.17	UG	# 82
94) Benzo[b]fluoranthene	6.92	252	142393m	8.61	UG	
95) Benzo[k]fluoranthene	6.93	252	129167m	8.29	UG	
96) Benzo[a]pyrene	7.25	252	145085	10.52	UG	# 90
97) Indeno[1,2,3-cd]pyrene	8.67	276	72179	4.13	UG	# 59
98) Dibenz[a,h]anthracene	8.66	278	24313	1.62	UG	# 58
99) Benzo[g,h,i]perylene	9.07	276	70081m	4.85	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-17-09\
Data File : C8043.D
Acq On : 17 Dec 2009 17:47
Operator : EDM
Sample : T5-3/5.5-6,12542-009,S,5.48g,13.6,12/17/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 17 18:08:26 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-17-09\
Data File : C8044.D
Acq On : 17 Dec 2009 18:02
Operator : EDM
Sample : T5-4/5.5-6,12542-010,S,15.34g,15.8,12/17/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 17 18:14:36 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.34	152	138625	40.00	UG	0.00
23) Naphthalene-d8	2.88	136	586185	40.00	UG	0.00
43) Acenaphthene-d10	3.68	164	356284	40.00	UG	0.00
66) Phenanthrene-d10	4.44	188	544669	40.00	UG	0.04
82) Chrysene-d12	6.18	240	596683	40.00	UG	0.06
92) Perylene-d12	7.37	264	594190	40.00	UG	0.06
System Monitoring Compounds						
4) 2-Fluorophenol	1.82	112	188	0.05	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery =	0.05%#		
6) Phenol-d5	2.18	99	148	0.03	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery =	0.03%#		
24) Nitrobenzene-d5	2.57	82	119019	23.63	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery =	47.26%		
47) 2-Fluorobiphenyl	3.35	172	422958	32.70	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery =	65.40%		
70) 2,4,6-Tribromophenol	4.11	330	136	0.05	UG	0.06
Spiked Amount 100.000	Range 32 - 126		Recovery =	0.05%#		
84) Terphenyl-d14	5.34	244	490260	30.67	UG	0.06
Spiked Amount 50.000	Range 32 - 135		Recovery =	61.34%		

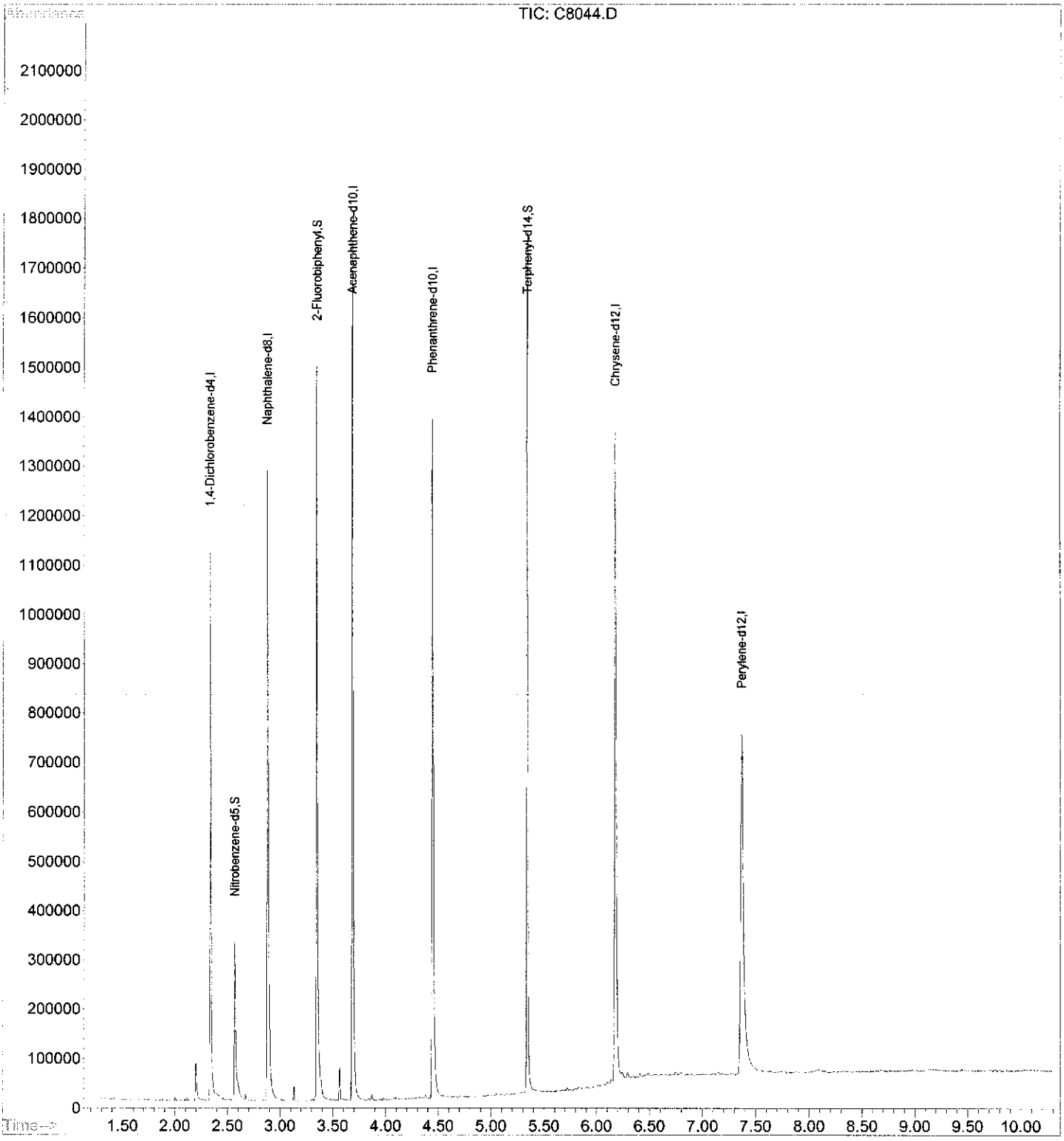
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-17-09\
Data File : C8044.D
Acq On : 17 Dec 2009 18:02
Operator : EDM
Sample : T5-4/5.5-6,12542-010,S,15.34g,15.8,12/17/09
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 17 18:14:36 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8000.D
Acq On : 15 Dec 2009 15:11
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,12/15/09
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 15 15:21:39 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.34	152	142676	40.00	UG	0.00
23) Naphthalene-d8	2.88	136	556752	40.00	UG	0.00
43) Acenaphthene-d10	3.68	164	355389	40.00	UG	0.00
66) Phenanthrene-d10	4.43	188	635561	40.00	UG	0.02
82) Chrysene-d12	6.15	240	622336	40.00	UG	0.04
92) Perylene-d12	7.35	264	513473	40.00	UG	0.04
System Monitoring Compounds						
4) 2-Fluorophenol	1.82	112	350980	83.43	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 83.43%			
6) Phenol-d5	2.17	99	463199	88.67	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 88.67%			
24) Nitrobenzene-d5	2.57	82	173449	36.25	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 72.50%			
47) 2-Fluorobiphenyl	3.35	172	469440	36.38	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 72.76%			
70) 2,4,6-Tribromophenol	4.07	330	246391	72.41	UG	0.01
Spiked Amount 100.000	Range 32 - 126		Recovery = 72.41%			
84) Terphenyl-d14	5.32	244	617694	37.05	UG	0.04
Spiked Amount 50.000	Range 32 - 135		Recovery = 74.10%			

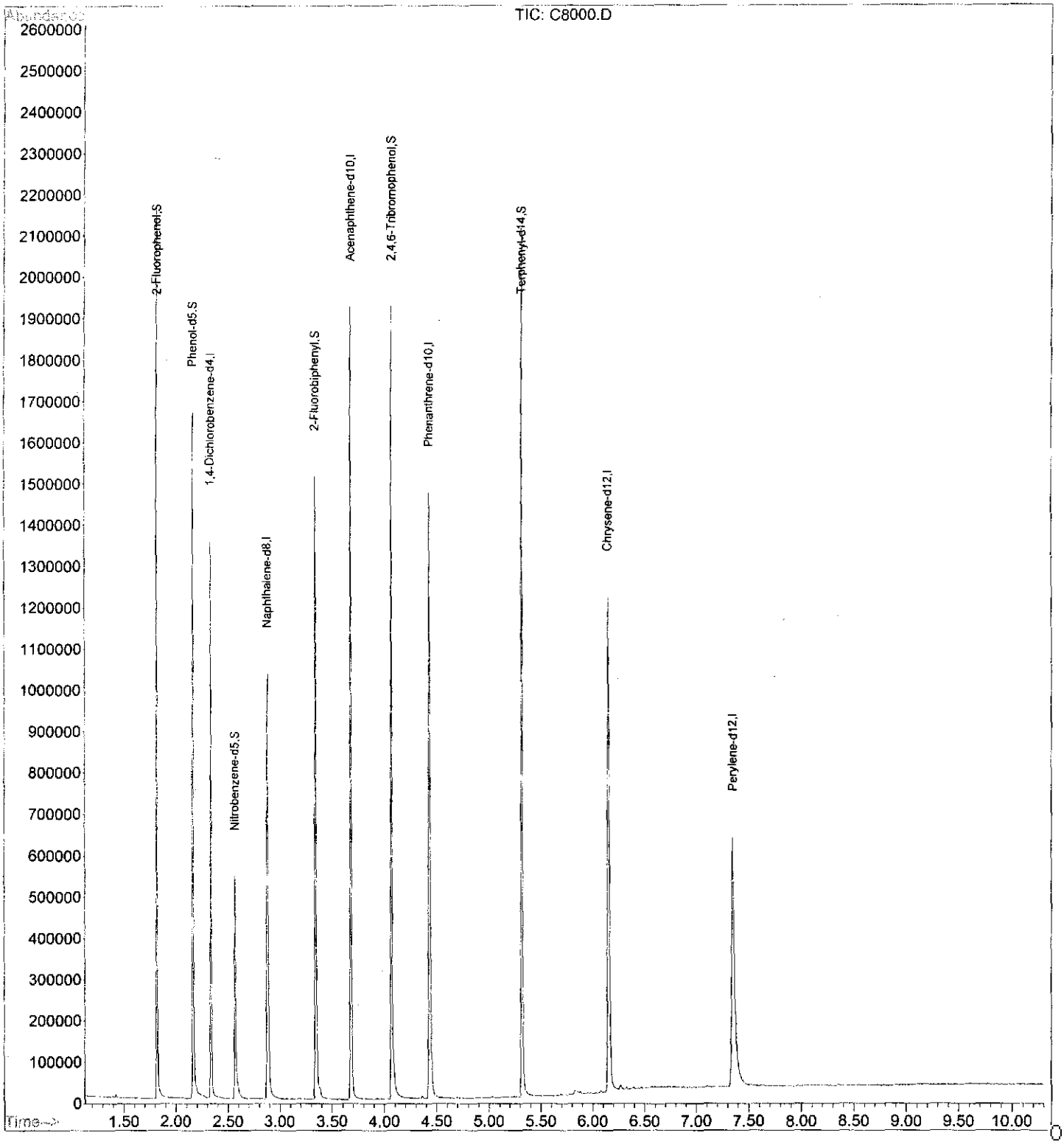
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8000.D
Acq On : 15 Dec 2009 15:11
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,12/15/09
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 15 15:21:39 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-15-09\
Data File : C8000.D
Acq On : 15 Dec 2009 15:11
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,12/15/09
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS2109.M Tue Dec 15 15:21:47 2009 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-17-09\
Data File : C8034.D
Acq On : 17 Dec 2009 15:29
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,12/17/09
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 17 15:43:24 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.34	152	163850	40.00	UG	0.00
23) Naphthalene-d8	2.88	136	649917	40.00	UG	0.00
43) Acenaphthene-d10	3.67	164	394031	40.00	UG	0.00
66) Phenanthrene-d10	4.42	188	573032	40.00	UG	0.00
82) Chrysene-d12	6.13	240	542638	40.00	UG	0.01
92) Perylene-d12	7.33	264	567649	40.00	UG	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	1.82	112	446717	92.47	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 92.47%			
6) Phenol-d5	2.17	99	625525	104.27	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 104.27%			
24) Nitrobenzene-d5	2.57	82	204769	36.66	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 73.32%			
47) 2-Fluorobiphenyl	3.34	172	569229	39.79	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 79.58%			
70) 2,4,6-Tribromophenol	4.06	330	186119	60.67	UG	0.00
Spiked Amount 100.000	Range 32 - 126		Recovery = 60.67%			
84) Terphenyl-d14	5.30	244	509041	35.02	UG	0.02
Spiked Amount 50.000	Range 32 - 135		Recovery = 70.04%			

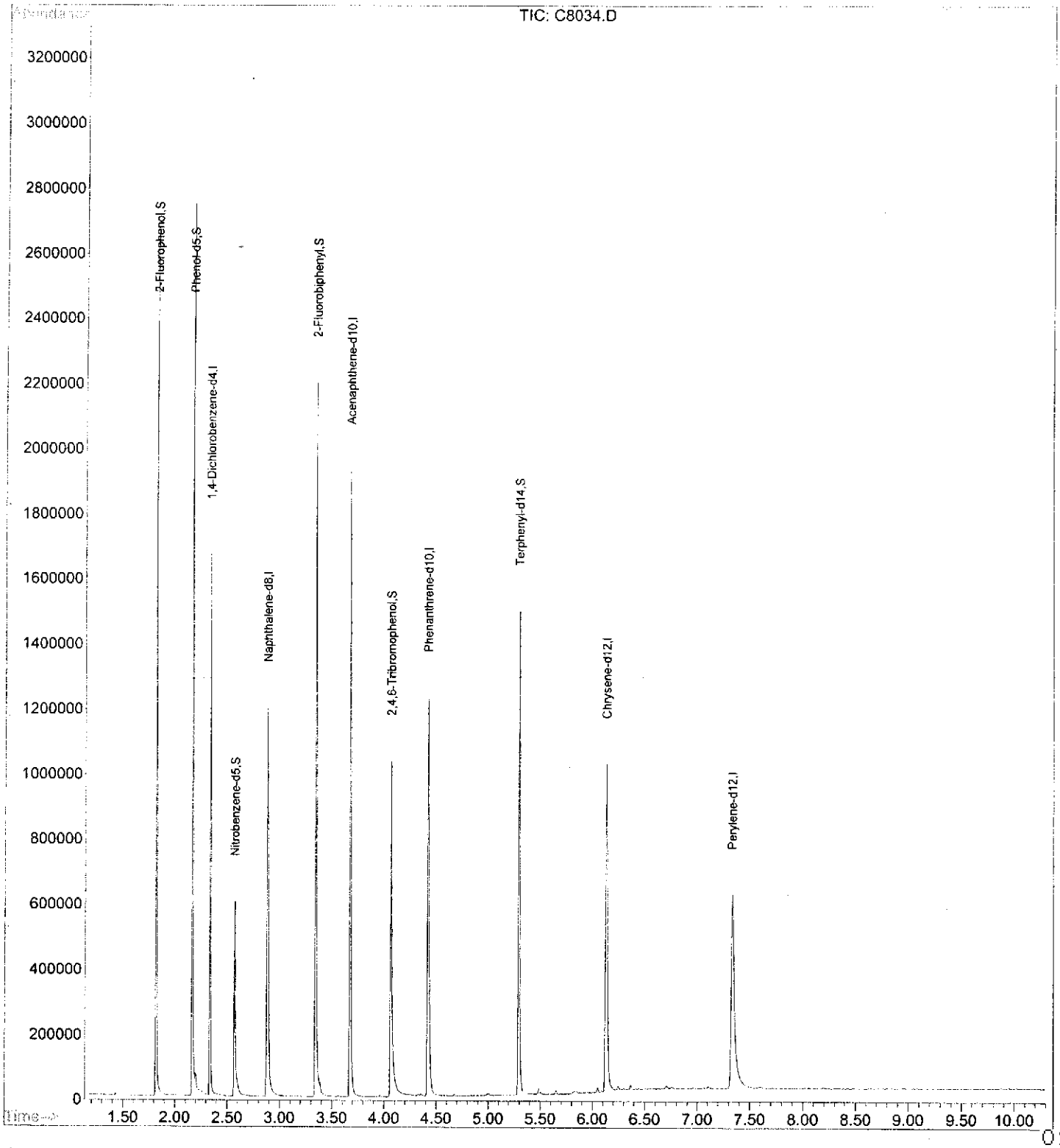
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-17-09\
Data File : C8034.D
Acq On : 17 Dec 2009 15:29
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,12/17/09
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 17 15:43:24 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



PCB METHOD BLANK SUMMARY

Lab File ID: Y1962.D

Instrument ID: GC-Y

Date Extracted: 12/01/2009

Matrix: SOIL

Date Analyzed: 12/03/2009

Time Analyzed: 10:58

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
J-11/3-3.5	11947-003	12/03/2009	11:15
J-9A/0.5-1	11947-018	12/03/2009	12:07
S-17/0-0.5	11947-024	12/03/2009	12:24
S-22/0-0.5	11947-031	12/03/2009	12:41
S-21/1.5-2	11947-033	12/03/2009	12:59
S-28/0.5-1	11947-038	12/03/2009	13:16
MA-21I/159	12056-001	12/03/2009	13:33
MA-21J/179	12056-002	12/03/2009	13:50
MA-21K/189	12056-003	12/03/2009	14:07
MA-21L/199	12056-004	12/03/2009	14:25
PCB	12056-002-MS01	12/03/2009	14:42
PCB	12056-002-MSD01	12/03/2009	14:59
PCB	PBS1201-MS01	12/03/2009	15:16
S-16A/5.5-	11947-015	12/03/2009	17:07
S-15A/0.5-	11947-016	12/03/2009	17:24

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: NA

Lab ID: 1201-BLK01
Client ID: PCB
Date Received: NA
Date Extracted: 12/01/2009
Date Analyzed: 12/03/2009
Data file: Y1962.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.000668
Aroclor-1221	ND		0.000668
Aroclor-1232	ND		0.000668
Aroclor-1242	ND		0.000668
Aroclor-1248	ND		0.000668
Aroclor-1254	ND		0.000668
Aroclor-1260	ND		0.000668
Total PCBs:	ND		

PCB METHOD BLANK SUMMARY

Lab File ID:	R8327.D	Instrument ID:	GC-R
Date Extracted:	12/11/2009	Matrix:	SOIL
Date Analyzed:	12/11/2009	Time Analyzed:	16:28

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SB1	12542-001	12/11/2009	16:47
09-213	12551-001	12/11/2009	17:05
PCB	PBS1211-MS04	12/11/2009	17:23

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: NA

Lab ID: 1211-BLK04
Client ID: PCB
Date Received: NA
Date Extracted: 12/11/2009
Date Analyzed: 12/11/2009
Data file: R8327.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.000668
Aroclor-1221	ND		0.000668
Aroclor-1232	ND		0.000668
Aroclor-1242	ND		0.000668
Aroclor-1248	ND		0.000668
Aroclor-1254	ND		0.000668
Aroclor-1260	ND		0.000668
Total PCBs:	ND		

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-

GC Column (1st): DB-5

Data File: R8276.D R8275.D R8274.D R8273.D R8272.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.63	3.63	3.63	3.63	3.63	3.63	3.56	3.70
Aroclor-1016 {2}	4.54	4.54	4.54	4.54	4.54	4.54	4.47	4.61
Aroclor-1016 {3}	5.12	5.12	5.13	5.13	5.12	5.12	5.05	5.19
Aroclor-1016 {4}	5.60	5.60	5.60	5.60	5.60	5.60	5.53	5.67
Aroclor-1016 {5}	6.07	6.07	6.07	6.07	6.07	6.07	6.00	6.14
Aroclor-1221			2.37				2.30	2.44
Aroclor-1221 {2}			3.40				3.33	3.47
Aroclor-1221 {3}			3.54				3.47	3.61
Aroclor-1221 {4}			3.63				3.56	3.70
Aroclor-1221 {5}			4.28				4.21	4.35
Aroclor-1232			3.63				3.56	3.70
Aroclor-1232 {2}			4.54				4.47	4.61
Aroclor-1232 {3}			5.25				5.18	5.32
Aroclor-1232 {4}			5.87				5.80	5.94
Aroclor-1232 {5}			6.07				6.00	6.14
Aroclor-1242			4.54				4.47	4.61
Aroclor-1242 {2}			5.53				5.46	5.60
Aroclor-1242 {3}			5.87				5.80	5.94
Aroclor-1242 {4}			6.59				6.52	6.66
Aroclor-1242 {5}			6.88				6.81	6.95
Aroclor-1248			4.96				4.88	5.04
Aroclor-1248 {2}			5.53				5.45	5.61
Aroclor-1248 {3}			5.87				5.79	5.95
Aroclor-1248 {4}			6.59				6.51	6.67
Aroclor-1248 {5}			6.88				6.80	6.96
Aroclor-1254			6.99				6.91	7.07
Aroclor-1254 {2}			7.45				7.37	7.53
Aroclor-1254 {3}			7.62				7.53	7.71
Aroclor-1254 {4}			8.06				7.97	8.15
Aroclor-1254 {5}			8.92				8.83	9.01
Aroclor-1260	8.92	8.92	8.92	8.92	8.92	8.92	8.02	9.82
Aroclor-1260 {2}	9.61	9.61	9.60	9.60	9.60	9.60	8.70	10.50
Aroclor-1260 {3}	10.08	10.08	10.08	10.08	10.08	10.08	9.18	10.98
Aroclor-1260 {4}	10.57	10.58	10.57	10.58	10.57	10.57	9.67	11.47
Aroclor-1260 {5}	11.64	11.64	11.64	11.64	11.64	11.64	10.74	12.54

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-

GC Column (1st): DB-5

Data File: R8276.D R8275.D R8274.D R8273.D R8272.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	823931	815795	891167	773467	742242	809320	6.97
Aroclor-1016 {2}	1269794	1202284	1222285	1103744	1010366	1161695	8.95
Aroclor-1016 {3}	1823898	1629378	1584337	1436875	1328169	1560531	12.16
Aroclor-1016 {4}	932417	810990	782993	705646	670719	780553	13.08
Aroclor-1016 {5}	1280249	1297878	1301393	1183234	1123745	1237300	6.45
Aroclor-1221			241500				
Aroclor-1221 {2}			371472				
Aroclor-1221 {3}			243213				
Aroclor-1221 {4}			908606				
Aroclor-1221 {5}			206900				
Aroclor-1232			626456				
Aroclor-1232 {2}			388931				
Aroclor-1232 {3}			360434				
Aroclor-1232 {4}			377814				
Aroclor-1232 {5}			480163				
Aroclor-1242			729482				
Aroclor-1242 {2}			466205				
Aroclor-1242 {3}			652427				
Aroclor-1242 {4}			941889				
Aroclor-1242 {5}			892875				
Aroclor-1248			1550291				
Aroclor-1248 {2}			892049				
Aroclor-1248 {3}			1156413				
Aroclor-1248 {4}			1754097				
Aroclor-1248 {5}			1465241				
Aroclor-1254			2101369				
Aroclor-1254 {2}			1419259				
Aroclor-1254 {3}			2568070				
Aroclor-1254 {4}			2765085				
Aroclor-1254 {5}			2580625				
Aroclor-1260	4210099	3893664	3594138	3217454	3051872	3593445	13.24
Aroclor-1260 {2}	1903747	1771131	1618216	1446304	1354407	1618761	13.95
Aroclor-1260 {3}	4836549	4478281	4504469	4181152	4078651	4415820	6.77
Aroclor-1260 {4}	2290916	2179669	2116377	1962996	1929745	2095941	7.19
Aroclor-1260 {5}	912041	895079	880084	839670	815136	868402	4.61
					Average %RSD		9.34

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-

GC Column (2nd): DB-1701P

Data File: R8276.C R8275.C R8274.C R8273.C R8272.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	4.10	4.10	4.10	4.10	4.10	4.10	4.03	4.17
Aroclor-1016 {2}	4.76	4.76	4.76	4.76	4.76	4.76	4.69	4.83
Aroclor-1016 {3}	5.52	5.52	5.52	5.52	5.52	5.52	5.45	5.59
Aroclor-1016 {4}	5.76	5.76	5.76	5.76	5.76	5.76	5.69	5.83
Aroclor-1016 {5}	5.93	5.94	5.94	5.94	5.93	5.94	5.87	6.01
Aroclor-1221			2.65				2.58	2.72
Aroclor-1221 {2}			3.75				3.68	3.82
Aroclor-1221 {3}			4.01				3.94	4.08
Aroclor-1221 {4}			4.10				4.03	4.17
Aroclor-1221 {5}			5.52				5.45	5.59
Aroclor-1232			4.10				4.03	4.17
Aroclor-1232 {2}			5.17				5.10	5.24
Aroclor-1232 {3}			5.76				5.69	5.83
Aroclor-1232 {4}			5.94				5.87	6.01
Aroclor-1232 {5}			6.58				6.51	6.65
Aroclor-1242			5.17				5.10	5.24
Aroclor-1242 {2}			5.93				5.86	6.00
Aroclor-1242 {3}			6.57				6.50	6.64
Aroclor-1242 {4}			6.74				6.67	6.81
Aroclor-1242 {5}			7.29				7.22	7.36
Aroclor-1248			5.52				5.44	5.60
Aroclor-1248 {2}			6.15				6.07	6.23
Aroclor-1248 {3}			6.58				6.50	6.66
Aroclor-1248 {4}			6.74				6.66	6.82
Aroclor-1248 {5}			7.08				7.00	7.16
Aroclor-1254			7.60				7.52	7.68
Aroclor-1254 {2}			8.20				8.12	8.28
Aroclor-1254 {3}			8.82				8.73	8.91
Aroclor-1254 {4}			9.07				8.98	9.16
Aroclor-1254 {5}			9.68				9.59	9.77
Aroclor-1260	8.67	8.68	8.68	8.68	8.68	8.68	7.78	9.58
Aroclor-1260 {2}	9.07	9.07	9.07	9.07	9.07	9.07	8.17	9.97
Aroclor-1260 {3}	10.30	10.30	10.30	10.30	10.30	10.30	9.40	11.20
Aroclor-1260 {4}	10.80	10.80	10.80	10.80	10.80	10.80	9.90	11.70
Aroclor-1260 {5}	11.41	11.42	11.41	11.41	11.41	11.41	10.51	12.31

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-

GC Column (2nd): DB-1701P

Data File: R8276.C R8275.C R8274.C R8273.C R8272.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	1217834	1154852	1154049	1054142	941063	1104388	9.82
Aroclor-1016 {2}	2385593	2376269	2169786	1976597	1766869	2135023	12.45
Aroclor-1016 {3}	5245793	4998734	4629865	4197244	3868267	4587980	12.30
Aroclor-1016 {4}	2435637	2211406	2045617	1846626	1713354	2050528	14.00
Aroclor-1016 {5}	2011142	1816069	1720257	1576651	1483811	1721586	11.99
Aroclor-1221			358255				
Aroclor-1221 {2}			496035				
Aroclor-1221 {3}			321505				
Aroclor-1221 {4}			1158669				
Aroclor-1221 {5}			229815				
Aroclor-1232			818226				
Aroclor-1232 {2}			310044				
Aroclor-1232 {3}			642163				
Aroclor-1232 {4}			517727				
Aroclor-1232 {5}			689697				
Aroclor-1242			560327				
Aroclor-1242 {2}			986870				
Aroclor-1242 {3}			1221476				
Aroclor-1242 {4}			1254497				
Aroclor-1242 {5}			1167912				
Aroclor-1248			1886405				
Aroclor-1248 {2}			1654981				
Aroclor-1248 {3}			1977968				
Aroclor-1248 {4}			1816215				
Aroclor-1248 {5}			1016375				
Aroclor-1254			1897983				
Aroclor-1254 {2}			2019822				
Aroclor-1254 {3}			1730223				
Aroclor-1254 {4}			1218765				
Aroclor-1254 {5}			2440983				
Aroclor-1260	3063776	2568161	2293857	2085139	2078971	2417981	17.06
Aroclor-1260 {2}	3407496	2920359	2675698	2437623	2441097	2776454	14.59
Aroclor-1260 {3}	2368456	2110600	1996368	1830648	1804568	2022128	11.40
Aroclor-1260 {4}	4243945	3922761	3866427	3621211	3671608	3865190	6.39
Aroclor-1260 {5}	3086316	2992860	3040157	2849955	2876334	2969124	3.46
					Average %RSD		11.35

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/11/2009 **Instrument ID:** GC-R

Data File: R8326.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.63	3.56	3.70	809320	843994	4.28
Aroclor-1016 {2}	4.54	4.47	4.61	1161695	1177198	1.33
Aroclor-1016 {3}	5.13	5.05	5.19	1560531	1528324	2.06
Aroclor-1016 {4}	5.60	5.53	5.67	780553	746062	4.42
Aroclor-1016 {5}	6.08	6.00	6.14	1237300	1259336	1.78
Aroclor-1260	8.92	8.02	9.82	3593445	3559435	0.95
Aroclor-1260 {2}	9.61	8.70	10.50	1618761	1615913	0.18
Aroclor-1260 {3}	10.08	9.18	10.98	4415820	4305866	2.49
Aroclor-1260 {4}	10.58	9.67	11.47	2095941	1950599	6.93
Aroclor-1260 {5}	11.64	10.74	12.54	868402	760906	12.38
					Average %D	3.68

Data File: R8326.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.09	4.03	4.17	1104388	1041634	5.68
Aroclor-1016 {2}	4.76	4.69	4.83	2135023	2024803	5.16
Aroclor-1016 {3}	5.52	5.45	5.59	4587980	4270314	6.92
Aroclor-1016 {4}	5.76	5.69	5.83	2050528	1897461	7.46
Aroclor-1016 {5}	5.93	5.87	6.01	1721586	1608495	6.57
Aroclor-1260	8.68	7.78	9.58	2417981	2257466	6.64
Aroclor-1260 {2}	9.07	8.17	9.97	2776454	2599450	6.38
Aroclor-1260 {3}	10.30	9.40	11.20	2022128	1837402	9.14
Aroclor-1260 {4}	10.80	9.90	11.70	3865190	3403529	11.94
Aroclor-1260 {5}	11.41	10.51	12.31	2969124	2578462	13.16
					Average %D	7.91

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/11/2009 **Instrument ID:** GC-R

Data File: R8331.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.64	3.56	3.70	809320	905599	11.90
Aroclor-1016 {2}	4.55	4.47	4.61	1161695	1237851	6.56
Aroclor-1016 {3}	5.13	5.05	5.19	1560531	1602476	2.69
Aroclor-1016 {4}	5.61	5.53	5.67	780553	772822	0.99
Aroclor-1016 {5}	6.08	6.00	6.14	1237300	1287424	4.05
Aroclor-1260	8.93	8.02	9.82	3593445	3247161	9.64
Aroclor-1260 {2}	9.61	8.70	10.50	1618761	1430627	11.62
Aroclor-1260 {3}	10.08	9.18	10.98	4415820	3675830	16.76
Aroclor-1260 {4}	10.58	9.67	11.47	2095941	1703240	18.74
Aroclor-1260 {5}	11.65	10.74	12.54	868402	722322	16.82
					Average %D	9.98

Data File: R8331.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.11	4.03	4.17	1104388	1141817	3.39
Aroclor-1016 {2}	4.77	4.69	4.83	2135023	2188481	2.50
Aroclor-1016 {3}	5.53	5.45	5.59	4587980	4646945	1.29
Aroclor-1016 {4}	5.77	5.69	5.83	2050528	2062640	0.59
Aroclor-1016 {5}	5.95	5.87	6.01	1721586	1740799	1.12
Aroclor-1260	8.68	7.78	9.58	2417981	2294422	5.11
Aroclor-1260 {2}	9.08	8.17	9.97	2776454	2618483	5.69
Aroclor-1260 {3}	10.31	9.40	11.20	2022128	1764223	12.75
Aroclor-1260 {4}	10.81	9.90	11.70	3865190	3185358	17.59
Aroclor-1260 {5}	11.42	10.51	12.31	2969124	2456306	17.27
					Average %D	6.73

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/11/2009

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	1211-BLK04	SOIL	86		50		81		44	
SB1	12542-001	SOIL	64		41		64		40	
09-213	12551-001	SOIL	61		36		61		33	
PCB	PBS1211-MS04	SOIL	83		44		82		46	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	23-172	13-170

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12056-002-MS01

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	5.0	0.0	4.0	80	45 - 165
Aroclor-1260	5.0	0.0	3.3	66	45 - 165

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	3.9	78	3	19	45 - 165
Aroclor-1260	0.0	3.5	70	6	19	45 - 165

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS1211-MS04

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	2.5	0.0	3.2	128	70 - 130
Aroclor-1260	2.5	0.0	2.3	92	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.11 **DCB 1** 12.75 **TCMX 2** 3.22 **DCB 2** 13.14

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	1211-BLK04	12/11/2009	16:28	3.11		12.75		3.22		13.14	
SB1	12542-001	12/11/2009	16:47	3.12		12.76		3.22		13.15	
09-213	12551-001	12/11/2009	17:05	3.11		12.75		3.22		13.14	
PCB	PBS1211-MS04	12/11/2009	17:23	3.11		12.75		3.21		13.14	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-11-09\R8328.D\ECD1B.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\12-11-09\R8328.D\ECD2A.CH
Acq On : 11 Dec 2009 16:47 Operator: JP
Sample : SB1,12542-001,S,30.39g,50.3,12/11/09,1 Inst : GC_R
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 11 17:01:34 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Wed Dec 09 15:53:21 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.12	3.22	4780.3E6	6124.4E6	64.241	64.073
Spiked Amount 100.000	Range 75 - 125		Recovery =		64.24%#	64.07%#
2) S DCB	12.76	13.15	663.1E6	843.2E6	40.488	39.860m
Spiked Amount 100.000			Recovery =		40.49%	39.86%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

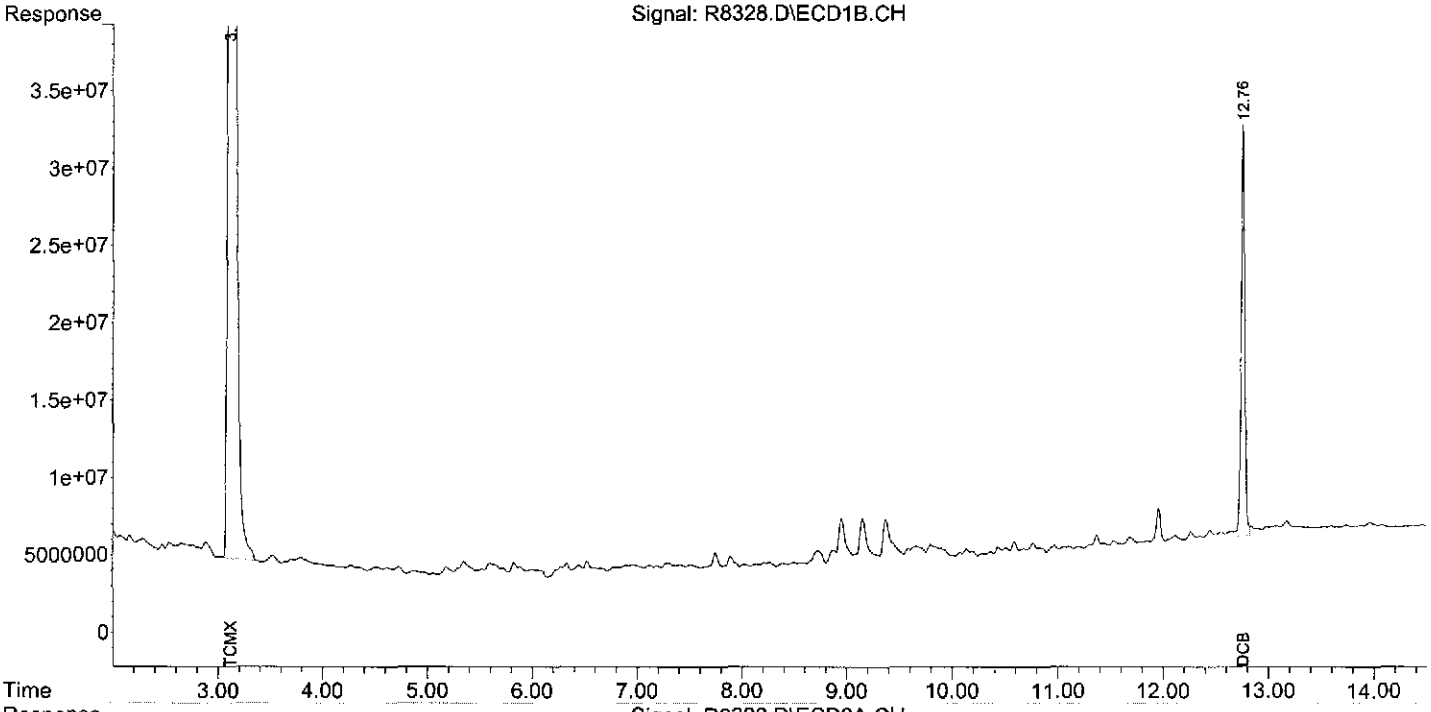
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

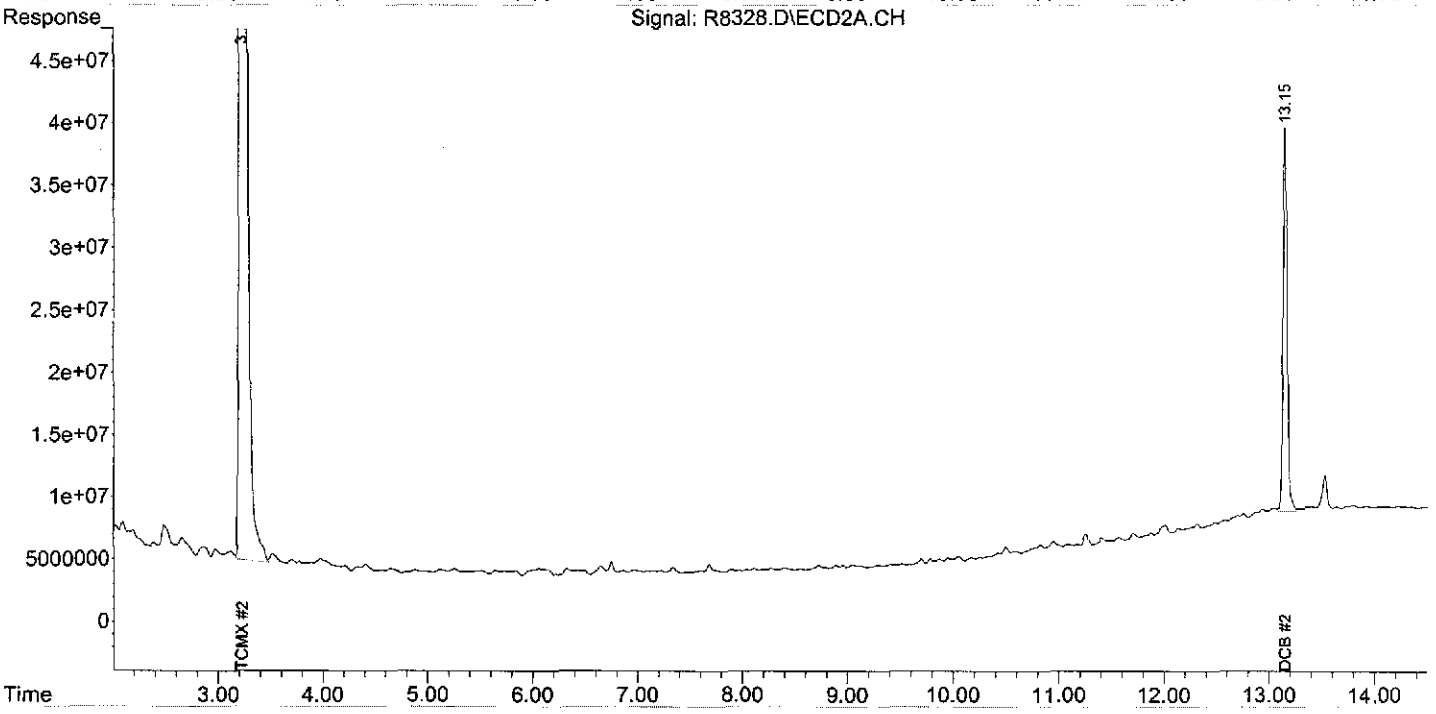
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-11-09\R8328.D\ECD1B.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\12-11-09\R8328.D\ECD2A.CH
Acq On : 11 Dec 2009 16:47 Operator: JP
Sample : SB1,12542-001,S,30.39g,50.3,12/11/09,1 Inst : GC_R
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 14 8:55 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Wed Dec 09 15:53:21 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-11-09\R8327.D\ECD1B.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\12-11-09\R8327.D\ECD2A.CH
Acq On : 11 Dec 2009 16:28 Operator: JP
Sample : PCB,1211-BLK04,S,30.00g,0,12/11/09,1 Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 11 16:43:24 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Wed Dec 09 15:53:21 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.11	3.22	6388.2E6	7781.7E6	85.849	81.412
Spiked Amount 100.000	Range 75 - 125		Recovery =		85.85%	81.41%
2) S DCB	12.75	13.14	818.9E6	922.6E6	50.003	43.616m
Spiked Amount 100.000			Recovery =		50.00%	43.62%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

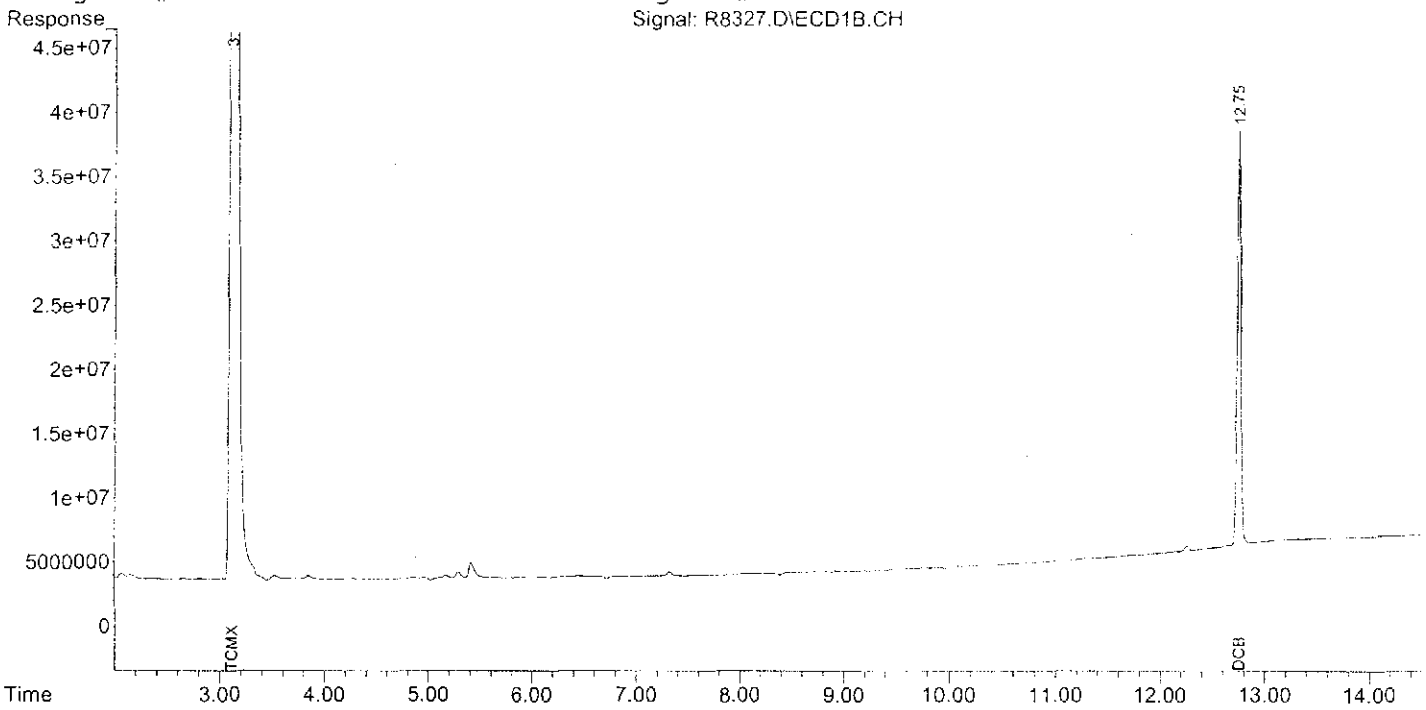
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

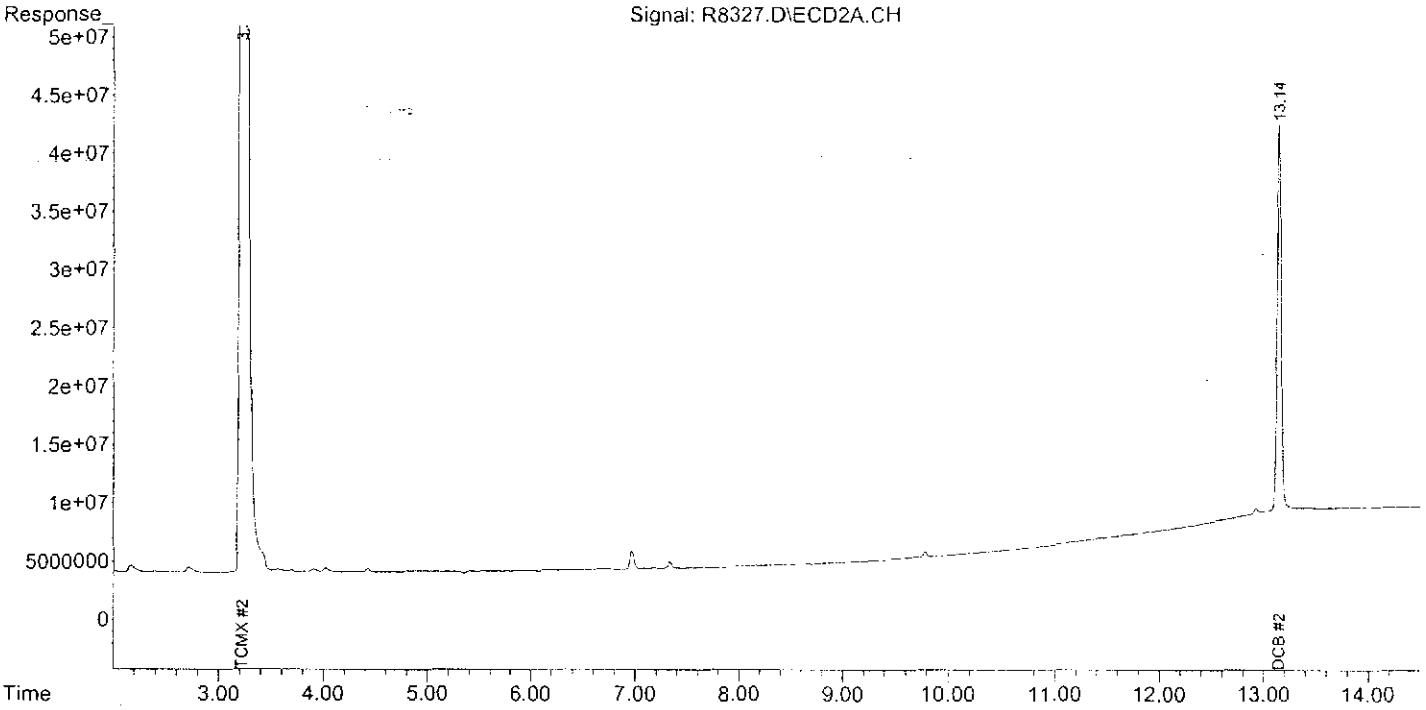
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-11-09\R8327.D\ECD1B.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\12-11-09\R8327.D\ECD2A.CH
Acq On : 11 Dec 2009 16:28 Operator: JP
Sample : PCB,1211-BLK04,S,30.00g,0,12/11/09,1 Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 11 16:43 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Wed Dec 09 15:53:21 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-11-09\R8326.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\12-11-09\R8326.D\ECD2A.CH
Acq On : 11 Dec 2009 16:10 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 11 16:25:20 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Wed Dec 09 15:53:21 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.11	3.20	7511.6E6	9124.9E6	100.945	95.464
Spiked Amount 100.000	Range 75 - 125		Recovery =		100.94%	95.46%
2) S DCB	12.75	13.14	1287.2E6	1430.5E6	78.601	67.624m
Spiked Amount 100.000			Recovery =		78.60%	67.62%
Target Compounds						
3) L2 Aroclor-1016	3.63	4.09	422.0E6	520.8E6	516.861	471.589
4) L2 Aroclor-1016 (2)	4.54	4.76	588.6E6	1012.4E6	510.167	474.188
5) L2 Aroclor-1016 (3)	5.13	5.52	764.2E6	2135.2E6	496.025	465.381
6) L2 Aroclor-1016 (4)	5.60	5.76	373.0E6	948.7E6	482.282	462.676
7) L2 Aroclor-1016 (5)	6.08	5.93	629.7E6	804.2E6	507.418	467.155
Sum Aroclor-1016			2777.5E6	5421.4E6	2512.753	2340.988
Average Aroclor-1016					502.551	468.198
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	8.92	8.68	1779.7E6	1128.7E6	498.708	475.547
34) L8 Aroclor-1260 (2)	9.61	9.07	808.0E6	1299.7E6	502.459	474.934
35) L8 Aroclor-1260 (3)	10.08	10.30	2152.9E6	918.7E6	490.896	461.525
36) L8 Aroclor-1260 (4)	10.58	10.80	975.3E6	1701.8E6	472.037	440.280
37) L8 Aroclor-1260 (5)	11.64	11.41	380.5E6	1289.2E6	437.858	434.213
Sum Aroclor-1260			6096.4E6	6338.2E6	2401.958	2286.500
Average Aroclor-1260					480.392	457.300

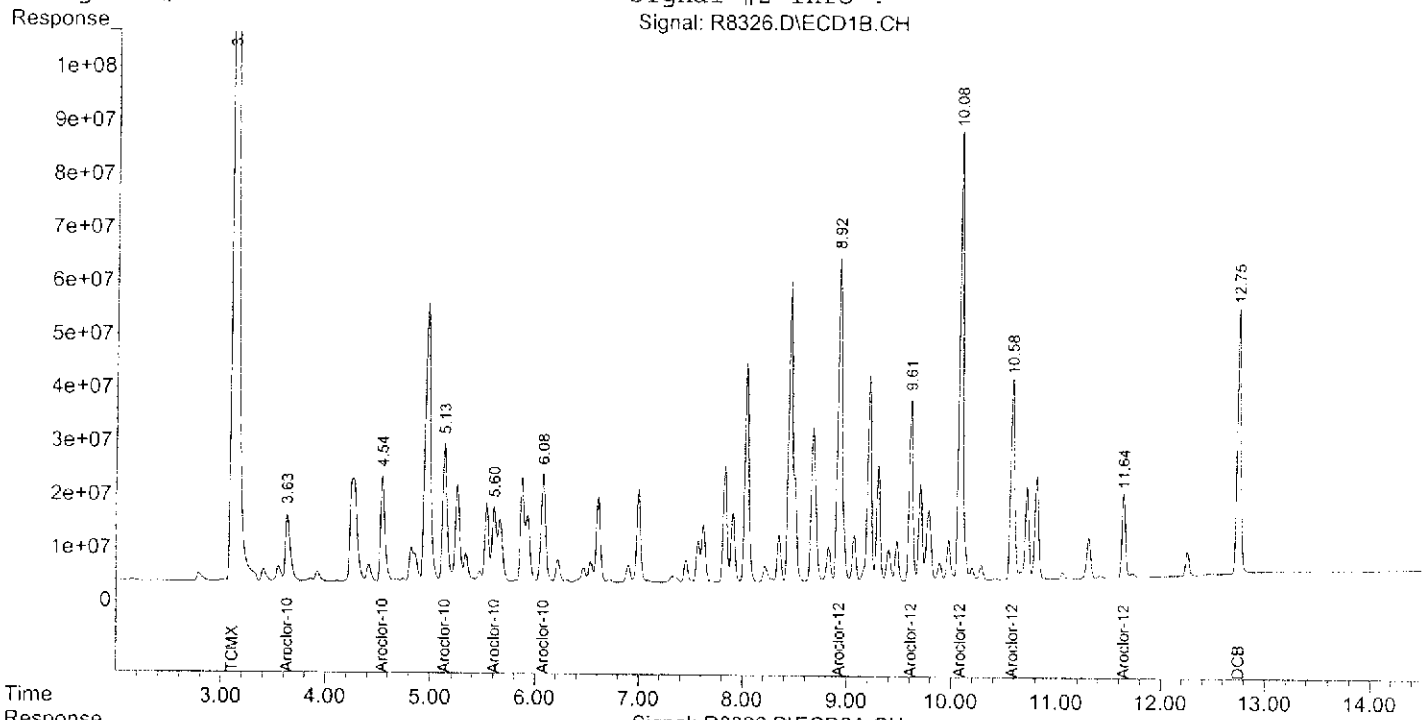
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

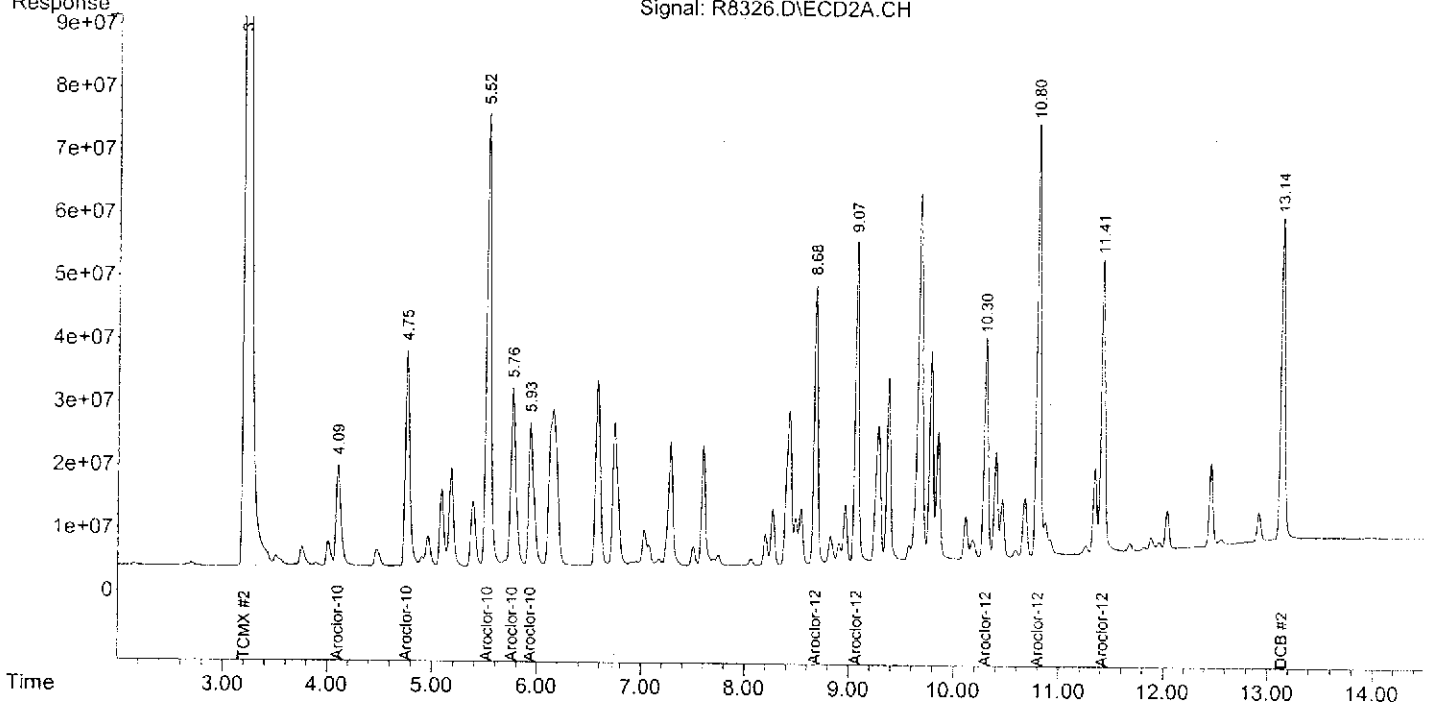
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-11-09\R8326.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\12-11-09\R8326.D\ECD2A.CH
Acq On : 11 Dec 2009 16:10 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 11 16:26 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Wed Dec 09 15:53:21 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-11-09\R8331.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\12-11-09\R8331.D\ECD2A.CH
Acq On : 11 Dec 2009 18:53 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 11 19:08:03 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Wed Dec 09 15:53:21 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.12	3.22	7926.2E6	9939.6E6	106.517	103.988
Spiked Amount 100.000	Range 75 - 125		Recovery =		106.52%	103.99%
2) S DCB	12.75	13.14	992.7E6	1145.3E6	60.616	54.139m
Spiked Amount 100.000			Recovery =		60.62%	54.14%
Target Compounds						
3) L2 Aroclor-1016	3.64	4.11	452.8E6	570.9E6	554.588	516.946
4) L2 Aroclor-1016 {2}	4.55	4.77	618.9E6	1094.2E6	536.452	512.519
5) L2 Aroclor-1016 {3}	5.13	5.53	801.2E6	2323.5E6	520.091	506.426
6) L2 Aroclor-1016 {4}	5.61	5.77	386.4E6	1031.3E6	499.581	502.953
7) L2 Aroclor-1016 {5}	6.08	5.95	643.7E6	870.4E6	518.736	505.580
Sum Aroclor-1016			2903.1E6	5890.3E6	2629.448	2544.424
Average Aroclor-1016					525.890	508.885
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	8.93	8.68	1623.6E6	1147.2E6	454.956	483.333
34) L8 Aroclor-1260 {2}	9.61	9.08	715.3E6	1309.2E6	444.845m	478.412
35) L8 Aroclor-1260 {3}	10.08	10.31	1837.9E6	882.1E6	419.068m	443.144
36) L8 Aroclor-1260 {4}	10.58	10.81	851.6E6	1592.7E6	412.177m	412.057m
37) L8 Aroclor-1260 {5}	11.65	11.42	361.2E6	1228.2E6	415.655m	413.641m
Sum Aroclor-1260			5389.6E6	6159.4E6	2146.701	2230.587
Average Aroclor-1260					429.340	446.117

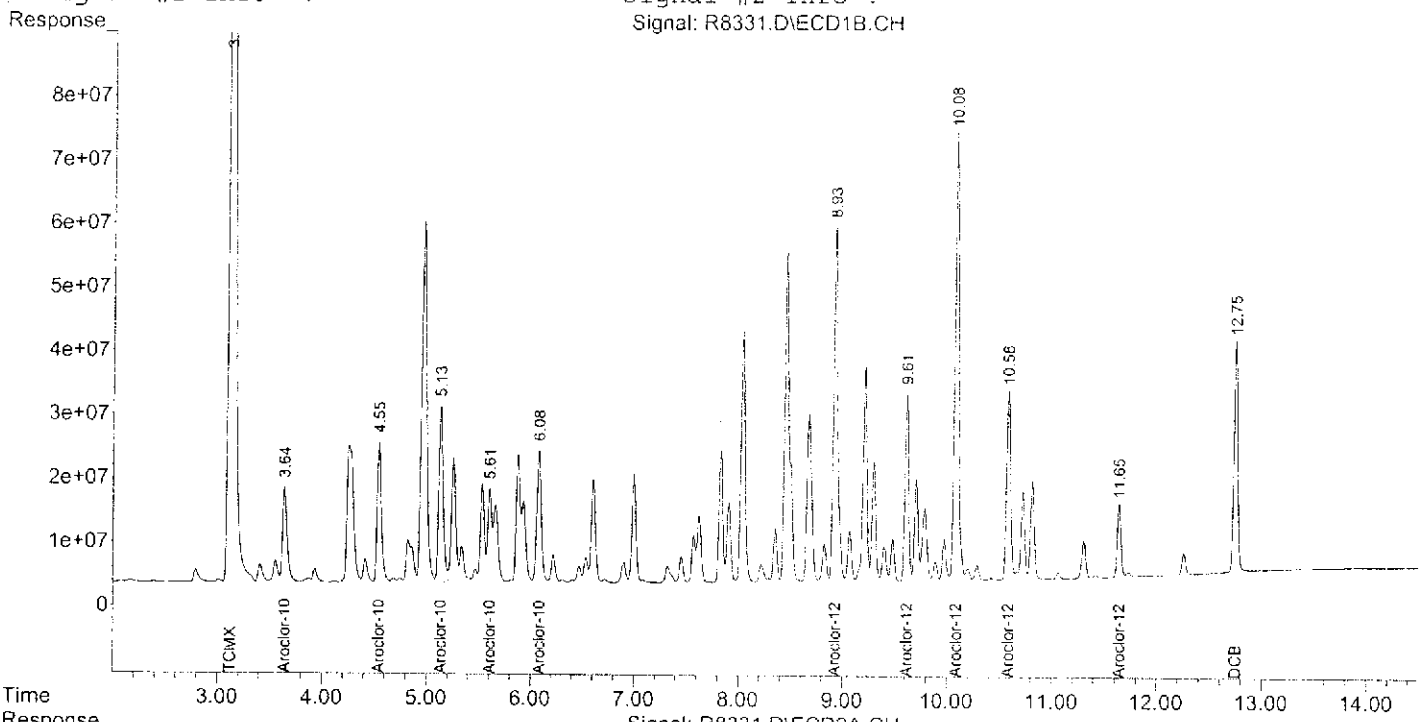
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
R8331.D RPCB1209.M Mon Dec 14 09:57:32 2009 GC_R

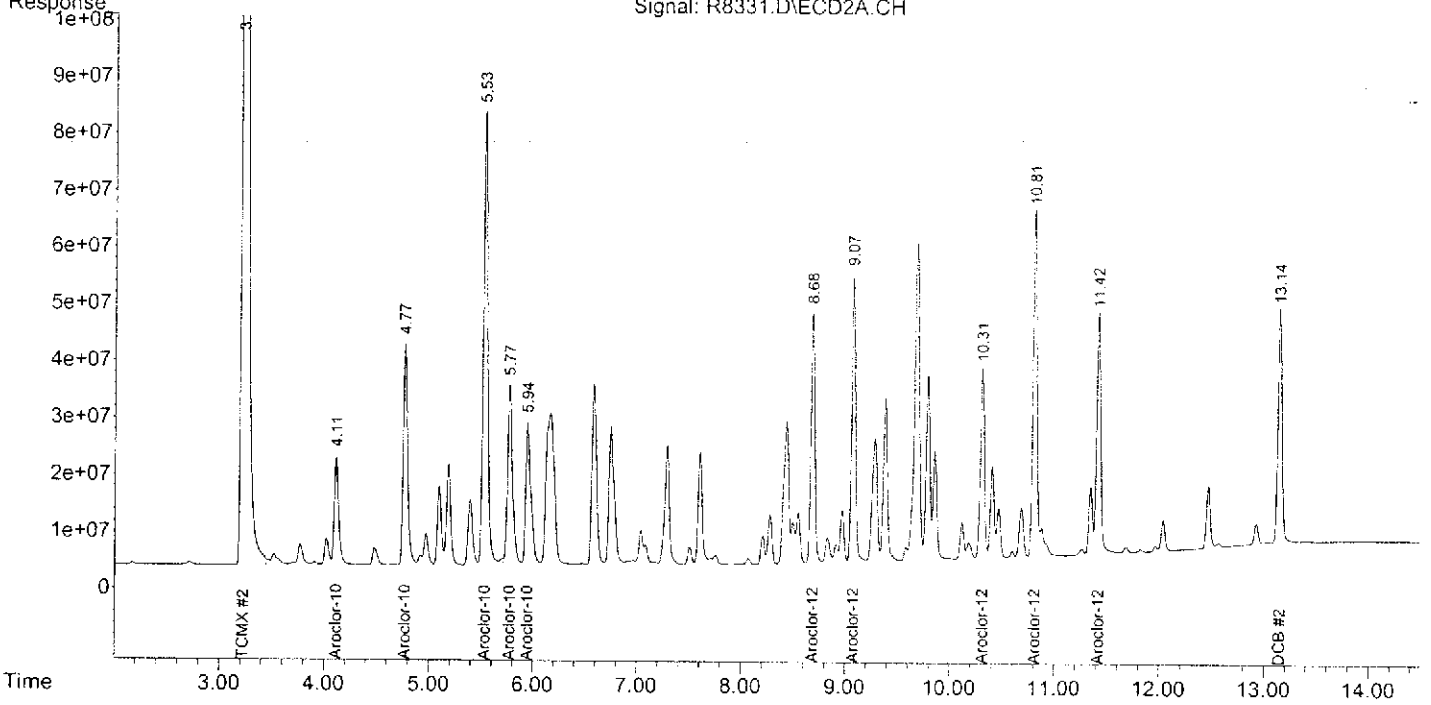
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-11-09\R8331.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\12-11-09\R8331.D\ECD2A.CH
Acq On : 11 Dec 2009 18:53 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 14 8:45 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Wed Dec 09 15:53:21 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0237

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	V6903.D	Instrument ID:	GC-V
Date Extracted:	12/02/2009	Matrix:	SOIL
Date Analyzed:	12/03/2009	Time Analyzed:	12:02

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PX3-B9A	12205-001	12/03/2009	12:47
PX3-SW9	12205-002	12/03/2009	12:59
Pest	12205-001-MS11	12/03/2009	13:11
Pest	12205-001-MSD11	12/03/2009	13:24
Pest	PBS1202-MS11	12/03/2009	13:48

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 1202-BLK11
Client ID: Pest
Date Received: NA
Date Extracted: 12/02/2009
Date Analyzed: 12/03/2009
Data file: V6903.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000167
beta-BHC	ND		0.000167
gamma-BHC (Lindane)	ND		0.000167
delta-BHC	ND		0.000167
Heptachlor	ND		0.000167
Aldrin	ND		0.000167
Heptachlor epoxide	ND		0.000167
Endosulfan I	ND		0.000167
4,4'-DDE	ND		0.000167
Dieldrin	ND		0.000167
Endrin	ND		0.000167
Endosulfan II	ND		0.000167
4,4'-DDD	ND		0.000167
Endrin aldehyde	ND		0.000167
Endosulfan sulfate	ND		0.000167
4,4'-DDT	ND		0.000167
Chlordane	ND		0.000501
Toxaphene	ND		0.000501

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	V7030.D	Instrument ID:	GC-V
Date Extracted:	12/11/2009	Matrix:	SOIL
Date Analyzed:	12/11/2009	Time Analyzed:	14:41

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SB1	12542-001	12/11/2009	15:11
09-213	12551-001	12/11/2009	15:23
Pest	PBS1211-MS04	12/11/2009	15:35

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 1211-BLK04
Client ID: Pest
Date Received: NA
Date Extracted: 12/11/2009
Date Analyzed: 12/11/2009
Data file: V7030.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000167
beta-BHC	ND		0.000167
gamma-BHC (Lindane)	ND		0.000167
delta-BHC	ND		0.000167
Heptachlor	ND		0.000167
Aldrin	ND		0.000167
Heptachlor epoxide	ND		0.000167
Endosulfan I	ND		0.000167
4,4'-DDE	ND		0.000167
Dieldrin	ND		0.000167
Endrin	ND		0.000167
Endosulfan II	ND		0.000167
4,4'-DDD	ND		0.000167
Endrin aldehyde	ND		0.000167
Endosulfan sulfate	ND		0.000167
4,4'-DDT	ND		0.000167
Endrin ketone	ND		0.000167
Methoxychlor	ND		0.000167
alpha-Chlordane	ND		0.000167
gamma-Chlordane	ND		0.000167
Toxaphene	ND		0.000501

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V6982.D V6981.D V6980.D V6983.D V6978.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	2	50	100	200	300	RT	FROM	TO
alpha-BHC	3.25	3.25	3.25	3.24	3.25	3.25	3.19	3.31
beta-BHC	3.67	3.67	3.67	3.67	3.67	3.67	3.61	3.73
gamma-BHC (Lindane	3.58	3.59	3.58	3.58	3.59	3.58	3.52	3.64
delta-BHC	3.88	3.88	3.88	3.88	3.88	3.88	3.82	3.94
Heptachlor	4.14	4.14	4.14	4.14	4.14	4.14	4.06	4.22
Aldrin	4.51	4.51	4.51	4.51	4.51	4.51	4.43	4.59
Heptachlor epoxide	5.30	5.30	5.30	5.30	5.30	5.30	5.22	5.38
Endosulfan I	5.85	5.85	5.85	5.85	5.85	5.85	5.77	5.93
4,4'-DDE	5.74	5.74	5.74	5.74	5.74	5.74	5.64	5.84
Dieldrin	6.19	6.19	6.19	6.19	6.19	6.19	6.09	6.29
Endrin	6.53	6.53	6.53	6.53	6.53	6.53	6.43	6.63
Endosulfan II	6.83	6.83	6.83	6.83	6.83	6.83	6.73	6.93
4,4'-DDD	6.61	6.61	6.61	6.61	6.61	6.61	6.51	6.71
Endrin aldehyde	7.31	7.31	7.31	7.31	7.31	7.31	7.19	7.43
Endosulfan sulfate	7.74	7.74	7.74	7.74	7.74	7.74	7.62	7.86
4,4'-DDT	6.97	6.97	6.97	6.97	6.97	6.97	6.85	7.09
Endrin ketone	7.99	7.99	7.99	7.99	7.99	7.99	7.87	8.11
Methoxychlor	7.49	7.49	7.49	7.49	7.49	7.49	7.37	7.61
alpha-Chlordane	5.65	5.65	5.65	5.65	5.65	5.65	5.57	5.73
gamma-Chlordane	5.47	5.47	5.47	5.47	5.47	5.47	5.39	5.55
Chlordane 500 ppb			4.04				3.96	4.12
Chlordane {2}			4.67				4.59	4.75
Chlordane {3}			5.47				5.39	5.55
Chlordane {4}			5.65				5.57	5.73
Chlordane {5}			6.75				6.67	6.83
Toxaphene 500 ppb			6.14				6.06	6.22
Toxaphene {2}			6.56				6.48	6.64
Toxaphene {3}			6.97				6.89	7.05
Toxaphene {4}			7.42				7.34	7.50
Toxaphene {5}			7.97				7.89	8.05

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V6982.D V6981.D V6980.D V6983.D V6978.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	150750	153211	157484	174568	166834	160569	6.19
beta-BHC	73751	61582	66494	72265	64298	67678	7.67
gamma-BHC (Lindane	129237	129738	129115	143889	140736	134543	5.34
delta-BHC	153501	136650	139156	154849	147040	146239	5.61
Heptachlor	118083	118175	120765	135401	129496	124384	6.21
Aldrin	128762	127649	130352	143469	134898	133026	4.85
Heptachlor epoxide	125651	118873	120722	132179	123989	124283	4.15
Endosulfan I	120218	116090	117067	128107	119447	120186	3.94
4,4'-DDE	115742	110268	112034	124011	116719	115755	4.59
Dieldrin	125107	121612	123207	136329	127923	126836	4.58
Endrin	89717	90059	89744	100207	97293	93404	5.34
Endosulfan II	91412	97464	97257	108563	101044	99148	6.35
4,4'-DDD	93432	101032	102018	113847	104980	103062	7.16
Endrin aldehyde	61127	49705	50338	58144	47128	53289	11.28
Endosulfan sulfate	94770	81677	86888	93587	87521	88889	6.02
4,4'-DDT	56002	51761	54938	67160	66859	59344	12.08
Endrin ketone	108603	96940	98914	110181	102514	103431	5.63
Methoxychlor	27631	25386	25268	30628	30657	27914	9.54
alpha-Chlordane	118258	112084	112869	124802	117139	117031	4.35
gamma-Chlordane	123884	118948	120698	133329	125530	124478	4.48
Chlordane 500 ppb			4033				
Chlordane {2}			5256				
Chlordane {3}			14749				
Chlordane {4}			23833				
Chlordane {5}			3712				
Toxaphene 500 ppb			1347				
Toxaphene {2}			1164				
Toxaphene {3}			1460				
Toxaphene {4}			1856				
Toxaphene {5}			3096				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V6982.C V6981.C V6980.C V6983.C V6978.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.95	2.95	2.95	2.95	2.96	2.95	2.89	3.01
beta-BHC	3.38	3.38	3.38	3.38	3.38	3.38	3.32	3.44
gamma-BHC (Lindane	3.30	3.31	3.31	3.30	3.31	3.31	3.25	3.37
delta-BHC	3.70	3.70	3.70	3.70	3.71	3.70	3.64	3.76
Heptachlor	3.80	3.81	3.80	3.80	3.81	3.80	3.72	3.88
Aldrin	4.19	4.19	4.19	4.19	4.19	4.19	4.11	4.27
Heptachlor epoxide	4.89	4.90	4.90	4.89	4.90	4.89	4.81	4.97
Endosulfan I	5.42	5.42	5.42	5.42	5.42	5.42	5.34	5.50
4,4'-DDE	5.59	5.59	5.59	5.59	5.59	5.59	5.49	5.69
Dieldrin	5.80	5.80	5.80	5.80	5.80	5.80	5.70	5.90
Endrin	6.23	6.23	6.23	6.23	6.23	6.23	6.13	6.33
Endosulfan II	6.54	6.54	6.54	6.54	6.54	6.54	6.44	6.64
4,4'-DDD	6.42	6.43	6.43	6.42	6.43	6.43	6.33	6.53
Endrin aldehyde	6.98	6.98	6.98	6.98	6.98	6.98	6.86	7.10
Endosulfan sulfate	7.29	7.29	7.29	7.29	7.29	7.29	7.17	7.41
4,4'-DDT	6.86	6.86	6.86	6.86	6.86	6.86	6.74	6.98
Endrin ketone	7.78	7.78	7.78	7.78	7.78	7.78	7.66	7.90
Methoxychlor	7.59	7.60	7.60	7.59	7.60	7.59	7.47	7.71
alpha-Chlordane	5.35	5.35	5.35	5.35	5.35	5.35	5.27	5.43
gamma-Chlordane	5.15	5.15	5.15	5.15	5.15	5.15	5.07	5.23
Chlordane 500 ppb			3.64				3.56	3.72
Chlordane {2}			4.36				4.28	4.44
Chlordane {3}			5.15				5.07	5.23
Chlordane {4}			5.29				5.21	5.37
Chlordane {5}			5.35				5.27	5.43
Toxaphene 500 ppb			5.79				5.71	5.87
Toxaphene {2}			6.66				6.58	6.74
Toxaphene {3}			7.00				6.92	7.08
Toxaphene {4}			7.53				7.45	7.61
Toxaphene {5}			7.88				7.80	7.96

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V6982.C V6981.C V6980.C V6983.C V6978.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	536223	528317	541288	618957	566079	558173	6.59
beta-BHC	296247	243413	268505	294980	239207	268470	10.13
gamma-BHC (Lindane	446163	438179	425307	485094	461889	451326	5.11
delta-BHC	498624	439294	440699	502935	463612	469033	6.52
Heptachlor	415148	413903	431736	491025	441644	438691	7.18
Aldrin	468458	428903	436023	493745	447082	454842	5.80
Heptachlor epoxide	461233	402876	407541	447047	401437	424027	6.61
Endosulfan I	433432	398115	398172	437407	391187	411662	5.32
4,4'-DDE	358690	357439	361972	415822	379498	374684	6.58
Dieldrin	431646	403690	405245	457143	412993	422143	5.33
Endrin	336306	292811	293322	331424	308054	312383	6.60
Endosulfan II	394935	348483	340920	379472	338803	360523	7.00
4,4'-DDD	369727	321255	318090	359712	319884	337734	7.38
Endrin aldehyde	231577	168845	163839	183777	155563	180720	16.73
Endosulfan sulfate	336252	262891	255646	287439	255526	279551	12.27
4,4'-DDT	148001	134350	141885	182906	169715	155371	13.04
Endrin ketone	342909	282903	278705	314873	281581	300194	9.34
Methoxychlor	82334	77608	78355	92523	87727	83709	7.59
alpha-Chlordane	432064	380819	374903	419948	380696	397686	6.62
gamma-Chlordane	431294	406736	407393	456444	413200	423013	5.00
Chlordane 500 ppb			16378				
Chlordane {2}			19458				
Chlordane {3}			48099				
Chlordane {4}			41716				
Chlordane {5}			44271				
Toxaphene 500 ppb			5371				
Toxaphene {2}			6681				
Toxaphene {3}			7042				
Toxaphene {4}			6231				
Toxaphene {5}			5252				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/11/2009 **Instrument ID:** GC-V

Data File: V7018.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	3.25	3.19	3.31	160569	159800	0.48
beta-BHC	3.67	3.61	3.73	67678	59371	12.27
gamma-BHC (Lindan	3.59	3.52	3.64	134543	139517	3.70
delta-BHC	3.88	3.82	3.94	146239	141752	3.07
Heptachlor	4.14	4.06	4.22	124384	126461	1.67
Aldrin	4.51	4.43	4.59	133026	129756	2.46
Heptachlor epoxide	5.30	5.22	5.38	124283	121628	2.14
Endosulfan I	5.85	5.77	5.93	120186	115999	3.48
4,4'-DDE	5.74	5.64	5.84	115755	116025	0.23
Dieldrin	6.19	6.09	6.29	126836	123807	2.39
Endrin	6.53	6.43	6.63	93404	98242	5.18
Endosulfan II	6.83	6.73	6.93	99148	97987	1.17
4,4'-DDD	6.61	6.51	6.71	103062	101227	1.78
Endrin aldehyde	7.31	7.19	7.43	53289	47454	10.95
Endosulfan sulfate	7.74	7.62	7.86	88889	87841	1.18
4,4'-DDT	6.97	6.85	7.09	59344	63666	7.28
Endrin ketone	7.98	7.87	8.11	103431	102018	1.37
Methoxychlor	7.49	7.37	7.61	27914	31945	14.44
alpha-Chlordane	5.65	5.57	5.73	117031	115032	1.71
gamma-Chlordane	5.47	5.39	5.55	124478	121892	2.08
Chlordane 500 ppb	4.04	3.96	4.12	4033	4068	0.88
Chlordane {2}	4.68	4.59	4.75	5256	5191	1.25
Chlordane {3}	5.47	5.39	5.55	14749	14587	1.10
Chlordane {4}	5.65	5.57	5.73	23833	23797	0.15
Chlordane {5}	6.75	6.67	6.83	3712	3862	4.04
Toxaphene 500 ppb	6.14	6.06	6.22	1347	1276	5.30
Toxaphene {2}	6.57	6.48	6.64	1164	1249	7.25
Toxaphene {3}	6.98	6.89	7.05	1460	1570	7.58
Toxaphene {4}	7.42	7.34	7.50	1856	2035	9.61
Toxaphene {5}	7.97	7.89	8.05	3096	3149	1.70

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/11/2009 **Instrument ID:** GC-V

Data File: V7018.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.96	2.89	3.01	558173	513255	8.05
beta-BHC	3.38	3.32	3.44	268470	218576	18.58
gamma-BHC (Lindan	3.31	3.25	3.37	451326	441541	2.17
delta-BHC	3.71	3.64	3.76	469033	430432	8.23
Heptachlor	3.81	3.72	3.88	438691	395720	9.80
Aldrin	4.19	4.11	4.27	454842	409606	9.95
Heptachlor epoxide	4.90	4.81	4.97	424027	381468	10.04
Endosulfan I	5.42	5.34	5.50	411662	368539	10.48
4,4'-DDE	5.59	5.49	5.69	374684	349937	6.60
Dieldrin	5.80	5.70	5.90	422143	386740	8.39
Endrin	6.23	6.13	6.33	312383	303475	2.85
Endosulfan II	6.53	6.44	6.64	360523	316951	12.09
4,4'-DDD	6.42	6.33	6.53	337734	302554	10.42
Endrin aldehyde	6.98	6.86	7.10	180720	153000	15.34
Endosulfan sulfate	7.29	7.17	7.41	279551	244147	12.66
4,4'-DDT	6.86	6.74	6.98	155371	164582	5.93
Endrin ketone	7.78	7.66	7.90	300194	266186	11.33
Methoxychlor	7.59	7.47	7.71	83709	84490	0.93
alpha-Chlordane	5.35	5.27	5.43	397686	363789	8.52
gamma-Chlordane	5.15	5.07	5.23	423013	386073	8.73
Chlordane 500 ppb	3.64	3.56	3.72	16378	14812	9.56
Chlordane {2}	4.36	4.28	4.44	19458	17043	12.41
Chlordane {3}	5.15	5.07	5.23	48099	44304	7.89
Chlordane {4}	5.29	5.21	5.37	41716	35862	14.03
Chlordane {5}	5.35	5.27	5.43	44271	41184	6.97
Toxaphene 500 ppb	5.80	5.71	5.87	5371	4730	11.95
Toxaphene {2}	6.67	6.58	6.74	6681	6059	9.32
Toxaphene {3}	7.01	6.92	7.08	7042	7344	4.29
Toxaphene {4}	7.53	7.45	7.61	6231	6465	3.76
Toxaphene {5}	7.89	7.80	7.96	5252	5469	4.13

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/11/2009 **Instrument ID:** GC-V

Data File: V7034.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	3.25	3.19	3.31	160569	150359	6.36
beta-BHC	3.67	3.61	3.73	67678	59964	11.40
gamma-BHC (Lindan	3.59	3.52	3.64	134543	128927	4.17
delta-BHC	3.88	3.82	3.94	146239	138530	5.27
Heptachlor	4.14	4.06	4.22	124384	119395	4.01
Aldrin	4.52	4.43	4.59	133026	124357	6.52
Heptachlor epoxide	5.30	5.22	5.38	124283	117191	5.71
Endosulfan I	5.85	5.77	5.93	120186	112873	6.08
4,4'-DDE	5.75	5.64	5.84	115755	111110	4.01
Dieldrin	6.19	6.09	6.29	126836	120733	4.81
Endrin	6.53	6.43	6.63	93404	98415	5.36
Endosulfan II	6.83	6.73	6.93	99148	95171	4.01
4,4'-DDD	6.61	6.51	6.71	103062	100761	2.23
Endrin aldehyde	7.32	7.19	7.43	53289	45961	13.75
Endosulfan sulfate	7.74	7.62	7.86	88889	86462	2.73
4,4'-DDT	6.97	6.85	7.09	59344	52974	10.73
Endrin ketone	7.99	7.87	8.11	103431	96284	6.91
Methoxychlor	7.49	7.37	7.61	27914	30927	10.79
alpha-Chlordane	5.65	5.57	5.73	117031	110806	5.32
gamma-Chlordane	5.47	5.39	5.55	124478	117524	5.59

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/11/2009 **Instrument ID:** GC-V

Data File: V7034.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.96	2.89	3.01	558173	489045	12.38
beta-BHC	3.39	3.32	3.44	268470	222385	17.17
gamma-BHC (Lindan	3.31	3.25	3.37	451326	411159	8.90
delta-BHC	3.71	3.64	3.76	469033	423736	9.66
Heptachlor	3.81	3.72	3.88	438691	397367	9.42
Aldrin	4.20	4.11	4.27	454842	390063	14.24
Heptachlor epoxide	4.90	4.81	4.97	424027	368460	13.10
Endosulfan I	5.43	5.34	5.50	411662	356196	13.47
4,4'-DDE	5.60	5.49	5.69	374684	338442	9.67
Dieldrin	5.81	5.70	5.90	422143	373569	11.51
Endrin	6.24	6.13	6.33	312383	303114	2.97
Endosulfan II	6.54	6.44	6.64	360523	312682	13.27
4,4'-DDD	6.43	6.33	6.53	337734	299793	11.23
Endrin aldehyde	6.98	6.86	7.10	180720	162243	10.22
Endosulfan sulfate	7.29	7.17	7.41	279551	240896	13.83
4,4'-DDT	6.87	6.74	6.98	155371	137877	11.26
Endrin ketone	7.79	7.66	7.90	300194	256035	14.71
Methoxychlor	7.60	7.47	7.71	83709	71960	14.04
alpha-Chlordane	5.36	5.27	5.43	397686	353750	11.05
gamma-Chlordane	5.16	5.07	5.23	423013	376698	10.95

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/11/2009

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	1211-BLK04	SOIL	79		80		76		76	
SB1	12542-001	SOIL	86		171		67		116	
09-213	12551-001	SOIL	60		106		44		68	
Pest	PBS1211-MS04	SOIL	92		108		82		92	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	23-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PESTICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12205-001-MS11

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Linda	100.0	0.0	70.9	71	70 - 130
Heptachlor	100.0	0.0	91.7	92	70 - 130
Aldrin	100.0	0.0	98.3	98	70 - 130
Dieldrin	100.0	NC	NC	NC	70 - 130
Endrin	100.0	0.0	94.7	95	70 - 130
4,4'-DDT	100.0	0.0	87.7	88	70 - 130

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD #	% REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Linda	0.0	69.6		70	1	18	70 - 130
Heptachlor	0.0	83.1		83	10	21	70 - 130
Aldrin	0.0	92.4		92	6	19	70 - 130
Dieldrin	NC	NC		NC	NC	NC	70 - 130
Endrin	0.0	84.1		84	12	19	70 - 130
4,4'-DDT	0.0	76.0		76	15	29	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __1___ out of __6__ outside limits

Spike Recovery: __2___ out of __12__ outside limits

SOIL PESTICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS1202-MS11

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Linda	100.0	0.0	104.5	105	41 - 148
Heptachlor	100.0	0.0	109.7	110	37 - 164
Aldrin	100.0	0.0	109.2	109	37 - 151
Dieldrin	100.0	0.0	112.5	113	52 - 143
Endrin	100.0	0.0	114.3	114	54 - 166
4,4'-DDT	100.0	0.0	105.6	106	23 - 196

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __6__ outside limits

SOIL PESTICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS1211-MS04

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Linda	100.0	0.0	94.2	94	70 - 130
Heptachlor	100.0	0.0	91.5	92	70 - 130
Aldrin	100.0	0.0	87.1	87	70 - 130
Dieldrin	100.0	0.0	90.7	91	70 - 130
Endrin	100.0	0.0	98.8	99	70 - 130
4,4'-DDT	100.0	0.0	87.2	87	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __6__ outside limits

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.71 **DCB 1** 8.83 **TCMX 2** 2.45 **DCB 2** 8.87

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	1211-BLK04	12/11/2009	14:41	2.71		8.83		2.45		8.87	
SB1	12542-001	12/11/2009	15:11	2.71		8.84		2.44		8.87	
09-213	12551-001	12/11/2009	15:23	2.71		8.83		2.44		8.86	
Pest	PBS1211-MS04	12/11/2009	15:35	2.71		8.83		2.44		8.86	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 12/11/2009

Data file: V7017.D Fri Dec 11 09:13:20 2009

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	7162289	Endrin (1)	8940640	6.91	4.17
DDD	531633	Endrin ketone	389344		
DDE	0	Endrin aldehyde	0		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	19471015	Endrin (2)	30521793	9.31	3.11
DDD	1998313	Endrin ketone	979207		
DDE	0	Endrin aldehyde	0		

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : V7031.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 15:11
Operator : IB
Sample : SB1,12542-001,S,30.39g,50.3,12/11/09,1
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 15 14:31:13 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 11 09:28:46 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.44	16161394	46215534	85.828	66.975
Spiked Amount 100.000			Recovery	=	85.83%	66.97%
2) S DCB	8.84	8.87	9564938	15048337	171.198m	115.829m#
Spiked Amount 100.000			Recovery	=	171.20%	115.83%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

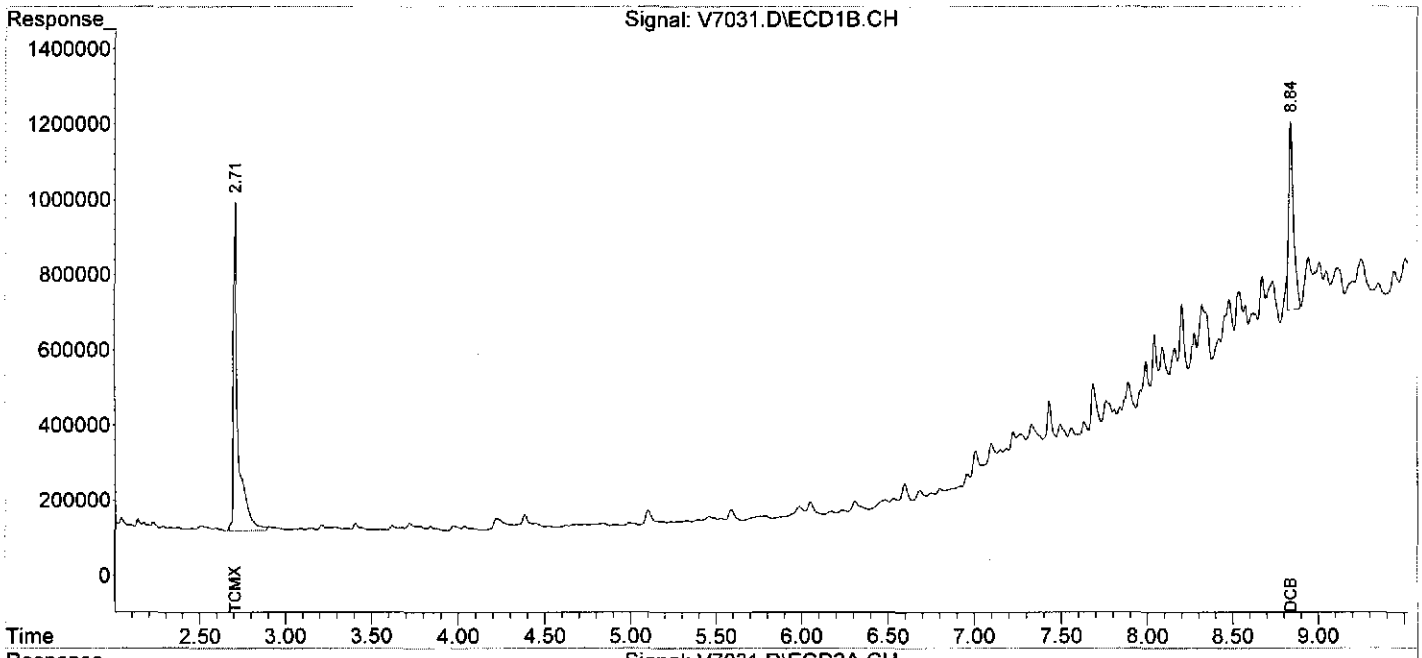
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

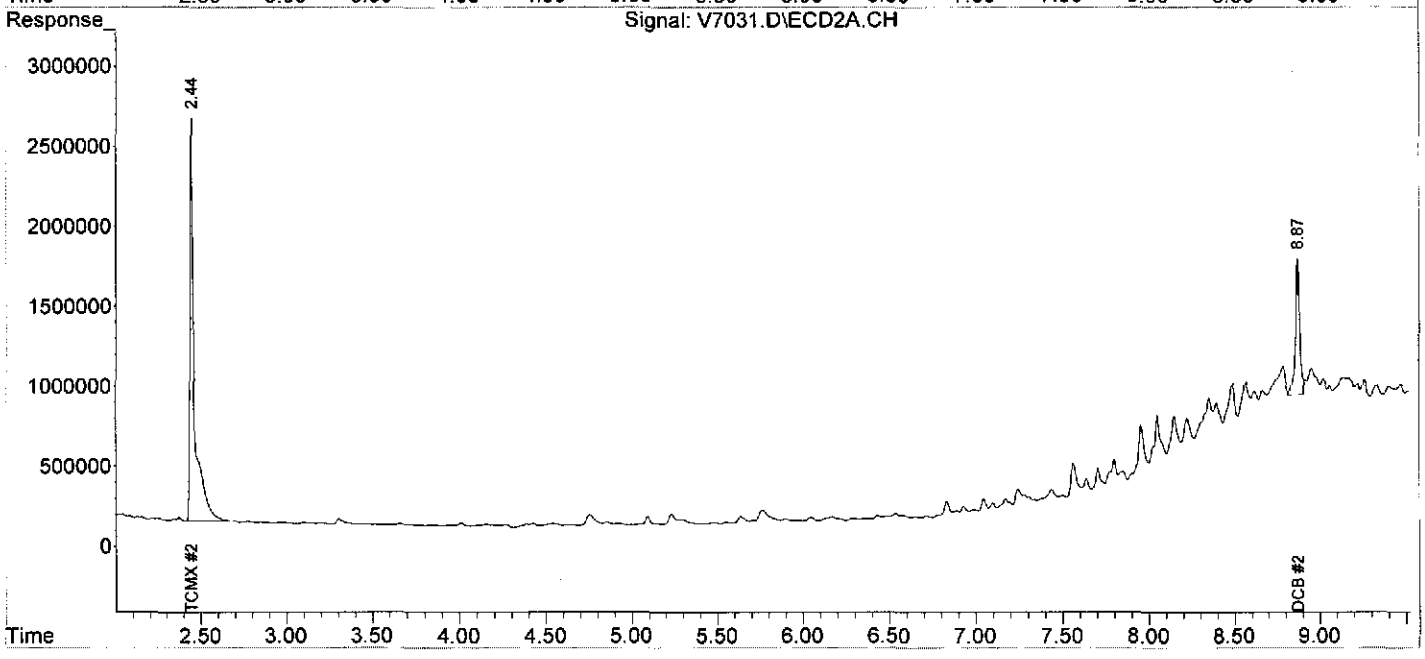
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : V7031.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 15:11
Operator : IB
Sample : SB1,12542-001,S,30.39g,50.3,12/11/09,1
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 15 14:31:13 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 11 09:28:46 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : V7030.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 14:41
Operator : IB
Sample : Pest,1211-BLK04,S,30.00g,0,12/11/09,1
Misc : NA,NA,NA,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 11 15:16:23 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 11 09:28:46 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.45	14811495	52330784	78.660	75.838
Spiked Amount 100.000			Recovery	=	78.66%	75.84%
2) S DCB	8.83	8.87	4478659	9867905	80.161m	75.955
Spiked Amount 100.000			Recovery	=	80.16%	75.95%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

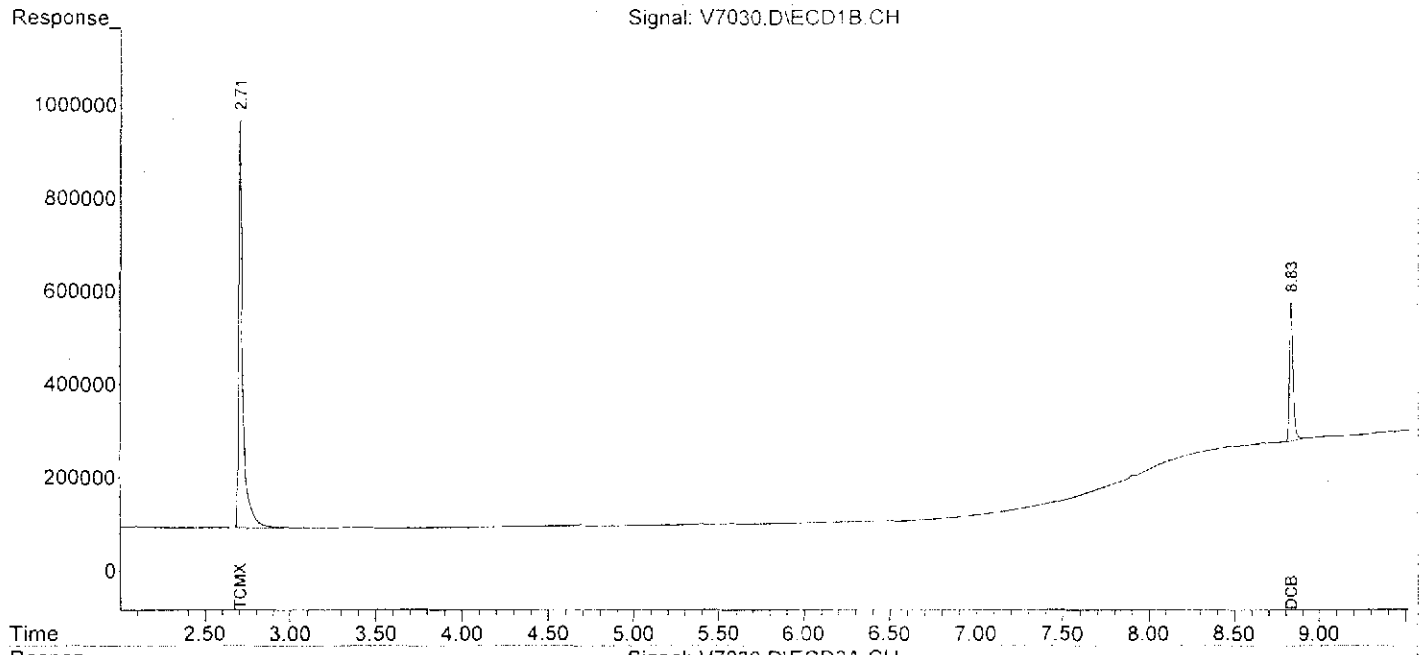
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

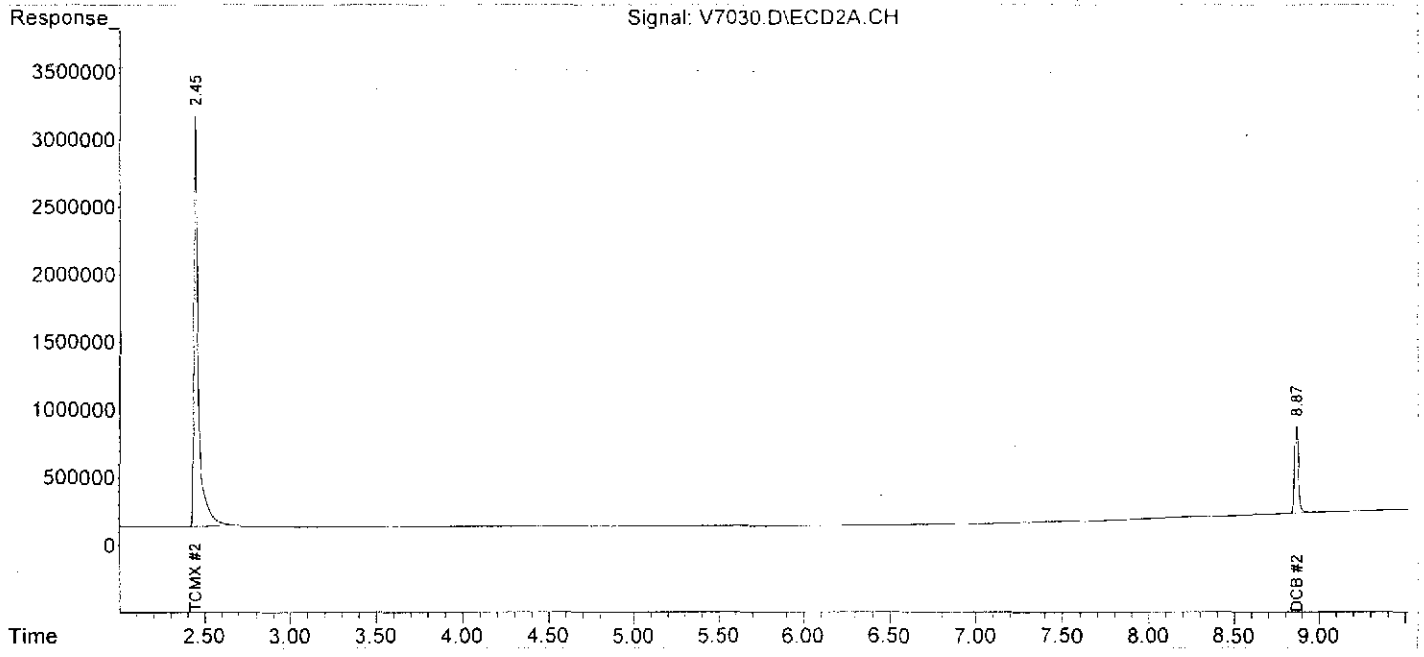
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : V7030.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 14:41
Operator : IB
Sample : Pest,1211-BLK04,S,30.00g,0,12/11/09,1
Misc : NA,NA,NA,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 11 15:16:23 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 11 09:28:46 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : V7018.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 9:14
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 11 09:28:33 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Thu Dec 10 09:07:28 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	2.71	2.44	18803137	61769602	99.858	89.516
	Spiked Amount 100.000			Recovery	=	99.86%	89.52%
2) S	DCB	8.83	8.86	6019825	12936824	107.746m	99.577
	Spiked Amount 100.000			Recovery	=	107.75%	99.58%
	Target Compounds						
3) T	alpha-BHC	3.25	2.96	15980043	51325481	99.396	92.152
4) T	beta-BHC	3.67	3.38	5937085	21857625	87.725	83.704m
5) T	gamma-BHC (Linda	3.59	3.31	13951738	44154088	103.697	97.984
6) T	delta-BHC	3.88	3.71	14175222	43043192	96.932	91.770
7) T	Heptachlor	4.14	3.81	12646111	39572019	101.670	90.205
8) T	Aldrin	4.51	4.19	12975635	40960558	97.542	90.054
9) T	Heptachlor epoxi	5.30	4.90	12162804	38146764	97.864	89.963
10) T	Endosulfan I	5.85	5.42	11599919	36853947	96.517	89.525
11) T	4,4'-DDE	5.74	5.59	11602547	34993676	100.234	93.395
12) T	Dieldrin	6.19	5.80	12380735	38673955	97.613	91.613
13) T	Endrin	6.53	6.23	9824163	30347527	105.179	97.148
14) T	Endosulfan II	6.83	6.53	9798743	31695141	98.829	87.914
15) T	4,4'-DDD	6.61	6.42	10122729	30255370	98.220	89.584
16) T	Endrin aldehyde	7.31	6.98	4745388	15300042	90.637	84.662
17) T	Endosulfan sulfa	7.74	7.29	8784143	24414738	98.971m	87.336
18) T	4,4'-DDT	6.97	6.86	6366594	16458170	108.255	105.790
19) T	Endrin ketone	7.98	7.78	10201799	26618639	99.090m	89.166
20) T	Methoxychlor	7.49	7.59	3194541	8448994	112.665	101.845
21) T	alpha-Chlordane	5.65	5.35	11503199	36378914	98.292	91.476
22) T	gamma-Chlordane	5.47	5.15	12189234	38607260	97.923	91.267
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

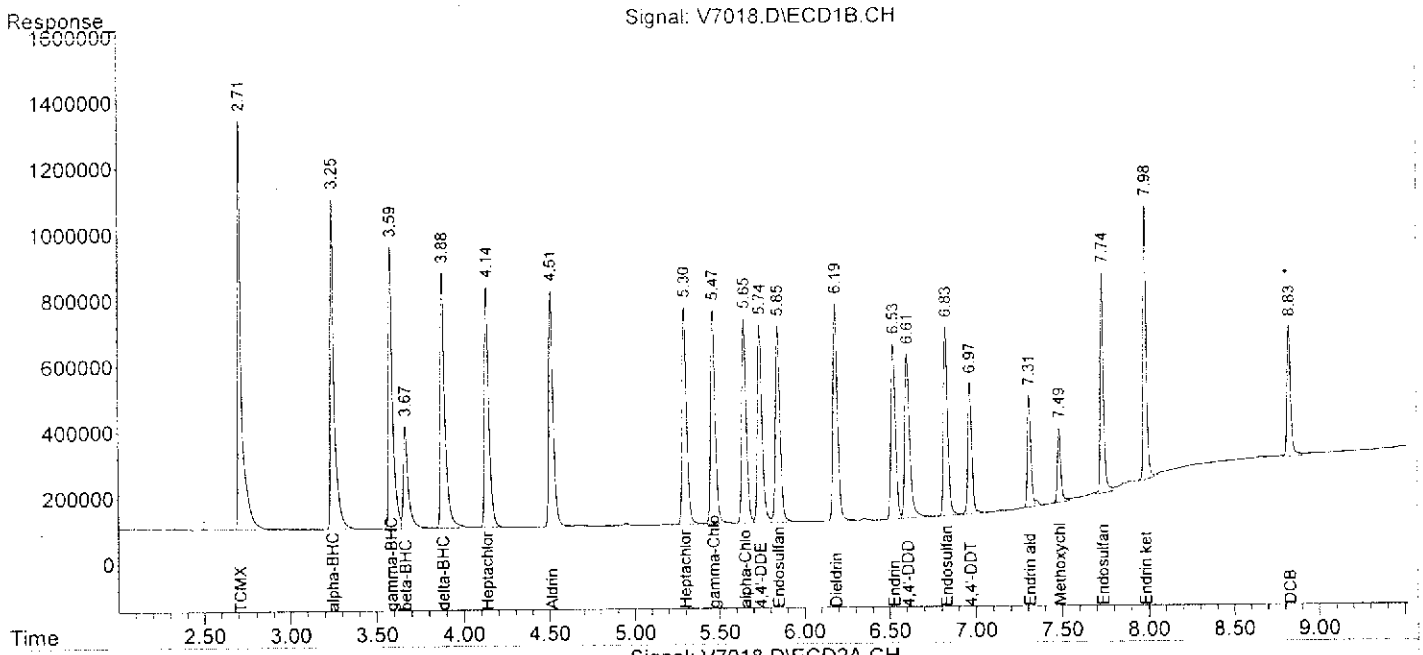
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

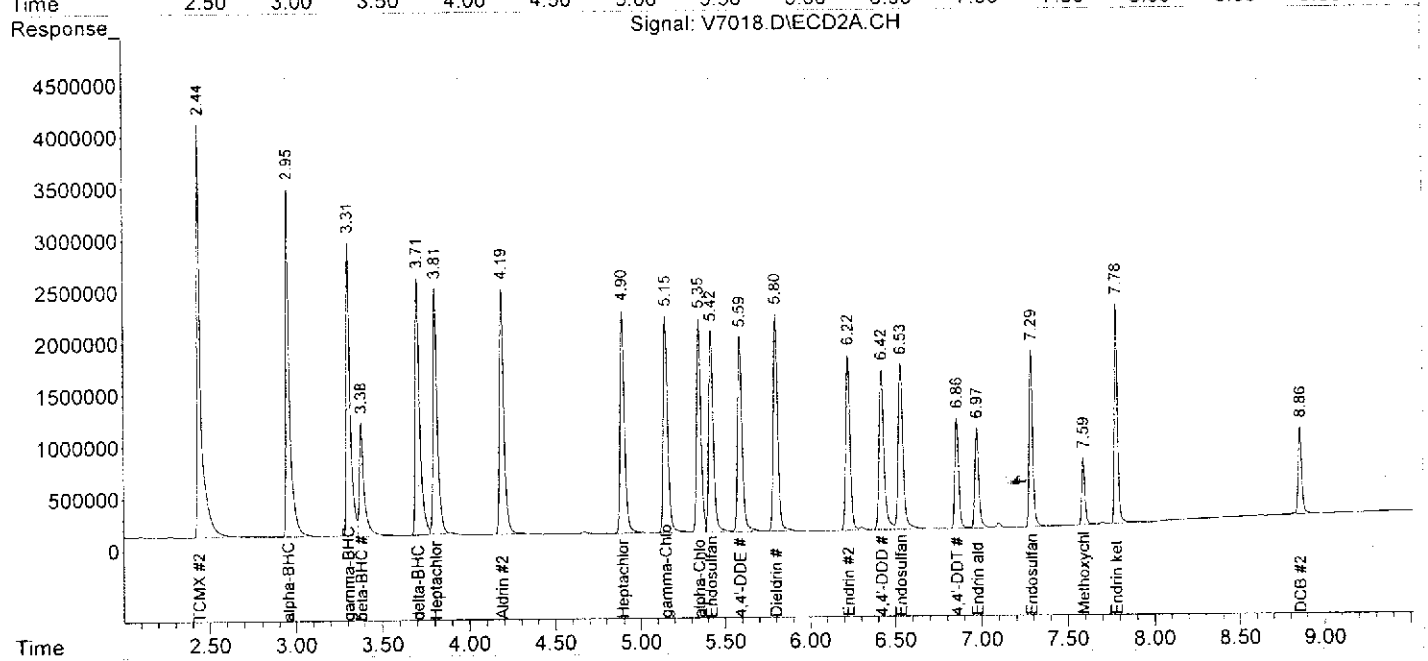
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : V7018.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 9:14
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 11 09:28:33 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Thu Dec 10 09:07:28 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0261

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : V7019.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 9:30
Operator : IB
Sample : TOX_C_IAS_3504,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 11 09:46:20 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 11 09:28:46 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.44	18864010	64214462	100.181	93.059
Spiked Amount 100.000			Recovery	=	100.18%	93.06%
2) S DCB	8.83	8.86	5815735	12390219	104.093m	95.370
Spiked Amount 100.000			Recovery	=	104.09%	95.37%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
28) L2 Toxaphene	6.14	5.80	637808	2364824	473.498	440.269
29) L2 Toxaphene (2)	6.57	6.67	624269	3029368	536.244	453.408
30) L2 Toxaphene (3)	6.98	7.01	785169	3671786	537.915	521.446
31) L2 Toxaphene (4)	7.42	7.53	1017433	3232655	548.038m	518.824
32) L2 Toxaphene (5)	7.97	7.89	1574305	2734413	508.522m	520.638
Sum Toxaphene			4638983	15033045	2604.217	2454.585
Average Toxaphene					520.843	490.917

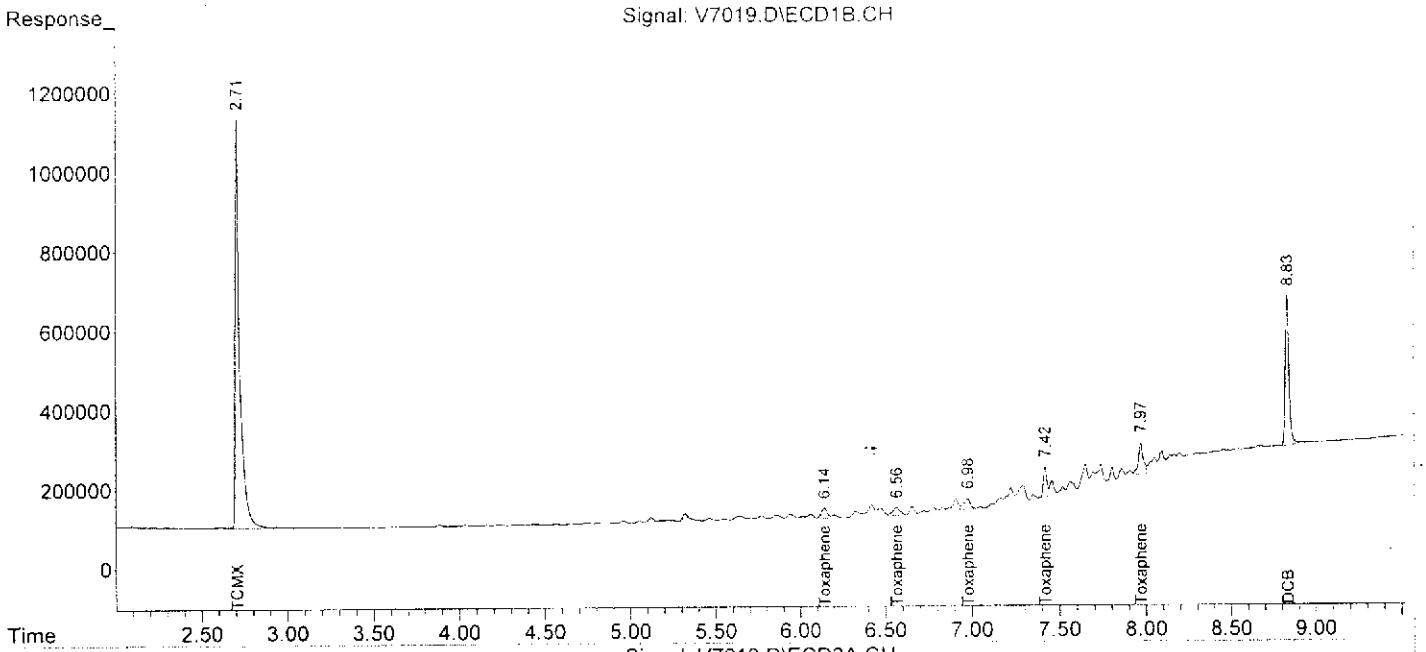
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

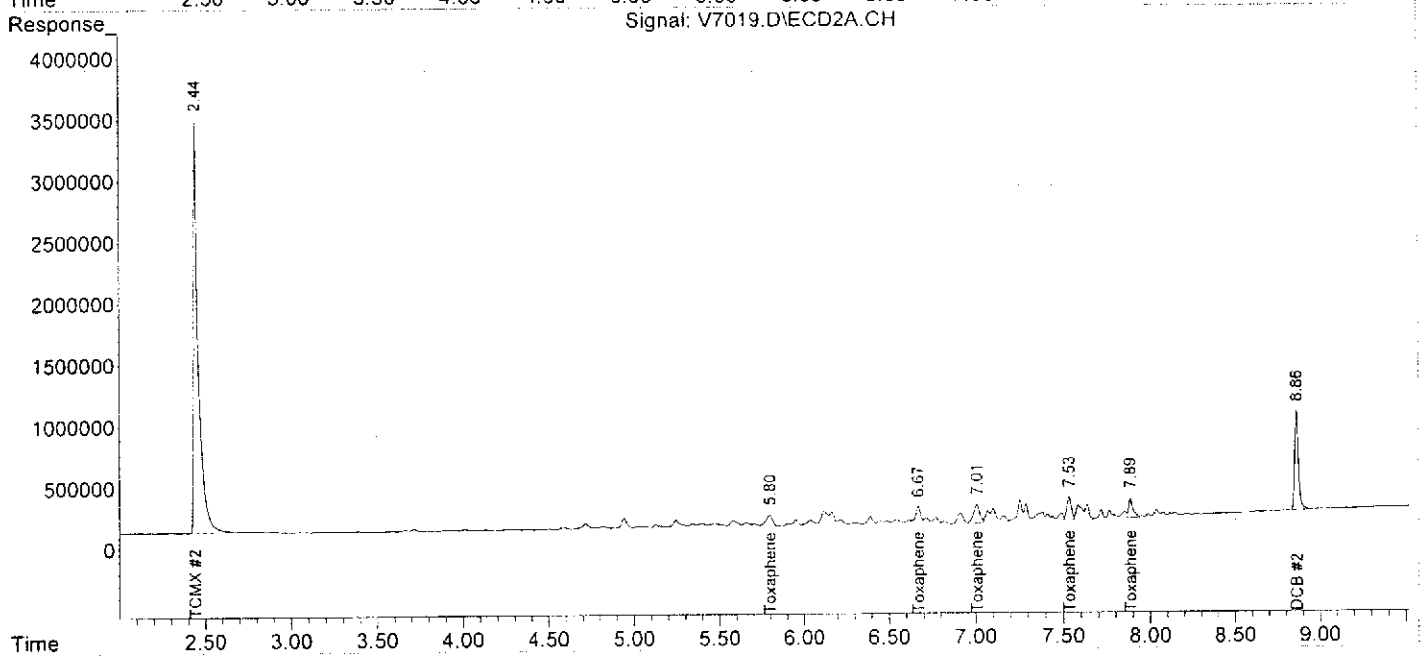
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : V7019.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 9:30
Operator : IB
Sample : TOX_C_IAS_3504,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 11 09:46:20 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 11 09:28:46 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : V7020.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 9:42
Operator : IB
Sample : CHLOR_C_IAS_3503,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 11 09:57:08 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 11 09:28:46 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

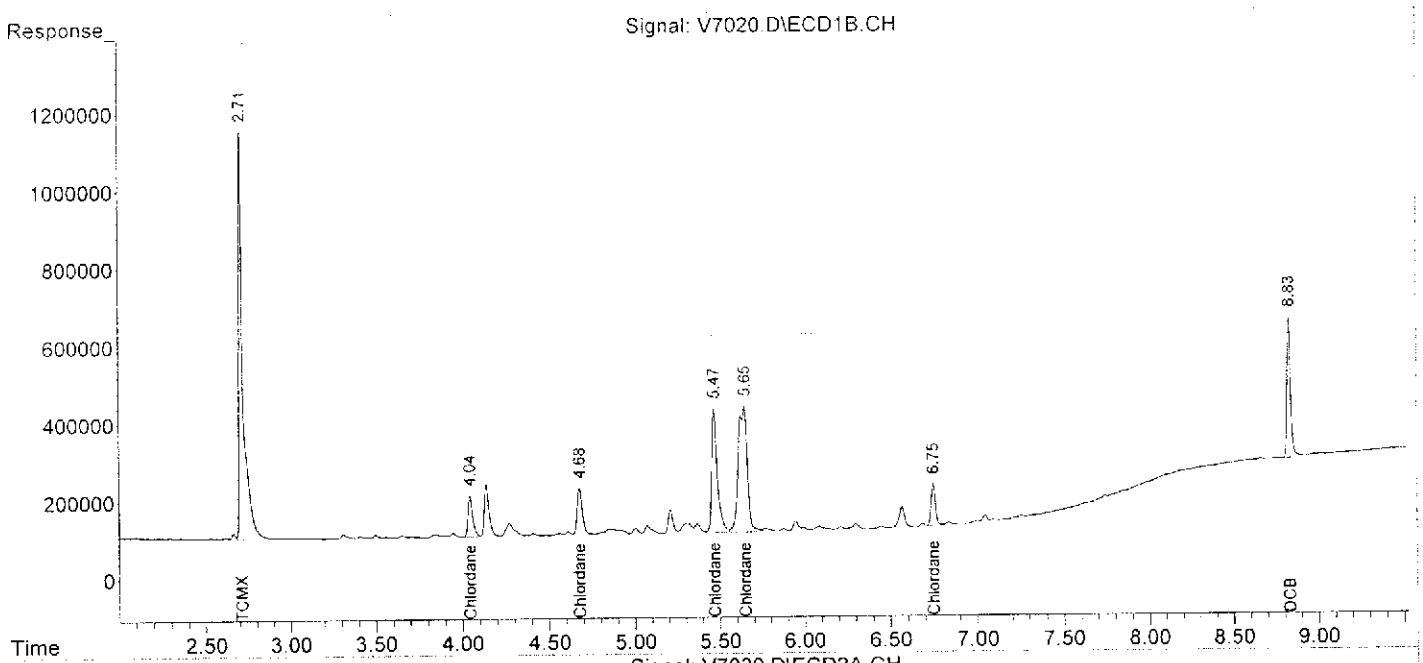
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.44	17913327	61236193	95.132	88.743
Spiked Amount 100.000			Recovery	=	95.13%	88.74%
2) S DCB	8.83	8.86	5411935	11882825	96.865m	91.464
Spiked Amount 100.000			Recovery	=	96.86%	91.46%
Target Compounds						
23) L1 Chlordane	4.04	3.64	2034043	7406212	504.411	452.212
24) L1 Chlordane (2)	4.68	4.36	2595255	8521260	493.732	437.934
25) L1 Chlordane (3)	5.47	5.15	7293485	22152125	494.492	460.551
26) L1 Chlordane (4)	5.65	5.29	11898283	17931187	499.229m	429.835
27) L1 Chlordane (5)	6.75	5.35	1931123	20591777	520.205	465.131
Sum Chlordane			25752189	76602561	2512.068	2245.663
Average Chlordane					502.414	449.133
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

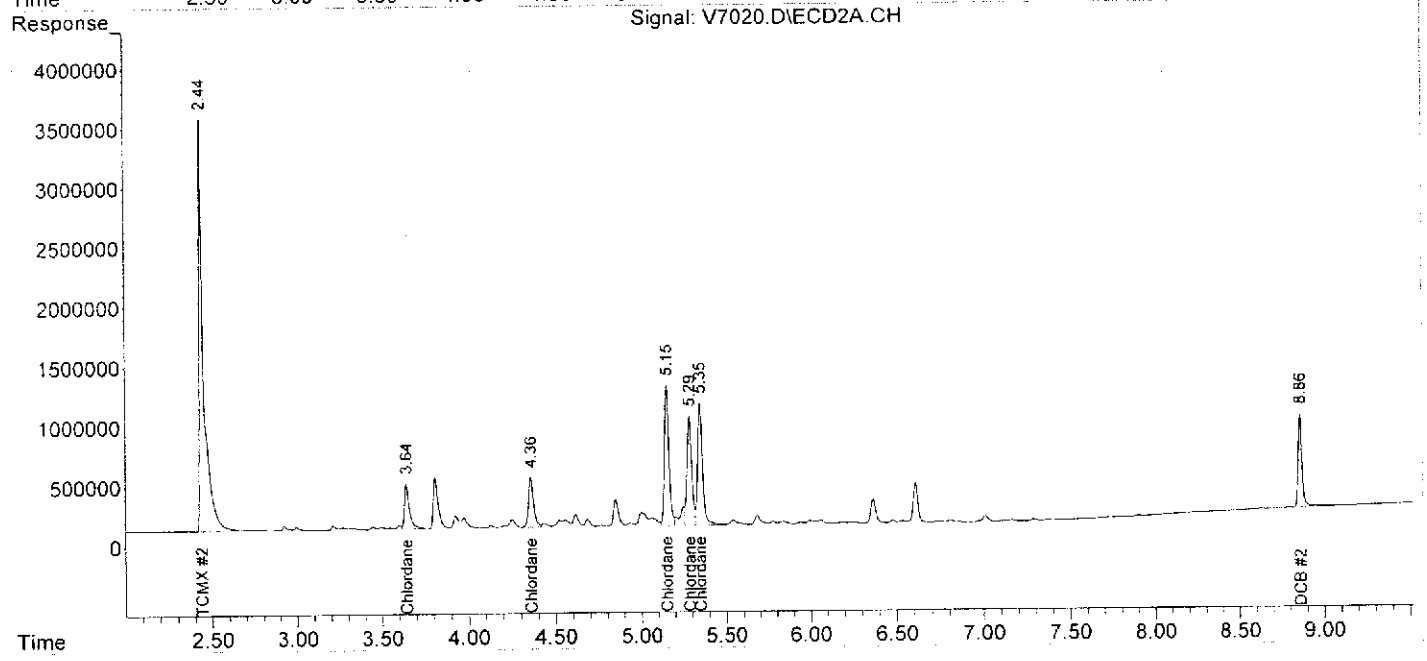
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : V7020.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 9:42
Operator : IB
Sample : CHLOR_C_IAS_3503,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 11 09:57:08 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 11 09:28:46 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : V7034.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 16:03
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 11 16:17:00 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 11 09:28:46 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	2.71	2.44	17635697	59704215	93.658	86.523
Spiked Amount	100.000			Recovery	=	93.66%	86.52%
2) S	DCB	8.84	8.86	5387330	11726980	96.425m	90.264
Spiked Amount	100.000			Recovery	=	96.42%	90.26%
	Target Compounds						
3) T	alpha-BHC	3.25	2.96	15035935	48904547	93.524	87.805
4) T	beta-BHC	3.67	3.39	5996408	22238465	88.602	85.162m
5) T	gamma-BHC (Linda	3.59	3.31	12892703	41115880	95.826	91.242
6) T	delta-BHC	3.88	3.71	13853005	42373606	94.728	90.343
7) T	Heptachlor	4.14	3.81	11939452	39736681	95.989	90.580
8) T	Aldrin	4.52	4.20	12435671	39006349	93.483	85.758
9) T	Heptachlor epoxi	5.30	4.90	11719128	36846042	94.294	86.896
10) T	Endosulfan I	5.85	5.43	11287330	35619569	93.916	86.526
11) T	4,4'-DDE	5.75	5.60	11111041	33844237	95.988	90.327
12) T	Dieldrin	6.19	5.81	12073319	37356891	95.189	88.493
13) T	Endrin	6.53	6.24	9841497	30311393	105.365	97.033
14) T	Endosulfan II	6.83	6.54	9517094	31268162	95.989	86.730
15) T	4,4'-DDD	6.61	6.43	10076143	29979290	97.768	88.766
16) T	Endrin aldehyde	7.32	6.98	4596056	16224301	87.785	89.776m
17) T	Endosulfan sulfa	7.74	7.29	8646169	24089639	97.416m	86.173
18) T	4,4'-DDT	6.97	6.87	5297378	13787707	90.074	88.625
19) T	Endrin ketone	7.99	7.79	9628426	25603517	93.521m	85.766m
20) T	Methoxychlor	7.49	7.60	3092710	7195986	109.074	86.741
21) T	alpha-Chlordane	5.65	5.36	11080563	35374960	94.681	88.952
22) T	gamma-Chlordane	5.47	5.16	11752421	37669803	94.414	89.051
Sum	Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000
Sum	Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

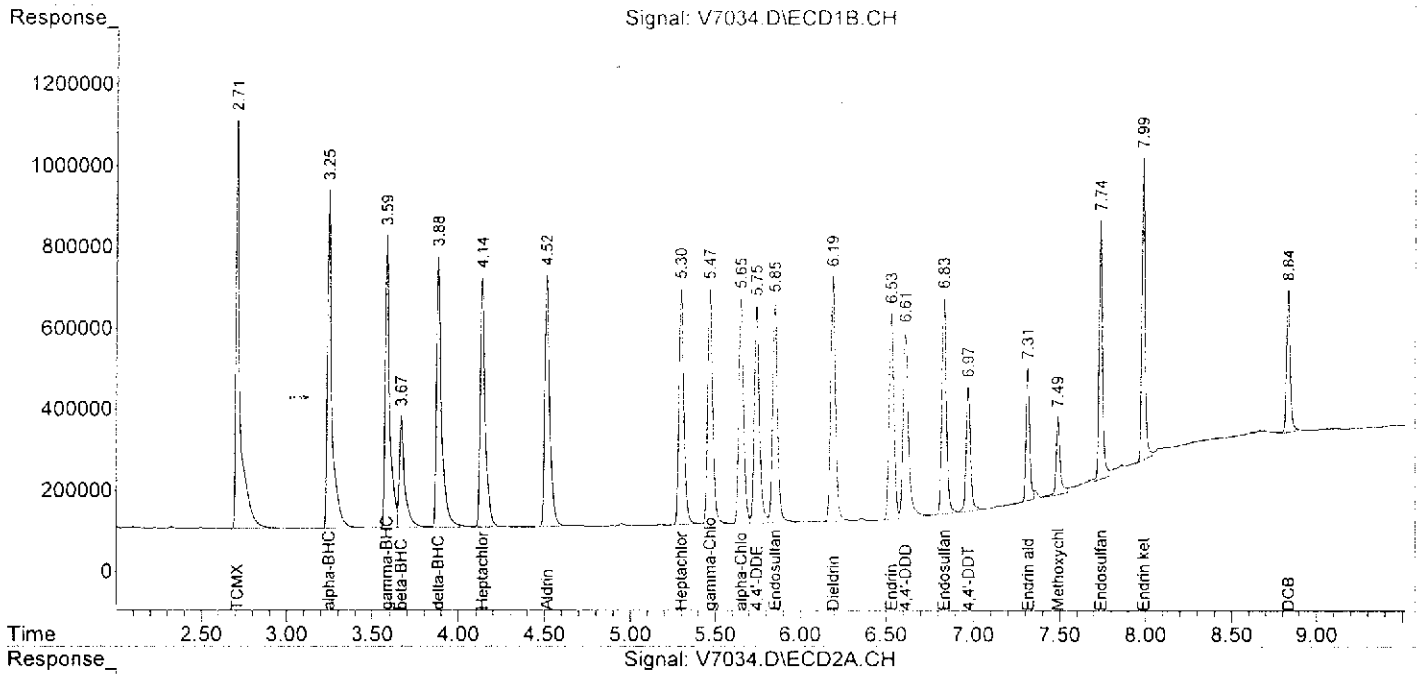
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

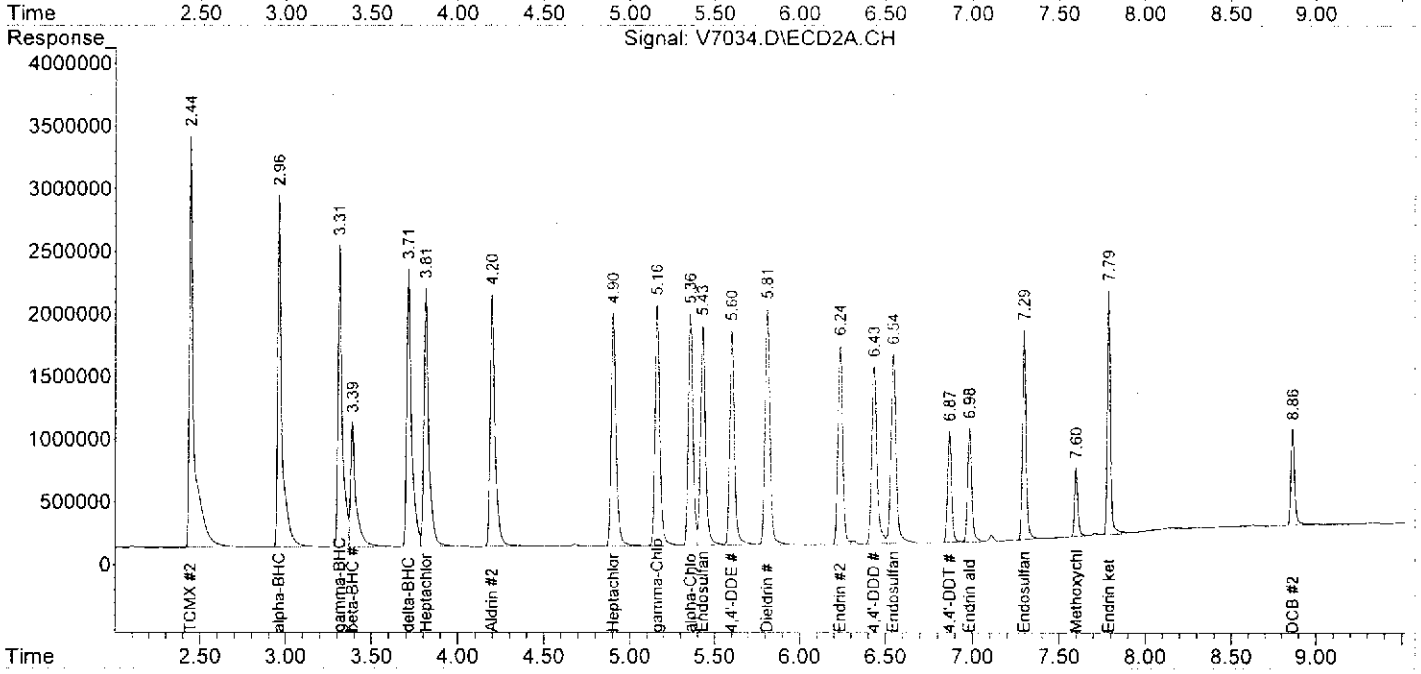
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-11-09\
Data File : V7034.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Dec 2009 16:03
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 11 16:17:00 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 11 09:28:46 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





TPH METHOD BLANK SUMMARY

Lab File ID: Q4528.D

Date Extracted: 12/10/2009

Date Analyzed: 12/11/2009

Instrument ID: GC-Q

Matrix: SOIL

Time Analyzed: 10:28

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PL-6/2-2	12496-001	12/11/2009	10:38
PL-7/2-2	12496-002	12/11/2009	10:48
PL-8/2-2	12496-003	12/11/2009	10:58
S-1	12544-001	12/11/2009	11:08
S-2	12544-002	12/11/2009	11:19
S-3	12544-003	12/11/2009	11:29
S-4	12544-004	12/11/2009	11:39
B-1	12544-005	12/11/2009	11:49
F.O.S.	12544-006	12/11/2009	11:59
COMP.	12544-007	12/11/2009	12:09
T4-2/5.5	12542-003	12/11/2009	12:30
T4-3/5.5	12542-004	12/11/2009	12:41
T4-4/5.5	12542-005	12/11/2009	12:55
T4-5/5.5	12542-006	12/11/2009	13:05
T5-1/5.5	12542-007	12/11/2009	13:15
T5-2/5.5	12542-008	12/11/2009	13:25
T5-3/5.5	12542-009	12/11/2009	13:35
T5-4/5.5	12542-010	12/11/2009	13:45
T5-5/5.5	12542-011	12/11/2009	13:56
DRO	12544-006-MS09	12/11/2009	14:06
DRO	12544-006-MSD09	12/11/2009	14:16
DRO	DBS1210-MS09	12/11/2009	14:26
T4-1/5.5	12542-002	12/14/2009	11:08

INTEGRATED ANALYTICAL LABORATORIES

EXTRACTABLE HYDROCARBONS

Lab ID:	1210-BLK09	GC Column:	DB-5
Client ID:	DRO	Sample wt/vol:	10.0g
Date Received:	NA	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/10/2009	Dilution Factor:	1
Date Analyzed:	12/11/2009	% Moisture:	0
Data File:	Q4528.D		

Compound	Concentration	Q	MDL
TPH-DRO	ND		60.0

TPH INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/10/2009 Instrument ID: GC-Q

Date File: Q4440.D Q4439.D Q4442.D Q4437.D Q4441.D GC Column: DB-5

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	40 PPM	500 PPM	1000 PPM	2000 PPM	4000 PPM	RT	FROM	TO
TPH-DRO	2.50	2.50	2.50	2.50	2.50	2.50	2.43	2.57

	CALIBRATION FACTORS					MEAN	
COMPOUND	40 PPM	500 PPM	1000 PPM	2000 PPM	4000 PPM	RF	%RSD
TPH-DRO	43.0	37.4	39.4	39.1	38.4	39.5	5.38

TPH CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/11/2009 10:18

Date File: Q4527.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	38.9	1.52

Date Analyzed: 12/11/2009 14:36

Date File: Q4552.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	39.3	0.506

Date Analyzed: 12/14/2009 10:57

Date File: Q4619.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	37.5	5.06

Date Analyzed: 12/14/2009 12:42

Date File: Q4629.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	38.6	2.28

TPH SURROGATE RECOVERY AND RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Q

Column: DB-5

Surrogate RT from initial calibration:
DBC 4.95

Client ID	Lab Sample ID	Matrix	Date Analyzed	Time Analyzed	DBC % rec	#	DBC RT	#
DRO	1210-BLK09	SOIL	12/11/2009	10:28	91		4.95	
PL-6/2-2	12496-001	SOIL	12/11/2009	10:38	111		4.95	
PL-7/2-2	12496-002	SOIL	12/11/2009	10:48	114		4.95	
PL-8/2-2	12496-003	SOIL	12/11/2009	10:58	117		4.95	
S-1	12544-001	SOIL	12/11/2009	11:08	94		4.95	
S-2	12544-002	SOIL	12/11/2009	11:19	88		4.95	
S-3	12544-003	SOIL	12/11/2009	11:29	94		4.95	
S-4	12544-004	SOIL	12/11/2009	11:39	92		4.95	
B-1	12544-005	SOIL	12/11/2009	11:49	97		4.95	
F.O.S.	12544-006	SOIL	12/11/2009	11:59	89		4.95	
COMP.	12544-007	SOIL	12/11/2009	12:09	96		4.96	
T4-2/5.5	12542-003	SOIL	12/11/2009	12:30	95		4.95	
T4-3/5.5	12542-004	SOIL	12/11/2009	12:41	96		4.96	
T4-4/5.5	12542-005	SOIL	12/11/2009	12:55	96		4.96	
T4-5/5.5	12542-006	SOIL	12/11/2009	13:05	92		4.96	
T5-1/5.5	12542-007	SOIL	12/11/2009	13:15	98		4.96	
T5-2/5.5	12542-008	SOIL	12/11/2009	13:25	108		4.96	
T5-3/5.5	12542-009	SOIL	12/11/2009	13:35	113		4.96	
T5-4/5.5	12542-010	SOIL	12/11/2009	13:45	108		4.96	
T5-5/5.5	12542-011	SOIL	12/11/2009	13:56	102		4.95	
DRO	12544-006-MS09	SOIL	12/11/2009	14:06	88		4.95	
DRO	12544-006-MSD09	SOIL	12/11/2009	14:16	90		4.95	
DRO	DBS1210-MS09	SOIL	12/11/2009	14:26	93		4.95	
T4-1/5.5	12542-002	SOIL	12/14/2009	11:08	108		4.95	

Surrogate QC Limits	Recovery	RT
DBC = Dibutylchlorendate	70 - 130	± 0.15 Minutes

Column to be used to flag recovery values
* = Values outside of QC Limits
D = Surrogate diluted out
M = Matrix interference

SOIL - TPH MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix Spike Lab Sample ID 12544-006-MSD09

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC	#	QC LIMITS REC
TPH-DRO	1000	0	1160	116		26 - 158

COMPOUND	SAMPLE CONC. (mg/Kg)	MSD CONC. (mg/Kg)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC
TPH-DRO	0	1190	119		3.03		30	26 - 158

Column to be used to flag recovery and RPD values with an asterisk

* = Values outside of QC Limits

NC = Non calculable

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

SOIL - TPH BLANK SPIKE RECOVERY

Blank Spike Lab Sample ID: DBS1210-MS09

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	BS CONC. (mg/Kg)	BS % REC	#	QC LIMITS REC
TPH-DRO	1000	0	1100	110		70 - 130

Column to be used to flag recovery values with an asterisk

* = Values outside of QC Limits

Spike Recovery: 0 out of 1 outside limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-14-09\
Data File : Q4620.D
Signal(s) : FID1A.ch
Acq On : 14 Dec 9 11:08 am
Operator : TB
Sample : T4-1/5.5,12542-002,S,10.21g,16.1,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 11:25:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 11:20:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.953	4510840	21.542 ng m
Spiked Amount 100.000		Recovery =	21.54%
Target Compounds			
3) H TPH-DRO	2.500	366774560	929.058 ng

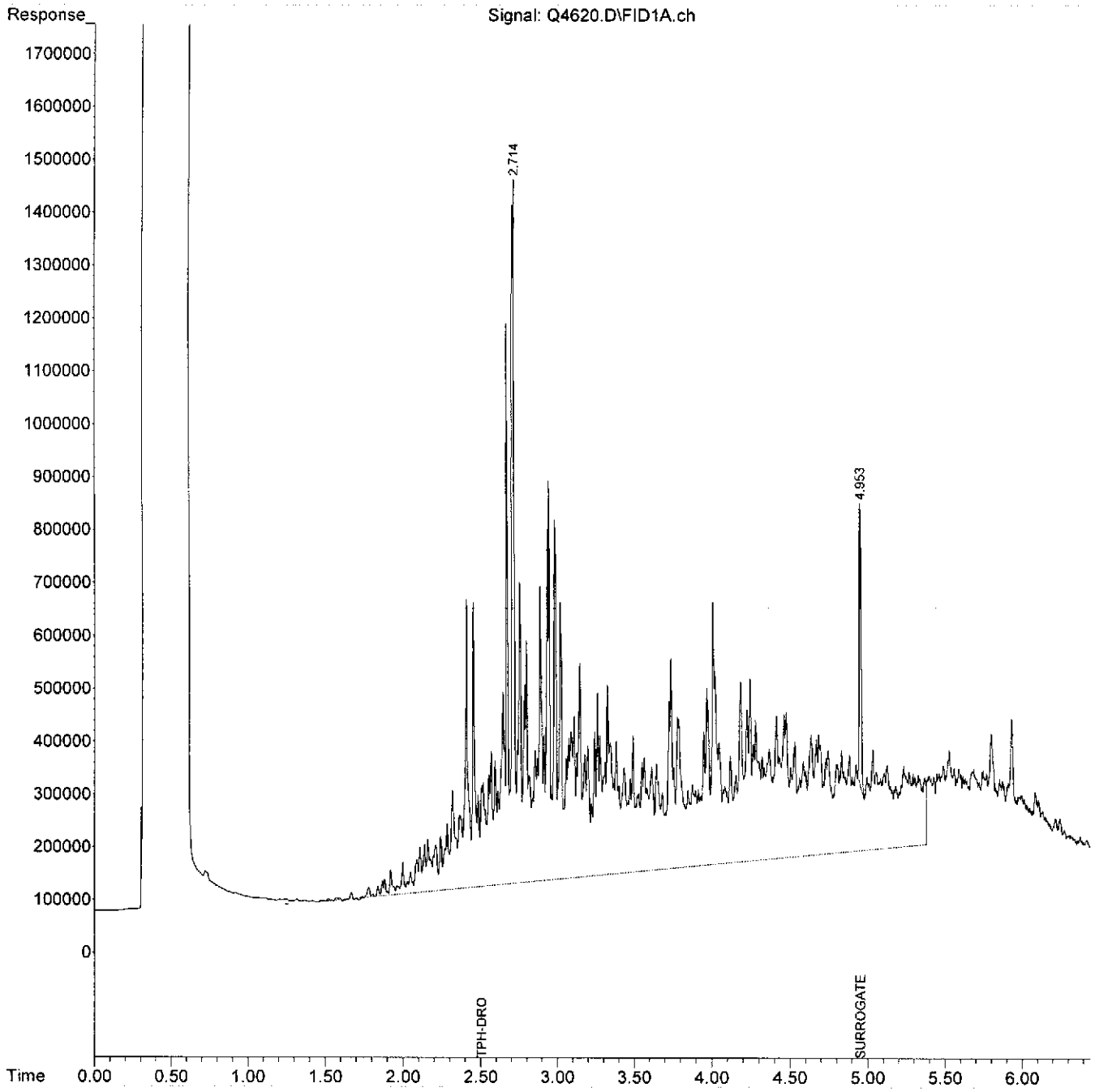
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-14-09\
Data File : Q4620.D
Signal(s) : FID1A.ch
Acq On : 14 Dec 9 11:08 am
Operator : TB
Sample : T4-1/5.5,12542-002,S,10.21g,16.1,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,5
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 11:25:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 11:20:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4540.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 12:30 pm
Operator : LIZ
Sample : T4-2/5.5,12542-003,S,10.14g,13.6,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 09:59:55 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.954	19798278	94.547 ng m
Spiked Amount 100.000		Recovery =	94.55%
Target Compounds			
3) H TPH-DRO	2.500	90772332	229.931 ng

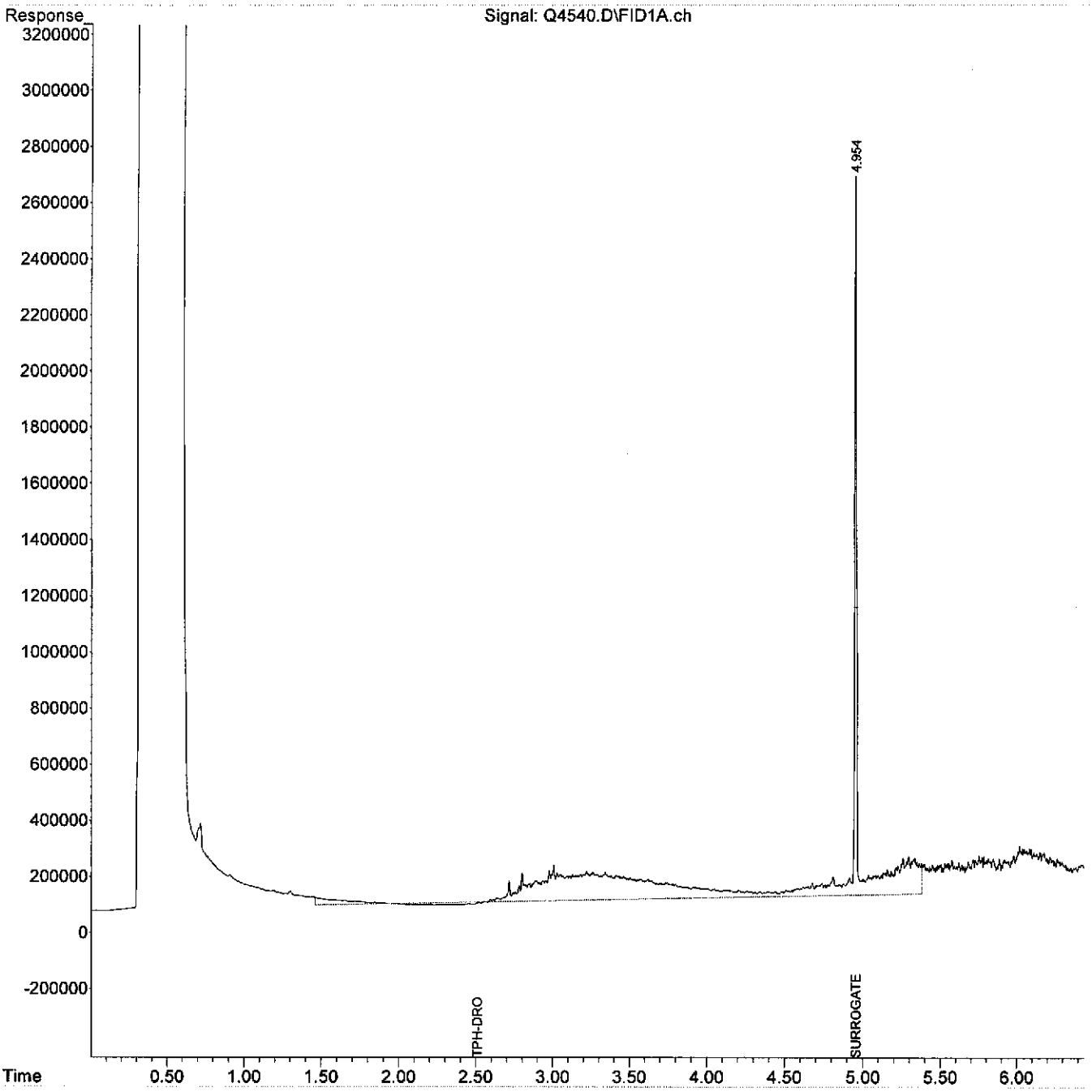
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4540.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 12:30 pm
Operator : LIZ
Sample : T4-2/5.5,12542-003,S,10.14g,13.6,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 09:59:55 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4541.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 12:41 pm
Operator : LIZ
Sample : T4-3/5.5,12542-004,S,10.34g,15.6,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:00:08 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.956	20147740	96.216 ng m
Spiked Amount 100.000		Recovery = 96.22%	
Target Compounds			

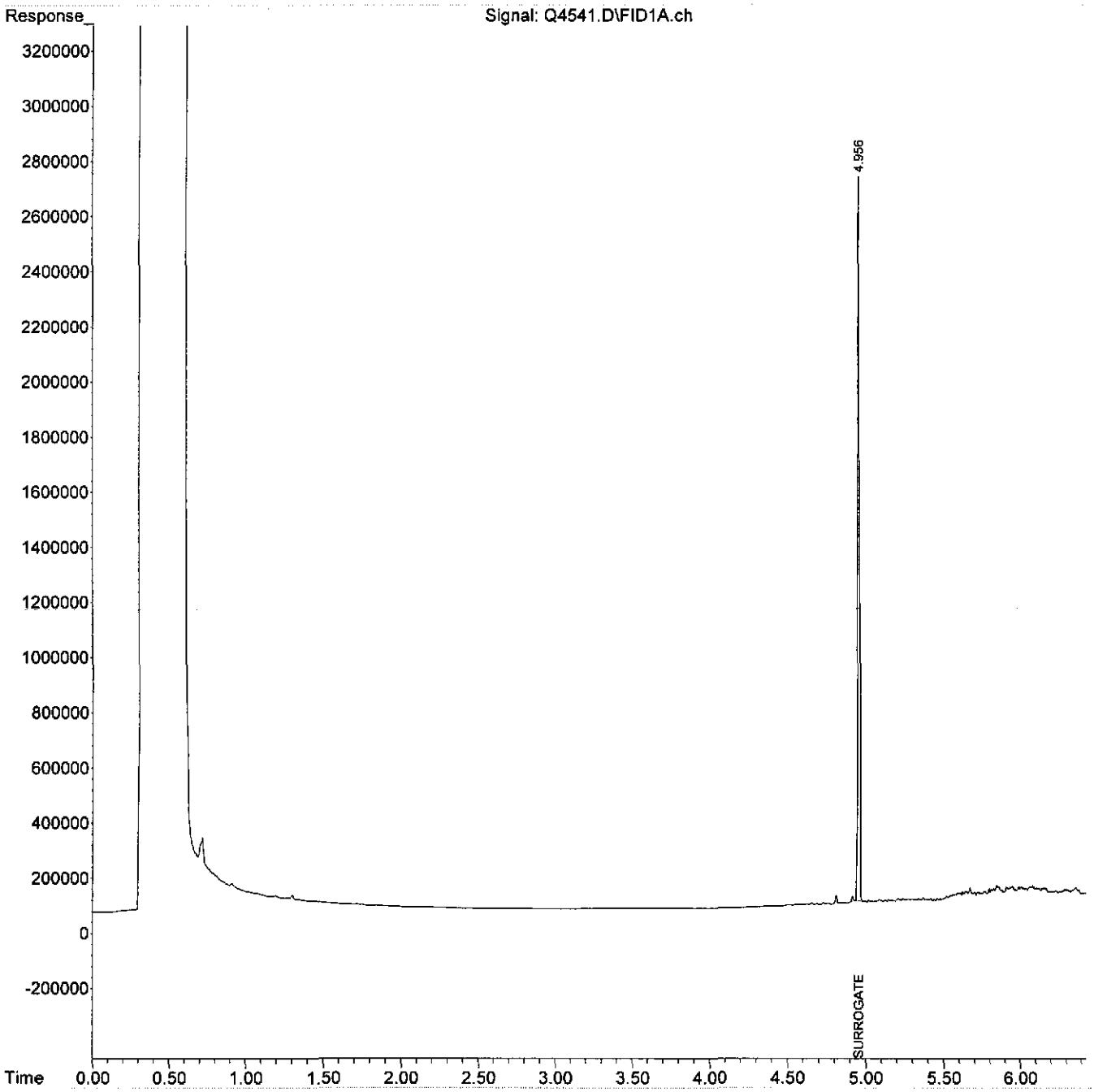
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4541.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 12:41 pm
Operator : LIZ
Sample : T4-3/5.5,12542-004,S,10.34g,15.6,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:00:08 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4542.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 12:55 pm
Operator : LIZ
Sample : T4-4/5.5,12542-005,S,10.24g,18.0,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:00:17 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.961	20170139	96.323	ng	m
Spiked Amount 100.000		Recovery = 96.32%			
Target Compounds					

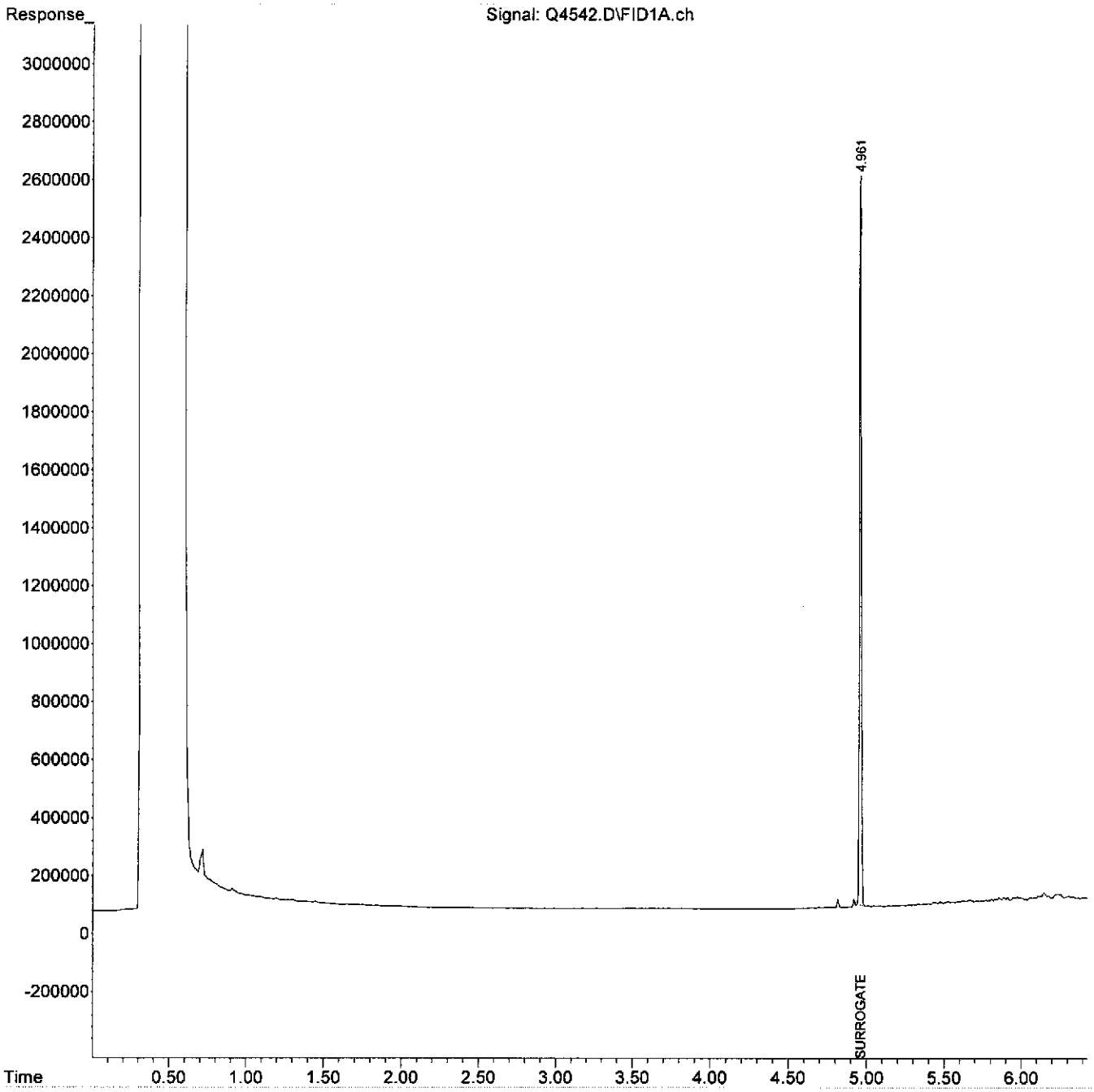
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4542.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 12:55 pm
Operator : LIZ
Sample : T4-4/5.5,12542-005,S,10.24g,18.0,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:00:17 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4543.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:05 pm
Operator : LIZ
Sample : T4-5/5.5,12542-006,S,10.25g,13.1,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:00:26 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.955	19307546	92.204 ng m
Spiked Amount 100.000		Recovery = 92.20%	
Target Compounds			

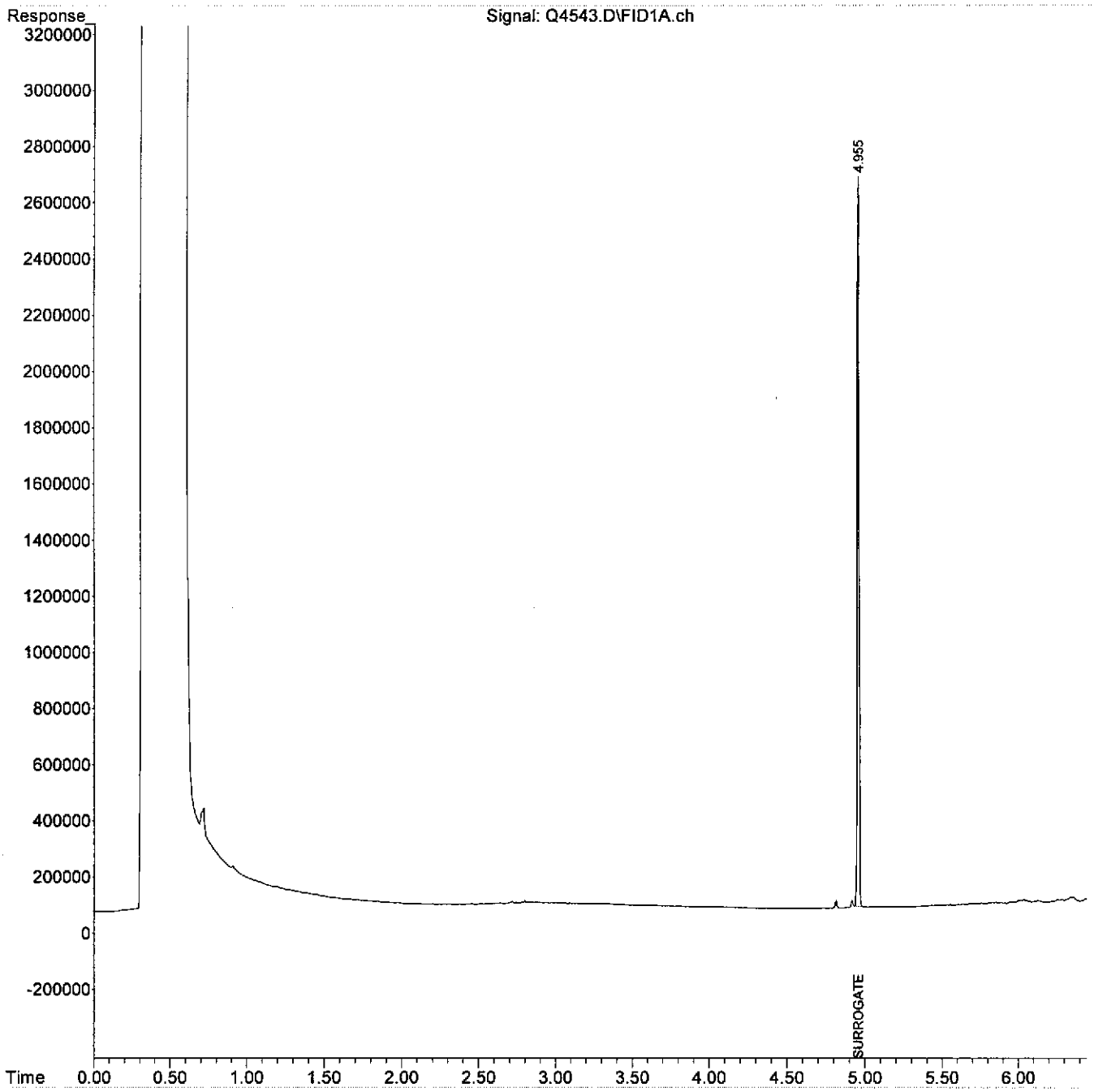
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4543.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:05 pm
Operator : LIZ
Sample : T4-5/5.5,12542-006,S,10.25g,13.1,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:00:26 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4544.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:15 pm
Operator : LIZ
Sample : T5-1/5.5,12542-007,S,10.30g,16.8,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:00:37 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.955	20427283	97.551 ng m
Spiked Amount 100.000		Recovery =	97.55%
Target Compounds			
3) H TPH-DRO	2.500	80367181	203.574 ng

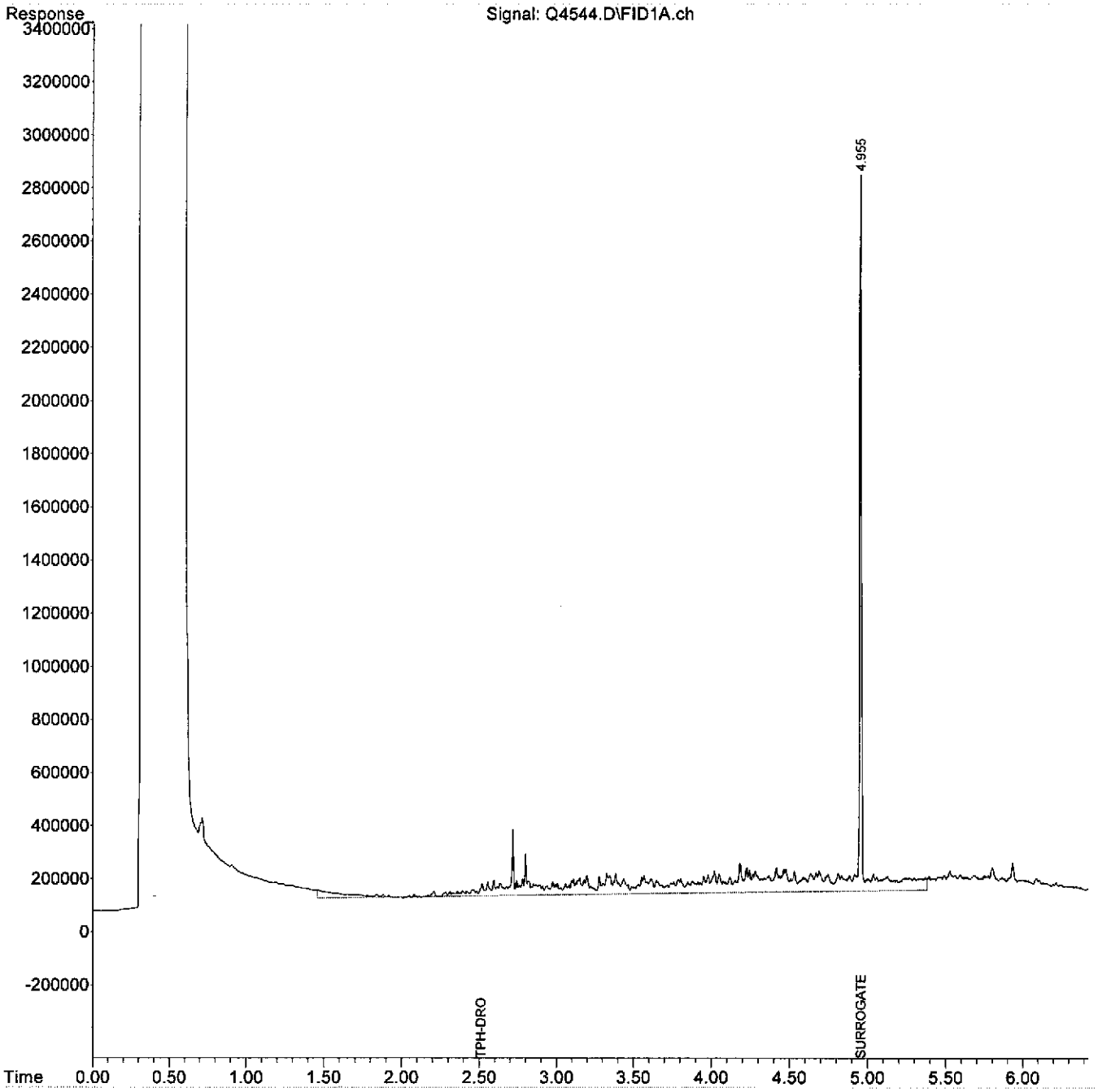
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4544.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:15 pm
Operator : LIZ
Sample : T5-1/5.5,12542-007,S,10.30g,16.8,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:00:37 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4545.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:25 pm
Operator : LIZ
Sample : T5-2/5.5,12542-008,S,10.74g,18.2,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:00:46 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.955	22639658	108.117	ng	m
Spiked Amount 100.000		Recovery = 108.12%			
Target Compounds					

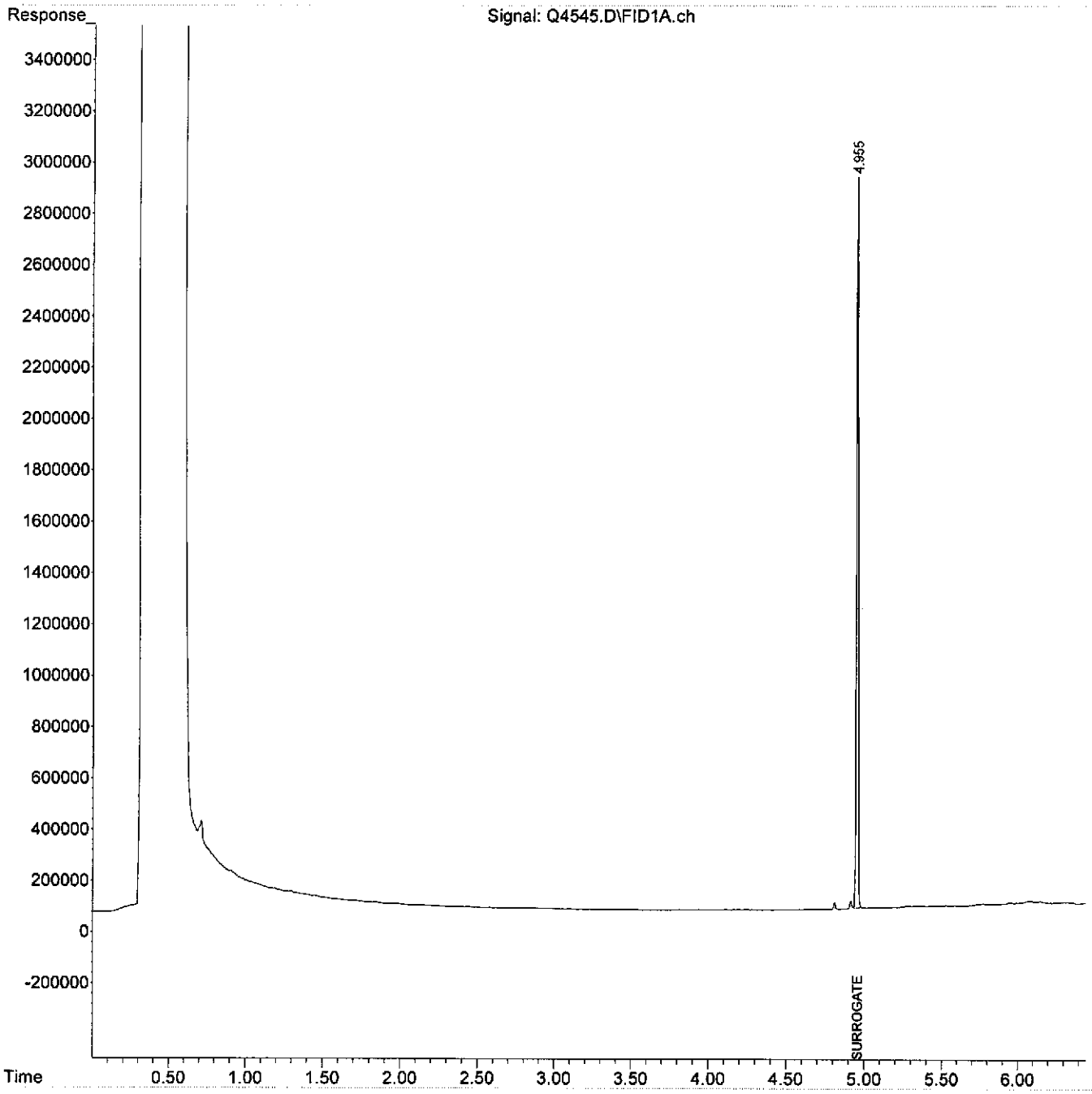
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4545.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:25 pm
Operator : LIZ
Sample : T5-2/5.5,12542-008,S,10.74g,18.2,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:00:46 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4546.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:35 pm
Operator : LIZ
Sample : T5-3/5.5,12542-009,S,10.74g,13.6,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 11:51:47 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 11:20:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.959	23765062	113.491 ng m
Spiked Amount 100.000		Recovery = 113.49%	
Target Compounds			
3) H TPH-DRO	2.500	1559056715	3949.165 ng

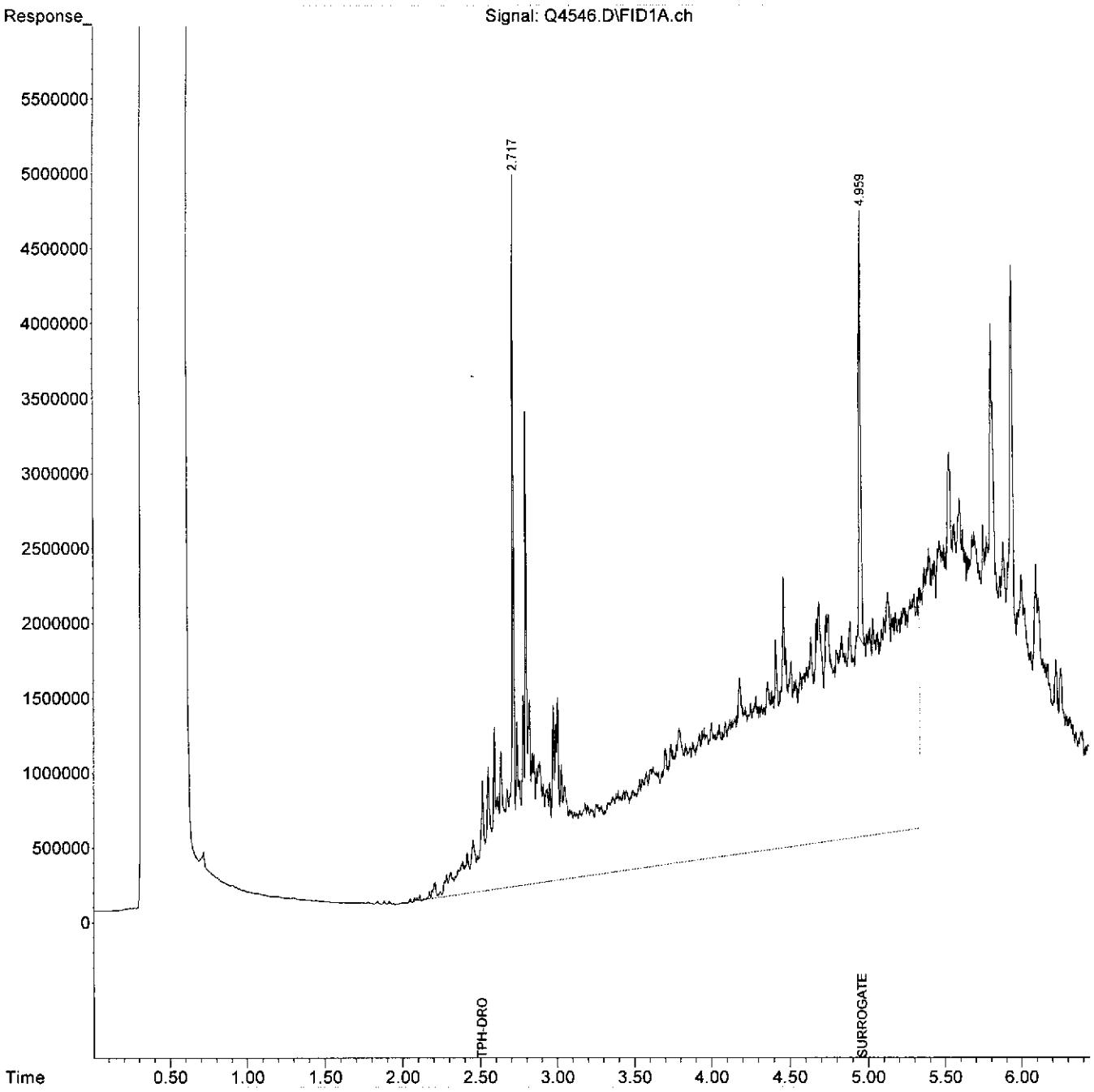
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4546.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:35 pm
Operator : LIZ
Sample : T5-3/5.5,12542-009,S,10.74g,13.6,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 11:51:47 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 11:20:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4547.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:45 pm
Operator : LIZ
Sample : T5-4/5.5,12542-010,S,10.07g,15.8,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:01:11 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.956	22664883	108.237 ng m
Spiked Amount 100.000		Recovery = 108.24%	
Target Compounds			
3) H TPH-DRO	2.500	133426180	337.975 ng

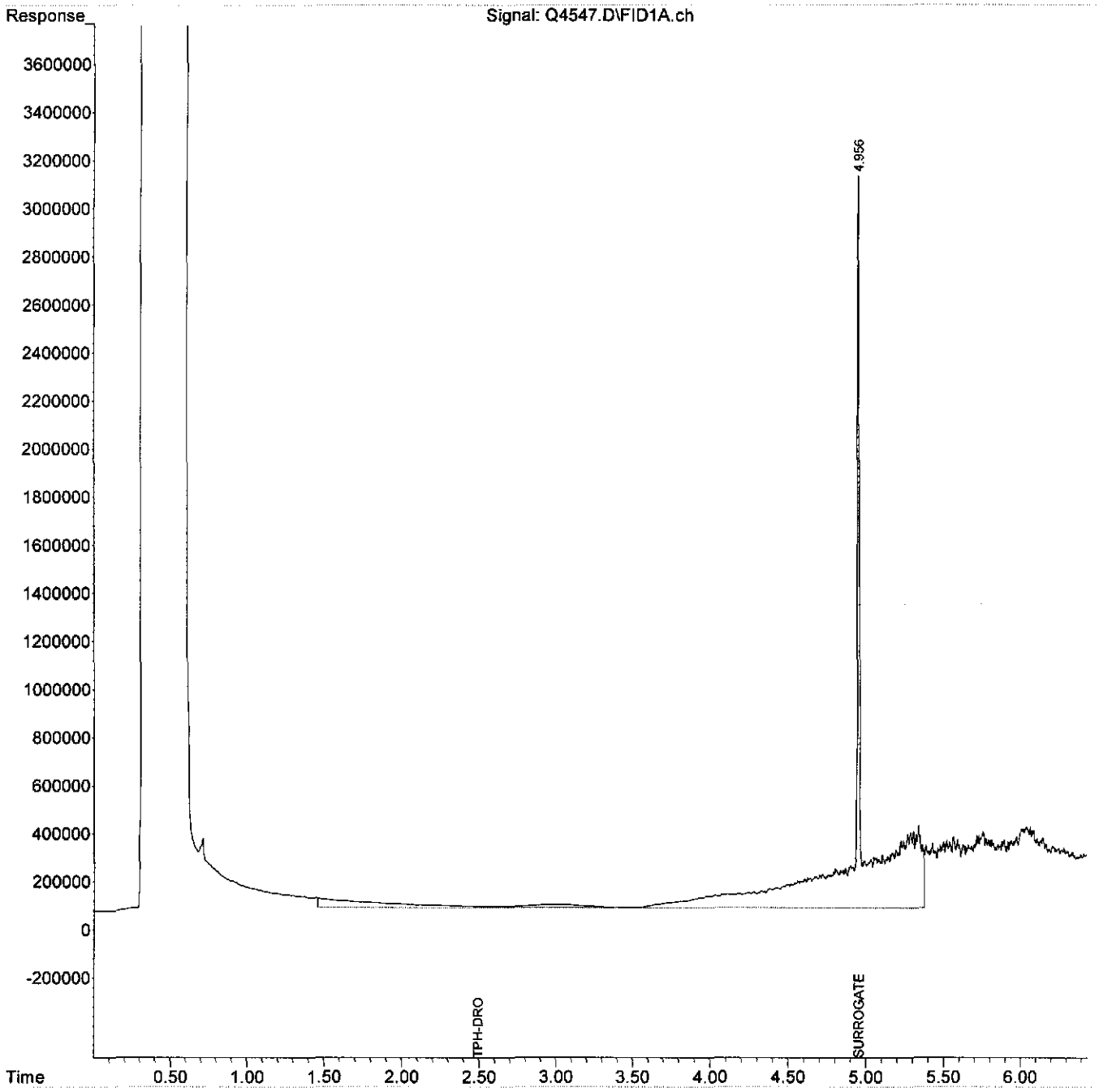
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4547.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:45 pm
Operator : LIZ
Sample : T5-4/5.5,12542-010,S,10.07g,15.8,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:01:11 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4548.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:56 pm
Operator : LIZ
Sample : T5-5/5.5,12542-011,S,10.51g,18.6,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:01:24 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.954	21299879	101.718	ng	m
Spiked Amount 100.000		Recovery = 101.72%			
Target Compounds					

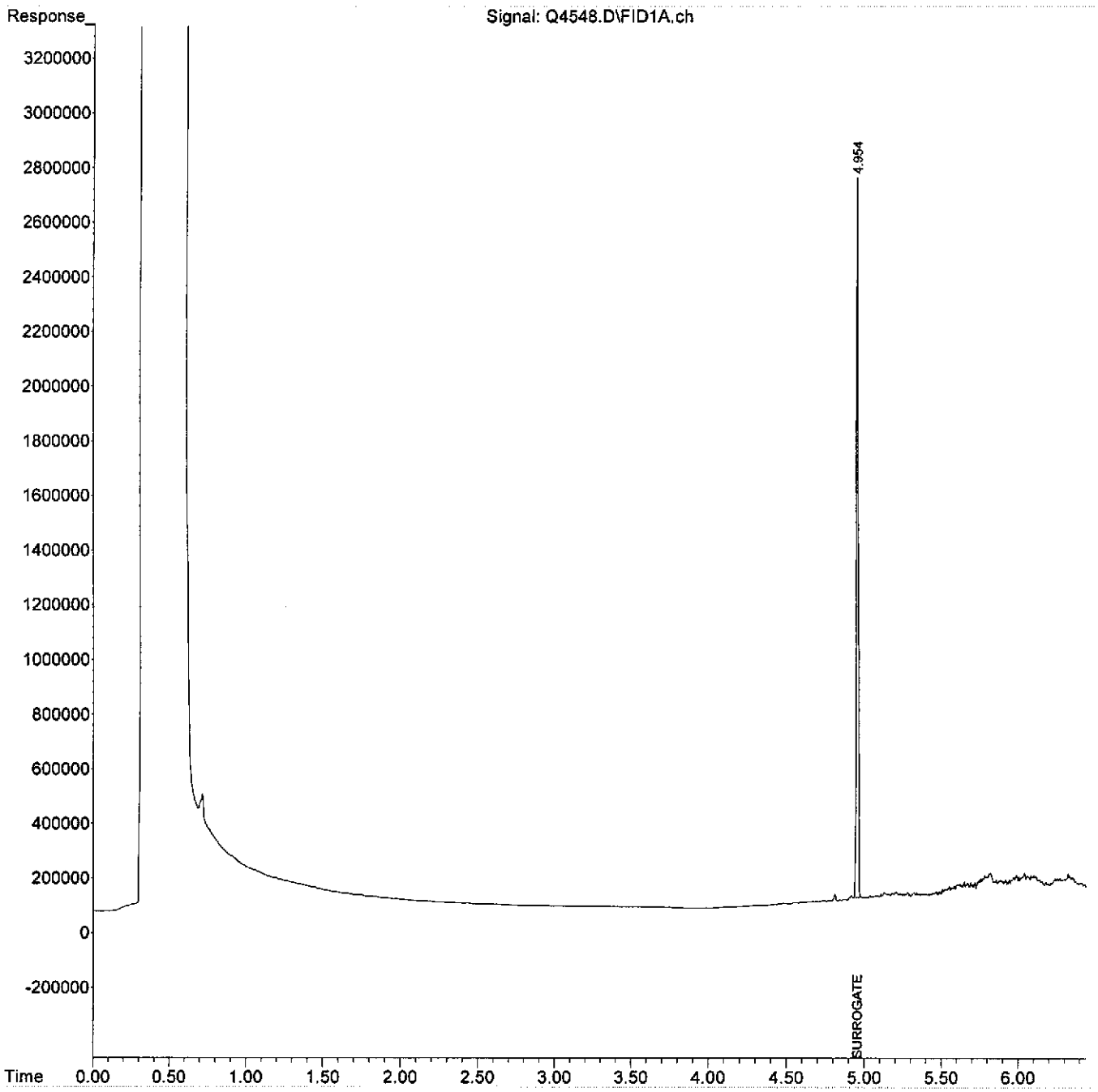
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4548.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 1:56 pm
Operator : LIZ
Sample : T5-5/5.5,12542-011,S,10.51g,18.6,12/10/09,15
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:01:24 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4528.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 10:28 am
Operator : LIZ
Sample : DRO,1210-BLK09,S,10.0g,0,12/10/09,15
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 09:57:29 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.953	19050920	90.978	ng	m
Spiked Amount 100.000		Recovery = 90.98%			
Target Compounds					

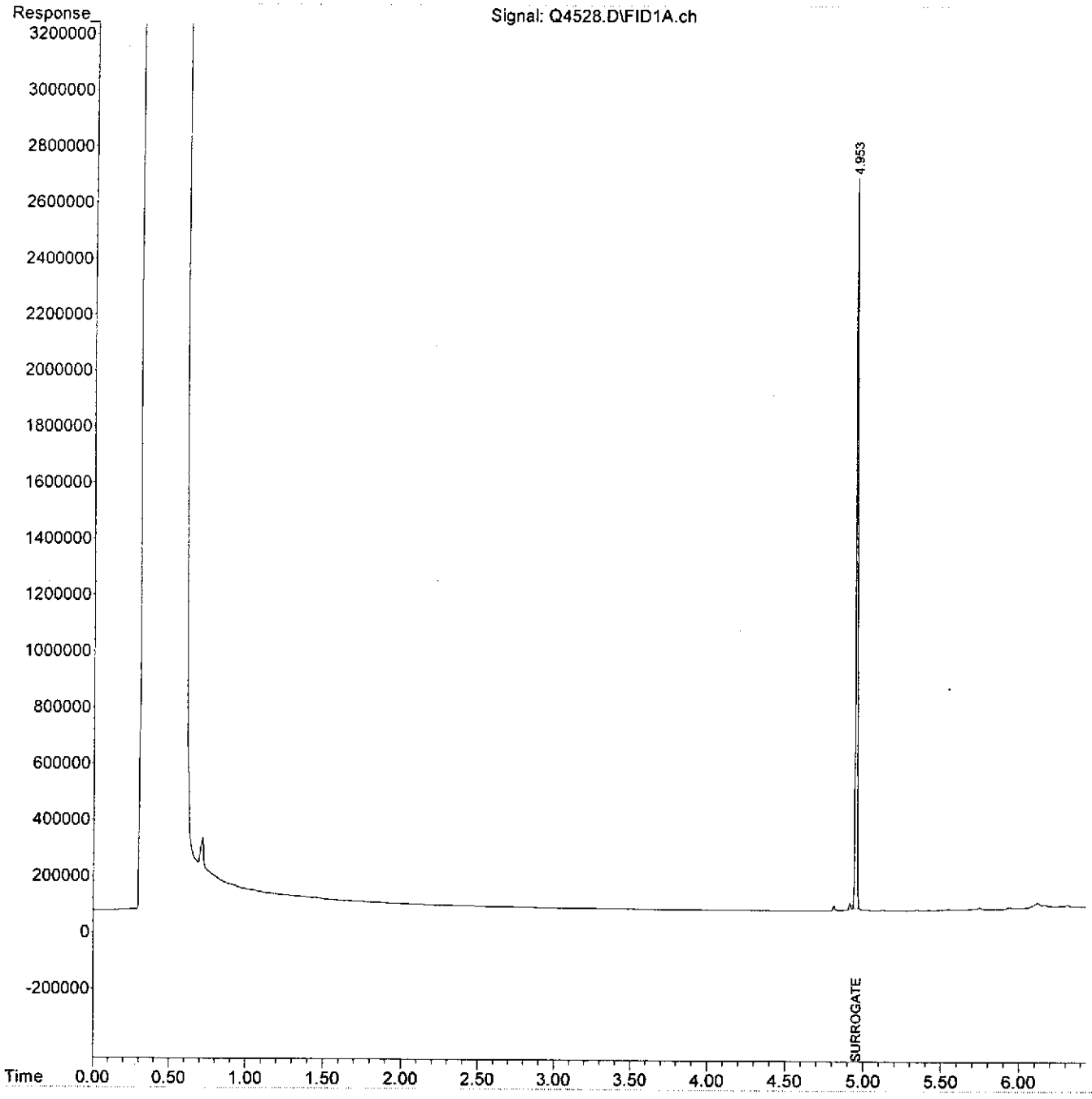
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4528.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 10:28 am
Operator : LIZ
Sample : DRO,1210-BLK09,S,10.0g,0,12/10/09,15
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 09:57:29 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4527.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 10:18 am
Operator : LIZ
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 09:57:20 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.954	18551982	88.596 ng m
Spiked Amount 100.000		Recovery =	88.60%
Target Compounds			
3) H TPH-DRO	2.500	389319697	986.165 ng

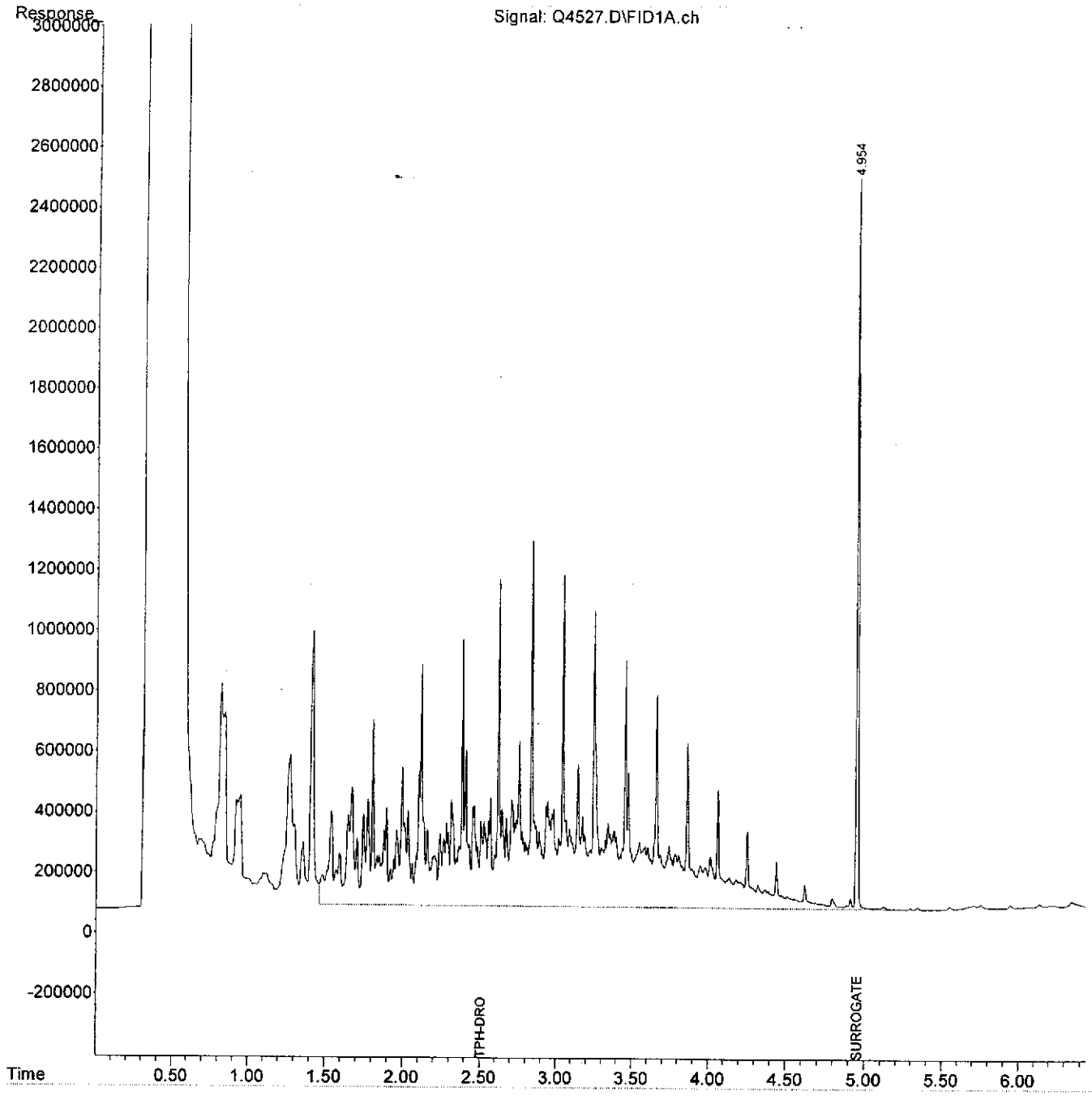
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4527.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 10:18 am
Operator : LIZ
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 09:57:20 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-14-09\
Data File : Q4619.D
Signal(s) : FID1A.ch
Acq On : 14 Dec 9 10:57 am
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 11:25:03 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 11:20:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.957	20682721	98.771	ng	m
Spiked Amount 100.000		Recovery = 98.77%			
Target Compounds					
3) H TPH-DRO	2.500	375269415	950.575	ng	

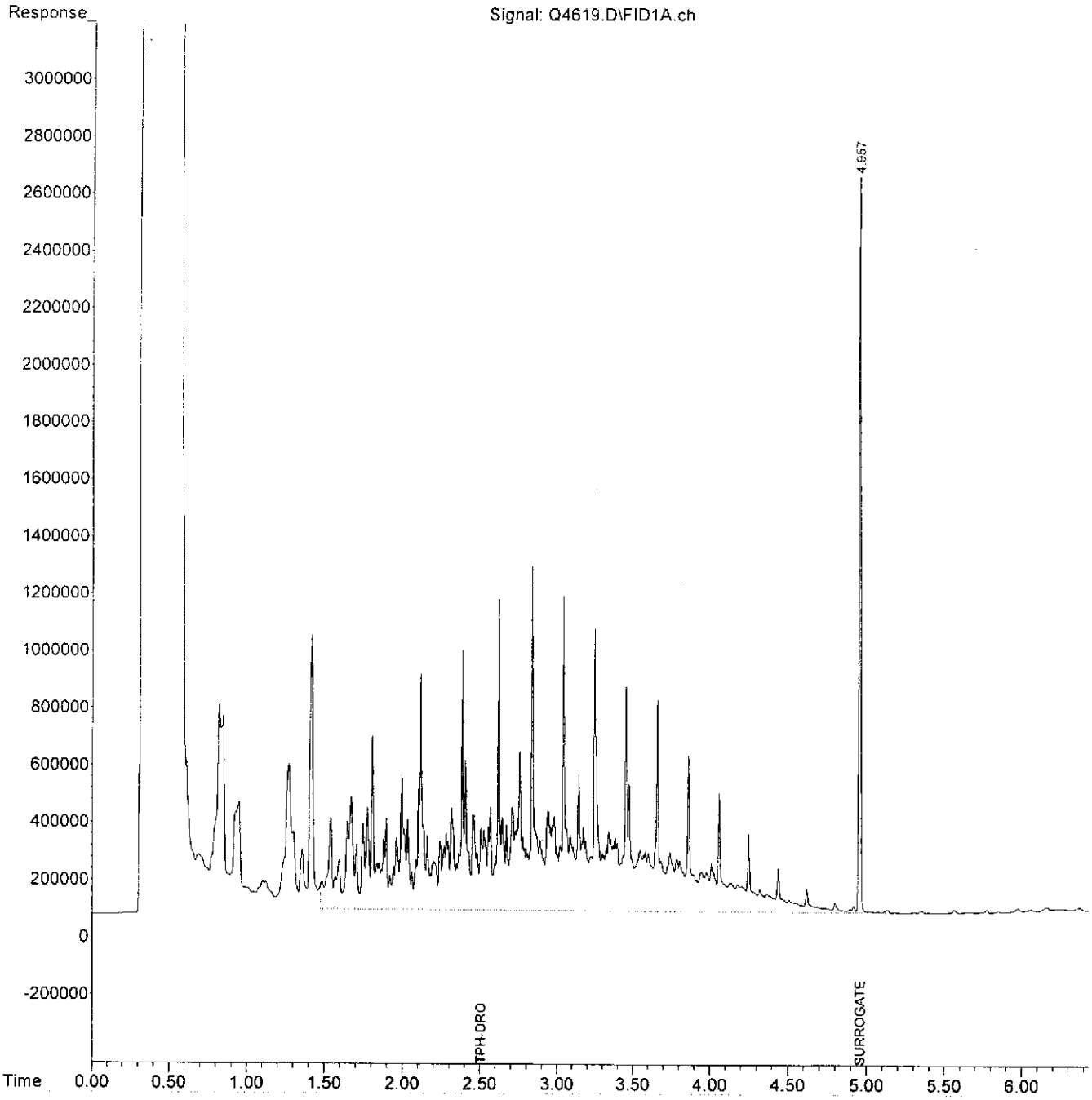
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-14-09\
Data File : Q4619.D
Signal(s) : FID1A.ch
Acq On : 14 Dec 9 10:57 am
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 11:25:03 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 11:20:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4552.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 2:36 pm
Operator : LIZ
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:11:22 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.953	19634707	93.766 ng m
Spiked Amount 100.000		Recovery =	93.77%
Target Compounds			
3) H TPH-DRO	2.500	393251114	996.124 ng

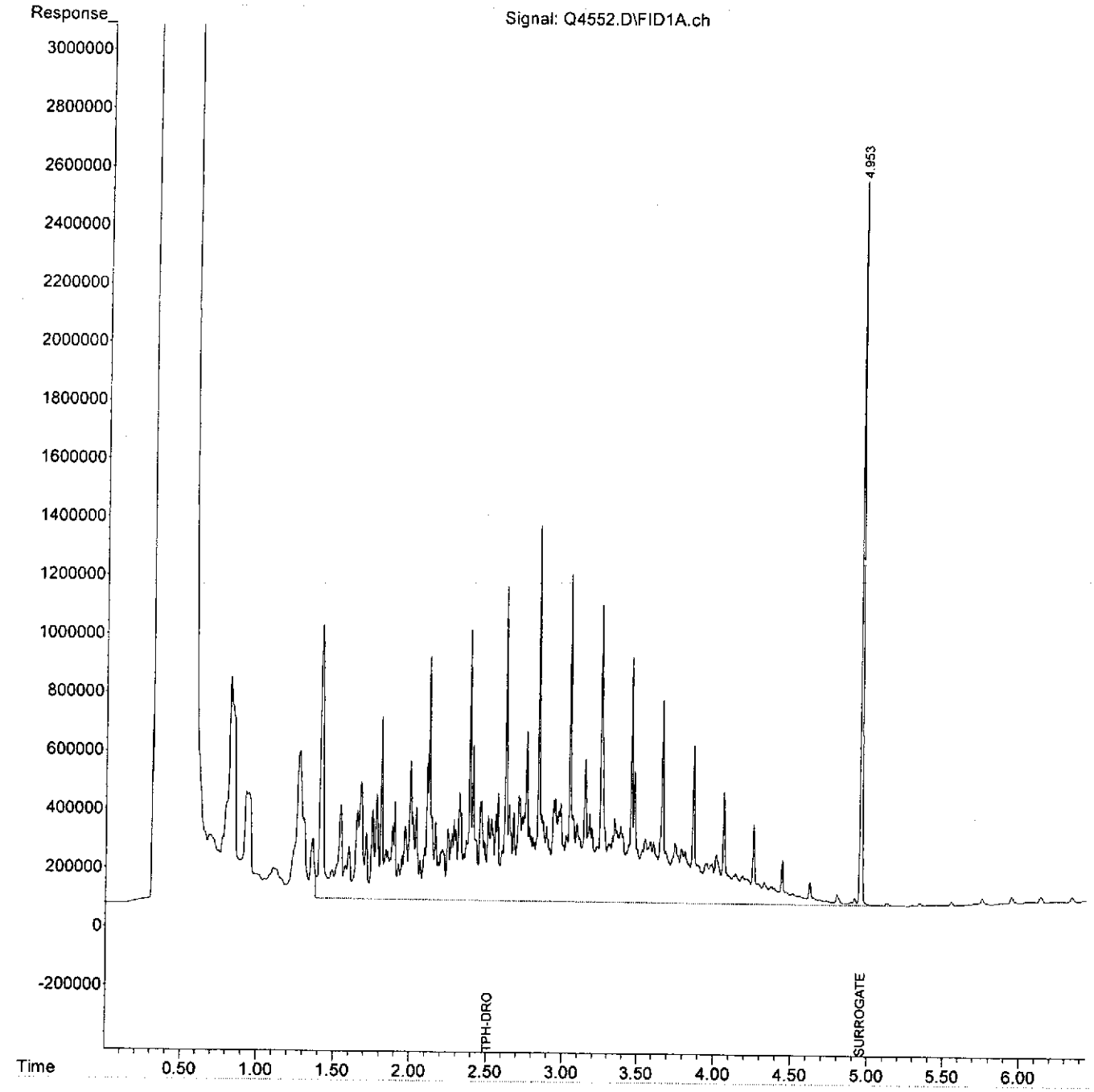
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4552.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 2:36 pm
Operator : LIZ
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 10:11:22 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-14-09\
Data File : Q4629.D
Signal(s) : FID1A.ch
Acq On : 14 Dec 9 12:42 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 13:48:38 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 11:20:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.954	21128590	100.900	ng	m
Spiked Amount 100.000		Recovery = 100.90%			
Target Compounds					
3) H TPH-DRO	2.500	385666200	976.911	ng	

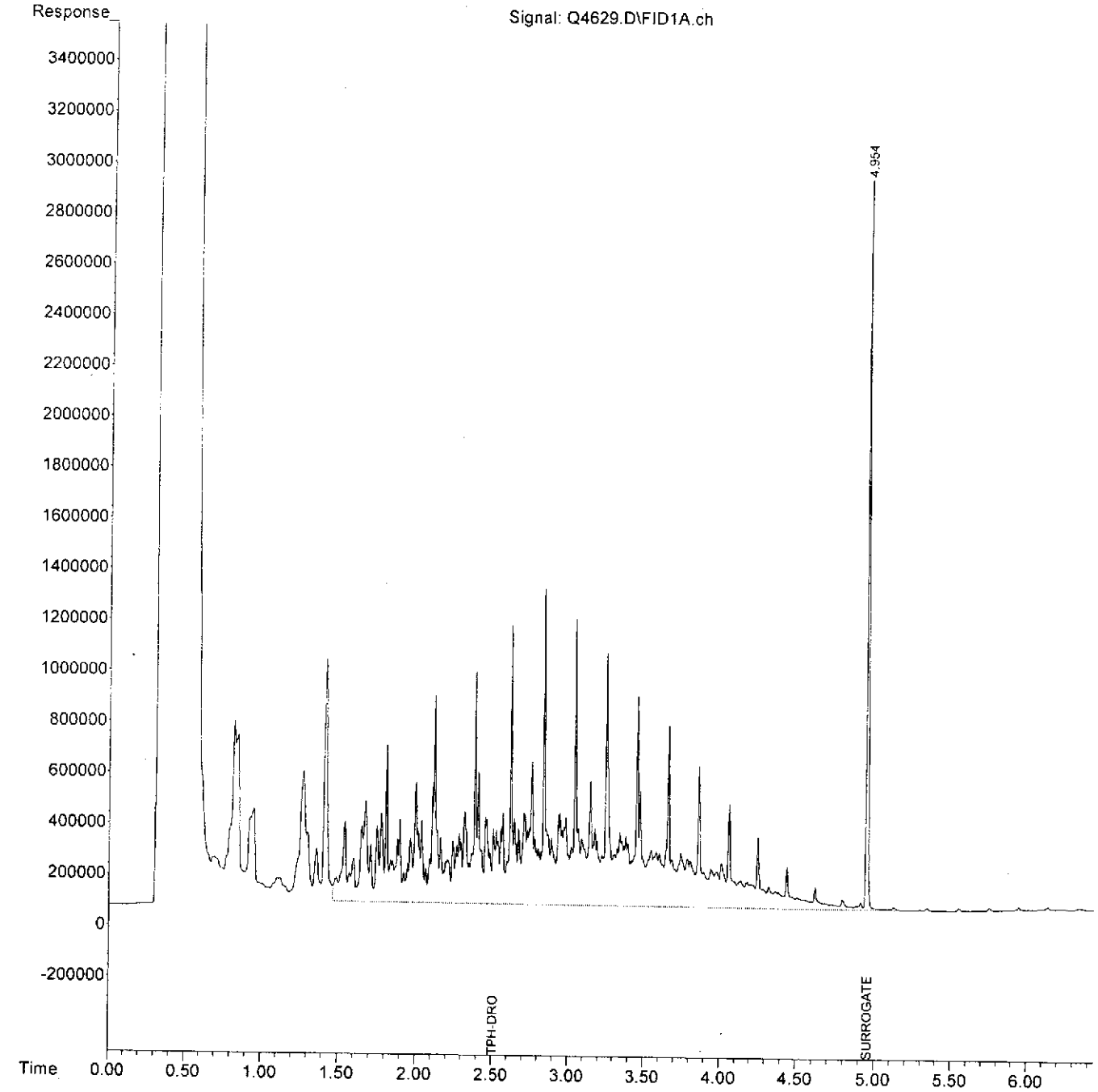
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-14-09\
Data File : Q4629.D
Signal(s) : FID1A.ch
Acq On : 14 Dec 9 12:42 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 13:48:38 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 11:20:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4526.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 10:08 am
Operator : LIZ
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 09:35:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
5) T n-Decane (C10)	1.419	46756493	193.110 ng
6) T n-Octacosane (C28)	5.301	51688102	210.618 ng

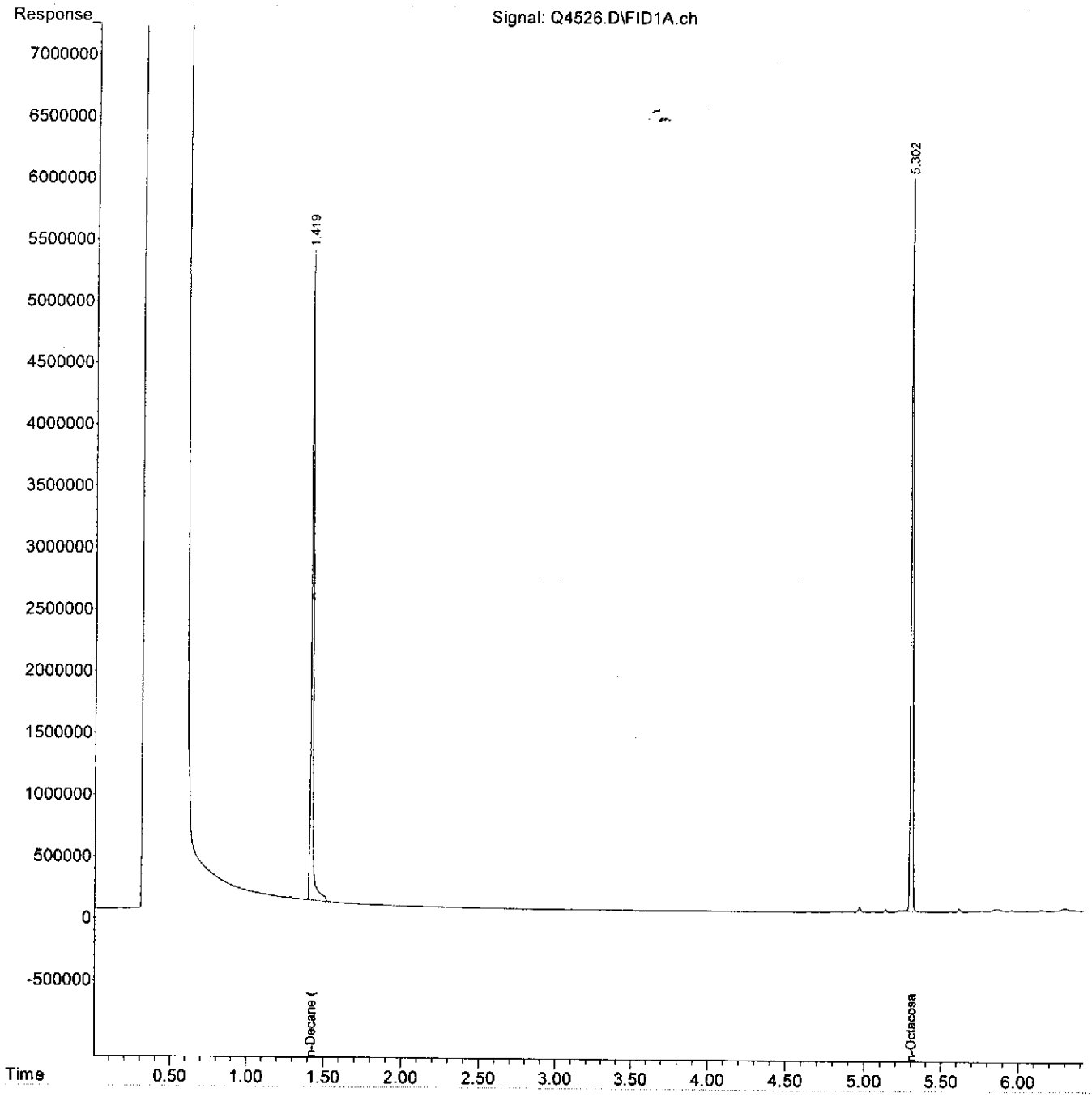
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-11-09\
Data File : Q4526.D
Signal(s) : FID1A.ch
Acq On : 11 Dec 9 10:08 am
Operator : LIZ
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 09:35:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 09:34:58 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-14-09\
Data File : Q4611.D
Signal(s) : FID1A.ch
Acq On : 14 Dec 9 9:17 am
Operator : TB
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 11:20:48 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 11:20:36 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
Target Compounds				
5) T	n-Decane (C10)	1.419	44493260	183.763 ng
6) T	n-Octacosane (C28)	5.306	52547114	214.118 ng

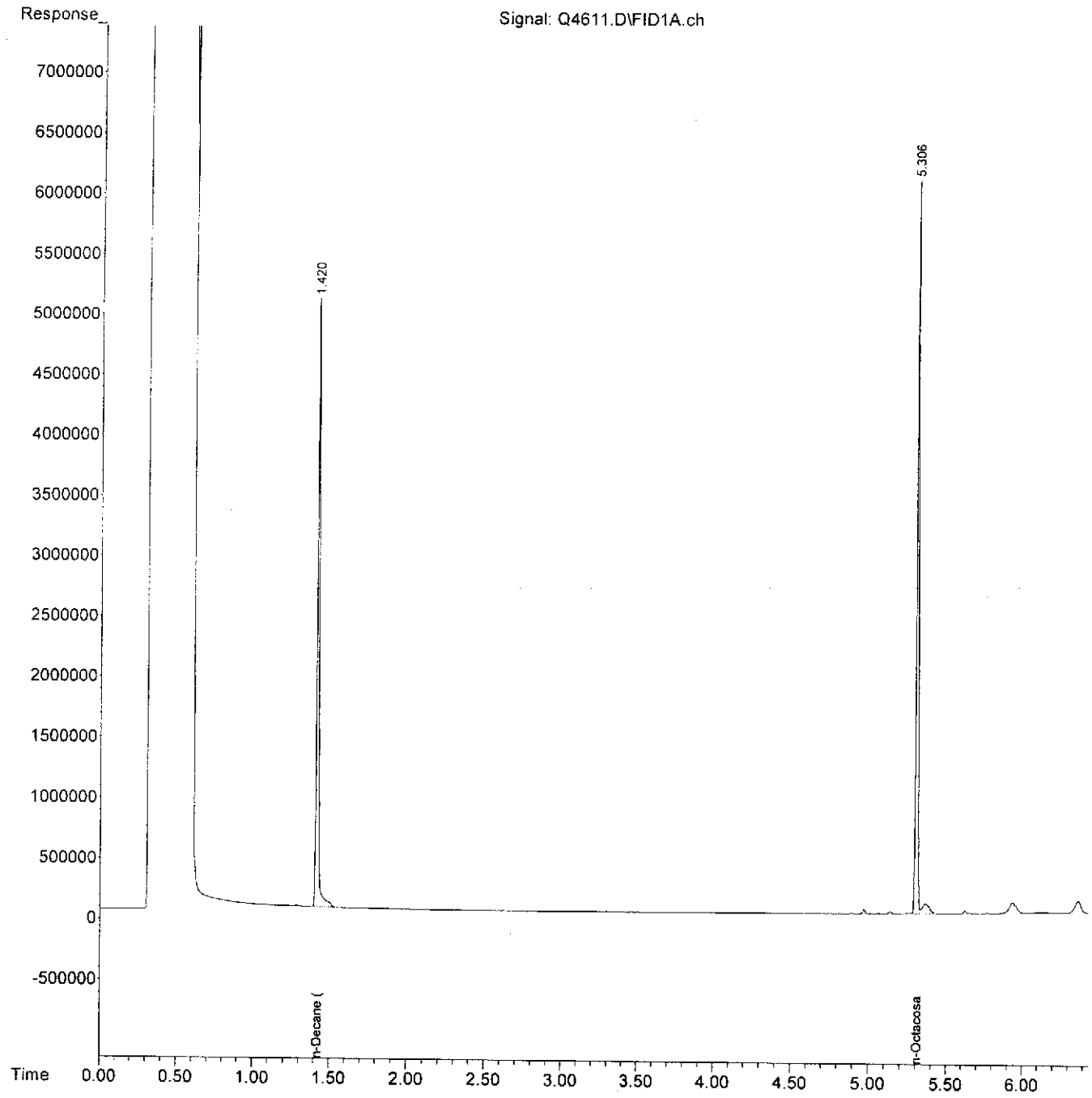
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-14-09\
Data File : Q4611.D
Signal(s) : FID1A.ch
Acq On : 14 Dec 9 9:17 am
Operator : TB
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 14 11:20:48 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Mon Dec 14 11:20:36 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



NJ-QAM-25 METHOD BLANK SUMMARY

Lab File ID: Z7699.D

Instrument ID: GC-Z

Date Extracted: 12/11/2009

Matrix: SOIL

Date Analyzed: 12/11/2009

Time Analyzed: 15:50

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SB1	12542-001	12/11/2009	16:05
B19A_(22	12560-001	12/11/2009	16:20
B20A_(20	12560-002	12/11/2009	16:35
B34A_(20	12560-003	12/11/2009	16:50
B35A_(20	12560-004	12/11/2009	17:49
B21A_(20	12560-005	12/11/2009	18:19
B-16A(19	12559-001	12/11/2009	18:34
B-18A(19	12559-002	12/11/2009	18:49
QAM	QBS1211-MS03	12/11/2009	19:33
QAM	12559-002-MS03	12/14/2009	14:52
QAM	12559-002-MSD03	12/14/2009	15:07

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: NA

Lab ID: 1211-BLK03
Client ID: QAM
Date Received: NA
Date Extracted: 12/11/2009
Date Analyzed: 12/11/2009
Data file: Z7699.D

GC Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Total TPHC	ND		2.00

QAM-025 INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/25/2009 **Instrument ID:** GC-Z

GC Column : DB-5

Data File: Z7403.D Z7402.D Z7401.D Z7400.D Z7399.D

Compound	RT OF STANDARDS 2000	5000	20000	50000	100000	MEAN RT	RT WINDOW FROM	TO
n-Octane (C8)	0.76	0.76	0.77	0.77	0.77	0.76	0.69	0.83
n-Decane (C10)	1.70	1.69	1.70	1.70	1.70	1.70	1.63	1.77
n-Dodecane (C12)	2.33	2.33	2.33	2.33	2.33	2.33	2.26	2.40
n-Tetradecane (C14)	2.81	2.81	2.81	2.81	2.81	2.81	2.74	2.88
n-Hexadecane (C16)	3.22	3.22	3.22	3.22	3.22	3.22	3.15	3.29
n-Heptadecane (C17)	3.41	3.41	3.41	3.41	3.41	3.41	3.34	3.48
Pristane	3.42	3.42	3.42	3.42	3.42	3.42	3.35	3.49
n-Octadecane (C18)	3.59	3.59	3.59	3.59	3.59	3.59	3.52	3.66
Phytane	3.61	3.61	3.61	3.61	3.61	3.61	3.54	3.68
n-Eicosane (C20)	3.92	3.92	3.92	3.92	3.92	3.92	3.85	3.99
n-Dotriacontane (C32)	5.62	5.62	5.61	5.61	5.62	5.62	5.55	5.69
n-Tetracontane (C40)	7.27	7.28	7.27	7.27	7.27	7.27	7.20	7.34
TPH-QAM025	4.00	4.00	4.00	4.00	4.00	4.00	3.93	4.07

Compound	CALIBRATION FACTORS 2000	5000	20000	50000	100000	MEAN	%RSD
n-Octane (C8)	394	378	411	417	448	410	6.42
n-Decane (C10)	436	415	429	440	466	437	4.33
n-Dodecane (C12)	437	406	427	438	465	435	4.96
n-Tetradecane (C14)	441	411	433	444	472	440	5.01
n-Hexadecane (C16)	438	407	430	440	468	437	5.06
n-Heptadecane (C17)	436	371	412	419	422	412	5.92
Pristane	425	408	434	409	434	422	3.03
n-Octadecane (C18)	435	414	434	446	475	441	5.08
Phytane	441	397	429	438	471	435	6.07
n-Eicosane (C20)	436	412	427	438	470	437	4.90
n-Dotriacontane (C32)	358	373	406	430	462	406	10.41
n-Tetracontane (C40)	268	239	262	307	359	287	16.44
TPH-QAM025	412	386	411	422	451	416	5.65

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/11/2009 **Instrument ID:** GC-Z

Data File: Z7697.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
n-Octane (C8)	0.78	0.71	0.85	410	375	8.45
n-Decane (C10)	1.70	1.63	1.77	437	398	8.89
n-Dodecane (C12)	2.33	2.26	2.40	435	388	10.59
n-Tetradecane (C14)	2.81	2.74	2.88	440	398	9.51
n-Hexadecane (C16)	3.22	3.15	3.29	437	397	9.17
n-Heptadecane (C17)	3.41	3.34	3.48	412	436	5.91
Pristane	3.42	3.35	3.49	422	414	1.96
n-Octadecane (C18)	3.59	3.52	3.66	441	396	10.09
Phytane	3.60	3.53	3.67	435	410	5.82
n-Eicosane (C20)	3.92	3.85	3.99	437	407	6.77
n-Dotriacontane (C32)	5.61	5.54	5.68	406	418	3.11
n-Tetracontane (C40)	7.26	7.19	7.33	287	313	9.03
TPH-QAM025	4.00	3.93	4.07	416	396	4.93
				Average %RSD		8.07

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/11/2009 **Instrument ID:** GC-Z

Data File: Z7711.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Octane (C8)	0.77	0.70	0.84	410	384	6.28
n-Decane (C10)	1.70	1.63	1.77	437	405	7.34
n-Dodecane (C12)	2.33	2.26	2.40	435	398	8.47
n-Tetradecane (C14)	2.81	2.74	2.88	440	409	7.03
n-Hexadecane (C16)	3.22	3.15	3.29	437	408	6.59
n-Heptadecane (C17)	3.41	3.34	3.48	412	393	4.71
Pristane	3.42	3.35	3.49	422	394	6.57
n-Octadecane (C18)	3.59	3.52	3.66	441	397	9.94
Phytane	3.60	3.53	3.67	435	422	3.12
n-Eicosane (C20)	3.92	3.85	3.99	437	419	4.02
n-Dotriacontane (C32)	5.61	5.54	5.68	406	353	12.85
n-Tetracontane (C40)	7.26	7.19	7.33	287	232	19.02
TPH-QAM025	4.00	3.93	4.07	416	385	7.67
				Average %RSD		7.12

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/14/2009 **Instrument ID:** GC-Z

Data File: Z7715.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Octane (C8)	0.77	0.70	0.84	410	361	11.94
n-Decane (C10)	1.70	1.63	1.77	437	370	15.46
n-Dodecane (C12)	2.33	2.26	2.40	435	362	16.63
n-Tetradecane (C14)	2.81	2.74	2.88	440	373	15.35
n-Hexadecane (C16)	3.22	3.15	3.29	437	372	14.90
n-Heptadecane (C17)	3.41	3.34	3.48	412	357	13.33
Pristane	3.42	3.35	3.49	422	383	9.16
n-Octadecane (C18)	3.59	3.52	3.66	441	373	15.50
Phytane	3.60	3.53	3.67	435	379	12.97
n-Eicosane (C20)	3.92	3.85	3.99	437	378	13.42
n-Dotriacontane (C32)	5.61	5.54	5.68	406	375	7.61
n-Tetracontane (C40)	7.25	7.18	7.32	287	319	11.09
TPH-QAM025	4.00	3.93	4.07	416	367	11.95
				Average %RSD		14.03

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/14/2009 **Instrument ID:** GC-Z

Data File: Z7719.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
n-Octane (C8)	0.77	0.70	0.84	410	357	12.95
n-Decane (C10)	1.70	1.63	1.77	437	365	16.59
n-Dodecane (C12)	2.33	2.26	2.40	435	356	17.96
n-Tetradecane (C14)	2.81	2.74	2.88	440	366	16.74
n-Hexadecane (C16)	3.22	3.15	3.29	437	367	15.99
n-Heptadecane (C17)	3.41	3.34	3.48	412	392	4.82
Pristane	3.42	3.35	3.49	422	355	15.85
n-Octadecane (C18)	3.59	3.52	3.66	441	368	16.65
Phytane	3.60	3.53	3.67	435	374	14.05
n-Eicosane (C20)	3.92	3.85	3.99	437	374	14.38
n-Dotriacontane (C32)	5.61	5.54	5.68	406	370	8.87
n-Tetracontane (C40)	7.25	7.18	7.32	287	306	6.63
TPH-QAM025	4.00	3.93	4.07	416	362	12.97
				Average %RSD		14.69

NJ-QAM-25 SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/11/2009

Client ID	Lab Sample ID	Matrix	CHB % rec	#	OTP % rec	#
QAM	1211-BLK03	SOIL	78		90	
SB1	12542-001	SOIL	89		89	
B19A_(22	12560-001	SOIL	76		87	
B20A_(20	12560-002	SOIL	89		89	
B34A_(20	12560-003	SOIL	81		86	
B35A_(20	12560-004	SOIL	82		89	
B21A_(20	12560-005	SOIL	81		91	
B-16A(19	12559-001	SOIL	88		91	
B-18A(19	12559-002	SOIL	83		88	
QAM	QBS1211-MS03	SOIL	88		98	
QAM	12559-002-MS03	SOIL	85		87	
QAM	12559-002-MSD03	SOIL	82		85	

Surrogate QC Limits	Soil	Aqueous
CHB = Chlorobenzene	15-158	15-158
OTP = o-Terphenyl	15-159	15-159

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL NJ-QAM-25 MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12559-002-MSD03

Compound	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC #	QC LIMITS REC.
TPH-QAM025	240.0	0.0	151.2	63	41 - 148

Compound	SAMPLE CONC. (mg/Kg)	MSD CONC. (mg/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
TPH-QAM025	0.0	148.7	62	2	18	41 - 148

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __1__ outside limits

Spike Recovery: __0___ out of __2__ outside limits

SOIL NJ-QAM-25 BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: QBS1211-MS03

Compound	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC #	QC LIMITS REC.
TPH-QAM025	240.0	0.0	167.2	70	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __1__ outside limits

NJ-QAM-25 RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Z **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

CHB 1.02 **OTP** 3.79

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	CHB RT	#	OTP RT	#
QAM	1211-BLK03	12/11/2009	15:50	1.02		3.79	
SB1	12542-001	12/11/2009	16:05	0.99		3.79	
B19A_(22	12560-001	12/11/2009	16:20	1.02		3.80	
B20A_(20	12560-002	12/11/2009	16:35	1.02		3.80	
B34A_(20	12560-003	12/11/2009	16:50	0.99		3.80	
B35A_(20	12560-004	12/11/2009	17:49	0.99		3.79	
B21A_(20	12560-005	12/11/2009	18:19	0.99		3.79	
B-16A(19	12559-001	12/11/2009	18:34	0.99		3.79	
B-18A(19	12559-002	12/11/2009	18:49	0.99		3.79	
QAM	QBS1211-MS03	12/11/2009	19:33	0.99		3.80	
QAM	12559-002-MS03	12/14/2009	14:52	1.01		3.79	
QAM	12559-002-MSD03	12/14/2009	15:07	1.01		3.79	

Surrogate QC Limits

CHB = Chlorobenzene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : Z7700.D
Signal(s) : FID1A.CH
Acq On : 11 Dec 2009 16:05
Operator : LIZ
Sample : SB1,12542-001,S,10.19g,50.3,12/11/09,20
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 11 16:19:33 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Fri Dec 11 15:01:02 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Chlorobenzene	0.99	5806177	17.795 ng
Spiked Amount 20.000		Recovery =	88.98%
15) S o-Terphenyl	3.79	8730601	17.789 ng m
Spiked Amount 20.000		Recovery =	88.95%
Target Compounds			
14) H Total TPHC	4.00	346135220	458.410 ng

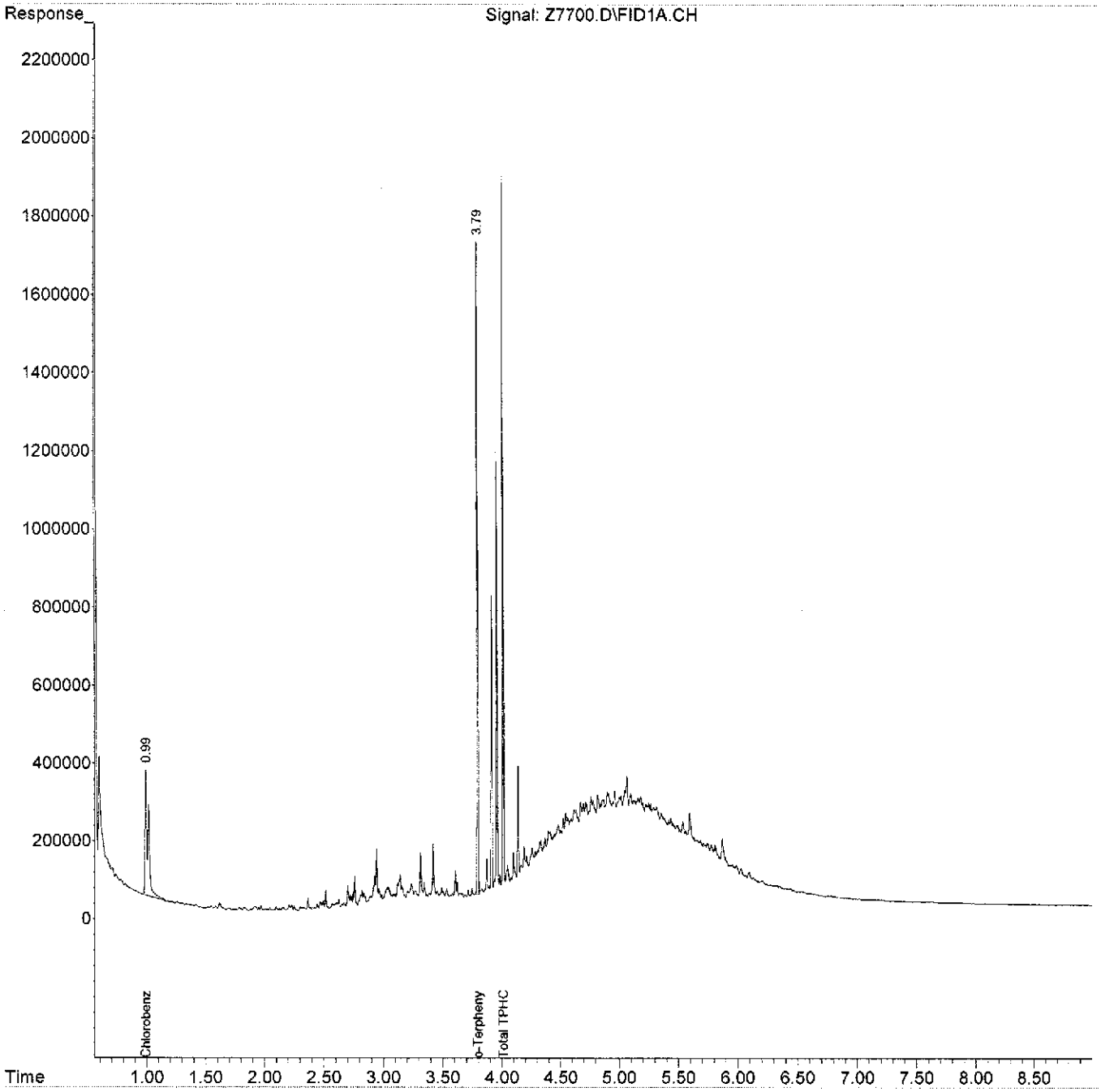
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : Z7700.D
Signal(s) : FID1A.CH
Acq On : 11 Dec 2009 16:05
Operator : LIZ
Sample : SB1,12542-001,S,10.19g,50.3,12/11/09,20
Misc : PENNJERSEY/PALMER,12/08/09,12/10/09,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 11 16:19:33 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Fri Dec 11 15:01:02 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : Z7699.D
Signal(s) : FID1A.CH
Acq On : 11 Dec 2009 15:50
Operator : LIZ
Sample : QAM,1211-BLK03,S,30.00g,0,12/11/09,20
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 11 16:10:25 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Fri Dec 11 15:01:02 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Chlorobenzene	1.02	5117120	15.683 ng m
Spiked Amount 20.000		Recovery =	78.42%
15) S o-Terphenyl	3.79	8849937	18.032 ng
Spiked Amount 20.000		Recovery =	90.16%
Target Compounds			

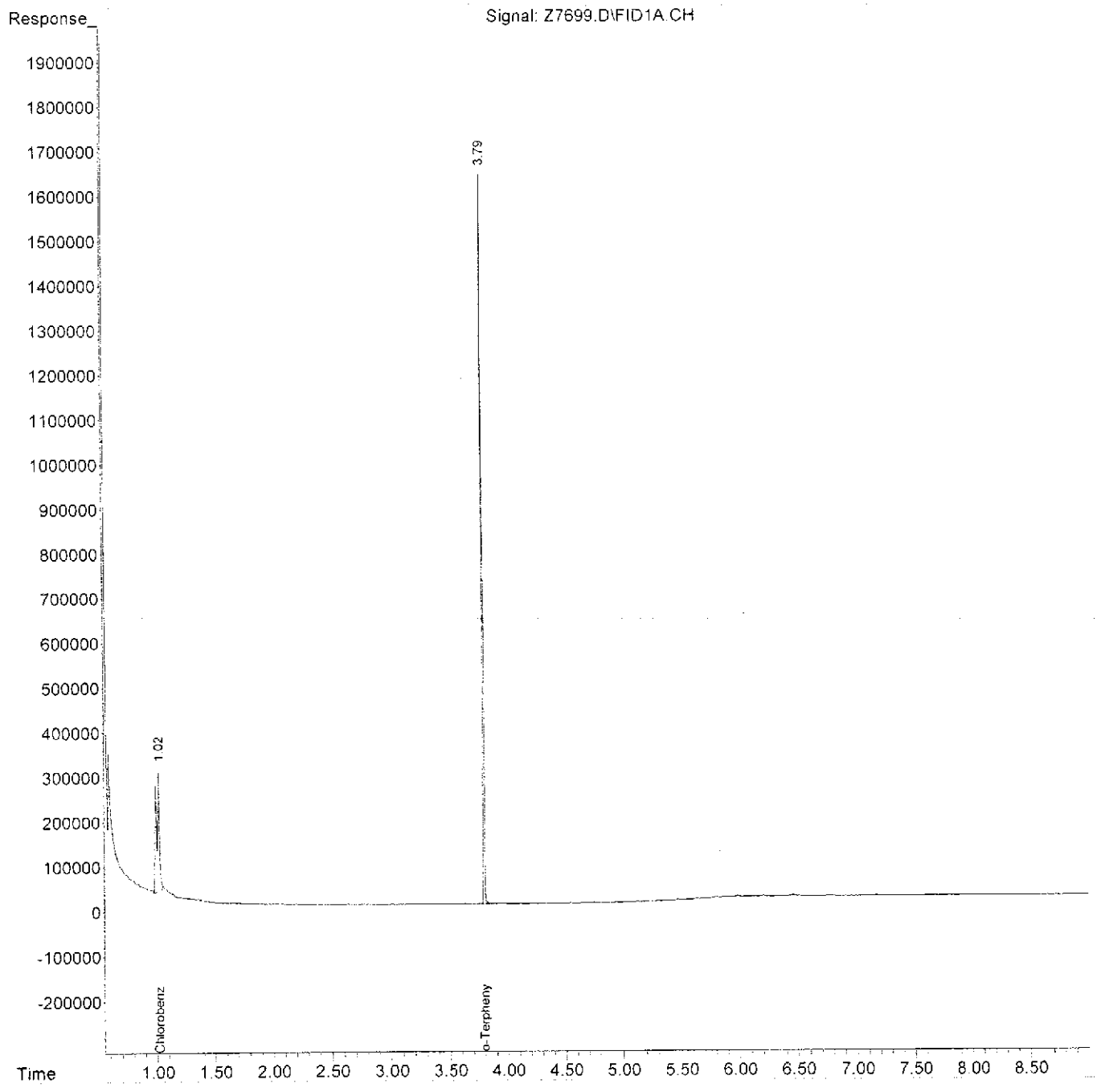
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : Z7699.D
Signal(s) : FID1A.CH
Acq On : 11 Dec 2009 15:50
Operator : LIZ
Sample : QAM,1211-BLK03,S,30.00g,0,12/11/09,20
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 11 16:10:25 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Fri Dec 11 15:01:02 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : Z7697.D
Signal(s) : FID1A.CH
Acq On : 11 Dec 2009 15:05
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 11 15:17:09 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Fri Dec 11 15:01:02 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	Chlorobenzene	1.00	6770090	20.749	ng	
Spiked Amount	20.000		Recovery =	103.75%		
15) S	o-Terphenyl	3.79	10628511	21.656	ng	
Spiked Amount	20.000		Recovery =	108.28%		
	Target Compounds					
2) T	n-Octane (C8)	0.78	7501102	18.311	ng	
3) T	n-Decane (C10)	1.70	7964603	18.221	ng	
4) T	n-Dodecane (C12)	2.33	7769994	17.882	ng	
5) T	n-Tetradecane (C14)	2.81	7964083	18.097	ng	
6) T	n-Hexadecane (C16)	3.22	7932882	18.165	ng	
7) T	n-Heptadecane (17)	3.41	8726793	21.182	ng	m
8) T	Pristane	3.42	8276861	19.609	ng	m
9) T	n-Octadecane (C18)	3.59	7928820	17.982	ng	m
10) T	Phytane	3.60	8197172	18.835	ng	m
11) T	n-Eicosane (C20)	3.92	8141544	18.646	ng	
12) T	n-Dotriacontane (C32)	5.61	8363744	20.623	ng	
13) T	n-Tetracontane (40)	7.26	6259373	21.806	ng	
14) H	Total TPHC	4.00	119556498	158.337	ng	

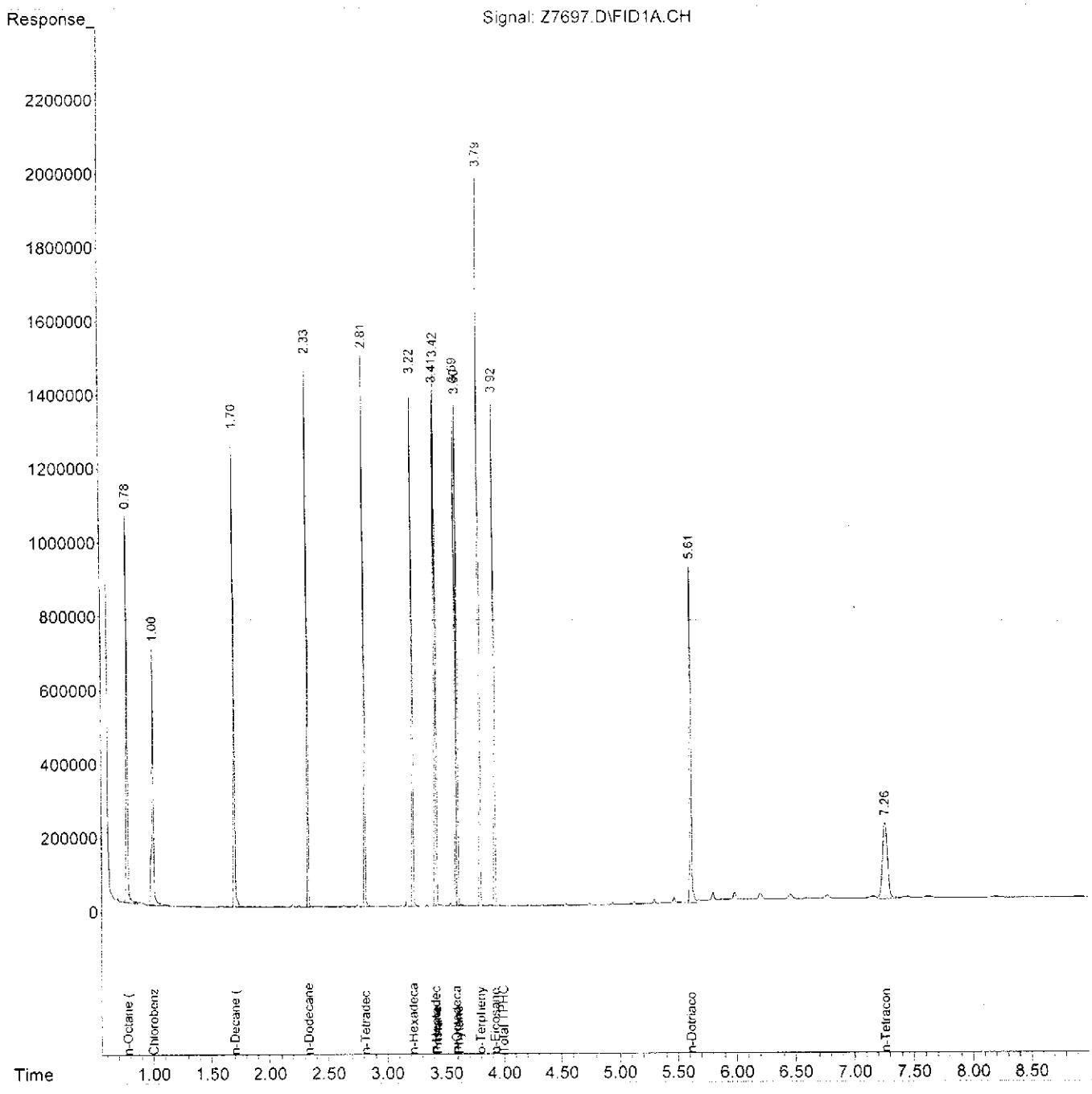
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : Z7697.D
Signal(s) : FID1A.CH
Acq On : 11 Dec 2009 15:05
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 11 15:17:09 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Fri Dec 11 15:01:02 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : Z7711.D
Signal(s) : FID1A.CH
Acq On : 11 Dec 2009 19:48
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 14 09:01:15 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Fri Dec 11 15:01:02 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
	System Monitoring Compounds				
1) S	Chlorobenzene	0.99	6651482	20.385 ng	
Spiked Amount	20.000		Recovery =	101.93%	
15) S	o-Terphenyl	3.79	10884544	22.178 ng	
Spiked Amount	20.000		Recovery =	110.89%	
	Target Compounds				
2) T	n-Octane (C8)	0.77	7679058	18.745 ng	
3) T	n-Decane (C10)	1.70	8100181	18.531 ng	
4) T	n-Dodecane (C12)	2.33	7954219	18.306 ng	
5) T	n-Tetradecane (C14)	2.81	8182550	18.594 ng	
6) T	n-Hexadecane (C16)	3.22	8158353	18.682 ng	
7) T	n-Heptadecane (17)	3.41	7851453	19.057 ng	m
8) T	Pristane	3.42	7887617	18.687 ng	m
9) T	n-Octadecane (C18)	3.59	7942353	18.013 ng	m
10) T	Phytane	3.60	8432021	19.375 ng	m
11) T	n-Eicosane (C20)	3.92	8381466	19.195 ng	
12) T	n-Dotriacontane (C32)	5.61	7068948	17.430 ng	
13) T	n-Tetracontane (40)	7.26	4649064	16.196 ng	m
14) H	Total TPHC	4.00	114571584	151.735 ng	

(f)=RT Delta > 1/2 Window

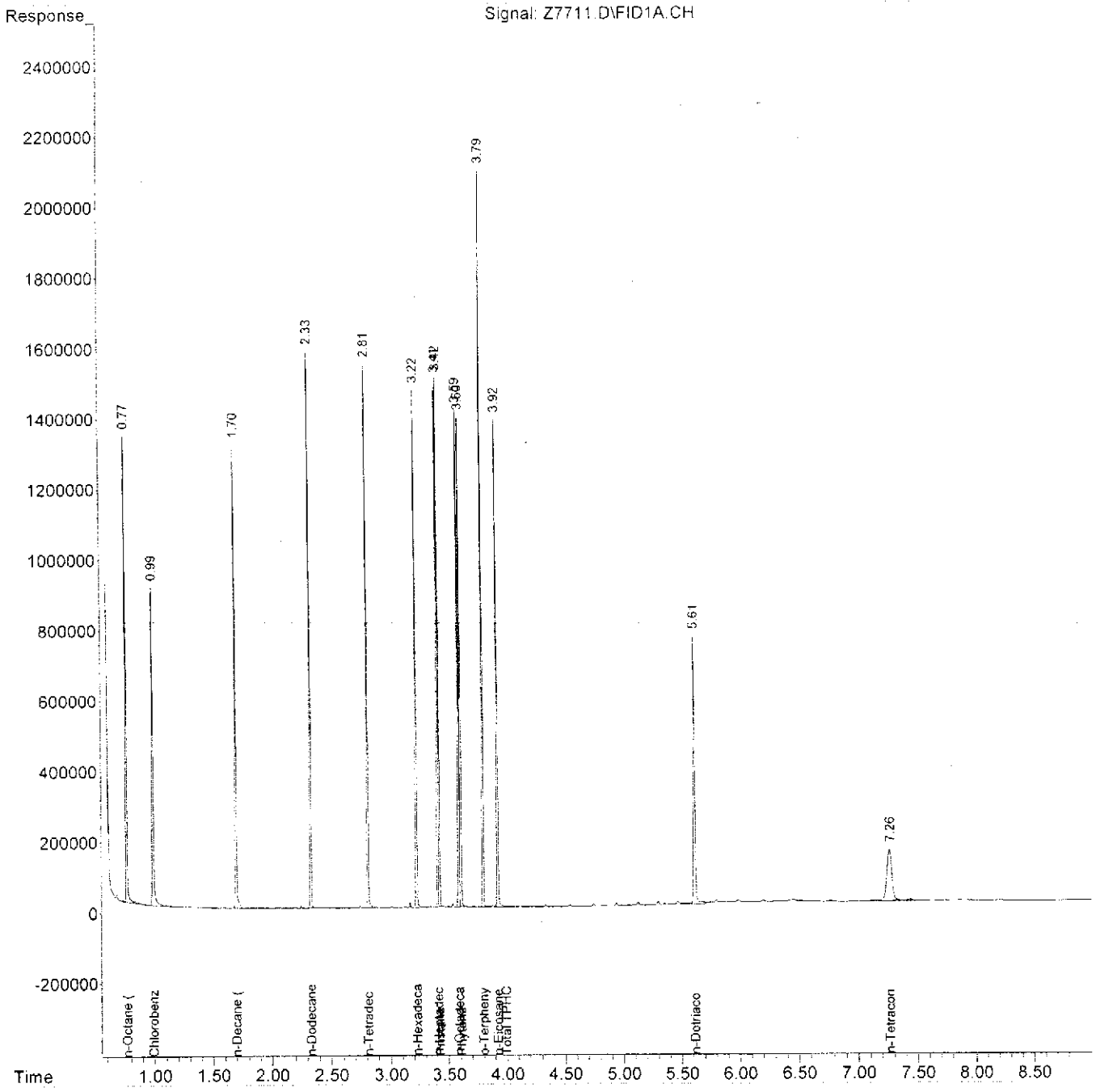
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : Z7711.D
Signal(s) : FID1A.CH
Acq On : 11 Dec 2009 19:48
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 14 09:01:15 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Fri Dec 11 15:01:02 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



0327

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-14-09\
Data File : Z7715.D
Signal(s) : FID1A.CH
Acq On : 14 Dec 2009 14:07
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 14 14:16:40 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Mon Dec 14 14:02:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S Chlorobenzene	1.00	6365531	19.509	ng	
Spiked Amount	20.000		Recovery =	97.55%		
15)	S o-Terphenyl	3.79	9967027	20.308	ng	
Spiked Amount	20.000		Recovery =	101.54%		
	Target Compounds					
2)	T n-Octane (C8)	0.77	7215256	17.613	ng	
3)	T n-Decane (C10)	1.70	7390830	16.908	ng	
4)	T n-Dodecane (C12)	2.33	7245515	16.675	ng	
5)	T n-Tetradecane (C14)	2.81	7450639	16.931	ng	
6)	T n-Hexadecane (C16)	3.22	7432433	17.019	ng	
7)	T n-Heptadecane (17)	3.41	7141880	17.335	ng	m
8)	T Pristane	3.42	7669027	18.169	ng	m
9)	T n-Octadecane (C18)	3.59	7451378	16.899	ng	
10)	T Phytane	3.60	7575076	17.406	ng	
11)	T n-Eicosane (C20)	3.92	7561227	17.317	ng	
12)	T n-Dotriacontane (C32)	5.61	7493776	18.478	ng	
13)	T n-Tetracontane (40)	7.25	6377676	22.218	ng	m
14)	H Total TPHC	4.00	113859966	150.792	ng	

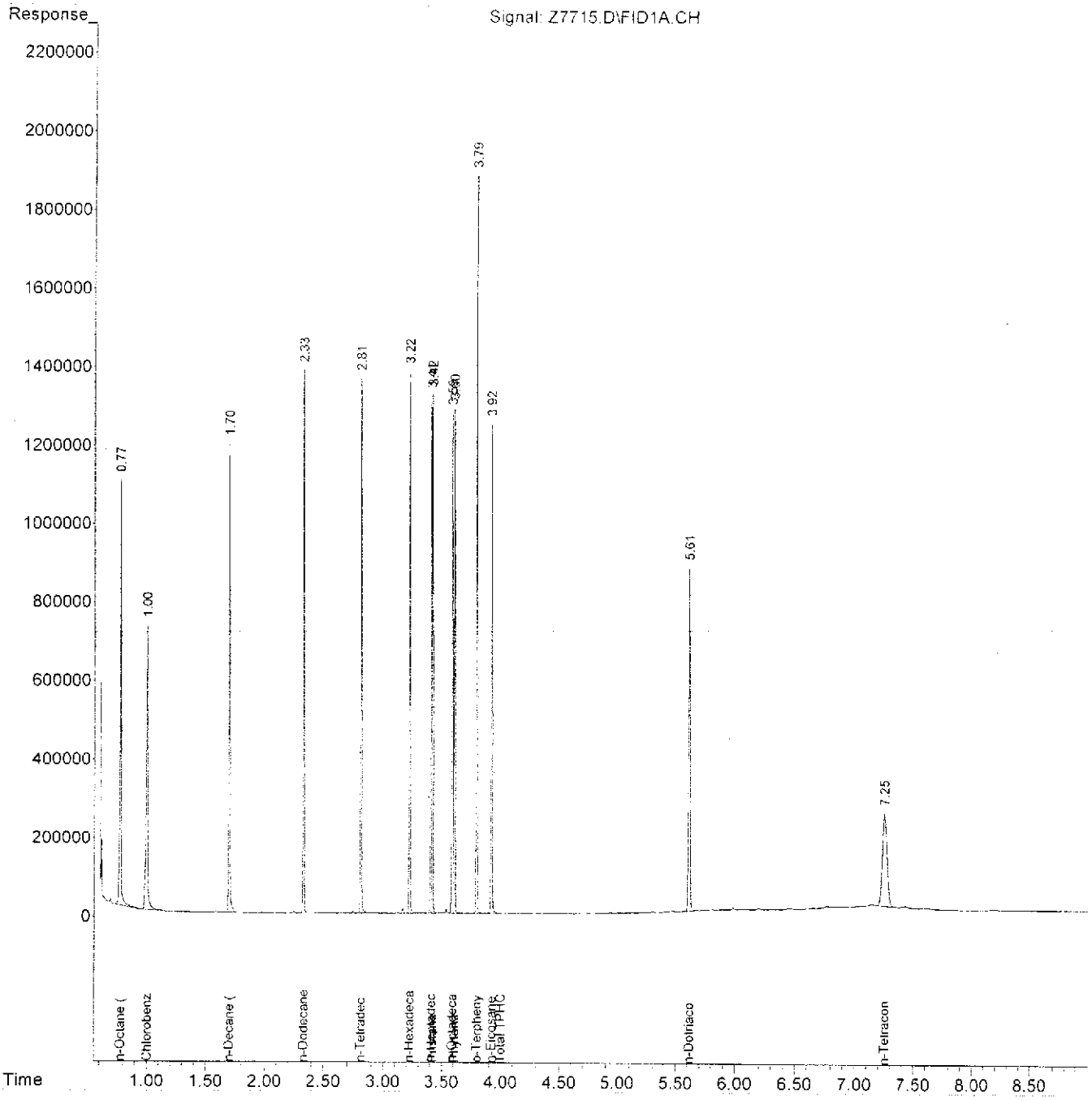
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-14-09\
Data File : Z7715.D
Signal(s) : FID1A.CH
Acq On : 14 Dec 2009 14:07
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 14 14:16:40 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Mon Dec 14 14:02:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-14-09\
Data File : Z7719.D
Signal(s) : FID1A.CH
Acq On : 14 Dec 2009 15:22
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 14 15:31:52 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Mon Dec 14 14:02:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
	System Monitoring Compounds				
1) S	Chlorobenzene	0.99	6308427	19.334 ng	
Spiked Amount	20.000		Recovery =	96.67%	
15) S	o-Terphenyl	3.79	9841750	20.053 ng	
Spiked Amount	20.000		Recovery =	100.27%	
	Target Compounds				
2) T	n-Octane (C8)	0.77	7132058	17.410 ng	
3) T	n-Decane (C10)	1.70	7291507	16.681 ng	
4) T	n-Dodecane (C12)	2.33	7129614	16.408 ng	
5) T	n-Tetradecane (C14)	2.81	7327906	16.652 ng	
6) T	n-Hexadecane (C16)	3.22	7337406	16.802 ng	
7) T	n-Heptadecane (17)	3.41	7842524	19.035 ng	m
8) T	Pristane	3.42	7104183	16.831 ng	m
9) T	n-Octadecane (C18)	3.59	7350174	16.670 ng	
10) T	Phytane	3.60	7481273	17.190 ng	
11) T	n-Eicosane (C20)	3.92	7476628	17.123 ng	
12) T	n-Dotriacontane (C32)	5.61	7391818	18.226 ng	m
13) T	n-Tetracontane (40)	7.25	6121405	21.325 ng	m
14) H	Total TPHC	4.00	104132227	137.909 ng	

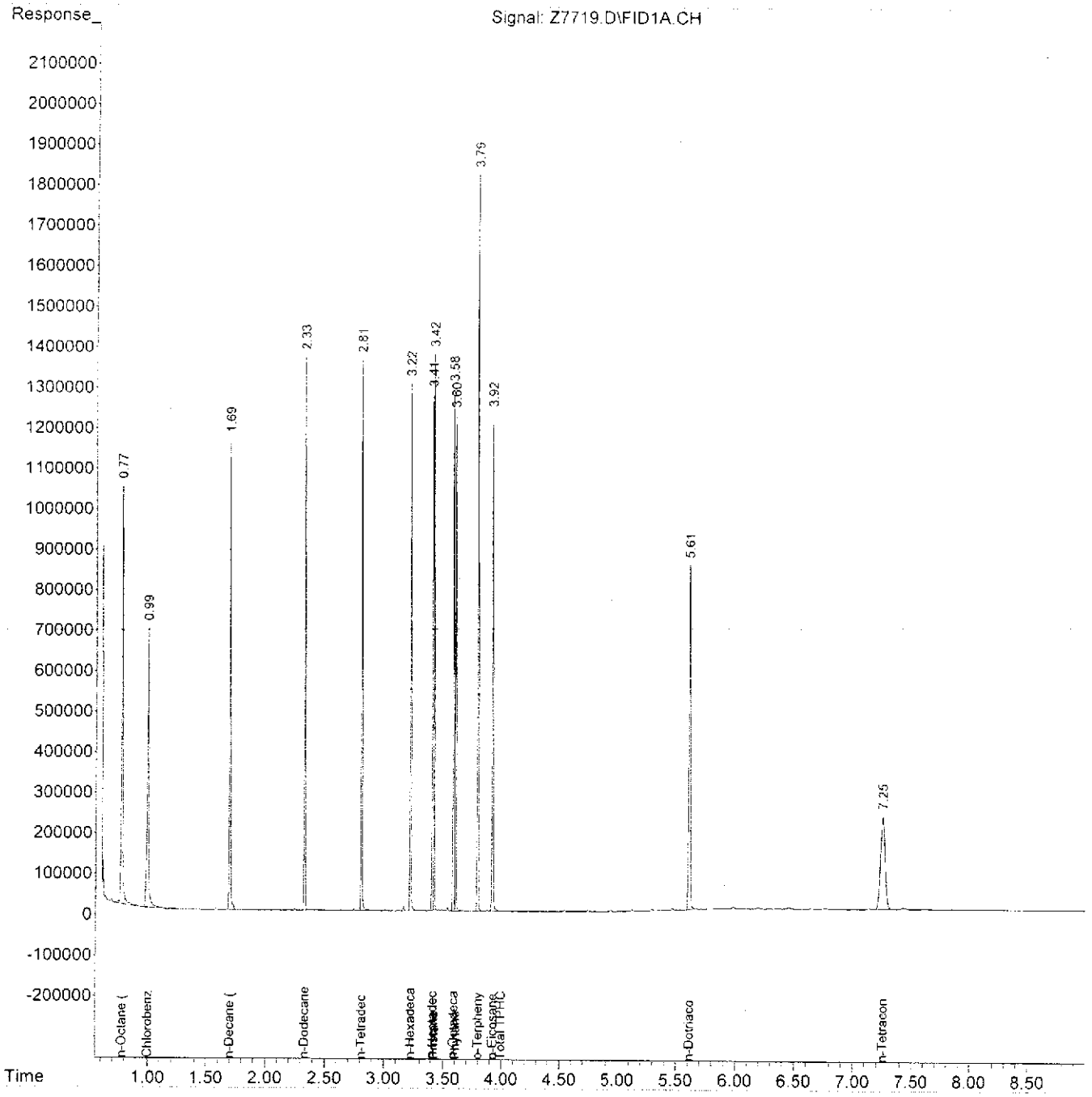
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-14-09\
Data File : Z7719.D
Signal(s) : FID1A.CH
Acq On : 14 Dec 2009 15:22
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 14 15:31:52 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Mon Dec 14 14:02:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : Z7696.D
Signal(s) : FID1A.CH
Acq On : 11 Dec 2009 14:51
Operator : LIZ
Sample : QAM-025_C_IAS_3452,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 11 15:02:19 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Fri Dec 11 15:01:02 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

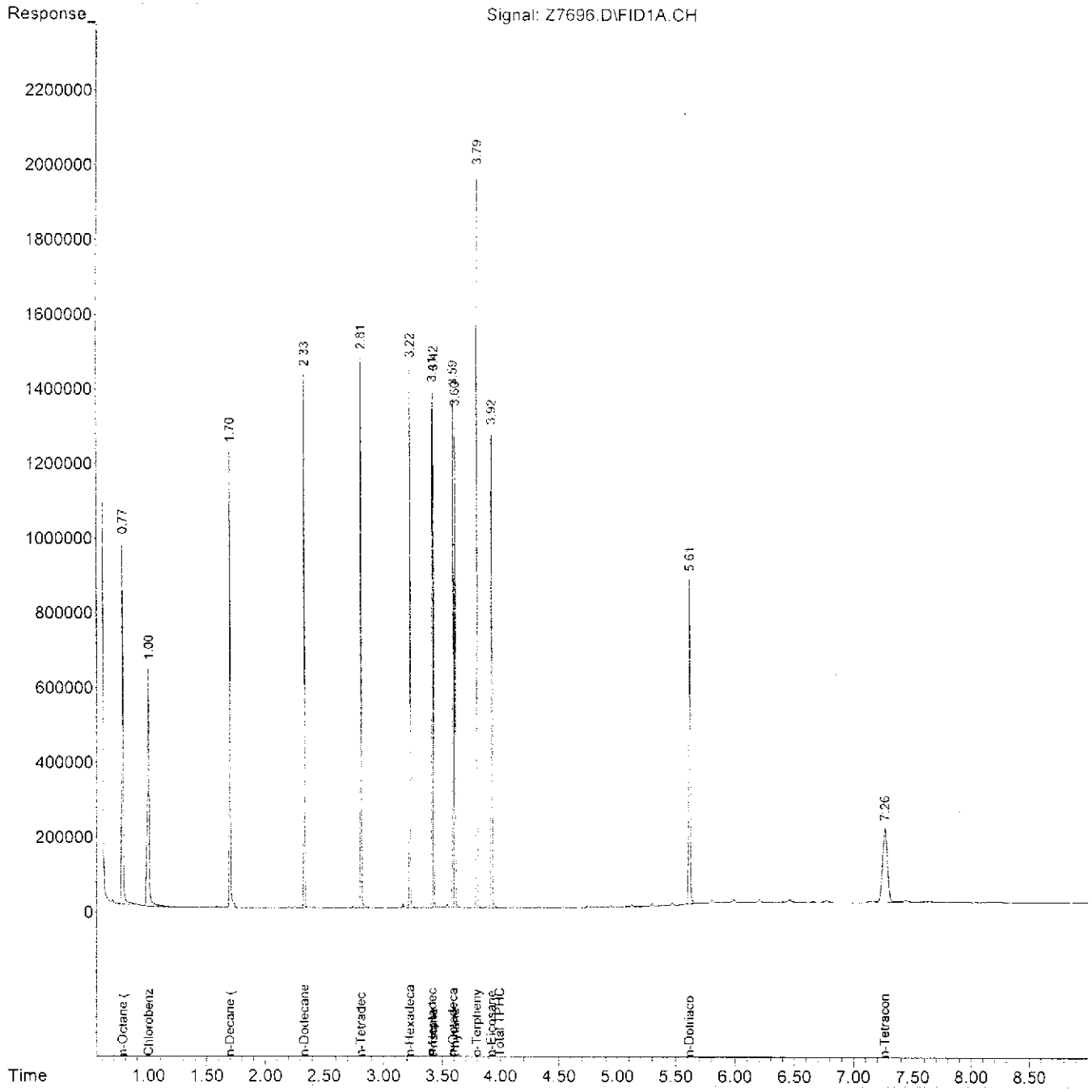
		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	Chlorobenzene	1.00	6591766	20.202	ng	
Spiked Amount		20.000		Recovery =	101.01%		
15)	S	o-Terphenyl	3.79	10330342	21.048	ng	
Spiked Amount		20.000		Recovery =	105.24%		
Target Compounds							
2)	T	n-Octane (C8)	0.77	7229631	17.648	ng	
3)	T	n-Decane (C10)	1.70	7684278	17.580	ng	
4)	T	n-Dodecane (C12)	2.33	7533855	17.339	ng	
5)	T	n-Tetradecane (C14)	2.81	7710948	17.522	ng	
6)	T	n-Hexadecane (C16)	3.22	7716279	17.669	ng	
7)	T	n-Heptadecane (17)	3.41	8645819	20.985	ng	m
8)	T	Pristane	3.42	7811313	18.506	ng	m
9)	T	n-Octadecane (C18)	3.59	7602085	17.241	ng	m
10)	T	Phytane	3.60	7755346	17.820	ng	m
11)	T	n-Eicosane (C20)	3.92	7917107	18.132	ng	
12)	T	n-Dotriacontane (C32)	5.61	7587544	18.709	ng	m
13)	T	n-Tetracontane (40)	7.26	5660368	19.719	ng	
14)	H	Total TPHC	4.00	115246050	152.628	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\12-11-09\
Data File : Z7696.D
Signal(s) : FID1A.CH
Acq On : 11 Dec 2009 14:51
Operator : LIZ
Sample : QAM-025_C_IAS_3452,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 11 15:02:19 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Fri Dec 11 15:01:02 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-14-09\
Data File : Z7714.D
Signal(s) : FID1A.CH
Acq On : 14 Dec 2009 13:52
Operator : LIZ
Sample : QAM-025_C_IAS_3452,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 14 16:21:25 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Mon Dec 14 14:02:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S Chlorobenzene	1.00	5796394	17.765	ng	m
Spiked Amount	20.000		Recovery =	88.83%		
15)	S o-Terphenyl	3.79	9664776	19.692	ng	
Spiked Amount	20.000		Recovery =	98.46%		
	Target Compounds					
2)	T n-Octane (C8)	0.77	6748556	16.474	ng	m
3)	T n-Decane (C10)	1.70	7284754	16.666	ng	
4)	T n-Dodecane (C12)	2.33	7227518	16.634	ng	
5)	T n-Tetradecane (C14)	2.81	7449581	16.928	ng	
6)	T n-Hexadecane (C16)	3.22	7460472	17.084	ng	
7)	T n-Heptadecane (17)	3.41	7340927	17.818	ng	m
8)	T Pristane	3.42	7380889	17.486	ng	m
9)	T n-Octadecane (C18)	3.59	7418335	16.825	ng	m
10)	T - Phytane	3.60	7630958	17.534	ng	m
11)	T n-Eicosane (C20)	3.92	7430126	17.017	ng	
12)	T n-Dotriacontane (C32)	5.61	7585418	18.704	ng	
13)	T n-Tetracontane (40)	7.25	6773337	23.596	ng	m
14)	H Total TPHC	4.00	136597417	180.905	ng	

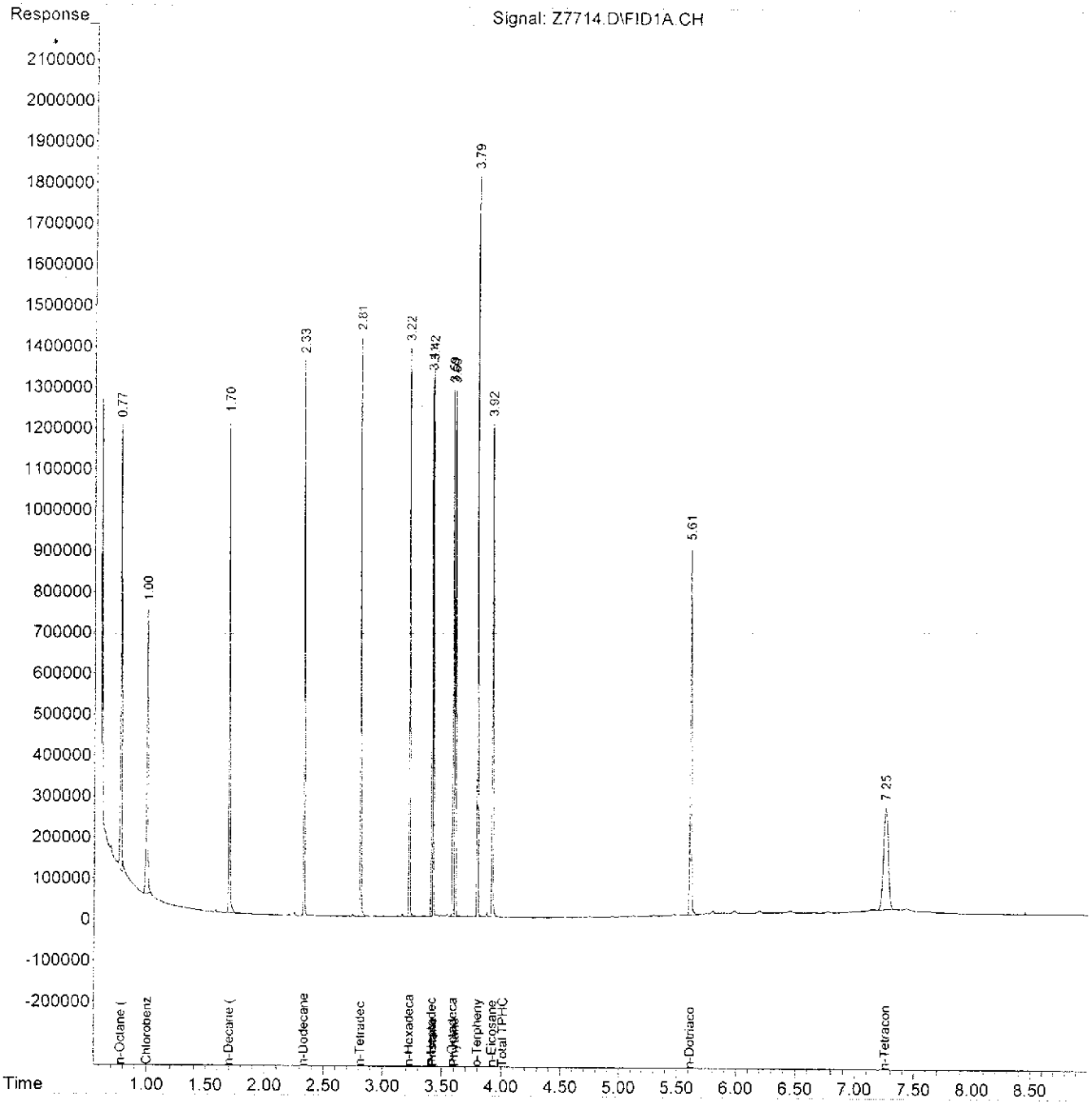
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-14-09\
Data File : Z7714.D
Signal(s) : FID1A.CH
Acq On : 14 Dec 2009 13:52
Operator : LIZ
Sample : QAM-025_C_IAS_3452,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 14 16:21:25 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Mon Dec 14 14:02:01 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 527

Associated Lab Case for Blank 1: 12533, 12542, 12551, 12553, 12554, 12558, 12571

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	10.0	ND
Antimony	1.00	ND
Arsenic	1.00	ND
Barium	10.0	ND
Beryllium	0.500	ND
Cadmium	0.250	ND
Calcium	50.0	ND
Chromium	2.00	ND
Cobalt	2.00	ND
Copper	2.00	ND
Iron	25.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	1.00	ND
Mercury	0.013	ND
Nickel	1.00	ND
Potassium	50.0	ND
Selenium	2.00	ND
Silver	0.500	ND
Sodium	100	ND
Thallium	0.250	ND
Vanadium	2.00	ND
Zinc	2.00	ND

Associated Sample for Blank 1:

12533-002; 12542-001,012~015; 12551-001; 12553-001~003
12554-001; 12558-001; 12571-001~003

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 527
Lab Case: 12571, 12554, 12533, 12542, 12551, 12558, 12553

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB		
Aluminum	0.010	ND	ND	ND	ND		
Antimony	0.001	ND	ND	ND	ND		
Arsenic	0.001	ND	ND	ND	ND		
Barium	0.010	ND	ND	ND	ND		
Beryllium	0.0005	ND	ND	ND	ND		
Cadmium	0.00025	ND	ND	ND	ND		
Calcium	0.050	ND	ND	ND	ND		
Chromium	0.002	ND	ND	ND	ND		
Cobalt	0.002	ND	ND	ND	ND		
Copper	0.002	ND	ND	ND	ND		
Iron	0.025	ND	ND	ND	ND		
Lead	0.0005	ND	ND	ND	ND		
Magnesium	0.050	ND	ND	ND	ND		
Manganese	0.001	ND	ND	ND	ND		
Mercury	0.00025	ND	ND	ND			
Nickel	0.001	ND	ND	ND	ND		
Potassium	0.050	ND	ND	ND	ND		
Selenium	0.002	ND	ND	ND	ND		
Silver	0.0005	ND	ND	ND	ND		
Sodium	0.100	ND	ND	ND	ND		
Thallium	0.00025	ND	ND	ND	ND		
Vanadium	0.002	ND	ND	ND	ND		
Zinc	0.002	ND	ND	ND	ND		

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 527
Lab Case: 12571, 12554, 12533, 12542, 12551, 12558, 12553

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV FOUND	ICV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R
Aluminum	10.0	400	424	106	406	102	431	108	420	105
Antimony	1.00	120	111	92.5	112	93.3	111	92.5	108	90.0
~~Arsenic~~	~~1.00~~	~~20.0~~	~~18.8~~	~~94.0~~	~~19.2~~	~~96.0~~	~~19.0~~	~~95.0~~	~~19.6~~	98.0
Barium	10.0	400	378	94.5	382	95.5	376	94.0	375	93.8
Beryllium	0.500	10.0	10.2	102	10.7	107	10.8	108	10.6	106
Cadmium	0.250	10.0	10.6	106	10.8	108	10.8	108	10.8	108
Calcium	50.0	10000	10900	109	10900	109	10800	108	10900	109
Chromium	2.00	20.0	18.9	94.5	19.1	95.5	19.5	97.5	19.3	96.5
Cobalt	2.00	100	93.4	93.4	95.1	95.1	95.7	95.7	94.8	94.8
Copper	2.00	50.0	49.2	98.4	50.8	102	50.3	101	51.0	102
Iron	25.0	200	190	95.0	190	95.0	206	103	200	100
Lead	0.500	10.0	9.22	92.2	9.46	94.6	9.57	95.7	9.37	93.7
Magnesium	50.0	10000	10700	107	10900	109	10800	108	11000	110
Manganese	1.00	30.0	27.9	93.0	28.2	94.0	28.4	94.7	30.1	100
Mercury	0.250	5.00	4.99	99.8	5.07	101	5.12	102		
Nickel	1.00	80.0	78.1	97.6	78.7	98.4	79.9	99.9	80.5	101
Potassium	50.0	10000	10700	107	10600	106	10700	107	10700	107
Selenium	2.00	10.0	10.2	102	10.1	101	10.4	104	10.6	106
Silver	0.500	20.0	21.8	109	18.1	90.5	18.3	91.5	18.6	93.0
Sodium	100	10000	10900	109	10900	109	10900	109	11000	110
Thallium	0.250	20.0	18.3	91.5	19.1	95.5	18.9	94.5	18.6	93.0
Vanadium	2.00	100	95.6	95.6	94.1	94.1	96.9	96.9	96.8	96.8
Zinc	2.00	40.0	40.4	101	41.7	104	40.9	102	40.2	101

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 527
Lab Case: 12571, 12554, 12533, 12542, 12551, 12558, 12553

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	> LRG	> LRG	NA	NA
Calcium	100000	-	97600	96300	96.3	NA
Iron	100000	-	87100	84400	84.4	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	-	-	-	NA
Titanium	2000	-	2070	2000	100	NA
Silver	-	20.0	-	18.8	94.0	80-120
Arsenic	-	20.0	-	16.5	82.5	80-120
Cadmium	-	20.0	-	21.4	107	80-120
Cobalt	-	20.0	-	17.6	88.0	80-120
Chromium	-	20.0	-	17.7	88.5	80-120
Copper	-	20.0	-	19.2	96.0	80-120
Manganese	-	20.0	-	20.6	103	80-120
Nickel	-	20.0	-	19.3	96.5	80-120
Zinc	-	20.0	-	23.4	117	80-120

%R = Percent Recovery

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 527
Lab Case: 12533, 12542, 12551, 12553, 12554, 12558, 12571

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	6930	6580	NC	240					75-125
Antimony	46.2	ND	96.3	48.0					75-125
Arsenic	50.6	2.94	99.3	48.0					75-125
Barium	60.7	15.0	95.2	48.0					75-125
Beryllium	49.0	ND	102	48.0					75-125
Cadmium	50.3	ND	105	48.0					75-125
Calcium	846	612	97.5	240					75-125
Chromium	58.2	11.8	96.7	48.0					75-125
Cobalt	49.2	3.74	94.7	48.0					75-125
Copper	94.7	44.2	105	48.0					75-125
Iron	12900	12400	NC	240					75-125
Lead	51.2	6.10	94.0	48.0					75-125
Magnesium	2050	1780	113	240					75-125
Manganese	120	71.3	101	48.0					75-125
Mercury	0.308	ND	103	0.300					75-125
Nickel	58.5	9.42	102	48.0					75-125
Potassium	1100	843	107	240					75-125
Selenium	50.8	ND	106	48.0					75-125
Silver	48.9	ND	102	48.0					75-125
Sodium	292	ND	122	240					75-125
Thallium	45.2	ND	94.2	48.0					75-125
Vanadium	57.2	11.0	96.3	48.0					75-125
Zinc	93.2	44.3	102	48.0					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 12571-001
QC Sample 1 for following samples:
12533-002; 12542-001,012~015; 12551-001; 12553-001~003
12554-001; 12558-001; 12571-001~003

QC Sample 2 _____
QC Sample 2 for following samples:

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 527

Lab Case: 12533, 12542, 12551, 12553, 12554, 12558, 12571

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	6580	6460	1.84				
Antimony	NA	ND	ND	NC				
Arsenic	20	2.94	2.99	1.69				
Barium	20	15.0	14.9	0.669				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Calcium	20	612	606	0.985				
Chromium	20	11.8	11.7	0.851				
Cobalt	20	3.74	3.75	0.267				
Copper	20	44.2	44.5	0.676				
Iron	20	12400	12400	0				
Lead	20	6.10	6.23	2.11				
Magnesium	20	1780	1800	1.12				
Manganese	20	71.3	71.3	0				
Mercury	NA	ND	ND	NC				
Nickel	20	9.42	9.59	1.79				
Potassium	20	843	853	1.18				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	NA	ND	ND	NC				
Thallium	NA	ND	ND	NC				
Vanadium	20	11.0	10.9	0.913				
Zinc	20	44.3	44.7	0.899				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 12571-001

QC Sample 1 for following samples:

12533-002; 12542-001,012~015; 12551-001; 12553-001~003
12554-001; 12558-001; 12571-001~003

QC Sample 2 _____

QC Sample 2 for following samples:

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 527

Lab Case: 12533, 12542, 12551, 12553, 12554, 12558, 12571

Matrix: Soil

Unit: ppm (mg/kg)

ANALYTE	BSS1			BSS2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	203	102			
Antimony	40.0	39.1	97.8			
Arsenic	40.0	40.9	102			
Barium	40.0	38.1	95.3			
Beryllium	40.0	40.1	100			
Cadmium	40.0	42.0	105			
Calcium	200	224	112			
Chromium	40.0	39.1	97.8			
Cobalt	40.0	38.6	96.5			
Copper	40.0	42.4	106			
Iron	200	207	104			
Lead	40.0	37.9	94.8			
Magnesium	200	193	96.5			
Manganese	40.0	38.4	96.0			
Mercury	0.250	0.259	104			
Nickel	40.0	41.7	104			
Potassium	200	192	96.0			
Selenium	40.0	43.3	108			
Silver	40.0	40.5	101			
Sodium	200	192	96.0			
Thallium	40.0	38.0	95.0			
Vanadium	40.0	37.0	92.5			
Zinc	40.0	42.1	105			

(1) Control Limits % Recovery = 85-115%

BSS1	BSS2
12533-002; 12542-001,012~015; 12551-001; 12553-001~003	
12554-001; 12558-001; 12571-001~003	

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 527
Lab Case: 12533, 12542, 12551, 12553, 12554, 12558, 12571

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	6580	6670	1.36			
Antimony	ND			38.4	48.0	80.0
Arsenic	2.94			45.4	48.0	88.5
Barium	15.0			55.5	48.0	84.4
Beryllium	ND			43.1	48.0	89.8
Cadmium	ND			44.0	48.0	91.7
Calcium	612			1500	960	92.5
Chromium	11.8			52.2	48.0	84.2
Cobalt	3.74			43.5	48.0	82.8
Copper	44.2	46.0	3.99			
Iron	12400	12400	0			
Lead	6.10			46.7	48.0	84.6
Magnesium	1780	1700	4.60			
Manganese	71.3	74.3	4.12			
Nickel	9.42			51.7	48.0	88.1
Potassium	843			1760	960	95.5
Selenium	ND			43.8	48.0	91.3
Silver	ND			40.1	48.0	83.5
Sodium	ND			1010	960	105
Thallium	ND			41.6	48.0	86.7
Vanadium	11.0			49.1	48.0	79.4
Zinc	44.3	45.9	3.55			

SR = Sample Result
SDR = Sample Dilution Result

SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 12571-001
QC Sample 1 for following samples:
12533-002; 12542-001,012~015; 12551-001; 12553-001~003
12554-001; 12558-001; 12571-001~003

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869
12/14/2009

Certified for NJDEP, NY(DOH)
NJ ID#14751
NY ID#11402

General Chemistry Quality Control

Matrix: Soil **Batch ID: AP013-0111**
Units: Soil-mg/Kg

Blank

Parameter	Method Blank	MDL	Analysis Date
Cyanide, Total	ND	1.00	12/11/09

Duplicate Recovery

Parameter	QC Sample	Result	Duplicate Result	RPD	RPD Limits
Cyanide, Total	12428-001S	15.1	15.6	3	20

Spike Recovery

Parameter	QC Sample	Result	Spike Added	Spike Result	%Spike Recovery	%Rec. Limits
Cyanide, Total	12428-001	ND	14.7	15.1	103	75 - 125

The above blank result applies to the follow samples:

E09-12428-001
E09-12428-001D
E09-12428-001S
E09-12428-001SD
E09-12396-001
E09-12458-001
E09-12458-002
E09-12458-003
E09-12458-004
E09-12542-001
E09-12551-001

++ = No Flash - Sample boiled at 100C
NA = Not Applicable
ND = Not Detected
NC = Non calculable RPD due to value less than the detection limit
No = Does Not Ignite
Yes = Sample Ignites

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Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC-PA
Address:	2034 East Wellington Rd
	Newtown PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	M. Brogan
Sampler:	M. Brogan
Project Name:	Palmer
Project Location (State):	
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax — 24 hr* 48 hr* 72 hr* 1 wk* — 2 wk/Std

Hard Copy — 3 wk/Std

Other *call for price

Results needed by: STD / STD

Rush TAT Charge **: 24 hr - 100%... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only (Reduced) Regulatory - 15% Surcharge applies Other (describe)

EDD's: SRP .dbf format (circled) SRP .wk1 format; lab approved custom EDD; NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TCL/TAL QAM 25	DRO	PAH	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
SB1	NA	12/3/09	9:30	S	4	1	✓							1	2	1	
T4-1	5.5-6'		1:45		1	2		✓	*								
T4-2			1:55		1	3		✓	*								
T4-3			2:05		1	4		✓	*								
T4-4			2:15		1	5		✓	*								
T4-5			2:25		1	6		✓	*								
TS-1			2:35		1	7		✓	*								
TS-2			2:45		1	8		✓	*								
TS-3			2:55		1	9		✓	*								
TS-4			3:05		1	10		✓	*								

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company
Relinquished by:	12/10/09	7:43	Received by:
Relinquished by:	12/10/09	1335	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments: *

Lab Case # 12542

PAGE: 1 of 2

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Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC-PA
Address:	2034 East Wellington Rd
	Newtown PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	M. Brown
Sampler:	M. Brown
Project Name:	Palmer
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax — 24 hr* 48 hr* 72 hr* 1 wk* — 2 wk/Std

Hard Copy — Other *call for price — 3 wk/Std

Results needed by: STD / STD

Rush TAT Charge **	Report Format	EDD's
24 hr - 100%...	Results Only	SRP. dbf format
48 hr - 75%....	Reduced	SRP.wk1 format
72 hr - 50%....	Regulatory - 15% Surcharge applies	lab approved custom EDD
96 hr - 35%....	Other (describe)	NO EDD/CD REQ'D
5 day - 25%....		
6-9 day 10%		

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

ANALYTICAL PARAMETERS

Cooler Temp 4 °C

BOTTLES & PRESERVATIVES

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	DRO	PAH	VOA	LEAD	HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
T5-5	5.5-6'	12/8/09	3:45	S	1	11	✓	*										
T3-1	6.8-6.5		4:00	S	4	12			✓	✓					1	2	1	
T3-2	6-6.5		4:05	S	4	13			✓	✓					1	2	1	
T3-3	6-6.5		4:10	S	4	14			✓	✓					1	2	1	
T3-4	6-6.5		4:15	S	4	15			✓	✓					1	2	1	
TRIP	NA	12/8/09		AQ	2	16			✓									

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company
Relinquished by:	12/10/09	0743	Received by:
Relinquished by:	12/10/09	1335	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

* HOLD

Lab Case # 12542

PAGE: 2 of 2

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PROJECT INFORMATION

E 0 9 - 1 2 5 4 2

Case No. E09-12542 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Mike Brogan	**Received**	12/10/2009 13:35
EMail	pecinc@aol.com;nagorbm@yahoo	☑ EMail EDDs	**Verbal Due** 12/28/2009
Phone	(973) 664-1199 **Fax** 1(973)664-1127	**Report Due**	1/5/2010

Report To

2034 E. Wellington Rd.

Newtown, PA 18940

Attn: Mike Brogan

Bill To

2034 E. Wellington Rd.

Newtown, PA 18940

Attn: Mike Brogan

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
12542-001	SB1	n/a	12/8/2009@09:30	Soil	mg/Kg	4
12542-002	T4-1	5.5 / 6	12/8/2009@13:45	Soil	mg/Kg	1
12542-003	T4-2	5.5 / 6	12/8/2009@13:55	Soil	mg/Kg	1
12542-004	T4-3	5.5 / 6	12/8/2009@14:05	Soil	mg/Kg	1
12542-005	T4-4	5.5 / 6	12/8/2009@14:15	Soil	mg/Kg	1
12542-006	T4-5	5.5 / 6	12/8/2009@14:25	Soil	mg/Kg	1
12542-007	T5-1	5.5 / 6	12/8/2009@14:35	Soil	mg/Kg	1
12542-008	T5-2	5.5 / 6	12/8/2009@14:45	Soil	mg/Kg	1
12542-009	T5-3	5.5 / 6	12/8/2009@14:55	Soil	mg/Kg	1
12542-010	T5-4	5.5 / 6	12/8/2009@15:05	Soil	mg/Kg	1
12542-011	T5-5	5.5 / 6	12/8/2009@15:15	Soil	mg/Kg	1
12542-012	T3-1	6 / 6.5	12/8/2009@16:00	Soil	mg/Kg	4
12542-013	T3-2	6 / 6.5	12/8/2009@16:05	Soil	mg/Kg	4
12542-014	T3-3	6 / 6.5	12/8/2009@16:10	Soil	mg/Kg	4
12542-015	T3-4	6 / 6.5	12/8/2009@16:15	Soil	mg/Kg	4
12542-016	TRIP	n/a	12/8/2009	Aqueous	mg/L	1

Sample #	Tests	Status	QA Method
001	TCL VO+10	Complete	8260B
"	TCL BNA+20	**In Process**	8270C
"	PCB	Complete	8082
"	TCL Pesticides	**In Process**	8081A
"	TPH-QAM025	Complete	QAM-025
"	TAL Metals	Complete	6020/7471A
"	Cyanide, Total	Complete	9012A
002	PAH	Run	8270C
"	TPH-DRO-72 HR	Complete	8015B M
003	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
004	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M

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December 16, 2009

0347

PROJECT INFORMATION

Case No. E09-12542 **Project** PALMER

Sample #	Tests	Status	QA Method
005	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
006	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
007	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
008	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
009	PAH	Run	8270C
"	TPH-DRO-72 HR	Complete	8015B M
010	PAH	Run	8270C
"	TPH-DRO-72 HR	Complete	8015B M
011	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
012	PP VOA + 10 + Cis 1,2-DCE	Complete	8260B
"	Lead - Pb	Complete	6020
013	PP VOA + 10 + Cis 1,2-DCE	Complete	8260B
"	Lead - Pb	Complete	6020
014	PP VOA + 10 + Cis 1,2-DCE	Complete	8260B
"	Lead - Pb	Complete	6020
015	PP VOA + 10 + Cis 1,2-DCE	Complete	8260B
"	Lead - Pb	Complete	6020
016	PP VOA + 10 + Cis 1,2-DCE	Complete	8260B

12/16/2009 15:28 by katie - REV 1

REV due 1/4

As per Dick Katz, activate PAH for samples 2, 9 and 10. Cancel others on hold.

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SAMPLE RECEIPT VERIFICATION

CASE NO: **E 09** **12542** CLIENT: PEC - PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE

Comments

one tb methanol empty (#16)

KEY

✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [CM] DATE 12/16/09

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE 12/16/09

Laboratory Custody Chronicle

IAL Case No.
E09-12542

Client PennJersey Environmental Consulting

Project PALMER

Received On 12/10/2009@13:35

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
PP VOA + 10 + Cis 1,2-DCE	12542-012	Soil	n/a	n/a	12/11/09	Xing
"	-013	"	n/a	n/a	12/11/09	Xing
"	-014	"	n/a	n/a	12/11/09	Xing
"	-015	"	n/a	n/a	12/11/09	Xing
"	-016	Aqueous	n/a	n/a	12/11/09	Xing
TCL VO+10	-001	Soil	n/a	n/a	12/11/09	Xing

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
PAH	-002	Soil	12/17/09	Kou-Liang	12/17/09	JC
"	-009	"	12/17/09	Kou-Liang	12/17/09	JC
"	-010	"	12/17/09	Kou-Liang	12/17/09	JC
TCL BNA+20	-001	Soil	12/15/09	Kou-Liang	12/15/09	JC

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
PCB	-001	Soil	12/11/09	Archimede	12/11/09	Sylvia
TCL Pesticides	-001	Soil	12/11/09	Archimede	12/11/09	Iwona
TPH-DRO-72 HR	-002	Soil	12/10/09	Archimede	n/a	Tracy
"	-003	"	12/10/09	Archimede	n/a	Tracy
"	-004	"	12/10/09	Archimede	n/a	Tracy
"	-005	"	12/10/09	Archimede	n/a	Tracy
"	-006	"	12/10/09	Archimede	n/a	Tracy
"	-007	"	12/10/09	Archimede	n/a	Tracy
"	-008	"	12/10/09	Archimede	n/a	Tracy
"	-009	"	12/10/09	Archimede	n/a	Tracy
"	-010	"	12/10/09	Archimede	n/a	Tracy
"	-011	"	12/10/09	Archimede	n/a	Tracy
TPH-QAM025	-001	Soil	12/11/09	Archimede	12/11/09	Margaret

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Lead - Pb	-012	Soil	12/11/09	Lisa	12/11/09	Wei
"	-013	"	12/11/09	Lisa	12/11/09	Wei
"	-014	"	12/11/09	Lisa	12/11/09	Wei
"	-015	"	12/11/09	Lisa	12/11/09	Wei
TAL Metals	-001	Soil	12/11/09	Lisa	12/11/09	Wei

Department: Wet Chemistry			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Cyanide, Total	-001	Soil	n/a	n/a	12/11/09	Geeta

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IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E09-12676**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0689), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E09-12676

Client PennJersey Environmental Consulting

Project PALMER

Received On 12/15/2009@14:25

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
12676-001	SBD	4/4.5	12/14/2009@12:00	Soil	4
12676-002	ANOME	3.5/4	12/14/2009@12:30	Soil	4

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received two (2) soil sample(s) from PennJersey Environmental Consulting (Project: PALMER) on December 15, 2009 for the analysis of:

(2) TCL VO+10
(2) TCL BNA+20
(2) PCB
(2) TCL Pesticides
(2) TPH-QAM025
(2) TAL Metals
(2) Cyanide, Total

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Jacqueline A Beyer
Reviewed by

12/30/09
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E09-12676

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E09 - 12676

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	GC/MS Tuning Specifications: a. BFB Passed		✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4.	GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5.	GC/MS Calibration Requirements: a. Calibration Check Compounds		na
	b. System Performance Check Compounds		na
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
	If not met, were the calculations checked and the results qualified as "estimated"?		na
8.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		na
9.	Internal Standard Area/Retention Time Shift meet criteria		✓
10.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		na
11.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12.	Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

12/18/09
Date

0004

rev 01/09

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S

Lab Case Number: E09 - 12676

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
			✓
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

12-21-09
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PESTICIDES

Lab Case Number: E09 - 12676

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

12/21/09
Date

rev 01/09

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - Miscellaneous
Including Hydrocarbons, Metabolic Acids, and Gas Screens

Lab Case Number: E09 - 12676

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		

Comments:

_____

_____

_____ Organic Manager

12-16-09 Date

rev 01/09

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
METAL ANALYSIS

Lab Case Number: E09-12676

		No	Yes
1.	Calibration Summary Meet Criteria.		✓
2.	ICP Interference Check Sample Results Meets Criteria (if applicable)		✓
3.	Serial Dilution/Post Spike Summary Submitted (if applicable) / Meets Criteria		✓
4.	Internal Standards Meet Criteria (if applicable)		✓
5.	Laboratory Control Sample Summary Submitted (if applicable) / Meets Criteria		✓
6.	Blank Contamination: If yes, list compounds and concentrations in each blank:	✓	
7.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).		✓
8.	Extraction Holding Time Met. If not, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not, list number of days exceeded for each sample:		✓

Additional Comments:

Wei Cheng
Inorganic Manager

December 17, 2009
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E09-12676

Lab ID:	12676-001		12676-002	
Client ID:	SBD		ANOME	
Depth:	4/4.5		3.5/4	
Matrix:	Soil		Soil	
Sampled Date	12/14/09		12/14/09	
PARAMETER(Units)	Conc Q	MDL	Conc Q	MDL
Volatiles (Units)	*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
TOTAL VO's:	ND	0.0024	ND	0.00285
TOTAL TIC's:	ND		ND	
TOTAL VO's & TIC's:	ND		ND	
Semivolatiles - BNA (Units)	*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
Phenanthrene	ND	0.077	0.369	0.075
Anthracene	ND	0.077	0.097	0.075
Fluoranthene	ND	0.077	0.462	0.075
Pyrene	ND	0.077	0.405	0.075
Benzo[a]anthracene	ND	0.077	0.300	0.075
Chrysene	ND	0.077	0.312	0.075
Benzo[b]fluoranthene	ND	0.077	0.334	0.075
Benzo[k]fluoranthene	ND	0.077	0.352	0.075
Benzo[a]pyrene	ND	0.077	0.376	0.075
Indeno[1,2,3-cd]pyrene	ND	0.077	0.270	0.075
Dibenz[a,h]anthracene	ND	0.077	0.103	0.075
Benzo[g,h,i]perylene	ND	0.077	0.281	0.075
TOTAL BNA'S:	ND	0.077	0.281	0.075
TOTAL TIC's:	ND		ND	
TOTAL BNA'S & TIC's:	ND		3.66	
PCB's (Units)	*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
Aroclor-1016	ND	0.00303	ND	0.00307
Aroclor-1221	ND	0.00303	ND	0.00307
Aroclor-1232	ND	0.00303	ND	0.00307
Aroclor-1242	ND	0.00303	ND	0.00307
Aroclor-1248	ND	0.00303	ND	0.00307
Aroclor-1254	ND	0.00303	ND	0.00307
Aroclor-1260	ND	0.00303	ND	0.00307
Hydrocarbons (Units)	*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
Total TPHC	ND	6.55	130	6.56

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E09-12676

Lab ID:	12676-001		12676-002	
Client ID:	SBD		ANOME	
Depth:	4/4.5		3.5/4	
Matrix:	Soil		Soil	
Sampled Date	12/14/09		12/14/09	
PARAMETER(Units)	Conc Q	MDL	Conc Q	MDL
Pesticides (Units)	*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
alpha-BHC	ND	0.00019	ND	0.000192
beta-BHC	ND	0.00019	ND	0.000192
gamma-BHC (Lindane)	ND	0.00019	ND	0.000192
delta-BHC	ND	0.00019	ND	0.000192
Heptachlor	ND	0.00019	ND	0.000192
Aldrin	ND	0.00019	ND	0.000192
Heptachlor epoxide	ND	0.00019	ND	0.000192
Endosulfan I	ND	0.00019	ND	0.000192
4,4'-DDE	ND	0.00019	ND	0.000192
Dieldrin	ND	0.00019	ND	0.000192
Endrin	ND	0.00019	ND	0.000192
Endosulfan II	ND	0.00019	ND	0.000192
4,4'-DDD	ND	0.00019	ND	0.000192
Endrin aldehyde	ND	0.00019	ND	0.000192
Endosulfan sulfate	ND	0.00019	ND	0.000192
4,4'-DDT	ND	0.00019	ND	0.000192
Endrin ketone	ND	0.00019	ND	0.000192
Methoxychlor	ND	0.00019	ND	0.000192
alpha-Chlordane	ND	0.00019	ND	0.000192
gamma-Chlordane	ND	0.00019	ND	0.000192
Toxaphene	ND	0.00057	ND	0.000576
Metals (Units)	*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
Aluminum	11400	116	10100	12.2
Antimony	ND	1.16	ND	1.22
Arsenic	2.30	0.578	46.8	0.612
Barium	38.9	11.6	154	12.2
Beryllium	0.325	0.289	2.76	0.306
Cadmium	ND	0.289	9.22	0.306
Calcium	831	57.8	22300	61.2
Chromium	13.4	2.31	12.2	2.45
Cobalt	6.63	2.31	14.2	2.45
Copper	11.4	2.31	113	2.45
Iron	14500	28.9	31700	30.6
Lead	4.58	0.578	210	0.612
Magnesium	2840	57.8	4270	61.2
Manganese	287	1.16	18300	12.2
Mercury	ND	0.016	0.493	0.016
Nickel	13.3	1.16	25.3	1.22
Potassium	646	57.8	625	61.2
Selenium	ND	2.31	3.85	2.45
Silver	ND	0.578	ND	0.612
Sodium	158	116	323	122
Thallium	ND	0.289	ND	0.306
Vanadium	20.3	2.31	16.4	2.45
Zinc	407	2.31	33300	24.5
General Analytical (Units)				
Cyanide, Total(mg/Kg-ppm)	ND	1.17	ND	1.16

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-001
Client ID: SBD/4-4.5
Date Received: 12/15/2009
Date Analyzed: 12/16/2009
Data file: F5730.D

GC/MS Column: DB-624
Sample wt/vol: 6.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.8
% Moisture: 14.4

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.0024
Chloromethane	ND		0.0024
Vinyl chloride	ND		0.0024
Bromomethane	ND		0.0024
Chloroethane	ND		0.0024
Trichlorofluoromethane	ND		0.0024
1,1-Dichloroethene	ND		0.0024
Acetone	ND		0.0048
Carbon disulfide	ND		0.0024
Methylene chloride	ND		0.0024
trans-1,2-Dichloroethene	ND		0.0024
Methyl tert-butyl ether (MTBE)	ND		0.0024
1,1-Dichloroethane	ND		0.0024
cis-1,2-Dichloroethene	ND		0.0024
2-Butanone (MEK)	ND		0.0048
Bromochloromethane	ND		0.0024
Chloroform	ND		0.0024
1,1,1-Trichloroethane	ND		0.0024
Carbon tetrachloride	ND		0.0024
1,2-Dichloroethane (EDC)	ND		0.0024
Benzene	ND		0.0024
Trichloroethene	ND		0.0024
1,2-Dichloropropane	ND		0.0024
Bromodichloromethane	ND		0.0024
cis-1,3-Dichloropropene	ND		0.0024
4-Methyl-2-pentanone (MIBK)	ND		0.0048

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-001
Client ID: SBD/4-4.5
Date Received: 12/15/2009
Date Analyzed: 12/16/2009
Data file: F5730.D

GC/MS Column: DB-624
Sample wt/vol: 6.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.8
% Moisture: 14.4

Compound	Concentration	Q	MDL
Toluene	ND		0.0024
trans-1,3-Dichloropropene	ND		0.0024
1,1,2-Trichloroethane	ND		0.0024
Tetrachloroethene	ND		0.0024
2-Hexanone	ND		0.0048
Dibromochloromethane	ND		0.0024
1,2-Dibromoethane (EDB)	ND		0.0024
Chlorobenzene	ND		0.0024
Ethylbenzene	ND		0.0024
Total Xylenes	ND		0.0024
Styrene	ND		0.0024
Bromoform	ND		0.0024
Isopropylbenzene	ND		0.0024
1,1,2,2-Tetrachloroethane	ND		0.0024
1,3-Dichlorobenzene	ND		0.0024
1,4-Dichlorobenzene	ND		0.0024
1,2-Dichlorobenzene	ND		0.0024
1,2-Dibromo-3-chloropropane	ND		0.0024
1,2,4-Trichlorobenzene	ND		0.0024
1,2,3-Trichlorobenzene	ND		0.0024
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0024
Methyl acetate	ND		0.0024
Cyclohexane	ND		0.0024
Methylcyclohexane	ND		0.0024

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-001
Client ID: SBD/4-4.5
Date Received: 12/15/2009
Date Analyzed: 12/16/2009
Date File: F5730.D

GC/MS Column: DB-624
Sample wt/vol: 6.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.8
% Moisture: 14.4

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-002
Client ID: ANOME/3.5-4
Date Received: 12/15/2009
Date Analyzed: 12/16/2009
Data file: F5731.D

GC/MS Column: DB-624
Sample wt/vol: 5.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.7

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.00285
Chloromethane	ND		0.00285
Vinyl chloride	ND		0.00285
Bromomethane	ND		0.00285
Chloroethane	ND		0.00285
Trichlorofluoromethane	ND		0.00285
1,1-Dichloroethene	ND		0.00285
Acetone	ND		0.0057
Carbon disulfide	ND		0.00285
Methylene chloride	ND		0.00285
trans-1,2-Dichloroethene	ND		0.00285
Methyl tert-butyl ether (MTBE)	ND		0.00285
1,1-Dichloroethane	ND		0.00285
cis-1,2-Dichloroethene	ND		0.00285
2-Butanone (MEK)	ND		0.0057
Bromochloromethane	ND		0.00285
Chloroform	ND		0.00285
1,1,1-Trichloroethane	ND		0.00285
Carbon tetrachloride	ND		0.00285
1,2-Dichloroethane (EDC)	ND		0.00285
Benzene	ND		0.00285
Trichloroethene	ND		0.00285
1,2-Dichloropropane	ND		0.00285
Bromodichloromethane	ND		0.00285
cis-1,3-Dichloropropene	ND		0.00285
4-Methyl-2-pentanone (MIBK)	ND		0.0057

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-002
Client ID: ANOME/3.5-4
Date Received: 12/15/2009
Date Analyzed: 12/16/2009
Data file: F5731.D

GC/MS Column: DB-624
Sample wt/vol: 5.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.7

Compound	Concentration	Q	MDL
Toluene	ND		0.00285
trans-1,3-Dichloropropene	ND		0.00285
1,1,2-Trichloroethane	ND		0.00285
Tetrachloroethene	ND		0.00285
2-Hexanone	ND		0.0057
Dibromochloromethane	ND		0.00285
1,2-Dibromoethane (EDB)	ND		0.00285
Chlorobenzene	ND		0.00285
Ethylbenzene	ND		0.00285
Total Xylenes	ND		0.00285
Styrene	ND		0.00285
Bromoform	ND		0.00285
Isopropylbenzene	ND		0.00285
1,1,2,2-Tetrachloroethane	ND		0.00285
1,3-Dichlorobenzene	ND		0.00285
1,4-Dichlorobenzene	ND		0.00285
1,2-Dichlorobenzene	ND		0.00285
1,2-Dibromo-3-chloropropane	ND		0.00285
1,2,4-Trichlorobenzene	ND		0.00285
1,2,3-Trichlorobenzene	ND		0.00285
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00285
Methyl acetate	ND		0.00285
Cyclohexane	ND		0.00285
Methylcyclohexane	ND		0.00285

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-002
Client ID: ANOME/3.5-4
Date Received: 12/15/2009
Date Analyzed: 12/16/2009
Date File: F5731.D

GC/MS Column: DB-624
Sample wt/vol: 5.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.7

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-001
Client ID: SBD/4-4.5
Date Received: 12/15/2009
Date Extracted: 12/16/2009
Date Analyzed: 12/16/2009
Data file: C8028.D

GC/MS Column: DB-5
Sample wt/vol: 15.26g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.4

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.077
Phenol	ND		0.077
Bis(2-chloroethyl) ether	ND		0.077
2-Chlorophenol	ND		0.077
2-Methylphenol	ND		0.077
Bis(2-chloroisopropyl) ether	ND		0.077
4-Methylphenol	ND		0.077
N-Nitrosodi-n-propylamine	ND		0.077
Acetophenone	ND		0.077
Hexachloroethane	ND		0.077
Nitrobenzene	ND		0.077
Isophorone	ND		0.077
2-Nitrophenol	ND		0.077
2,4-Dimethylphenol	ND		0.077
Bis(2-chloroethoxy) methane	ND		0.077
2,4-Dichlorophenol	ND		0.077
Naphthalene	ND		0.077
4-Chloroaniline	ND		0.077
Hexachlorobutadiene	ND		0.077
Caprolactam	ND		0.077
4-Chloro-3-methylphenol	ND		0.077
2-Methylnaphthalene	ND		0.077
Hexachlorocyclopentadiene	ND		0.077
2,4,6-Trichlorophenol	ND		0.077
2,4,5-Trichlorophenol	ND		0.077
1,1'-Biphenyl	ND		0.077
2-Chloronaphthalene	ND		0.077
2-Nitroaniline	ND		0.077
Dimethyl phthalate	ND		0.077

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-001
Client ID: SBD/4-4.5
Date Received: 12/15/2009
Date Extracted: 12/16/2009
Date Analyzed: 12/16/2009
Data file: C8028.D

GC/MS Column: DB-5
Sample wt/vol: 15.26g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.4

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.077
Acenaphthylene	ND		0.077
3-Nitroaniline	ND		0.077
Acenaphthene	ND		0.077
2,4-Dinitrophenol	ND		0.077
4-Nitrophenol	ND		0.077
2,4-Dinitrotoluene	ND		0.077
Dibenzofuran	ND		0.077
Diethyl phthalate	ND		0.077
Fluorene	ND		0.077
4-Chlorophenyl phenyl ether	ND		0.077
4-Nitroaniline	ND		0.077
1,2,4,5-Tetrachlorobenzene	ND		0.077
4,6-Dinitro-2-methylphenol	ND		0.077
N-Nitrosodiphenylamine	ND		0.077
4-Bromophenyl phenyl ether	ND		0.077
Hexachlorobenzene	ND		0.077
Atrazine	ND		0.077
Pentachlorophenol	ND		0.077
Phenanthrene	ND		0.077
Anthracene	ND		0.077
Carbazole	ND		0.077
Di-n-butyl phthalate	ND		0.077
Fluoranthene	ND		0.077
Pyrene	ND		0.077
Butyl benzyl phthalate	ND		0.077
3,3'-Dichlorobenzidine	ND		0.077
Benzo[a]anthracene	ND		0.077
Chrysene	ND		0.077
Bis(2-ethylhexyl) phthalate	ND		0.077
Di-n-octyl phthalate	ND		0.077
Benzo[b]fluoranthene	ND		0.077
Benzo[k]fluoranthene	ND		0.077
Benzo[a]pyrene	ND		0.077
Indeno[1,2,3-cd]pyrene	ND		0.077
Dibenz[a,h]anthracene	ND		0.077
Benzo[g,h,i]perylene	ND		0.077

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-001
Client ID: SBD/4-4.5
Date Received: 12/15/2009
Date Extracted: 12/16/2009
Date Analyzed: 12/16/2009
Date File: C8028.D

GC/MS Column: DB-5
Sample wt/vol: 15.26g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.4

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-002
Client ID: ANOME/3.5-4
Date Received: 12/15/2009
Date Extracted: 12/16/2009
Date Analyzed: 12/16/2009
Data file: C8029.D

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.7

Compound	Concentration	Q	MDL
Benzaldehyde	ND		0.075
Phenol	ND		0.075
Bis(2-chloroethyl) ether	ND		0.075
2-Chlorophenol	ND		0.075
2-Methylphenol	ND		0.075
Bis(2-chloroisopropyl) ether	ND		0.075
4-Methylphenol	ND		0.075
N-Nitrosodi-n-propylamine	ND		0.075
Acetophenone	ND		0.075
Hexachloroethane	ND		0.075
Nitrobenzene	ND		0.075
Isophorone	ND		0.075
2-Nitrophenol	ND		0.075
2,4-Dimethylphenol	ND		0.075
Bis(2-chloroethoxy) methane	ND		0.075
2,4-Dichlorophenol	ND		0.075
Naphthalene	ND		0.075
4-Chloroaniline	ND		0.075
Hexachlorobutadiene	ND		0.075
Caprolactam	ND		0.075
4-Chloro-3-methylphenol	ND		0.075
2-Methylnaphthalene	ND		0.075
Hexachlorocyclopentadiene	ND		0.075
2,4,6-Trichlorophenol	ND		0.075
2,4,5-Trichlorophenol	ND		0.075
1,1'-Biphenyl	ND		0.075
2-Chloronaphthalene	ND		0.075
2-Nitroaniline	ND		0.075
Dimethyl phthalate	ND		0.075

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-002
Client ID: ANOME/3.5-4
Date Received: 12/15/2009
Date Extracted: 12/16/2009
Date Analyzed: 12/16/2009
Data file: C8029.D

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.7

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.075
Acenaphthylene	ND		0.075
3-Nitroaniline	ND		0.075
Acenaphthene	ND		0.075
2,4-Dinitrophenol	ND		0.075
4-Nitrophenol	ND		0.075
2,4-Dinitrotoluene	ND		0.075
Dibenzofuran	ND		0.075
Diethyl phthalate	ND		0.075
Fluorene	ND		0.075
4-Chlorophenyl phenyl ether	ND		0.075
4-Nitroaniline	ND		0.075
1,2,4,5-Tetrachlorobenzene	ND		0.075
4,6-Dinitro-2-methylphenol	ND		0.075
N-Nitrosodiphenylamine	ND		0.075
4-Bromophenyl phenyl ether	ND		0.075
Hexachlorobenzene	ND		0.075
Atrazine	ND		0.075
Pentachlorophenol	ND		0.075
Phenanthrene	0.369		0.075
Anthracene	0.097		0.075
Carbazole	ND		0.075
Di-n-butyl phthalate	ND		0.075
Fluoranthene	0.462		0.075
Pyrene	0.405		0.075
Butyl benzyl phthalate	ND		0.075
3,3'-Dichlorobenzidine	ND		0.075
Benzo[a]anthracene	0.300		0.075
Chrysene	0.312		0.075
Bis(2-ethylhexyl) phthalate	ND		0.075
Di-n-octyl phthalate	ND		0.075
Benzo[b]fluoranthene	0.334		0.075
Benzo[k]fluoranthene	0.352		0.075
Benzo[a]pyrene	0.376		0.075
Indeno[1,2,3-cd]pyrene	0.270		0.075
Dibenz[a,h]anthracene	0.103		0.075
Benzo[g,h,i]perylene	0.281		0.075

Total Target Compounds: 3.66

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-002
Client ID: ANOME/3.5-4
Date Received: 12/15/2009
Date Extracted: 12/16/2009
Date Analyzed: 12/16/2009
Date File: C8029.D

GC/MS Column: DB-5
Sample wt/vol: 15.46g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.7

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-001
Client ID: SBD/4-4.5
Date Received: 12/15/2009
Date Extracted: 12/17/2009
Date Analyzed: 12/18/2009
Data file: R8394.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.81g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.4

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.00303
Aroclor-1221	ND		0.00303
Aroclor-1232	ND		0.00303
Aroclor-1242	ND		0.00303
Aroclor-1248	ND		0.00303
Aroclor-1254	ND		0.00303
Aroclor-1260	ND		0.00303
Total PCBs:	ND		

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-002
Client ID: ANOME/3.5-
Date Received: 12/15/2009
Date Extracted: 12/17/2009
Date Analyzed: 12/18/2009
Data file: R8395.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.21g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.7

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.00307
Aroclor-1221	ND		0.00307
Aroclor-1232	ND		0.00307
Aroclor-1242	ND		0.00307
Aroclor-1248	ND		0.00307
Aroclor-1254	ND		0.00307
Aroclor-1260	ND		0.00307
Total PCBs:	ND		

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-001
Client ID: SBD/4-4.5
Date Received: 12/15/2009
Date Extracted: 12/17/2009
Date Analyzed: 12/18/2009
Data file: V7119.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.81g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.4

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.00019
beta-BHC	ND		0.00019
gamma-BHC (Lindane)	ND		0.00019
delta-BHC	ND		0.00019
Heptachlor	ND		0.00019
Aldrin	ND		0.00019
Heptachlor epoxide	ND		0.00019
Endosulfan I	ND		0.00019
4,4'-DDE	ND		0.00019
Dieldrin	ND		0.00019
Endrin	ND		0.00019
Endosulfan II	ND		0.00019
4,4'-DDD	ND		0.00019
Endrin aldehyde	ND		0.00019
Endosulfan sulfate	ND		0.00019
4,4'-DDT	ND		0.00019
Endrin ketone	ND		0.00019
Methoxychlor	ND		0.00019
alpha-Chlordane	ND		0.00019
gamma-Chlordane	ND		0.00019
Toxaphene	ND		0.00057

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-002
Client ID: ANOME/3.5-
Date Received: 12/15/2009
Date Extracted: 12/17/2009
Date Analyzed: 12/18/2009
Data file: V7118.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.21g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.7

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000192
beta-BHC	ND		0.000192
gamma-BHC (Lindane)	ND		0.000192
delta-BHC	ND		0.000192
Heptachlor	ND		0.000192
Aldrin	ND		0.000192
Heptachlor epoxide	ND		0.000192
Endosulfan I	ND		0.000192
4,4'-DDE	ND		0.000192
Dieldrin	ND		0.000192
Endrin	ND		0.000192
Endosulfan II	ND		0.000192
4,4'-DDD	ND		0.000192
Endrin aldehyde	ND		0.000192
Endosulfan sulfate	ND		0.000192
4,4'-DDT	ND		0.000192
Endrin ketone	ND		0.000192
Methoxychlor	ND		0.000192
alpha-Chlordane	ND		0.000192
gamma-Chlordane	ND		0.000192
Toxaphene	ND		0.000576

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-001
Client ID: SBD/4-4.
Date Received: 12/15/2009
Date Extracted: 12/15/2009
Date Analyzed: 12/16/2009
Data file: Z7765.D

GC Column: DB-5
Sample wt/vol: 10.70g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.4

Compound	Concentration	Q	MDL
Total TPHC	ND		6.55

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 12676-002
Client ID: ANOME/3.
Date Received: 12/15/2009
Date Extracted: 12/15/2009
Date Analyzed: 12/16/2009
Data file: Z7764.D

GC Column: DB-5
Sample wt/vol: 10.60g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.7

Compound	Concentration	Q	MDL
Total TPHC	130		6.56

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E09-12676-001
Client ID: SBD
Date Received: 12/15/2009
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 14.4
Batch #: 536

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Aluminum	11400		10	116	12/16/09	6020
Antimony	ND		1	1.16	12/16/09	6020
Arsenic	2.30		1	0.578	12/16/09	6020
Barium	38.9		1	11.6	12/16/09	6020
Beryllium	0.325		1	0.289	12/16/09	6020
Cadmium	ND		1	0.289	12/16/09	6020
Calcium	831		1	57.8	12/16/09	6020
Chromium	13.4		1	2.31	12/16/09	6020
Cobalt	6.63		1	2.31	12/16/09	6020
Copper	11.4		1	2.31	12/16/09	6020
Iron	14500		1	28.9	12/16/09	6020
Lead	4.58		1	0.578	12/16/09	6020
Magnesium	2840		1	57.8	12/16/09	6020
Manganese	287		1	1.16	12/16/09	6020
Mercury	ND		1	0.016	12/16/09	7471A
Nickel	13.3		1	1.16	12/16/09	6020
Potassium	646		1	57.8	12/16/09	6020
Selenium	ND		1	2.31	12/16/09	6020
Silver	ND		1	0.578	12/16/09	6020
Sodium	158		1	116	12/16/09	6020
Thallium	ND		1	0.289	12/16/09	6020
Vanadium	20.3		1	2.31	12/16/09	6020
Zinc	407		1	2.31	12/16/09	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E09-12676-002
Client ID: ANOME
Date Received: 12/15/2009
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 13.7
Batch #: 536

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Aluminum	10100		1	12.2	12/16/09	6020
Antimony	ND		1	1.22	12/16/09	6020
Arsenic	46.8		1	0.612	12/16/09	6020
Barium	154		1	12.2	12/16/09	6020
Beryllium	2.76		1	0.306	12/16/09	6020
Cadmium	9.22		1	0.306	12/16/09	6020
Calcium	22300		1	61.2	12/16/09	6020
Chromium	12.2		1	2.45	12/16/09	6020
Cobalt	14.2		1	2.45	12/16/09	6020
Copper	113		1	2.45	12/16/09	6020
Iron	31700		1	30.6	12/16/09	6020
Lead	210		1	0.612	12/16/09	6020
Magnesium	4270		1	61.2	12/16/09	6020
Manganese	18300		10	12.2	12/16/09	6020
Mercury	0.493		1	0.016	12/16/09	7471A
Nickel	25.3		1	1.22	12/16/09	6020
Potassium	625		1	61.2	12/16/09	6020
Selenium	3.85		1	2.45	12/16/09	6020
Silver	ND		1	0.612	12/16/09	6020
Sodium	323		1	122	12/16/09	6020
Thallium	ND		1	0.306	12/16/09	6020
Vanadium	16.4		1	2.45	12/16/09	6020
Zinc	33300		10	24.5	12/16/09	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Cyanide, Total

Client/Project: PENNJERSEY/PALMER

Date Received: 12/15/09 14:25

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	% Solid	Date Analyzed
12676-001	SBD	ND		1	Soil-mg/Kg	1.17	85.6	12/17/09 10:06
12676-002	ANOME	ND		1	Soil-mg/Kg	1.16	86.3	12/17/09 10:06

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F5271.D BFB Injection Date: 11/24/2009

Inst ID: MSD_F BFB Injection Time: 9:10

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.4			
75	30.0 - 60.0% of mass 95	50.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.4	(	0.5	)1
174	Great than 50.0% of mass 95	80.9			
175	5.0 - 9.0% of mass 174	5.8	(	7.2	)1
176	95.0 - 101.0% of mass 174	78.6	(	97.2	)1
177	5.0 - 9.0% of mass 176	5.2	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
1PPB	STD-1PPB	F5273.D	11/24/2009	10:08
2PPB	STD-2PPB	F5274.D	11/24/2009	10:37
5PPB	STD-5PPB	F5275.D	11/24/2009	11:06
20PPB	STD-20PPB	F5277.D	11/24/2009	12:04
100PPB	STD-100PPB	F5278.D	11/24/2009	12:33
200PPB	STD-200PPB	F5279.D	11/24/2009	13:02
N/A	METHOD-BLK	F5283.D	11/24/2009	14:59
B-1/0-0.5	11689-001	F5284.D	11/24/2009	15:28
B1-2	11807-026	F5285.D	11/24/2009	15:57
LCS-50PPB	BLK-SPK	F5286.D	11/24/2009	16:26
MS	SOIL-MS	F5287.D	11/24/2009	16:55
MSD	SOIL-MSD	F5288.D	11/24/2009	17:24
PE-N2_(5.5-6)/	11733-004	F5289.D	11/24/2009	17:53
SB-1/9.5	11622-001	F5290.D	11/24/2009	18:22
SB-3/8.5	11622-003	F5291.D	11/24/2009	18:51
09-199	11905-001	F5293.D	11/24/2009	19:49
G1234/80	11940-001	F5294.D	11/24/2009	20:18
SP1	11787-001	F5295.D	11/24/2009	20:47

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F5722.D BFB Injection Date: 12/16/2009

Inst ID: MSD_F BFB Injection Time: 10:18

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.6			
75	30.0 - 60.0% of mass 95	56.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.7	(	1.0	)1
174	Great than 50.0% of mass 95	71.6			
175	5.0 - 9.0% of mass 174	5.2	(	7.2	)1
176	95.0 - 101.0% of mass 174	67.9	(	94.9	)1
177	5.0 - 9.0% of mass 176	4.4	(	6.5	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	F5723.D	12/16/2009	10:47
N/A	METHOD-BLK	F5726.D	12/16/2009	12:35
LCS-50PPB	BLK-SPK	F5727.D	12/16/2009	13:47
MS	SOIL-MS	F5728.D	12/16/2009	14:15
SBD/4-4.5	12676-001	F5730.D	12/16/2009	15:12
ANOME/3.5-4	12676-002	F5731.D	12/16/2009	15:41
MSD	SOIL-MSD	F5732.D	12/16/2009	16:11
SED-3	12690-008	F5735.D	12/16/2009	17:40
SED-2	12690-009	F5736.D	12/16/2009	18:09
SED-1	12690-010	F5737.D	12/16/2009	18:38
SED-5	12690-012	F5739.D	12/16/2009	19:36
DUP121409	12690-014	F5741.D	12/16/2009	20:34
SED-4	12690-011	F5742.D	12/16/2009	21:03
SED-6	12690-013	F5743.D	12/16/2009	21:32

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F5726.D

Instrument ID: MSD_F

Date Analyzed: 12/16/2009

Time Analyzed: 12:35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS-50PPB	BLK-SPK	12/16/2009	13:47
MS	SOIL-MS	12/16/2009	14:15
SBD/4-4.5	12676-001	12/16/2009	15:12
ANOME/3.5-4	12676-002	12/16/2009	15:41
MSD	SOIL-MSD	12/16/2009	16:11
SED-3	12690-008	12/16/2009	17:40
SED-2	12690-009	12/16/2009	18:09
SED-1	12690-010	12/16/2009	18:38
SED-5	12690-012	12/16/2009	19:36
DUP121409	12690-014	12/16/2009	20:34
SED-4	12690-011	12/16/2009	21:03
SED-6	12690-013	12/16/2009	21:32

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 12/16/2009
Data file: F5726.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Dichlorodifluoromethane	ND		0.0025
Chloromethane	ND		0.0025
Vinyl chloride	ND		0.0025
Bromomethane	ND		0.0025
Chloroethane	ND		0.0025
Trichlorofluoromethane	ND		0.0025
1,1-Dichloroethene	ND		0.0025
Acetone	ND		0.005
Carbon disulfide	ND		0.0025
Methylene chloride	ND		0.0025
trans-1,2-Dichloroethene	ND		0.0025
Methyl tert-butyl ether (MTBE)	ND		0.0025
1,1-Dichloroethane	ND		0.0025
cis-1,2-Dichloroethene	ND		0.0025
2-Butanone (MEK)	ND		0.005
Bromochloromethane	ND		0.0025
Chloroform	ND		0.0025
1,1,1-Trichloroethane	ND		0.0025
Carbon tetrachloride	ND		0.0025
1,2-Dichloroethane (EDC)	ND		0.0025
Benzene	ND		0.0025
Trichloroethene	ND		0.0025
1,2-Dichloropropane	ND		0.0025
Bromodichloromethane	ND		0.0025
cis-1,3-Dichloropropene	ND		0.0025
4-Methyl-2-pentanone (MIBK)	ND		0.005

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 12/16/2009
Data file: F5726.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Toluene	ND		0.0025
trans-1,3-Dichloropropene	ND		0.0025
1,1,2-Trichloroethane	ND		0.0025
Tetrachloroethene	ND		0.0025
2-Hexanone	ND		0.005
Dibromochloromethane	ND		0.0025
1,2-Dibromoethane (EDB)	ND		0.0025
Chlorobenzene	ND		0.0025
Ethylbenzene	ND		0.0025
Total Xylenes	ND		0.0025
Styrene	ND		0.0025
Bromoform	ND		0.0025
Isopropylbenzene	ND		0.0025
1,1,2,2-Tetrachloroethane	ND		0.0025
1,3-Dichlorobenzene	ND		0.0025
1,4-Dichlorobenzene	ND		0.0025
1,2-Dichlorobenzene	ND		0.0025
1,2-Dibromo-3-chloropropane	ND		0.0025
1,2,4-Trichlorobenzene	ND		0.0025
1,2,3-Trichlorobenzene	ND		0.0025
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0025
Methyl acetate	ND		0.0025
Cyclohexane	ND		0.0025
Methylcyclohexane	ND		0.0025

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 12/16/2009
Data file: F5726.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Response Factor Report MSD_F

Method Path : C:\MSDCHEM\1\METHODS\
Method File : FSO1124.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Wed Nov 25 11:54:56 2009
Response Via : Initial Calibration

Calibration Files
20 =F5277.D 100 =F5278.D 1 =F5273.D
200 =F5279.D 5 =F5275.D 2 =F5274.D

		Compound (ppb)	20	100	1	200	5	2	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluorom	0.755	0.664	0.653	0.605	0.494	0.684	0.643	13.61
3)	P	Chloromethane	0.818	0.701	0.804	0.632	0.706	0.870	0.755	11.86
4)	C	Vinyl chloride	0.658	0.611	0.496	0.547	0.499	0.650	0.577	12.64
5)	T	Bromomethane	0.374	0.312	0.357	0.263	0.319	0.365	0.332	12.74
6)	T	Chloroethane	0.405	0.333	0.353	0.289	0.332	0.406	0.353	12.96
7)	T	Trichlorofluorome	0.911	0.823	0.684	0.719	0.690	0.939	0.794	14.23
8)	T	Acrolein	0.058	0.064	0.064	0.062	0.071	0.072	0.065	8.47
9)	MC	1,1-Dichloroethen	0.577	0.502	0.451	0.457	0.412	0.546	0.491	12.72
10)	T	Acetone	0.228	0.207	0.261	0.197	0.265	0.274	0.239	13.62
11)	T	Carbon disulfide	1.843	1.652	1.408	1.477	1.307	1.642	1.555	12.51
12)	T	Vinyl acetate	2.379	2.340	2.196	2.166	2.201	2.259	2.257	3.82
13)	T	Methylene chlorid	0.631	0.526		0.478	0.658	0.637	0.586	13.52
14)	T	Acrylonitrile	0.232	0.276	0.242	0.267	0.271	0.276	0.261	7.23
15)	T	tert-Butyl alcoho	0.076	0.070	0.085	0.074	0.074	0.094	0.079	11.32
16)	T	trans-1,2-Dichlor	0.729	0.659	0.632	0.599	0.593	0.692	0.651	8.23
17)	T	Methyl tert-butyl	1.994	1.926	2.060	1.782	1.975	2.046	1.964	5.17
18)	P	1,1-Dichloroethan	1.251	1.184	1.139	1.106	1.078	1.203	1.160	5.54
19)	T	Diisopropyl ether	2.792	2.640	2.397	2.429	2.491	2.505	2.542	5.83
20)	T	cis-1,2-Dichloroe	0.723	0.694	0.661	0.645	0.620	0.664	0.668	5.43
21)	T	2,2-Dichloropropa	0.767	0.727	0.576	0.669	0.550	0.682	0.662	12.76
22)	T	2-Butanone (MEK)	0.359	0.363	0.415	0.350	0.381	0.434	0.384	8.84
23)	T	Bromochloromethan	0.325	0.308	0.301	0.291	0.324	0.320	0.312	4.47
25)	C	Chloroform	1.189	1.132	1.087	1.059	1.070	1.144	1.114	4.51
26)	T	1,1,1-Trichloroet	1.048	1.004	1.080	0.940	0.732	0.907	0.952	13.19
27)	T	Carbon tetrachlor	0.925	0.927	0.687	0.894	0.720	0.766	0.820	13.20
28)	T	1,1-Dichloroprope	0.897	0.874	0.645	0.838	0.647	0.761	0.777	14.35
29)	T	1,2-Dichloroethan	0.905	0.878	0.900	0.821	0.885	0.918	0.885	3.86
30)	S	1,2-Dichloroethan	0.452	0.450	0.457	0.439	0.450	0.460	0.451	1.58
31)	I	1,4-Difluorobenzene	----------ISTD----------							
32)	M	Benzene	1.670	1.592	1.425	1.488	1.415	1.542	1.522	6.52
33)	M	Trichloroethene	0.398	0.395	0.336	0.382	0.313	0.363	0.365	9.42
34)	C	1,2-Dichloropropa	0.385	0.384	0.337	0.365	0.347	0.354	0.362	5.47
35)	T	Dibromomethane	0.218	0.215	0.203	0.206	0.211	0.220	0.212	3.11
36)	T	1,4-Dioxane	0.003	0.002	0.002	0.002	0.003	0.003	0.003	10.28
37)	T	Bromodichlorometh	0.456	0.486	0.357	0.468	0.392	0.378	0.423	12.71
38)	T	2-Chloroethyl vin	0.154	0.179	0.132	0.179	0.139	0.144	0.154	13.01
39)	T	cis-1,3-Dichlorop	0.500	0.553	0.384	0.536	0.438	0.439	0.475	13.76
40)	T	4-Methyl-2-pentan	0.384	0.429	0.317	0.415	0.344	0.326	0.369	12.74
41)	S	Toluene-d8	0.833	0.844	0.809	0.844	0.824	0.813	0.828	1.81
42)	MC	Toluene	0.928	0.920	0.839	0.869	0.770	0.878	0.867	6.70
43)	T	trans-1,3-Dichlor	0.427	0.492	0.398	0.482	0.380	0.352	0.422	13.27
44)	T	1,1,2-Trichloroet	0.235	0.240	0.224	0.231	0.223	0.220	0.229	3.48
45)	T	Tetrachloroethene	0.381	0.376	0.294	0.361	0.281	0.336	0.338	12.56
46)	T	1,3-Dichloropropa	0.484	0.498	0.440	0.476	0.447	0.444	0.465	5.19
47)	T	2-Hexanone	0.251	0.294	0.247	0.291	0.218	0.219	0.253	13.13
48)	T	Dibromochlorometh	0.306	0.356	0.261	0.351	0.274	0.263	0.302	14.38
49)	T	1,2-Dibromoethane	0.273	0.291	0.244	0.281	0.251	0.251	0.265	7.16
50)	I	Chlorobenzene-d5	----------ISTD----------							
51)	MP	Chlorobenzene	1.134	1.100	1.077	1.035	1.032	1.098	1.079	3.71
52)	T	1,1,1,2-Tetrachlo	0.425	0.445	0.337	0.415	0.360	0.354	0.389	11.44

53)	C	Ethylbenzene	2.072	2.053	1.503	1.920	1.580	1.694	1.804	13.60
54)	T	m,p-Xylene	0.806	0.785	0.553	0.699	0.631	0.652	0.688	13.96
55)	T	o-Xylene	0.802	0.794	0.620	0.716	0.637	0.612	0.697	12.49
56)	T	Styrene	1.228	1.252	0.933	1.159	1.059	0.889	1.087	14.01
57)	P	Bromoform	0.192	0.237	0.185	0.239	0.186	0.178	0.203	13.61
58)	T	Isopropylbenzene	2.238	2.178	1.659	2.004	1.594	1.937	1.935	13.63
59)	S	Bromofluorobenzen	0.445	0.453	0.450	0.456	0.456	0.451	0.452	0.90
60)	P	1,1,2,2-Tetrachlo	0.467	0.468	0.471	0.432	0.469	0.484	0.465	3.69
61)	T	Bromobenzene	0.467	0.469	0.433	0.438	0.439	0.448	0.449	3.48
62)	T	1,2,3-Trichloropr	0.324	0.322	0.351	0.302	0.341	0.380	0.337	8.10
63)	T	n-Propylbenzene	2.533	2.427	1.843	2.241	1.845	2.042	2.155	13.61
64)	T	2-Chlorotoluene	1.552	1.490	1.230	1.378	1.292	1.326	1.378	8.88
65)	T	1,3,5-Trimethylbe	1.941	1.859	1.379	1.712	1.456	1.430	1.630	14.75
66)	T	4-Chlorotoluene	1.731	1.679	1.352	1.573	1.513	1.550	1.566	8.50
67)	T	tert-Butylbenzene	1.415	1.544	1.015	1.453	1.227	1.264	1.320	14.44
68)	T	1,2,4-Trimethylbe	1.957	1.869	1.417	1.716	1.574	1.529	1.677	12.43
69)	T	sec-Butylbenzene	2.281	2.230	1.668	2.152	1.663	1.779	1.962	14.76
70)	T	1,3-Dichlorobenze	0.969	0.932	0.908	0.867	0.895	0.949	0.920	4.07
71)	T	4-Isopropyltoluen	1.786	1.795	1.340	1.810	1.447	1.465	1.607	13.23
72)	T	1,4-Dichlorobenze	0.986	0.946	0.964	0.884	0.932	0.982	0.949	4.00
73)	T	n-Butylbenzene	0.937	0.905	0.670	0.903	0.720	0.738	0.812	14.22
74)	T	1,2-Dichlorobenze	0.962	0.898	0.940	0.825	0.938	0.951	0.919	5.54
75)	T	1,2-Dibromo-3-chl	0.075	0.086	0.063	0.085	0.069	0.070	0.075	12.49
76)	T	1,2,4-Trichlorobe	0.638	0.591	0.629	0.556	0.583	0.592	0.598	5.04
77)	T	Hexachlorobutadie	0.370	0.334	0.299	0.318	0.296	0.327	0.324	8.40
78)	T	Naphthalene	1.559	1.542	1.394	1.471	1.370	1.292	1.438	7.26
79)	T	1,2,3-Trichlorobe	0.582	0.536	0.598	0.506	0.565	0.582	0.562	6.13
80)	T	1,1,2-Trichloro-1	0.425	0.387	0.310	0.341	0.301	0.402	0.361	14.16
81)	T	Methyl acetate	0.328	0.300	0.339	0.262	0.345	0.365	0.323	11.45
82)	T	Cyclohexane	1.076	0.949	1.029	0.883	0.789	1.136	0.977	13.18
83)	T	Methylcyclohexane	0.829	0.779	0.656	0.730	0.550	0.633	0.696	14.72

(#) = Out of Range ### Number of calibration levels exceeded format ###

FSO1124.M Wed Nov 25 11:57:37 2009 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5723.D
Acq On : 16 Dec 2009 10:47
Operator : XING
Sample : 100PPB,STD-100PPB,S,5g,0
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 16 14:18:19 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Nov 25 11:54:56 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	64	0.00
2	T	Dichlorodifluoromethane	0.643	0.696	-8.2	67	0.01
3	P	Chloromethane	0.755	0.825	-9.3	75	0.01
4	C	Vinyl chloride	0.577	0.672	-16.5	70	0.00
5	T	Bromomethane	0.332	0.375	-13.0	77	0.01
6	T	Chloroethane	0.353	0.402	-13.9	77	0.01
7	T	Trichlorofluoromethane	0.794	0.941	-18.5	73	0.01
8	T	Acrolein	0.065	0.051	19.5	51	0.01
9	MC	1,1-Dichloroethene	0.491	0.552	-12.4	70	0.01
10	T	Acetone	0.239	0.249	-4.2	77	0.00
11	T	Carbon disulfide	1.555	1.764	-13.4	68	0.01
12	T	Vinyl acetate	2.257	2.470	-9.4	67	0.00
13	T	Methylene chloride	0.586	0.605	-3.2	73	0.00
14	T	Acrylonitrile	0.261	0.296	-13.4	68	0.01
15	T	tert-Butyl alcohol (TBA)	0.079	0.070	11.4	64	-0.01
16	T	trans-1,2-Dichloroethene	0.651	0.657	-0.9	64	0.00
17	T	Methyl tert-butyl ether (MT	1.964	1.979	-0.8	66	0.00
18	P	1,1-Dichloroethane	1.160	1.186	-2.2	64	0.01
19	T	Diisopropyl ether (DIPE)	2.542	2.875	-13.1	69	0.00
20	T	cis-1,2-Dichloroethene	0.668	0.661	1.0	61	0.00
21	T	2,2-Dichloropropane	0.662	0.756	-14.2	66	0.00
22	T	2-Butanone (MEK)	0.384	0.362	5.7	64	0.00
23	T	Bromochloromethane	0.312	0.278	10.9	58	0.00
25	C	Chloroform	1.114	1.144	-2.7	64	0.00
26	T	1,1,1-Trichloroethane	0.952	1.029	-8.1	65	0.01
27	T	Carbon tetrachloride	0.820	0.974	-18.8	67	0.01
28	T	1,1-Dichloropropene	0.777	0.864	-11.2	63	0.00
29	T	1,2-Dichloroethane (EDC)	0.885	0.939	-6.1	68	0.00
30	S	1,2-Dichloroethane-d4	0.451	0.662	-46.8	94	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	64	0.00
32	M	Benzene	1.522	1.560	-2.5	62	0.00
33	M	Trichloroethene	0.365	0.371	-1.6	60	0.00
34	C	1,2-Dichloropropane	0.362	0.382	-5.5	63	0.00
35	T	Dibromomethane	0.212	0.216	-1.9	64	0.00
37	T	Bromodichloromethane	0.423	0.476	-12.5	62	-0.01
38	T	2-Chloroethyl vinyl ether	0.154	0.158	-2.6	56	0.00
39	T	cis-1,3-Dichloropropene	0.475	0.521	-9.7	60	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.369	0.434	-17.6	64	0.00
41	S	Toluene-d8	0.828	1.148	-38.6	87	0.00
42	MC	Toluene	0.867	0.887	-2.3	61	0.00
43	T	trans-1,3-Dichloropropene	0.422	0.472	-11.8	61	.00
44	T	1,1,2-Trichloroethane	0.229	0.233	-1.7	62	0.00
45	T	Tetrachloroethene	0.338	0.334	1.2	56	0.00
46	T	1,3-Dichloropropane	0.465	0.492	-5.8	63	0.00
47	T	2-Hexanone	0.253	0.290	-14.6	63	-0.01

48	T	Dibromochloromethane	0.302	0.327	-8.3	58	0.00
49	T	1,2-Dibromoethane (EDB)	0.265	0.267	-0.8	58	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	67	0.00
51	MP	Chlorobenzene	1.079	1.009	6.5	61	-0.01
52	T	1,1,1,2-Tetrachloroethane	0.389	0.410	-5.4	61	0.00
53	C	Ethylbenzene	1.804	1.988	-10.2	64	0.00
54	T	m,p-Xylene	0.688	0.749	-8.9	64	0.00
55	T	o-Xylene	0.697	0.755	-8.3	63	0.00
56	T	Styrene	1.087	1.174	-8.0	62	0.00
57	P	Bromoform	0.203	0.205	-1.0	58	0.00
58	T	Isopropylbenzene	1.935	2.117	-9.4	65	0.00
59	S	Bromofluorobenzene	0.452	0.506	-11.9	74	-0.01
60	P	1,1,2,2-Tetrachloroethane	0.465	0.486	-4.5	69	-0.01
61	T	Bromobenzene	0.449	0.419	6.7	59	0.00
62	T	1,2,3-Trichloropropane	0.337	0.330	2.1	68	0.00
63	T	n-Propylbenzene	2.155	2.481	-15.1	68	0.00
64	T	2-Chlorotoluene	1.378	1.519	-10.2	68	-0.01
65	T	1,3,5-Trimethylbenzene	1.630	1.899	-16.5	68	0.00
66	T	4-Chlorotoluene	1.566	1.727	-10.3	68	0.00
67	T	tert-Butylbenzene	1.320	1.523	-15.4	66	0.00
68	T	1,2,4-Trimethylbenzene	1.677	1.908	-13.8	68	0.00
69	T	sec-Butylbenzene	1.962	2.330	-18.8	70	0.00
70	T	1,3-Dichlorobenzene	0.920	0.880	4.3	63	0.00
71	T	4-Isopropyltoluene	1.607	1.918	-19.4	71	-0.01
72	T	1,4-Dichlorobenzene	0.949	0.901	5.1	63	0.00
73	T	n-Butylbenzene	0.812	0.970	-19.5	71	0.00
74	T	1,2-Dichlorobenzene	0.919	0.878	4.5	65	0.00
75	T	1,2-Dibromo-3-chloropropane	0.075	0.086	-14.7	66	0.00
76	T	1,2,4-Trichlorobenzene	0.598	0.582	2.7	66	-0.01
77	T	Hexachlorobutadiene	0.324	0.328	-1.2	65	0.00
78	T	Naphthalene	1.438	1.554	-8.1	67	0.00
79	T	1,2,3-Trichlorobenzene	0.562	0.539	4.1	67	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.361	0.411	-13.9	71	0.00
81	T	Methyl acetate	0.323	0.387	-19.8	86	0.00
82	T	Cyclohexane	0.977	0.980	-0.3	69	0.01
83	T	Methylcyclohexane	0.696	0.823	-18.2	70	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO1124.M Wed Dec 16 14:18:29 2009 RP1

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/16/2009

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD-BLK	SOIL	F5726.D	143	123	98
BLK-SPK	SOIL	F5727.D	130	137	117
SOIL-MS	SOIL	F5728.D	156	122	103
12676-001	SOIL	F5730.D	94	125	90
12676-002	SOIL	F5731.D	95	116	90
SOIL-MSD	SOIL	F5732.D	162	126	99
12690-008	SOLID	F5735.D	128	120	95
12690-009	SOLID	F5736.D	121	118	92
12690-010	SOLID	F5737.D	119	119	92
12690-012	SOLID	F5739.D	127	121	93
12690-014	SOLID	F5741.D	128	119	91
12690-011	SOLID	F5742.D	151	118	96
12690-013	SOLID	F5743.D	154	121	96

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	76-138	39-165
SMC2 = Toluene-d8	50 ppb	66-119	45-162
SMC3 = Bromofluorobenzene	50 ppb	43-136	40-152

Column to be used to flag recovery values

SOIL VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: SOIL-MSD

Batch No.: FSO121609A

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	64.4	129	46 - 179
Benzene	50.0	0.0	52.3	105	44 - 150
Trichloroethene	50.0	0.0	47.1	94	41 - 140
Toluene	50.0	0.0	46.5	93	48 - 142
Chlorobenzene	50.0	0.0	49.0	98	48 - 146

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	57.5	115	11	22	46 - 179
Benzene	0.0	49.9	100	5	18	44 - 150
Trichloroethene	0.0	47.8	96	2	16	41 - 140
Toluene	0.0	51.8	104	11	16	48 - 142
Chlorobenzene	0.0	52.7	105	7	16	48 - 146

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F5278.D Date Analyzed: 11/24/2009

Instrument ID: MSD_F Time Analyzed: 12:33

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	174284		6.20		275729		7.03		243965		10.37	
	UPPER LIMIT	348568		6.70		551458		7.53		487930		10.87	
	LOWER LIMIT	87142		5.70		137864.5		6.53		121982.5		9.87	
	LAB SAMPLE ID												
01	STD-1PPB	148259		6.20		233170		7.03		199988		10.37	
02	STD-2PPB	152059		6.20		242385		7.03		210348		10.37	
03	STD-5PPB	157542		6.20		248652		7.03		214562		10.37	
04	STD-20PPB	160398		6.20		254465		7.03		222995		10.37	
05	STD-200PPB	192524		6.20		306786		7.03		274058		10.37	
06	METHOD-BLK	175707		6.20		281100		7.03		237297		10.37	
07	11689-001	163793		6.20		253841		7.03		200389		10.37	
08	11807-026	158441		6.20		246049		7.03		191998		10.37	
09	BLK-SPK	169247		6.20		270397		7.03		241220		10.37	
10	SOIL-MS	166072		6.20		270232		7.03		232857		10.37	
11	SOIL-MSD	163415		6.20		265830		7.03		227664		10.37	
12	11733-004	108759		6.20		171239		7.03		135510		10.37	
13	11622-001	143478		6.20		225555		7.03		180877		10.37	
14	11622-003	135887		6.20		212409		7.03		165780		10.37	
15	11905-001	130179		6.20		207853		7.03		164316		10.37	
16	11940-001	128863		6.20		201300		7.03		158480		10.37	
17	11787-001	122961		6.20		194456		7.03		155095		10.37	
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F5723.D

Date Analyzed: 12/16/2009

Instrument ID: MSD_F

Time Analyzed: 10:47

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	111143		6.20		175371		7.03		162327		10.37	
	UPPER LIMIT	222286		6.70		350742		7.53		324654		10.87	
	LOWER LIMIT	55571.5		5.70		87685.5		6.53		81163.5		9.87	
	LAB SAMPLE ID												
01	METHOD-BLK	109426		6.20		195758		7.03		161454		10.37	
02	BLK-SPK	104359		6.20		135675		7.03		117447		10.37	
03	SOIL-MS	86147		6.20		142668		7.03		116396		10.37	
04	12676-001	71553		6.20		111906		7.03		85993		10.37	
05	12676-002	93627		6.20		156935		7.03		112498		10.37	
06	SOIL-MSD	103457		6.20		189549		7.03		164268		10.37	
07	12690-008	93418		6.20		168093		7.03		131857		10.37	
08	12690-009	90106		6.20		162623		7.03		121423		10.37	
09	12690-010	94819		6.20		172572		7.03		131277		10.37	
10	12690-012	94875		6.20		173276		7.03		134065		10.37	
11	12690-014	83077		6.20		156997		7.03		118099		10.37	
12	12690-011	89808		6.20		171757		7.03		135368		10.37	
13	12690-013	93085		6.20		172323		7.03		137689		10.37	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5730.D
Acq On : 16 Dec 2009 15:12
Operator : XING
Sample : SBD/4-4.5,12676-001,S,6.1g,14.4
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 16 15:41:53 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Nov 25 11:54:56 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.204	168	71553	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.026	114	111906	50.00	UG	0.00
50) Chlorobenzene-d5	10.366	117	85993	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.539	65	30495	47.21	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 94.42%			
41) Toluene-d8	8.691	98	115550	62.37	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 124.74%			
59) Bromofluorobenzene	11.777	95	34863	44.86	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 89.72%			

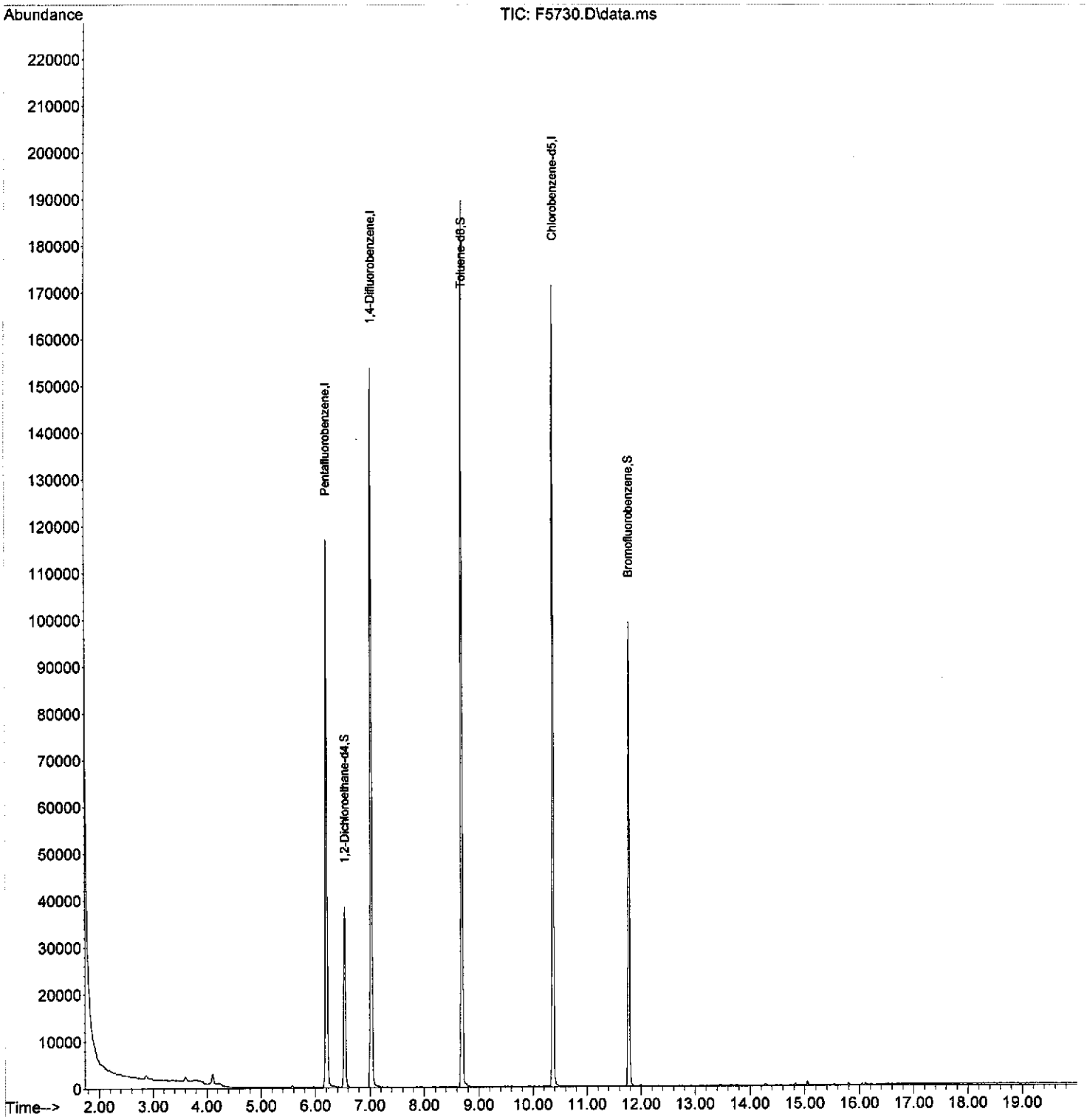
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5730.D
Acq On : 16 Dec 2009 15:12
Operator : XING
Sample : SBD/4-4.5,12676-001,S,6.1g,14.4
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 16 15:41:53 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Nov 25 11:54:56 2009
Response via : Initial Calibration



0047

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5730.D
Acq On : 16 Dec 2009 15:12
Operator : XING
Sample : SBD/4-4.5,12676-001,S,6.1g,14.4
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5730.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.102	229	234	240	rVB	2059	4835	1.46%	0.340%
2	6.204	434	441	465	rBV	116932	241072	72.68%	16.944%
3	6.539	467	474	484	rVB	38230	81410	24.55%	5.722%
4	7.026	516	522	540	rBV	153718	291145	87.78%	20.463%
5	8.691	679	686	702	rBV	189690	331669	100.00%	23.311%
6	10.366	844	851	870	rVB	171530	297318	89.64%	20.897%
7	11.777	982	990	1003	rVB	99262	175327	52.86%	12.323%

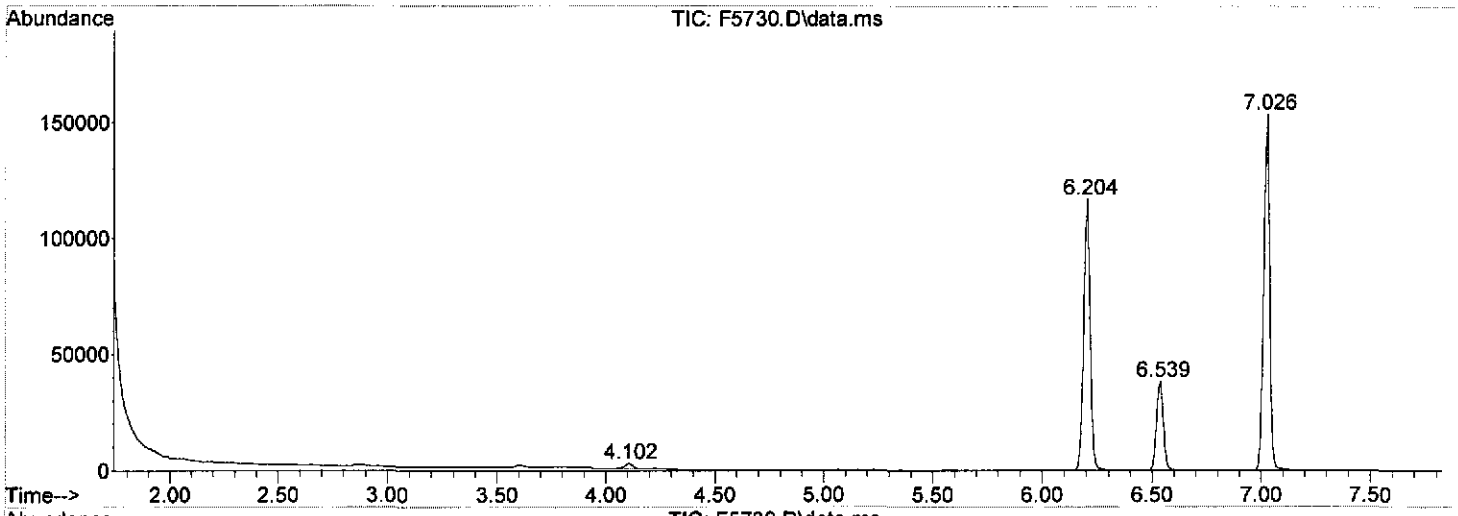
Sum of corrected areas: 1422776

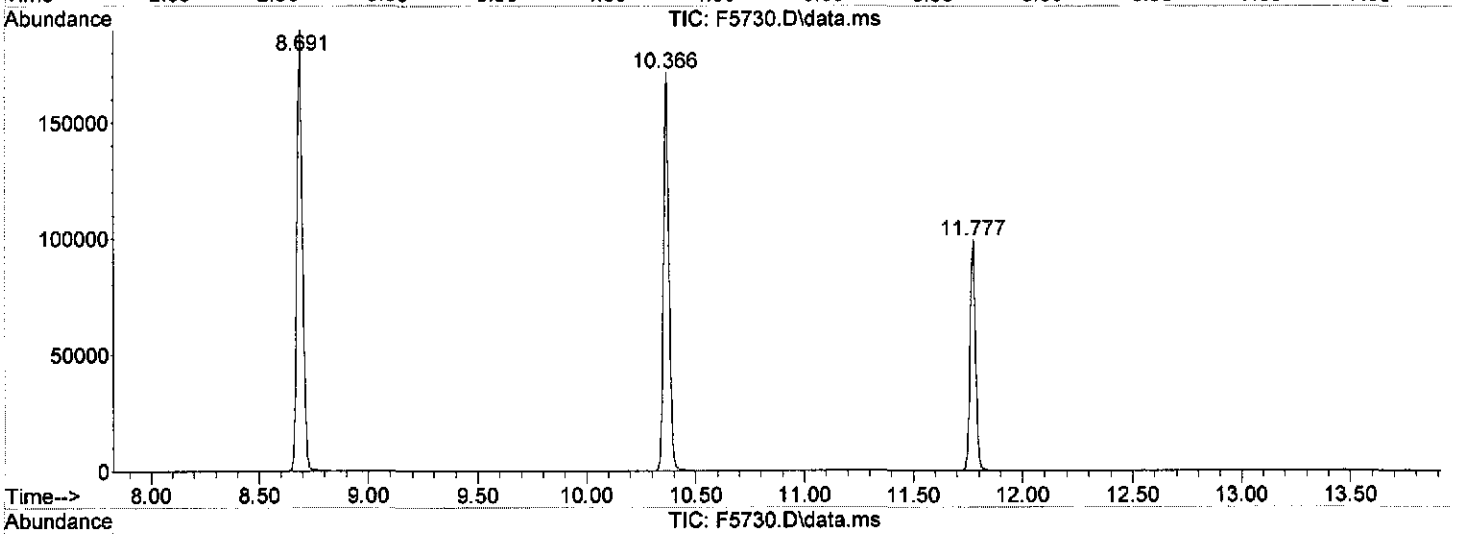
LSC Report - Integrated Chromatogram

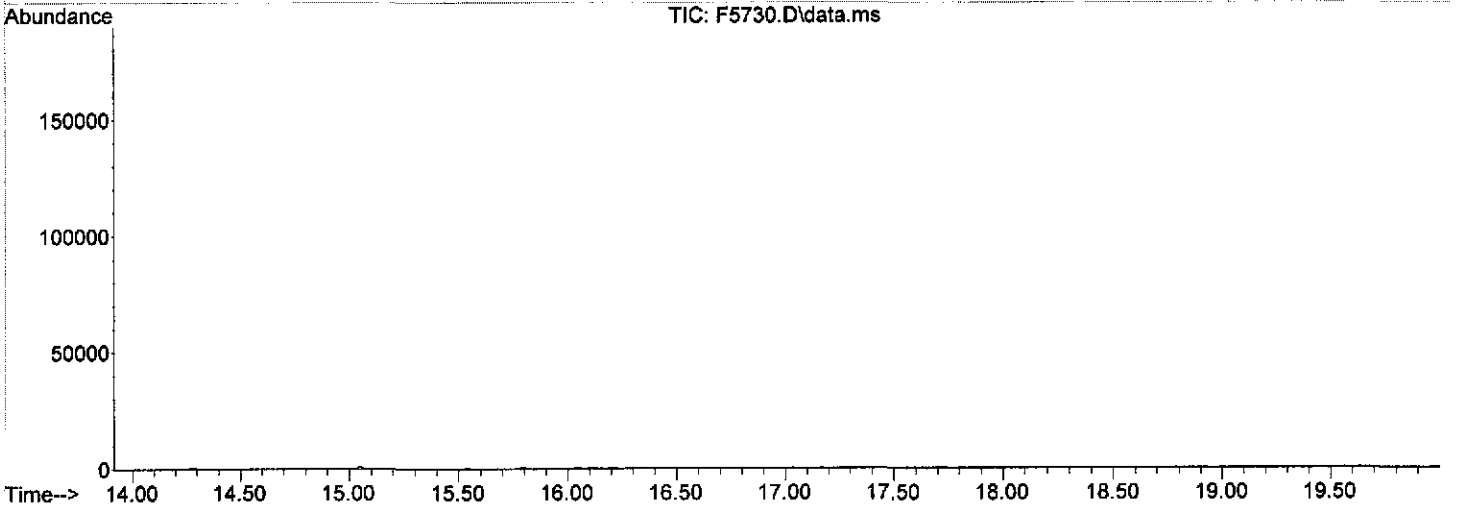
Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5730.D
Acq On : 16 Dec 2009 15:12
Operator : XING
Sample : SBD/4-4.5,12676-001,S,6.1g,14.4
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5731.D
Acq On : 16 Dec 2009 15:41
Operator : XING
Sample : ANOME/3.5-4,12676-002,S,5.1g,13.7
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 18 14:51:19 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Nov 25 11:54:56 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.204	168	93627	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.026	114	156935	50.00	UG	0.00
50) Chlorobenzene-d5	10.366	117	112498	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.539	65	40169	47.52	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 95.04%			
41) Toluene-d8	8.691	98	151227	58.21	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 116.42%			
59) Bromofluorobenzene	11.777	95	45837	45.09	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 90.18%			

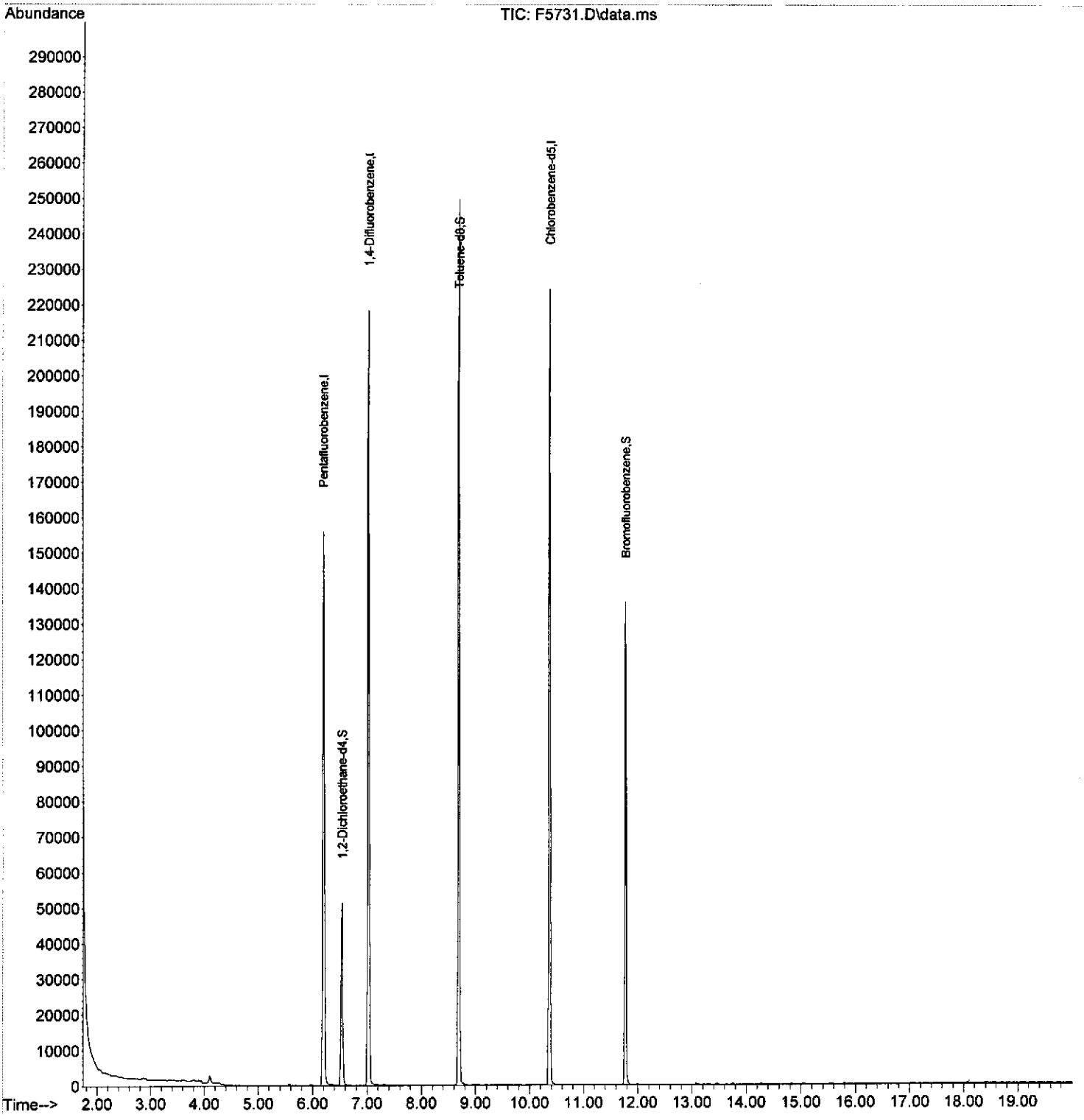
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5731.D
Acq On : 16 Dec 2009 15:41
Operator : XING
Sample : ANOME/3.5-4,12676-002,S,5.1g,13.7
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 18 14:51:19 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Nov 25 11:54:56 2009
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5731.D
Acq On : 16 Dec 2009 15:41
Operator : XING
Sample : ANOME/3.5-4,12676-002,S,5.1g,13.7
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5731.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.102	229	234	241	rVB	1862	4507	1.03%	0.238%
2	6.204	434	441	459	rBV	155957	316265	72.50%	16.728%
3	6.539	466	474	489	rVB	51237	107883	24.73%	5.706%
4	7.026	515	522	536	rBV	218356	406684	93.22%	21.511%
5	8.691	679	686	708	rVB	249713	436244	100.00%	23.074%
6	10.366	844	851	864	rBV	224514	388718	89.11%	20.560%
7	11.777	984	990	1001	rBV	136055	230323	52.80%	12.182%

Sum of corrected areas: 1890624

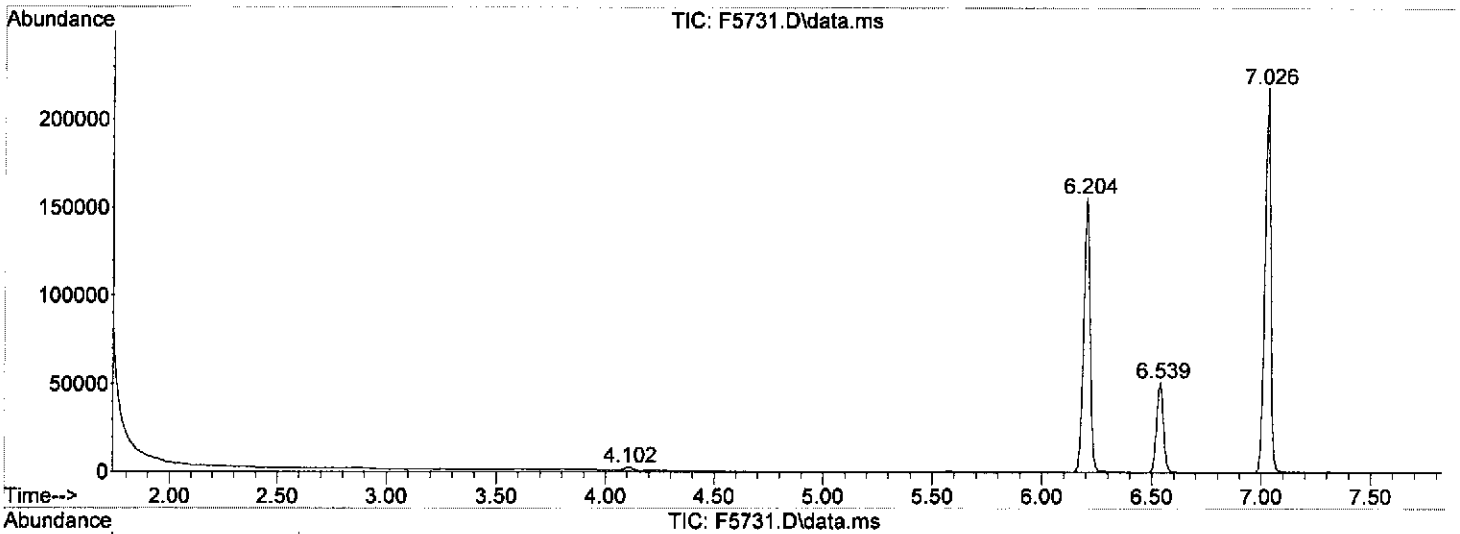
0052

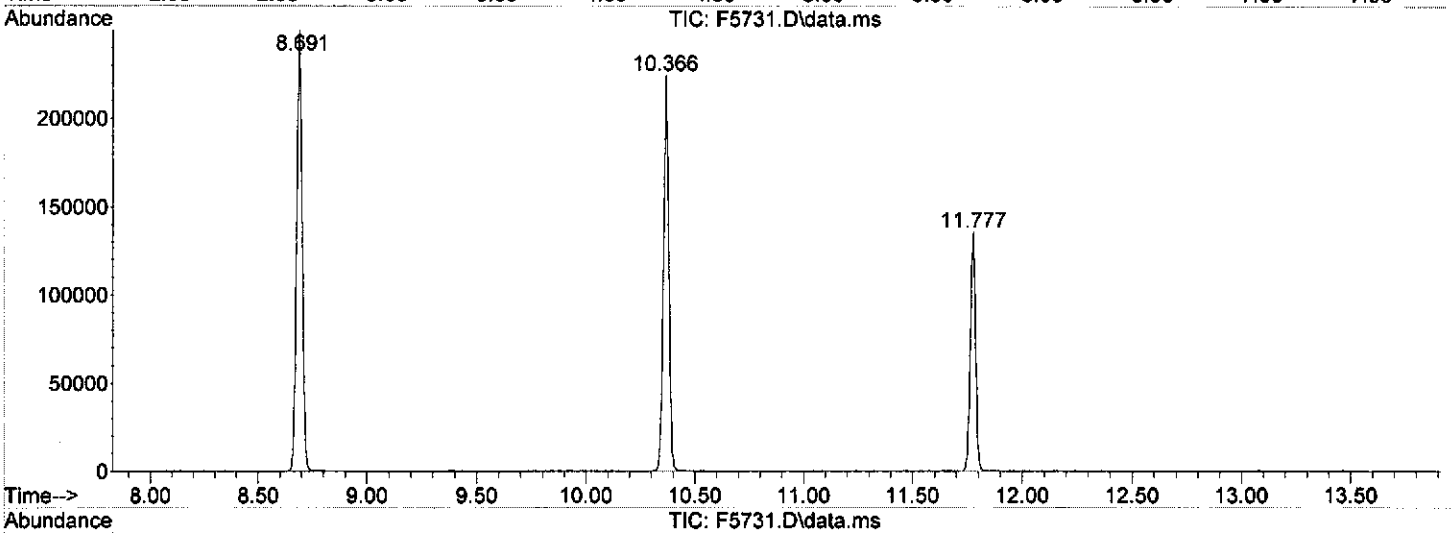
LSC Report - Integrated Chromatogram

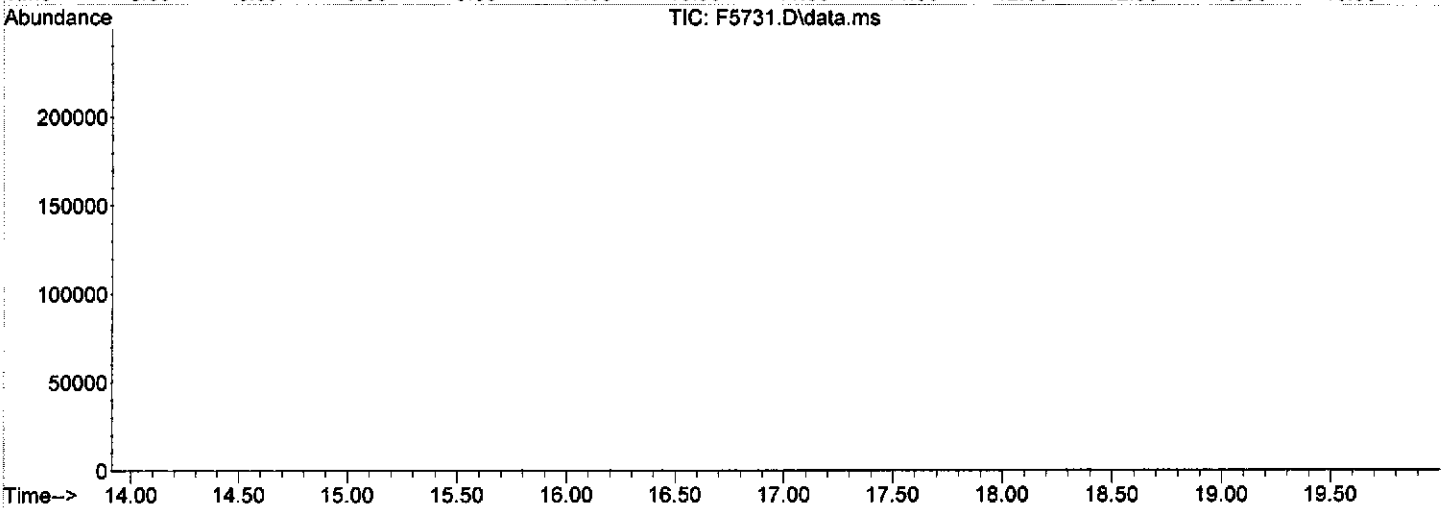
Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5731.D
Acq On : 16 Dec 2009 15:41
Operator : XING
Sample : ANOME/3.5-4,12676-002,S,5.1g,13.7
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5726.D
Acq On : 16 Dec 2009 12:35
Operator : XING
Sample : N/A,METHOD-BLK,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 16 14:26:55 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Nov 25 11:54:56 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.204	168	109426	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.026	114	195758	50.00	UG	0.00
50) Chlorobenzene-d5	10.366	117	161454	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.539	65	70737	71.60	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 143.20%#			
41) Toluene-d8	8.691	98	198855	61.36	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 122.72%			
59) Bromofluorobenzene	11.777	95	71509	49.01	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 98.02%			

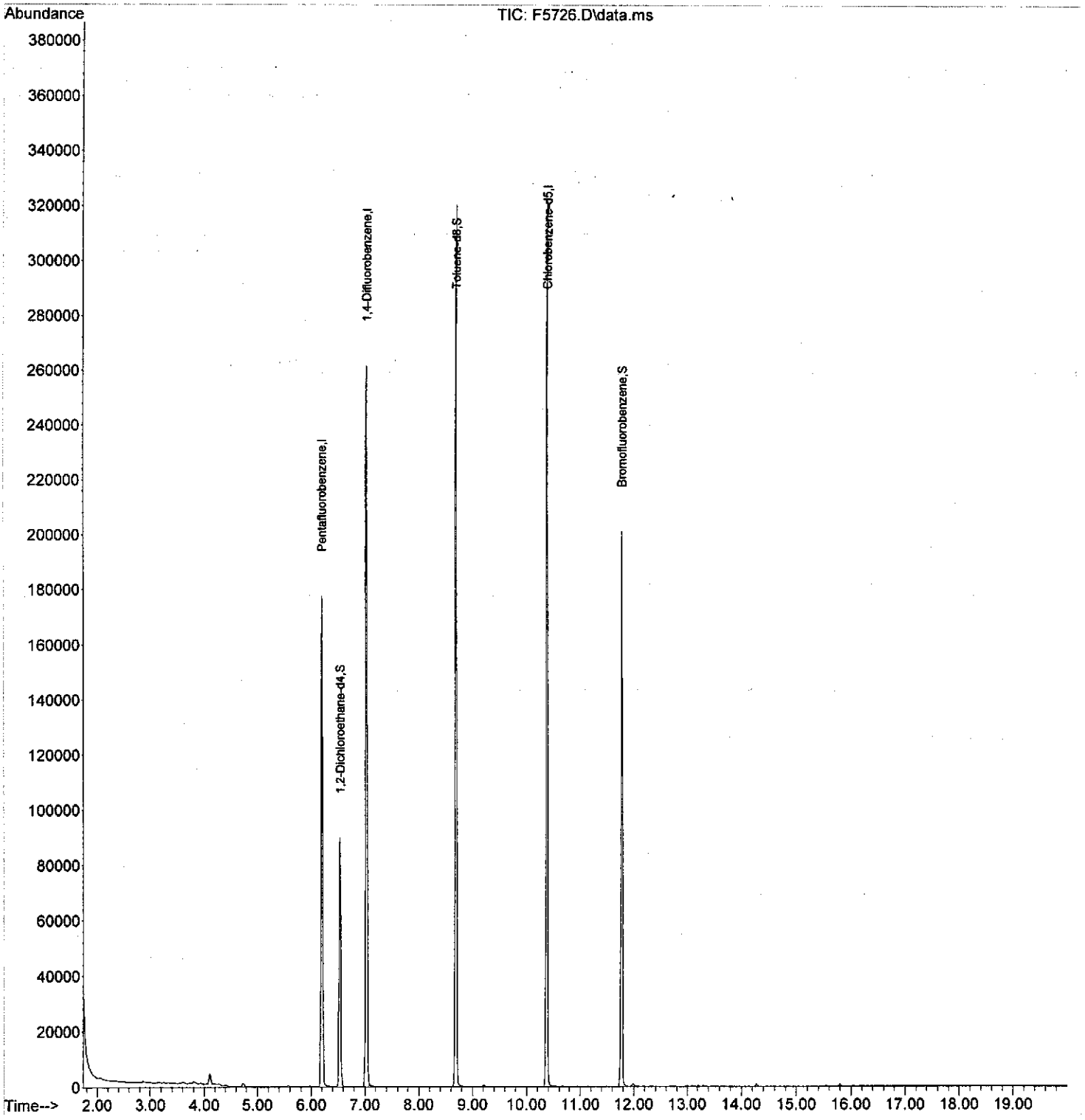
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5726.D
Acq On : 16 Dec 2009 12:35
Operator : XING
Sample : N/A,METHOD-BLK,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 16 14:26:55 2009
Quant Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Nov 25 11:54:56 2009
Response via : Initial Calibration



0055

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5726.D
Acq On : 16 Dec 2009 12:35
Operator : XING
Sample : N/A,METHOD-BLK,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F5726.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.102	230	234	244	rVB	3831	9656	1.69%	0.378%
2	6.204	433	441	453	rBV	177634	366812	64.18%	14.350%
3	6.539	466	474	484	rBV	89643	191106	33.44%	7.476%
4	7.026	515	522	536	rBV	261665	504521	88.27%	19.737%
5	8.691	679	686	709	rVB	320390	571554	100.00%	22.360%
6	10.366	843	851	870	rBV	321981	557568	97.55%	21.813%
7	11.777	983	990	1005	rVB	201222	354951	62.10%	13.886%

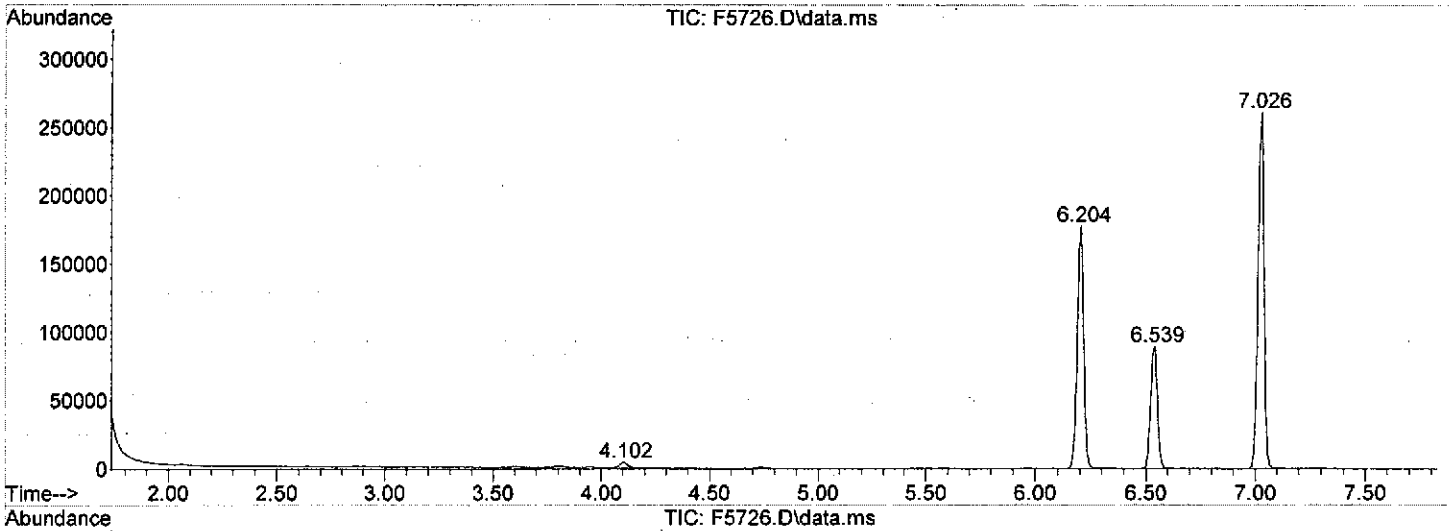
Sum of corrected areas: 2556168

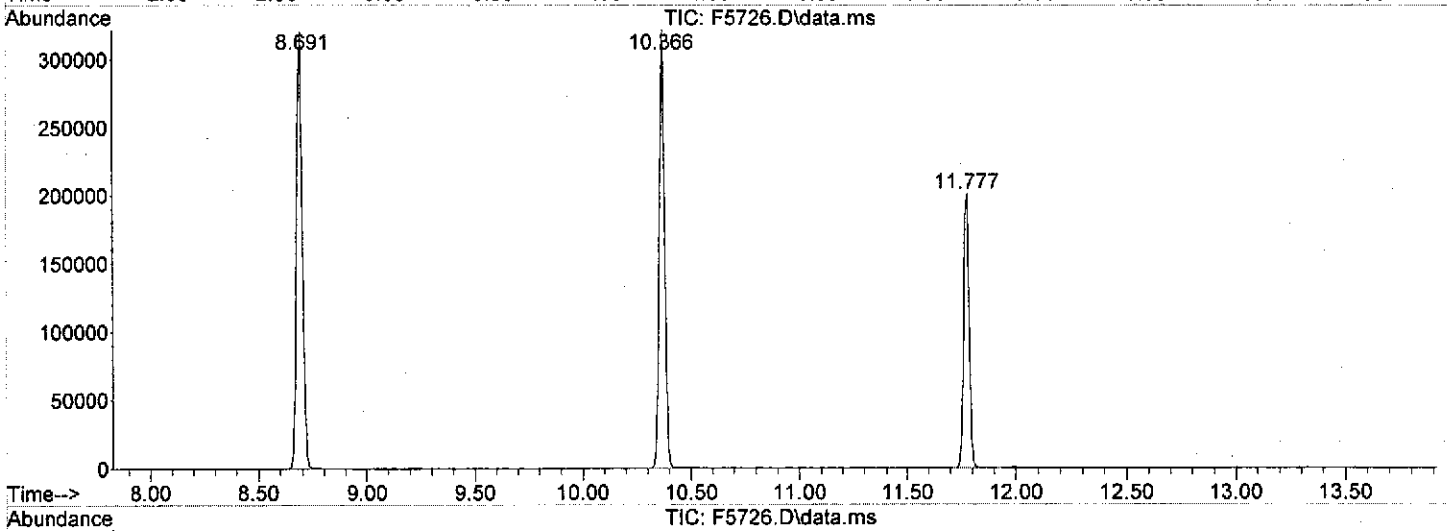
LSC Report - Integrated Chromatogram

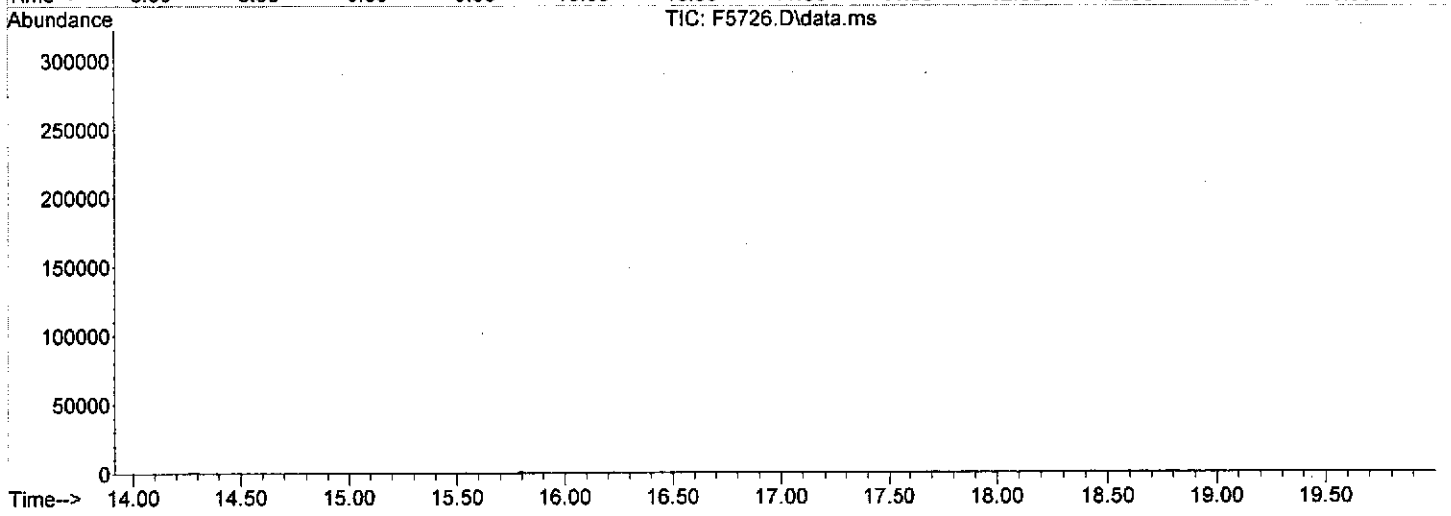
Data Path : C:\msdchem\1\DATA\12-16-09\
Data File : F5726.D
Acq On : 16 Dec 2009 12:35
Operator : XING
Sample : N/A,METHOD-BLK,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO1124.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7746.D DFTPP Injection Date : 12/03/2009

Inst ID: MSDC DFTPP Injection Time: 09:33

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	41.2			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	47.1			
70	Less than 2.0% of mass 69	0.3	(	0.6	)1
127	40.0 - 60.0% of mass 198	55.2			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.4			
275	10.0 - 30.0% of mass 198	21.4			
365	Greater than 1.0% of mass 198	1.7			
441	Present, but less than mass 443	5.72	(	67.3	)3
442	40.0 - 100.0% of mass 198	42.1			
443	17.0 - 23.0% of mass 442	8.5	(	20.2	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN119.09	40ngBNA_FOR_1	C7747.D	12/03/2009	09:51
ABN121.09	10ngBNA_FOR_1	C7748.D	12/03/2009	10:06
ABN122.09	20ngBNA_FOR_1	C7749.D	12/03/2009	10:22
ABN123.09	80ngBNA_FOR_1	C7750.D	12/03/2009	10:38
ABN124.09	120ngBNA_FOR_	C7751.D	12/03/2009	10:53
ABN120.09	1ngBNA_FOR_12	C7752.D	12/03/2009	11:25
ABN119.09	40ngBNA_FOR_1	C7753.D	12/03/2009	11:40
ABN122.09	1ngOLMO4_FOR_	C7754.D	12/03/2009	12:10
ABN123.09	10ngOLMO4_FOI	C7755.D	12/03/2009	12:26
ABN124.09	20ngOLMO4_FOI	C7756.D	12/03/2009	12:42
ABN125.09	40ngOLMO4_FOI	C7757.D	12/03/2009	12:57
ABN126.09	80ngOLMO4_FOI	C7758.D	12/03/2009	13:13
ABN127.09	120ngOLMO4_FC	C7759.D	12/03/2009	13:28

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7806.D DFTPP Injection Date : 12/04/2009

Inst ID: MSDC DFTPP Injection Time: 09:40

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	43.0			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	45.9			
70	Less than 2.0% of mass 69	0.3	(	0.7	)1
127	40.0 - 60.0% of mass 198	54.7			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.8			
275	10.0 - 30.0% of mass 198	20.8			
365	Greater than 1.0% of mass 198	2.0			
441	Present, but less than mass 443	6.97	(	74.6	)3
442	40.0 - 100.0% of mass 198	49.2			
443	17.0 - 23.0% of mass 442	9.3	(	19.0	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN136.09	40ngBNAchk_FOI	C7807.D	12/04/2009	10:10
ABN137.09	40ngOLMO4chk_I	C7808.D	12/04/2009	10:18
SS1A/9-9.5	11948-001	C7809.D	12/04/2009	10:34
SS1B/10-10.5	11948-002	C7810.D	12/04/2009	10:49
SS3B/8.5-9	11948-007	C7811.D	12/04/2009	11:05
SS4B/9-9.5	11948-011	C7812.D	12/04/2009	11:20
SS1C/13-13.5	11948-003	C7813.D	12/04/2009	11:35
BS-1/0.5-1	12168-016	C7814.D	12/04/2009	11:51
BS-2/0.5-1	12168-019	C7815.D	12/04/2009	12:06
SS-20_3-3.5	12059-010	C7816.D	12/04/2009	12:22
SS-31_0.5-1	12059-007	C7817.D	12/04/2009	12:37
.	Method_Blank	C7818.D	12/04/2009	12:53
.	LCS	C7819.D	12/04/2009	13:09
.	MS(12110-001)	C7820.D	12/04/2009	13:24
.	MSD(12110-001)	C7821.D	12/04/2009	13:40
SS-30_1.5-2/	12059-006	C7822.D	12/04/2009	13:56
SB-30_DUP/1.	12059-011	C7823.D	12/04/2009	14:11
S-1/6-6.5	12110-001	C7824.D	12/04/2009	14:27
S-2/7-7.5	12110-002	C7825.D	12/04/2009	14:42
S-3/7.5-8	12110-003	C7826.D	12/04/2009	14:58
5K-1/16-16.5	12103-001	C7827.D	12/04/2009	15:13
5K-2/16-16.5	12103-002	C7828.D	12/04/2009	15:29
5K-3/16-16.5	12103-003	C7829.D	12/04/2009	15:44

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7806.D DFTPP Injection Date : 12/04/2009

Inst ID: MSDC DFTPP Injection Time: 09:40

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	43.0			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	45.9			
70	Less than 2.0% of mass 69	0.3	(	0.7	)1
127	40.0 - 60.0% of mass 198	54.7			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.8			
275	10.0 - 30.0% of mass 198	20.8			
365	Greater than 1.0% of mass 198	2.0			
441	Present, but less than mass 443	0.00	(	74.6	)3
442	40.0 - 100.0% of mass 198	49.2			
443	17.0 - 23.0% of mass 442	9.3	(	19.0	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
HOF-1	12209-001	C7830.D	12/04/2009	16:00
S-3	12054-003	C7831.D	12/04/2009	16:15
BP-1B/14.5-1	12206-012	C7832.D	12/04/2009	16:31
S-1/7-7.5	12055-001	C7833.D	12/04/2009	16:46

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7853.D DFTPP Injection Date : 12/07/2009

Inst ID: MSDC DFTPP Injection Time: 12:15

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	35.5			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	38.7			
70	Less than 2.0% of mass 69	0.2	(	0.6	)1
127	40.0 - 60.0% of mass 198	47.6			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.0			
275	10.0 - 30.0% of mass 198	24.0			
365	Greater than 1.0% of mass 198	2.3			
441	Present, but less than mass 443	9.88	(	72.2	)3
442	40.0 - 100.0% of mass 198	67.1			
443	17.0 - 23.0% of mass 442	13.7	(	20.4	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN119.09	40ngBNA_FOR_1	C7854.D	12/07/2009	12:24
ABN120.09	1ngBNA_FOR_12	C7855.D	12/07/2009	12:39
ABN121.09	10ngBNA_FOR_1	C7856.D	12/07/2009	12:55
ABN122.09	20ngBNA_FOR_1	C7857.D	12/07/2009	13:10
ABN123.09	80ngBNA_FOR_1	C7858.D	12/07/2009	13:25
ABN124.09	120ngBNA_FOR_	C7859.D	12/07/2009	13:41
ABN120.09	1ngBNA_FOR_12	C7860.D	12/07/2009	13:56
ABN122.09	1ngOLMO4_FOR_	C7861.D	12/07/2009	14:11
ABN123.09	10ngOLMO4_FOI	C7862.D	12/07/2009	14:27
ABN124.09	20ngOLMO4_FOI	C7863.D	12/07/2009	14:42
ABN125.09	40ngOLMO4_FOI	C7864.D	12/07/2009	14:58
ABN126.09	80ngOLMO4_FOI	C7865.D	12/07/2009	15:13
ABN127.09	120ngOLMO4_FC	C7866.D	12/07/2009	15:30
ABN136.09	40ngBNAchk_FOI	C7867.D	12/07/2009	15:45
ABN137.09	40ngOLMO4chk_I	C7868.D	12/07/2009	16:00
.	Method_Blank	C7869.D	12/07/2009	16:16
.	LCS	C7870.D	12/07/2009	16:31
.	MS(12328-009)	C7871.D	12/07/2009	16:47
.	MSD(12328-009)	C7872.D	12/07/2009	17:02
B-PX2A/11.5	12330-001	C7873.D	12/07/2009	17:17
B5/6-6.5	12101-005	C7874.D	12/07/2009	17:33
#3C_WALL_-_S	12114-002	C7875.D	12/07/2009	17:48
TK-9A/1.5	12230-001	C7876.D	12/07/2009	18:03

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7853.D DFTPP Injection Date : 12/07/2009

Inst ID: MSDC DFTPP Injection Time: 12:15

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	35.5			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	38.7			
70	Less than 2.0% of mass 69	0.2	(	0.6	)1
127	40.0 - 60.0% of mass 198	47.6			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.0			
275	10.0 - 30.0% of mass 198	24.0			
365	Greater than 1.0% of mass 198	2.3			
441	Present, but less than mass 443	0.00	(	72.2	)3
442	40.0 - 100.0% of mass 198	67.1			
443	17.0 - 23.0% of mass 442	13.7	(	20.4	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
SB1/2-2.5	12328-001	C7877.D	12/07/2009	18:18
SB2/8-8.5	12328-002	C7878.D	12/07/2009	18:34
SB3/8-8.5	12328-003	C7879.D	12/07/2009	18:49
SB4/8-8.5	12328-004	C7880.D	12/07/2009	19:04
SB5/8-8.5	12328-005	C7881.D	12/07/2009	19:20
SB6/0.5-1	12328-006	C7882.D	12/07/2009	19:35
SB7/0.5-1	12328-007	C7883.D	12/07/2009	19:50
SB8/8-8.5	12328-008	C7884.D	12/07/2009	20:05
SB9/8-8.5	12328-009	C7885.D	12/07/2009	20:20
SB10/8-8.5	12328-010	C7886.D	12/07/2009	20:36
SB11/8-8.5	12328-011	C7887.D	12/07/2009	20:51
B8/5	12121-001	C7888.D	12/07/2009	21:06
RR2A/0.5-1	12321-001	C7889.D	12/07/2009	21:21
RR2B/0.5-1	12321-002	C7890.D	12/07/2009	21:37
RR2-3/2.92-3	12321-004	C7891.D	12/07/2009	21:52
ASP1	12322-001	C7892.D	12/07/2009	22:07
B8/5	12121-001	C7893.D	12/07/2009	22:22

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C8018.D DFTPP Injection Date : 12/16/2009

Inst ID: MSDC DFTPP Injection Time: 10:10

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	48.9			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	50.9			
70	Less than 2.0% of mass 69	0.3	(	0.6	)1
127	40.0 - 60.0% of mass 198	54.6			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.3			
275	10.0 - 30.0% of mass 198	21.6			
365	Greater than 1.0% of mass 198	1.6			
441	Present, but less than mass 443	6.49	(	64.3	)3
442	40.0 - 100.0% of mass 198	46.3			
443	17.0 - 23.0% of mass 442	10.1	(	21.8	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN136.09	40ngBNAchk_FOI	C8019.D	12/16/2009	10:41
ABN137.09	40ngOLMO4chk_I	C8020.D	12/16/2009	10:57
.	Method_Blank	C8021.D	12/16/2009	13:57
.	LCS	C8022.D	12/16/2009	14:12
T1-2D/6	12669-001	C8023.D	12/16/2009	14:28
COMPOSITE_SI	12660-002	C8024.D	12/16/2009	14:43
COMPOSITE_BO	12660-004	C8025.D	12/16/2009	14:59
#5_BOTTOM/14	12530-005	C8026.D	12/16/2009	15:14
WC1	12674-001	C8027.D	12/16/2009	15:29
SBD/4-4.5	12676-001	C8028.D	12/16/2009	15:45
ANOME/3.5-4	12676-002	C8029.D	12/16/2009	16:00
#5_BOTTOM/14	12530-005	C8030.D	12/16/2009	16:15

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C7818.D Instrument ID: MSDC

Date Extracted: 12/04/09 Matrix: SOIL

Date Analyzed: 12/04/2009 Time Analyzed: 12:53

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	12/04/2009	13:09
.	MS(12110-001)	12/04/2009	13:24
.	MSD(12110-001)	12/04/2009	13:40
SS-30_1.5-2/	12059-006	12/04/2009	13:56
SB-30_DUP/1.	12059-011	12/04/2009	14:11
S-1/6-6.5	12110-001	12/04/2009	14:27
S-2/7-7.5	12110-002	12/04/2009	14:42
S-3/7.5-8	12110-003	12/04/2009	14:58
5K-1/16-16.5	12103-001	12/04/2009	15:13
5K-2/16-16.5	12103-002	12/04/2009	15:29
5K-3/16-16.5	12103-003	12/04/2009	15:44
HOF-1	12209-001	12/04/2009	16:00
S-3	12054-003	12/04/2009	16:15
BP-1B/14.5-1	12206-012	12/04/2009	16:31
S-1/7-7.5	12055-001	12/04/2009	16:46

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: N/A

Lab ID: Method_Blank
Client ID: .
Date Received: N/A
Date Extracted: 12/04/2009
Date Analyzed: 12/04/2009
Data file: C7818.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		0.033
Phenol	ND		0.033
Aniline	ND		0.033
Bis(2-chloroethyl) ether	ND		0.033
2-Chlorophenol	ND		0.033
1,3-Dichlorobenzene	ND		0.033
1,4-Dichlorobenzene	ND		0.033
Benzyl alcohol	ND		0.033
1,2-Dichlorobenzene	ND		0.033
2-Methylphenol	ND		0.033
Bis(2-chloroisopropyl) ether	ND		0.033
4-Methylphenol	ND		0.033
N-Nitrosodi-n-propylamine	ND		0.033
Hexachloroethane	ND		0.033
Nitrobenzene	ND		0.033
Isophorone	ND		0.033
2-Nitrophenol	ND		0.033
2,4-Dimethylphenol	ND		0.033
Bis(2-chloroethoxy) methane	ND		0.033
Benzoic acid	ND		0.033
2,4-Dichlorophenol	ND		0.033
1,2,4-Trichlorobenzene	ND		0.033
Naphthalene	ND		0.033
4-Chloroaniline	ND		0.033
Hexachlorobutadiene	ND		0.033
4-Chloro-3-methylphenol	ND		0.033
2-Methylnaphthalene	ND		0.033
Hexachlorocyclopentadiene	ND		0.033
2,4,6-Trichlorophenol	ND		0.033
2,4,5-Trichlorophenol	ND		0.033
2-Chloronaphthalene	ND		0.033
2-Nitroaniline	ND		0.033
Dimethyl phthalate	ND		0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: N/A

Lab ID: Method_Blank
Client ID: .
Date Received: N/A
Date Extracted: 12/04/2009
Date Analyzed: 12/04/2009
Data file: C7818.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.033
Acenaphthylene	ND		0.033
3-Nitroaniline	ND		0.033
Acenaphthene	ND		0.033
2,4-Dinitrophenol	ND		0.033
4-Nitrophenol	ND		0.033
2,4-Dinitrotoluene	ND		0.033
Dibenzofuran	ND		0.033
Diethyl phthalate	ND		0.033
Fluorene	ND		0.033
4-Chlorophenyl phenyl ether	ND		0.033
4-Nitroaniline	ND		0.033
4,6-Dinitro-2-methylphenol	ND		0.033
N-Nitrosodiphenylamine	ND		0.033
1,2-Diphenylhydrazine	ND		0.033
4-Bromophenyl phenyl ether	ND		0.033
Hexachlorobenzene	ND		0.033
Pentachlorophenol	ND		0.033
Phenanthrene	ND		0.033
Anthracene	ND		0.033
Carbazole	ND		0.033
Di-n-butyl phthalate	ND		0.033
Fluoranthene	ND		0.033
Benzidine	ND		0.033
Pyrene	ND		0.033
3,3'-Dimethylbenzidine	ND		0.033
Butyl benzyl phthalate	ND		0.033
3,3'-Dichlorobenzidine	ND		0.033
Benzo[a]anthracene	ND		0.033
Chrysene	ND		0.033
Bis(2-ethylhexyl) phthalate	ND		0.033
Di-n-octyl phthalate	ND		0.033
Benzo[b]fluoranthene	ND		0.033
Benzo[k]fluoranthene	ND		0.033
Benzo[a]pyrene	ND		0.033
Indeno[1,2,3-cd]pyrene	ND		0.033
Dibenz[a,h]anthracene	ND		0.033
Benzo[g,h,i]perylene	ND		0.033

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: N/A

Lab ID: Method_Blank
Client ID: .
Date Received: N/A
Date Extracted: 12/04/2009
Date Analyzed: 12/04/2009
Data file: C7818.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C8021.D

Instrument ID: MSDC

Date Extracted: 12/16/09

Matrix: SOIL

Date Analyzed: 12/16/2009

Time Analyzed: 13:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	12/16/2009	14:12
T1-2D/6	12669-001	12/16/2009	14:28
COMPOSITE_SI	12660-002	12/16/2009	14:43
COMPOSITE_BO	12660-004	12/16/2009	14:59
#5_BOTTOM/14	12530-005	12/16/2009	15:14
WC1	12674-001	12/16/2009	15:29
SBD/4-4.5	12676-001	12/16/2009	15:45
ANOME/3.5-4	12676-002	12/16/2009	16:00
#5_BOTTOM/14	12530-005	12/16/2009	16:15

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/16/2009
Date Analyzed: 12/16/2009
Data file: C8021.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		0.033
Pyridine	ND		0.033
Benzaldehyde	ND		0.033
Phenol	ND		0.033
Aniline	ND		0.033
Bis(2-chloroethyl) ether	ND		0.033
2-Chlorophenol	ND		0.033
1,3-Dichlorobenzene	ND		0.033
1,4-Dichlorobenzene	ND		0.033
Benzyl alcohol	ND		0.033
1,2-Dichlorobenzene	ND		0.033
2-Methylphenol	ND		0.033
Bis(2-chloroisopropyl) ether	ND		0.033
4-Methylphenol	ND		0.033
N-Nitrosodi-n-propylamine	ND		0.033
Acetophenone	ND		0.033
Hexachloroethane	ND		0.033
Nitrobenzene	ND		0.033
Isophorone	ND		0.033
2-Nitrophenol	ND		0.033
2,4-Dimethylphenol	ND		0.033
Bis(2-chloroethoxy) methane	ND		0.033
Benzoic acid	ND		0.033
2,4-Dichlorophenol	ND		0.033
1,2,4-Trichlorobenzene	ND		0.033
Naphthalene	ND		0.033
4-Chloroaniline	ND		0.033
Hexachlorobutadiene	ND		0.033
Caprolactam	ND		0.033
4-Chloro-3-methylphenol	ND		0.033
2-Methylnaphthalene	ND		0.033
Hexachlorocyclopentadiene	ND		0.033
2,4,6-Trichlorophenol	ND		0.033
2,4,5-Trichlorophenol	ND		0.033
1,1'-Biphenyl	ND		0.033
2-Chloronaphthalene	ND		0.033
2-Nitroaniline	ND		0.033
Dimethyl phthalate	ND		0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/16/2009
Date Analyzed: 12/16/2009
Data file: C8021.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.033
Acenaphthylene	ND		0.033
3-Nitroaniline	ND		0.033
Acenaphthene	ND		0.033
2,4-Dinitrophenol	ND		0.033
4-Nitrophenol	ND		0.033
2,4-Dinitrotoluene	ND		0.033
Dibenzofuran	ND		0.033
Diethyl phthalate	ND		0.033
Fluorene	ND		0.033
4-Chlorophenyl phenyl ether	ND		0.033
4-Nitroaniline	ND		0.033
1,2,4,5-Tetrachlorobenzene	ND		0.033
4,6-Dinitro-2-methylphenol	ND		0.033
N-Nitrosodiphenylamine	ND		0.033
1,2-Diphenylhydrazine	ND		0.033
4-Bromophenyl phenyl ether	ND		0.033
Hexachlorobenzene	ND		0.033
Atrazine	ND		0.033
Pentachlorophenol	ND		0.033
Phenanthrene	ND		0.033
Anthracene	ND		0.033
Carbazole	ND		0.033
Di-n-butyl phthalate	ND		0.033
Fluoranthene	ND		0.033
Benzidine	ND		0.033
Pyrene	ND		0.033
3,3'-Dimethylbenzidine	ND		0.033
Butyl benzyl phthalate	ND		0.033
3,3'-Dichlorobenzidine	ND		0.033
Benzo[a]anthracene	ND		0.033
Chrysene	ND		0.033
Bis(2-ethylhexyl) phthalate	ND		0.033
Di-n-octyl phthalate	ND		0.033
Benzo[b]fluoranthene	ND		0.033
Benzo[k]fluoranthene	ND		0.033
Benzo[a]pyrene	ND		0.033
Indeno[1,2,3-cd]pyrene	ND		0.033
Dibenz[a,h]anthracene	ND		0.033
Benzo[g,h,i]perylene	ND		0.033

Total Target Compounds: 0

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/16/2009
Date Analyzed: 12/16/2009
Data file: C8021.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS2009.M
Title : BNA CALIBRATION METHOD
Last Update : Thu Dec 03 14:58:18 2009
Response Via : Initial Calibration

Calibration Files
120 =C7751.D 10 =C7748.D 20 =C7749.D
80 =C7750.D 1 =C7752.D 40 =C7753.D

		Compound	120	10	20	80	1	40	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.718	0.636	0.707	0.677	0.747	0.692	0.696	5.42
3)	T	Pyridine	0.710	0.616	0.664	0.644	0.673	0.701	0.668	5.27
4)	S	2-Fluorophenol	1.264	1.211	1.132	1.205	1.031	1.201	1.174	6.97
5)	T	Benzaldehyde	0.873	0.921	0.931	0.911	1.029	1.168	0.972	11.20
6)	S	Phenol-d5	1.490	1.537	1.522	1.483	1.364	1.517	1.485	4.25
7)	MC	Phenol	1.290	1.355	1.449	1.333	1.925	1.729	1.513	16.92
8)	T	Aniline	0.570	0.593	0.621	0.562	0.640	0.659	0.607	6.43
9)	T	Bis(2-chloroethyl	0.692	0.771	0.777	0.742	0.874	0.802	0.776	7.84
10)	M	2-Chlorophenol	1.286	1.323	1.351	1.251	1.588	1.431	1.372	8.94
11)	T	1,3-Dichlorobenze	1.443	1.559	1.587	1.389	1.690	1.777	1.574	9.26
12)	MC	1,4-Dichlorobenze	1.393	1.511	1.551	1.551	1.660	1.670	1.556	6.57
13)	T	Benzyl alcohol	0.763	0.776	0.842	0.783	0.700	0.893	0.793	8.42
14)	T	1,2-Dichlorobenze	1.381	1.469	1.508	1.453	1.627	1.515	1.492	5.47
15)	T	2-Methylphenol	0.763	0.776	0.842	0.783	0.700	0.893	0.793	8.42
16)	T	Bis(2-chloroisopr	0.991	1.141	1.170	1.071	1.297	1.273	1.157	10.08
17)	T	4-Methylphenol	1.150	1.159	1.168	1.140	1.184	1.352	1.192	6.71
18)	MP	N-Nitrosodi-n-pro	0.716	0.785	0.778	0.730	0.782	0.858	0.775	6.49
19)	T	Acetophenone	1.509	1.649	1.686	1.481	1.738	1.556	1.603	6.43
20)	T	3-Methylphenol	1.151	1.155	1.165	1.138	1.184	1.352	1.191	6.76
21)	T	Hexachloroethane	0.462	0.491	0.492	0.478	0.567	0.522	0.502	7.47
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.340	0.300	0.300	0.329	0.302	0.299	0.312	5.78
25)	T	Nitrobenzene	0.256	0.270	0.298	0.269	0.359	0.320	0.295	13.15
26)	T	Isophorone	0.544	0.560	0.598	0.542	0.636	0.544	0.571	6.75
27)	TC	2-Nitrophenol	0.170	0.139	0.150	0.153	0.134	0.172	0.153	10.25
28)	T	2,4-Dimethylpheno	0.304	0.305	0.318	0.300	0.427	0.364	0.336	14.98
29)	T	Bis(2-chloroethox	0.357	0.349	0.367	0.331	0.400	0.415	0.370	8.59
30)	T	Benzoic acid	0.098	0.089	0.102	0.098	0.067	0.091	0.091	14.16
31)	T	2,4-Dimethylanili	0.369	0.388	0.413	0.369	0.400	0.356	0.383	5.68
32)	TC	2,4-Dichloropheno	0.312	0.298	0.320	0.309	0.427	0.351	0.336	14.23
33)	M	1,2,4-Trichlorobe	0.342	0.360	0.384	0.349	0.399	0.403	0.373	6.99
34)	T	Naphthalene	0.992	1.027	1.156	0.946	1.214	1.088	1.070	9.49
35)	T	4-Chloroaniline	0.512	0.537	0.593	0.510	0.629	0.602	0.564	8.99
36)	T	4-Aminotoluene	0.506	0.576	0.607	0.550	0.637	0.536	0.569	8.43
37)	TC	Hexachlorobutadie	0.226	0.218	0.231	0.231	0.247	0.249	0.233	5.26
38)	T	Caprolactam	0.097	0.095	0.096	0.090	0.085	0.090	0.092	5.07
39)	T	2-Aminotoluene	0.506	0.576	0.607	0.550	0.637	0.536	0.569	8.43
40)	MC	4-Chloro-3-methyl	0.255	0.269	0.262	0.247	0.369	0.295	0.283	15.99
41)	T	2-Methylnaphthale	0.613	0.711	0.717	0.679	0.738	0.818	0.713	9.47
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.418	0.363	0.373	0.419	0.375	0.419	0.395	6.79
45)	TC	2,4,6-Trichloroph	0.382	0.349	0.362	0.372	0.401	0.404	0.378	5.73
46)	T	2,4,5-Trichloroph	0.401	0.384	0.376	0.385	0.319	0.455	0.387	11.35
47)	S	2-Fluorobiphenyl	1.379	1.589	1.467	1.433	1.447	1.403	1.453	5.06
48)	T	1,1'-Biphenyl	1.377	1.492	1.442	1.350	1.778	1.496	1.489	10.31
49)	T	2-Chloronaphthale	1.015	1.121	1.125	1.144	1.169	1.205	1.130	5.68
50)	T	2-Nitroaniline	0.197	0.164	0.157	0.194	0.161	0.214	0.181	13.07
51)	T	Dimethyl phthalat	1.147	1.250	1.263	1.212	1.310	1.358	1.257	5.86

52)	T	2,6-Dinitrotoluen	0.245	0.178	0.196	0.217	0.194	0.237	0.211	12.56
53)	T	Acenaphthylene	1.623	1.854	1.788	1.650	1.397	1.741	1.676	9.61
54)	T	3-Nitroaniline	0.308	0.256	0.254	0.328	0.244	0.321	0.285	13.21
55)	MC	Acenaphthene	1.041	1.140	1.119	1.080	1.627	1.086	1.182	18.65
56)	TP	2,4-Dinitrophenol	0.074	0.050	0.059	0.059	0.058	0.057	0.059	13.33
57)	MP	4-Nitrophenol	0.123	0.112	0.112	0.132	0.155	0.142	0.129	13.07
58)	M	2,4-Dinitrotoluen	0.301	0.221	0.229	0.294	0.293	0.301	0.273	13.81
59)	T	Dibenzofuran	1.525	1.646	1.581	1.520	1.711	1.802	1.631	6.83
60)	T	Diethyl phthalate	1.093	1.185	1.161	1.129	1.156	1.291	1.169	5.77
61)	T	Fluorene	1.161	1.374	1.335	1.225	1.737	1.337	1.362	14.72
62)	T	4-Chlorophenyl ph	0.644	0.717	0.714	0.670	0.746	0.803	0.716	7.86
63)	T	4-Nitroaniline	0.246	0.228	0.225	0.271	0.191	0.269	0.238	12.65
64)		1,2,4,5-Tetrachlo	0.619	0.671	0.653	0.640	0.729	0.651	0.660	5.68
65)	T	3,5-Dimethylpheno							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.070	0.052	0.052	0.062	0.061	0.066	0.061	12.08
68)	TC	N-Nitrosodiphenyl	0.493	0.542	0.586	0.561	0.565	0.624	0.562	7.82
69)	T	1,2-Diphenylhydra	0.489	0.536	0.571	0.522	0.568	0.606	0.549	7.60
70)	S	2,4,6-Tribromophe	0.202	0.194	0.187	0.195	0.167	0.198	0.190	6.53
71)	T	4-Bromophenyl phe	0.274	0.280	0.287	0.291	0.305	0.308	0.291	4.63
72)	T	Hexachlorobenzene	0.333	0.340	0.356	0.337	0.378	0.383	0.355	6.13
73)	T	Atrazine	0.205	0.220	0.230	0.219	0.221	0.210	0.217	4.05
74)	MC	Pentachlorophenol	0.165	0.133	0.118	0.148	0.138	0.151	0.142	11.45
75)	T	Phenanthrene	1.020	1.086	1.126	1.051	1.476	1.084	1.140	14.74
76)	T	Anthracene	0.962	1.122	1.162	1.103	1.172	1.134	1.109	6.88
77)	T	Carbazole	0.888	0.959	0.993	0.894	0.962	1.049	0.957	6.38
78)	T	Di-n-butyl phthal	0.984	1.084	1.124	1.026	1.004	1.207	1.072	7.85
79)	TC	Fluoranthene	1.054	1.164	1.218	1.106	1.460	1.154	1.193	11.92
80)	T	Benzidine	0.571	0.540	0.532	0.604	0.661	0.692	0.600	10.87
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.097	1.087	1.138	1.124	1.519	1.139	1.184	13.97
84)	S	Terphenyl-d14	1.010	1.050	1.009	1.031	1.055	1.001	1.026	2.22
85)	T	3,3'-Dimethylbenz	0.729	0.592	0.634	0.729	0.754	0.839	0.713	12.38
86)	T	Butyl benzyl phth	0.415	0.406	0.413	0.412	0.358	0.461	0.411	7.98
87)	T	3,3'-Dichlorobenz	0.266	0.352	0.356	0.284	0.373	0.296	0.321	13.93
88)	T	Benzo[a]anthracen	0.971	0.977	1.022	0.977	1.267	1.011	1.037	11.00
89)	T	Chrysene	0.926	0.948	0.966	0.930	1.235	1.121	1.021	12.50
90)	T	Bis(2-ethylhexyl)	0.555	0.531	0.553	0.547	0.506	0.622	0.552	7.07
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	0.794	0.883	0.890	0.823	0.617	1.053	0.843	16.90
94)	T	Benzo[b]fluoranth	0.984	0.938	1.140	0.982	1.324	1.021	1.065	13.55
95)	T	Benzo[k]fluoranth	1.061	1.132	1.018	1.046	1.459	1.066	1.130	14.62
96)	TC	Benzo[a]pyrene	0.872	0.807	0.861	0.870	1.139	0.990	0.923	13.16
97)	T	Indeno[1,2,3-cd]p	1.226	0.945	1.044	1.221	1.358	1.121	1.153	12.78
98)	T	Dibenz[a,h]anthra	1.018	0.791	0.899	1.010	1.127	0.942	0.965	11.94
99)	T	Benzo[g,h,i]peryl	1.013	0.806	0.892	1.008	1.229	0.934	0.981	14.71
100)	T	Hydroquinone							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

CS2009.M Thu Dec 03 14:59:25 2009 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-04-09\
Data File : C7807.D
Acq On : 4 Dec 2009 10:10
Operator : EDM
Sample : ABN136.09,40ngBNAchk_FOR_12/04/09
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Dec 04 10:46:54 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2009.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Dec 03 14:58:18 2009
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	111	0.00
2	T	N-Nitrosodimethylamine	0.696	0.655	5.9	105	0.00
3	T	Pyridine	0.668	0.664	0.6	106	0.00
4	S	2-Fluorophenol	1.174	1.124	4.3	104	0.00
5	T	Benzaldehyde	0.972	0.957	1.5	115	0.00
6	S	Phenol-d5	1.485	1.467	1.2	108	0.00
7	MC	Phenol	1.513	1.675	-10.7	108	0.01
8	T	Aniline	0.607	0.621	-2.3	105	0.00
9	T	Bis(2-chloroethyl) ether	0.776	0.807	-4.0	112	0.00
10	M	2-Chlorophenol	1.372	1.447	-5.5	113	0.00
11	T	1,3-Dichlorobenzene	1.574	1.629	-3.5	102	0.00
12	MC	1,4-Dichlorobenzene	1.556	1.679	-7.9	112	0.00
13	T	Benzyl alcohol	0.793	0.869	-9.6	109	0.00
14	T	1,2-Dichlorobenzene	1.492	1.584	-6.2	117	0.00
15	T	2-Methylphenol	0.793	0.869	-9.6	109	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.157	1.155	0.2	101	0.00
17	T	4-Methylphenol	1.192	1.280	-7.4	106	0.01
18	MP	N-Nitrosodi-n-propylamine	0.775	0.771	0.5	100	0.00
19	T	Acetophenone	1.603	1.504	6.2	108	0.00
20	T	3-Methylphenol	1.191	1.280	-7.5	106	0.01
21	T	Hexachloroethane	0.502	0.523	-4.2	112	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	106	0.00
24	S	Nitrobenzene-d5	0.312	0.330	-5.8	117	0.00
25	T	Nitrobenzene	0.295	0.320	-8.5	106	0.01
26	T	Isophorone	0.571	0.566	0.9	110	0.00
27	TC	2-Nitrophenol	0.153	0.141	7.8	87	0.00
28	T	2,4-Dimethylphenol	0.336	0.370	-10.1	108	0.01
29	T	Bis(2-chloroethoxy) methane	0.370	0.386	-4.3	98	0.00
30	T	Benzoic acid	0.091	0.102	-12.1	118	-0.05
31	T	2,4-Dimethylaniline	0.383	0.376	1.8	112	0.00
32	TC	2,4-Dichlorophenol	0.336	0.374	-11.3	113	0.00
33	M	1,2,4-Trichlorobenzene	0.373	0.401	-7.5	105	0.00
34	T	Naphthalene	1.070	1.023	4.4	99	0.00
35	T	4-Chloroaniline	0.564	0.569	-0.9	100	0.00
36	T	4-Aminotoluene	0.569	0.553	2.8	109	0.00
37	TC	Hexachlorobutadiene	0.233	0.264	-13.3	112	0.00
38	T	Caprolactam	0.092	0.094	-2.2	111	0.02
39	T	2-Aminotoluene	0.569	0.553	2.8	109	0.00
40	MC	4-Chloro-3-methylphenol	0.283	0.307	-8.5	110	0.00
41	T	2-Methylnaphthalene					
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00
44	TP	Hexachlorocyclopentadiene	0.395	0.416	-5.3	108	0.00
45	TC	2,4,6-Trichlorophenol	0.378	0.444	-17.5	119	0.00
46	T	2,4,5-Trichlorophenol	0.387	0.463	-19.6	110	0.00
47	S	2-Fluorobiphenyl	1.453	1.446	0.5	112	0.00

48	T	1,1'-Biphenyl	1.489	1.372	7.9	100	0.00
49	T	2-Chloronaphthalene	1.130	1.240	-9.7	112	0.00
50	T	2-Nitroaniline	0.181	0.203	-12.2	103	0.01
51	T	Dimethyl phthalate	1.257	1.388	-10.4	111	0.01
52	T	2,6-Dinitrotoluene	0.211	0.241	-14.2	110	0.01
53	T	Acenaphthylene	1.676	1.765	-5.3	110	0.00
54	T	3-Nitroaniline	0.285	0.260	8.8	88	0.01
55	MC	Acenaphthene	1.182	1.078	8.8	108	0.01
56	TP	2,4-Dinitrophenol	0.059	0.064	-8.5	122	0.09
57	MP	4-Nitrophenol	0.129	0.124	3.9	95	0.01
58	M	2,4-Dinitrotoluene	0.273	0.303	-11.0	109	0.01
59	T	Dibenzofuran	1.631	1.791	-9.8	108	0.01
60	T	Diethyl phthalate	1.169	1.267	-8.4	107	0.01
61	T	Fluorene	1.362	1.285	5.7	104	0.01
62	T	4-Chlorophenyl phenyl ether	0.716	0.775	-8.2	105	0.01
63	T	4-Nitroaniline	0.238	0.244	-2.5	98	0.01
64		1,2,4,5-Tetrachlorobenzene	0.660	0.655	0.8	109	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	106	0.01
67	T	4,6-Dinitro-2-methylphenol	0.061	0.068	-11.5	109	-0.04
68	TC	N-Nitrosodiphenylamine	0.562	0.611	-8.7	104	0.01
69	T	1,2-Diphenylhydrazine	0.549	0.628	-14.4	110	0.01
70	S	2,4,6-Tribromophenol	0.190	0.222	-16.8	119	0.01
71	T	4-Bromophenyl phenyl ether	0.291	0.319	-9.6	109	0.01
72	T	Hexachlorobenzene	0.355	0.383	-7.9	106	0.01
73	T	Atrazine	0.217	0.213	1.8	107	0.02
74	MC	Pentachlorophenol	0.142	0.152	-7.0	106	-0.02
75	T	Phenanthrene	1.140	1.094	4.0	107	0.01
76	T	Anthracene	1.109	1.120	-1.0	104	0.02
77	T	Carbazole	0.957	1.031	-7.7	104	0.02
78	T	Di-n-butyl phthalate	1.072	1.204	-12.3	106	0.02
79	TC	Fluoranthene	1.193	1.133	5.0	104	0.02
80	T	Benzidine	0.600	0.512	14.7	108	0.09
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	102	0.02
83	M	Pyrene	1.184	1.154	2.5	104	0.02
84	S	Terphenyl-d14	1.026	1.024	0.2	105	0.02
85	T	3,3'-Dimethylbenzidine	0.713	0.595	16.5	100	0.12
86	T	Butyl benzyl phthalate	0.411	0.480	-16.8	107	0.03
87	T	3,3'-Dichlorobenzidine	0.321	0.316	1.6	110	0.03
88	T	Benzo[a]anthracene	1.037	1.027	1.0	104	0.03
89	T	Chrysene	1.021	1.114	-9.1	102	0.03
90	T	Bis(2-ethylhexyl) phthalate	0.552	0.645	-16.8	106	0.02
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	105	0.03
93	TC	Di-n-octyl phthalate	0.843	0.983	-16.6	99	0.02
94	T	Benzo[b]fluoranthene	1.065	1.018	4.4	105	0.03
95	T	Benzo[k]fluoranthene	1.130	1.121	0.8	111	0.03
96	TC	Benzo[a]pyrene	0.923	1.012	-9.6	108	0.03
97	T	Indeno[1,2,3-cd]pyrene	1.153	1.204	-4.4	113	0.05
98	T	Dibenz[a,h]anthracene	0.965	1.045	-8.3	117	0.05
99	T	Benzo[g,h,i]perylene	0.981	0.991	-1.0	112	0.06
100	T	Hydroquinone					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2009.M Fri Dec 04 10:47:33 2009 RPT1

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS2109.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Dec 07 15:48:41 2009
Response Via : Initial Calibration

Calibration Files
120 =C7859.D 10 =C7856.D 20 =C7857.D
80 =C7858.D 1 =C7860.D 40 =C7854.D

		Compound	120	10	20	80	1	40	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.613	0.637	0.664	0.615	0.616	0.709	0.642	5.93
3)	T	Pyridine	0.696	0.692	0.715	0.654	0.592	0.722	0.679	7.14
4)	S	2-Fluorophenol	1.186	1.162	1.226	1.194	1.008	1.300	1.179	8.19
5)	T	Benzaldehyde	0.920	1.147	0.894	0.838	1.083	1.211	1.016	14.97
6)	S	Phenol-d5	1.509	1.417	1.436	1.463	1.354	1.608	1.464	5.94
7)	MC	Phenol	1.292	1.611	1.415	1.400	1.653	1.665	1.506	10.42
8)	T	Aniline	0.582	0.604	0.627	0.574	0.573	0.671	0.605	6.33
9)	T	Bis(2-chloroethyl	0.715	0.813	0.772	0.759	0.785	0.870	0.786	6.65
10)	M	2-Chlorophenol	1.337	1.364	1.336	1.290	1.431	1.428	1.364	4.10
11)	T	1,3-Dichlorobenze	1.427	1.527	1.588	1.393	1.698	1.718	1.559	8.67
12)	MC	1,4-Dichlorobenze	1.499	1.540	1.574	1.571	1.543	1.721	1.575	4.86
13)	T	Benzyl alcohol	0.765	0.822	0.844	0.827	0.753	0.870	0.813	5.62
14)	T	1,2-Dichlorobenze	1.428	1.453	1.494	1.456	1.468	1.581	1.480	3.66
15)	T	2-Methylphenol	0.765	0.822	0.844	0.827	0.753	0.870	0.813	5.62
16)	T	Bis(2-chloroisopr	1.057	1.196	1.240	1.087	1.204	1.304	1.182	7.89
17)	T	4-Methylphenol	1.181	1.167	1.236	1.072	1.296	1.301	1.209	7.24
18)	MP	N-Nitrosodi-n-pro	0.789	0.796	0.789	0.698	0.843	0.833	0.791	6.47
19)	T	Acetophenone	1.564	1.655	1.636	1.574	1.622	1.659	1.618	2.52
20)	T	3-Methylphenol	1.181	1.162	1.239	1.073	1.296	1.301	1.209	7.25
21)	T	Hexachloroethane	0.491	0.505	0.509	0.489	0.546	0.541	0.514	4.74
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.361	0.334	0.354	0.341	0.327	0.346	0.344	3.69
25)	T	Nitrobenzene	0.260	0.312	0.331	0.297	0.346	0.309	0.309	9.57
26)	T	Isophorone	0.553	0.587	0.607	0.559	0.590	0.606	0.584	3.93
27)	TC	2-Nitrophenol	0.177	0.181	0.190	0.194	0.174	0.216	0.188	8.07
28)	T	2,4-Dimethylpheno	0.317	0.314	0.324	0.283	0.311	0.376	0.321	9.47
29)	T	Bis(2-chloroethox	0.357	0.352	0.388	0.337	0.370	0.413	0.369	7.44
30)	T	Benzoic acid	0.173	0.133	0.164	0.173	0.170	0.186	0.166	10.77
31)	T	2,4-Dimethylanili	0.369	0.403	0.411	0.368	0.290	0.379	0.370	11.68
32)	TC	2,4-Dichloropheno	0.321	0.308	0.327	0.300	0.312	0.382	0.325	9.10
33)	M	1,2,4-Trichlorobe	0.363	0.382	0.386	0.354	0.391	0.410	0.381	5.31
34)	T	Naphthalene	1.020	1.092	1.163	1.021	1.060	1.065	1.070	4.96
35)	T	4-Chloroaniline	0.512	0.564	0.590	0.538	0.540	0.597	0.557	5.92
36)	T	4-Aminotoluene	0.517	0.593	0.613	0.498	0.405	0.537	0.527	14.11
37)	TC	Hexachlorobutadie	0.236	0.227	0.237	0.231	0.240	0.256	0.238	4.25
38)	T	Caprolactam	0.104	0.106	0.112	0.102	0.093	0.107	0.104	6.12
39)	T	2-Aminotoluene	0.517	0.593	0.613	0.498	0.405	0.537	0.527	14.11
40)	MC	4-Chloro-3-methyl	0.258	0.276	0.293	0.266	0.301	0.314	0.285	7.58
41)	T	2-Methylnaphthale	0.691	0.704	0.729	0.682	0.791	0.801	0.733	7.00
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.458	0.348	0.412	0.439	0.382	0.474	0.419	11.40
45)	TC	2,4,6-Trichloroph	0.366	0.364	0.396	0.385	0.375	0.440	0.388	7.28
46)	T	2,4,5-Trichloroph	0.414	0.411	0.430	0.418	0.424	0.473	0.428	5.33
47)	S	2-Fluorobiphenyl	1.421	1.486	1.482	1.382	1.474	1.468	1.452	2.87
48)	T	1,1'-Biphenyl	1.388	1.479	1.456	1.323	1.439	1.380	1.411	4.09
49)	T	2-Chloronaphthale	0.989	1.099	1.182	1.126	1.149	1.220	1.127	7.08
50)	T	2-Nitroaniline	0.199	0.217	0.225	0.225	0.220	0.267	0.226	9.99
51)	T	Dimethyl phthalat	1.195	1.295	1.286	1.155	1.258	1.392	1.263	6.58

52)	T	2,6-Dinitrotoluen	0.281	0.265	0.288	0.290	0.270	0.317	0.285	6.46
53)	T	Acenaphthylene	1.557	1.797	1.875	1.769	1.591	1.760	1.725	7.20
54)	T	3-Nitroaniline	0.336	0.332	0.357	0.362	0.318	0.411	0.353	9.36
55)	MC	Acenaphthene	0.950	1.121	1.168	1.078	1.060	1.100	1.079	6.82
56)	TP	2,4-Dinitrophenol	0.141	0.108	0.121	0.120	0.136	0.148	0.129	11.61
57)	MP	4-Nitrophenol	0.139	0.152	0.150	0.146	0.120	0.183	0.148	13.91
58)	M	2,4-Dinitrotoluen	0.366	0.330	0.348	0.349	0.306	0.416	0.352	10.63
59)	T	Dibenzofuran	1.572	1.643	1.669	1.566	1.690	1.834	1.662	5.91
60)	T	Diethyl phthalate	1.138	1.159	1.181	1.095	1.167	1.265	1.167	4.85
61)	T	Fluorene	1.174	1.333	1.344	1.203	1.228	1.305	1.265	5.70
62)	T	4-Chlorophenyl ph	0.680	0.713	0.755	0.704	0.725	0.800	0.729	5.80
63)	T	4-Nitroaniline	0.283	0.282	0.295	0.256	0.252	0.307	0.279	7.74
64)		1,2,4,5-Tetrachlo	0.634	0.652	0.697	0.647	0.601	0.640	0.645	4.85
65)	T	3,5-Dimethylpheno							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.120	0.082	0.094	0.113	0.098	0.117	0.104	14.47
68)	TC	N-Nitrosodiphenyl	0.554	0.532	0.564	0.540	0.577	0.620	0.565	5.65
69)	T	1,2-Diphenylhydra	0.538	0.546	0.576	0.553	0.568	0.623	0.567	5.40
70)	S	2,4,6-Tribromophe	0.228	0.211	0.213	0.223	0.188	0.222	0.214	6.65
71)	T	4-Bromophenyl phe	0.289	0.277	0.293	0.297	0.284	0.315	0.293	4.47
72)	T	Hexachlorobenzene	0.352	0.346	0.355	0.345	0.343	0.399	0.356	5.94
73)	T	Atrazine	0.194	0.220	0.236	0.210	0.150	0.208	0.203	14.58
74)	MC	Pentachlorophenol	0.185	0.160	0.171	0.179	0.144	0.210	0.175	13.05
75)	T	Phenanthrene	0.994	1.051	1.107	1.036	1.052	1.095	1.056	3.89
76)	T	Anthracene	1.057	1.107	1.145	1.008	1.005	1.106	1.071	5.36
77)	T	Carbazole	0.890	0.954	0.949	0.896	0.924	1.067	0.947	6.81
78)	T	Di-n-butyl phthal	1.022	1.061	1.104	1.053	1.032	1.195	1.078	5.93
79)	TC	Fluoranthene	0.987	1.160	1.135	1.052	0.998	1.124	1.076	6.88
80)	T	Benzidine	0.626	0.664	0.523	0.540	0.485	0.611	0.575	12.03
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.135	1.116	1.189	1.103	1.078	1.212	1.139	4.55
84)	S	Terphenyl-d14	1.035	1.071	1.102	1.059	1.093	1.070	1.072	2.23
85)	T	3,3'-Dimethylbenz	0.774	0.754	0.672	0.678	0.698	0.762	0.723	6.31
86)	T	Butyl benzyl phth	0.400	0.404	0.432	0.416	0.424	0.481	0.426	6.87
87)	T	3,3'-Dichlorobenz	0.316	0.350	0.363	0.335	0.325	0.317	0.334	5.68
88)	T	Benzo[a]anthracen	0.964	0.983	0.993	0.971	0.997	1.004	0.985	1.57
89)	T	Chrysene	0.906	0.952	0.974	0.937	1.008	1.118	0.982	7.61
90)	T	Bis(2-ethylhexyl)	0.553	0.558	0.587	0.566	0.587	0.640	0.582	5.47
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	0.827	0.951	1.010	0.852	0.992	1.120	0.958	11.30
94)	T	Benzo[b]fluoranth	1.073	1.127	1.061	1.058	0.965	1.143	1.071	5.88
95)	T	Benzo[k]fluoranth	0.978	1.018	1.077	0.979	0.962	1.042	1.009	4.39
96)	TC	Benzo[a]pyrene	0.876	0.864	0.880	0.865	0.877	1.000	0.894	5.87
97)	T	Indeno[1,2,3-cd]p	1.247	1.040	1.169	1.235	0.918	1.184	1.132	11.34
98)	T	Dibenz[a,h]anthra	1.047	0.896	0.972	1.044	0.844	1.026	0.972	8.72
99)	T	Benzo[g,h,i]peryl	0.994	0.831	0.923	0.987	0.910	0.974	0.937	6.63
100)	T	Hydroquinone							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

CS2109.M Mon Dec 07 15:48:46 2009 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-16-09\
Data File : C8019.D
Acq On : 16 Dec 2009 10:41
Operator : EDM
Sample : ABN136.09,40ngBNAchk_FOR_12/16/09
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Dec 16 10:55:19 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	83	0.00
2	T	N-Nitrosodimethylamine	0.642	0.680	-5.9	79	0.00
3	T	Pyridine	0.679	0.747	-10.0	85	0.00
4	S	2-Fluorophenol	1.179	1.243	-5.4	79	0.00
5	T	Benzaldehyde	1.016	0.966	4.9	97	0.00
6	S	Phenol-d5	1.464	1.602	-9.4	82	0.00
7	MC	Phenol	1.506	1.632	-8.4	81	0.00
8	T	Aniline	0.605	0.663	-9.6	82	0.00
9	T	Bis(2-chloroethyl) ether	0.786	0.861	-9.5	82	0.00
10	M	2-Chlorophenol	1.364	1.432	-5.0	83	0.00
11	T	1,3-Dichlorobenzene	1.559	1.757	-12.7	85	0.00
12	MC	1,4-Dichlorobenzene	1.575	1.593	-1.1	77	0.00
13	T	Benzyl alcohol	0.813	0.830	-2.1	79	0.00
14	T	1,2-Dichlorobenzene	1.480	1.499	-1.3	78	0.00
15	T	2-Methylphenol	0.813	0.830	-2.1	79	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.182	1.373	-16.2	87	0.00
17	T	4-Methylphenol	1.209	1.286	-6.4	82	0.00
18	MP	N-Nitrosodi-n-propylamine	0.791	0.857	-8.3	85	0.00
19	T	Acetophenone	1.618	1.600	1.1	80	0.00
20	T	3-Methylphenol	1.209	1.295	-7.1	82	0.00
21	T	Hexachloroethane	0.514	0.522	-1.6	80	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	81	0.00
24	S	Nitrobenzene-d5	0.344	0.364	-5.8	85	0.00
25	T	Nitrobenzene	0.309	0.353	-14.2	92	0.00
26	T	Isophorone	0.584	0.604	-3.4	81	0.00
27	TC	2-Nitrophenol	0.188	0.224	-19.1	84	0.00
28	T	2,4-Dimethylphenol	0.321	0.364	-13.4	78	0.00
29	T	Bis(2-chloroethoxy) methane	0.369	0.438	-18.7	86	0.00
30	T	Benzoic acid	0.166	0.196	-18.1	85	0.01
31	T	2,4-Dimethylaniline	0.370	0.351	5.1	75	0.00
32	TC	2,4-Dichlorophenol	0.325	0.368	-13.2	78	0.00
33	M	1,2,4-Trichlorobenzene	0.381	0.401	-5.2	79	0.00
34	T	Naphthalene	1.070	1.134	-6.0	86	0.00
35	T	4-Chloroaniline	0.557	0.612	-9.9	83	0.00
36	T	4-Aminotoluene	0.527	0.528	-0.2	79	0.00
37	TC	Hexachlorobutadiene	0.238	0.246	-3.4	78	0.00
38	T	Caprolactam	0.104	0.108	-3.8	82	0.01
39	T	2-Aminotoluene	0.527	0.528	-0.2	79	0.00
40	MC	4-Chloro-3-methylphenol	0.285	0.323	-13.3	83	0.00
41	T	2-Methylnaphthalene	0.733	0.825	-12.6	83	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	79	0.00
44	TP	Hexachlorocyclopentadiene	0.419	0.391	6.7	65	0.00
45	TC	2,4,6-Trichlorophenol	0.388	0.413	-6.4	74	0.00

46	T	2,4,5-Trichlorophenol	0.428	0.465	-8.6	78	0.00
47	S	2-Fluorobiphenyl	1.452	1.358	6.5	73	0.00
48	T	1,1'-Biphenyl	1.411	1.446	-2.5	83	0.00
49	T	2-Chloronaphthalene	1.127	1.212	-7.5	79	0.00
50	T	2-Nitroaniline	0.226	0.263	-16.4	78	0.00
51	T	Dimethyl phthalate	1.263	1.315	-4.1	75	0.00
52	T	2,6-Dinitrotoluene	0.285	0.326	-14.4	81	0.00
53	T	Acenaphthylene	1.725	1.802	-4.5	81	0.00
54	T	3-Nitroaniline	0.353	0.421	-19.3	81	0.00
55	MC	Acenaphthene	1.079	1.104	-2.3	79	0.00
56	TP	2,4-Dinitrophenol	0.129	0.129	0.0	69	0.00
57	MP	4-Nitrophenol	0.148	0.169	-14.2	73	0.01
58	M	2,4-Dinitrotoluene	0.352	0.411	-16.8	78	0.00
59	T	Dibenzofuran	1.662	1.779	-7.0	77	0.00
60	T	Diethyl phthalate	1.167	1.241	-6.3	78	0.00
61	T	Fluorene	1.265	1.317	-4.1	80	0.01
62	T	4-Chlorophenyl phenyl ether	0.729	0.748	-2.6	74	0.00
63	T	4-Nitroaniline	0.279	0.321	-15.1	83	0.00
64		1,2,4,5-Tetrachlorobenzene	0.645	0.608	5.7	75	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	76	0.01
67	T	4,6-Dinitro-2-methylphenol	0.104	0.117	-12.5	76	0.01
68	TC	N-Nitrosodiphenylamine	0.565	0.638	-12.9	79	0.01
69	T	1,2-Diphenylhydrazine	0.567	0.654	-15.3	80	0.00
70	S	2,4,6-Tribromophenol	0.214	0.213	0.5	73	0.01
71	T	4-Bromophenyl phenyl ether	0.293	0.307	-4.8	75	0.01
72	T	Hexachlorobenzene	0.356	0.361	-1.4	69	0.00
73	T	Atrazine	0.203	0.168	17.2	62	0.01
74	MC	Pentachlorophenol	0.175	0.161	8.0	58	0.01
75	T	Phenanthrene	1.056	1.073	-1.6	75	0.02
76	T	Anthracene	1.071	1.127	-5.2	78	0.01
77	T	Carbazole	0.947	1.029	-8.7	74	0.02
78	T	Di-n-butyl phthalate	1.078	1.217	-12.9	78	0.02
79	TC	Fluoranthene	1.076	1.073	0.3	73	0.02
80	T	Benzidine	0.575	0.476	17.2	93	0.02
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	74	0.02
83	M	Pyrene	1.139	1.189	-4.4	73	0.02
84	S	Terphenyl-d14	1.072	1.018	5.0	70	0.03
85	T	3,3'-Dimethylbenzidine	0.723	0.604	16.5	94	0.03
86	T	Butyl benzyl phthalate	0.426	0.500	-17.4	77	0.04
87	T	3,3'-Dichlorobenzidine	0.334	0.326	2.4	76	0.02
88	T	Benzo[a]anthracene	0.985	1.037	-5.3	76	0.02
89	T	Chrysene	0.982	1.107	-12.7	73	0.02
90	T	Bis(2-ethylhexyl) phthalate	0.582	0.676	-16.2	78	0.02
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	80	0.03
93	TC	Di-n-octyl phthalate	0.958	1.139	-18.9	82	0.02
94	T	Benzo[b]fluoranthene	1.071	1.168	-9.1	82	0.03
95	T	Benzo[k]fluoranthene	1.009	0.990	1.9	76	0.03
96	TC	Benzo[a]pyrene	0.894	1.014	-13.4	82	0.04
97	T	Indeno[1,2,3-cd]pyrene	1.132	1.233	-8.9	84	0.06
98	T	Dibenz[a,h]anthracene	0.972	1.050	-8.0	82	0.05
99	T	Benzo[g,h,i]perylene	0.937	1.017	-8.5	84	0.06
100	T	Hydroquinone					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2109.M Wed Dec 16 10:55:55 2009 RPT1

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/04/2009

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
11948-002	SOIL	C7810.D	N/A	N/A	86	76	N/A	72
11948-007	SOIL	C7811.D	N/A	N/A	96	104	N/A	96
11948-011	SOIL	C7812.D	N/A	N/A	100	100	N/A	90
11948-003	SOIL	C7813.D	N/A	N/A	84	74	N/A	70
12168-016	SOIL	C7814.D	N/A	N/A	78	93	N/A	79
12168-019	SOIL	C7815.D	N/A	N/A	84	99	N/A	93
12059-007	SOIL	C7817.D	N/A	N/A	48	56	N/A	48
Method_Blank	SOIL	C7818.D	80	76	75	73	93	76
LCS	SOIL	C7819.D	78	79	83	72	91	75
MS(12110-001)	SOIL	C7820.D	54	60	68	74	88	92
MSD(12110-001)	SOIL	C7821.D	50	57	70	75	88	92
12059-006	SOIL	C7822.D	N/A	N/A	72	80	N/A	76
12059-011	SOIL	C7823.D	N/A	N/A	72	76	N/A	72
12110-001	SOIL	C7824.D	N/A	N/A	67	77	N/A	84
12110-002	SOIL	C7825.D	N/A	N/A	61	70	N/A	69
12110-003	SOIL	C7826.D	N/A	N/A	81	88	N/A	83
12103-001	SOIL	C7827.D	N/A	N/A	72	80	N/A	89
12103-002	SOIL	C7828.D	N/A	N/A	72	79	N/A	81
12103-003	SOIL	C7829.D	N/A	N/A	66	74	N/A	79

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/04/2009

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
12209-001	SOIL	C7830.D	56	58	69	85	87	86
12054-003	SOIL	C7831.D	N/A	N/A	78	78	N/A	72
12206-012	SOIL	C7832.D	N/A	N/A	58	63	N/A	72
12055-001	SOIL	C7833.D	N/A	N/A	59	68	N/A	68

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/16/2009

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
40ngOLMO4chk_FO		C8020.D	N/A	N/A	N/A	N/A	N/A	N/A
Method_Blank	SOIL	C8021.D	68	72	68	67	51	75
LCS	SOIL	C8022.D	71	74	69	62	65	66
12669-001	SOIL	C8023.D	59	74	62	72	71	65
12660-002	SOIL	C8024.D	N/A	N/A	56	65	N/A	69
12660-004	SOIL	C8025.D	N/A	N/A	50	59	N/A	61
12530-005	SOIL	C8026.D	N/A	N/A	86	89	N/A	74
12674-001	SOIL	C8027.D	N/A	N/A	94	87	N/A	71
12676-001	SOIL	C8028.D	57	68	63	77	65	77
12676-002	SOIL	C8029.D	93	104	63	67	82	58
12530-005	SOIL	C8030.D	N/A	N/A	84	105	N/A	81

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SOIL SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12110-001 Batch No.: C120409S

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	100.0	0.0	72.2	72	35 - 116
2-Chlorophenol	100.0	0.0	67.2	67	37 - 112
1,4-Dichlorobenzene	50.0	0.0	33.8	68	29 - 102
N-Nitrosodi-n-propylamine	50.0	0.0	37.9	76	38 - 119
1,2,4-Trichlorobenzene	50.0	0.0	36.9	74	33 - 100
4-Chloro-3-methylphenol	100.0	0.0	89.0	89	42 - 118
Acenaphthene	50.0	0.0	39.7	79	20 - 132
4-Nitrophenol	100.0	0.0	111.1	111	31 - 123
2,4-Dinitrotoluene	50.0	0.0	57.6	115	24 - 130
Pentachlorophenol	100.0	0.0	106.2	106	29 - 113
Pyrene	50.0	3.4	51.6	96	31 - 133

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	REC.
Phenol	0.0	70.7	71	1	14	35 - 116
2-Chlorophenol	0.0	66.0	66	2	13	37 - 112
1,4-Dichlorobenzene	0.0	33.8	68	0	14	29 - 102
N-Nitrosodi-n-propylamine	0.0	34.5	69	10	14	38 - 119
1,2,4-Trichlorobenzene	0.0	37.0	74	0	12	33 - 100
4-Chloro-3-methylphenol	0.0	89.2	89	0	13	42 - 118
Acenaphthene	0.0	39.4	79	0	22	20 - 132
4-Nitrophenol	0.0	107.1	107	4	18	31 - 123
2,4-Dinitrotoluene	0.0	55.7	111	4	26	24 - 130
Pentachlorophenol	0.0	108.4	108	2	19	29 - 113
Pyrene	3.4	52.3	98	2	17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7747.D

Date Analyzed: 12/03/2009

Instrument ID: MSDC

Time Analyzed: 09:51

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	139313		2.34		528495		2.88		340527		3.69	
	UPPER LIMIT	278626		2.84		1056990		3.38		681054		4.19	
	LOWER LIMIT	69657		1.84		264248		2.38		170264		3.19	
	LAB SAMPLE ID												
01	10ngBNA_FOR_12/0	145233		2.34		546776		2.88		343037		3.67	
02	20ngBNA_FOR_12/0	137884		2.34		513943		2.88		340760		3.69	
03	80ngBNA_FOR_12/0	152027		2.34		546985		2.88		337778		3.68	
04	120ngBNA_FOR_12/	152645		2.34		568330		2.88		360719		3.68	
05	1ngBNA_FOR_12/03	127757		2.34		483314		2.88		308106		3.67	
06	40ngBNA_FOR_12/0	122116		2.34		459799		2.88		288038		3.67	
07	1ngOLMO4_FOR_12	171808		2.34		658636		2.88		406350		3.66	
08	10ngOLMO4_FOR_1	151993		2.34		575365		2.88		357927		3.67	
09	20ngOLMO4_FOR_1	147584		2.34		551348		2.88		358478		3.67	
10	40ngOLMO4_FOR_1	170863		2.34		607840		2.88		394386		3.66	
11	80ngOLMO4_FOR_1	156563		2.34		584803		2.88		353397		3.66	
12	120ngOLMO4_FOR_	170158		2.34		649076		2.88		406058		3.67	
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7747.D

Date Analyzed: 12/03/2009

Instrument ID: MSDC

Time Analyzed: 09:51

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	560202	4.44	556852	6.17	491885	7.36
	UPPER LIMIT	1120404	4.94	1113704	6.67	983770	7.86
	LOWER LIMIT	280101	3.94	278426	5.67	245943	6.86
	LAB SAMPLE ID						
01	10ngBNA_FOR_12/0	611145	4.42	655608	6.14	535272	7.32
02	20ngBNA_FOR_12/0	567091	4.43	600775	6.16	506652	7.34
03	80ngBNA_FOR_12/0	562745	4.43	544135	6.15	510970	7.33
04	120ngBNA_FOR_12/	608256	4.43	561597	6.14	566290	7.33
05	1ngBNA_FOR_12/03	521658	4.40	531493	6.10	439251	7.29
06	40ngBNA_FOR_12/0	502011	4.41	507980	6.11	421774	7.30
07	1ngOLMO4_FOR_12	703895	4.39	719331	6.08	579767	7.28
08	10ngOLMO4_FOR_1	623537	4.40	651478	6.10	543055	7.30
09	20ngOLMO4_FOR_1	605120	4.40	647335	6.09	530691	7.28
10	40ngOLMO4_FOR_1	678756	4.39	716812	6.08	588950	7.27
11	80ngOLMO4_FOR_1	641588	4.39	660026	6.08	537221	7.28
12	120ngOLMO4_FOR_	706611	4.41	705173	6.11	565228	7.30
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7807.D

Date Analyzed: 12/04/2009

Instrument ID: MSDC

Time Analyzed: 10:10

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	136148		2.34		485808		2.88		312705		3.67	
	UPPER LIMIT	272296		2.84		971616		3.38		625410		4.17	
	LOWER LIMIT	68074		1.84		242904		2.38		156353		3.17	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	171401		2.34		662582		2.88		421269		3.70	
02	11948-001	130805		2.34		493782		2.88		323557		3.67	
03	11948-002	158723		2.34		526685		2.88		325402		3.67	
04	11948-007	125364		2.34		435552		2.88		271971		3.67	
05	11948-011	150023		2.34		527474		2.88		328272		3.67	
06	11948-003	146845		2.34		508979		2.88		316775		3.68	
07	12168-016	163667		2.34		550839		2.88		309399		3.67	
08	12168-019	113213		2.34		395164		2.88		224810		3.67	
09	12059-010	122486		2.34		418705		2.88		248832		3.67	
10	12059-007	134790		2.34		466800		2.88		282307		3.68	
11	Method_Blank	135236		2.34		520728		2.88		355210		3.69	
12	LCS	127055		2.34		471251		2.88		326487		3.67	
13	MS(12110-001)	124308		2.34		473939		2.88		335851		3.67	
14	MSD(12110-001)	142551		2.34		520611		2.88		356509		3.67	
15	12059-006	132622		2.34		507237		2.88		310991		3.67	
16	12059-011	134917		2.34		502791		2.88		317570		3.67	
17	12110-001	136305		2.34		501447		2.88		333282		3.67	
18	12110-002	138392		2.34		504262		2.88		318664		3.68	
19	12110-003	126715		2.34		463170		2.88		302263		3.68	
20	12103-001	122857		2.34		455913		2.88		290333		3.66	
21	12103-002	121625		2.34		469646		2.88		290113		3.66	
22	12103-003	130846		2.34		493237		2.88		301893		3.66	

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7807.D

Date Analyzed: 12/04/2009

Instrument ID: MSDC

Time Analyzed: 10:10

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	531144	4.41	520352	6.12	444930	7.31
	UPPER LIMIT	1062288	4.91	1040704	6.62	889860	7.81
	LOWER LIMIT	265572	3.91	260176	5.62	222465	6.81
	LAB SAMPLE ID						
01	40ngOLMO4chk_FOF	731634	4.45	717543	6.19	620841	7.38
02	11948-001	539976	4.41	565549	6.12	498846	7.31
03	11948-002	545309	4.41	555815	6.11	514109	7.30
04	11948-007	459055	4.41	485595	6.11	463994	7.30
05	11948-011	554737	4.41	601935	6.10	561735	7.29
06	11948-003	549497	4.42	570734	6.13	531051	7.31
07	12168-016	472127	4.41	620349	6.12	615591	7.31
08	12168-019	368757	4.42	461255	6.18	547181	7.45
09	12059-010	393978	4.42	461398	6.13	491869	7.33
10	12059-007	439890	4.42	544297	6.14	543206	7.33
11	Method_Blank	648168	4.44	728286	6.16	682842	7.36
12	LCS	591842	4.41	573446	6.11	537592	7.30
13	MS(12110-001)	590777	4.40	560132	6.09	540147	7.30
14	MSD(12110-001)	613774	4.40	574256	6.09	537620	7.29
15	12059-006	514775	4.41	542287	6.12	604588	7.32
16	12059-011	506377	4.41	545969	6.13	603357	7.32
17	12110-001	539147	4.41	553133	6.11	593933	7.31
18	12110-002	519429	4.42	516113	6.14	560146	7.34
19	12110-003	491092	4.43	550583	6.15	594483	7.36
20	12103-001	494416	4.39	530677	6.08	566551	7.29
21	12103-002	487396	4.39	514012	6.07	545797	7.28
22	12103-003	519771	4.39	543213	6.08	566937	7.28

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7807.D Date Analyzed: 12/04/2009

Instrument ID: MSDC Time Analyzed: 10:10

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	136148		2.34		485808		2.88		312705		3.67	
	UPPER LIMIT	272296		2.84		971616		3.38		625410		4.17	
	LOWER LIMIT	68074		1.84		242904		2.38		156353		3.17	
	LAB SAMPLE ID												
01	12209-001	130104		2.34		502635		2.88		307668		3.66	
02	12054-003	131140		2.34		464584		2.88		309617		3.66	
03	12206-012	134496		2.34		527455		2.88		320019		3.66	
04	12055-001	139670		2.34		555077		2.88		339217		3.66	
05													
06													
07													
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14													
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17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7807.D

Date Analyzed: 12/04/2009

Instrument ID: MSDC

Time Analyzed: 10:10

	50UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	531144	4.41	520352	6.12	444930	7.31
	UPPER LIMIT	1062288	4.91	1040704	6.62	889860	7.81
	LOWER LIMIT	265572	3.91	260176	5.62	222465	6.81
	LAB SAMPLE ID						
01	12209-001	506692	4.39	528904	6.08	564587	7.29
02	12054-003	510657	4.38	558563	6.06	589693	7.26
03	12206-012	539966	4.38	547213	6.06	580946	7.27
04	12055-001	550814	4.37	584088	6.06	616866	7.27
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21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D

Date Analyzed: 12/07/2009

Instrument ID: MSDC

Time Analyzed: 12:24

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	162597		2.34		604478		2.88		401345		3.67	
	UPPER LIMIT	325194		2.84		1208956		3.38		802690		4.17	
	LOWER LIMIT	81299		1.84		302239		2.38		200673		3.17	
	LAB SAMPLE ID												
01	1ngBNA_FOR_12/07	161046		2.34		613950		2.88		422518		3.68	
02	10ngBNA_FOR_12/0	134013		2.34		507102		2.88		334779		3.67	
03	20ngBNA_FOR_12/0	166984		2.34		620495		2.88		416432		3.67	
04	80ngBNA_FOR_12/0	154119		2.34		583659		2.88		374258		3.68	
05	120ngBNA_FOR_12/	132566		2.34		510056		2.88		338788		3.67	
06	1ngBNA_FOR_12/07	145165		2.34		554781		2.88		372219		3.67	
07	1ngOLMO4_FOR_12	161514		2.34		620803		2.88		406885		3.67	
08	10ngOLMO4_FOR_1	167594		2.34		657032		2.88		428998		3.67	
09	20ngOLMO4_FOR_1	164183		2.34		619956		2.88		405482		3.68	
10	40ngOLMO4_FOR_1	210902		2.34		794640		2.88		537659		3.67	
11	80ngOLMO4_FOR_1	147180		2.34		549812		2.88		353376		3.66	
12	120ngOLMO4_FOR_	155538		2.34		598425		2.88		407215		3.67	
13	40ngBNAchk_FOR_1	166646		2.34		626837		2.88		421202		3.67	
14	40ngOLMO4chk_FOR	204561		2.34		797884		2.88		529088		3.67	
15	Method_Blank	107791		2.34		414705		2.88		276231		3.67	
16	LCS	133491		2.34		482119		2.88		304965		3.69	
17	MS(12328-009)	192513		2.34		739249		2.88		482306		3.69	
18	MSD(12328-009)	180717		2.34		668850		2.88		438133		3.67	
19	12330-001	180452		2.34		654222		2.88		398693		3.67	
20	12101-005	191298		2.34		701938		2.88		463018		3.68	
21	12114-002	157081		2.34		572784		2.88		376821		3.67	
22	12230-001	188113		2.34		703714		2.88		436775		3.66	

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D Date Analyzed: 12/07/2009

Instrument ID: MSDC Time Analyzed: 12:24

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	698359		4.41		649998		6.12		547053		7.33	
	UPPER LIMIT	1396718		4.91		1299996		6.62		1094106		7.83	
	LOWER LIMIT	349180		3.91		324999		5.62		273527		6.83	
	LAB SAMPLE ID												
01	1ngBNA_FOR_12/07	765540		4.42		732166		6.14		611146		7.33	
02	10ngBNA_FOR_12/0	610596		4.41		643434		6.12		532425		7.31	
03	20ngBNA_FOR_12/0	721798		4.41		677635		6.12		548083		7.32	
04	80ngBNA_FOR_12/0	628074		4.42		563887		6.13		529269		7.32	
05	120ngBNA_FOR_12/	563188		4.41		495156		6.11		474086		7.31	
06	1ngBNA_FOR_12/07	673642		4.42		634346		6.13		512489		7.32	
07	1ngOLMO4_FOR_12	732807		4.42		689516		6.13		558748		7.32	
08	10ngOLMO4_FOR_1	753219		4.41		729193		6.12		551728		7.32	
09	20ngOLMO4_FOR_1	720073		4.42		674536		6.14		521008		7.33	
10	40ngOLMO4_FOR_1	911788		4.40		855441		6.09		689495		7.29	
11	80ngOLMO4_FOR_1	631060		4.39		602496		6.08		493600		7.28	
12	120ngOLMO4_FOR_	701966		4.41		644647		6.11		526043		7.30	
13	40ngBNAchk_FOR_1	719062		4.40		644122		6.09		521051		7.30	
14	40ngOLMO4chk_FOF	936029		4.40		880373		6.11		719032		7.30	
15	Method_Blank	501987		4.41		539398		6.11		458333		7.31	
16	LCS	516452		4.43		488133		6.15		413715		7.34	
17	MS(12328-009)	848976		4.44		894774		6.17		772588		7.37	
18	MSD(12328-009)	789336		4.42		839301		6.13		712766		7.32	
19	12330-001	682638		4.42		602887		6.13		518443		7.32	
20	12101-005	759272		4.42		675804		6.13		563530		7.32	
21	12114-002	607264		4.41		573704		6.11		488670		7.31	
22	12230-001	708197		4.39		601601		6.08		543784		7.29	

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D

Date Analyzed: 12/07/2009

Instrument ID: MSDC

Time Analyzed: 12:24

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	162597	2.34	604478	2.88	401345	3.67
	UPPER LIMIT	325194	2.84	1208956	3.38	802690	4.17
	LOWER LIMIT	81299	1.84	302239	2.38	200673	3.17
	LAB SAMPLE ID						
01	12328-001	151903	2.34	585954	2.88	378533	3.67
02	12328-002	160806	2.34	605836	2.88	384736	3.67
03	12328-003	185560	2.34	721039	2.88	459479	3.66
04	12328-004	172285	2.34	675455	2.88	431160	3.66
05	12328-005	127066	2.34	485184	2.88	314993	3.66
06	12328-006	167682	2.34	643793	2.88	398301	3.67
07	12328-007	176155	2.34	607647	2.88	315749	3.7
08	12328-008	150476	2.34	567309	2.88	339359	3.66
09	12328-009	137373	2.34	517961	2.88	318456	3.66
10	12328-010	155795	2.34	587885	2.88	363790	3.66
11	12328-011	148513	2.34	552096	2.88	329693	3.66
12	12121-001	153347	2.34	433344	2.88	314153	3.67
13	12321-001	136785	2.34	507737	2.88	311005	3.66
14	12321-002	136964	2.34	516170	2.88	310472	3.66
15	12321-004	153945	2.34	561226	2.88	328092	3.66
16	12322-001	155920	2.34	524029	2.88	276794	3.69
17	12121-001	149079	2.34	470567	2.88	282340	3.69
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D

Date Analyzed: 12/07/2009

Instrument ID: MSDC

Time Analyzed: 12:24

	50UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	698359	4.41	649998	6.12	547053	7.33
	UPPER LIMIT	1396718	4.91	1299996	6.62	1094106	7.83
	LOWER LIMIT	349180	3.91	324999	5.62	273527	6.83
	LAB SAMPLE ID						
01	12328-001	641214	4.40	571155	6.11	488814	7.3
02	12328-002	654993	4.40	600107	6.10	505532	7.3
03	12328-003	806060	4.39	697038	6.08	574040	7.28
04	12328-004	732929	4.38	631524	6.07	533832	7.27
05	12328-005	587017	4.40	590987	6.08	496531	7.29
06	12328-006	690451	4.39	616991	6.09	532043	7.28
07	12328-007	475477	4.46	584090	6.20	514804	7.39
08	12328-008	541472	4.38	520097	6.06	527047	7.27
09	12328-009	514630	4.38	519888	6.07	534270	7.27
10	12328-010	576313	4.40	548941	6.08	555036	7.29
11	12328-011	521426	4.38	500573	6.07	499197	7.28
12	12121-001	498466	4.39	555249	6.07	557340	7.27
13	12321-001	486140	4.37	479345	6.06	473325	7.26
14	12321-002	491304	4.37	494944	6.06	481344	7.26
15	12321-004	518133	4.38	496054	6.06	493304	7.28
16	12322-001	445108	4.44	587515	6.16	401279	7.37
17	12121-001	424115	4.44	535040	6.16	416059	7.35
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10

IS5 = Chrysene-d12

IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C8019.D

Date Analyzed: 12/16/2009

Instrument ID: MSDC

Time Analyzed: 10:41

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	134416	2.34	488284	2.88	317552	3.68
	UPPER LIMIT	268832	2.84	976568	3.38	635104	4.18
	LOWER LIMIT	67208	1.84	244142	2.38	158776	3.18
	LAB SAMPLE ID						
01	40ngOLMO4chk_FOR	197968	2.34	764174	2.88	479497	3.67
02	Method_Blank	150601	2.34	609769	2.88	404841	3.67
03	LCS	156293	2.34	609441	2.88	402840	3.67
04	12669-001	160726	2.34	611510	2.88	349951	3.67
05	12660-002	149329	2.34	608310	2.88	357660	3.66
06	12660-004	132393	2.34	539689	2.88	320699	3.66
07	12530-005	139562	2.34	459536	2.88	299549	3.68
08	12674-001	134924	2.34	387148	2.89	267060	3.69
09	12676-001	146414	2.34	568988	2.88	322469	3.67
10	12676-002	127073	2.34	513843	2.88	313693	3.68
11	12530-005	134754	2.34	498383	2.88	299693	3.66
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C8019.D

Date Analyzed: 12/16/2009

Instrument ID: MSDC

Time Analyzed: 10:41

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	533792	4.42	481402	6.14	440259	7.34
	UPPER LIMIT	1067584	4.92	962804	6.64	880518	7.84
	LOWER LIMIT	266896	3.92	240701	5.64	220130	6.84
	LAB SAMPLE ID						
01	40ngOLMO4chk_FOF	835713	4.42	773146	6.13	682679	7.34
02	Method_Blank	711384	4.42	632733	6.13	486545	7.34
03	LCS	670834	4.41	592073	6.12	467730	7.33
04	12669-001	504619	4.40	558652	6.09	575129	7.31
05	12660-002	514234	4.38	517980	6.08	522983	7.28
06	12660-004	465869	4.39	476882	6.08	479224	7.28
07	12530-005	459074	4.41	532750	6.09	552648	7.29
08	12674-001	492376	4.41	614443	6.10	648406	7.32
09	12676-001	475164	4.40	516646	6.10	578418	7.32
10	12676-002	468245	4.43	452399	6.15	471910	7.34
11	12530-005	440797	4.38	502152	6.06	516576	7.27
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-16-09\
Data File : C8028.D
Acq On : 16 Dec 2009 15:45
Operator : EDM
Sample : SBD/4-4.5,12676-001,S,15.26g,14.4,12/16/09
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 17 09:29:31 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.34	152	146414	40.00	UG	0.00
23) Naphthalene-d8	2.88	136	568988	40.00	UG	0.00
43) Acenaphthene-d10	3.67	164	322469	40.00	UG	0.00
66) Phenanthrene-d10	4.40	188	475164	40.00	UG	0.00
82) Chrysene-d12	6.10	240	516646	40.00	UG	-0.01
92) Perylene-d12	7.32	264	578418	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	1.82	112	246542	57.11	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 57.11%			
6) Phenol-d5	2.17	99	366057	68.29	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 68.29%			
24) Nitrobenzene-d5	2.57	82	153545	31.40	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 62.80%			
47) 2-Fluorobiphenyl	3.34	172	447835	38.25	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 76.50%			
70) 2,4,6-Tribromophenol	4.06	330	165730	65.15	UG	0.00
Spiked Amount 100.000	Range 32 - 126		Recovery = 65.15%			
84) Terphenyl-d14	5.27	244	534529	38.62	UG	0.00
Spiked Amount 50.000	Range 32 - 135		Recovery = 77.24%			

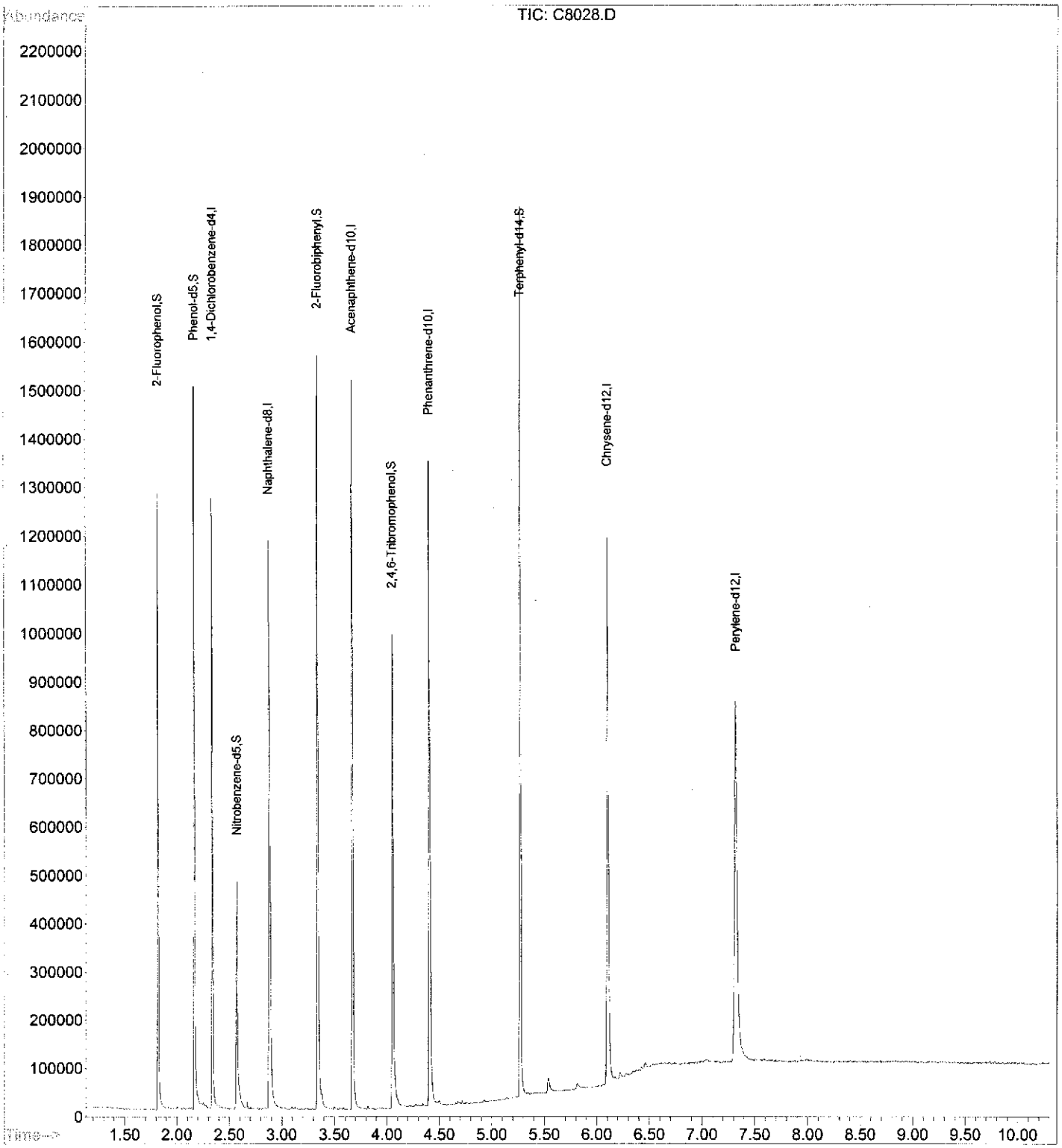
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-16-09\
Data File : C8028.D
Acq On : 16 Dec 2009 15:45
Operator : EDM
Sample : SBD/4-4.5,12676-001,S,15.26g,14.4,12/16/09
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 17 09:29:31 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-16-09\
Data File : C8028.D
Acq On : 16 Dec 2009 15:45
Operator : EDM
Sample : SBD/4-4.5,12676-001,S,15.26g,14.4,12/16/09
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS2109.M Thu Dec 17 09:30:51 2009 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-16-09\
Data File : C8029.D
Acq On : 16 Dec 2009 16:00
Operator : EDM
Sample : ANOME/3.5-4,12676-002,S,15.46g,13.7,12/16/09
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 17 09:35:56 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

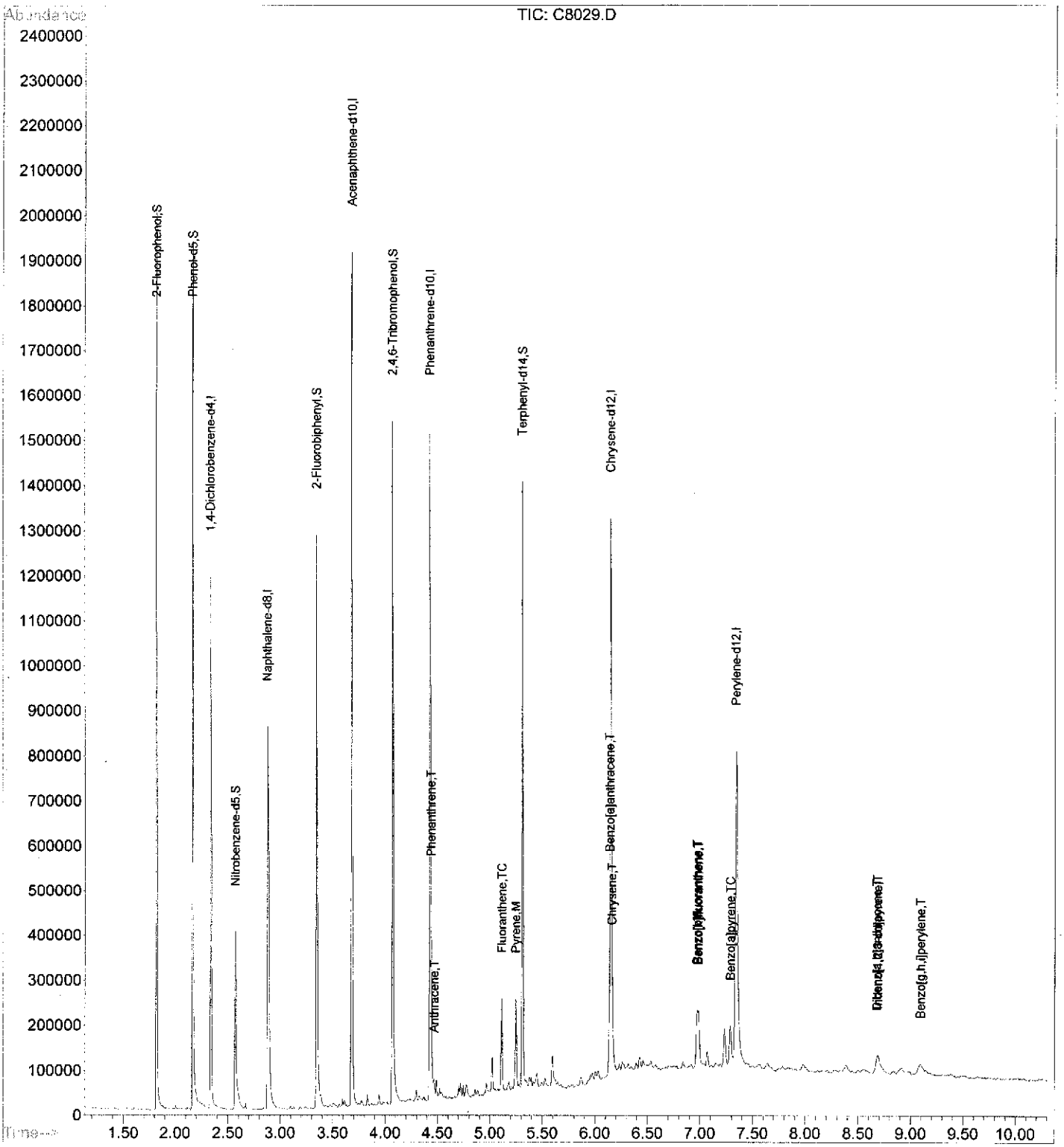
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.34	152	127073	40.00	UG		0.00
23) Naphthalene-d8	2.88	136	513843	40.00	UG		0.00
43) Acenaphthene-d10	3.68	164	313693	40.00	UG		0.00
66) Phenanthrene-d10	4.43	188	468245	40.00	UG		0.02
82) Chrysene-d12	6.15	240	452399	40.00	UG		0.04
92) Perylene-d12	7.34	264	471910	40.00	UG		0.03
System Monitoring Compounds							
4) 2-Fluorophenol	1.82	112	348306	92.96	UG		0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 92.96%				
6) Phenol-d5	2.17	99	481712	103.54	UG		0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 103.54%				
24) Nitrobenzene-d5	2.57	82	140036	31.71	UG		0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 63.42%				
47) 2-Fluorobiphenyl	3.35	172	379808	33.35	UG		0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 66.70%				
70) 2,4,6-Tribromophenol	4.07	330	204994	81.77	UG		0.01
Spiked Amount 100.000	Range 32 - 126		Recovery = 81.77%				
84) Terphenyl-d14	5.31	244	351355	28.99	UG		0.04
Spiked Amount 50.000	Range 32 - 135		Recovery = 57.98%				
Target Compounds							Qvalue
75) Phenanthrene	4.44	178	60810	4.92	UG		98
76) Anthracene	4.47	178	16200	1.29	UG		98
79) Fluoranthene	5.11	202	77634	6.16	UG	#	90
83) Pyrene	5.25	202	69626	5.41	UG	#	83
88) Benzo[a]anthracene	6.14	228	44616	4.00	UG	#	89
89) Chrysene	6.17	228	46222	4.16	UG		96
94) Benzo[b]fluoranthene	6.97	252	56229m	4.45	UG		
95) Benzo[k]fluoranthene	6.98	252	55935m	4.70	UG		
96) Benzo[a]pyrene	7.29	252	52856	5.01	UG	#	93
97) Indeno[1,2,3-cd]pyrene	8.68	276	48139	3.60	UG	#	56
98) Dibenz[a,h]anthracene	8.67	278	15747	1.37	UG	#	72
99) Benzo[g,h,i]perylene	9.09	276	41439	3.75	UG	#	68

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-16-09\
Data File : C8029.D
Acq On : 16 Dec 2009 16:00
Operator : EDM
Sample : ANOME/3.5-4,12676-002,S,15.46g,13.7,12/16/09
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 17 09:35:56 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-16-09\
Data File : C8029.D
Acq On : 16 Dec 2009 16:00
Operator : EDM
Sample : ANOME/3.5-4,12676-002,S,15.46g,13.7,12/16/09
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS2109.M Thu Dec 17 09:36:29 2009 RPT1

PCB METHOD BLANK SUMMARY

Lab File ID:	R8393.D	Instrument ID:	GC-R
Date Extracted:	12/17/2009	Matrix:	SOIL
Date Analyzed:	12/18/2009	Time Analyzed:	11:16

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SBD/4-4.5	12676-001	12/18/2009	11:34
ANOME/3.5-	12676-002	12/18/2009	11:59
PCB	12676-001-MS04	12/18/2009	12:17
PCB	12676-001-MSD04	12/18/2009	12:36
PCB	PBS1217-MS04	12/18/2009	12:54

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: NA

Lab ID: 1217-BLK04
Client ID: PCB
Date Received: NA
Date Extracted: 12/17/2009
Date Analyzed: 12/18/2009
Data file: R8393.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.00267
Aroclor-1221	ND		0.00267
Aroclor-1232	ND		0.00267
Aroclor-1242	ND		0.00267
Aroclor-1248	ND		0.00267
Aroclor-1254	ND		0.00267
Aroclor-1260	ND		0.00267
Total PCBs:	ND		

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-

GC Column (1st): DB-5

Data File: R8276.D R8275.D R8274.D R8273.D R8272.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	3.63	3.63	3.63	3.63	3.63	3.63	3.56	3.70
Aroclor-1016 {2}	4.54	4.54	4.54	4.54	4.54	4.54	4.47	4.61
Aroclor-1016 {3}	5.12	5.12	5.13	5.13	5.12	5.12	5.05	5.19
Aroclor-1016 {4}	5.60	5.60	5.60	5.60	5.60	5.60	5.53	5.67
Aroclor-1016 {5}	6.07	6.07	6.07	6.07	6.07	6.07	6.00	6.14
Aroclor-1221			2.37				2.30	2.44
Aroclor-1221 {2}			3.40				3.33	3.47
Aroclor-1221 {3}			3.54				3.47	3.61
Aroclor-1221 {4}			3.63				3.56	3.70
Aroclor-1221 {5}			4.28				4.21	4.35
Aroclor-1232			3.63				3.56	3.70
Aroclor-1232 {2}			4.54				4.47	4.61
Aroclor-1232 {3}			5.25				5.18	5.32
Aroclor-1232 {4}			5.87				5.80	5.94
Aroclor-1232 {5}			6.07				6.00	6.14
Aroclor-1242			4.54				4.47	4.61
Aroclor-1242 {2}			5.53				5.46	5.60
Aroclor-1242 {3}			5.87				5.80	5.94
Aroclor-1242 {4}			6.59				6.52	6.66
Aroclor-1242 {5}			6.88				6.81	6.95
Aroclor-1248			4.96				4.88	5.04
Aroclor-1248 {2}			5.53				5.45	5.61
Aroclor-1248 {3}			5.87				5.79	5.95
Aroclor-1248 {4}			6.59				6.51	6.67
Aroclor-1248 {5}			6.88				6.80	6.96
Aroclor-1254			6.99				6.91	7.07
Aroclor-1254 {2}			7.45				7.37	7.53
Aroclor-1254 {3}			7.62				7.53	7.71
Aroclor-1254 {4}			8.06				7.97	8.15
Aroclor-1254 {5}			8.92				8.83	9.01
Aroclor-1260	8.92	8.92	8.92	8.92	8.92	8.92	8.02	9.82
Aroclor-1260 {2}	9.61	9.61	9.60	9.60	9.60	9.60	8.70	10.50
Aroclor-1260 {3}	10.08	10.08	10.08	10.08	10.08	10.08	9.18	10.98
Aroclor-1260 {4}	10.57	10.58	10.57	10.58	10.57	10.57	9.67	11.47
Aroclor-1260 {5}	11.64	11.64	11.64	11.64	11.64	11.64	10.74	12.54

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-

GC Column (1st): DB-5

Data File: R8276.D R8275.D R8274.D R8273.D R8272.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	823931	815795	891167	773467	742242	809320	6.97
Aroclor-1016 {2}	1269794	1202284	1222285	1103744	1010366	1161695	8.95
Aroclor-1016 {3}	1823898	1629378	1584337	1436875	1328169	1560531	12.16
Aroclor-1016 {4}	932417	810990	782993	705646	670719	780553	13.08
Aroclor-1016 {5}	1280249	1297878	1301393	1183234	1123745	1237300	6.45
Aroclor-1221			241500				
Aroclor-1221 {2}			371472				
Aroclor-1221 {3}			243213				
Aroclor-1221 {4}			908606				
Aroclor-1221 {5}			206900				
Aroclor-1232			626456				
Aroclor-1232 {2}			388931				
Aroclor-1232 {3}			360434				
Aroclor-1232 {4}			377814				
Aroclor-1232 {5}			480163				
Aroclor-1242			729482				
Aroclor-1242 {2}			466205				
Aroclor-1242 {3}			652427				
Aroclor-1242 {4}			941889				
Aroclor-1242 {5}			892875				
Aroclor-1248			1550291				
Aroclor-1248 {2}			892049				
Aroclor-1248 {3}			1156413				
Aroclor-1248 {4}			1754097				
Aroclor-1248 {5}			1465241				
Aroclor-1254			2101369				
Aroclor-1254 {2}			1419259				
Aroclor-1254 {3}			2568070				
Aroclor-1254 {4}			2765085				
Aroclor-1254 {5}			2580625				
Aroclor-1260	4210099	3893664	3594138	3217454	3051872	3593445	13.24
Aroclor-1260 {2}	1903747	1771131	1618216	1446304	1354407	1618761	13.95
Aroclor-1260 {3}	4836549	4478281	4504469	4181152	4078651	4415820	6.77
Aroclor-1260 {4}	2290916	2179669	2116377	1962996	1929745	2095941	7.19
Aroclor-1260 {5}	912041	895079	880084	839670	815136	868402	4.61
					Average %RSD		9.34

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-

GC Column (2nd): DB-1701P

Data File: R8276.C R8275.C R8274.C R8273.C R8272.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	4.10	4.10	4.10	4.10	4.10	4.10	4.03	4.17
Aroclor-1016 {2}	4.76	4.76	4.76	4.76	4.76	4.76	4.69	4.83
Aroclor-1016 {3}	5.52	5.52	5.52	5.52	5.52	5.52	5.45	5.59
Aroclor-1016 {4}	5.76	5.76	5.76	5.76	5.76	5.76	5.69	5.83
Aroclor-1016 {5}	5.93	5.94	5.94	5.94	5.93	5.94	5.87	6.01
Aroclor-1221			2.65				2.58	2.72
Aroclor-1221 {2}			3.75				3.68	3.82
Aroclor-1221 {3}			4.01				3.94	4.08
Aroclor-1221 {4}			4.10				4.03	4.17
Aroclor-1221 {5}			5.52				5.45	5.59
Aroclor-1232			4.10				4.03	4.17
Aroclor-1232 {2}			5.17				5.10	5.24
Aroclor-1232 {3}			5.76				5.69	5.83
Aroclor-1232 {4}			5.94				5.87	6.01
Aroclor-1232 {5}			6.58				6.51	6.65
Aroclor-1242			5.17				5.10	5.24
Aroclor-1242 {2}			5.93				5.86	6.00
Aroclor-1242 {3}			6.57				6.50	6.64
Aroclor-1242 {4}			6.74				6.67	6.81
Aroclor-1242 {5}			7.29				7.22	7.36
Aroclor-1248			5.52				5.44	5.60
Aroclor-1248 {2}			6.15				6.07	6.23
Aroclor-1248 {3}			6.58				6.50	6.66
Aroclor-1248 {4}			6.74				6.66	6.82
Aroclor-1248 {5}			7.08				7.00	7.16
Aroclor-1254			7.60				7.52	7.68
Aroclor-1254 {2}			8.20				8.12	8.28
Aroclor-1254 {3}			8.82				8.73	8.91
Aroclor-1254 {4}			9.07				8.98	9.16
Aroclor-1254 {5}			9.68				9.59	9.77
Aroclor-1260	8.67	8.68	8.68	8.68	8.68	8.68	7.78	9.58
Aroclor-1260 {2}	9.07	9.07	9.07	9.07	9.07	9.07	8.17	9.97
Aroclor-1260 {3}	10.30	10.30	10.30	10.30	10.30	10.30	9.40	11.20
Aroclor-1260 {4}	10.80	10.80	10.80	10.80	10.80	10.80	9.90	11.70
Aroclor-1260 {5}	11.41	11.42	11.41	11.41	11.41	11.41	10.51	12.31

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-

GC Column (2nd): DB-1701P

Data File: R8276.C R8275.C R8274.C R8273.C R8272.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	1217834	1154852	1154049	1054142	941063	1104388	9.82
Aroclor-1016 {2}	2385593	2376269	2169786	1976597	1766869	2135023	12.45
Aroclor-1016 {3}	5245793	4998734	4629865	4197244	3868267	4587980	12.30
Aroclor-1016 {4}	2435637	2211406	2045617	1846626	1713354	2050528	14.00
Aroclor-1016 {5}	2011142	1816069	1720257	1576651	1483811	1721586	11.99
Aroclor-1221			358255				
Aroclor-1221 {2}			496035				
Aroclor-1221 {3}			321505				
Aroclor-1221 {4}			1158669				
Aroclor-1221 {5}			229815				
Aroclor-1232			818226				
Aroclor-1232 {2}			310044				
Aroclor-1232 {3}			642163				
Aroclor-1232 {4}			517727				
Aroclor-1232 {5}			689697				
Aroclor-1242			560327				
Aroclor-1242 {2}			986870				
Aroclor-1242 {3}			1221476				
Aroclor-1242 {4}			1254497				
Aroclor-1242 {5}			1167912				
Aroclor-1248			1886405				
Aroclor-1248 {2}			1654981				
Aroclor-1248 {3}			1977968				
Aroclor-1248 {4}			1816215				
Aroclor-1248 {5}			1016375				
Aroclor-1254			1897983				
Aroclor-1254 {2}			2019822				
Aroclor-1254 {3}			1730223				
Aroclor-1254 {4}			1218765				
Aroclor-1254 {5}			2440983				
Aroclor-1260	3063776	2568161	2293857	2085139	2078971	2417981	17.06
Aroclor-1260 {2}	3407496	2920359	2675698	2437623	2441097	2776454	14.59
Aroclor-1260 {3}	2368456	2110600	1996368	1830648	1804568	2022128	11.40
Aroclor-1260 {4}	4243945	3922761	3866427	3621211	3671608	3865190	6.39
Aroclor-1260 {5}	3086316	2992860	3040157	2849955	2876334	2969124	3.46
					Average %RSD		11.35

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/18/2009 **Instrument ID:** GC-R

Data File: R8392.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.63	3.56	3.70	809320	938306	15.94
Aroclor-1016 {2}	4.54	4.47	4.61	1161695	1319450	13.58
Aroclor-1016 {3}	5.13	5.05	5.19	1560531	1696396	8.71
Aroclor-1016 {4}	5.60	5.53	5.67	780553	804939	3.12
Aroclor-1016 {5}	6.08	6.00	6.14	1237300	1386716	12.08
Aroclor-1260	8.93	8.02	9.82	3593445	3538391	1.53
Aroclor-1260 {2}	9.61	8.70	10.50	1618761	1581849	2.28
Aroclor-1260 {3}	10.08	9.18	10.98	4415820	4130021	6.47
Aroclor-1260 {4}	10.58	9.67	11.47	2095941	1860433	11.24
Aroclor-1260 {5}	11.65	10.74	12.54	868402	743074	14.43
					Average %D	8.94

Data File: R8392.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.11	4.03	4.17	1104388	1166829	5.65
Aroclor-1016 {2}	4.78	4.69	4.83	2135023	2201643	3.12
Aroclor-1016 {3}	5.54	5.45	5.59	4587980	4664317	1.66
Aroclor-1016 {4}	5.78	5.69	5.83	2050528	2053650	0.15
Aroclor-1016 {5}	5.95	5.87	6.01	1721586	1720917	0.04
Aroclor-1260	8.69	7.78	9.58	2417981	2259624	6.55
Aroclor-1260 {2}	9.08	8.17	9.97	2776454	2586907	6.83
Aroclor-1260 {3}	10.31	9.40	11.20	2022128	1763722	12.78
Aroclor-1260 {4}	10.81	9.90	11.70	3865190	3219381	16.71
Aroclor-1260 {5}	11.42	10.51	12.31	2969124	2452987	17.38
					Average %D	7.09

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/18/2009 **Instrument ID:** GC-R

Data File: R8399.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.64	3.56	3.70	809320	844337	4.33
Aroclor-1016 {2}	4.54	4.47	4.61	1161695	1167400	0.49
Aroclor-1016 {3}	5.13	5.05	5.19	1560531	1529409	1.99
Aroclor-1016 {4}	5.60	5.53	5.67	780553	724857	7.14
Aroclor-1016 {5}	6.08	6.00	6.14	1237300	1252410	1.22
Aroclor-1260	8.92	8.02	9.82	3593445	3419762	4.83
Aroclor-1260 {2}	9.61	8.70	10.50	1618761	1552020	4.12
Aroclor-1260 {3}	10.08	9.18	10.98	4415820	4088422	7.41
Aroclor-1260 {4}	10.58	9.67	11.47	2095941	1870084	10.78
Aroclor-1260 {5}	11.64	10.74	12.54	868402	764608	11.95
					Average %D	5.43

Data File: R8399.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.09	4.03	4.17	1104388	1080364	2.18
Aroclor-1016 {2}	4.75	4.69	4.83	2135023	2039085	4.49
Aroclor-1016 {3}	5.51	5.45	5.59	4587980	4359976	4.97
Aroclor-1016 {4}	5.75	5.69	5.83	2050528	1922343	6.25
Aroclor-1016 {5}	5.92	5.87	6.01	1721586	1613961	6.25
Aroclor-1260	8.67	7.78	9.58	2417981	2191996	9.35
Aroclor-1260 {2}	9.06	8.17	9.97	2776454	2506579	9.72
Aroclor-1260 {3}	10.29	9.40	11.20	2022128	1755721	13.17
Aroclor-1260 {4}	10.79	9.90	11.70	3865190	3261209	15.63
Aroclor-1260 {5}	11.41	10.51	12.31	2969124	2487510	16.22
					Average %D	8.82

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/18/2009

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	1217-BLK04	SOIL	96		47		88		42	
SBD/4-4.5	12676-001	SOIL	92		72		87		70	
ANOME/3.5-	12676-002	SOIL	95		59		96		60	
PCB	12676-001-MS04	SOIL	83		67		82		57	
PCB	12676-001-MSD04	SOIL	85		57		85		49	
PCB	PBS1217-MS04	SOIL	81		51		81		45	

Surrogate QC Limits

	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	23-172	13-170

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12676-001-MSD04

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	5.0	0.0	4.2	84	45 - 165
Aroclor-1260	5.0	0.0	3.4	68	45 - 165

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	4.4	88	5	19	45 - 165
Aroclor-1260	0.0	3.2	64	6	19	45 - 165

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS1217-MS04

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	5.0	0.0	5.1	102	70 - 130
Aroclor-1260	5.0	0.0	3.7	74	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.10 **DCB 1** 12.75 **TCMX 2** 3.22 **DCB 2** 13.15

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	1217-BLK04	12/18/2009	11:16	3.10		12.75		3.22		13.15	
SBD/4-4.5	12676-001	12/18/2009	11:34	3.11		12.75		3.21		13.14	
ANOME/3.5-	12676-002	12/18/2009	11:59	3.10		12.75		3.21		13.15	
PCB	12676-001-MS04	12/18/2009	12:17	3.10		12.75		3.21		13.14	
PCB	12676-001-MSD04	12/18/2009	12:36	3.10		12.75		3.21		13.14	
PCB	PBS1217-MS04	12/18/2009	12:54	3.10		12.75		3.21		13.14	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-18-09\R8394.D\ECD1B.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\12-18-09\R8394.D\ECD2A.CH
Acq On : 18 Dec 2009 11:34 Operator: JP
Sample : SBD/4-4.5,12676-001,S,30.81g,14.4,12/17/ Inst : GC_R
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 18 11:49:02 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Fri Dec 18 09:55:48 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.11	3.21	6858.2E6	8291.6E6	92.164	86.746
Spiked Amount 100.000	Range 75 - 125		Recovery =		92.16%	86.75%
2) S DCB	12.75	13.14	1182.1E6	1489.8E6	72.180	70.426
Spiked Amount 100.000			Recovery =		72.18%	70.43%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

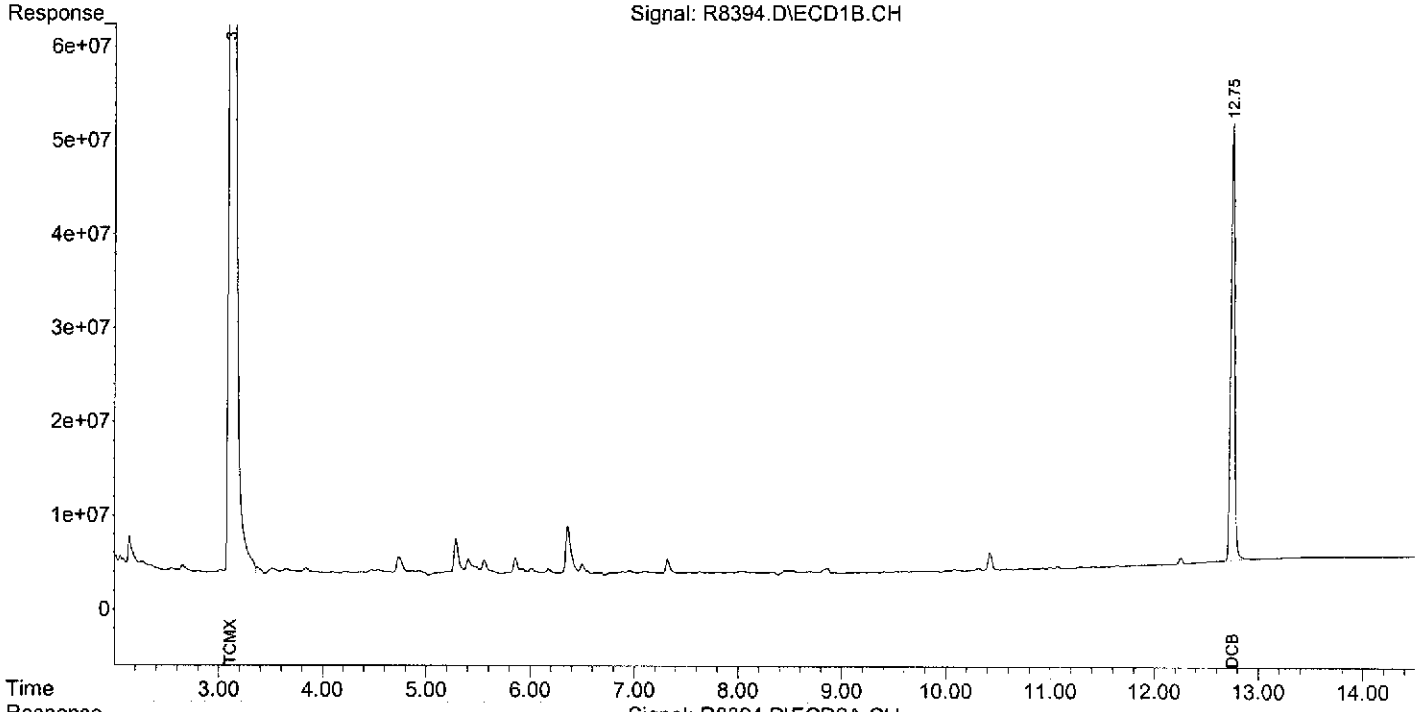
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

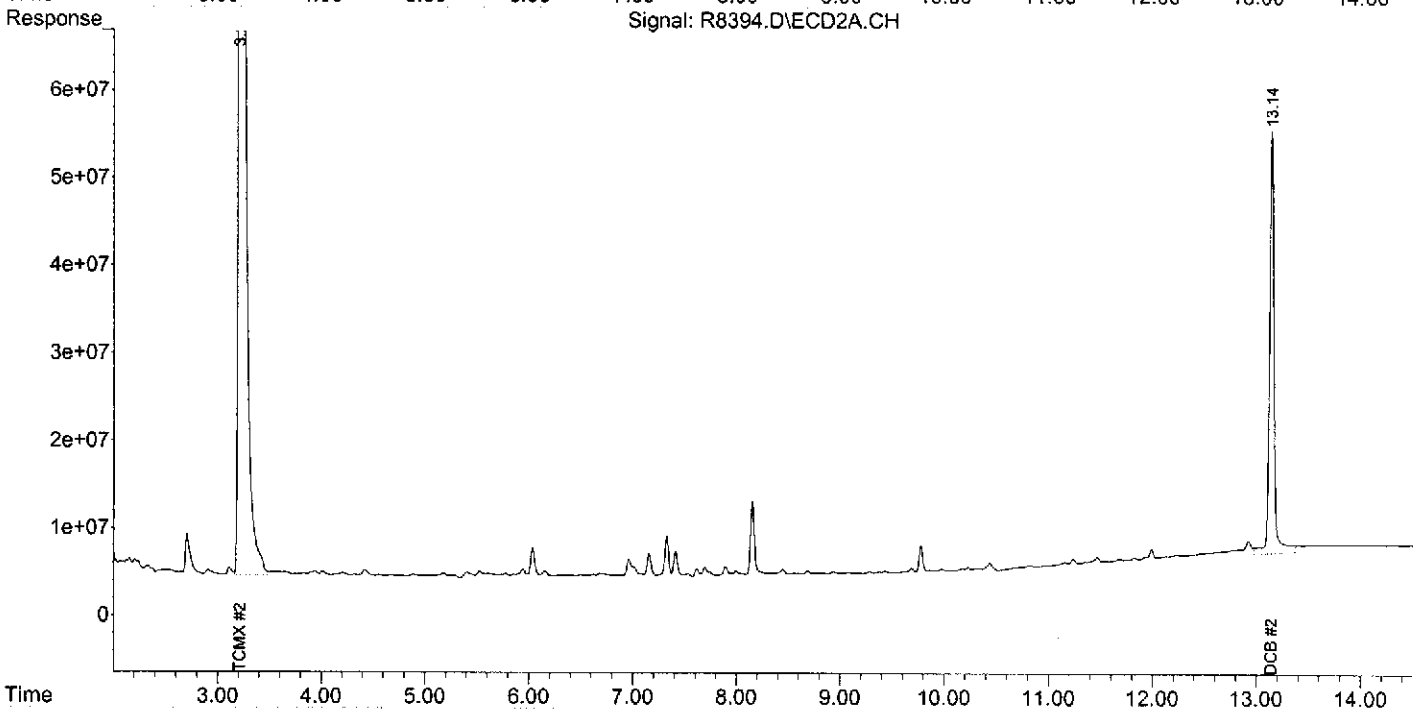
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-18-09\R8394.D\ECD1B.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\12-18-09\R8394.D\ECD2A.CH
Acq On : 18 Dec 2009 11:34 Operator: JP
Sample : SBD/4-4.5,12676-001,S,30.81g,14.4,12/17/ Inst : GC_R
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 18 11:58 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Fri Dec 18 09:55:48 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-18-09\R8395.D\ECD1B.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\12-18-09\R8395.D\ECD2A.CH
Acq On : 18 Dec 2009 11:59 Operator: JP
Sample : ANOME/3.5-,12676-002,S,30.21g,13.7,12/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 18 12:14:15 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Fri Dec 18 09:55:48 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.10	3.21	7060.4E6	9142.4E6	94.882	95.646
Spiked Amount 100.000	Range 75 - 125		Recovery =		94.88%	95.65%
2) S DCB	12.75	13.15	966.0E6	1257.8E6	58.990	59.458
Spiked Amount 100.000			Recovery =		58.99%	59.46%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

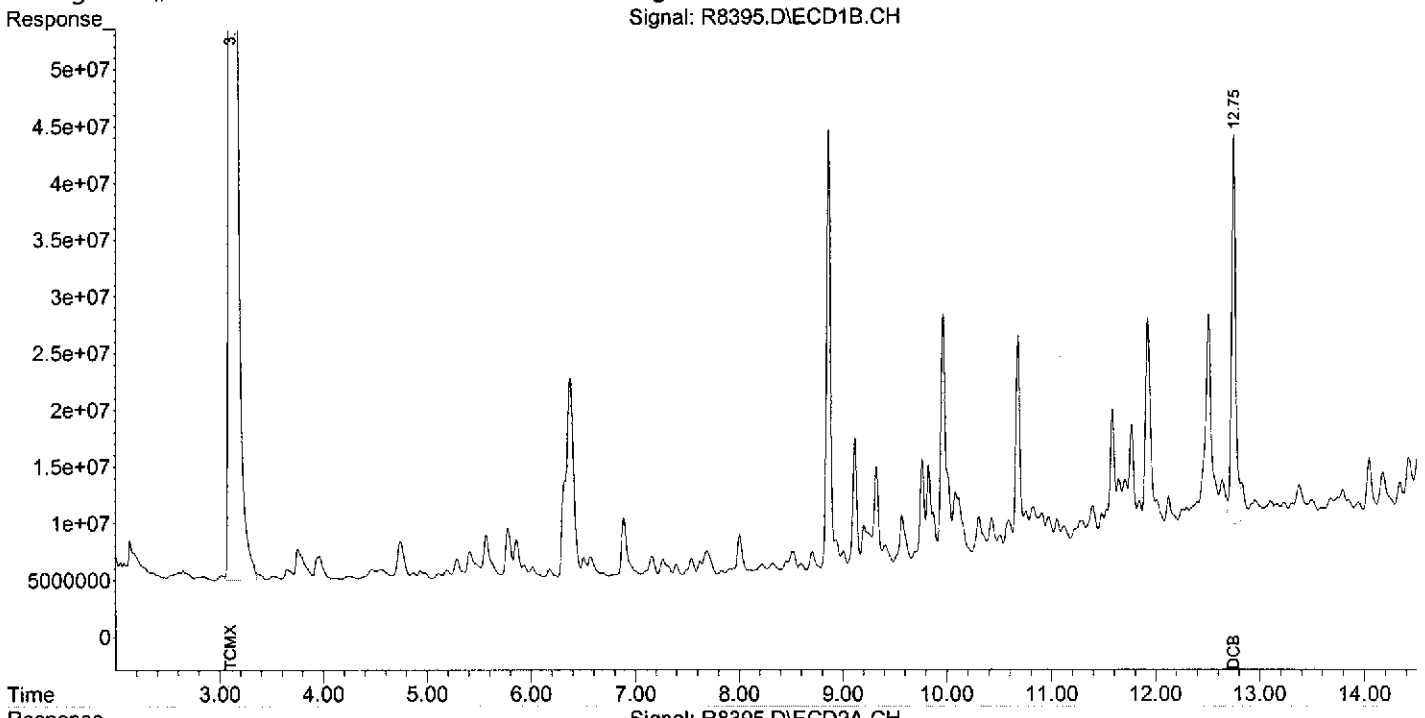
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

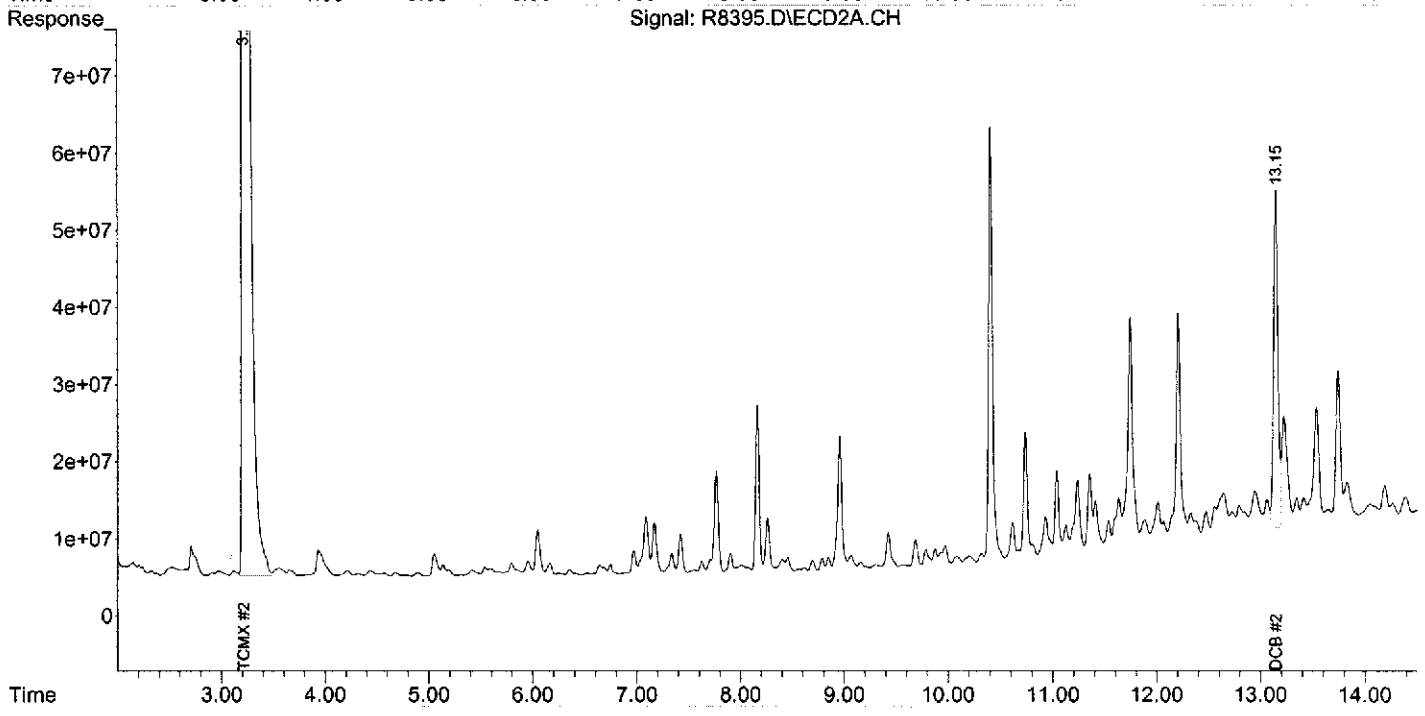
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-18-09\R8395.D\ECD1B.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\12-18-09\R8395.D\ECD2A.CH
Acq On : 18 Dec 2009 11:59 Operator: JP
Sample : ANOME/3.5-,12676-002,S,30.21g,13.7,12/17 Inst : GC_R
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 18 12:52 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Fri Dec 18 09:55:48 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-18-09\R8393.D\ECD1B.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\12-18-09\R8393.D\ECD2A.CH
Acq On : 18 Dec 2009 11:16 Operator: JP
Sample : PCB,1217-BLK04,S,30.00g,0,12/17/09,4 Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 18 11:30:51 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Fri Dec 18 09:55:48 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.10	3.22	7136.7E6	8421.0E6	95.907	88.100
Spiked Amount 100.000	Range 75 - 125		Recovery =		95.91%	88.10%
2) S DCB	12.75	13.15	768.1E6	888.3E6	46.904	41.992
Spiked Amount 100.000			Recovery =		46.90%	41.99%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

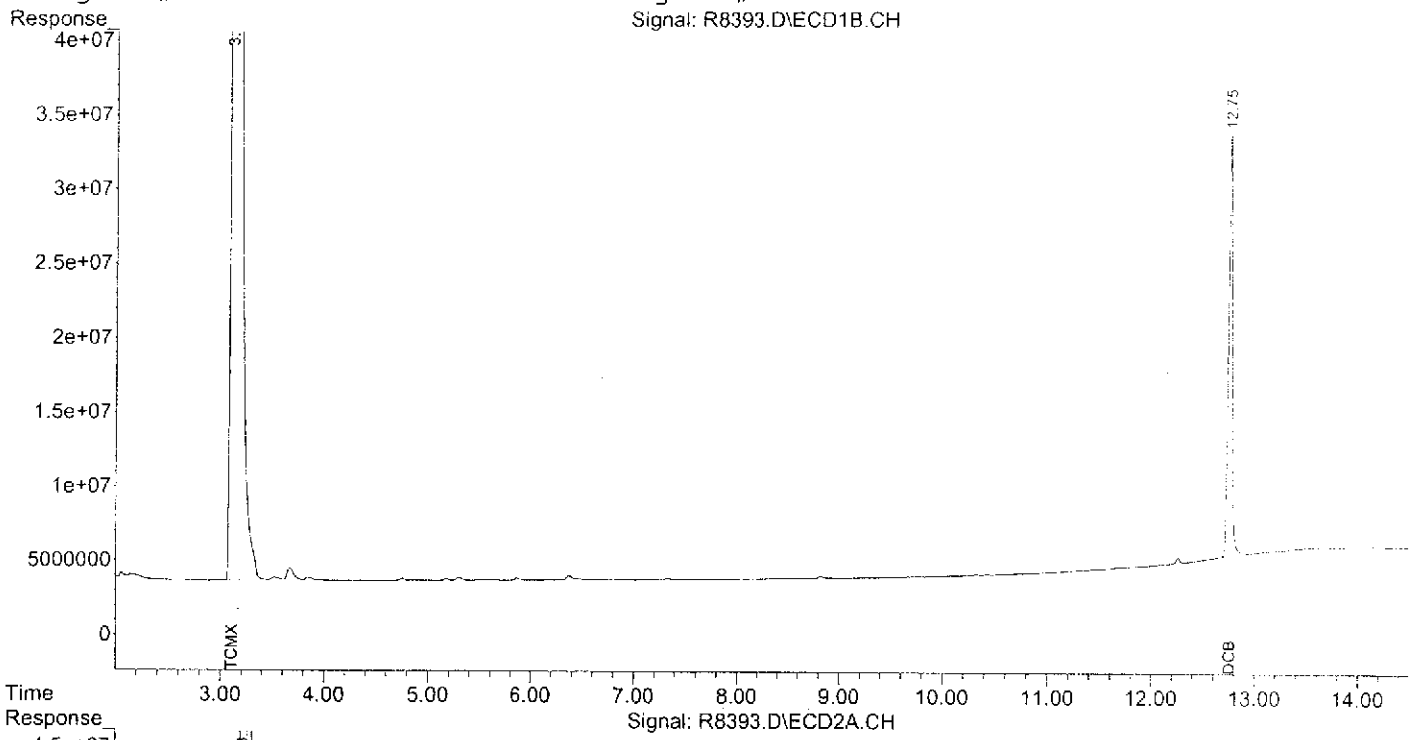
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

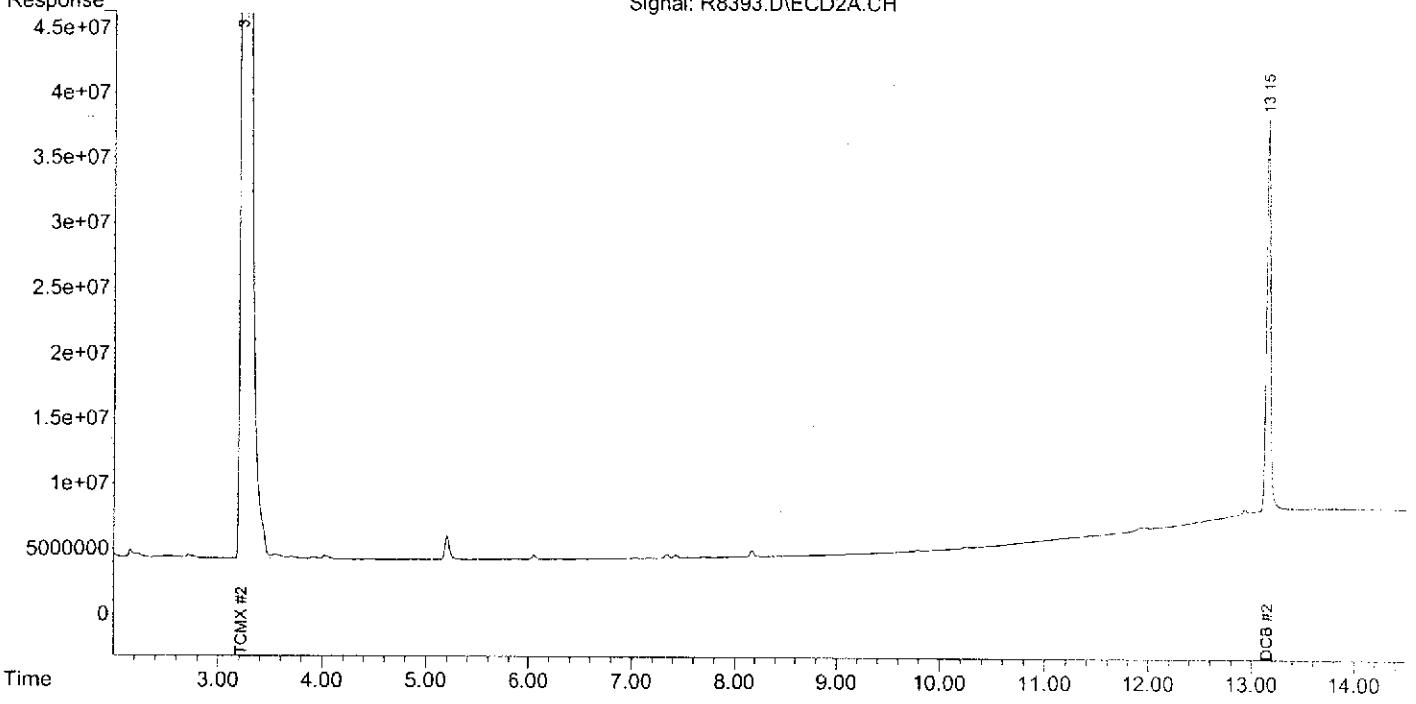
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-18-09\R8393.D\ECD1B.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\12-18-09\R8393.D\ECD2A.CH
Acq On : 18 Dec 2009 11:16 Operator: JP
Sample : PCB,1217-BLK04,S,30.00g,0,12/17/09,4 Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 18 11:31 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Fri Dec 18 09:55:48 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-18-09\R8392.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\12-18-09\R8392.D\ECD2A.CH
Acq On : 18 Dec 2009 10:14 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 18 10:28:46 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Fri Dec 18 09:55:48 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

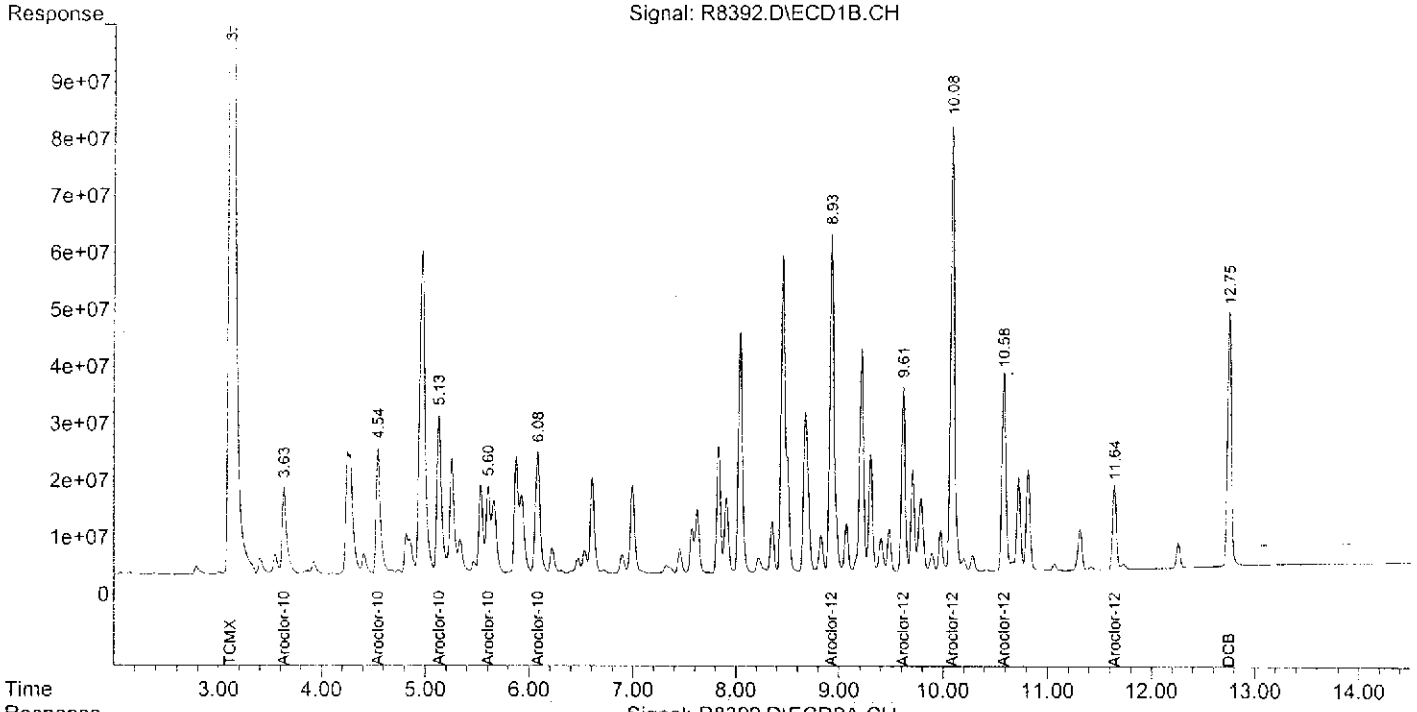
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.11	3.22	8499.2E6	10230.3E6	114.218	107.029
Spiked Amount 100.000	Range 75 - 125		Recovery =		114.22%	107.03%
2) S DCB	12.75	13.15	1216.1E6	1396.7E6	74.259	66.024
Spiked Amount 100.000			Recovery =		74.26%	66.02%
Target Compounds						
3) L2 Aroclor-1016	3.63	4.11	469.2E6	583.4E6	574.618m	528.269
4) L2 Aroclor-1016 {2}	4.54	4.78	659.7E6	1100.8E6	571.815	515.602
5) L2 Aroclor-1016 {3}	5.13	5.54	848.2E6	2332.2E6	550.573	508.319
6) L2 Aroclor-1016 {4}	5.60	5.78	402.5E6	1026.8E6	520.343	500.761
7) L2 Aroclor-1016 {5}	6.08	5.95	693.4E6	860.5E6	558.743	499.806
Sum Aroclor-1016			3072.9E6	5903.7E6	2776.091	2552.757
Average Aroclor-1016					555.218	510.551
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	8.93	8.69	1769.2E6	1129.8E6	495.759	476.002
34) L8 Aroclor-1260 {2}	9.61	9.08	790.9E6	1293.5E6	491.867	472.643
35) L8 Aroclor-1260 {3}	10.08	10.31	2065.0E6	881.9E6	470.849	443.018
36) L8 Aroclor-1260 {4}	10.58	10.81	930.2E6	1609.7E6	450.217	416.458
37) L8 Aroclor-1260 {5}	11.65	11.42	371.5E6	1226.5E6	427.597	413.083m
Sum Aroclor-1260			5926.9E6	6141.3E6	2336.289	2221.204
Average Aroclor-1260					467.258	444.241

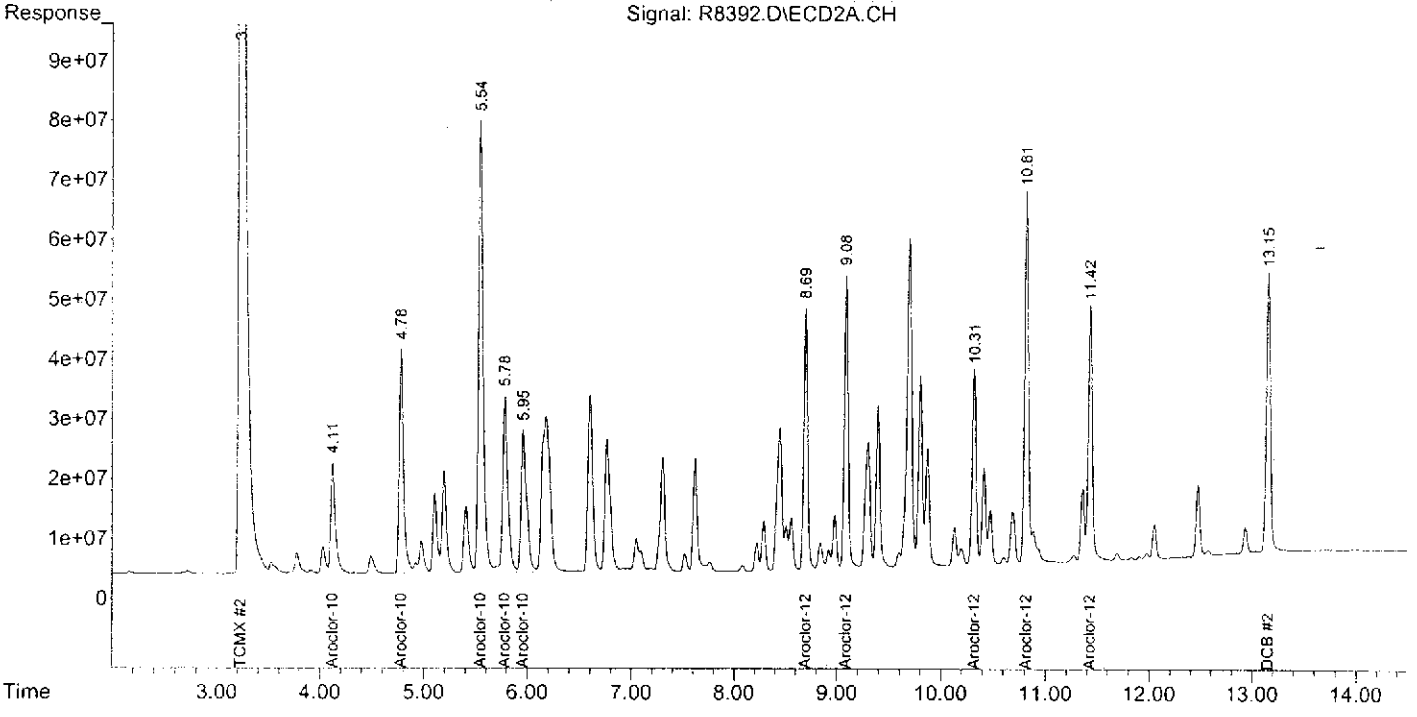
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\12-18-09\R8392.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\12-18-09\R8392.D\ECD2A.CH
Acq On : 18 Dec 2009 10:14 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 18 10:32 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Fri Dec 18 09:55:48 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-18-09\R8399.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\12-18-09\R8399.D\ECD2A.CH
Acq On : 18 Dec 2009 14:27 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 18 14:42:20 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Fri Dec 18 12:47:41 2009
Response via : Initial Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.11	3.20	7340.9E6	9300.0E6	98.651	97.295
Spiked Amount 100.000	Range 75 - 125		Recovery =		98.65%	97.30%
2) S DCB	12.75	13.13	1260.6E6	1484.9E6	76.978m	70.195
Spiked Amount 100.000			Recovery =		76.98%	70.19%
Target Compounds						
3) L2 Aroclor-1016	3.64	4.09	422.2E6	540.2E6	517.071	489.124
4) L2 Aroclor-1016 {2}	4.54	4.75	583.7E6	1019.5E6	505.921	477.532
5) L2 Aroclor-1016 {3}	5.13	5.51	764.7E6	2180.0E6	496.377	475.152
6) L2 Aroclor-1016 {4}	5.60	5.75	362.4E6	961.2E6	468.575	468.743
7) L2 Aroclor-1016 {5}	6.08	5.92	626.2E6	807.0E6	504.628	468.742
Sum Aroclor-1016			2759.2E6	5507.9E6	2492.571	2379.294
Average Aroclor-1016					498.514	475.859
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	8.92	8.67	1709.9E6	1096.0E6	479.138	461.756
34) L8 Aroclor-1260 {2}	9.61	9.06	776.0E6	1253.3E6	482.592	457.967
35) L8 Aroclor-1260 {3}	10.08	10.29	2044.2E6	877.9E6	466.106	441.008
36) L8 Aroclor-1260 {4}	10.58	10.79	935.0E6	1630.6E6	452.552	421.869
37) L8 Aroclor-1260 {5}	11.64	11.41	382.3E6	1243.8E6	439.989	418.896
Sum Aroclor-1260			5847.4E6	6101.5E6	2320.378	2201.496
Average Aroclor-1260					464.076	440.299

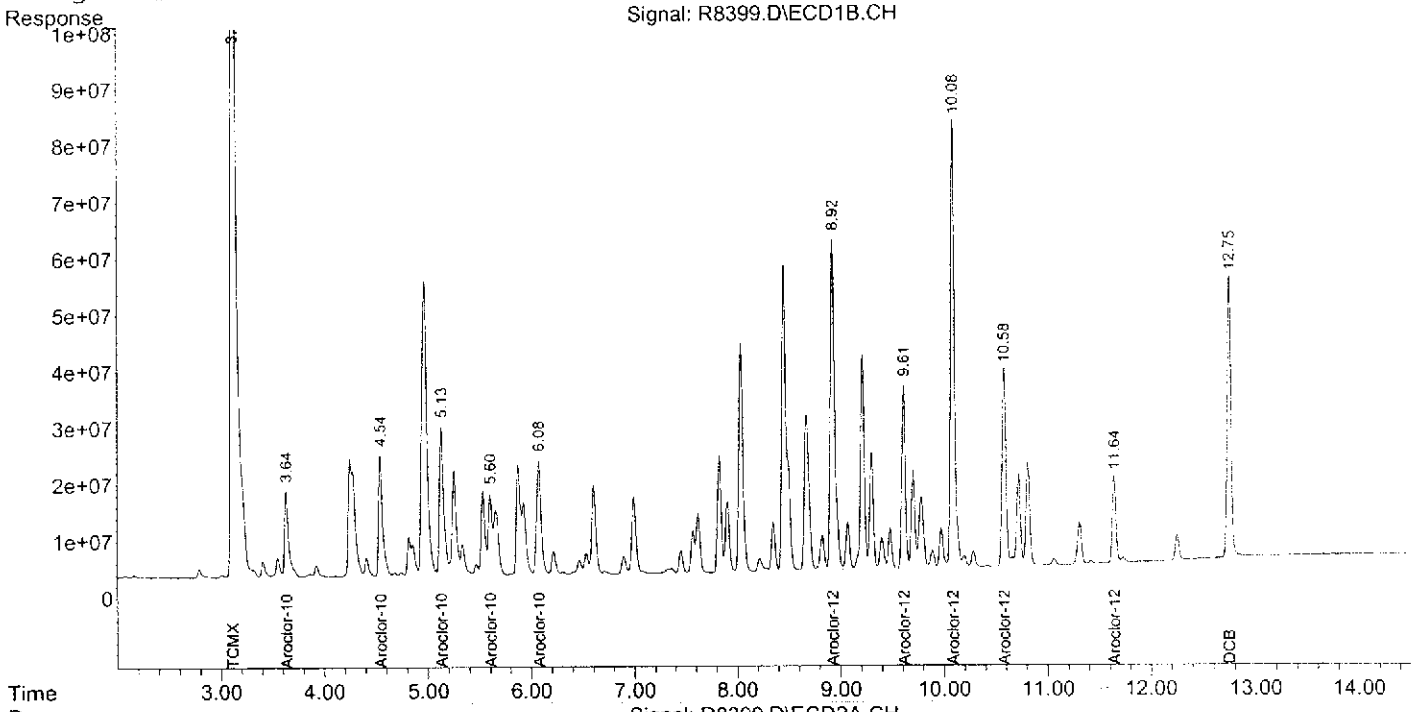
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

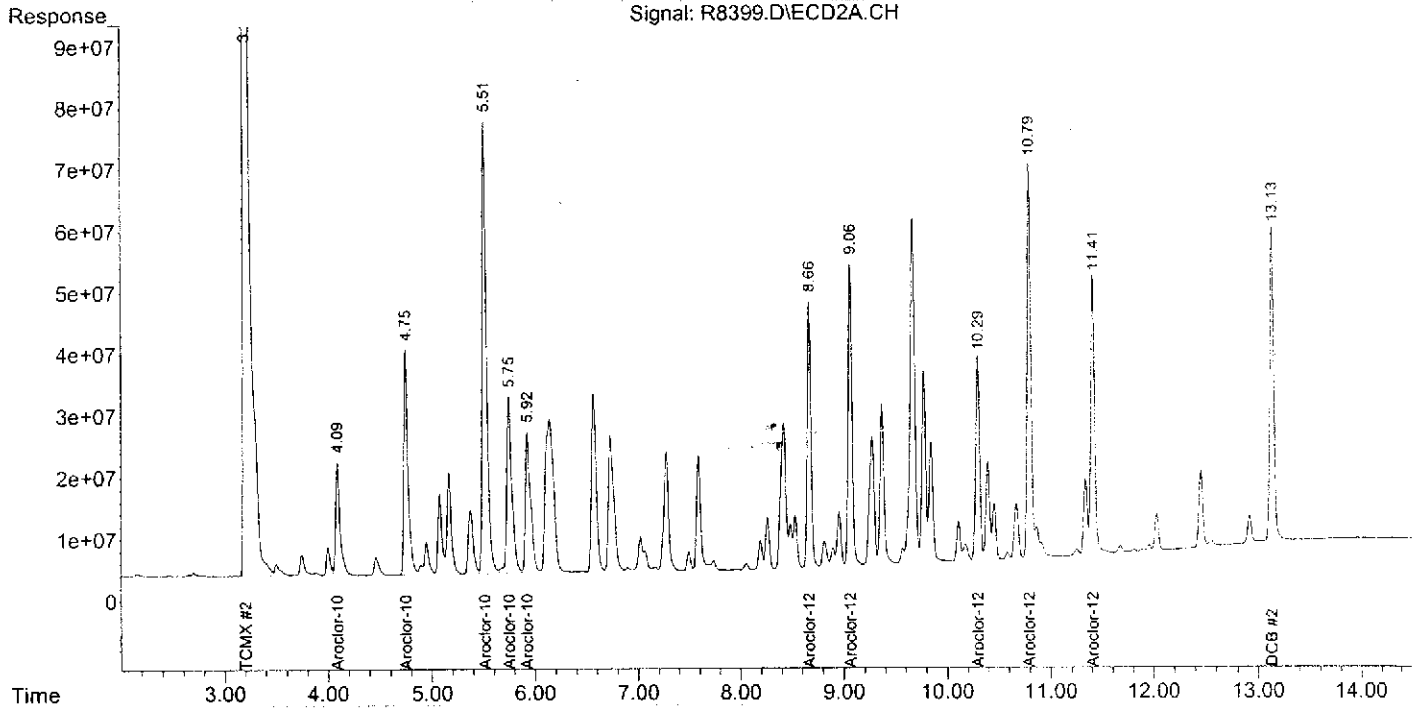
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\12-18-09\R8399.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\12-18-09\R8399.D\ECD2A.CH
Acq On : 18 Dec 2009 14:27 Operator: JP
Sample : 8082_C_IAS_3424,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Dec 18 14:43 2009 Quant Results File: RPCB1209.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB1209.M (Chemstation Integrator)
Title :
Last Update : Fri Dec 18 12:47:41 2009
Response via : Multiple Level Calibration
DataAcq Meth : RPCB1209.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V7076.D

Instrument ID: GC-V

Date Extracted: 12/16/2009

Matrix: SOIL

Date Analyzed: 12/16/2009

Time Analyzed: 16:21

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SW3A	12710-001	12/16/2009	16:33
SW7A	12710-002	12/16/2009	16:45
Pest	12710-001-MS07	12/16/2009	16:57
Pest	12710-001-MSD07	12/16/2009	17:09
Pest	PBS1216-MS07	12/16/2009	17:21

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 1216-BLK07
Client ID: Pest
Date Received: NA
Date Extracted: 12/16/2009
Date Analyzed: 12/16/2009
Data file: V7076.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000167
beta-BHC	ND		0.000167
gamma-BHC (Lindane)	ND		0.000167
delta-BHC	ND		0.000167
Heptachlor	ND		0.000167
Aldrin	ND		0.000167
Heptachlor epoxide	ND		0.000167
Endosulfan I	ND		0.000167
4,4'-DDE	ND		0.000167
Dieldrin	ND		0.000167
Endrin	ND		0.000167
Endosulfan II	ND		0.000167
4,4'-DDD	ND		0.000167
Endrin aldehyde	ND		0.000167
Endosulfan sulfate	ND		0.000167
4,4'-DDT	ND		0.000167
Chlordane	ND		0.000501
Toxaphene	ND		0.000501

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	V7106.D	Instrument ID:	GC-V
Date Extracted:	12/17/2009	Matrix:	SOIL
Date Analyzed:	12/18/2009	Time Analyzed:	10:30

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PM-10_B_/3	12704-017	12/18/2009	10:42
PM-10N_B/3	12704-019	12/18/2009	10:54
PM-10S_B/3	12704-022	12/18/2009	11:06
REP121509-	12704-023	12/18/2009	11:19
PM-10E_B/3	12704-025	12/18/2009	11:31
PM-10W_B/3	12704-027	12/18/2009	13:33
ANOME/3.5-	12676-002	12/18/2009	14:34
SBD/4-4.5	12676-001	12/18/2009	14:58
Pest	PBS1217-MS04	12/18/2009	15:49

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 1217-BLK04
Client ID: Pest
Date Received: NA
Date Extracted: 12/17/2009
Date Analyzed: 12/18/2009
Data file: V7106.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000167
beta-BHC	ND		0.000167
gamma-BHC (Lindane)	ND		0.000167
delta-BHC	ND		0.000167
Heptachlor	ND		0.000167
Aldrin	ND		0.000167
Heptachlor epoxide	ND		0.000167
Endosulfan I	ND		0.000167
4,4'-DDE	ND		0.000167
Dieldrin	ND		0.000167
Endrin	ND		0.000167
Endosulfan II	ND		0.000167
4,4'-DDD	ND		0.000167
Endrin aldehyde	ND		0.000167
Endosulfan sulfate	ND		0.000167
4,4'-DDT	ND		0.000167
Endrin ketone	ND		0.000167
Methoxychlor	ND		0.000167
alpha-Chlordane	ND		0.000167
gamma-Chlordane	ND		0.000167
Toxaphene	ND		0.000501

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V6982.D V6981.D V6980.D V6983.D V6978.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	3.25	3.25	3.25	3.24	3.25	3.25	3.19	3.31
beta-BHC	3.67	3.67	3.67	3.67	3.67	3.67	3.61	3.73
gamma-BHC (Lindane	3.58	3.59	3.58	3.58	3.59	3.58	3.52	3.64
delta-BHC	3.88	3.88	3.88	3.88	3.88	3.88	3.82	3.94
Heptachlor	4.14	4.14	4.14	4.14	4.14	4.14	4.06	4.22
Aldrin	4.51	4.51	4.51	4.51	4.51	4.51	4.43	4.59
Heptachlor epoxide	5.30	5.30	5.30	5.30	5.30	5.30	5.22	5.38
Endosulfan I	5.85	5.85	5.85	5.85	5.85	5.85	5.77	5.93
4,4'-DDE	5.74	5.74	5.74	5.74	5.74	5.74	5.64	5.84
Dieldrin	6.19	6.19	6.19	6.19	6.19	6.19	6.09	6.29
Endrin	6.53	6.53	6.53	6.53	6.53	6.53	6.43	6.63
Endosulfan II	6.83	6.83	6.83	6.83	6.83	6.83	6.73	6.93
4,4'-DDD	6.61	6.61	6.61	6.61	6.61	6.61	6.51	6.71
Endrin aldehyde	7.31	7.31	7.31	7.31	7.31	7.31	7.19	7.43
Endosulfan sulfate	7.74	7.74	7.74	7.74	7.74	7.74	7.62	7.86
4,4'-DDT	6.97	6.97	6.97	6.97	6.97	6.97	6.85	7.09
Endrin ketone	7.99	7.99	7.99	7.99	7.99	7.99	7.87	8.11
Methoxychlor	7.49	7.49	7.49	7.49	7.49	7.49	7.37	7.61
alpha-Chlordane	5.65	5.65	5.65	5.65	5.65	5.65	5.57	5.73
gamma-Chlordane	5.47	5.47	5.47	5.47	5.47	5.47	5.39	5.55
Chlordane 500 ppb			4.04				3.96	4.12
Chlordane {2}			4.67				4.59	4.75
Chlordane {3}			5.47				5.39	5.55
Chlordane {4}			5.65				5.57	5.73
Chlordane {5}			6.75				6.67	6.83
Toxaphene 500 ppb			6.14				6.06	6.22
Toxaphene {2}			6.56				6.48	6.64
Toxaphene {3}			6.97				6.89	7.05
Toxaphene {4}			7.42				7.34	7.50
Toxaphene {5}			7.97				7.89	8.05

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V6982.D V6981.D V6980.D V6983.D V6978.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	150750	153211	157484	174568	166834	160569	6.19
beta-BHC	73751	61582	66494	72265	64298	67678	7.67
gamma-BHC (Lindane	129237	129738	129115	143889	140736	134543	5.34
delta-BHC	153501	136650	139156	154849	147040	146239	5.61
Heptachlor	118083	118175	120765	135401	129496	124384	6.21
Aldrin	128762	127649	130352	143469	134898	133026	4.85
Heptachlor epoxide	125651	118873	120722	132179	123989	124283	4.15
Endosulfan I	120218	116090	117067	128107	119447	120186	3.94
4,4'-DDE	115742	110268	112034	124011	116719	115755	4.59
Dieldrin	125107	121612	123207	136329	127923	126836	4.58
Endrin	89717	90059	89744	100207	97293	93404	5.34
Endosulfan II	91412	97464	97257	108563	101044	99148	6.35
4,4'-DDD	93432	101032	102018	113847	104980	103062	7.16
Endrin aldehyde	61127	49705	50338	58144	47128	53289	11.28
Endosulfan sulfate	94770	81677	86888	93587	87521	88889	6.02
4,4'-DDT	56002	51761	54938	67160	66859	59344	12.08
Endrin ketone	108603	96940	98914	110181	102514	103431	5.63
Methoxychlor	27631	25386	25268	30628	30657	27914	9.54
alpha-Chlordane	118258	112084	112869	124802	117139	117031	4.35
gamma-Chlordane	123884	118948	120698	133329	125530	124478	4.48
Chlordane 500 ppb			4033				
Chlordane {2}			5256				
Chlordane {3}			14749				
Chlordane {4}			23833				
Chlordane {5}			3712				
Toxaphene 500 ppb			1347				
Toxaphene {2}			1164				
Toxaphene {3}			1460				
Toxaphene {4}			1856				
Toxaphene {5}			3096				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V6982.C V6981.C V6980.C V6983.C V6978.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.95	2.95	2.95	2.95	2.96	2.95	2.89	3.01
beta-BHC	3.38	3.38	3.38	3.38	3.38	3.38	3.32	3.44
gamma-BHC (Lindane	3.30	3.31	3.31	3.30	3.31	3.31	3.25	3.37
delta-BHC	3.70	3.70	3.70	3.70	3.71	3.70	3.64	3.76
Heptachlor	3.80	3.81	3.80	3.80	3.81	3.80	3.72	3.88
Aldrin	4.19	4.19	4.19	4.19	4.19	4.19	4.11	4.27
Heptachlor epoxide	4.89	4.90	4.90	4.89	4.90	4.89	4.81	4.97
Endosulfan I	5.42	5.42	5.42	5.42	5.42	5.42	5.34	5.50
4,4'-DDE	5.59	5.59	5.59	5.59	5.59	5.59	5.49	5.69
Dieldrin	5.80	5.80	5.80	5.80	5.80	5.80	5.70	5.90
Endrin	6.23	6.23	6.23	6.23	6.23	6.23	6.13	6.33
Endosulfan II	6.54	6.54	6.54	6.54	6.54	6.54	6.44	6.64
4,4'-DDD	6.42	6.43	6.43	6.42	6.43	6.43	6.33	6.53
Endrin aldehyde	6.98	6.98	6.98	6.98	6.98	6.98	6.86	7.10
Endosulfan sulfate	7.29	7.29	7.29	7.29	7.29	7.29	7.17	7.41
4,4'-DDT	6.86	6.86	6.86	6.86	6.86	6.86	6.74	6.98
Endrin ketone	7.78	7.78	7.78	7.78	7.78	7.78	7.66	7.90
Methoxychlor	7.59	7.60	7.60	7.59	7.60	7.59	7.47	7.71
alpha-Chlordane	5.35	5.35	5.35	5.35	5.35	5.35	5.27	5.43
gamma-Chlordane	5.15	5.15	5.15	5.15	5.15	5.15	5.07	5.23
Chlordane 500 ppb			3.64				3.56	3.72
Chlordane {2}			4.36				4.28	4.44
Chlordane {3}			5.15				5.07	5.23
Chlordane {4}			5.29				5.21	5.37
Chlordane {5}			5.35				5.27	5.43
Toxaphene 500 ppb			5.79				5.71	5.87
Toxaphene {2}			6.66				6.58	6.74
Toxaphene {3}			7.00				6.92	7.08
Toxaphene {4}			7.53				7.45	7.61
Toxaphene {5}			7.88				7.80	7.96

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/09/2009 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V6982.C V6981.C V6980.C V6983.C V6978.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	536223	528317	541288	618957	566079	558173	6.59
beta-BHC	296247	243413	268505	294980	239207	268470	10.13
gamma-BHC (Lindane	446163	438179	425307	485094	461889	451326	5.11
delta-BHC	498624	439294	440699	502935	463612	469033	6.52
Heptachlor	415148	413903	431736	491025	441644	438691	7.18
Aldrin	468458	428903	436023	493745	447082	454842	5.80
Heptachlor epoxide	461233	402876	407541	447047	401437	424027	6.61
Endosulfan I	433432	398115	398172	437407	391187	411662	5.32
4,4'-DDE	358690	357439	361972	415822	379498	374684	6.58
Dieldrin	431646	403690	405245	457143	412993	422143	5.33
Endrin	336306	292811	293322	331424	308054	312383	6.60
Endosulfan II	394935	348483	340920	379472	338803	360523	7.00
4,4'-DDD	369727	321255	318090	359712	319884	337734	7.38
Endrin aldehyde	231577	168845	163839	183777	155563	180720	16.73
Endosulfan sulfate	336252	262891	255646	287439	255526	279551	12.27
4,4'-DDT	148001	134350	141885	182906	169715	155371	13.04
Endrin ketone	342909	282903	278705	314873	281581	300194	9.34
Methoxychlor	82334	77608	78355	92523	87727	83709	7.59
alpha-Chlordane	432064	380819	374903	419948	380696	397686	6.62
gamma-Chlordane	431294	406736	407393	456444	413200	423013	5.00
Chlordane 500 ppb			16378				
Chlordane {2}			19458				
Chlordane {3}			48099				
Chlordane {4}			41716				
Chlordane {5}			44271				
Toxaphene 500 ppb			5371				
Toxaphene {2}			6681				
Toxaphene {3}			7042				
Toxaphene {4}			6231				
Toxaphene {5}			5252				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/18/2009 **Instrument ID:** GC-V

Data File: V7103.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	3.25	3.19	3.31	160569	170620	6.26
beta-BHC	3.67	3.61	3.73	67678	67158	0.77
gamma-BHC (Lindan	3.58	3.52	3.64	134543	143179	6.42
delta-BHC	3.88	3.82	3.94	146239	148012	1.21
Heptachlor	4.14	4.06	4.22	124384	136656	9.87
Aldrin	4.51	4.43	4.59	133026	138487	4.11
Heptachlor epoxide	5.30	5.22	5.38	124283	125876	1.28
Endosulfan I	5.85	5.77	5.93	120186	120923	0.61
4,4'-DDE	5.74	5.64	5.84	115755	117396	1.42
Dieldrin	6.19	6.09	6.29	126836	126880	0.04
Endrin	6.53	6.43	6.63	93404	99022	6.01
Endosulfan II	6.83	6.73	6.93	99148	101130	2.00
4,4'-DDD	6.61	6.51	6.71	103062	101025	1.98
Endrin aldehyde	7.31	7.19	7.43	53289	46494	12.75
Endosulfan sulfate	7.74	7.62	7.86	88889	86782	2.37
4,4'-DDT	6.97	6.85	7.09	59344	66313	11.74
Endrin ketone	7.99	7.87	8.11	103431	100379	2.95
Methoxychlor	7.49	7.37	7.61	27914	31403	12.50
alpha-Chlordane	5.65	5.57	5.73	117031	117290	0.22
gamma-Chlordane	5.47	5.39	5.55	124478	125510	0.83
Chlordane 500 ppb	4.04	3.96	4.12	4033	4478	11.04
Chlordane {2}	4.68	4.59	4.75	5256	5753	9.44
Chlordane {3}	5.47	5.39	5.55	14749	15901	7.81
Chlordane {4}	5.65	5.57	5.73	23833	25745	8.02
Chlordane {5}	6.75	6.67	6.83	3712	4073	9.71
Toxaphene 500 ppb	6.14	6.06	6.22	1347	1156	14.18
Toxaphene {2}	6.57	6.48	6.64	1164	1037	10.91
Toxaphene {3}	6.98	6.89	7.05	1460	1320	9.54
Toxaphene {4}	7.42	7.34	7.50	1856	1919	3.34
Toxaphene {5}	7.97	7.89	8.05	3096	3049	1.52

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/18/2009 **Instrument ID:** GC-V

Data File: V7103.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.96	2.89	3.01	558173	549343	1.58
beta-BHC	3.39	3.32	3.44	268470	235430	12.31
gamma-BHC (Lindan	3.31	3.25	3.37	451326	451401	0.02
delta-BHC	3.71	3.64	3.76	469033	434233	7.42
Heptachlor	3.81	3.72	3.88	438691	445591	1.57
Aldrin	4.20	4.11	4.27	454842	429874	5.49
Heptachlor epoxide	4.91	4.81	4.97	424027	398547	6.01
Endosulfan I	5.43	5.34	5.50	411662	381732	7.27
4,4'-DDE	5.60	5.49	5.69	374684	353123	5.75
Dieldrin	5.81	5.70	5.90	422143	390682	7.45
Endrin	6.24	6.13	6.33	312383	300751	3.72
Endosulfan II	6.54	6.44	6.64	360523	308606	14.40
4,4'-DDD	6.43	6.33	6.53	337734	290456	14.00
Endrin aldehyde	6.98	6.86	7.10	180720	157826	12.67
Endosulfan sulfate	7.29	7.17	7.41	279551	247077	11.62
4,4'-DDT	6.87	6.74	6.98	155371	169029	8.79
Endrin ketone	7.79	7.66	7.90	300194	273692	8.83
Methoxychlor	7.60	7.47	7.71	83709	91359	9.14
alpha-Chlordane	5.36	5.27	5.43	397686	367709	7.54
gamma-Chlordane	5.16	5.07	5.23	423013	397426	6.05
Chlordane 500 ppb	3.64	3.56	3.72	16378	15802	3.51
Chlordane {2}	4.36	4.28	4.44	19458	17791	8.57
Chlordane {3}	5.15	5.07	5.23	48099	48330	0.48
Chlordane {4}	5.28	5.21	5.37	41716	42105	0.93
Chlordane {5}	5.35	5.27	5.43	44271	43403	1.96
Toxaphene 500 ppb	5.79	5.71	5.87	5371	4701	12.47
Toxaphene {2}	6.67	6.58	6.74	6681	6437	3.65
Toxaphene {3}	7.01	6.92	7.08	7042	6091	13.50
Toxaphene {4}	7.53	7.45	7.61	6231	5303	14.90
Toxaphene {5}	7.88	7.80	7.96	5252	4856	7.54

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/18/2009 **Instrument ID:** GC-V

Data File: V7121.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	3.25	3.19	3.31	160569	180505	12.42
beta-BHC	3.67	3.61	3.73	67678	71029	4.95
gamma-BHC (Lindan	3.59	3.52	3.64	134543	151738	12.78
delta-BHC	3.88	3.82	3.94	146239	157855	7.94
Heptachlor	4.14	4.06	4.22	124384	137404	10.47
Aldrin	4.52	4.43	4.59	133026	145530	9.40
Heptachlor epoxide	5.30	5.22	5.38	124283	134013	7.83
Endosulfan I	5.85	5.77	5.93	120186	127235	5.87
4,4'-DDE	5.75	5.64	5.84	115755	125569	8.48
Dieldrin	6.19	6.09	6.29	126836	135844	7.10
Endrin	6.53	6.43	6.63	93404	98587	5.55
Endosulfan II	6.83	6.73	6.93	99148	105236	6.14
4,4'-DDD	6.61	6.51	6.71	103062	113555	10.18
Endrin aldehyde	7.31	7.19	7.43	53289	54898	3.02
Endosulfan sulfate	7.74	7.62	7.86	88889	91823	3.30
4,4'-DDT	6.97	6.85	7.09	59344	58286	1.78
Endrin ketone	7.98	7.87	8.11	103431	111133	7.45
Methoxychlor	7.49	7.37	7.61	27914	26027	6.76
alpha-Chlordane	5.65	5.57	5.73	117031	124561	6.43
gamma-Chlordane	5.47	5.39	5.55	124478	132935	6.79

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/18/2009 **Instrument ID:** GC-V

Data File: V7121.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.95	2.89	3.01	558173	564378	1.11
beta-BHC	3.38	3.32	3.44	268470	253602	5.54
gamma-BHC (Lindan	3.30	3.25	3.37	451326	457147	1.29
delta-BHC	3.70	3.64	3.76	469033	458639	2.22
Heptachlor	3.80	3.72	3.88	438691	434616	0.93
Aldrin	4.19	4.11	4.27	454842	441129	3.01
Heptachlor epoxide	4.89	4.81	4.97	424027	407749	3.84
Endosulfan I	5.42	5.34	5.50	411662	385695	6.31
4,4'-DDE	5.59	5.49	5.69	374684	360403	3.81
Dieldrin	5.80	5.70	5.90	422143	399571	5.35
Endrin	6.22	6.13	6.33	312383	292521	6.36
Endosulfan II	6.53	6.44	6.64	360523	357403	0.87
4,4'-DDD	6.42	6.33	6.53	337734	327416	3.05
Endrin aldehyde	6.97	6.86	7.10	180720	157221	13.00
Endosulfan sulfate	7.29	7.17	7.41	279551	247391	11.50
4,4'-DDT	6.86	6.74	6.98	155371	135938	12.51
Endrin ketone	7.78	7.66	7.90	300194	300719	0.18
Methoxychlor	7.59	7.47	7.71	83709	75257	10.10
alpha-Chlordane	5.35	5.27	5.43	397686	373881	5.99
gamma-Chlordane	5.15	5.07	5.23	423013	404264	4.43

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/18/2009

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	1217-BLK04	SOIL	145		143		130		129	
PM-10_B_/3	12704-017	SOIL	95		169		78		144	
PM-10N_B/3	12704-019	SOIL	100		M		81		163	
PM-10S_B/3	12704-022	SOIL	90		M		67		M	
REP121509-	12704-023	SOIL	92		172		66		172	
PM-10E_B/3	12704-025	SOIL	83		M		64		M	
PM-10W_B/3	12704-027	SOIL	107		M		78		M	
ANOME/3.5-	12676-002	SOIL	112		160		98		126	
SBD/4-4.5	12676-001	SOIL	95		120		86		100	
Pest	PBS1217-MS04	SOIL	102		101		96		80	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	23-172	13-170

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PESTICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12710-001-MS07

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Linda	100.0	0.0	70.3	70	41 - 148
Heptachlor	100.0	0.0	67.3	67	37 - 164
Aldrin	100.0	0.0	70.0	70	37 - 151
Dieldrin	100.0	5.2	62.8	58	52 - 143
Endrin	100.0	0.0	71.8	72	54 - 166
4,4'-DDT	100.0	0.0	83.4	83	23 - 196

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Linda	0.0	81.1	81	15	18	41 - 148
Heptachlor	0.0	79.0	79	16	21	37 - 164
Aldrin	0.0	82.6	83	17	19	37 - 151
Dieldrin	5.2	72.3	67	14	15	52 - 143
Endrin	0.0	85.7	86	18	19	54 - 166
4,4'-DDT	0.0	99.2	99	18	29	23 - 196

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __6__ outside limits

Spike Recovery: __0___ out of __12__ outside limits

SOIL PESTICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS1217-MS04

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Linda	100.0	0.0	100.9	101	70 - 130
Heptachlor	100.0	0.0	118.7	119	70 - 130
Aldrin	100.0	0.0	99.9	100	70 - 130
Dieldrin	100.0	0.0	94.3	94	70 - 130
Endrin	100.0	0.0	98.2	98	70 - 130
4,4'-DDT	100.0	0.0	128.5	129	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __6__ outside limits

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.71 **DCB 1** 8.83 **TCMX 2** 2.44 **DCB 2** 8.86

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	1217-BLK04	12/18/2009	10:30	2.71		8.83		2.44		8.86	
PM-10_B_/3	12704-017	12/18/2009	10:42	2.71		8.83		2.44		8.85	
PM-10N_B/3	12704-019	12/18/2009	10:54	2.71		M		2.44		8.86	
PM-10S_B/3	12704-022	12/18/2009	11:06	2.71		M		2.44		M	
REP121509-	12704-023	12/18/2009	11:19	2.71		8.83		2.44		8.86	
PM-10E_B/3	12704-025	12/18/2009	11:31	2.71		M		2.43		M	
PM-10W_B/3	12704-027	12/18/2009	13:33	2.71		M		2.43		M	
ANOME/3.5-	12676-002	12/18/2009	14:34	2.71		8.83		2.43		8.86	
SBD/4-4.5	12676-001	12/18/2009	14:58	2.71		8.83		2.43		8.86	
Pest	PBS1217-MS04	12/18/2009	15:49	2.71		8.83		2.44		8.86	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 12/18/2009

Data file: V7102.D Fri Dec 18 09:29:34 2009

1st Column				**% Breakdown** DDT (1)	Endrin (1)
DDT (1)	6970396	Endrin (1)	8948483	7.13	4.46
DDD	535458	Endrin ketone	417688		
DDE	0	Endrin aldehyde	0		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	17209771	Endrin (2)	28855676	10.82	3.47
DDD	2087801	Endrin ketone	1035902		
DDE	0	Endrin aldehyde	0		

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-18-09\
Data File : V7119.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 14:58
Operator : IB
Sample : SBD/4-4.5,12676-001,S,30.81g,14.4,12/17/09,1
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 15:09:29 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 12:54:37 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.43	17833231	59444782	94.558m	85.894m
Spiked Amount 100.000			Recovery	=	94.56%	85.89%
2) S DCB	8.83	8.86	6670245	12718220	120.299m	99.564
Spiked Amount 100.000			Recovery	=	120.30%	99.56%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

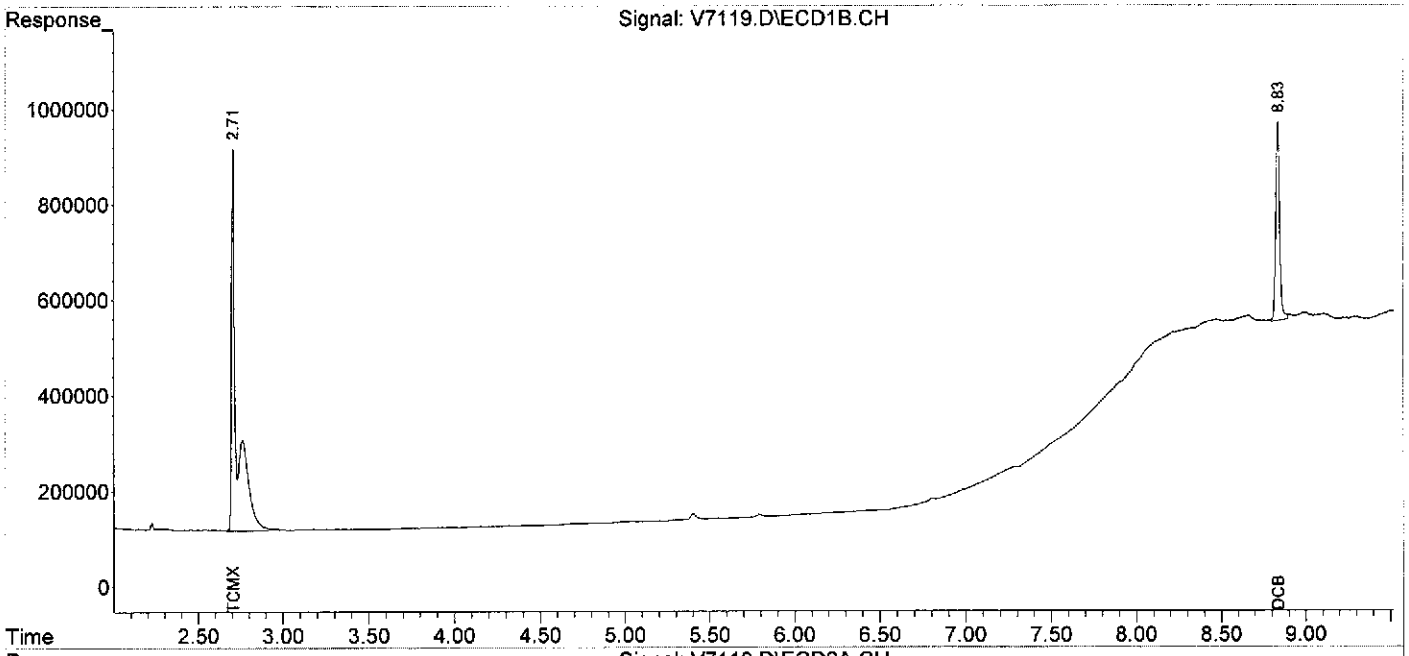
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

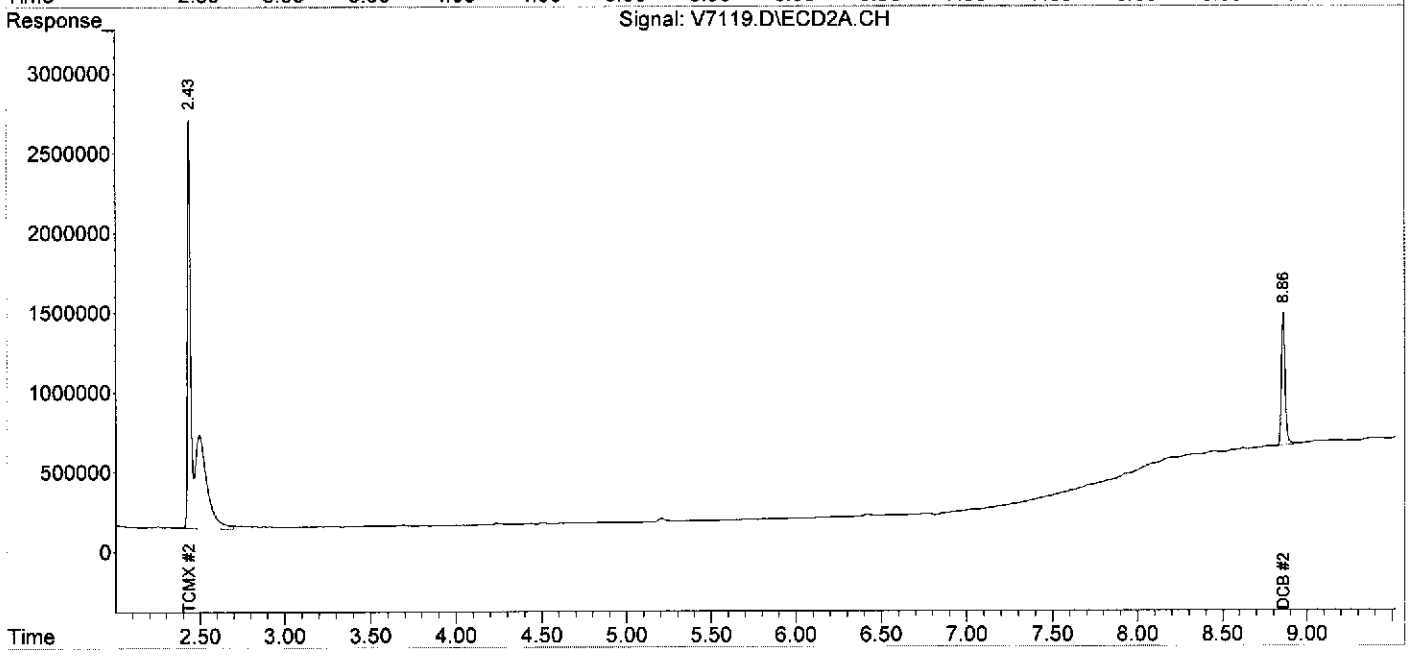
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-18-09\
Data File : V7119.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 14:58
Operator : IB
Sample : SBD/4-4.5,12676-001,S,30.81g,14.4,12/17/09,1
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 15:09:29 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 12:54:37 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-18-09\
Data File : V7118.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 14:34
Operator : IB
Sample : ANOME/3.5-,12676-002,S,30.21g,13.7,12/17/09,1
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 14:50:51 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 12:54:37 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.43	21027877	68014403	111.497m	98.277m
Spiked Amount 100.000			Recovery	=	111.50%	98.28%
2) S DCB	8.83	8.86	8862924	16142126	159.844m	126.368m
Spiked Amount 100.000			Recovery	=	159.84%	126.37%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

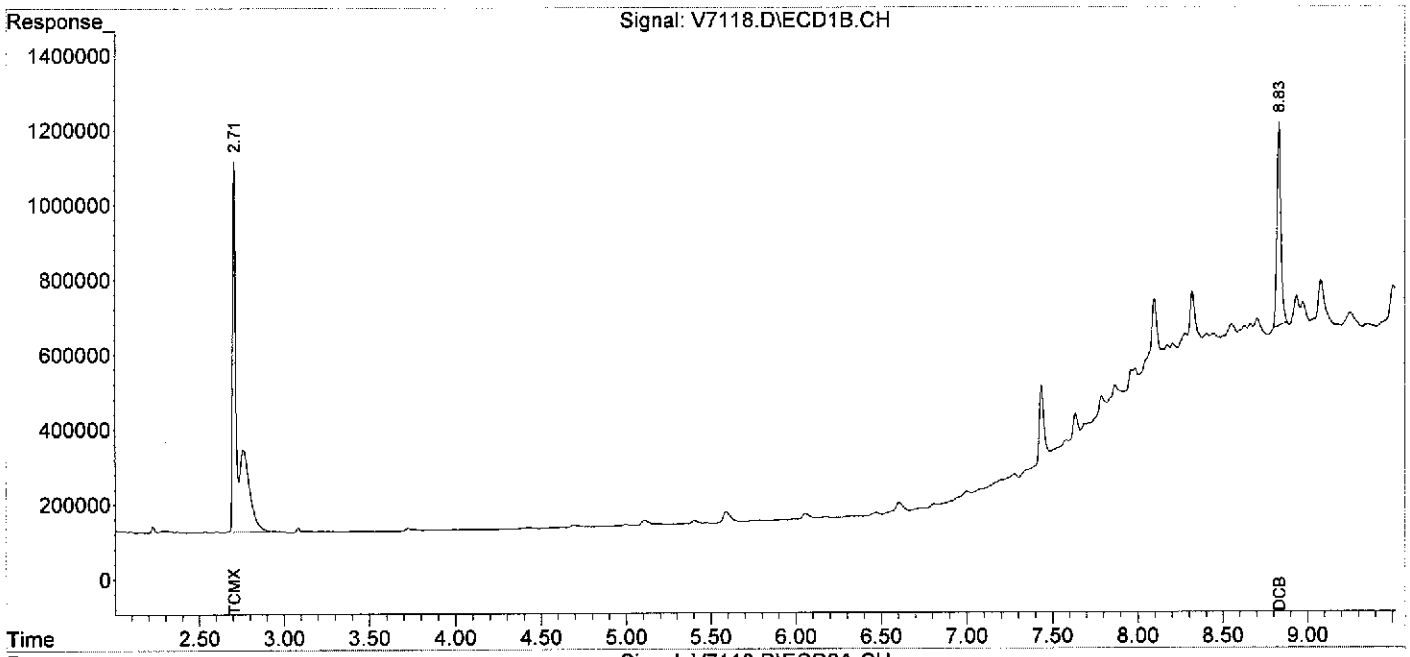
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

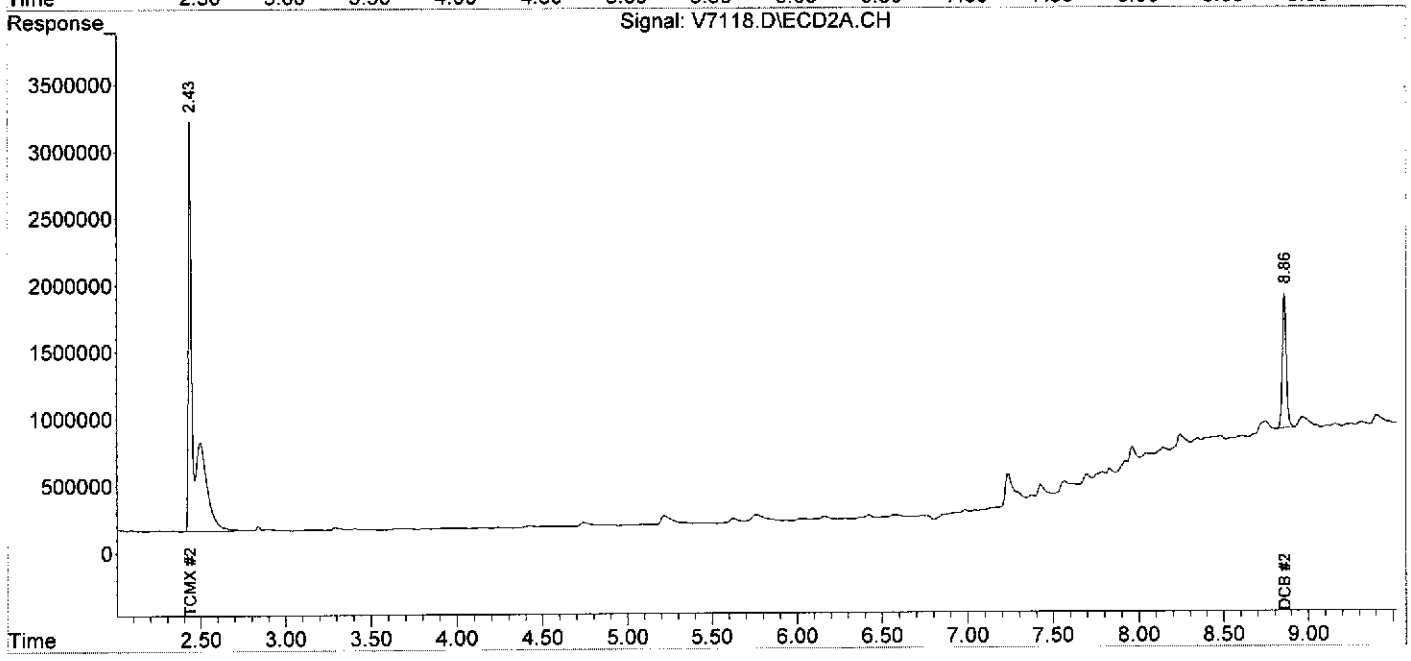
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-18-09\
Data File : V7118.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 14:34
Operator : IB
Sample : ANOME/3.5-,12676-002,S,30.21g,13.7,12/17/09,1
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 14:50:51 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 12:54:37 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-18-09\
Data File : V7106.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 10:30
Operator : IB
Sample : Pest,1217-BLK04,S,30.00g,0,12/17/09,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 10:40:32 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 10:04:18 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

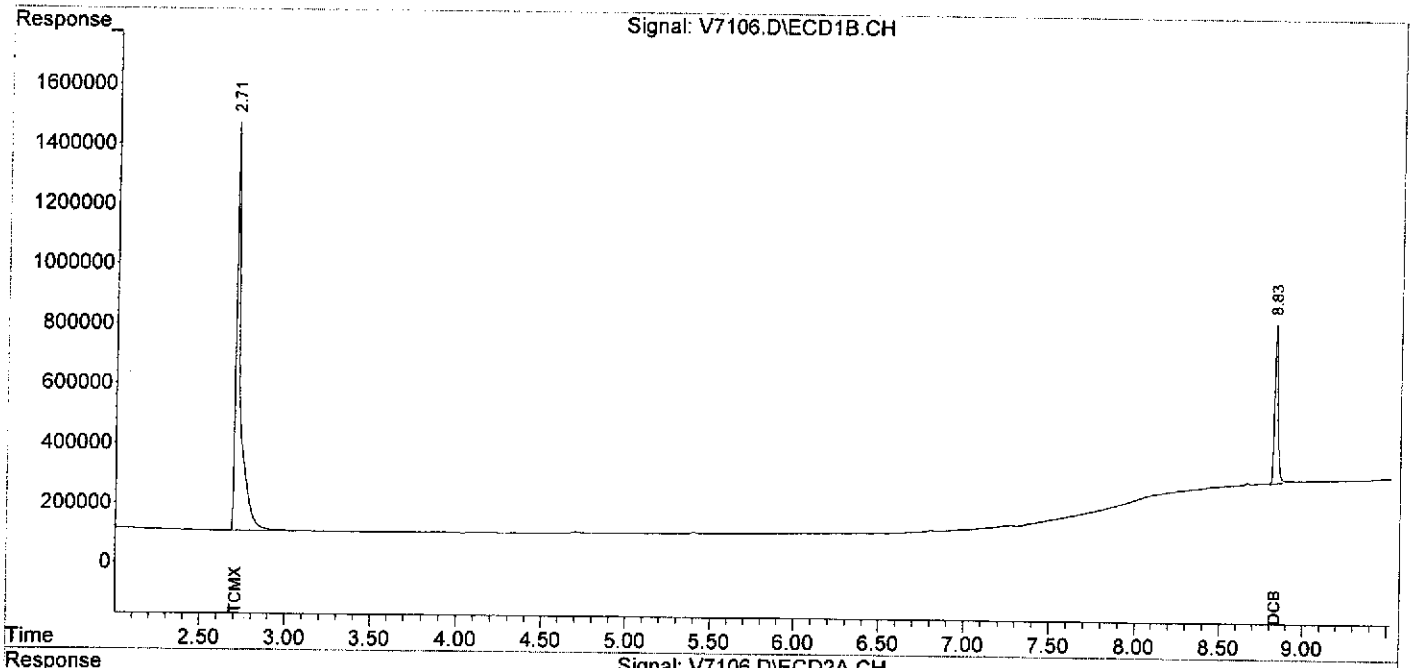
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.44	27349840	90136161	145.018	130.242
Spiked Amount 100.000			Recovery	=	145.02%	130.24%
2) S DCB	8.83	8.86	7905388	16487107	142.575m	129.069
Spiked Amount 100.000			Recovery	=	142.57%	129.07%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

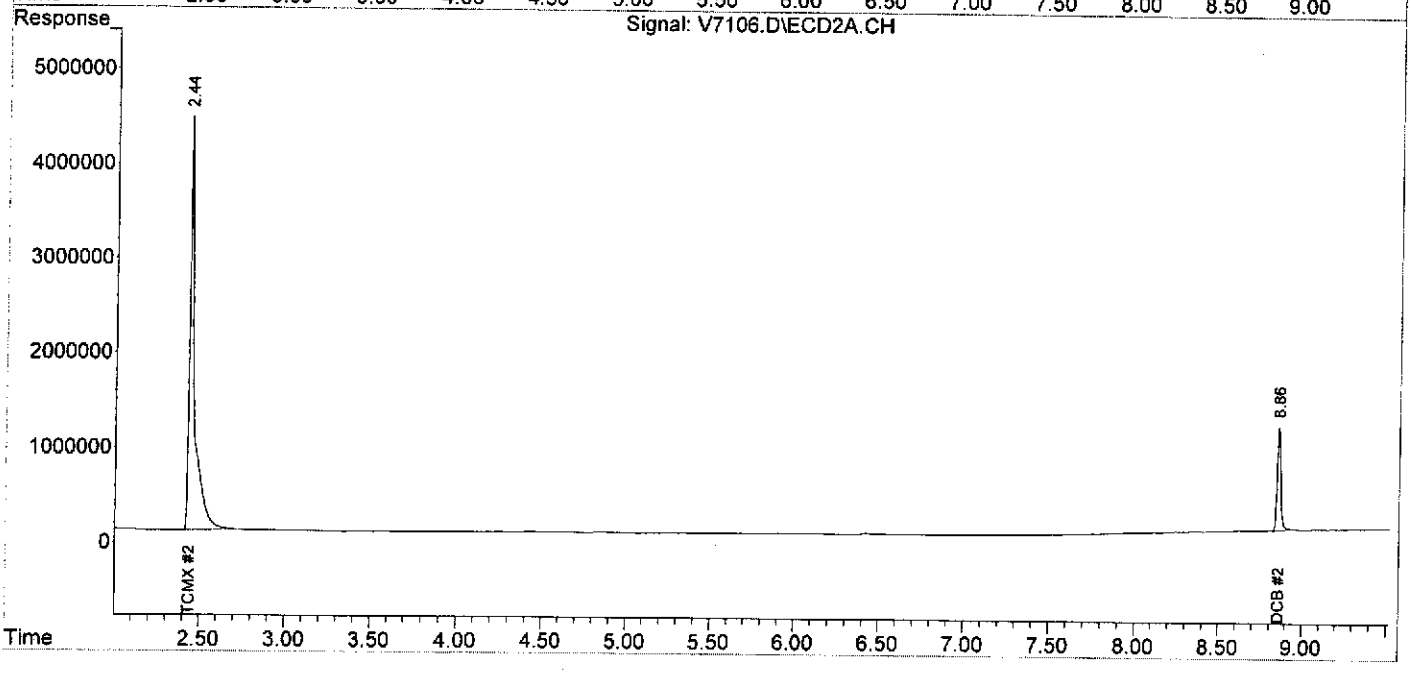
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\12-18-09\
Data File : V7106.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 10:30
Operator : IB
Sample : Pest,1217-BLK04,S,30.00g,0,12/17/09,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 10:40:32 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 10:04:18 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-18-09\
Data File : V7103.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 9:50
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 10:03:53 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 08:55:28 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	2.71	2.44	20168636	68110002	106.941	98.415
	Spiked Amount 100.000			Recovery	=	106.94%	98.42%
2) S	DCB	8.83	8.86	6155937	12805560	111.023m	100.248
	Spiked Amount 100.000			Recovery	=	111.02%	100.25%
	Target Compounds						
3) T	alpha-BHC	3.25	2.96	17061995	54934299	106.259	98.418
4) T	beta-BHC	3.67	3.39	6715821	23542992	99.232	87.693
5) T	gamma-BHC (Linda	3.58	3.31	14317859	45140056	106.419	100.016
6) T	delta-BHC	3.88	3.71	14801164	43423303	101.212	92.581
7) T	Heptachlor	4.14	3.81	13665622	44559129	109.866	101.573
8) T	Aldrin	4.51	4.20	13848686	42987404	104.105	94.511
9) T	Heptachlor epoxi	5.30	4.91	12587591	39854685	101.282	93.991
10) T	Endosulfan I	5.85	5.43	12092347	38173155	100.614	92.729
11) T	4,4'-DDE	5.74	5.60	11739584	35312335	101.418	94.246
12) T	Dieldrin	6.19	5.81	12688000	39068242	100.035	92.547
13) T	Endrin	6.53	6.24	9902193	30075064	106.015	96.276
14) T	Endosulfan II	6.83	6.54	10112995	30860629	101.999	85.600
15) T	4,4'-DDD	6.61	6.43	10102492	29045616	98.024	86.002
16) T	Endrin aldehyde	7.31	6.98	4649437	15782552	87.250	87.332
17) T	Endosulfan sulfa	7.74	7.29	8678155	24707657	97.630m	88.383
18) T	4,4'-DDT	6.97	6.87	6631315	16902928	111.743m	108.791
19) T	Endrin ketone	7.99	7.79	10037883	27369217	97.049m	91.172
20) T	Methoxychlor	7.49	7.60	3140322	9135875	112.499m	109.138
21) T	alpha-Chlordane	5.65	5.36	11729050	36770886	100.222	92.462
22) T	gamma-Chlordane	5.47	5.16	12551011	39742552	100.829	93.951
	Sum Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

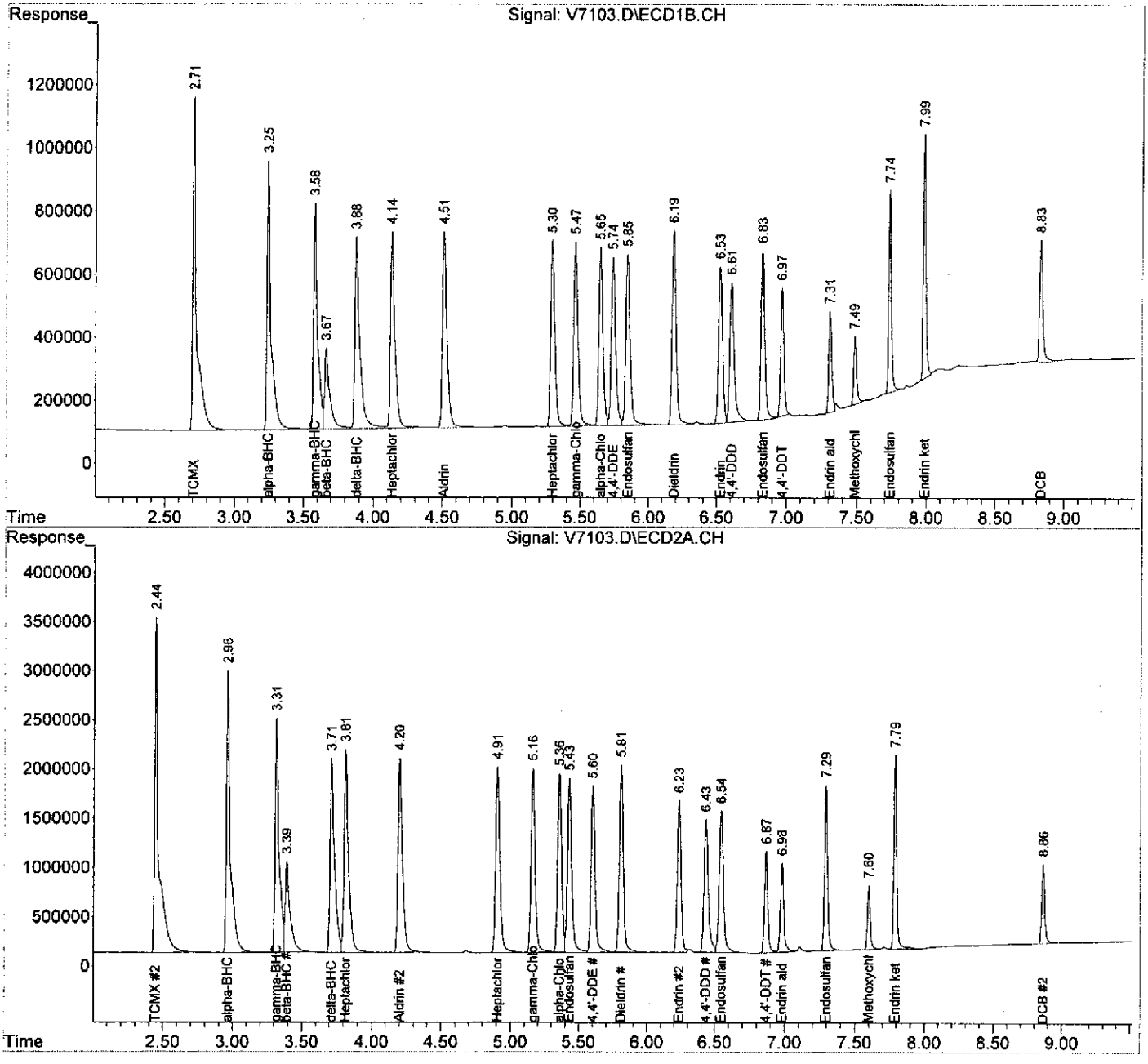
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-18-09\
Data File : V7103.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 9:50
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 10:03:53 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 08:55:28 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-18-09\
Data File : V7104.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 10:05
Operator : IB
Sample : TOX_C_IAS_3504,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 10:28:39 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 10:04:18 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

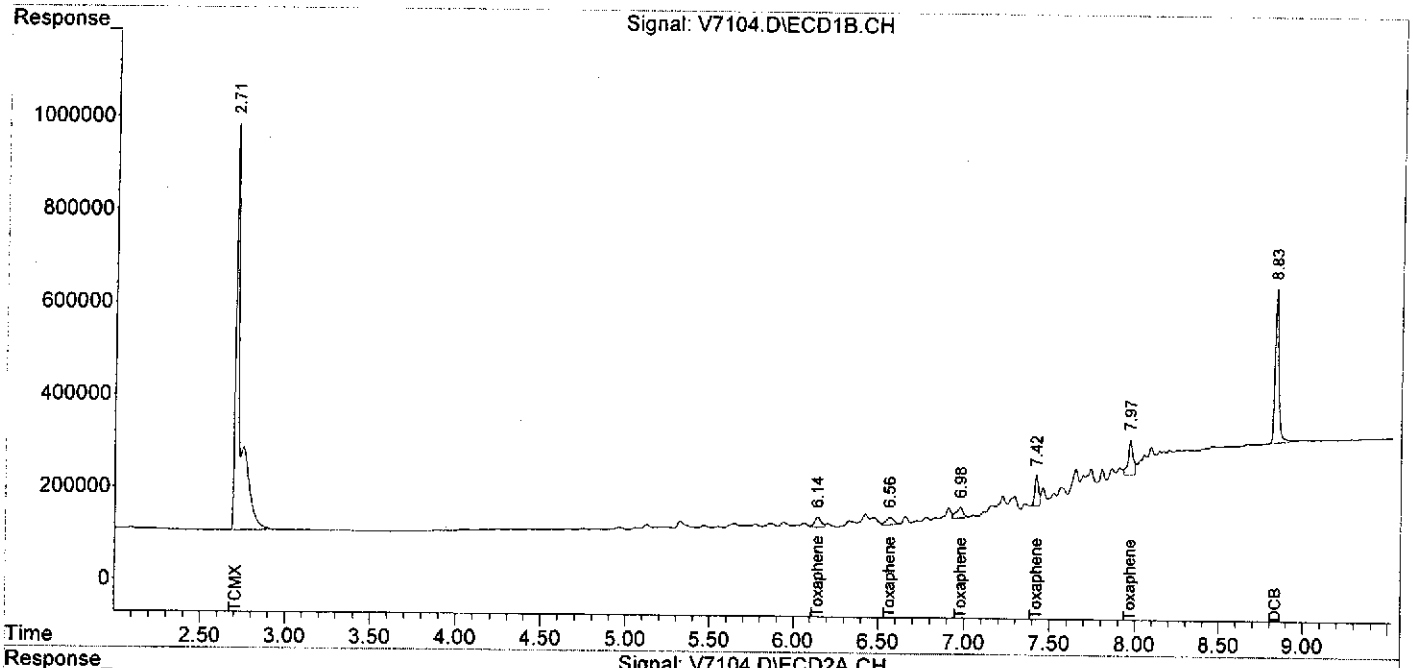
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.44	17801294	61510471	94.388m	88.879m
Spiked Amount 100.000			Recovery	=	94.39%	88.88%
2) S DCB	8.83	8.86	5313332	11128058	95.827m	87.116
Spiked Amount 100.000			Recovery	=	95.83%	87.12%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
28) L2 Toxaphene	6.14	5.79	578022	2350715	429.115	437.642m
29) L2 Toxaphene {2}	6.57	6.67	518577	3218616	445.455	481.733m
30) L2 Toxaphene {3}	6.98	7.01	660227	3045370	452.318	432.486
31) L2 Toxaphene {4}	7.42	7.53	959266	2651272	516.707m	425.515
32) L2 Toxaphene {5}	7.97	7.88	1524452	2427995	492.418m	462.296m
Sum Toxaphene			4240544	13693968	2336.012	2239.671
Average Toxaphene					467.202	447.934

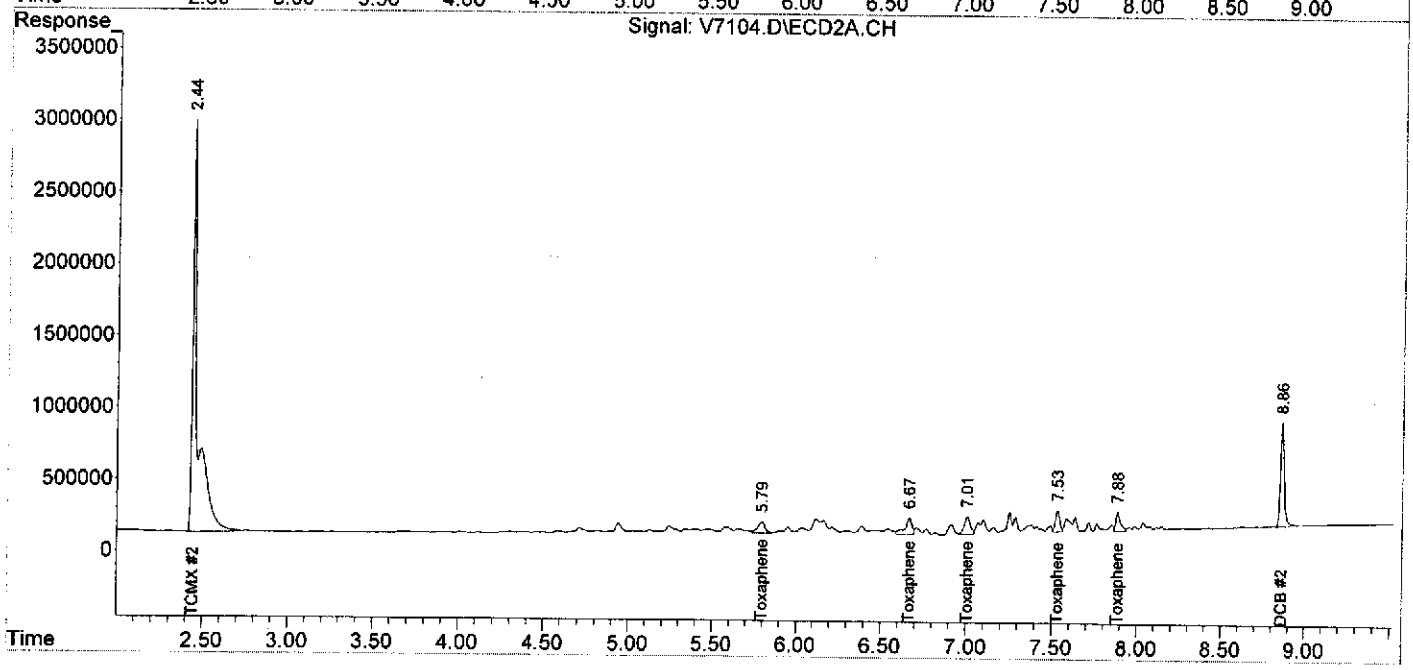
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDChem\1\DATA\12-18-09\
Data File : V7104.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 10:05
Operator : IB
Sample : TOX_C_IAS_3504,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 10:28:39 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 10:04:18 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-18-09\
Data File : V7105.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 10:17
Operator : IB
Sample : CHLOR_C_IAS_3503,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 10:29:09 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 10:04:18 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.71	2.44	20263960	68817408	107.446m	99.437m
Spiked Amount 100.000			Recovery	=	107.45%	99.44%
2) S DCB	8.83	8.86	6026811	12775579	108.694m	100.013
Spiked Amount 100.000			Recovery	=	108.69%	100.01%
Target Compounds						
23) L1 Chlordane	4.04	3.64	2238828	7901096	555.194	482.428
24) L1 Chlordane {2}	4.68	4.36	2876266	8895399	547.192	457.162
25) L1 Chlordane {3}	5.47	5.15	7950741	24164880	539.053	502.397
26) L1 Chlordane {4}	5.65	5.28	12872534	21052684	540.106	504.662
27) L1 Chlordane {5}	6.75	5.35	2036324	21701691	548.544	490.202
Sum Chlordane			27974693	83715749	2730.090	2436.852
Average Chlordane					546.018	487.370
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

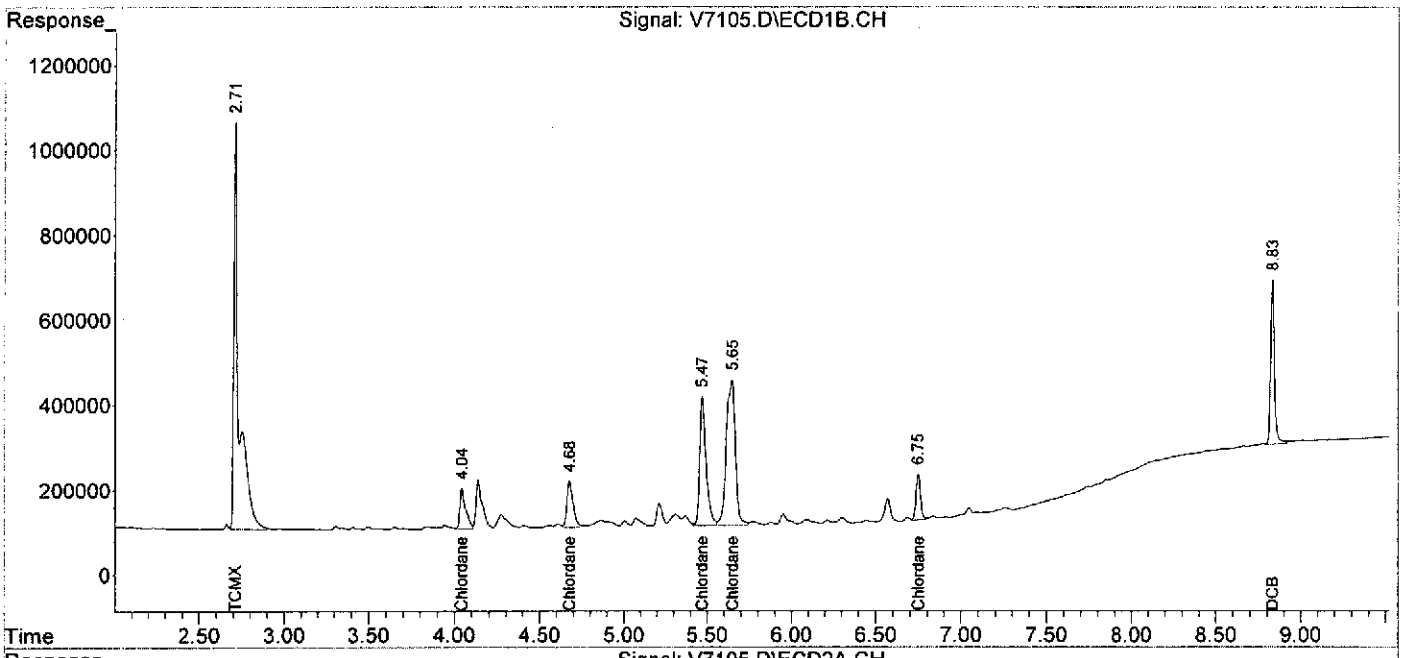
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

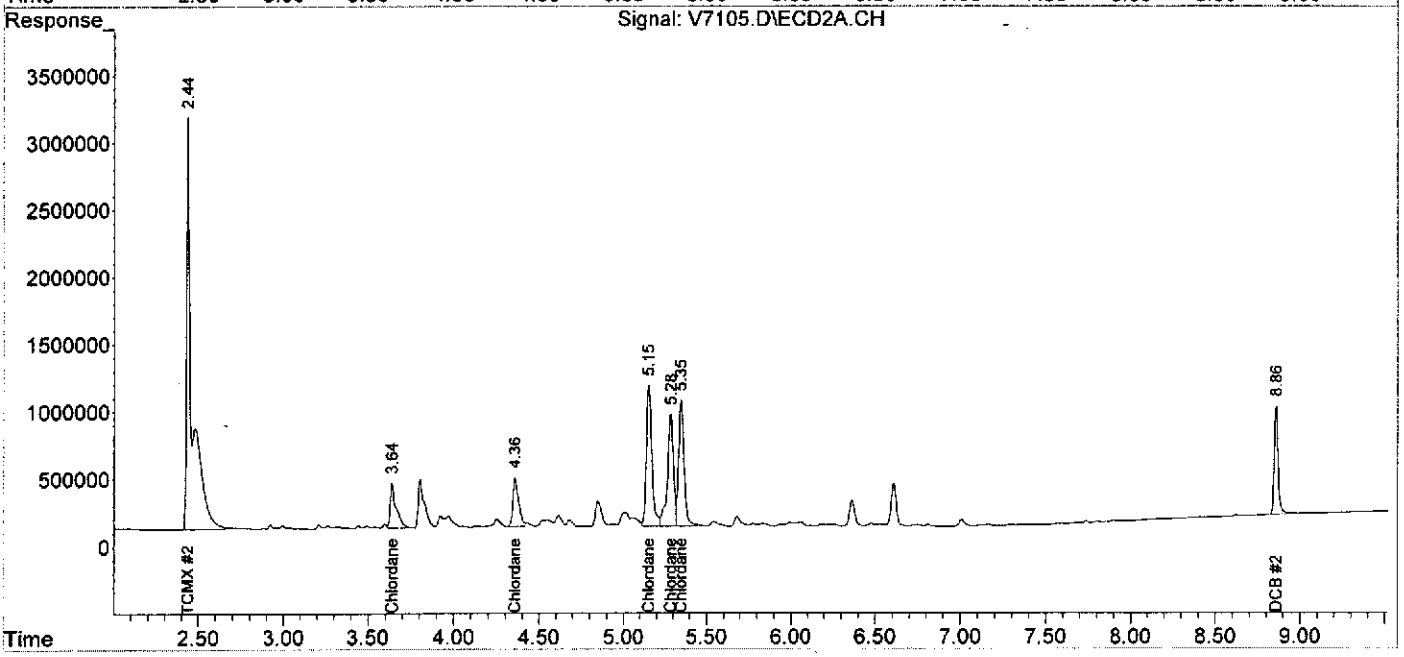
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-18-09\
Data File : V7105.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 10:17
Operator : IB
Sample : CHLOR_C_IAS_3503,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 10:29:09 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 10:04:18 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-18-09\
Data File : V7121.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 16:01
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 16:12:01 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 12:54:37 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

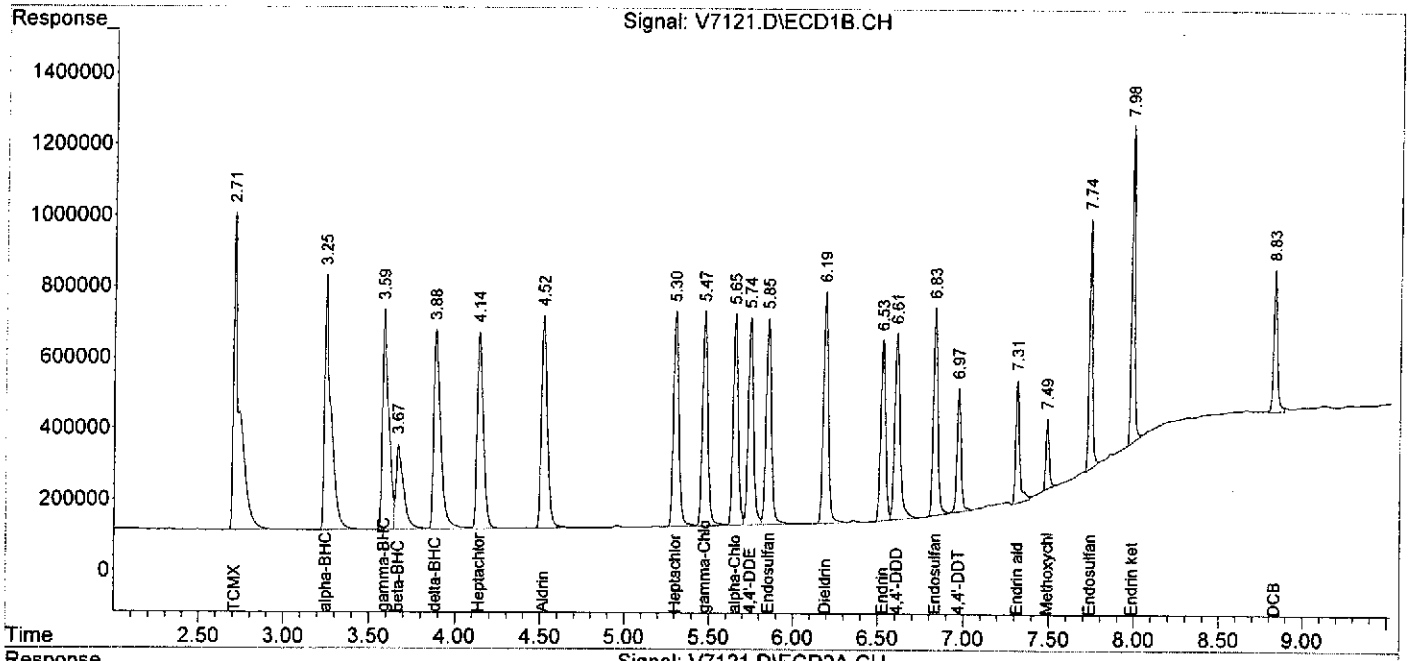
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	2.71	2.44	21253852	70324249	112.695m	101.615m
Spiked Amount	100.000			Recovery	=	112.69%	101.61%
2) S	DCB	8.83	8.86	6241114	11802893	112.559m	92.399m
Spiked Amount	100.000			Recovery	=	112.56%	92.40%
	Target Compounds						
3) T	alpha-BHC	3.25	2.95	18050459	56437792	112.415	101.112
4) T	beta-BHC	3.67	3.38	7102914	25360233	104.952	94.462
5) T	gamma-BHC (Linda	3.59	3.30	15173826	45714693	112.781	101.290
6) T	delta-BHC	3.88	3.70	15785466	45863921	107.943	97.784
7) T	Heptachlor	4.14	3.80	13740390	43461604	110.467	99.071
8) T	Aldrin	4.52	4.19	14552951	44112903	109.399	96.985
9) T	Heptachlor epoxi	5.30	4.89	13401340	40774930	107.829	96.161
10) T	Endosulfan I	5.85	5.42	12723487	38569531	105.865	93.692
11) T	4,4'-DDE	5.75	5.59	12556934	36040347	108.479	96.189
12) T	Dieldrin	6.19	5.80	13584446	39957062	107.103	94.653
13) T	Endrin	6.53	6.22	9858690	29252125	105.549	93.642
14) T	Endosulfan II	6.83	6.53	10523582	35740288	106.140	99.135
15) T	4,4'-DDD	6.61	6.42	11355492	32741599	110.181	96.945
16) T	Endrin aldehyde	7.31	6.97	5489777	15722097	103.020	86.997
17) T	Endosulfan sulfa	7.74	7.29	9182347	24739086	103.302m	88.496
18) T	4,4'-DDT	6.97	6.86	5828608	13593846	98.217	87.493m
19) T	Endrin ketone	7.98	7.78	11113290	30071945	107.447m	100.175
20) T	Methoxychlor	7.49	7.59	2602750	7525687	93.241m	89.902
21) T	alpha-Chlordane	5.65	5.35	12456056	37388080	106.434	94.014
22) T	gamma-Chlordane	5.47	5.15	13293450	40426446	106.794	95.568
Sum	Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000
Sum	Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

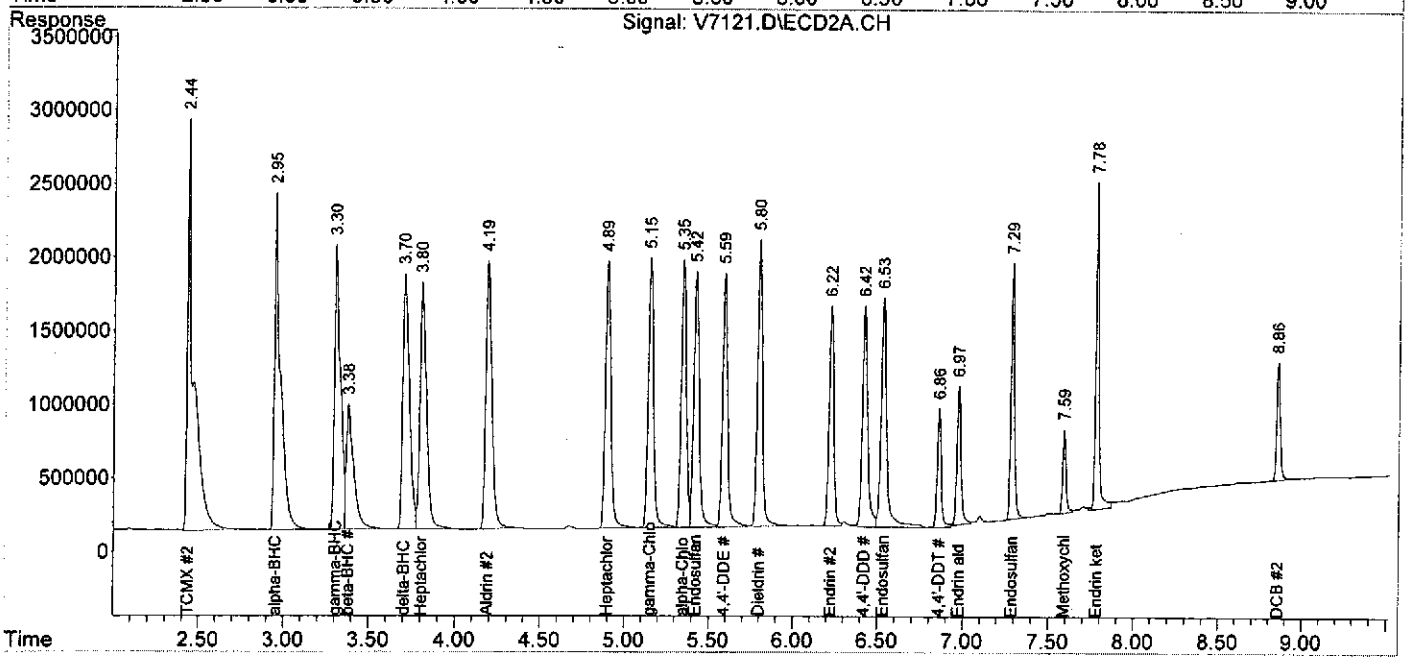
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDChem\1\DATA\12-18-09\
Data File : V7121.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 18 Dec 2009 16:01
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Dec 18 16:12:01 2009
Quant Method : C:\MSDCHEM\1\METHODS\VPST1209.M
Quant Title :
QLast Update : Fri Dec 18 12:54:37 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





NJ-QAM-25 METHOD BLANK SUMMARY

Lab File ID:	Z7482.D	Instrument ID:	GC-Z
Date Extracted:	12/01/2009	Matrix:	SOIL
Date Analyzed:	12/02/2009	Time Analyzed:	11:07

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
A-BOTTOM	12156-001	12/02/2009	11:22
A-1/12.5	12156-002	12/02/2009	11:37
A-2/12.5	12156-003	12/02/2009	11:52
A-3/12.5	12156-004	12/02/2009	12:07
B-3/14	12156-008	12/02/2009	13:07
B-BOTTOM	12156-005	12/02/2009	13:22
B-1/15	12156-006	12/02/2009	13:37
B-2/15	12156-007	12/02/2009	13:52
QAM	12156-008-MS06	12/02/2009	14:08
QAM	12156-008-MSD06	12/02/2009	14:23
QAM	QBS1201-MS06	12/02/2009	14:38

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: NA

Lab ID: 1201-BLK06
Client ID: QAM
Date Received: NA
Date Extracted: 12/01/2009
Date Analyzed: 12/02/2009
Data file: Z7482.D

GC Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Total TPHC	ND		2.00

0156

NJ-QAM-25 METHOD BLANK SUMMARY

Lab File ID:	Z7761.D	Instrument ID:	GC-Z
Date Extracted:	12/15/2009	Matrix:	SOIL
Date Analyzed:	12/16/2009	Time Analyzed:	13:03

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
T1-2D/6	12669-001	12/16/2009	13:18
ANOME/3.	12676-002	12/16/2009	13:48
SBD/4-4.	12676-001	12/16/2009	14:03
QAM	QBS1215-MS11	12/16/2009	14:33

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: NA

Lab ID: 1215-BLK11
Client ID: QAM
Date Received: NA
Date Extracted: 12/15/2009
Date Analyzed: 12/16/2009
Data file: Z7761.D

GC Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Total TPHC	ND		2.00

0158

QAM-025 INITIAL CALIBRATION SUMMARY

Date Analyzed: 11/25/2009

Instrument ID: GC-Z

GC Column : DB-5

Data File: Z7403.D Z7402.D Z7401.D Z7400.D Z7399.D

Compound	RT OF STANDARDS 2000	5000	20000	50000	100000	MEAN RT	RT WINDOW FROM	TO
n-Octane (C8)	0.76	0.76	0.77	0.77	0.77	0.76	0.69	0.83
n-Decane (C10)	1.70	1.69	1.70	1.70	1.70	1.70	1.63	1.77
n-Dodecane (C12)	2.33	2.33	2.33	2.33	2.33	2.33	2.26	2.40
n-Tetradecane (C14)	2.81	2.81	2.81	2.81	2.81	2.81	2.74	2.88
n-Hexadecane (C16)	3.22	3.22	3.22	3.22	3.22	3.22	3.15	3.29
n-Heptadecane (C17)	3.41	3.41	3.41	3.41	3.41	3.41	3.34	3.48
Pristane	3.42	3.42	3.42	3.42	3.42	3.42	3.35	3.49
n-Octadecane (C18)	3.59	3.59	3.59	3.59	3.59	3.59	3.52	3.66
Phytane	3.61	3.61	3.61	3.61	3.61	3.61	3.54	3.68
n-Eicosane (C20)	3.92	3.92	3.92	3.92	3.92	3.92	3.85	3.99
n-Dotriacontane (C32)	5.62	5.62	5.61	5.61	5.62	5.62	5.55	5.69
n-Tetracontane (C40)	7.27	7.28	7.27	7.27	7.27	7.27	7.20	7.34
TPH-QAM025	4.00	4.00	4.00	4.00	4.00	4.00	3.93	4.07

Compound	CALIBRATION FACTORS 2000	5000	20000	50000	100000	MEAN	%RSD
n-Octane (C8)	394	378	411	417	448	410	6.42
n-Decane (C10)	436	415	429	440	466	437	4.33
n-Dodecane (C12)	437	406	427	438	465	435	4.96
n-Tetradecane (C14)	441	411	433	444	472	440	5.01
n-Hexadecane (C16)	438	407	430	440	468	437	5.06
n-Heptadecane (C17)	436	371	412	419	422	412	5.92
Pristane	425	408	434	409	434	422	3.03
n-Octadecane (C18)	435	414	434	446	475	441	5.08
Phytane	441	397	429	438	471	435	6.07
n-Eicosane (C20)	436	412	427	438	470	437	4.90
n-Dotriacontane (C32)	358	373	406	430	462	406	10.41
n-Tetracontane (C40)	268	239	262	307	359	287	16.44
TPH-QAM025	412	386	411	422	451	416	5.65

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/16/2009 Instrument ID: GC-Z

Data File: Z7759.D GC Column : DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
n-Octane (C8)	0.78	0.71	0.85	410	344	16.01
n-Decane (C10)	1.70	1.63	1.77	437	356	18.62
n-Dodecane (C12)	2.33	2.26	2.40	435	348	19.80
n-Tetradecane (C14)	2.81	2.74	2.88	440	358	18.59
n-Hexadecane (C16)	3.22	3.15	3.29	437	359	17.70
n-Heptadecane (C17)	3.41	3.34	3.48	412	332	19.34
Pristane	3.42	3.35	3.49	422	379	10.31
n-Octadecane (C18)	3.59	3.52	3.66	441	360	18.32
Phytane	3.60	3.53	3.67	435	368	15.45
n-Eicosane (C20)	3.92	3.85	3.99	437	371	15.03
n-Dotriacontane (C32)	5.61	5.54	5.68	406	383	5.58
n-Tetracontane (C40)	7.25	7.18	7.32	287	301	4.76
TPH-QAM025	4.00	3.93	4.07	416	355	14.77
				Average %RSD		17.34

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 12/16/2009 Instrument ID: GC-Z

Data File: Z7767.D GC Column : DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
n-Octane (C8)	0.78	0.71	0.85	410	362	11.72
n-Decane (C10)	1.70	1.63	1.77	437	373	14.64
n-Dodecane (C12)	2.33	2.26	2.40	435	367	15.61
n-Tetradecane (C14)	2.81	2.74	2.88	440	379	13.86
n-Hexadecane (C16)	3.22	3.15	3.29	437	379	13.15
n-Heptadecane (C17)	3.41	3.34	3.48	412	386	6.32
Pristane	3.42	3.35	3.49	422	381	9.83
n-Octadecane (C18)	3.59	3.52	3.66	441	378	14.30
Phytane	3.60	3.53	3.67	435	371	14.66
n-Eicosane (C20)	3.92	3.85	3.99	437	391	10.50
n-Dotriacontane (C32)	5.61	5.54	5.68	406	415	2.39
n-Tetracontane (C40)	7.25	7.18	7.32	287	270	6.10
TPH-QAM025	4.00	3.93	4.07	416	371	10.93
				Average %RSD		12.43

NJ-QAM-25 SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/16/2009

Client ID	Lab Sample ID	Matrix	CHB % rec	#	OTP % rec	#
QAM	1215-BLK11	SOIL	78		84	
T1-2D/6	12669-001	SOIL	76		80	
ANOME/3.	12676-002	SOIL	79		76	
SBD/4-4.	12676-001	SOIL	79		80	
QAM	QBS1215-MS11	SOIL	86		102	

Surrogate QC Limits	Soil	Aqueous
CHB = Chlorobenzene	15-158	15-158
OTP = o-Terphenyl	15-159	15-159

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL NJ-QAM-25 MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12156-008-MSD06

Compound	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC #	QC LIMITS REC.
TPH-QAM025	240.0	1165.1	NC	NC	41 - 148

Compound	SAMPLE CONC. (mg/Kg)	MSD CONC. (mg/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
TPH-QAM025	1165.1	NC	NC	NC	18	41 - 148

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __1__ outside limits

Spike Recovery: __0___ out of __2__ outside limits

SOIL NJ-QAM-25 BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: QBS1215-MS11

Compound	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC #	QC LIMITS REC.
TPH-QAM025	240.0	0.0	167.8	70	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __1__ outside limits

NJ-QAM-25 RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Z **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

CHB 1.01 **OTP** 3.79

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	CHB RT	#	OTP RT	#
QAM	1215-BLK11	12/16/2009	13:03	1.01		3.79	
T1-2D/6	12669-001	12/16/2009	13:18	1.01		3.79	
ANOME/3.	12676-002	12/16/2009	13:48	1.01		3.79	
SBD/4-4.	12676-001	12/16/2009	14:03	1.01		3.79	
QAM	QBS1215-MS11	12/16/2009	14:33	1.02		3.79	

Surrogate QC Limits

CHB = Chlorobenzene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7765.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 14:03
Operator : LIZ
Sample : SBD/4-4.,12676-001,S,10.70g,14.4,12/15/09,20
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 14:44:39 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	1.01	5123260	15.702	ng	m
Spiked Amount 20.000		Recovery =	78.51%		
15) S o-Terphenyl	3.79	7825153	15.944	ng	
Spiked Amount 20.000		Recovery =	79.72%		
Target Compounds					

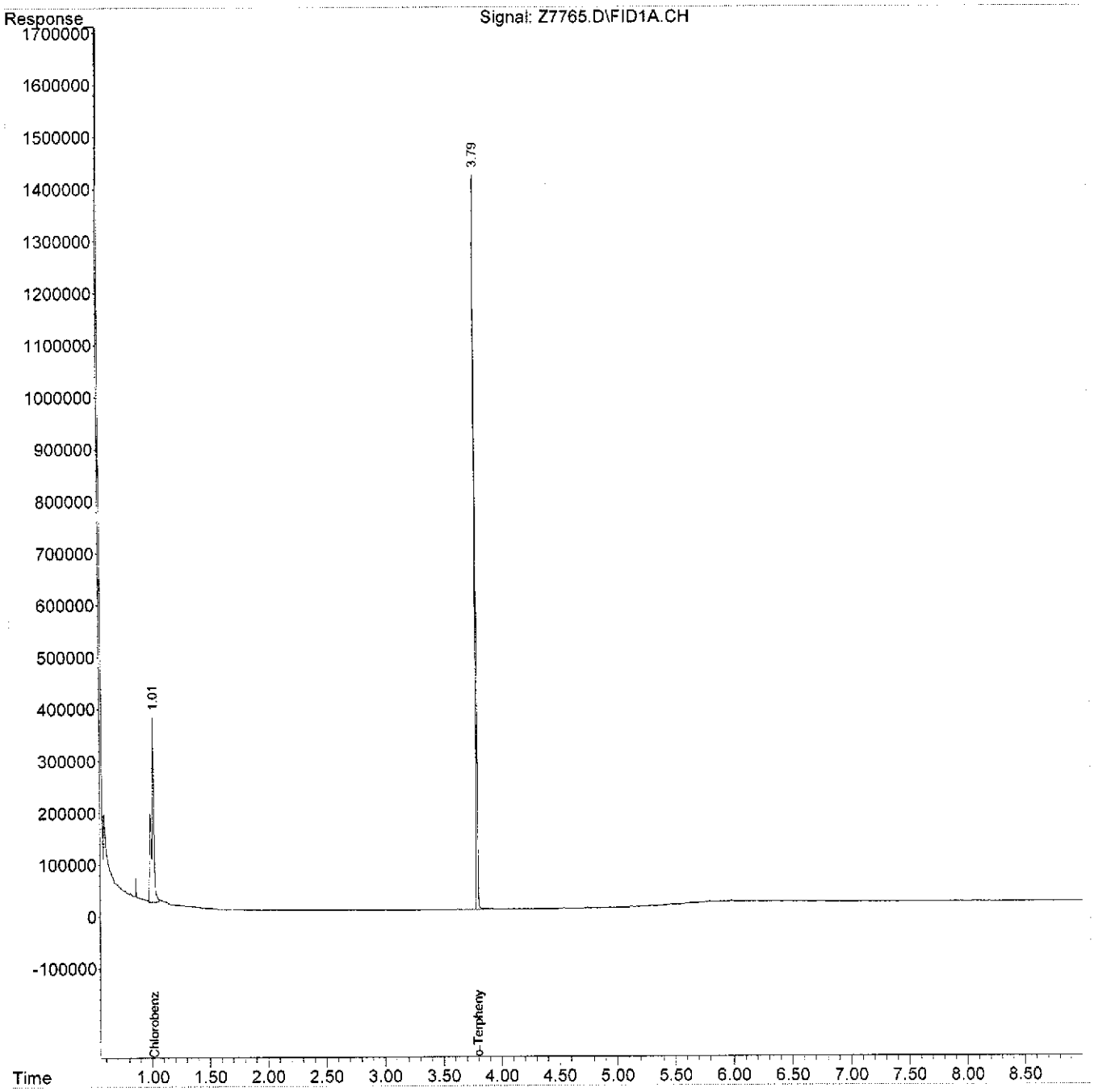
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7765.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 14:03
Operator : LIZ
Sample : SBD/4-4.,12676-001,S,10.70g,14.4,12/15/09,20
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 14:44:39 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7764.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 13:48
Operator : LIZ
Sample : ANOME/3.,12676-002,S,10.60g,13.7,12/15/09,20
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 13:59:55 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Chlorobenzene	1.01	5162377	15.821 ng m
Spiked Amount 20.000		Recovery =	79.11%
15) S o-Terphenyl	3.79	7429875	15.139 ng
Spiked Amount 20.000		Recovery =	75.70%
Target Compounds			
14) H Total TPHC	4.00	44996741	59.592 ng

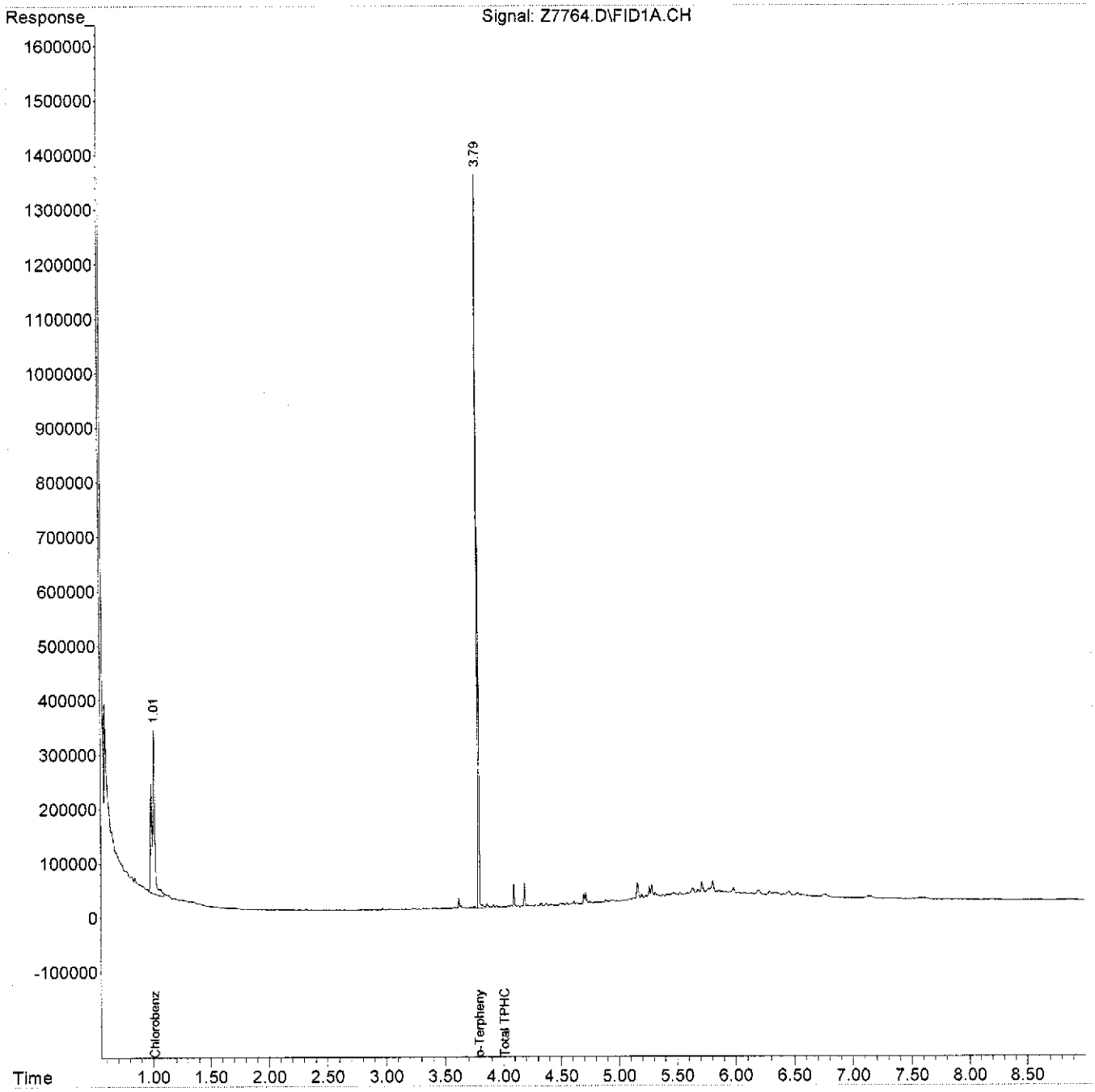
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7764.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 13:48
Operator : LIZ
Sample : ANOME/3.,12676-002,S,10.60g,13.7,12/15/09,20
Misc : PENNJERSEY/PALMER,12/14/09,12/15/09,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 13:59:55 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7761.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 13:03
Operator : LIZ
Sample : QAM,1215-BLK11,S,30.00g,0,12/15/09,20
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 13:31:22 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Chlorobenzene	1.01	5076826	15.559 ng m
Spiked Amount 20.000		Recovery =	77.79%
15) S o-Terphenyl	3.79	8210087	16.728 ng
Spiked Amount 20.000		Recovery =	83.64%
Target Compounds			

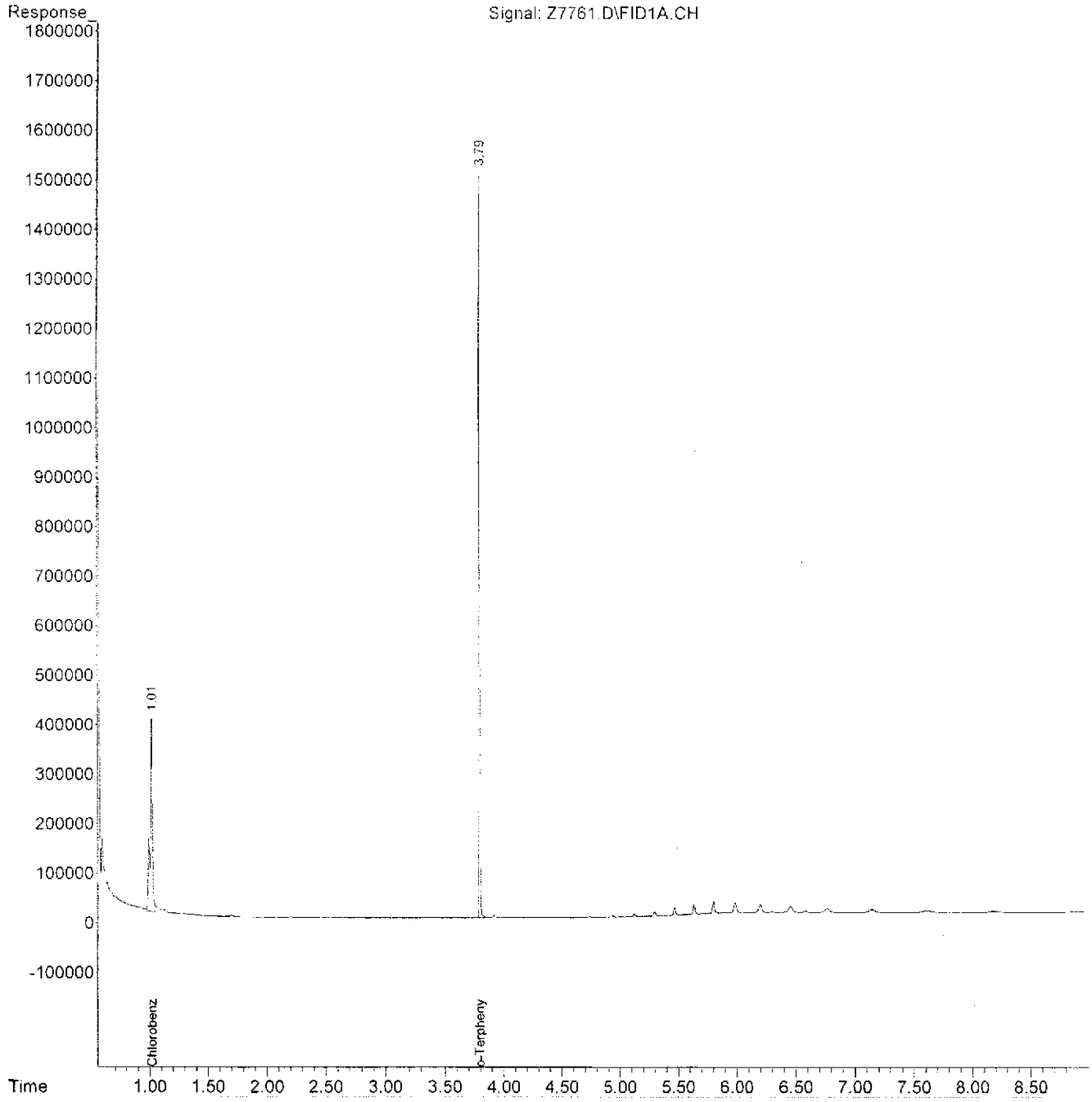
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7761.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 13:03
Operator : LIZ
Sample : QAM,1215-BLK11,S,30.00g,0,12/15/09,20
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 13:31:22 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7759.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 12:33
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 12:44:31 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	Chlorobenzene	1.00	6111170	18.729	ng	
Spiked Amount	20.000		Recovery =	93.64%		
15) S	o-Terphenyl	3.79	9670640	19.704	ng	
Spiked Amount	20.000		Recovery =	98.52%		
	Target Compounds					
2) T	n-Octane (C8)	0.78	6881590	16.798	ng	
3) T	n-Decane (C10)	1.70	7114297	16.276	ng	
4) T	n-Dodecane (C12)	2.33	6969624	16.040	ng	
5) T	n-Tetradecane (C14)	2.81	7164889	16.281	ng	
6) T	n-Hexadecane (C16)	3.22	7188319	16.460	ng	
7) T	n-Heptadecane (17)	3.41	6646570	16.133	ng	m
8) T	Pristane	3.42	7571837	17.939	ng	m
9) T	n-Octadecane (C18)	3.59	7202740	16.336	ng	
10) T	Phytane	3.60	7359318	16.910	ng	
11) T	n-Eicosane (C20)	3.92	7420240	16.994	ng	
12) T	n-Dotriacontane (C32)	5.61	7658446	18.884	ng	
13) T	n-Tetracontane (40)	7.25	6014118	20.951	ng	
14) H	Total TPHC	4.00	103101094	136.544	ng	

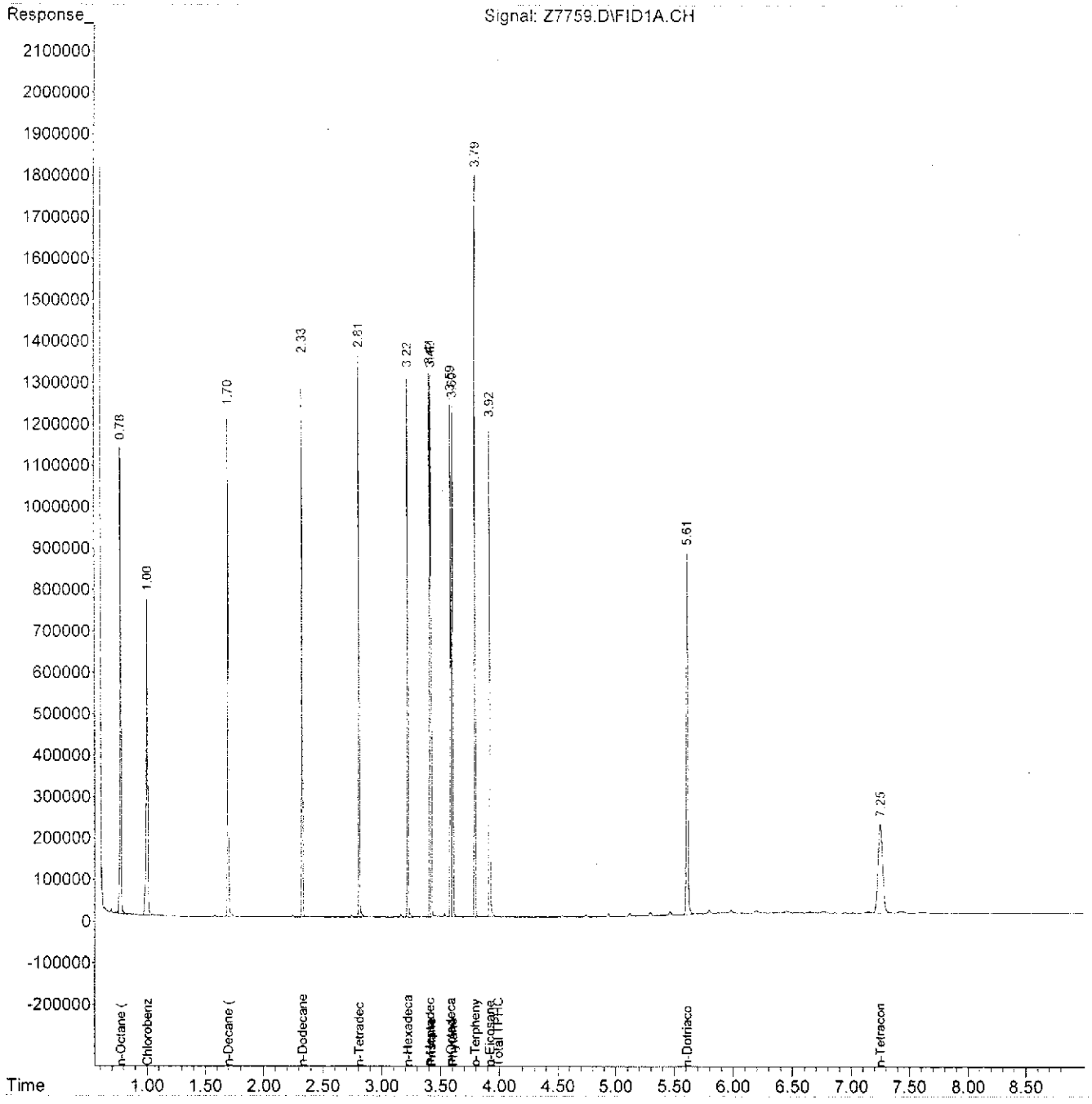
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7759.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 12:33
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 12:44:31 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7767.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 14:48
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 14:57:50 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
	System Monitoring Compounds				
1) S	Chlorobenzene	1.00	6371257	19.526 ng	
Spiked Amount	20.000		Recovery =	97.63%	
15) S	o-Terphenyl	3.79	10188840	20.760 ng	
Spiked Amount	20.000		Recovery =	103.80%	
	Target Compounds				
2) T	n-Octane (C8)	0.78	7232647	17.655 ng	
3) T	n-Decane (C10)	1.70	7462713	17.073 ng	
4) T	n-Dodecane (C12)	2.33	7333824	16.878 ng	
5) T	n-Tetradecane (C14)	2.81	7581715	17.228 ng	
6) T	n-Hexadecane (C16)	3.22	7585149	17.369 ng	
7) T	n-Heptadecane (17)	3.41	7719125	18.736 ng	m
8) T	Pristane	3.42	7612916	18.034 ng	m
9) T	n-Octadecane (C18)	3.59	7557466	17.140 ng	m
10) T	Phytane	3.60	7427579	17.067 ng	m
11) T	n-Eicosane (C20)	3.92	7816282	17.901 ng	
12) T	n-Dotriacontane (C32)	5.61	8305079	20.478 ng	
13) T	n-Tetracontane (40)	7.25	5390937	18.780 ng	
14) H	Total TPHC	4.00	108146413	143.226 ng	

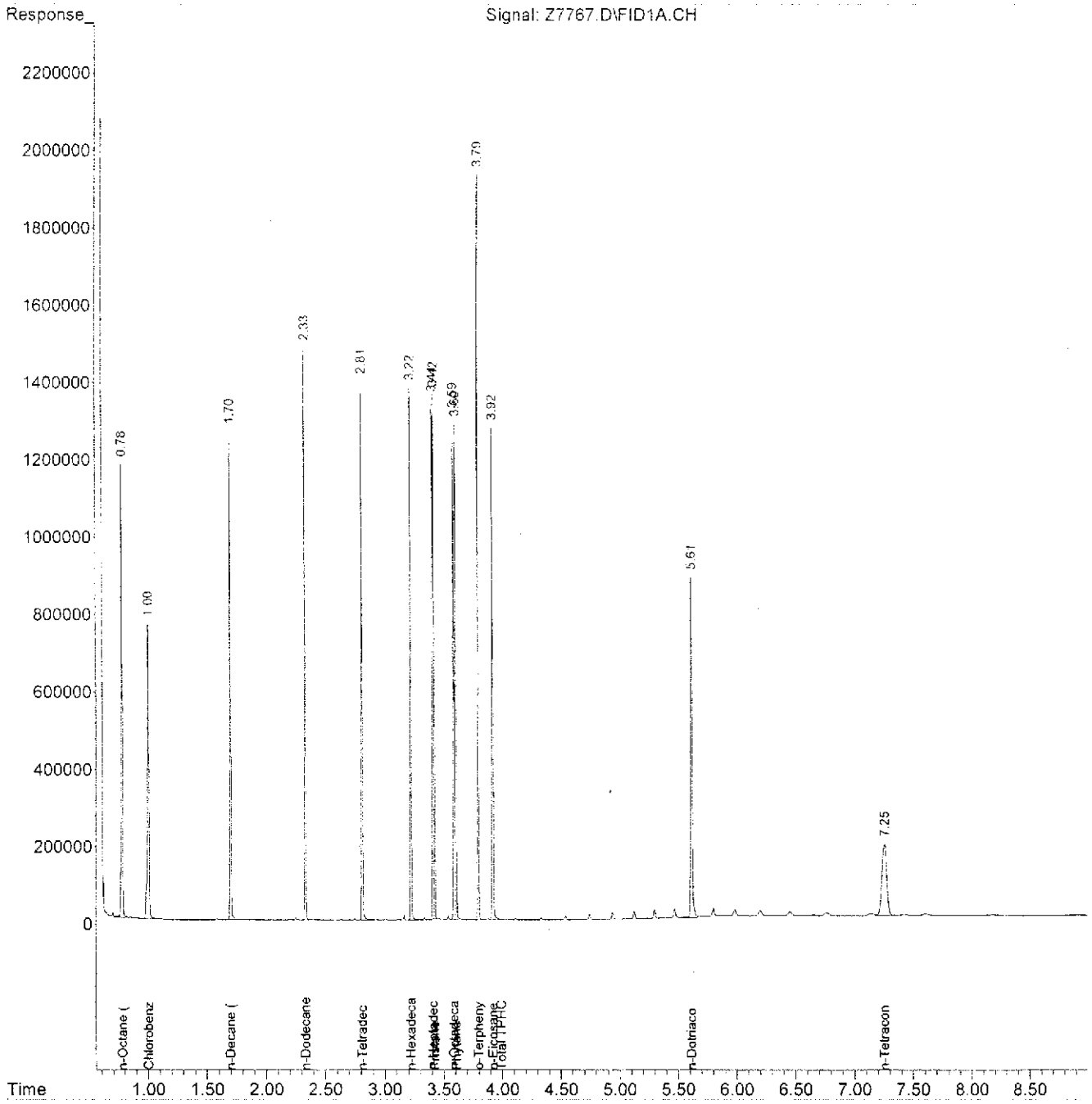
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7767.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 14:48
Operator : LIZ
Sample : VER_C_IAS_3456,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 14:57:50 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7758.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 12:17
Operator : LIZ
Sample : QAM-025_C_IAS_3452,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 12:26:33 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S Chlorobenzene	1.00	6134225	18.800	ng	
Spiked Amount	20.000		Recovery =	94.00%		
15)	S o-Terphenyl	3.79	9656799	19.676	ng	
Spiked Amount	20.000		Recovery =	98.38%		
	Target Compounds					
2)	T n-Octane (C8)	0.78	6820211	16.648	ng	
3)	T n-Decane (C10)	1.70	7091504	16.224	ng	
4)	T n-Dodecane (C12)	2.33	6965731	16.031	ng	
5)	T n-Tetradecane (C14)	2.81	7161790	16.274	ng	
6)	T n-Hexadecane (C16)	3.22	7185423	16.454	ng	
7)	T n-Heptadecane (17)	3.41	7812463	18.962	ng	m
8)	T Pristane	3.42	7206984	17.074	ng	m
9)	T n-Octadecane (C18)	3.59	7191086	16.309	ng	
10)	T Phytane	3.60	7382623	16.964	ng	
11)	T n-Eicosane (C20)	3.92	7421207	16.996	ng	
12)	T n-Dotriacontane (C32)	5.61	7866658	19.397	ng	
13)	T n-Tetracontane (40)	7.25	6084499	21.197	ng	
14)	H Total TPHC	4.00	107843701	142.825	ng	

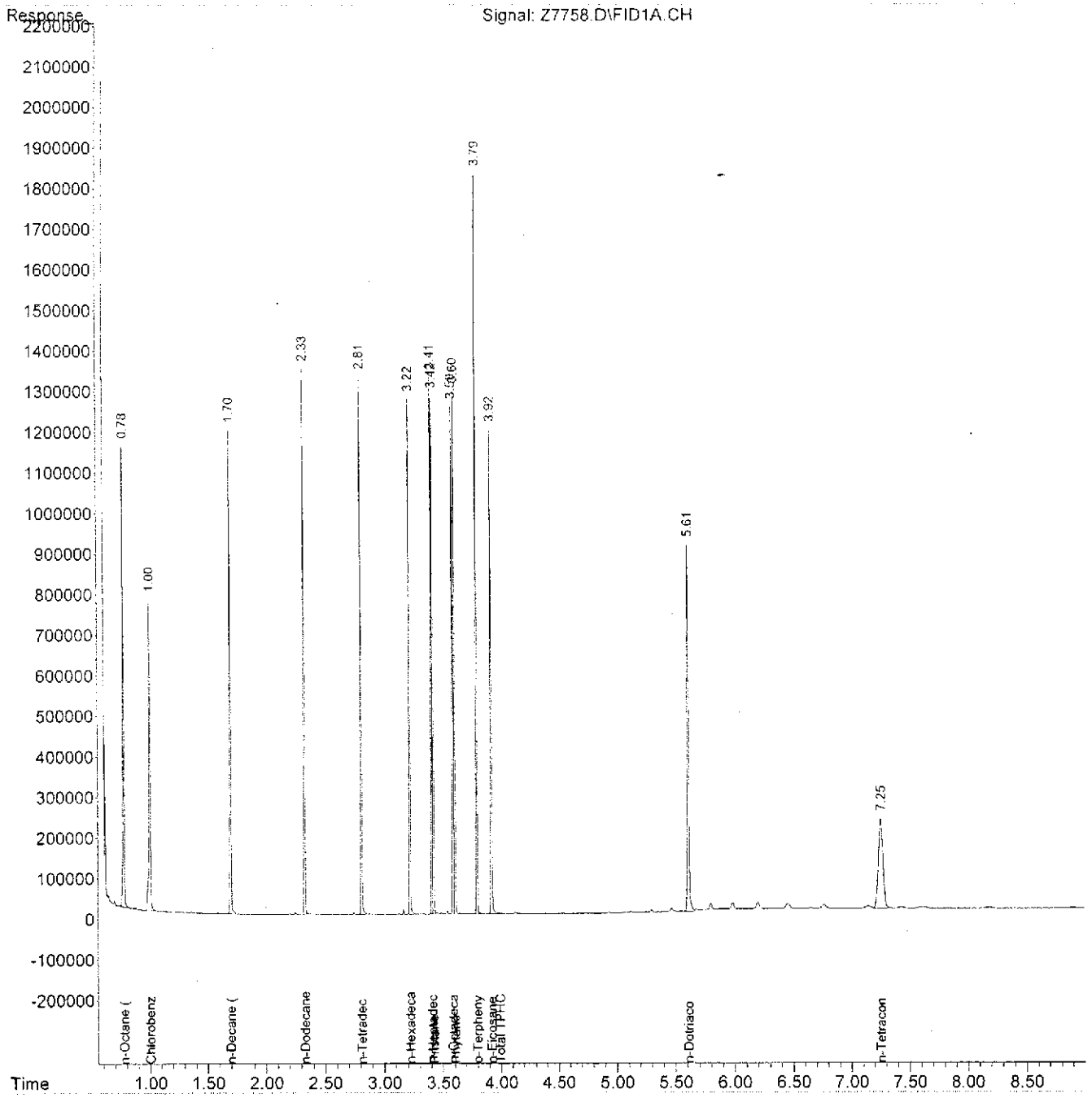
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-16-09\
Data File : Z7758.D
Signal(s) : FID1A.CH
Acq On : 16 Dec 2009 12:17
Operator : LIZ
Sample : QAM-025_C_IAS_3452,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Dec 16 12:26:33 2009
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM1125.M
Quant Title :
QLast Update : Wed Dec 16 12:26:11 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 536

Associated Lab Case for Blank 1: 12669, 12674, 12676

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	10.0	ND
Antimony	1.00	ND
Arsenic	0.500	ND
Barium	10.0	ND
Beryllium	0.250	ND
Cadmium	0.250	ND
Calcium	50.0	ND
Chromium	2.00	ND
Cobalt	2.00	ND
Copper	2.00	ND
Iron	25.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	1.00	ND
Mercury	0.013	ND
Nickel	1.00	ND
Potassium	50.0	ND
Selenium	2.00	ND
Silver	0.500	ND
Sodium	100	ND
Thallium	0.250	ND
Vanadium	2.00	ND
Zinc	2.00	ND

Associated Sample for Blank 1:

12669-001; 12674-001; 12676-001~002

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 536
Lab Case: 12669, 12676, 12674

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	ICB	CCB	CCB			
Aluminum	0.010	ND	ND	ND			
Antimony	0.001	ND	ND	ND			
Arsenic	0.0005	ND	ND	ND			
Barium	0.010	ND	ND	ND			
Beryllium	0.00025	ND	ND	ND			
Cadmium	0.00025	ND	ND	ND			
Calcium	0.050	ND	ND	ND			
Chromium	0.002	ND	ND	ND			
Cobalt	0.002	ND	ND	ND			
Copper	0.002	ND	ND	ND			
Iron	0.025	ND	ND	ND			
Lead	0.0005	ND	ND	ND			
Magnesium	0.050	ND	ND	ND			
Manganese	0.001	ND	ND	ND			
Mercury	0.00025	ND	ND				
Nickel	0.001	ND	ND	ND			
Potassium	0.050	ND	ND	ND			
Selenium	0.002	ND	ND	ND			
Silver	0.0005	ND	ND	ND			
Sodium	0.100	ND	ND	ND			
Thallium	0.00025	ND	ND	ND			
Vanadium	0.002	ND	ND	ND			
Zinc	0.002	ND	ND	ND			

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 536
Lab Case: 12669, 12676, 12674

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV FOUND	ICV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	FOUND	% R
Aluminum	10.0	400	403	101	414	104	388	97.0		
Antimony	1.00	120	129	108	130	108	126	105		
Arsenic	0.500	20.0	20.4	102	20.7	104	19.2	96.0		
Barium	10.0	400	406	102	409	102	399	99.8		
Beryllium	0.250	10.0	10.2	102	9.92	99.2	9.69	96.9		
Cadmium	0.250	10.0	9.93	99.3	10.0	100	9.77	97.7		
Calcium	50.0	10000	10500	105	10900	109	10100	101		
Chromium	2.00	20.0	20.2	101	21.3	107	19.7	98.5		
Cobalt	2.00	100	102	102	106	106	98.9	98.9		
Copper	2.00	50.0	50.9	102	53.5	107	49.8	99.6		
Iron	25.0	200	210	105	218	109	204	102		
Lead	0.500	10.0	10.1	101	10.2	102	10.1	101		
Magnesium	50.0	10000	10300	103	10700	107	10300	103		
Manganese	1.00	30.0	30.5	102	31.5	105	29.5	98.3		
Mercury	0.250	5.00	4.94	98.8	4.87	97.4				
Nickel	1.00	80.0	81.9	102	84.5	106	79.3	99.1		
Potassium	50.0	10000	10700	107	9970	99.7	10300	103		
Selenium	2.00	10.0	10.6	106	10.4	104	9.34	93.4		
Silver	0.500	20.0	18.5	92.5	18.5	92.5	18.2	91.0		
Sodium	100	10000	10600	106	10900	109	10400	104		
Thallium	0.250	20.0	19.9	99.5	20.2	101	20.0	100		
Vanadium	2.00	100	105	105	99.6	99.6	103	103		
Zinc	2.00	40.0	38.4	96.0	39.2	98.0	37.6	94.0		

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 536
Lab Case: 12669, 12676, 12674

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	102000	104000	104	NA
Iron	100000	-	96600	98900	98.9	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2080	2140	107	NA
Titanium	2000	-	2040	2110	106	NA
Silver	-	20.0	-	20.2	101	80-120
Arsenic	-	20.0	-	20.4	102	80-120
Cadmium	-	20.0	-	19.0	95.0	80-120
Cobalt	-	20.0	-	20.6	103	80-120
Chromium	-	20.0	-	20.4	102	80-120
Copper	-	20.0	-	20.3	102	80-120
Manganese	-	20.0	-	23.8	119	80-120
Nickel	-	20.0	-	20.4	102	80-120
Zinc	-	20.0	-	23.8	119	80-120

%R = Percent Recovery

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 536
Lab Case: 12669, 12674, 12676

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	5590	5190	NC	224					75-125
Antimony	48.8	ND	109	44.8					75-125
Arsenic	49.9	2.48	106	44.8					75-125
Barium	85.4	40.3	101	44.8					75-125
Beryllium	44.5	ND	99.3	44.8					75-125
Cadmium	42.9	ND	95.8	44.8					75-125
Calcium	20800	19800	NC	224					75-125
Chromium	63.7	15.8	107	44.8					75-125
Cobalt	48.7	ND	109	44.8					75-125
Copper	69.1	20.3	109	44.8					75-125
Iron	9850	9260	NC	224					75-125
Lead	105	61.9	96.2	44.8					75-125
Magnesium	2100	1780	NC	224					75-125
Manganese	121	72.2	109	44.8					75-125
Mercury	0.386	0.136	89.3	0.280					75-125
Nickel	55.3	6.04	110	44.8					75-125
Potassium	908	640	120	224					75-125
Selenium	50.1	ND	112	44.8					75-125
Silver	45.7	ND	102	44.8					75-125
Sodium	498	281	96.9	224					75-125
Thallium	46.0	ND	103	44.8					75-125
Vanadium	66.5	18.1	108	44.8					75-125
Zinc	121	65.9	123	44.8					75-125

SSR = Spike Sample Result
SR = Sample Result
SA = Spike Added
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 12669-001
QC Sample 1 for following samples:
12669-001; 12674-001; 12676-001~002

QC Sample 2 _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 536
Lab Case: 12669, 12674, 12676

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	5190	5370	3.41				
Antimony	NA	ND	ND	NC				
Arsenic	20	2.48	2.37	4.54				
Barium	20	40.3	40.5	0.495				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Calcium	20	19800	20500	3.47				
Chromium	20	15.8	16.3	3.12				
Cobalt	NA	ND	ND	NC				
Copper	20	20.3	21.4	5.28				
Iron	20	9260	9620	3.81				
Lead	20	61.9	61.4	0.811				
Magnesium	20	1780	1840	3.31				
Manganese	20	72.2	74.7	3.40				
Mercury	20	0.136	0.131	3.75				
Nickel	20	6.04	6.27	3.74				
Potassium	20	640	646	0.933				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	20	281	281	0				
Thallium	NA	ND	ND	NC				
Vanadium	20	18.1	18.8	3.79				
Zinc	20	65.9	68.8	4.31				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 12669-001
QC Sample 1 for following samples:
12669-001; 12674-001; 12676-001~002

QC Sample 2 _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 536
Lab Case: 12669, 12674, 12676

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	BSS1			BSS2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	190	95.0			
Antimony	40.0	43.8	110			
Arsenic	40.0	39.6	99.0			
Barium	40.0	42.2	106			
Beryllium	40.0	38.2	95.5			
Cadmium	40.0	38.7	96.8			
Calcium	200	200	100			
Chromium	40.0	39.6	99.0			
Cobalt	40.0	39.3	98.3			
Copper	40.0	41.1	103			
Iron	200	200	100			
Lead	40.0	40.1	100			
Magnesium	200	190	95.0			
Manganese	40.0	39.0	97.5			
Mercury	0.250	0.252	101			
Nickel	40.0	40.9	102			
Potassium	200	192	96.0			
Selenium	40.0	37.9	94.8			
Silver	40.0	40.3	101			
Sodium	200	195	97.5			
Thallium	40.0	40.4	101			
Vanadium	40.0	39.4	98.5			
Zinc	40.0	37.0	92.5			

(1) Control Limits % Recovery = 85-115%

BSS1	BSS2
12669-001; 12674-001; 12676-001~002	

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 536
Lab Case: 12669, 12674, 12676

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION SR	SERIAL DILUTION SDR	% Difference	POST SPIKE SPR	POST SPIKE SA	% Recovery
Aluminum	5190	5180	0.193			
Antimony	ND			45.4	44.8	101
Arsenic	2.48			47.1	44.8	99.6
Barium	40.3			85.0	44.8	99.8
Beryllium	ND			42.6	44.8	95.1
Cadmium	ND			40.9	44.8	91.3
Calcium	19800	19700	0.506			
Chromium	15.8			60.1	44.8	98.9
Cobalt	ND			45.8	44.8	102
Copper	20.3			66.3	44.8	103.0
Iron	9260	9410	1.61			
Lead	61.9	61.8	0.162			
Magnesium	1780	1790	0.560			
Manganese	72.2	71.5	0.974			
Nickel	6.04			51.0	44.8	100.0
Potassium	640			1600	896	107.0
Selenium	ND			44.7	44.8	99.8
Silver	ND			41.5	44.8	92.6
Sodium	281			1230	896	106.0
Thallium	ND			44.7	44.8	99.8
Vanadium	18.1			63.6	44.8	102.0
Zinc	65.9	64.8	1.68			

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 12669-001
QC Sample 1 for following samples:
12669-001; 12674-001; 12676-001~002

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869
12/17/2009

Certified for NJDEP, NY(DOH)
NJ ID#14751
NY ID#11402

General Chemistry Quality Control

Matrix: Soil
Units: Soil-mg/Kg

Batch ID: AP013-0113

Blank

Parameter	Method Blank	MDL	Analysis Date
Cyanide, Total	ND	1.00	12/17/09

Duplicate Recovery

Parameter	QC Sample	Result	Duplicate Result	RPD	RPD Limits
Cyanide, Total	12597-001S	14.9	14.8	1	20

Spike Recovery

Parameter	QC Sample	Result	Spike Added	Spike Result	%Spike Recovery	%Rec. Limits
Cyanide, Total	12597-001	ND	14.5	14.9	103	75 - 125

The above blank result applies to the follow samples:

E09-12669-001
E09-12676-001
E09-12676-002
E09-12597-001
E09-12597-001D
E09-12597-001S
E09-12597-001SD

++ = No Flash - Sample boiled at 100C
NA = Not Applicable
ND = Not Detected
NC = Non calculable RPD due to value less than the detection limit
No = Does Not Ignite
Yes = Sample Ignites

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Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER	
Company:	PEC-PA
Address:	2035 E. WELLINGTON RD. NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	D. KATZ
Sampler:	M. BROGAN
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

* Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. ** RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

SEE BELOW (under comments section for explanation)

Verbal/Fax 24 hr* 48 hr* **2 wk/Std** 72 hr* 1 wk* — Results needed by: STD

Hard Copy Other *call for price **3 wk/Std** — STD

Rush TAT Charge **: 24 hr - 100%... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only; Reduced; Regulatory - 15% Surcharge applies; Other (describe)

DISKETTE: SRP. dbf format; SRP.wk1 format; lab approved custom EDD; NO DISK/CD REQ'D

Cooler Temp 4 °C

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TAL/TCL QAM25	HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
SBD	4-4.5	12/14/09	12:00	S	4	01	✓					1	2	2	
ANOME	3.5-4	↓	12:30	S	4	2	✓					1	2	2	

Known Hazard: Yes or No Describe: Conc. Expected: Low Med High

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

MDL Req: Old GWQS - 11/05 GWQS - SCC - OTHER (SEE COMMENTS)

Signature/Company	Date	Time	Signature/Company
Relinquished by: [signature]	12/15/09	1020	Received by: Frank Lovell IAL
Relinquished by: Frank Lovell	12/15/09	1425	Received by: [signature]
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2
QAM-025 (OQA-QAM025) - used for: all other fuel oils and unknown contamination

Lab Case # 12676

PAGE: 1 of 1

LOG COPIES - WHITE & YELLOW; CLIENT COPY - PINK

01/2007 rev

Ref No: G 393000198

PROJECT INFORMATION

Case No. E09-12676 **Project** PALMER

Customer	**PennJersey Environmental Consulting**	**P.O. #**	
Contact	Dick Katz	**Received**	12/15/2009 14:25
EMail	pecinc@aol.com;nagorbm@yaho	☑ EMail EDDs	**Verbal Due** 12/31/2009
Phone	(215) 860-1231 **Fax** 1(215) 860-9988		**Report Due** 1/8/2010

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
12676-001	SBD	4 / 4.5	12/14/2009@12:00	Soil	mg/Kg	4
12676-002	ANOME	3.5 / 4	12/14/2009@12:30	Soil	mg/Kg	4

Sample #	Tests	Status	QA Method
001	TCL VO+10	In Process	8260B
"	TCL BNA+20	Run	8270C
"	PCB	Run	8082
"	TCL Pesticides	Run	8081A
"	TPH-QAM025	Run	QAM-025
"	TAL Metals	Run	6020/7471A
"	Cyanide, Total	Run	9012A
002	TCL VO+10	In Process	8260B
"	TCL BNA+20	Run	8270C
"	PCB	Run	8082
"	TCL Pesticides	Run	8081A
"	TPH-QAM025	Run	QAM-025
"	TAL Metals	Run	6020/7471A
"	Cyanide, Total	Run	9012A

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 09** **12676** CLIENT: PEC-PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [signature] DATE 12/15/09

CORRECTIVE ACTION REQUIRED: **YES** (SEE BELOW) **NO**

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES Date/ Time: NO

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KM DATE 12/15/09

Laboratory Custody Chronicle

IAL Case No.

E09-12676

Client PennJersey Environmental Consulting

Project PALMER

Received On 12/15/2009@14:25

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO+10	12676-001	Soil	n/a	n/a	12/16/09	Xing
"	-002	"	n/a	n/a	12/16/09	Xing

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL BNA+20	-001	Soil	12/16/09	Kou-Liang	12/16/09	JC
"	-002	"	12/16/09	Kou-Liang	12/16/09	JC

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
PCB	-001	Soil	12/17/09	Archimede	12/18/09	Sylvia
"	-002	"	12/17/09	Archimede	12/18/09	Sylvia
TCL Pesticides	-001	Soil	12/17/09	Archimede	12/18/09	Iwona
"	-002	"	12/17/09	Archimede	12/18/09	Iwona
TPH-QAM025	-001	Soil	12/15/09	Archimede	12/16/09	Margaret
"	-002	"	12/15/09	Archimede	12/16/09	Margaret

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TAL Metals	-001	Soil	12/16/09	Lisa	12/16/09	Wei
"	-002	"	12/16/09	Lisa	12/16/09	Wei

Department: Wet Chemistry			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Cyanide, Total	-001	Soil	n/a	n/a	12/17/09	Geeta
"	-002	"	n/a	n/a	12/17/09	Geeta

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E09-12828**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (C0126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E09-12828

Client PennJersey Environmental Consulting

Project PALMER

Received On 12/18/2009@12:15

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
12828-001	L1	3/3.5	12/16/2009@13:00	Soil	1
12828-002	L2	2.33/2.83	12/16/2009@13:05	Soil	1
12828-003	L3	2.92/3.42	12/16/2009@13:10	Soil	1
12828-004	L4	3.17/3.67	12/16/2009@13:15	Soil	1
12828-005	L5	2.92/3.42	12/16/2009@13:20	Soil	1
12828-006	L6	3.92/4.42	12/16/2009@13:25	Soil	1
12828-007	L7	3.83/4.33	12/16/2009@13:30	Soil	1
12828-008	L8	2/2.5	12/16/2009@13:35	Soil	1
12828-009	L9	2.25/2.75	12/16/2009@13:40	Soil	1
12828-010	L10	3.17/3.67	12/16/2009@13:45	Soil	1
12828-011	L11	4/4.5	12/16/2009@13:50	Soil	1
12828-012	T1-1	5.5/6	12/16/2009@14:05	Soil	1
12828-013	T1-2	5.5/6	12/16/2009@14:10	Soil	1
12828-014	T1-3	5.5/6	12/16/2009@14:15	Soil	1
12828-015	T1-4	5.5/6	12/16/2009@14:20	Soil	1
12828-016	T2-1	5.5/6	12/16/2009@14:25	Soil	1
12828-017	T2-2	5.5/6	12/16/2009@14:30	Soil	1
12828-018	T2-3	5.5/6	12/16/2009@14:35	Soil	1
12828-019	T2-4	5.5/6	12/16/2009@14:40	Soil	1
12828-020	L12	1.92/2.42	12/16/2009@13:55	Soil	1
12828-021	L13	1.92/2.42	12/16/2009@14:00	Soil	1
12828-022	L14	3/3.5	12/17/2009@13:50	Soil	1
12828-023	L15	2.5/3	12/17/2009@14:00	Soil	1

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received twenty-three (23) soil sample(s) from PennJersey Environmental Consulting (Project: PALMER) on December 18, 2009 for the analysis of:

(6) PAH
(23) TPH-DRO-72 HR
(4) GC Fingerprint

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

1/6/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E09-12828

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS SEMIVOLATILE ANALYSIS

Lab Case Number: E09 - 12828

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. DFTPP Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series.		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
a. B/N Fraction		
b. Acid Fraction		
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
a. B/N Fraction		
b. Acid Fraction		
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
a. B/N Fraction		
b. Acid Fraction		
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
11. Analysis Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
12. Sample Dilution Performed		✓

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other
✓			

13. Comments:

Organics Manager

12/31/09
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - Miscellaneous
Including Hydrocarbons, Metabolic Acids, and Gas Screens

Lab Case Number: E09 - 12828

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. Standards Summary submitted.		✓
3. Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
5. Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
6. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
7. Retention Time Shift Meet Criteria (if applicable).		✓
8. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
9. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		

Comments:

Organic Manager

12-23-09
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E09-12828

	Lab ID:	12828-001			12828-002			12828-003			12828-004		
	Client ID:	L1			L2			L3			L4		
	Depth:	3/3.5			2.33/2.83			2.92/3.42			3.17/3.67		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	12/16/09			12/16/09			12/16/09			12/16/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)											*(mg/Kg-ppm)*		
Naphthalene		~		~	~		~	~		~	1.98		0.408
Acenaphthylene		~		~	~		~	~		~	0.812		0.408
Acenaphthene		~		~	~		~	~		~	5.72		0.408
Fluorene		~		~	~		~	~		~	6.04		0.408
Phenanthrene		~		~	~		~	~		~	14.4		0.408
Anthracene		~		~	~		~	~		~	1.94		0.408
Fluoranthene		~		~	~		~	~		~	9.88		0.408
Pyrene		~		~	~		~	~		~	11.8		0.408
Benzo[a]anthracene		~		~	~		~	~		~	3.83		0.408
Chrysene		~		~	~		~	~		~	3.53		0.408
Benzo[b]fluoranthene		~		~	~		~	~		~	1.92		0.408
Benzo[k]fluoranthene		~		~	~		~	~		~	3.16		0.408
Benzo[a]pyrene		~		~	~		~	~		~	2.66		0.408
Indeno[1,2,3-cd]pyrene		~		~	~		~	~		~	0.678		0.408
Dibenz[a,h]anthracene		~		~	~		~	~		~	ND		0.408
Benzo[g,h,i]perylene		~		~	~		~	~		~	1.03		0.408
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO		ND		87.8	169		85.9	641		66.8	22600		750

	Lab ID:	12828-005			12828-006			12828-007			12828-008		
	Client ID:	L5			L6			L7			L8		
	Depth:	2.92/3.42			3.92/4.42			3.83/4.33			2/2.5		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	12/16/09			12/16/09			12/16/09			12/16/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)		*(mg/Kg-ppm)*									*(mg/Kg-ppm)*		
Naphthalene		7.63		0.755	~		~	~		~	0.442		0.145
Acenaphthylene		4.05		0.755	~		~	~		~	0.524		0.145
Acenaphthene		24.4		0.755	~		~	~		~	2.05		0.145
Fluorene		31.0		0.755	~		~	~		~	0.683		0.145
Phenanthrene		75.7		0.755	~		~	~		~	1.06		0.145
Anthracene		7.57		0.755	~		~	~		~	1.10		0.145
Fluoranthene		5.38		0.755	~		~	~		~	5.64		0.145
Pyrene		11.3		0.755	~		~	~		~	5.81		0.145
Benzo[a]anthracene		1.97		0.755	~		~	~		~	2.11		0.145
Chrysene		3.26		0.755	~		~	~		~	2.42		0.145
Benzo[b]fluoranthene		1.29		0.755	~		~	~		~	2.26		0.145
Benzo[k]fluoranthene		1.21		0.755	~		~	~		~	2.21		0.145
Benzo[a]pyrene		1.39		0.755	~		~	~		~	1.96		0.145
Indeno[1,2,3-cd]pyrene		0.641	J	0.755	~		~	~		~	0.581		0.145
Dibenz[a,h]anthracene		ND		0.755	~		~	~		~	0.127	J	0.145
Benzo[g,h,i]perylene		0.778		0.755	~		~	~		~	0.468		0.145
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO		90500		3550	691		63.3	165		67.6	18700		327

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E09-12828

	Lab ID:	12828-009		12828-010		12828-011		12828-012	
	Client ID:	L9		L10		L11		T1-1	
	Depth:	2.25/2.75		3.17/3.67		4/4.5		5.5/6	
	Matrix:	Soil		Soil		Soil		Soil	
	Sampled Date	12/16/09		12/16/09		12/16/09		12/16/09	
PARAMETER(Units)		Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL
Semivolatiles - PAH (Units)		*(mg/Kg-ppm)*						*(mg/Kg-ppm)*	
Naphthalene		0.217	0.150	~	~	~	~	0.437 J	0.626
Acenaphthylene		0.128 J	0.150	~	~	~	~	3.34	0.626
Acenaphthene		0.222	0.150	~	~	~	~	10.7	0.626
Fluorene		0.241	0.150	~	~	~	~	5.71	0.626
Phenanthrene		1.47	0.150	~	~	~	~	1.90	0.626
Anthracene		0.909	0.150	~	~	~	~	4.22	0.626
Fluoranthene		7.85	0.150	~	~	~	~	1.70	0.626
Pyrene		6.90	0.150	~	~	~	~	4.58	0.626
Benzo[a]anthracene		2.94	0.150	~	~	~	~	ND	0.626
Chrysene		2.88	0.150	~	~	~	~	1.46	0.626
Benzo[b]fluoranthene		1.88	0.150	~	~	~	~	ND	0.626
Benzo[k]fluoranthene		2.02	0.150	~	~	~	~	ND	0.626
Benzo[a]pyrene		1.50	0.150	~	~	~	~	ND	0.626
Indeno[1,2,3-cd]pyrene		0.404	0.150	~	~	~	~	0.664	0.626
Dibenz[a,h]anthracene		0.203	0.150	~	~	~	~	ND	0.626
Benzo[g,h,i]perylene		0.639	0.150	~	~	~	~	0.677	0.626
Hydrocarbons (Units)		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
TPH-DRO		5860	66.5	522	69.6	154	68.1	53700	1570
GC-Fingerprint (Units)									
GC-Fingerprint		~	~	~	~	~	~	☼	

	Lab ID:	12828-013		12828-014		12828-015		12828-016	
	Client ID:	T1-2		T1-3		T1-4		T2-1	
	Depth:	5.5/6		5.5/6		5.5/6		5.5/6	
	Matrix:	Soil		Soil		Soil		Soil	
	Sampled Date	12/16/09		12/16/09		12/16/09		12/16/09	
PARAMETER(Units)		Conc Q	MDL	Conc Q	MDL	Conc Q	MDL	Conc Q	MDL
Semivolatiles - PAH (Units)								*(mg/Kg-ppm)*	
Naphthalene		~	~	~	~	~	~	1.76	0.644
Acenaphthylene		~	~	~	~	~	~	5.00	0.644
Acenaphthene		~	~	~	~	~	~	14.2	0.644
Fluorene		~	~	~	~	~	~	11.2	0.644
Phenanthrene		~	~	~	~	~	~	2.15	0.644
Anthracene		~	~	~	~	~	~	1.73	0.644
Fluoranthene		~	~	~	~	~	~	3.15	0.644
Pyrene		~	~	~	~	~	~	7.10	0.644
Benzo[a]anthracene		~	~	~	~	~	~	0.856	0.644
Chrysene		~	~	~	~	~	~	1.96	0.644
Benzo[b]fluoranthene		~	~	~	~	~	~	0.476 J	0.644
Benzo[k]fluoranthene		~	~	~	~	~	~	ND	0.644
Benzo[a]pyrene		~	~	~	~	~	~	0.493 J	0.644
Indeno[1,2,3-cd]pyrene		~	~	~	~	~	~	ND	0.644
Dibenz[a,h]anthracene		~	~	~	~	~	~	ND	0.644
Benzo[g,h,i]perylene		~	~	~	~	~	~	ND	0.644
Hydrocarbons (Units)		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
TPH-DRO		48100	1580	19700	728	8810	347	126000	2410
GC-Fingerprint (Units)									
GC-Fingerprint		☼		~	~	~	~	☼	

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the MDL

☼ - See attached pages

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E09-12828

	Lab ID:	12828-017			12828-018			12828-019			12828-020		
	Client ID:	T2-2			T2-3			T2-4			L12		
	Depth:	5.5/6			5.5/6			5.5/6			1.92/2.42		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	12/16/09			12/16/09			12/16/09			12/16/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO		16800		492	349		68.3	35700		1500	604		70.5
GC-Fingerprint (Units)													
GC-Fingerprint		☼			~		~	~		~	~		~

	Lab ID:	12828-021			12828-022			12828-023		
	Client ID:	L13			L14			L15		
	Depth:	1.92/2.42			3/3.5			2.5/3		
	Matrix:	Soil			Soil			Soil		
	Sampled Date	12/16/09			12/17/09			12/17/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO		3640		68.7	1460		77.8	294		66.1

☼ - See attached pages

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12828-004
Client ID: L4/3.17-3.67
Date Received: 12/18/2009
Date Extracted: 12/30/2009
Date Analyzed: 12/30/2009
Data file: C8251.D

GC/MS Column: DB-5
Sample wt/vol: 15.31g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 20.0

Compound	Concentration	Q	MDL
Naphthalene	1.98		0.408
Acenaphthylene	0.812		0.408
Acenaphthene	5.72		0.408
Fluorene	6.04		0.408
Phenanthrene	14.4		0.408
Anthracene	1.94		0.408
Fluoranthene	9.88		0.408
Pyrene	11.8		0.408
Benzo[a]anthracene	3.83		0.408
Chrysene	3.53		0.408
Benzo[b]fluoranthene	1.92		0.408
Benzo[k]fluoranthene	3.16		0.408
Benzo[a]pyrene	2.66		0.408
Indeno[1,2,3-cd]pyrene	0.678		0.408
Dibenz[a,h]anthracene	ND		0.408
Benzo[g,h,i]perylene	1.03		0.408
Total Target Compounds:	69.4		

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12828-005
Client ID: L5/2.92-3.42
Date Received: 12/18/2009
Date Extracted: 12/30/2009
Date Analyzed: 12/30/2009
Data file: C8252.D

GC/MS Column: DB-5
Sample wt/vol: 8.03g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 17.5

Compound	Concentration	Q	MDL
Naphthalene	7.63		0.755
Acenaphthylene	4.05		0.755
Acenaphthene	24.4		0.755
Fluorene	31.0		0.755
Phenanthrene	75.7		0.755
Anthracene	7.57		0.755
Fluoranthene	5.38		0.755
Pyrene	11.3		0.755
Benzo[a]anthracene	1.97		0.755
Chrysene	3.26		0.755
Benzo[b]fluoranthene	1.29		0.755
Benzo[k]fluoranthene	1.21		0.755
Benzo[a]pyrene	1.39		0.755
Indeno[1,2,3-cd]pyrene	0.641	J	0.755
Dibenz[a,h]anthracene	ND		0.755
Benzo[g,h,i]perylene	0.778		0.755
Total Target Compounds:	178	J	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12828-008
Client ID: L8/2-2.5
Date Received: 12/18/2009
Date Extracted: 12/30/2009
Date Analyzed: 12/30/2009
Data file: C8253.D

GC/MS Column: DB-5
Sample wt/vol: 7.98g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.8

Compound	Concentration	Q	MDL
Naphthalene	0.442		0.145
Acenaphthylene	0.524		0.145
Acenaphthene	2.05		0.145
Fluorene	0.683		0.145
Phenanthrene	1.06		0.145
Anthracene	1.10		0.145
Fluoranthene	5.64		0.145
Pyrene	5.81		0.145
Benzo[a]anthracene	2.11		0.145
Chrysene	2.42		0.145
Benzo[b]fluoranthene	2.26		0.145
Benzo[k]fluoranthene	2.21		0.145
Benzo[a]pyrene	1.96		0.145
Indeno[1,2,3-cd]pyrene	0.581		0.145
Dibenz[a,h]anthracene	0.127	J	0.145
Benzo[g,h,i]perylene	0.468		0.145
Total Target Compounds:	29.4	J	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12828-009
Client ID: L9/2.25-2.75
Date Received: 12/18/2009
Date Extracted: 12/30/2009
Date Analyzed: 12/30/2009
Data file: C8254.D

GC/MS Column: DB-5
Sample wt/vol: 7.68g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.0

Compound	Concentration	Q	MDL
Naphthalene	0.217		0.150
Acenaphthylene	0.128	J	0.150
Acenaphthene	0.222		0.150
Fluorene	0.241		0.150
Phenanthrene	1.47		0.150
Anthracene	0.909		0.150
Fluoranthene	7.85		0.150
Pyrene	6.90		0.150
Benzo[a]anthracene	2.94		0.150
Chrysene	2.88		0.150
Benzo[b]fluoranthene	1.88		0.150
Benzo[k]fluoranthene	2.02		0.150
Benzo[a]pyrene	1.50		0.150
Indeno[1,2,3-cd]pyrene	0.404		0.150
Dibenz[a,h]anthracene	0.203		0.150
Benzo[g,h,i]perylene	0.639		0.150
Total Target Compounds:	30.4	J	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12828-012
Client ID: T1-1/5.5-6
Date Received: 12/18/2009
Date Extracted: 12/30/2009
Date Analyzed: 12/30/2009
Data file: C8255.D

GC/MS Column: DB-5
Sample wt/vol: 2.18g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 26.7

Compound	Concentration	Q	MDL
Naphthalene	0.437	J	0.626
Acenaphthylene	3.34		0.626
Acenaphthene	10.7		0.626
Fluorene	5.71		0.626
Phenanthrene	1.90		0.626
Anthracene	4.22		0.626
Fluoranthene	1.70		0.626
Pyrene	4.58		0.626
Benzo[a]anthracene	ND		0.626
Chrysene	1.46		0.626
Benzo[b]fluoranthene	ND		0.626
Benzo[k]fluoranthene	ND		0.626
Benzo[a]pyrene	ND		0.626
Indeno[1,2,3-cd]pyrene	0.664		0.626
Dibenz[a,h]anthracene	ND		0.626
Benzo[g,h,i]perylene	0.677		0.626
Total Target Compounds:	35.4	J	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12828-016
Client ID: T2-1/5.5-6
Date Received: 12/18/2009
Date Extracted: 12/30/2009
Date Analyzed: 12/30/2009
Data file: C8256.D

GC/MS Column: DB-5
Sample wt/vol: 3.13g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 50.4

Compound	Concentration	Q	MDL
Naphthalene	1.76		0.644
Acenaphthylene	5.00		0.644
Acenaphthene	14.2		0.644
Fluorene	11.2		0.644
Phenanthrene	2.15		0.644
Anthracene	1.73		0.644
Fluoranthene	3.15		0.644
Pyrene	7.10		0.644
Benzo[a]anthracene	0.856		0.644
Chrysene	1.96		0.644
Benzo[b]fluoranthene	0.476	J	0.644
Benzo[k]fluoranthene	ND		0.644
Benzo[a]pyrene	0.493	J	0.644
Indeno[1,2,3-cd]pyrene	ND		0.644
Dibenz[a,h]anthracene	ND		0.644
Benzo[g,h,i]perylene	ND		0.644
Total Target Compounds:	50.1	J	

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-001	GC Column:	DB-5
Client ID:	L1/3-3.5	Sample wt/vol:	10.37g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	34.1
Data File:	Q5352.D		

Compound	Concentration	Q	MDL
TPH-DRO	ND		87.8

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-002	GC Column:	DB-5
Client ID:	L2/2.33-	Sample wt/vol:	10.06g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	30.6
Data File:	Q5283.D		

Compound	Concentration	Q	MDL
TPH-DRO	169		85.9

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-003	GC Column:	DB-5
Client ID:	L3/2.92-	Sample wt/vol:	10.26g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	12.4
Data File:	Q5284.D		

Compound	Concentration	Q	MDL
TPH-DRO	641		66.8

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-004	GC Column:	DB-5
Client ID:	L4/3.17-	Sample wt/vol:	10.0g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	10
Date Analyzed:	12/22/2009	% Moisture:	20.0
Data File:	Q5353.D		

Compound	Concentration	Q	MDL
TPH-DRO	22,600		750

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-005	GC Column:	DB-5
Client ID:	L5/2.92-	Sample wt/vol:	10.24g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	50
Date Analyzed:	12/22/2009	% Moisture:	17.5
Data File:	Q5354.D		

Compound	Concentration	Q	MDL
TPH-DRO	90,500		3550

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-006	GC Column:	DB-5
Client ID:	L6/3.92-	Sample wt/vol:	10.83g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	12.5
Data File:	Q5287.D		

Compound	Concentration	Q	MDL
TPH-DRO	691		63.3

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-007	GC Column:	DB-5
Client ID:	L7/3.83-	Sample wt/vol:	10.22g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	13.1
Data File:	Q5288.D		

Compound	Concentration	Q	MDL
TPH-DRO	165		67.6

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-008	GC Column:	DB-5
Client ID:	L8/2-2.5	Sample wt/vol:	10.65g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	5
Date Analyzed:	12/22/2009	% Moisture:	13.8
Data File:	Q5355.D		

Compound	Concentration	Q	MDL
TPH-DRO	18,700		327

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-009	GC Column:	DB-5
Client ID:	L9/2.25-	Sample wt/vol:	10.37g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	13.0
Data File:	Q5290.D		

Compound	Concentration	Q	MDL
TPH-DRO	5,860		66.5

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-010	GC Column:	DB-5
Client ID:	L10/3.17	Sample wt/vol:	10.10g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	14.7
Data File:	Q5291.D		

Compound	Concentration	Q	MDL
TPH-DRO	522		69.6

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-011	GC Column:	DB-5
Client ID:	L11/4-4.	Sample wt/vol:	10.30g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	14.5
Data File:	Q5292.D		

Compound	Concentration	Q	MDL
TPH-DRO	154		68.1

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-012	GC Column:	DB-5
Client ID:	T1-1/5.5	Sample wt/vol:	10.41g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	20
Date Analyzed:	12/22/2009	% Moisture:	26.7
Data File:	Q5356.D		

Compound	Concentration	Q	MDL
TPH-DRO	53,700		1570

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-013	GC Column:	DB-5
Client ID:	T1-2/5.5	Sample wt/vol:	10.81g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	20
Date Analyzed:	12/22/2009	% Moisture:	29.6
Data File:	Q5357.D		

Compound	Concentration	Q	MDL
TPH-DRO	48,100		1580

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-014	GC Column:	DB-5
Client ID:	T1-3/5.5	Sample wt/vol:	10.22g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	10
Date Analyzed:	12/22/2009	% Moisture:	19.4
Data File:	Q5358.D		

Compound	Concentration	Q	MDL
TPH-DRO	19,700		728

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-015	GC Column:	DB-5
Client ID:	T1-4/5.5	Sample wt/vol:	10.62g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	5
Date Analyzed:	12/22/2009	% Moisture:	18.7
Data File:	Q5359.D		

Compound	Concentration	Q	MDL
TPH-DRO	8,810		347

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-016	GC Column:	DB-5
Client ID:	T2-1/5.5	Sample wt/vol:	10.04g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	20
Date Analyzed:	12/22/2009	% Moisture:	50.4
Data File:	Q5360.D		

Compound	Concentration	Q	MDL
TPH-DRO	126,000		2410

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-017	GC Column:	DB-5
Client ID:	T2-2/5.5	Sample wt/vol:	10.65g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	5
Date Analyzed:	12/22/2009	% Moisture:	42.7
Data File:	Q5361.D		

Compound	Concentration	Q	MDL
TPH-DRO	16,800		492

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-018	GC Column:	DB-5
Client ID:	T2-3/5.5	Sample wt/vol:	10.49g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	16.3
Data File:	Q5299.D		

Compound	Concentration	Q	MDL
TPH-DRO	349		68.3

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-019	GC Column:	DB-5
Client ID:	T2-4/5.5	Sample wt/vol:	10.29g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	20
Date Analyzed:	12/22/2009	% Moisture:	22.2
Data File:	Q5362.D		

Compound	Concentration	Q	MDL
TPH-DRO	35,700		1500

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-020	GC Column:	DB-5
Client ID:	L12/1.92	Sample wt/vol:	10.07g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	15.5
Data File:	Q5301.D		

Compound	Concentration	Q	MDL
TPH-DRO	604		70.5

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-021	GC Column:	DB-5
Client ID:	L13/1.92	Sample wt/vol:	10.0g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/21/2009	Dilution Factor:	1
Date Analyzed:	12/23/2009	% Moisture:	12.7
Data File:	Q5412.D		

Compound	Concentration	Q	MDL
TPH-DRO	3,640		68.7

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-022	GC Column:	DB-5
Client ID:	L14/3-3	Sample wt/vol:	10.45g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/21/2009	Dilution Factor:	1
Date Analyzed:	12/23/2009	% Moisture:	26.2
Data File:	Q5413.D		

Compound	Concentration	Q	MDL
TPH-DRO	1,460		77.8

INTEGRATED ANALYTICAL LABORATORIES

HYDROCARBONS

Lab ID:	12828-023	GC Column:	DB-5
Client ID:	L15/2.5-	Sample wt/vol:	10.25g
Date Received:	12/18/2009	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/21/2009	Dilution Factor:	1
Date Analyzed:	12/23/2009	% Moisture:	11.4
Data File:	Q5414.D		

Compound	Concentration	Q	MDL
TPH-DRO	294		66.1

INTEGRATED ANALYTICAL LABORATORIES, LLC.

GC FINGERPRINT ANALYSIS

Client/Project: PennJersey Environmental Consulting/Palmer

Date Received: 12/18/09
Date Analyzed: 12/30/09

Lab ID	Client ID	RESULTS
12828-012	T1-1/5.5-6	This sample closely resembles a Fuel Oil #2 Standard. Variations in the sample as compared to the standards may be attributed to weathering. The most common forms of weathering are microbial degradation, evaporation and solubilization which can alter the composition of the material.
12828-013	T1-2/5.5-6	This sample closely resembles a Fuel Oil #2 Standard. Variations in the sample as compared to the standards may be attributed to weathering. The most common forms of weathering are microbial degradation, evaporation and solubilization which can alter the composition of the material.
12828-016	T2-1/5.5-6	This sample closely resembles a Fuel Oil #2 Standard. Variations in the sample as compared to the standards may be attributed to weathering. The most common forms of weathering are microbial degradation, evaporation and solubilization which can alter the composition of the material.
12828-017	T2-2/5.5-6	This sample displays some elution characteristics in common with a fuel oil standard and possibly a motor oil standard but appears to be so severely weathered that positive identification is not possible.

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7853.D DFTPP Injection Date : 12/07/2009

Inst ID: MSDC DFTPP Injection Time: 12:15

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	35.5			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	38.7			
70	Less than 2.0% of mass 69	0.2	(	0.6	)1
127	40.0 - 60.0% of mass 198	47.6			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.0			
275	10.0 - 30.0% of mass 198	24.0			
365	Greater than 1.0% of mass 198	2.3			
441	Present, but less than mass 443	9.88	(	72.2	)3
442	40.0 - 100.0% of mass 198	67.1			
443	17.0 - 23.0% of mass 442	13.7	(	20.4	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN119.09	40ngBNA_FOR_1	C7854.D	12/07/2009	12:24
ABN120.09	1ngBNA_FOR_12	C7855.D	12/07/2009	12:39
ABN121.09	10ngBNA_FOR_1	C7856.D	12/07/2009	12:55
ABN122.09	20ngBNA_FOR_1	C7857.D	12/07/2009	13:10
ABN123.09	80ngBNA_FOR_1	C7858.D	12/07/2009	13:25
ABN124.09	120ngBNA_FOR_	C7859.D	12/07/2009	13:41
ABN120.09	1ngBNA_FOR_12	C7860.D	12/07/2009	13:56
ABN122.09	1ngOLMO4_FOR	C7861.D	12/07/2009	14:11
ABN123.09	10ngOLMO4_FOI	C7862.D	12/07/2009	14:27
ABN124.09	20ngOLMO4_FOI	C7863.D	12/07/2009	14:42
ABN125.09	40ngOLMO4_FOI	C7864.D	12/07/2009	14:58
ABN126.09	80ngOLMO4_FOI	C7865.D	12/07/2009	15:13
ABN127.09	120ngOLMO4_FC	C7866.D	12/07/2009	15:30
ABN136.09	40ngBNAchk_FOI	C7867.D	12/07/2009	15:45
ABN137.09	40ngOLMO4chk_I	C7868.D	12/07/2009	16:00
.	Method_Blank	C7869.D	12/07/2009	16:16
.	LCS	C7870.D	12/07/2009	16:31
.	MS(12328-009)	C7871.D	12/07/2009	16:47
.	MSD(12328-009)	C7872.D	12/07/2009	17:02
B-PX2A/11.5	12330-001	C7873.D	12/07/2009	17:17
B5/6-6.5	12101-005	C7874.D	12/07/2009	17:33
#3C_WALL_-_S	12114-002	C7875.D	12/07/2009	17:48
TK-9A/1.5	12230-001	C7876.D	12/07/2009	18:03

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7853.D

DFTPP Injection Date : 12/07/2009

Inst ID: MSDC

DFTPP Injection Time: 12:15

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	35.5			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	38.7			
70	Less than 2.0% of mass 69	0.2	(	0.6	)1
127	40.0 - 60.0% of mass 198	47.6			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.0			
275	10.0 - 30.0% of mass 198	24.0			
365	Greater than 1.0% of mass 198	2.3			
441	Present, but less than mass 443	0.00	(	72.2	)3
442	40.0 - 100.0% of mass 198	67.1			
443	17.0 - 23.0% of mass 442	13.7	(	20.4	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
SB1/2-2.5	12328-001	C7877.D	12/07/2009	18:18
SB2/8-8.5	12328-002	C7878.D	12/07/2009	18:34
SB3/8-8.5	12328-003	C7879.D	12/07/2009	18:49
SB4/8-8.5	12328-004	C7880.D	12/07/2009	19:04
SB5/8-8.5	12328-005	C7881.D	12/07/2009	19:20
SB6/0.5-1	12328-006	C7882.D	12/07/2009	19:35
SB7/0.5-1	12328-007	C7883.D	12/07/2009	19:50
SB8/8-8.5	12328-008	C7884.D	12/07/2009	20:05
SB9/8-8.5	12328-009	C7885.D	12/07/2009	20:20
SB10/8-8.5	12328-010	C7886.D	12/07/2009	20:36
SB11/8-8.5	12328-011	C7887.D	12/07/2009	20:51
B8/5	12121-001	C7888.D	12/07/2009	21:06
RR2A/0.5-1	12321-001	C7889.D	12/07/2009	21:21
RR2B/0.5-1	12321-002	C7890.D	12/07/2009	21:37
RR2-3/2.92-3	12321-004	C7891.D	12/07/2009	21:52
ASP1	12322-001	C7892.D	12/07/2009	22:07
B8/5	12121-001	C7893.D	12/07/2009	22:22

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C8232.D DFTPP Injection Date : 12/30/2009

Inst ID: MSDC DFTPP Injection Time: 13:36

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	33.0			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	37.1			
70	Less than 2.0% of mass 69	0.3	(	0.9	)1
127	40.0 - 60.0% of mass 198	45.0			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.2			
275	10.0 - 30.0% of mass 198	26.8			
365	Greater than 1.0% of mass 198	2.7			
441	Present, but less than mass 443	12.72	(	73.5	)3
442	40.0 - 100.0% of mass 198	85.7			
443	17.0 - 23.0% of mass 442	17.3	(	20.2	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN136.09	40ngBNAchk	C8233.D	12/30/2009	13:45
ABN137.09	40ngOLMO4chk	C8234.D	12/30/2009	14:00
.	Method_Blank	C8235.D	12/30/2009	14:16
.	LCS	C8236.D	12/30/2009	14:31
.	MS(12770-001)	C8237.D	12/30/2009	14:46
.	MSD(12770-001)	C8238.D	12/30/2009	15:01
S1/0-0.5	12988-001	C8239.D	12/30/2009	15:17
W01/7-7.5	12770-001	C8240.D	12/30/2009	15:32
W02/7-7.5	12770-002	C8241.D	12/30/2009	15:47
S1	12785-001	C8242.D	12/30/2009	16:03
SB-1/7.5-8	12966-001	C8243.D	12/30/2009	16:18
SB-3/5.5-6	12966-002	C8244.D	12/30/2009	16:33
SB-5/3.5-4	12966-003	C8245.D	12/30/2009	16:49
SB-7/3.5-4	12966-004	C8246.D	12/30/2009	17:04
SB-10/3.5-4	12966-005	C8247.D	12/30/2009	17:19
SB-11/1.5-2	12966-006	C8248.D	12/30/2009	17:35
SB-13/6.5-7	12966-007	C8249.D	12/30/2009	17:50
SB-14/4-4.5	12966-008	C8250.D	12/30/2009	18:05
L4/3.17-3.67	12828-004	C8251.D	12/30/2009	18:20
L5/2.92-3.42	12828-005	C8252.D	12/30/2009	18:35
L8/2-2.5	12828-008	C8253.D	12/30/2009	18:51
L9/2.25-2.75	12828-009	C8254.D	12/30/2009	19:06
T1-1/5.5-6	12828-012	C8255.D	12/30/2009	19:21

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C8232.D DFTPP Injection Date : 12/30/2009

Inst ID: MSDC DFTPP Injection Time: 13:36

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	33.0			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	37.1			
70	Less than 2.0% of mass 69	0.3	(	0.9	)1
127	40.0 - 60.0% of mass 198	45.0			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.2			
275	10.0 - 30.0% of mass 198	26.8			
365	Greater than 1.0% of mass 198	2.7			
441	Present, but less than mass 443	0.00	(	73.5	)3
442	40.0 - 100.0% of mass 198	85.7			
443	17.0 - 23.0% of mass 442	17.3	(	20.2	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
T2-1/5.5-6	12828-016	C8256.D	12/30/2009	19:36
NAC-H	12978-003	C8257.D	12/30/2009	20:07
SB-10/3.5-4	12966-005	C8258.D	12/30/2009	20:22

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C8235.D

Instrument ID: MSDC

Date Extracted: 12/30/09

Matrix: SOIL

Date Analyzed: 12/30/2009

Time Analyzed: 14:16

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	12/30/2009	14:31
.	MS(12770-001)	12/30/2009	14:46
.	MSD(12770-001)	12/30/2009	15:01
S1/0-0.5	12988-001	12/30/2009	15:17
W01/7-7.5	12770-001	12/30/2009	15:32
W02/7-7.5	12770-002	12/30/2009	15:47
S1	12785-001	12/30/2009	16:03
SB-1/7.5-8	12966-001	12/30/2009	16:18
SB-3/5.5-6	12966-002	12/30/2009	16:33
SB-5/3.5-4	12966-003	12/30/2009	16:49
SB-7/3.5-4	12966-004	12/30/2009	17:04
SB-10/3.5-4	12966-005	12/30/2009	17:19
SB-11/1.5-2	12966-006	12/30/2009	17:35
SB-13/6.5-7	12966-007	12/30/2009	17:50
SB-14/4-4.5	12966-008	12/30/2009	18:05
L4/3.17-3.67	12828-004	12/30/2009	18:20
L5/2.92-3.42	12828-005	12/30/2009	18:35
L8/2-2.5	12828-008	12/30/2009	18:51
L9/2.25-2.75	12828-009	12/30/2009	19:06
T1-1/5.5-6	12828-012	12/30/2009	19:21
T2-1/5.5-6	12828-016	12/30/2009	19:36
NAC-H	12978-003	12/30/2009	20:07
SB-10/3.5-4	12966-005	12/30/2009	20:22

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/30/2009
Date Analyzed: 12/30/2009
Data file: C8235.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		0.033
Pyridine	ND		0.033
Benzaldehyde	ND		0.033
Phenol	ND		0.033
Aniline	ND		0.033
Bis(2-chloroethyl) ether	ND		0.033
2-Chlorophenol	ND		0.033
1,3-Dichlorobenzene	ND		0.033
1,4-Dichlorobenzene	ND		0.033
Benzyl alcohol	ND		0.033
1,2-Dichlorobenzene	ND		0.033
2-Methylphenol	ND		0.033
Bis(2-chloroisopropyl) ether	ND		0.033
4-Methylphenol	ND		0.033
N-Nitrosodi-n-propylamine	ND		0.033
Acetophenone	ND		0.033
3-Methylphenol	ND		0.033
Hexachloroethane	ND		0.033
Nitrobenzene	ND		0.033
Isophorone	ND		0.033
2-Nitrophenol	ND		0.033
2,4-Dimethylphenol	ND		0.033
Bis(2-chloroethoxy) methane	ND		0.033
Benzoic acid	ND		0.033
2,4-Dimethylaniline	ND		0.033
2,4-Dichlorophenol	ND		0.033
1,2,4-Trichlorobenzene	ND		0.033
Naphthalene	ND		0.033
4-Chloroaniline	ND		0.033
4-Aminotoluene	ND		0.033
Hexachlorobutadiene	ND		0.033
Caprolactam	ND		0.033
2-Aminotoluene	ND		0.033
4-Chloro-3-methylphenol	ND		0.033
2-Methylnaphthalene	ND		0.033
Hexachlorocyclopentadiene	ND		0.033
2,4,6-Trichlorophenol	ND		0.033
2,4,5-Trichlorophenol	ND		0.033
1,1'-Biphenyl	ND		0.033
2-Chloronaphthalene	ND		0.033
2-Nitroaniline	ND		0.033
Dimethyl phthalate	ND		0.033

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/30/2009
Date Analyzed: 12/30/2009
Data file: C8235.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
2,6-Dinitrotoluene	ND		0.033
Acenaphthylene	ND		0.033
3-Nitroaniline	ND		0.033
Acenaphthene	ND		0.033
2,4-Dinitrophenol	ND		0.033
4-Nitrophenol	ND		0.033
2,4-Dinitrotoluene	ND		0.033
Dibenzofuran	ND		0.033
Diethyl phthalate	ND		0.033
Fluorene	ND		0.033
4-Chlorophenyl phenyl ether	ND		0.033
4-Nitroaniline	ND		0.033
1,2,4,5-Tetrachlorobenzene	ND		0.033
4,6-Dinitro-2-methylphenol	ND		0.033
N-Nitrosodiphenylamine	ND		0.033
1,2-Diphenylhydrazine	ND		0.033
4-Bromophenyl phenyl ether	ND		0.033
Hexachlorobenzene	ND		0.033
Atrazine	ND		0.033
Pentachlorophenol	ND		0.033
Phenanthrene	ND		0.033
Anthracene	ND		0.033
Carbazole	ND		0.033
Di-n-butyl phthalate	ND		0.033
Fluoranthene	ND		0.033
Benzidine	ND		0.033
Pyrene	ND		0.033
3,3'-Dimethylbenzidine	ND		0.033
Butyl benzyl phthalate	ND		0.033
3,3'-Dichlorobenzidine	ND		0.033
Benzo[a]anthracene	ND		0.033
Chrysene	ND		0.033
Bis(2-ethylhexyl) phthalate	ND		0.033
Di-n-octyl phthalate	ND		0.033
Benzo[b]fluoranthene	ND		0.033
Benzo[k]fluoranthene	ND		0.033
Benzo[a]pyrene	ND		0.033
Indeno[1,2,3-cd]pyrene	ND		0.033
Dibenz[a,h]anthracene	ND		0.033
Benzo[g,h,i]perylene	ND		0.033

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 12/30/2009
Date Analyzed: 12/30/2009
Data file: C8235.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS2109.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Dec 07 15:48:41 2009
Response Via : Initial Calibration

Calibration Files
120 =C7859.D 10 =C7856.D 20 =C7857.D
80 =C7858.D 1 =C7860.D 40 =C7854.D

		Compound	120	10	20	80	1	40	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.613	0.637	0.664	0.615	0.616	0.709	0.642	5.93
3)	T	Pyridine	0.696	0.692	0.715	0.654	0.592	0.722	0.679	7.14
4)	S	2-Fluorophenol	1.186	1.162	1.226	1.194	1.008	1.300	1.179	8.19
5)	T	Benzaldehyde	0.920	1.147	0.894	0.838	1.083	1.211	1.016	14.97
6)	S	Phenol-d5	1.509	1.417	1.436	1.463	1.354	1.608	1.464	5.94
7)	MC	Phenol	1.292	1.611	1.415	1.400	1.653	1.665	1.506	10.42
8)	T	Aniline	0.582	0.604	0.627	0.574	0.573	0.671	0.605	6.33
9)	T	Bis(2-chloroethyl	0.715	0.813	0.772	0.759	0.785	0.870	0.786	6.65
10)	M	2-Chlorophenol	1.337	1.364	1.336	1.290	1.431	1.428	1.364	4.10
11)	T	1,3-Dichlorobenze	1.427	1.527	1.588	1.393	1.698	1.718	1.559	8.67
12)	MC	1,4-Dichlorobenze	1.499	1.540	1.574	1.571	1.543	1.721	1.575	4.86
13)	T	Benzyl alcohol	0.765	0.822	0.844	0.827	0.753	0.870	0.813	5.62
14)	T	1,2-Dichlorobenze	1.428	1.453	1.494	1.456	1.468	1.581	1.480	3.66
15)	T	2-Methylphenol	0.765	0.822	0.844	0.827	0.753	0.870	0.813	5.62
16)	T	Bis(2-chloroisopr	1.057	1.196	1.240	1.087	1.204	1.304	1.182	7.89
17)	T	4-Methylphenol	1.181	1.167	1.236	1.072	1.296	1.301	1.209	7.24
18)	MP	N-Nitrosodi-n-pro	0.789	0.796	0.789	0.698	0.843	0.833	0.791	6.47
19)	T	Acetophenone	1.564	1.655	1.636	1.574	1.622	1.659	1.618	2.52
20)	T	3-Methylphenol	1.181	1.162	1.239	1.073	1.296	1.301	1.209	7.25
21)	T	Hexachloroethane	0.491	0.505	0.509	0.489	0.546	0.541	0.514	4.74
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.361	0.334	0.354	0.341	0.327	0.346	0.344	3.69
25)	T	Nitrobenzene	0.260	0.312	0.331	0.297	0.346	0.309	0.309	9.57
26)	T	Isophorone	0.553	0.587	0.607	0.559	0.590	0.606	0.584	3.93
27)	TC	2-Nitrophenol	0.177	0.181	0.190	0.194	0.174	0.216	0.188	8.07
28)	T	2,4-Dimethylpheno	0.317	0.314	0.324	0.283	0.311	0.376	0.321	9.47
29)	T	Bis(2-chloroethox	0.357	0.352	0.388	0.337	0.370	0.413	0.369	7.44
30)	T	Benzoic acid	0.173	0.133	0.164	0.173	0.170	0.186	0.166	10.77
31)	T	2,4-Dimethylanili	0.369	0.403	0.411	0.368	0.290	0.379	0.370	11.68
32)	TC	2,4-Dichloropheno	0.321	0.308	0.327	0.300	0.312	0.382	0.325	9.10
33)	M	1,2,4-Trichlorobe	0.363	0.382	0.386	0.354	0.391	0.410	0.381	5.31
34)	T	Naphthalene	1.020	1.092	1.163	1.021	1.060	1.065	1.070	4.96
35)	T	4-Chloroaniline	0.512	0.564	0.590	0.538	0.540	0.597	0.557	5.92
36)	T	4-Aminotoluene	0.517	0.593	0.613	0.498	0.405	0.537	0.527	14.11
37)	TC	Hexachlorobutadie	0.236	0.227	0.237	0.231	0.240	0.256	0.238	4.25
38)	T	Caprolactam	0.104	0.106	0.112	0.102	0.093	0.107	0.104	6.12
39)	T	2-Aminotoluene	0.517	0.593	0.613	0.498	0.405	0.537	0.527	14.11
40)	MC	4-Chloro-3-methyl	0.258	0.276	0.293	0.266	0.301	0.314	0.285	7.58
41)	T	2-Methylnaphthale	0.691	0.704	0.729	0.682	0.791	0.801	0.733	7.00
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.458	0.348	0.412	0.439	0.382	0.474	0.419	11.40
45)	TC	2,4,6-Trichloroph	0.366	0.364	0.396	0.385	0.375	0.440	0.388	7.28
46)	T	2,4,5-Trichloroph	0.414	0.411	0.430	0.418	0.424	0.473	0.428	5.33
47)	S	2-Fluorobiphenyl	1.421	1.486	1.482	1.382	1.474	1.468	1.452	2.87
48)	T	1,1'-Biphenyl	1.388	1.479	1.456	1.323	1.439	1.380	1.411	4.09
49)	T	2-Chloronaphthale	0.989	1.099	1.182	1.126	1.149	1.220	1.127	7.08
50)	T	2-Nitroaniline	0.199	0.217	0.225	0.225	0.220	0.267	0.226	9.99
51)	T	Dimethyl phthalat	1.195	1.295	1.286	1.155	1.258	1.392	1.263	6.58

52)	T	2,6-Dinitrotoluen	0.281	0.265	0.288	0.290	0.270	0.317	0.285	6.46
53)	T	Acenaphthylene	1.557	1.797	1.875	1.769	1.591	1.760	1.725	7.20
54)	T	3-Nitroaniline	0.336	0.332	0.357	0.362	0.318	0.411	0.353	9.36
55)	MC	Acenaphthene	0.950	1.121	1.168	1.078	1.060	1.100	1.079	6.82
56)	TP	2,4-Dinitrophenol	0.141	0.108	0.121	0.120	0.136	0.148	0.129	11.61
57)	MP	4-Nitrophenol	0.139	0.152	0.150	0.146	0.120	0.183	0.148	13.91
58)	M	2,4-Dinitrotoluen	0.366	0.330	0.348	0.349	0.306	0.416	0.352	10.63
59)	T	Dibenzofuran	1.572	1.643	1.669	1.566	1.690	1.834	1.662	5.91
60)	T	Diethyl phthalate	1.138	1.159	1.181	1.095	1.167	1.265	1.167	4.85
61)	T	Fluorene	1.174	1.333	1.344	1.203	1.228	1.305	1.265	5.70
62)	T	4-Chlorophenyl ph	0.680	0.713	0.755	0.704	0.725	0.800	0.729	5.80
63)	T	4-Nitroaniline	0.283	0.282	0.295	0.256	0.252	0.307	0.279	7.74
64)		1,2,4,5-Tetrachlo	0.634	0.652	0.697	0.647	0.601	0.640	0.645	4.85
65)	T	3,5-Dimethylpheno							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.120	0.082	0.094	0.113	0.098	0.117	0.104	14.47
68)	TC	N-Nitrosodiphenyl	0.554	0.532	0.564	0.540	0.577	0.620	0.565	5.65
69)	T	1,2-Diphenylhydra	0.538	0.546	0.576	0.553	0.568	0.623	0.567	5.40
70)	S	2,4,6-Tribromophe	0.228	0.211	0.213	0.223	0.188	0.222	0.214	6.65
71)	T	4-Bromophenyl phe	0.289	0.277	0.293	0.297	0.284	0.315	0.293	4.47
72)	T	Hexachlorobenzene	0.352	0.346	0.355	0.345	0.343	0.399	0.356	5.94
73)	T	Atrazine	0.194	0.220	0.236	0.210	0.150	0.208	0.203	14.58
74)	MC	Pentachlorophenol	0.185	0.160	0.171	0.179	0.144	0.210	0.175	13.05
75)	T	Phenanthrene	0.994	1.051	1.107	1.036	1.052	1.095	1.056	3.89
76)	T	Anthracene	1.057	1.107	1.145	1.008	1.005	1.106	1.071	5.36
77)	T	Carbazole	0.890	0.954	0.949	0.896	0.924	1.067	0.947	6.81
78)	T	Di-n-butyl phthal	1.022	1.061	1.104	1.053	1.032	1.195	1.078	5.93
79)	TC	Fluoranthene	0.987	1.160	1.135	1.052	0.998	1.124	1.076	6.88
80)	T	Benzidine	0.626	0.664	0.523	0.540	0.485	0.611	0.575	12.03
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.135	1.116	1.189	1.103	1.078	1.212	1.139	4.55
84)	S	Terphenyl-d14	1.035	1.071	1.102	1.059	1.093	1.070	1.072	2.23
85)	T	3,3'-Dimethylbenz	0.774	0.754	0.672	0.678	0.698	0.762	0.723	6.31
86)	T	Butyl benzyl phth	0.400	0.404	0.432	0.416	0.424	0.481	0.426	6.87
87)	T	3,3'-Dichlorobenz	0.316	0.350	0.363	0.335	0.325	0.317	0.334	5.68
88)	T	Benzo[a]anthracen	0.964	0.983	0.993	0.971	0.997	1.004	0.985	1.57
89)	T	Chrysene	0.906	0.952	0.974	0.937	1.008	1.118	0.982	7.61
90)	T	Bis(2-ethylhexyl)	0.553	0.558	0.587	0.566	0.587	0.640	0.582	5.47
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	0.827	0.951	1.010	0.852	0.992	1.120	0.958	11.30
94)	T	Benzo[b]fluoranth	1.073	1.127	1.061	1.058	0.965	1.143	1.071	5.88
95)	T	Benzo[k]fluoranth	0.978	1.018	1.077	0.979	0.962	1.042	1.009	4.39
96)	TC	Benzo[a]pyrene	0.876	0.864	0.880	0.865	0.877	1.000	0.894	5.87
97)	T	Indeno[1,2,3-cd]p	1.247	1.040	1.169	1.235	0.918	1.184	1.132	11.34
98)	T	Dibenz[a,h]anthra	1.047	0.896	0.972	1.044	0.844	1.026	0.972	8.72
99)	T	Benzo[g,h,i]peryl	0.994	0.831	0.923	0.987	0.910	0.974	0.937	6.63
100)	T	Hydroquinone							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

CS2109.M Mon Dec 07 15:48:46 2009 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-30-09\
Data File : C8233.D
Acq On : 30 Dec 2009 13:45
Operator : EDM
Sample : ABN136.09,40ngBNAchk
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Dec 30 14:01:20 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	-0.02
2	T	N-Nitrosodimethylamine	0.642	0.768	-19.6	108	0.00
3	T	Pyridine	0.679	0.767	-13.0	106	-0.01
4	S	2-Fluorophenol	1.179	1.344	-14.0	104	-0.01
5	T	Benzaldehyde	1.016	0.998	1.8	125	-0.02
6	S	Phenol-d5	1.464	1.663	-13.6	104	-0.01
7	MC	Phenol	1.506	1.774	-17.8	107	-0.01
8	T	Aniline	0.605	0.714	-18.0	106	-0.01
9	T	Bis(2-chloroethyl) ether	0.786	0.906	-15.3	104	-0.01
10	M	2-Chlorophenol	1.364	1.533	-12.4	107	-0.01
11	T	1,3-Dichlorobenzene	1.559	1.752	-12.4	102	-0.02
12	MC	1,4-Dichlorobenzene	1.575	1.704	-8.2	99	-0.02
13	T	Benzyl alcohol	0.813	0.880	-8.2	101	-0.02
14	T	1,2-Dichlorobenzene	1.480	1.548	-4.6	98	-0.02
15	T	2-Methylphenol	0.813	0.873	-7.4	100	-0.02
16	T	Bis(2-chloroisopropyl) ethe	1.182	1.407	-19.0	108	-0.02
17	T	4-Methylphenol	1.209	1.328	-9.8	102	-0.02
18	MP	N-Nitrosodi-n-propylamine	0.791	0.910	-15.0	109	-0.01
19	T	Acetophenone	1.618	1.652	-2.1	100	-0.01
20	T	3-Methylphenol	1.209	1.326	-9.7	102	-0.02
21	T	Hexachloroethane	0.514	0.554	-7.8	102	-0.02
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	104	-0.02
24	S	Nitrobenzene-d5	0.344	0.352	-2.3	106	-0.02
25	T	Nitrobenzene	0.309	0.362	-17.2	122	-0.02
26	T	Isophorone	0.584	0.603	-3.3	104	-0.02
27	TC	2-Nitrophenol	0.188	0.223	-18.6	108	-0.02
28	T	2,4-Dimethylphenol	0.321	0.354	-10.3	98	-0.02
29	T	Bis(2-chloroethoxy) methane	0.369	0.411	-11.4	104	-0.03
30	T	Benzoic acid	0.166	0.199	-19.9	112	0.00
31	T	2,4-Dimethylaniline	0.370	0.342	7.6	94	-0.02
32	TC	2,4-Dichlorophenol	0.325	0.335	-3.1	92	-0.02
33	M	1,2,4-Trichlorobenzene	0.381	0.378	0.8	96	-0.02
34	T	Naphthalene	1.070	1.080	-0.9	106	-0.02
35	T	4-Chloroaniline	0.557	0.580	-4.1	101	-0.03
36	T	4-Aminotoluene	0.527	0.522	0.9	102	-0.01
37	TC	Hexachlorobutadiene	0.238	0.229	3.8	93	-0.02
38	T	Caprolactam	0.104	0.112	-7.7	110	0.00
39	T	2-Aminotoluene	0.527	0.522	0.9	102	-0.01
40	MC	4-Chloro-3-methylphenol	0.285	0.313	-9.8	104	-0.01
41	T	2-Methylnaphthalene	0.733	0.764	-4.2	100	-0.01
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	94	-0.01
44	TP	Hexachlorocyclopentadiene	0.419	0.340	18.9	67	-0.01
45	TC	2,4,6-Trichlorophenol	0.388	0.417	-7.5	89	-0.01
46	T	2,4,5-Trichlorophenol	0.428	0.450	-5.1	89	-0.01

47	S	2-Fluorobiphenyl	1.452	1.366	5.9	88	-0.02
48	T	1,1'-Biphenyl	1.411	1.450	-2.8	99	-0.01
49	T	2-Chloronaphthalene	1.127	1.234	-9.5	95	0.00
50	T	2-Nitroaniline	0.226	0.212	6.2	75	0.00
51	T	Dimethyl phthalate	1.263	1.361	-7.8	92	0.00
52	T	2,6-Dinitrotoluene	0.285	0.307	-7.7	91	0.00
53	T	Acenaphthylene	1.725	1.763	-2.2	94	0.00
54	T	3-Nitroaniline	0.353	0.418	-18.4	96	0.00
55	MC	Acenaphthene	1.079	1.098	-1.8	94	0.00
56	TP	2,4-Dinitrophenol	0.129	0.154	-19.4	98	0.00
57	MP	4-Nitrophenol	0.148	0.166	-12.2	85	0.00
58	M	2,4-Dinitrotoluene	0.352	0.397	-12.8	90	0.00
59	T	Dibenzofuran	1.662	1.782	-7.2	91	0.00
60	T	Diethyl phthalate	1.167	1.272	-9.0	95	0.00
61	T	Fluorene	1.265	1.342	-6.1	97	0.00
62	T	4-Chlorophenyl phenyl ether	0.729	0.740	-1.5	87	0.00
63	T	4-Nitroaniline	0.279	0.328	-17.6	100	0.00
64		1,2,4,5-Tetrachlorobenzene	0.645	0.604	6.4	89	-0.01
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	90	0.01
67	T	4,6-Dinitro-2-methylphenol	0.104	0.124	-19.2	96	0.00
68	TC	N-Nitrosodiphenylamine	0.565	0.604	-6.9	88	0.00
69	T	1,2-Diphenylhydrazine	0.567	0.675	-19.0	98	0.00
70	S	2,4,6-Tribromophenol	0.214	0.196	8.4	80	0.00
71	T	4-Bromophenyl phenyl ether	0.293	0.285	2.7	82	0.00
72	T	Hexachlorobenzene	0.356	0.342	3.9	78	0.00
73	T	Atrazine	0.203	0.181	10.8	79	0.00
74	MC	Pentachlorophenol	0.175	0.178	-1.7	76	0.00
75	T	Phenanthrene	1.056	1.047	0.9	86	0.01
76	T	Anthracene	1.071	1.164	-8.7	95	0.01
77	T	Carbazole	0.947	1.080	-14.0	91	0.02
78	T	Di-n-butyl phthalate	1.078	1.251	-16.0	94	0.02
79	TC	Fluoranthene	1.076	1.096	-1.9	88	0.03
80	T	Benzidine	0.575	0.499	13.2	111	-0.03
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	90	0.03
83	M	Pyrene	1.139	1.185	-4.0	88	0.03
84	S	Terphenyl-d14	1.072	0.998	6.9	84	0.03
85	T	3,3'-Dimethylbenzidine	0.723	0.611	15.5	114	-0.05
86	T	Butyl benzyl phthalate	0.426	0.489	-14.8	91	0.04
87	T	3,3'-Dichlorobenzidine	0.334	0.327	2.1	92	0.03
88	T	Benzo[a]anthracene	0.985	0.980	0.5	87	0.03
89	T	Chrysene	0.982	1.144	-16.5	92	0.03
90	T	Bis(2-ethylhexyl) phthalate	0.582	0.658	-13.1	92	0.02
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	93	0.01
93	TC	Di-n-octyl phthalate	0.958	1.087	-13.5	90	0.01
94	T	Benzo[b]fluoranthene	1.071	1.006	6.1	81	0.02
95	T	Benzo[k]fluoranthene	1.009	1.164	-15.4	103	0.02
96	TC	Benzo[a]pyrene	0.894	1.006	-12.5	93	0.02
97	T	Indeno[1,2,3-cd]pyrene	1.132	1.244	-9.9	97	0.02
98	T	Dibenz[a,h]anthracene	0.972	1.053	-8.3	95	0.00
99	T	Benzo[g,h,i]perylene	0.937	1.000	-6.7	95	0.00
100	T	Hydroquinone					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS2109.M Thu Dec 31 08:35:11 2009 RPT1

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/30/2009

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
40ngOLMO4chk		C8234.D	N/A	N/A	N/A	N/A	N/A	N/A
Method_Blank	SOIL	C8235.D	74	76	71	67	60	65
LCS	SOIL	C8236.D	74	76	79	76	62	70
MS(12770-001)	SOIL	C8237.D	68	79	74	83	77	77
MSD(12770-001)	SOIL	C8238.D	64	75	75	85	72	77
12988-001	SOIL	C8239.D	77	78	77	88	59	71
12770-001	SOIL	C8240.D	77	75	64	77	61	61
12770-002	SOIL	C8241.D	75	75	70	76	61	60
12785-001	SOIL	C8242.D	N/A	N/A	69	71	N/A	61
12966-001	SOIL	C8243.D	67	77	75	83	69	74
12966-002	SOIL	C8244.D	67	77	64	73	72	65
12966-003	SOIL	C8245.D	55	60	70	79	57	69
12966-004	SOIL	C8246.D	71	89	87	87	77	70
12966-005	SOIL	C8247.D	68	84	72	80	79	64
12966-006	SOIL	C8248.D	66	72	72	79	63	64
12966-007	SOIL	C8249.D	66	75	78	88	67	68
12966-008	SOIL	C8250.D	80	87	77	83	81	65
12828-004	SOIL	C8251.D	N/A	N/A	68	88	N/A	74
12828-005	SOIL	C8252.D	N/A	N/A	91	99	N/A	66
12828-008	SOIL	C8253.D	N/A	N/A	79	92	N/A	71
12828-009	SOIL	C8254.D	N/A	N/A	67	76	N/A	60
12828-012	SOIL	C8255.D	N/A	N/A	75	85	N/A	72

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/30/2009

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
12828-016	SOIL	C8256.D	N/A	N/A	82	67	N/A	67
12978-003	SOIL	C8257.D	N/A	N/A	62	73	N/A	63
12966-005	SOIL	C8258.D	65	75	70	78	73	62

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SOIL SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 12770-001 Batch No.: C123009S2

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	100.0	0.0	92.2	92	35 - 116
2-Chlorophenol	100.0	0.0	83.4	83	37 - 112
1,4-Dichlorobenzene	50.0	0.0	33.3	67	29 - 102
N-Nitrosodi-n-propylamine	50.0	0.0	38.3	77	38 - 119
1,2,4-Trichlorobenzene	50.0	0.0	36.5	73	33 - 100
4-Chloro-3-methylphenol	100.0	0.0	100.0	100	42 - 118
Acenaphthene	50.0	0.0	45.9	92	20 - 132
4-Nitrophenol	100.0	0.0	104.3	104	31 - 123
2,4-Dinitrotoluene	50.0	0.0	44.0	88	24 - 130
Pentachlorophenol	100.0	0.0	110.3	110	29 - 113
Pyrene	50.0	0.0	44.8	90	31 - 133

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	0.0	92.5	93	1	14	35 - 116
2-Chlorophenol	0.0	88.0	88	6	13	37 - 112
1,4-Dichlorobenzene	0.0	31.6	63	6	14	29 - 102
N-Nitrosodi-n-propylamine	0.0	36.6	73	5	14	38 - 119
1,2,4-Trichlorobenzene	0.0	33.4	67	9	12	33 - 100
4-Chloro-3-methylphenol	0.0	102.9	103	3	13	42 - 118
Acenaphthene	0.0	41.9	84	9	22	20 - 132
4-Nitrophenol	0.0	107.8	108	4	18	31 - 123
2,4-Dinitrotoluene	0.0	39.8	80	10	26	24 - 130
Pentachlorophenol	0.0	112.9	113	3	19	29 - 113
Pyrene	0.0	40.8	82	9	17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D Date Analyzed: 12/07/2009

Instrument ID: MSDC Time Analyzed: 12:24

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	162597		2.34		604478		2.88		401345		3.67	
	UPPER LIMIT	325194		2.84		1208956		3.38		802690		4.17	
	LOWER LIMIT	81299		1.84		302239		2.38		200673		3.17	
	LAB SAMPLE ID												
01	1ngBNA_FOR_12/07	161046		2.34		613950		2.88		422518		3.68	
02	10ngBNA_FOR_12/0	134013		2.34		507102		2.88		334779		3.67	
03	20ngBNA_FOR_12/0	166984		2.34		620495		2.88		416432		3.67	
04	80ngBNA_FOR_12/0	154119		2.34		583659		2.88		374258		3.68	
05	120ngBNA_FOR_12/	132566		2.34		510056		2.88		338788		3.67	
06	1ngBNA_FOR_12/07	145165		2.34		554781		2.88		372219		3.67	
07	1ngOLMO4_FOR_12	161514		2.34		620803		2.88		406885		3.67	
08	10ngOLMO4_FOR_1	167594		2.34		657032		2.88		428998		3.67	
09	20ngOLMO4_FOR_1	164183		2.34		619956		2.88		405482		3.68	
10	40ngOLMO4_FOR_1	210902		2.34		794640		2.88		537659		3.67	
11	80ngOLMO4_FOR_1	147180		2.34		549812		2.88		353376		3.66	
12	120ngOLMO4_FOR_	155538		2.34		598425		2.88		407215		3.67	
13	40ngBNAchk_FOR_1	166646		2.34		626837		2.88		421202		3.67	
14	40ngOLMO4chk_FOR	204561		2.34		797884		2.88		529088		3.67	
15	Method_Blank	107791		2.34		414705		2.88		276231		3.67	
16	LCS	133491		2.34		482119		2.88		304965		3.69	
17	MS(12328-009)	192513		2.34		739249		2.88		482306		3.69	
18	MSD(12328-009)	180717		2.34		668850		2.88		438133		3.67	
19	12330-001	180452		2.34		654222		2.88		398693		3.67	
20	12101-005	191298		2.34		701938		2.88		463018		3.68	
21	12114-002	157081		2.34		572784		2.88		376821		3.67	
22	12230-001	188113		2.34		703714		2.88		436775		3.66	

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D Date Analyzed: 12/07/2009

Instrument ID: MSDC Time Analyzed: 12:24

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	698359	4.41	649998	6.12	547053	7.33
	UPPER LIMIT	1396718	4.91	1299996	6.62	1094106	7.83
	LOWER LIMIT	349180	3.91	324999	5.62	273527	6.83
	LAB SAMPLE ID						
01	1ngBNA_FOR_12/07	765540	4.42	732166	6.14	611146	7.33
02	10ngBNA_FOR_12/0	610596	4.41	643434	6.12	532425	7.31
03	20ngBNA_FOR_12/0	721798	4.41	677635	6.12	548083	7.32
04	80ngBNA_FOR_12/0	628074	4.42	563887	6.13	529269	7.32
05	120ngBNA_FOR_12/	563188	4.41	495156	6.11	474086	7.31
06	1ngBNA_FOR_12/07	673642	4.42	634346	6.13	512489	7.32
07	1ngOLMO4_FOR_12	732807	4.42	689516	6.13	558748	7.32
08	10ngOLMO4_FOR_1	753219	4.41	729193	6.12	551728	7.32
09	20ngOLMO4_FOR_1	720073	4.42	674536	6.14	521008	7.33
10	40ngOLMO4_FOR_1	911788	4.40	855441	6.09	689495	7.29
11	80ngOLMO4_FOR_1	631060	4.39	602496	6.08	493600	7.28
12	120ngOLMO4_FOR_	701966	4.41	644647	6.11	526043	7.30
13	40ngBNAchk_FOR_1	719062	4.40	644122	6.09	521051	7.30
14	40ngOLMO4chk_FOR	936029	4.40	880373	6.11	719032	7.30
15	Method_Blank	501987	4.41	539398	6.11	458333	7.31
16	LCS	516452	4.43	488133	6.15	413715	7.34
17	MS(12328-009)	848976	4.44	894774	6.17	772588	7.37
18	MSD(12328-009)	789336	4.42	839301	6.13	712766	7.32
19	12330-001	682638	4.42	602887	6.13	518443	7.32
20	12101-005	759272	4.42	675804	6.13	563530	7.32
21	12114-002	607264	4.41	573704	6.11	488670	7.31
22	12230-001	708197	4.39	601601	6.08	543784	7.29

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D Date Analyzed: 12/07/2009

Instrument ID: MSDC Time Analyzed: 12:24

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	162597	2.34	604478	2.88	401345	3.67
	UPPER LIMIT	325194	2.84	1208956	3.38	802690	4.17
	LOWER LIMIT	81299	1.84	302239	2.38	200673	3.17
	LAB SAMPLE ID						
01	12328-001	151903	2.34	585954	2.88	378533	3.67
02	12328-002	160806	2.34	605836	2.88	384736	3.67
03	12328-003	185560	2.34	721039	2.88	459479	3.66
04	12328-004	172285	2.34	675455	2.88	431160	3.66
05	12328-005	127066	2.34	485184	2.88	314993	3.66
06	12328-006	167682	2.34	643793	2.88	398301	3.67
07	12328-007	176155	2.34	607647	2.88	315749	3.7
08	12328-008	150476	2.34	567309	2.88	339359	3.66
09	12328-009	137373	2.34	517961	2.88	318456	3.66
10	12328-010	155795	2.34	587885	2.88	363790	3.66
11	12328-011	148513	2.34	552096	2.88	329693	3.66
12	12121-001	153347	2.34	433344	2.88	314153	3.67
13	12321-001	136785	2.34	507737	2.88	311005	3.66
14	12321-002	136964	2.34	516170	2.88	310472	3.66
15	12321-004	153945	2.34	561226	2.88	328092	3.66
16	12322-001	155920	2.34	524029	2.88	276794	3.69
17	12121-001	149079	2.34	470567	2.88	282340	3.69
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7854.D

Date Analyzed: 12/07/2009

Instrument ID: MSDC

Time Analyzed: 12:24

	50UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	698359	4.41	649998	6.12	547053	7.33
	UPPER LIMIT	1396718	4.91	1299996	6.62	1094106	7.83
	LOWER LIMIT	349180	3.91	324999	5.62	273527	6.83
	LAB SAMPLE ID						
01	12328-001	641214	4.40	571155	6.11	488814	7.3
02	12328-002	654993	4.40	600107	6.10	505532	7.3
03	12328-003	806060	4.39	697038	6.08	574040	7.28
04	12328-004	732929	4.38	631524	6.07	533832	7.27
05	12328-005	587017	4.40	590987	6.08	496531	7.29
06	12328-006	690451	4.39	616991	6.09	532043	7.28
07	12328-007	475477	4.46	584090	6.20	514804	7.39
08	12328-008	541472	4.38	520097	6.06	527047	7.27
09	12328-009	514630	4.38	519888	6.07	534270	7.27
10	12328-010	576313	4.40	548941	6.08	555036	7.29
11	12328-011	521426	4.38	500573	6.07	499197	7.28
12	12121-001	498466	4.39	555249	6.07	557340	7.27
13	12321-001	486140	4.37	479345	6.06	473325	7.26
14	12321-002	491304	4.37	494944	6.06	481344	7.26
15	12321-004	518133	4.38	496054	6.06	493304	7.28
16	12322-001	445108	4.44	587515	6.16	401279	7.37
17	12121-001	424115	4.44	535040	6.16	416059	7.35
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10

IS5 = Chrysene-d12

IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C8233.D

Date Analyzed: 12/30/2009

Instrument ID: MSDC

Time Analyzed: 13:45

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	162723		2.32		630839		2.86		377472		3.66	
	UPPER LIMIT	325446		2.82		1261678		3.36		754944		4.16	
	LOWER LIMIT	81362		1.82		315420		2.36		188736		3.16	
	LAB SAMPLE ID												
01	40ngOLMO4chk	247130		2.32		928350		2.85		569279		3.64	
02	Method_Blank	183354		2.32		714076		2.85		441292		3.64	
03	LCS	171416		2.32		638777		2.85		389293		3.64	
04	MS(12770-001)	183248		2.32		673852		2.85		385070		3.64	
05	MSD(12770-001)	180143		2.32		679045		2.85		389994		3.64	
06	12988-001	139758		2.32		494716		2.87		272997		3.71	
07	12770-001	134859		2.32		494237		2.87		266072		3.71	
08	12770-002	140581		2.32		482277		2.86		276819		3.65	
09	12785-001	168728		2.32		622935		2.85		366040		3.63	
10	12966-001	149478		2.32		558876		2.85		329366		3.64	
11	12966-002	155949		2.32		579783		2.85		332682		3.64	
12	12966-003	158499		2.32		592267		2.85		330728		3.64	
13	12966-004	159449		2.32		467877		2.86		291085		3.66	
14	12966-005	139059		2.32		501692		2.85		285772		3.64	
15	12966-006	153925		2.32		582162		2.85		340573		3.64	
16	12966-007	133809		2.32		502396		2.85		282570		3.63	
17	12966-008	142215		2.32		508299		2.85		292973		3.63	
18	12828-004	156362		2.32		550717		2.87		319663		3.72	
19	12828-005	157812		2.32		513904		2.86		319995		3.66	
20	12828-008	139542		2.32		500950		2.86		284167		3.63	
21	12828-009	148247		2.32		515887		2.86		292423		3.63	
22	12828-012	138746		2.32		495805		2.86		292523		3.64	

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C8233.D

Date Analyzed: 12/30/2009

Instrument ID: MSDC

Time Analyzed: 13:45

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	630178	4.42	582338	6.14	506752	7.32
	UPPER LIMIT	1260356	4.92	1164676	6.64	1013504	7.82
	LOWER LIMIT	315089	3.92	291169	5.64	253376	6.82
	LAB SAMPLE ID						
01	40ngOLMO4chk	951365	4.38	921065	6.07	784597	7.26
02	Method_Blank	748816	4.37	736623	6.06	635308	7.25
03	LCS	648059	4.37	588309	6.05	534265	7.24
04	MS(12770-001)	605870	4.37	582534	6.05	589196	7.24
05	MSD(12770-001)	606177	4.37	583912	6.05	599273	7.24
06	12988-001	440360	4.50	572102	6.26	420284	7.45
07	12770-001	428695	4.50	568396	6.27	450255	7.46
08	12770-002	457077	4.38	680210	6.10	440545	7.36
09	12785-001	564928	4.35	612917	6.02	645522	7.21
10	12966-001	504770	4.36	567220	6.04	601621	7.23
11	12966-002	503736	4.37	549984	6.05	588027	7.24
12	12966-003	502119	4.37	563326	6.06	605487	7.26
13	12966-004	498473	4.38	678561	6.05	715605	7.26
14	12966-005	464702	4.36	632155	6.06	633661	7.26
15	12966-006	527181	4.36	667994	6.04	665604	7.26
16	12966-007	465590	4.34	634441	6.03	590025	7.24
17	12966-008	466234	4.33	630757	6.01	541306	7.22
18	12828-004	531574	4.52	693842	6.28	466283	7.49
19	12828-005	531570	4.39	674849	6.07	467360	7.28
20	12828-008	484216	4.34	658241	6.03	428985	7.26
21	12828-009	467059	4.33	638976	6.01	437401	7.22
22	12828-012	475020	4.34	596808	6.02	433007	7.22

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C8233.D

Date Analyzed: 12/30/2009

Instrument ID: MSDC

Time Analyzed: 13:45

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	162723	2.32	630839	2.86	377472	3.66
	UPPER LIMIT	325446	2.82	1261678	3.36	754944	4.16
	LOWER LIMIT	81362	1.82	315420	2.36	188736	3.16
	LAB SAMPLE ID						
01	12828-016	135067	2.32	455153	2.86	350318	3.64
02	12978-003	136623	2.32	490848	2.86	281385	3.63
03	12966-005	150049	2.32	520349	2.86	292076	3.64
04							
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18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C8233.D

Date Analyzed: 12/30/2009

Instrument ID: MSDC

Time Analyzed: 13:45

	50UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	630178	4.42	582338	6.14	506752	7.32
	UPPER LIMIT	1260356	4.92	1164676	6.64	1013504	7.82
	LOWER LIMIT	315089	3.92	291169	5.64	253376	6.82
	LAB SAMPLE ID						
01	12828-016	490047	4.35	606454	6.02	403595	7.23
02	12978-003	450600	4.33	560546	6.01	415602	7.22
03	12966-005	471804	4.37	649511	6.06	431300	7.28
04							
05							
06							
07							
08							
09							
10							
11							
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15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-30-09\
Data File : C8251.D
Acq On : 30 Dec 2009 18:20
Operator : EDM
Sample : L4/3.17-3.67,12828-004,S,15.31g,20.0,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 31 12:41:35 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

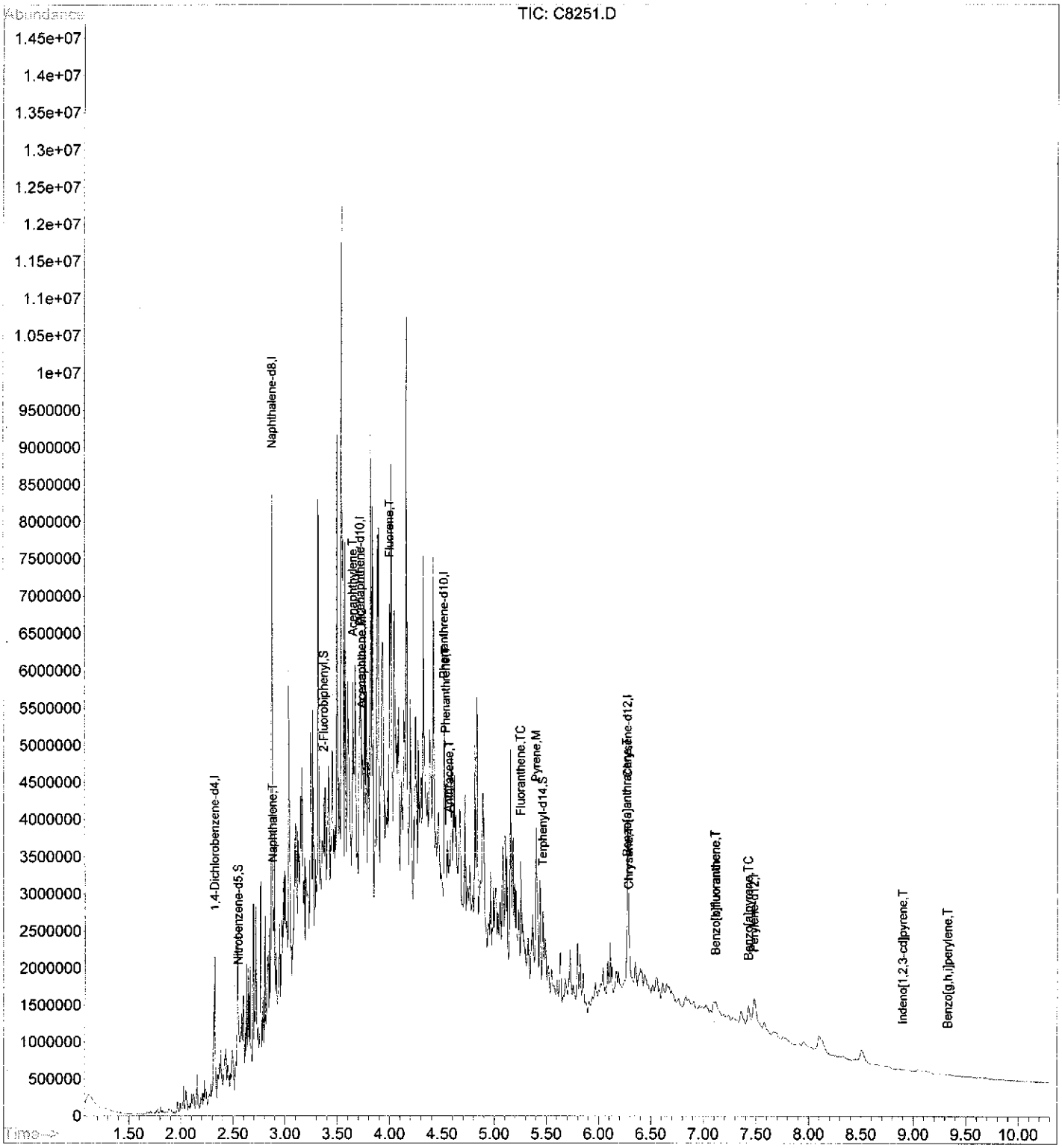
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.32	152	156362	40.00	UG	-0.01
23) Naphthalene-d8	2.87	136	550717	40.00	UG	0.00
43) Acenaphthene-d10	3.72	164	319663	40.00	UG	0.05
66) Phenanthrene-d10	4.52	188	531574m	40.00	UG	0.11
82) Chrysene-d12	6.28	240	693842	40.00	UG	0.16
92) Perylene-d12	7.49	264	466283	40.00	UG	0.17
System Monitoring Compounds						
4) 2-Fluorophenol	1.85	112	280	0.06	UG	0.03
Spiked Amount 100.000	Range 28 - 108		Recovery = 0.06%#			
6) Phenol-d5	2.17	99	1223	0.21	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 0.21%#			
24) Nitrobenzene-d5	2.55	82	32280m	6.82	UG	-0.01
Spiked Amount 50.000	Range 26 - 104		Recovery = 13.64%#			
47) 2-Fluorobiphenyl	3.37	172	101940	8.78	UG	0.02
Spiked Amount 50.000	Range 32 - 128		Recovery = 17.56%#			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery = 0.00%#			
84) Terphenyl-d14	5.47	244	137778m	7.41	UG	0.19
Spiked Amount 50.000	Range 32 - 135		Recovery = 14.82%#			
Target Compounds						Qvalue
34) Naphthalene	2.89	128	71422	4.85	UG	# 54
53) Acenaphthylene	3.65	152	27412	1.99	UG	# 1
55) Acenaphthene	3.74	153	120953	14.02	UG	# 82
61) Fluorene	4.00	166	149545	14.80	UG	# 56
75) Phenanthrene	4.54	178	495417m	35.31	UG	
76) Anthracene	4.56	178	67645m	4.75	UG	
79) Fluoranthene	5.25	202	345979m	24.19	UG	
83) Pyrene	5.40	202	570632m	28.89	UG	
88) Benzo[a]anthracene	6.27	228	160372	9.38	UG	# 80
89) Chrysene	6.29	228	147331	8.65	UG	# 43
94) Benzo[b]fluoranthene	7.11	252	58641m	4.70	UG	
95) Benzo[k]fluoranthene	7.12	252	91020m	7.74	UG	
96) Benzo[a]pyrene	7.43	252	67800	6.51	UG	# 94
97) Indeno[1,2,3-cd]pyrene	8.90	276	21930m	1.66	UG	
99) Benzo[g,h,i]perylene	9.33	276	27504m	2.52	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-30-09\
Data File : C8251.D
Acq On : 30 Dec 2009 18:20
Operator : EDM
Sample : L4/3.17-3.67,12828-004,S,15.31g,20.0,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,5
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 31 12:41:35 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-30-09\
Data File : C8252.D
Acq On : 30 Dec 2009 18:35
Operator : EDM
Sample : L5/2.92-3.42,12828-005,S,8.03g,17.5,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 31 12:30:43 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

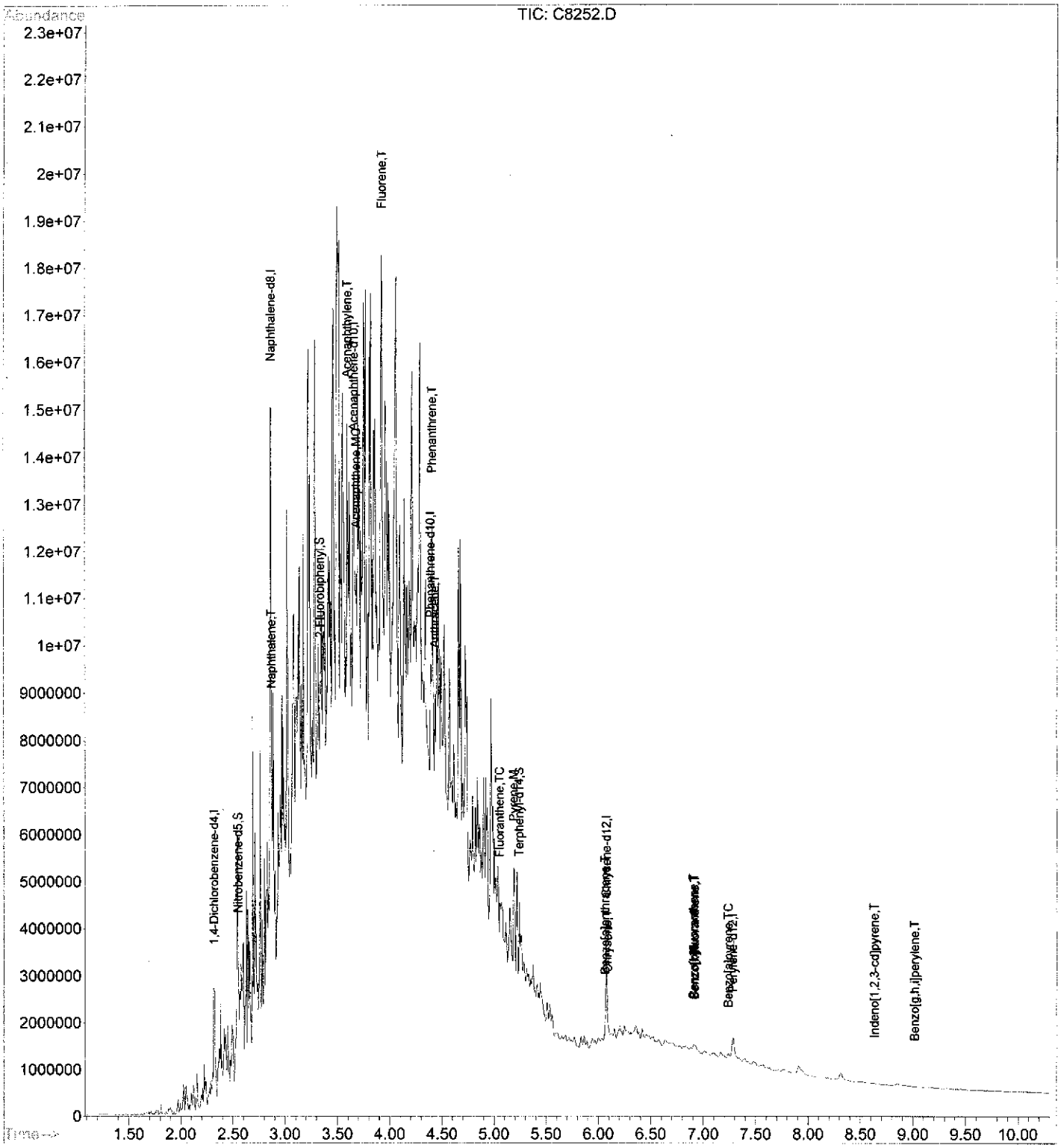
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.32	152	157812	40.00	UG	-0.01
23) Naphthalene-d8	2.86	136	513904	40.00	UG	-0.01
43) Acenaphthene-d10	3.66	164	319995	40.00	UG	-0.01
66) Phenanthrene-d10	4.39	188	531570	40.00	UG	-0.01
82) Chrysene-d12	6.07	240	674849	40.00	UG	-0.04
92) Perylene-d12	7.28	264	467360	40.00	UG	-0.03
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 108		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.55	82	40234m	9.11	UG	-0.01
Spiked Amount 50.000	Range 26 - 104		Recovery = 18.22%#			
47) 2-Fluorobiphenyl	3.33	172	115522	9.94	UG	-0.01
Spiked Amount 50.000	Range 32 - 128		Recovery = 19.88%#			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery = 0.00%#			
84) Terphenyl-d14	5.24	244	119430	6.61	UG	-0.04
Spiked Amount 50.000	Range 32 - 135		Recovery = 13.22%#			
Target Compounds						Qvalue
34) Naphthalene	2.87	128	138988	10.11	UG	# 67
53) Acenaphthylene	3.60	152	74043	5.37	UG	# 1
55) Acenaphthene	3.68	153	278709	32.28	UG	# 82
61) Fluorene	3.92	166	415435	41.06	UG	# 67
75) Phenanthrene	4.41	178	1407477	100.31	UG	# 85
76) Anthracene	4.43	178	142889	10.04	UG	# 79
79) Fluoranthene	5.06	202	101862	7.12	UG	# 63
83) Pyrene	5.19	202	287568	14.97	UG	# 74
88) Benzo[a]anthracene	6.06	228	43398	2.61	UG	# 36
89) Chrysene	6.09	228	71525	4.32	UG	# 87
94) Benzo[b]fluoranthene	6.91	252	21457m	1.71	UG	
95) Benzo[k]fluoranthene	6.92	252	18860m	1.60	UG	
96) Benzo[a]pyrene	7.23	252	19199	1.84	UG	# 76
97) Indeno[1,2,3-cd]pyrene	8.64	276	11226	0.85	UG	# 82
99) Benzo[g,h,i]perylene	9.02	276	11282m	1.03	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-30-09\
Data File : C8252.D
Acq On : 30 Dec 2009 18:35
Operator : EDM
Sample : L5/2.92-3.42,12828-005,S,8.03g,17.5,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,5
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 31 12:30:43 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-30-09\
Data File : C8253.D
Acq On : 30 Dec 2009 18:51
Operator : EDM
Sample : L8/2-2.5,12828-008,S,7.98g,13.8,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 31 12:32:29 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

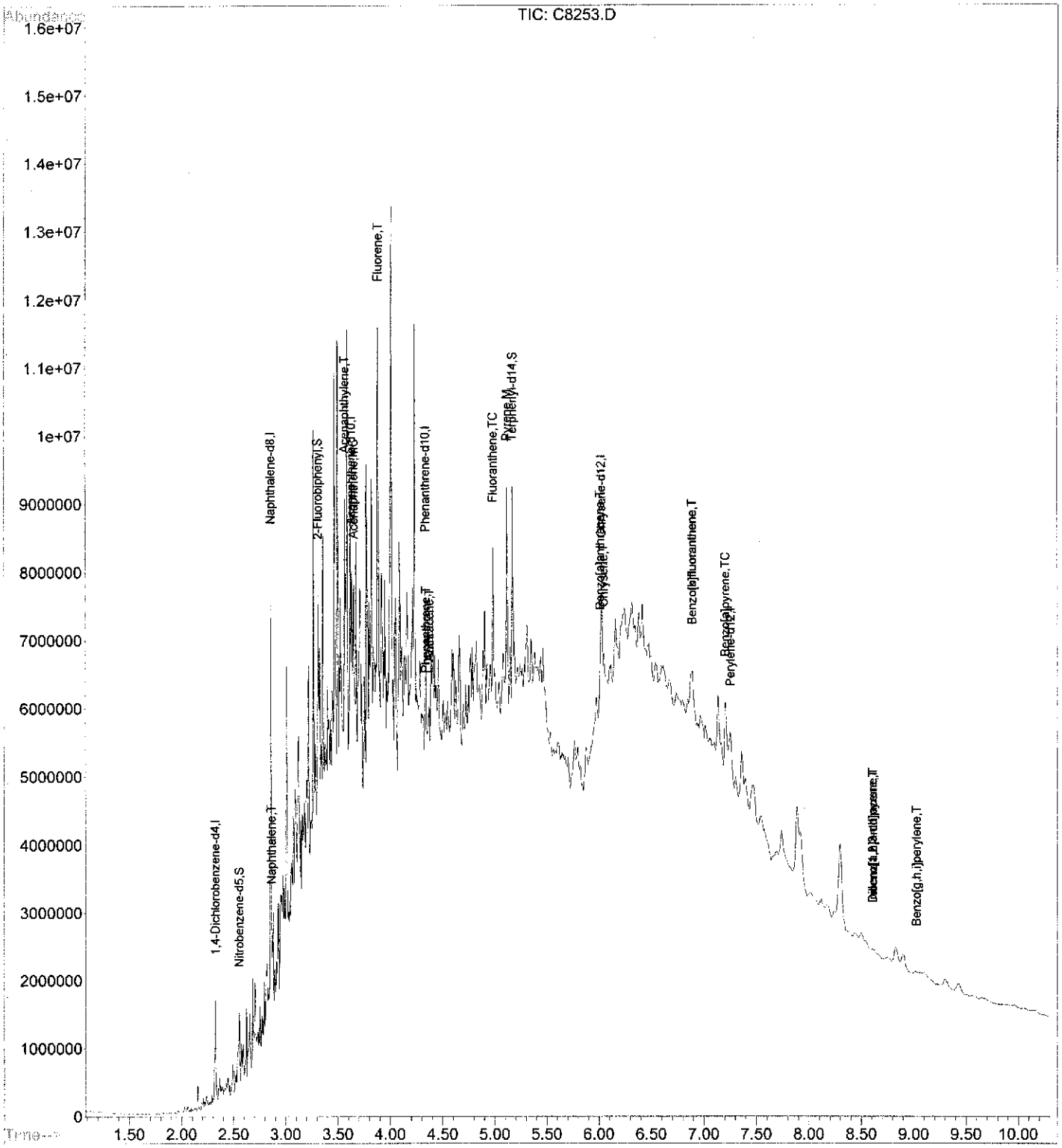
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.32	152	139542	40.00	UG	-0.01
23) Naphthalene-d8	2.86	136	500950	40.00	UG	-0.02
43) Acenaphthene-d10	3.63	164	284167	40.00	UG	-0.04
66) Phenanthrene-d10	4.34	188	484216	40.00	UG	-0.07
82) Chrysene-d12	6.03	240	658241	40.00	UG	-0.09
92) Perylene-d12	7.26	264	428985	40.00	UG	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 108		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.55	82	169726	39.43	UG	-0.01
Spiked Amount 50.000	Range 26 - 104		Recovery =	78.86%		
47) 2-Fluorobiphenyl	3.31	172	473617	45.91	UG	-0.03
Spiked Amount 50.000	Range 32 - 128		Recovery =	91.82%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery =	0.00%#		
84) Terphenyl-d14	5.17	244	623573	35.36	UG	-0.11
Spiked Amount 50.000	Range 32 - 135		Recovery =	70.72%		
Target Compounds						Qvalue
34) Naphthalene	2.87	128	40782	3.04	UG	# 64
53) Acenaphthylene	3.57	152	44192	3.61	UG	# 36
55) Acenaphthene	3.65	153	108066	14.09	UG	87
61) Fluorene	3.88	166	42234	4.70	UG	# 19
75) Phenanthrene	4.35	178	93469	7.31	UG	# 81
76) Anthracene	4.37	178	98227	7.57	UG	# 50
79) Fluoranthene	4.99	202	505018	38.76	UG	# 90
83) Pyrene	5.12	202	749575m	40.00	UG	
88) Benzo[a]anthracene	6.01	228	235691	14.54	UG	# 94
89) Chrysene	6.05	228	269340m	16.66	UG	
94) Benzo[b]fluoranthene	6.89	252	178353m	15.53	UG	
95) Benzo[k]fluoranthene	6.89	252	164470m	15.19	UG	
96) Benzo[a]pyrene	7.20	252	129415	13.50	UG	# 91
97) Indeno[1,2,3-cd]pyrene	8.62	276	48518	4.00	UG	# 56
98) Dibenz[a,h]anthracene	8.61	278	9122	0.88	UG	# 78
99) Benzo[g,h,i]perylene	9.03	276	32326m	3.22	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-30-09\
Data File : C8253.D
Acq On : 30 Dec 2009 18:51
Operator : EDM
Sample : L8/2-2.5,12828-008,S,7.98g,13.8,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 31 12:32:29 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-30-09\
Data File : C8254.D
Acq On : 30 Dec 2009 19:06
Operator : EDM
Sample : L9/2.25-2.75,12828-009,S,7.68g,13.0,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 31 12:34:00 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

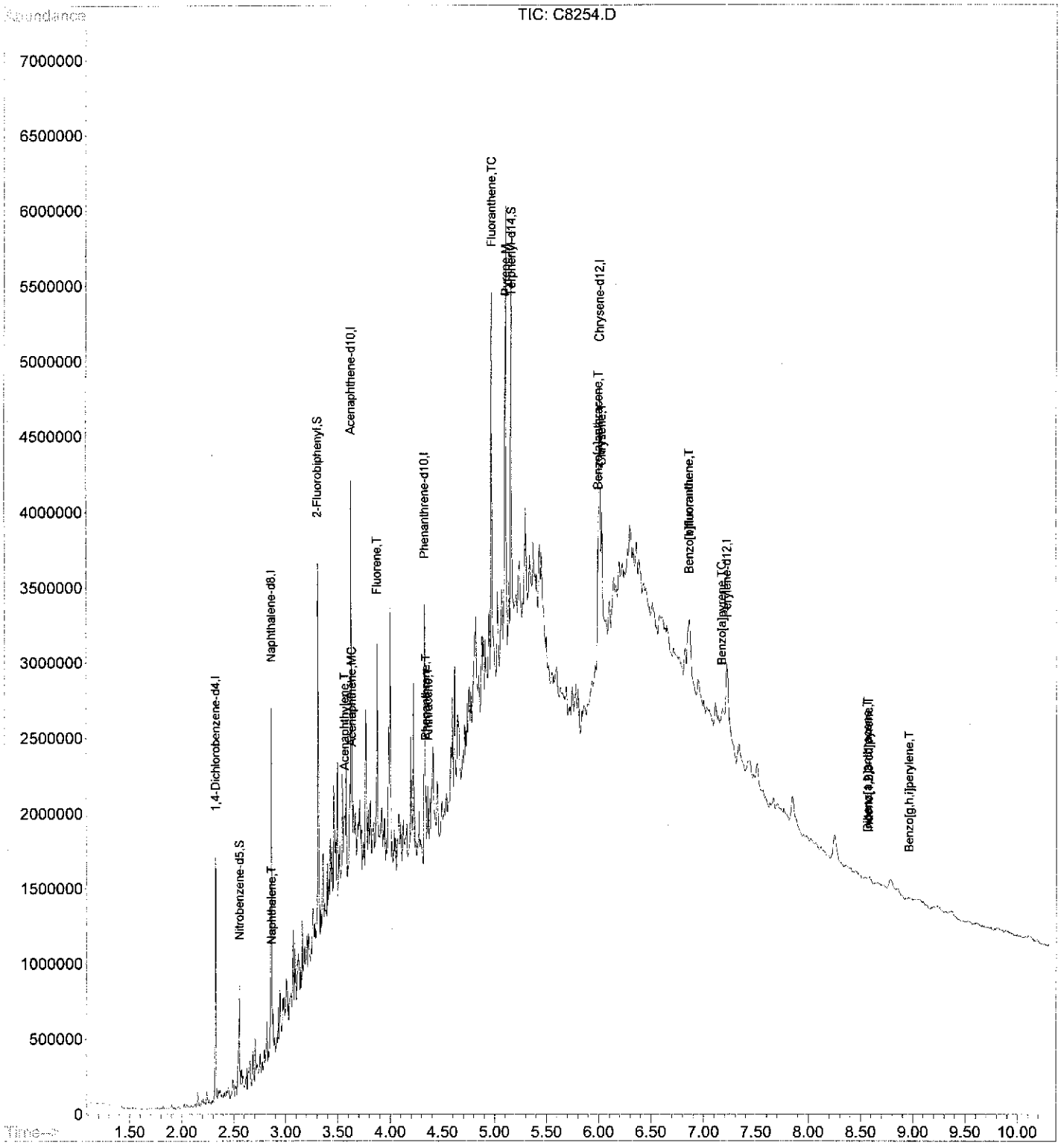
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.32	152	148247	40.00	UG	-0.01
23) Naphthalene-d8	2.86	136	515887	40.00	UG	-0.02
43) Acenaphthene-d10	3.63	164	292423	40.00	UG	-0.05
66) Phenanthrene-d10	4.33	188	467059	40.00	UG	-0.08
82) Chrysene-d12	6.01	240	638976	40.00	UG	-0.11
92) Perylene-d12	7.22	264	437401	40.00	UG	-0.09
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 108		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.55	82	148466	33.49	UG	-0.01
Spiked Amount 50.000	Range 26 - 104		Recovery =	66.98%		
47) 2-Fluorobiphenyl	3.31	172	405257	38.17	UG	-0.04
Spiked Amount 50.000	Range 32 - 128		Recovery =	76.34%		
70) 2,4,6-Tribromophenol	4.01	330	321	0.13	UG	-0.05
Spiked Amount 100.000	Range 32 - 126		Recovery =	0.13%#		
84) Terphenyl-d14	5.16	244	513995	30.03	UG	-0.12
Spiked Amount 50.000	Range 32 - 135		Recovery =	60.06%		
Target Compounds						Qvalue
34) Naphthalene	2.87	128	20049	1.45	UG	# 67
53) Acenaphthylene	3.56	152	10814	0.86	UG	# 1
55) Acenaphthene	3.64	153	11712	1.48	UG	# 67
61) Fluorene	3.87	166	14886	1.61	UG	# 68
75) Phenanthrene	4.34	178	120796	9.80	UG	# 88
76) Anthracene	4.36	178	75990	6.07	UG	# 95
79) Fluoranthene	4.97	202	658958	52.44	UG	# 90
83) Pyrene	5.11	202	838596m	46.10	UG	
88) Benzo[a]anthracene	5.99	228	309709	19.68	UG	# 94
89) Chrysene	6.03	228	301674	19.23	UG	97
94) Benzo[b]fluoranthene	6.86	252	146956m	12.55	UG	
95) Benzo[k]fluoranthene	6.87	252	148689m	13.47	UG	
96) Benzo[a]pyrene	7.17	252	97700	10.00	UG	# 95
97) Indeno[1,2,3-cd]pyrene	8.57	276	33440m	2.70	UG	
98) Dibenz[a,h]anthracene	8.56	278	14447m	1.36	UG	
99) Benzo[g,h,i]perylene	8.97	276	43711m	4.27	UG	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-30-09\
Data File : C8254.D
Acq On : 30 Dec 2009 19:06
Operator : EDM
Sample : L9/2.25-2.75,12828-009,S,7.68g,13.0,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 31 12:34:00 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-30-09\
Data File : C8255.D
Acq On : 30 Dec 2009 19:21
Operator : EDM
Sample : T1-1/5.5-6,12828-012,S,2.18g,26.7,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 31 12:34:10 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

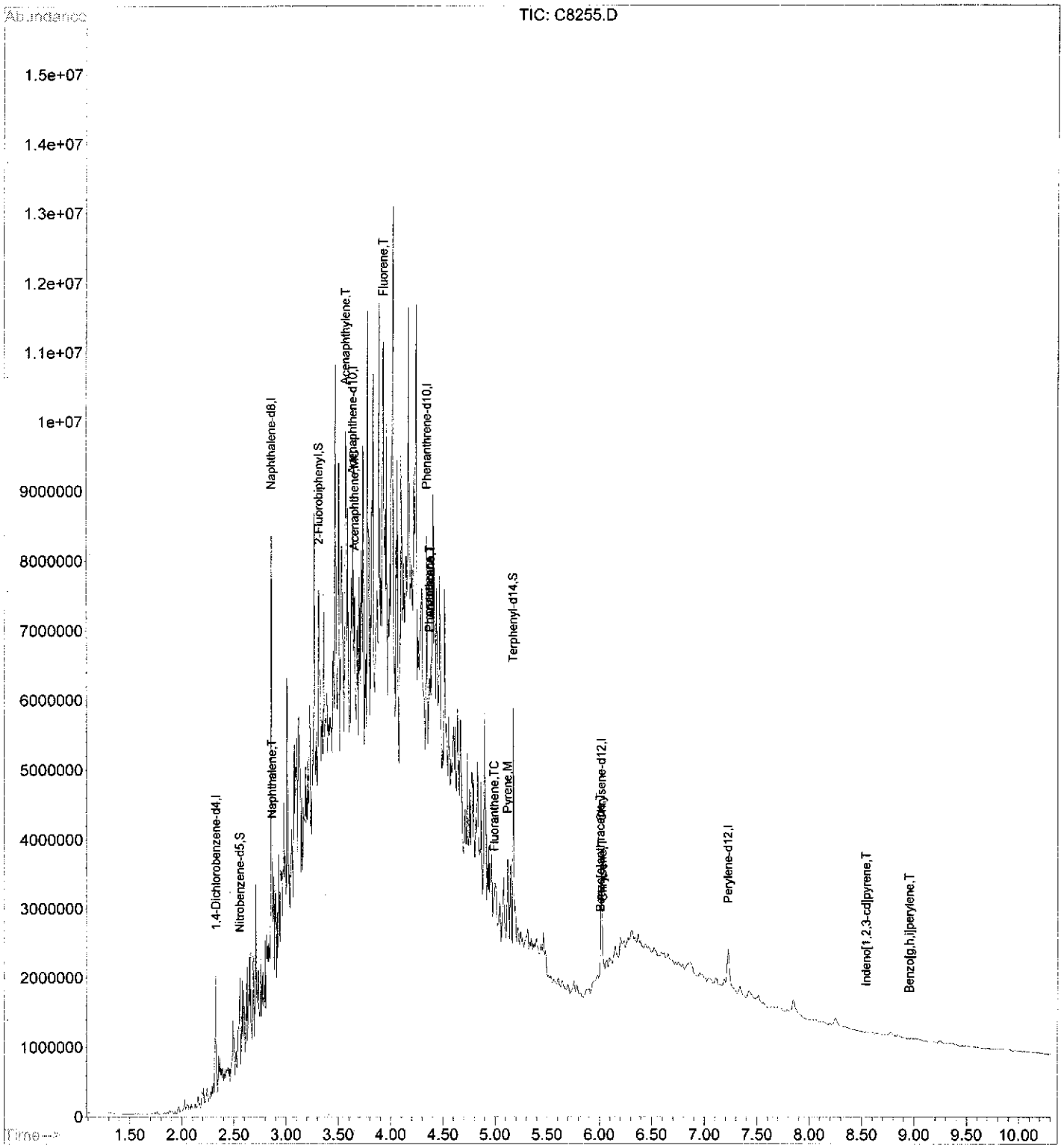
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.32	152	138746	40.00	UG	-0.01
23) Naphthalene-d8	2.86	136	495805	40.00	UG	-0.02
43) Acenaphthene-d10	3.64	164	292523	40.00	UG	-0.04
66) Phenanthrene-d10	4.34	188	475020m	40.00	UG	-0.06
82) Chrysene-d12	6.02	240	596808	40.00	UG	-0.10
92) Perylene-d12	7.22	264	433007	40.00	UG	-0.09
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 108		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.55	82	160204	37.60	UG	-0.01
Spiked Amount 50.000	Range 26 - 104		Recovery =	75.20%		
47) 2-Fluorobiphenyl	3.31	172	453215	42.67	UG	-0.03
Spiked Amount 50.000	Range 32 - 128		Recovery =	85.34%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery =	0.00%#		
84) Terphenyl-d14	5.17	244	579054	36.22	UG	-0.11
Spiked Amount 50.000	Range 32 - 135		Recovery =	72.44%		
Target Compounds						Qvalue
34) Naphthalene	2.87	128	9262	0.70	UG	# 1
53) Acenaphthylene	3.57	152	67410	5.34	UG	# 1
55) Acenaphthene	3.65	153	135461	17.16	UG	93
61) Fluorene	3.92	166	84353m	9.12	UG	
75) Phenanthrene	4.37	178	38075m	3.04	UG	
76) Anthracene	4.38	178	85703m	6.74	UG	
79) Fluoranthene	4.99	202	34751m	2.72	UG	
83) Pyrene	5.12	202	124248m	7.31	UG	
88) Benzo[a]anthracene	6.00	228	14489	0.99	UG	# 1
89) Chrysene	6.03	228	34115	2.33	UG	# 73
97) Indeno[1,2,3-cd]pyrene	8.54	276	12998	1.06	UG	# 59
99) Benzo[g,h,i]perylene	8.95	276	10962	1.08	UG	# 78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-30-09\
Data File : C8255.D
Acq On : 30 Dec 2009 19:21
Operator : EDM
Sample : T1-1/5.5-6,12828-012,S,2.18g,26.7,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 31 12:34:10 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-30-09\
Data File : C8256.D
Acq On : 30 Dec 2009 19:36
Operator : EDM
Sample : T2-1/5.5-6,12828-016,S,3.13g,50.4,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 31 06:17:26 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

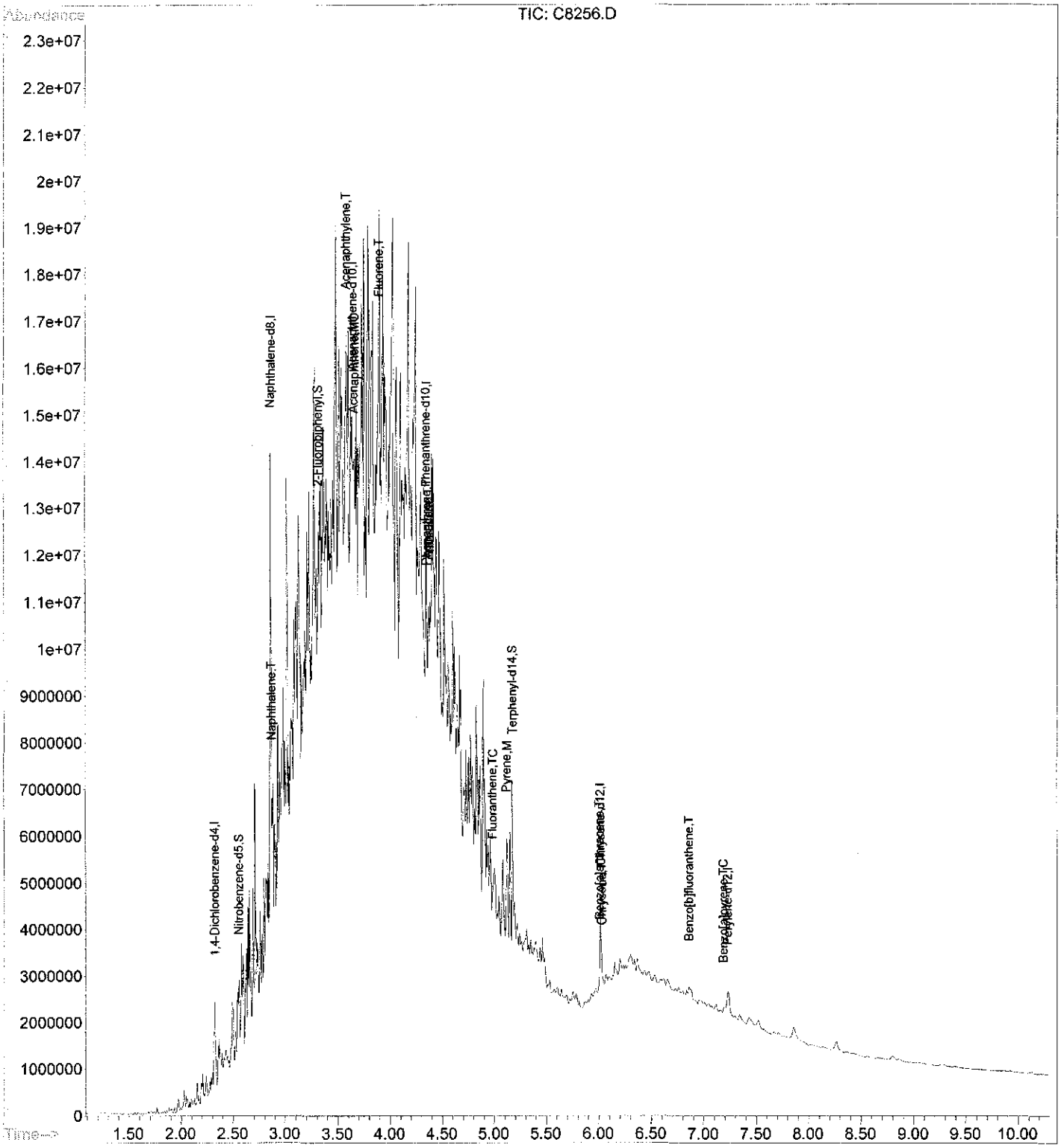
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.32	152	135067	40.00	UG	-0.01
23) Naphthalene-d8	2.86	136	455153	40.00	UG	-0.01
43) Acenaphthene-d10	3.64	164	350318m	40.00	UG	-0.03
66) Phenanthrene-d10	4.35	188	490047m	40.00	UG	-0.06
82) Chrysene-d12	6.02	240	606454m	40.00	UG	-0.10
92) Perylene-d12	7.23	264	403595	40.00	UG	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	2.05	112	301	0.08	UG	0.23
Spiked Amount 100.000	Range 28 - 108		Recovery = 0.08%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.55	82	159894	40.88	UG	-0.01
Spiked Amount 50.000	Range 26 - 104		Recovery = 81.76%			
47) 2-Fluorobiphenyl	3.32	172	427511	33.61	UG	-0.03
Spiked Amount 50.000	Range 32 - 128		Recovery = 67.22%			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery = 0.00%#			
84) Terphenyl-d14	5.17	244	542593m	33.40	UG	-0.11
Spiked Amount 50.000	Range 32 - 135		Recovery = 66.80%			
Target Compounds						Qvalue
34) Naphthalene	2.87	128	33301	2.73	UG	# 8
53) Acenaphthylene	3.58	152	117163m	7.76	UG	
55) Acenaphthene	3.66	153	208600	22.07	UG	85
61) Fluorene	3.90	166	192498m	17.38	UG	
75) Phenanthrene	4.36	178	43105m	3.33	UG	
76) Anthracene	4.37	178	35201m	2.68	UG	
79) Fluoranthene	4.98	202	64572m	4.90	UG	
83) Pyrene	5.12	202	190425m	11.03	UG	
88) Benzo[a]anthracene	6.00	228	19851m	1.33	UG	
89) Chrysene	6.03	228	45345m	3.04	UG	
94) Benzo[b]fluoranthene	6.85	252	7984m	0.74	UG	
96) Benzo[a]pyrene	7.18	252	6896	0.76	UG	# 55

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-30-09\
Data File : C8256.D
Acq On : 30 Dec 2009 19:36
Operator : EDM
Sample : T2-1/5.5-6,12828-016,S,3.13g,50.4,12/30/09
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 31 06:17:26 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-30-09\
Data File : C8235.D
Acq On : 30 Dec 2009 14:16
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,12/30/09
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 31 08:39:28 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration

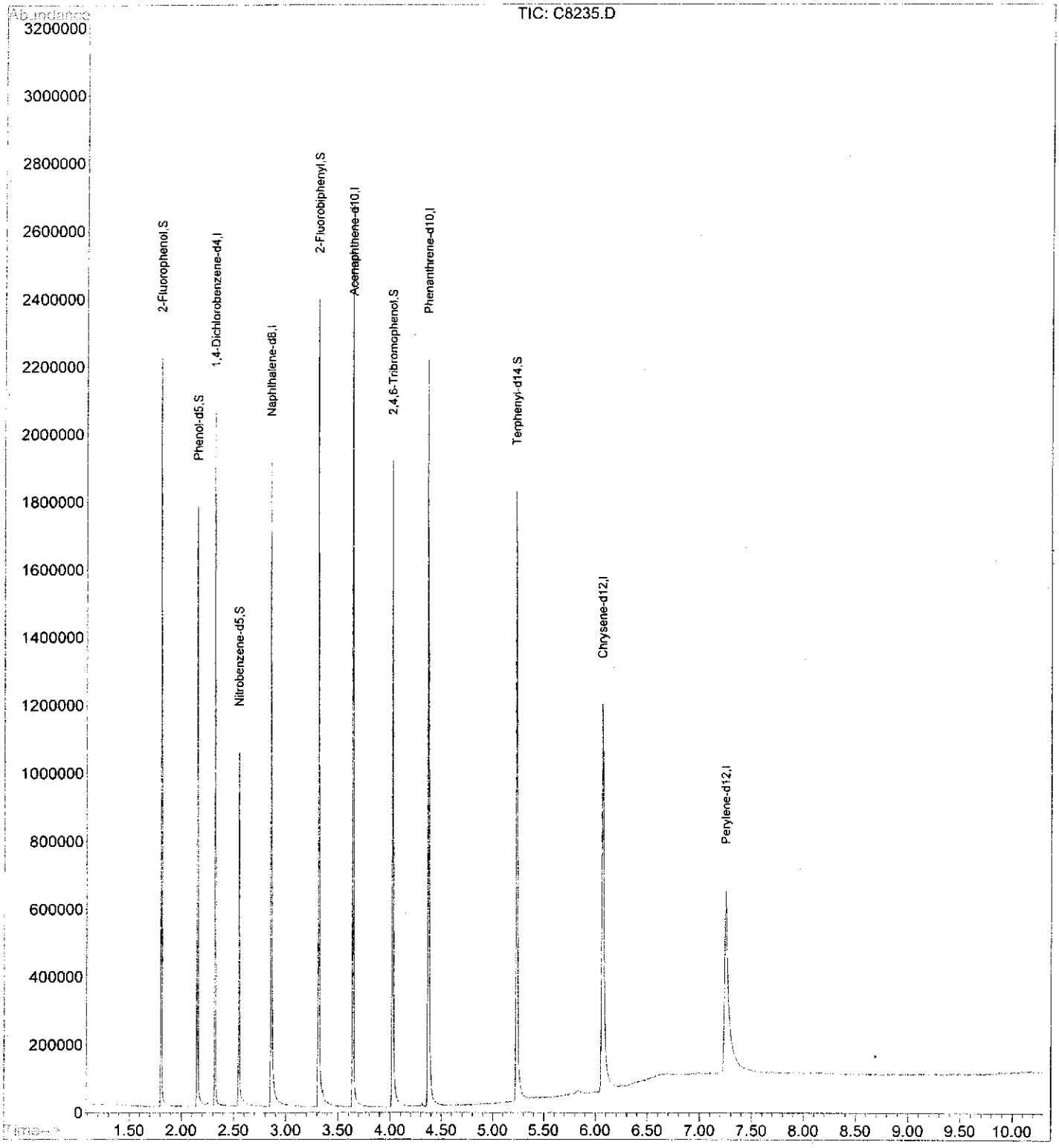
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.32	152	183354	40.00	UG	-0.02
23) Naphthalene-d8	2.85	136	714076	40.00	UG	-0.03
43) Acenaphthene-d10	3.64	164	441292	40.00	UG	-0.03
66) Phenanthrene-d10	4.37	188	748816	40.00	UG	-0.04
82) Chrysene-d12	6.06	240	736623	40.00	UG	-0.05
92) Perylene-d12	7.25	264	635308	40.00	UG	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	1.81	112	401520	74.27	UG	-0.02
Spiked Amount 100.000	Range 28 - 108		Recovery = 74.27%			
6) Phenol-d5	2.15	99	507872	75.66	UG	-0.01
Spiked Amount 100.000	Range 34 - 107		Recovery = 75.66%			
24) Nitrobenzene-d5	2.55	82	216936	35.35	UG	-0.02
Spiked Amount 50.000	Range 26 - 104		Recovery = 70.70%			
47) 2-Fluorobiphenyl	3.31	172	540273	33.72	UG	-0.03
Spiked Amount 50.000	Range 32 - 128		Recovery = 67.44%			
70) 2,4,6-Tribromophenol	4.02	330	238649	59.53	UG	-0.03
Spiked Amount 100.000	Range 32 - 126		Recovery = 59.53%			
84) Terphenyl-d14	5.23	244	641761	32.52	UG	-0.05
Spiked Amount 50.000	Range 32 - 135		Recovery = 65.04%			

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\12-30-09\
Data File : C8235.D
Acq On : 30 Dec 2009 14:16
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,12/30/09
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 31 08:39:28 2009
Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Dec 07 15:48:41 2009
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-30-09\
Data File : C8235.D
Acq On : 30 Dec 2009 14:16
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,12/30/09
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS2109.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS2109.M Thu Dec 31 15:31:50 2009 RPT1

TPH METHOD BLANK SUMMARY

Lab File ID: Q5281.D

Date Extracted: 12/18/2009

Date Analyzed: 12/22/2009

Instrument ID: GC-Q

Matrix: SOIL

Time Analyzed: 1:14

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
L2/2.33-	12828-002	12/22/2009	1:34
L3/2.92-	12828-003	12/22/2009	1:44
L6/3.92-	12828-006	12/22/2009	2:15
L7/3.83-	12828-007	12/22/2009	2:25
L9/2.25-	12828-009	12/22/2009	2:45
L10/3.17	12828-010	12/22/2009	2:56
L11/4-4.	12828-011	12/22/2009	3:06
T2-3/5.5	12828-018	12/22/2009	4:17
L12/1.92	12828-020	12/22/2009	4:38
DRO	12828-020-MS08	12/22/2009	4:48
DRO	DBS1218-MS08	12/22/2009	5:09
L1/3-3.5	12828-001	12/22/2009	14:35
L4/3.17-	12828-004	12/22/2009	14:45
L5/2.92-	12828-005	12/22/2009	14:55
L8/2-2.5	12828-008	12/22/2009	15:06
T1-1/5.5	12828-012	12/22/2009	15:16
T1-2/5.5	12828-013	12/22/2009	15:26
T1-3/5.5	12828-014	12/22/2009	15:36
T1-4/5.5	12828-015	12/22/2009	15:47
T2-1/5.5	12828-016	12/22/2009	15:57
T2-2/5.5	12828-017	12/22/2009	16:07
T2-4/5.5	12828-019	12/22/2009	16:18
DRO	12828-020-MSD08	12/22/2009	16:28

INTEGRATED ANALYTICAL LABORATORIES

EXTRACTABLE HYDROCARBONS

Lab ID:	1218-BLK08	GC Column:	DB-5
Client ID:	DRO	Sample wt/vol:	10.0g
Date Received:	NA	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/18/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	0
Data File:	Q5281.D		

Compound	Concentration	Q	MDL
TPH-DRO	ND		60.0

TPH METHOD BLANK SUMMARY

Lab File ID: Q5372.D

Instrument ID: GC-Q

Date Extracted: 12/21/2009

Matrix: SOIL

Date Analyzed: 12/22/2009

Time Analyzed: 18:01

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
S-1/11-1	12824-001	12/22/2009	18:11
S-2/11-1	12824-002	12/22/2009	18:21
S-4/11-1	12824-004	12/22/2009	18:42
S-5/11-1	12824-005	12/22/2009	18:52
S-3/11-1	12824-003	12/23/2009	12:52
S-6/2.5-	12824-006	12/23/2009	13:02
B-4-11.5	12830-001	12/23/2009	13:12
B-4-13.5	12830-002	12/23/2009	13:22
PAL-P/1	12832-001	12/23/2009	13:33
PAL-D/11	12832-002	12/23/2009	13:43
PAL-B/11	12832-003	12/23/2009	13:53
PAL-C/12	12832-004	12/23/2009	14:03
PAL-A/12	12832-005	12/23/2009	14:14
L13/1.92	12828-021	12/23/2009	14:24
L14/3-3.	12828-022	12/23/2009	15:05
L15/2.5-	12828-023	12/23/2009	15:15
DRO	12824-002-MS02	12/23/2009	15:25
DRO	12824-002-MSD02	12/23/2009	15:36
DRO	DBS1221-MS02	12/23/2009	15:46

INTEGRATED ANALYTICAL LABORATORIES

EXTRACTABLE HYDROCARBONS

Lab ID:	1221-BLK02	GC Column:	DB-5
Client ID:	DRO	Sample wt/vol:	10.0g
Date Received:	NA	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	12/21/2009	Dilution Factor:	1
Date Analyzed:	12/22/2009	% Moisture:	0
Data File:	Q5372.D		

Compound	Concentration	Q	MDL
TPH-DRO	ND		60.0

TPH INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/10/2009 Instrument ID: GC-Q

Date File: Q4440.D Q4439.D Q4442.D Q4437.D Q4441.D GC Column: DB-5

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	40 PPM	500 PPM	1000 PPM	2000 PPM	4000 PPM	RT	FROM	TO
TPH-DRO	2.50	2.50	2.50	2.50	2.50	2.50	2.43	2.57

	CALIBRATION FACTORS					MEAN	
COMPOUND	40 PPM	500 PPM	1000 PPM	2000 PPM	4000 PPM	RF	%RSD
TPH-DRO	43.0	37.4	39.4	39.1	38.4	39.5	5.38

TPH INITIAL CALIBRATION SUMMARY

Date Analyzed: 12/10/2009 Instrument ID: GC-Q

Date File: Q4440.D Q4439.D Q4442.D Q4437.D Q4441.D GC Column: DB-5

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	40 PPM	500 PPM	1000 PPM	2000 PPM	4000 PPM	RT	FROM	TO
TPH-DRO	2.50	2.50	2.50	2.50	2.50	2.50	2.43	2.57

	CALIBRATION FACTORS					MEAN	
COMPOUND	40 PPM	500 PPM	1000 PPM	2000 PPM	4000 PPM	RF	%RSD
TPH-DRO	43.0	37.4	39.4	39.1	38.4	39.5	5.38

TPH CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/22/2009 0:53

Date File: Q5280.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	40.4	2.28

Date Analyzed: 12/22/2009 5:19

Date File: Q5305.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	40.7	3.04

Date Analyzed: 12/22/2009 14:24

Date File: Q5351.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	40.7	3.04

Date Analyzed: 12/22/2009 17:19

Date File: Q5368.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	35.6	9.87

TPH CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 12/22/2009 17:51

Date File: Q5371.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	40.2	1.77

Date Analyzed: 12/22/2009 20:06

Date File: Q5384.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	41.0	3.80

Date Analyzed: 12/23/2009 12:41

Date File: Q5402.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	40.6	2.78

Date Analyzed: 12/23/2009 15:56

Date File: Q5418.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		39.5	36.8	6.84

TPH SURROGATE RECOVERY AND RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Q Column: DB-5

Surrogate RT from initial calibration:
DBC 4.96

Client ID	Lab Sample ID	Matrix	Date Analyzed	Time Analyzed	DBC % rec	#	DBC RT	#
DRO	1218-BLK08	SOIL	12/22/2009	1:14	102		4.96	
L2/2.33-	12828-002	SOIL	12/22/2009	1:34	130		4.96	
L3/2.92-	12828-003	SOIL	12/22/2009	1:44	108		4.95	
L6/3.92-	12828-006	SOIL	12/22/2009	2:15	107		4.96	
L7/3.83-	12828-007	SOIL	12/22/2009	2:25	105		4.96	
L9/2.25-	12828-009	SOIL	12/22/2009	2:45	112		4.96	
L10/3.17	12828-010	SOIL	12/22/2009	2:56	108		4.96	
L11/4-4.	12828-011	SOIL	12/22/2009	3:06	106		4.96	
T2-3/5.5	12828-018	SOIL	12/22/2009	4:17	115		4.96	
L12/1.92	12828-020	SOIL	12/22/2009	4:38	111		4.96	
DRO	12828-020-MS08	SOIL	12/22/2009	4:48	115		4.96	
DRO	DBS1218-MS08	SOIL	12/22/2009	5:09	104		4.96	
L1/3-3.5	12828-001	SOIL	12/22/2009	14:35	122		4.96	
L4/3.17-	12828-004	SOIL	12/22/2009	14:45	123		4.96	
L5/2.92-	12828-005	SOIL	12/22/2009	14:55	110		4.96	
L8/2-2.5	12828-008	SOIL	12/22/2009	15:06	100		4.96	
T1-1/5.5	12828-012	SOIL	12/22/2009	15:16	122		4.96	
T1-2/5.5	12828-013	SOIL	12/22/2009	15:26	119		4.96	
T1-3/5.5	12828-014	SOIL	12/22/2009	15:36	109		4.96	
T1-4/5.5	12828-015	SOIL	12/22/2009	15:47	120		4.96	
T2-1/5.5	12828-016	SOIL	12/22/2009	15:57	121		4.96	
T2-2/5.5	12828-017	SOIL	12/22/2009	16:07	130		4.96	
T2-4/5.5	12828-019	SOIL	12/22/2009	16:18	113		4.96	
DRO	12828-020-MSD08	SOIL	12/22/2009	16:28	103		4.96	

Surrogate QC Limits	Recovery	RT
DBC = Dibutylchlorendate	70 - 130	± 0.15 Minutes

Column to be used to flag recovery values
* = Values outside of QC Limits
D = Surrogate diluted out
M = Matrix interference

TPH SURROGATE RECOVERY AND RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Q Column: DB-5

Surrogate RT from initial calibration:
DBC 4.96

Client ID	Lab Sample ID	Matrix	Date Analyzed	Time Analyzed	DBC % rec	#	DBC RT	#
DRO	1221-BLK02	SOIL	12/22/2009	18:01	109		4.96	
S-1/11-1	12824-001	SOIL	12/22/2009	18:11	125		4.96	
S-2/11-1	12824-002	SOIL	12/22/2009	18:21	129		4.96	
S-4/11-1	12824-004	SOIL	12/22/2009	18:42	129		4.96	
S-5/11-1	12824-005	SOIL	12/22/2009	18:52	126		4.96	
S-3/11-1	12824-003	SOIL	12/23/2009	12:52	120		4.96	
S-6/2.5-	12824-006	SOIL	12/23/2009	13:02	116		4.96	
B-4-11.5	12830-001	SOIL	12/23/2009	13:12	102		4.96	
B-4-13.5	12830-002	SOIL	12/23/2009	13:22	97		4.96	
PAL-P/1	12832-001	SOIL	12/23/2009	13:33	123		4.96	
PAL-D/11	12832-002	SOIL	12/23/2009	13:43	129		4.96	
PAL-B/11	12832-003	SOIL	12/23/2009	13:53	126		4.96	
PAL-C/12	12832-004	SOIL	12/23/2009	14:03	123		4.96	
PAL-A/12	12832-005	SOIL	12/23/2009	14:14	130		4.96	
L13/1.92	12828-021	SOIL	12/23/2009	14:24	112		4.96	
L14/3-3.	12828-022	SOIL	12/23/2009	15:05	126		4.96	
L15/2.5-	12828-023	SOIL	12/23/2009	15:15	120		4.96	
DRO	12824-002-MS02	SOIL	12/23/2009	15:25	113		4.96	
DRO	12824-002-MSD02	SOIL	12/23/2009	15:36	115		4.96	
DRO	DBS1221-MS02	SOIL	12/23/2009	15:46	94		4.96	

Surrogate QC Limits	Recovery	RT
DBC = Dibutylchlorendate	70 - 130	± 0.15 Minutes

Column to be used to flag recovery values
* = Values outside of QC Limits
D = Surrogate diluted out
M = Matrix interference

SOIL - TPH MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix Spike Lab Sample ID 12828-020-MSD08

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC #	QC LIMITS REC
TPH-DRO	1000	343	1460	112	26 - 158

COMPOUND	SAMPLE CONC. (mg/Kg)	MSD CONC. (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
TPH-DRO	343	1270	92.8	18.8	30	26 - 158

Column to be used to flag recovery and RPD values with an asterisk

* = Values outside of QC Limits

NC = Non calculable

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

SOIL - TPH MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix Spike Lab Sample ID 12824-002-MSD02

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC	#	QC LIMITS REC
TPH-DRO	1000	0	1250	125		26 - 158

COMPOUND	SAMPLE CONC. (mg/Kg)	MSD CONC. (mg/Kg)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC
TPH-DRO	0	1340	134		6.73		30	26 - 158

Column to be used to flag recovery and RPD values with an asterisk

* = Values outside of QC Limits

NC = Non calculable

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

SOIL - TPH BLANK SPIKE RECOVERY

Blank Spike Lab Sample ID: DBS1218-MS08

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	BS CONC. (mg/Kg)	BS % REC	#	QC LIMITS REC
TPH-DRO	1000	0	1260	126		70 - 130

Column to be used to flag recovery values with an asterisk

* = Values outside of QC Limits

Spike Recovery: 0 out of 1 outside limits

SOIL - TPH BLANK SPIKE RECOVERY

Blank Spike Lab Sample ID: DBS1221-MS02

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	BS CONC. (mg/Kg)	BS % REC	#	QC LIMITS REC
TPH-DRO	1000	0	1080	108		70 - 130

Column to be used to flag recovery values with an asterisk

* = Values outside of QC Limits

Spike Recovery: 0 out of 1 outside limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5352.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:35 pm
Operator : TB
Sample : L1/3-3.5,12828-001,S,10.37g,34.1,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 14:42:48 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.958	25477386	121.668 ng m
Spiked Amount 100.000		Recovery = 121.67%	
Target Compounds			

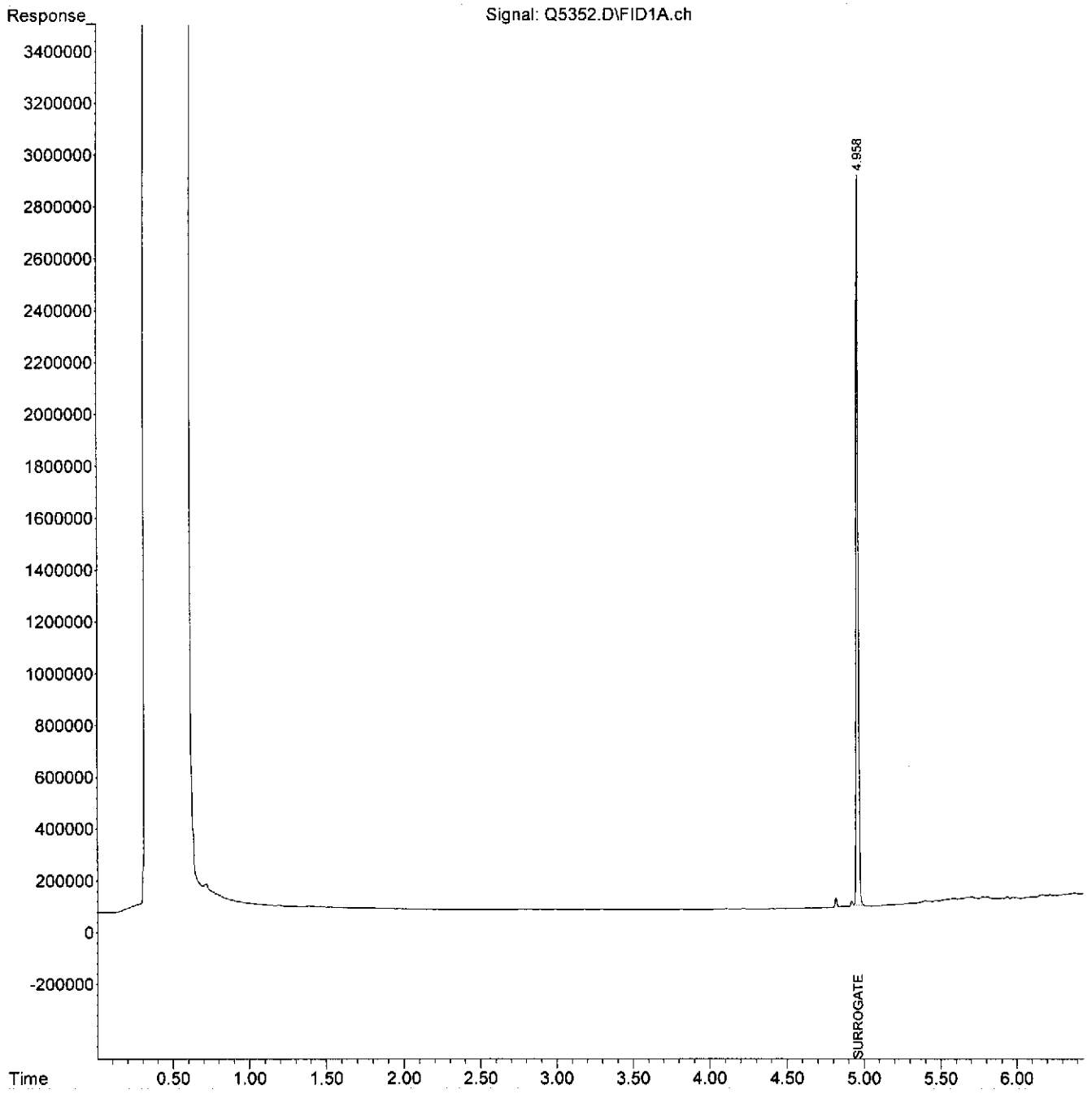
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5352.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:35 pm
Operator : TB
Sample : L1/3-3.5,12828-001,S,10.37g,34.1,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 14:42:48 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5283.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 1:34 am
Operator : TB
Sample : L2/2.33-,12828-002,S,10.06g,30.6,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:03:42 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.956	27249338	130.130 ng m
Spiked Amount 100.000		Recovery = 130.13%	
Target Compounds			
3) H TPH-DRO	2.500	30973332	78.457 ng

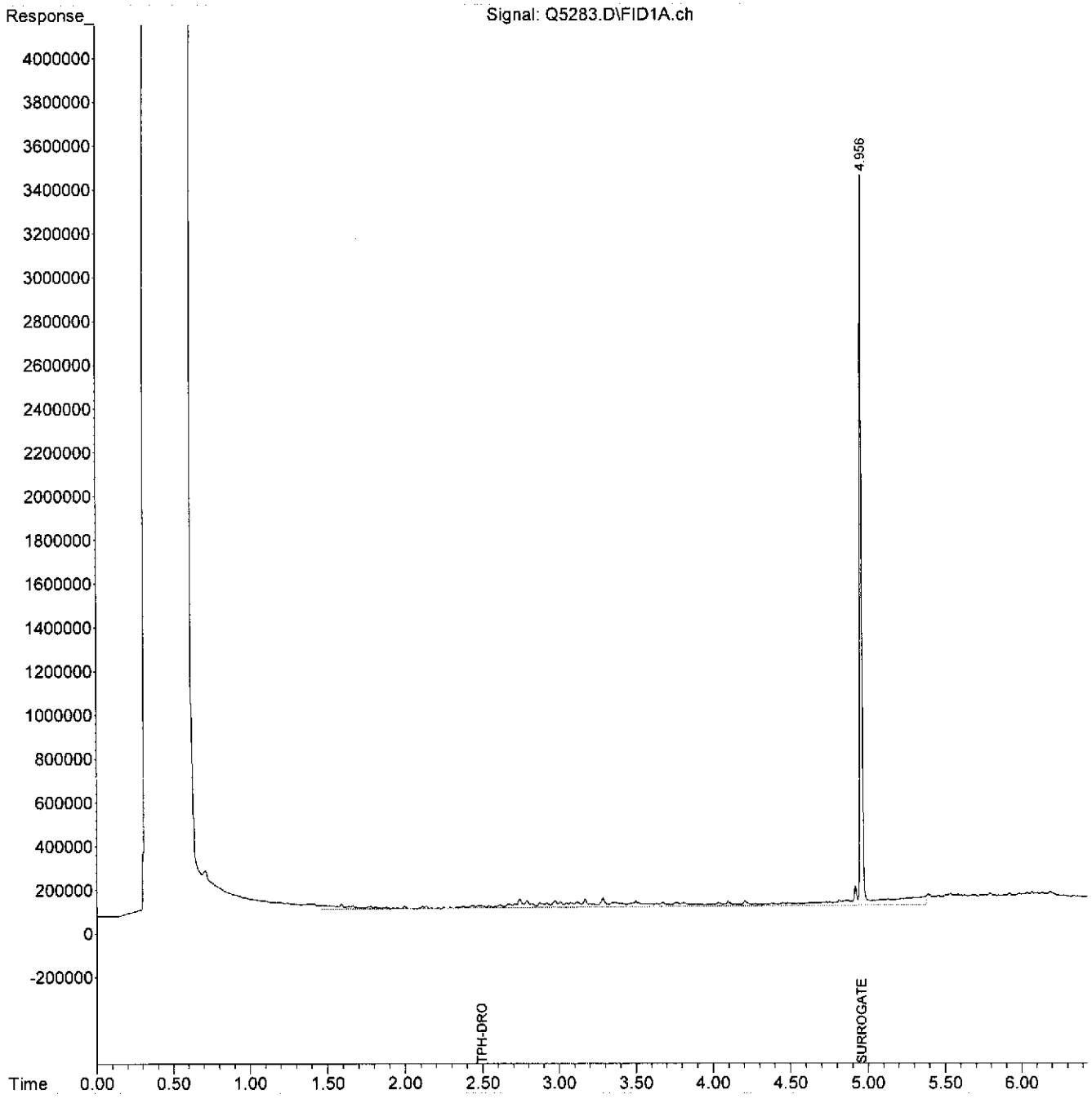
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5283.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 1:34 am
Operator : TB
Sample : L2/2.33-,12828-002,S,10.06g,30.6,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:03:42 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5284.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 1:44 am
Operator : TB
Sample : L3/2.92-,12828-003,S,10.26g,12.4,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:03:56 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.954	22528949	107.588 ng m
Spiked Amount 100.000		Recovery = 107.59%	
Target Compounds			
3) H TPH-DRO	2.500	151591860	383.989 ng

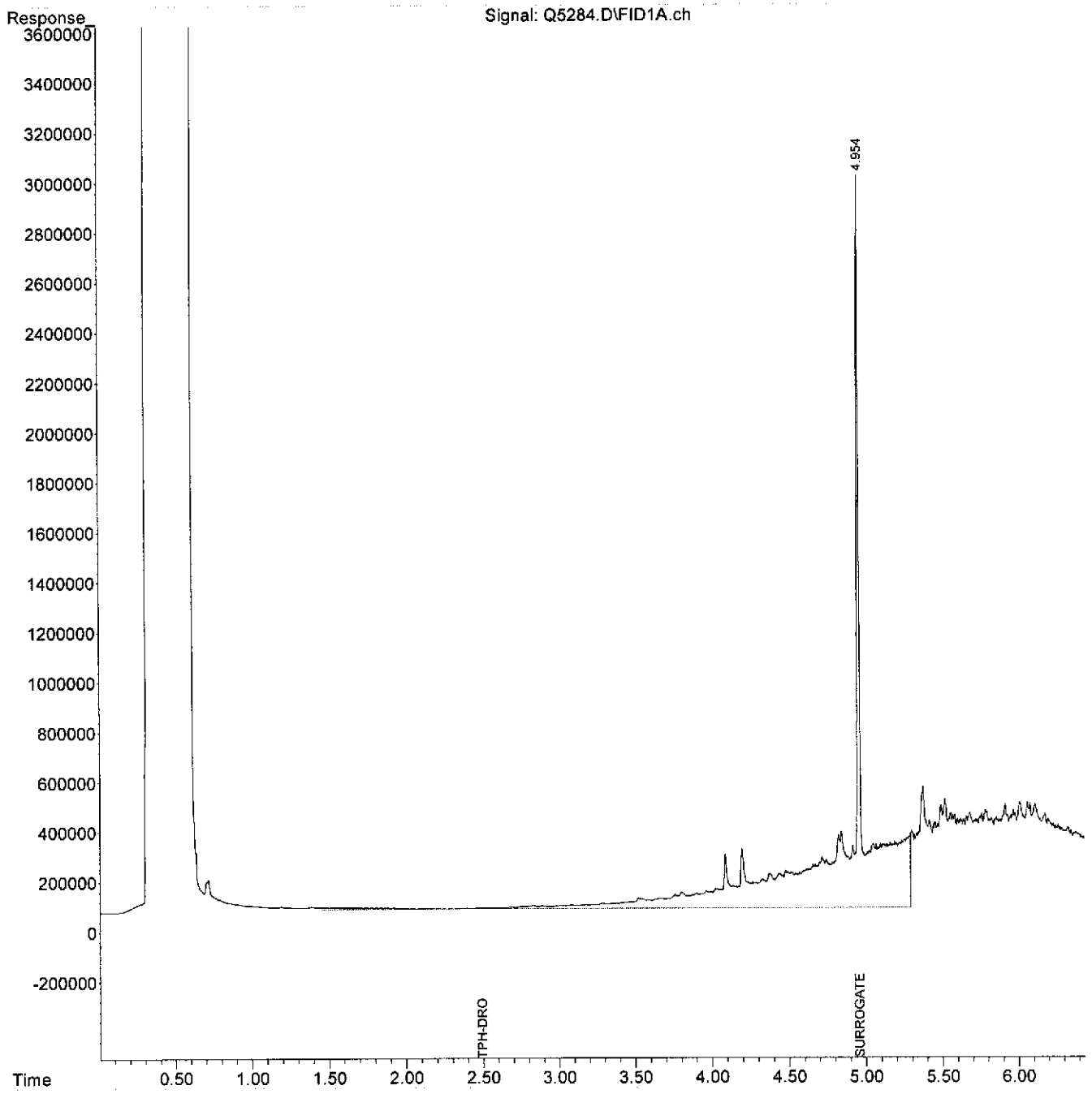
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5284.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 1:44 am
Operator : TB
Sample : L3/2.92-,12828-003,S,10.26g,12.4,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:03:56 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5353.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:45 pm
Operator : TB
Sample : L4/3.17-,12828-004,S,10.0g,20.0,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,10
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 14:53:18 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.959	2570041	12.273	ng	m
Spiked Amount 100.000		Recovery = 12.27%			
Target Compounds					
3) H TPH-DRO	2.500	475169759	1203.628	ng	

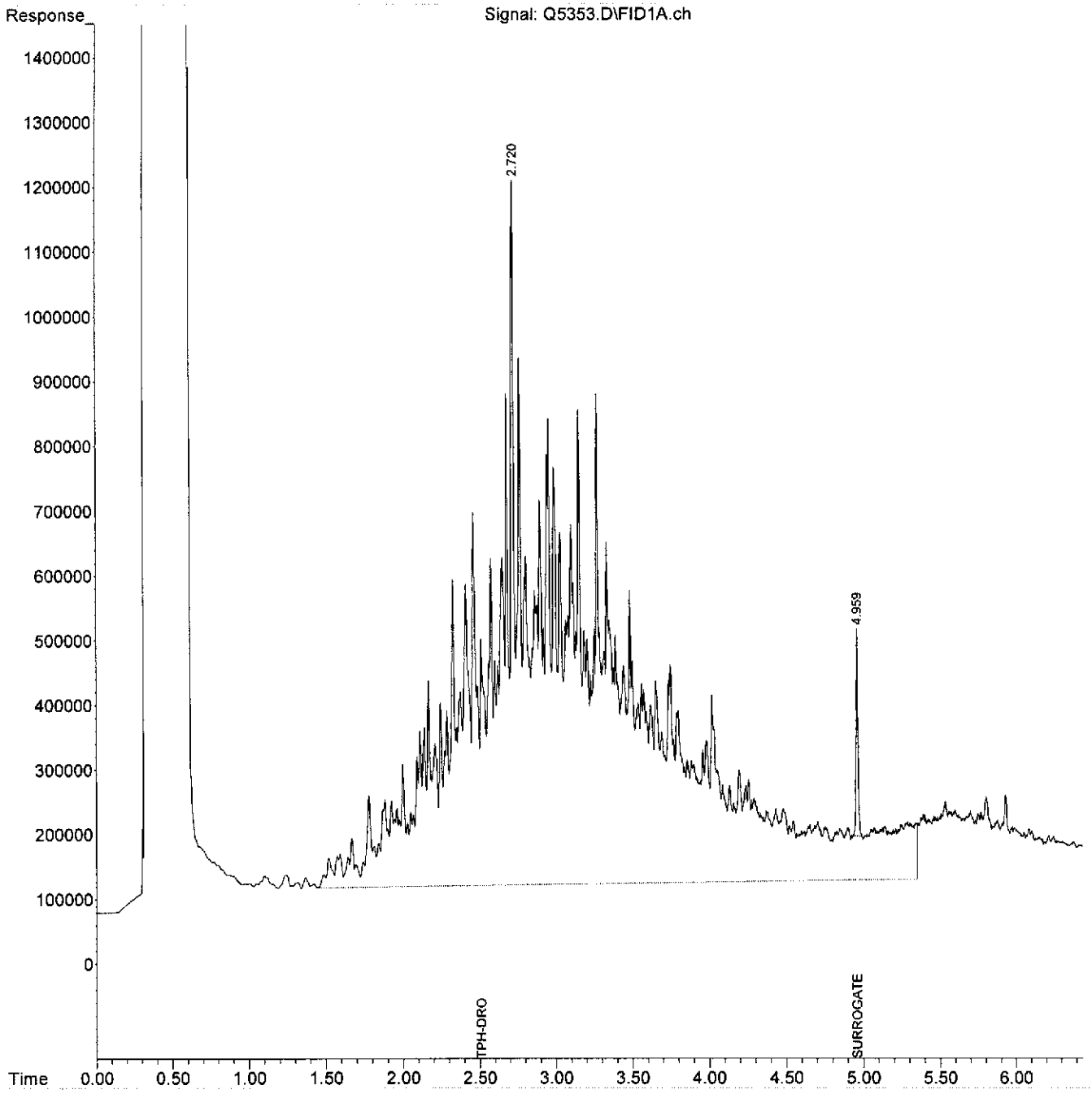
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5353.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:45 pm
Operator : TB
Sample : L4/3.17-,12828-004,S,10.0g,20.0,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,10
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 14:53:18 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5354.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:55 pm
Operator : TB
Sample : L5/2.92-,12828-005,S,10.24g,17.5,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,50
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:03:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.960	461466	2.204 ng m
Spiked Amount 100.000		Recovery =	2.20%
Target Compounds			
3) H TPH-DRO	2.500	402501657	1019.556 ng

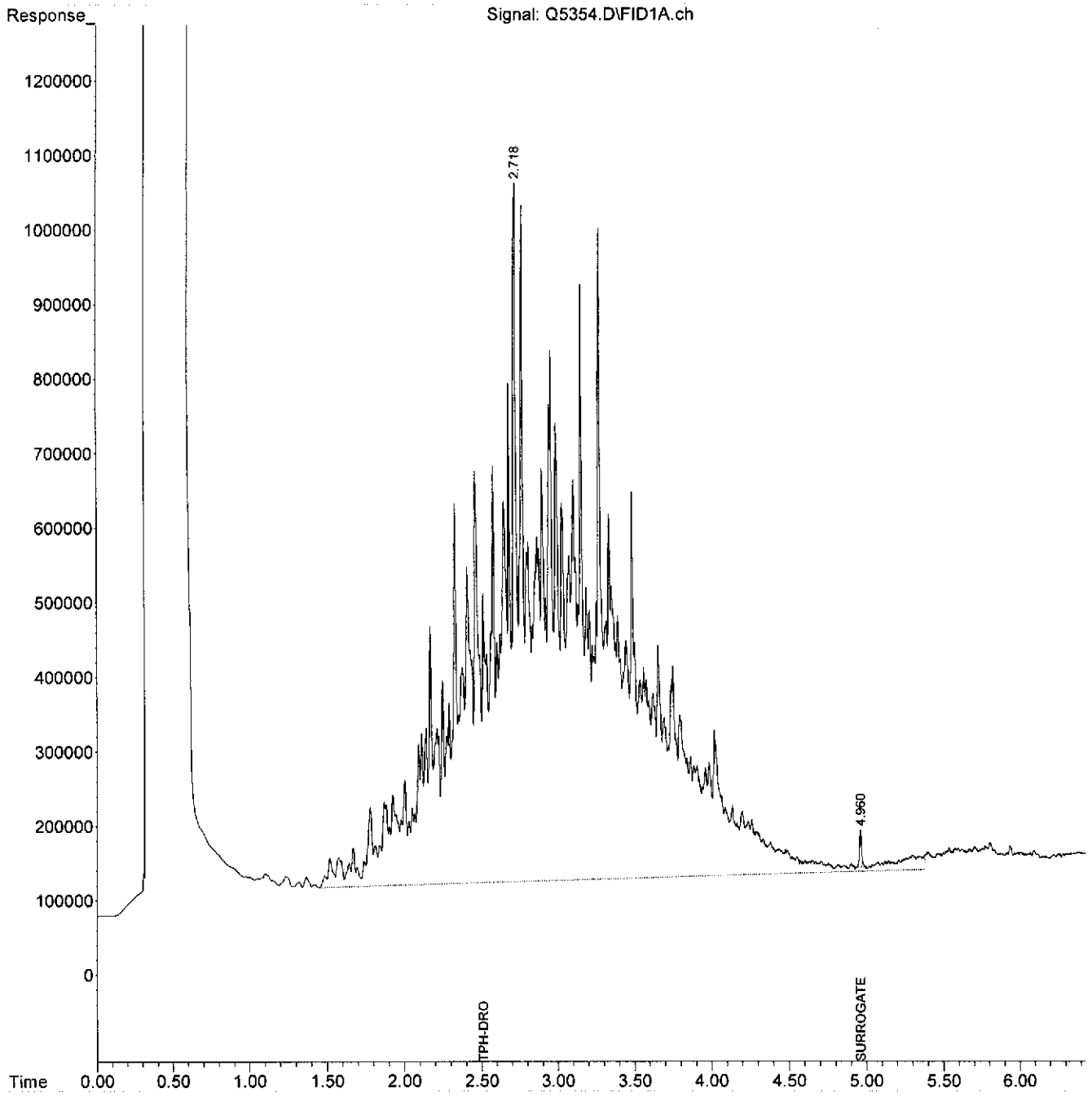
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5354.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:55 pm
Operator : TB
Sample : L5/2.92-,12828-005,S,10.24g,17.5,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,50
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:03:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5287.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:15 am
Operator : TB
Sample : L6/3.92-,12828-006,S,10.83g,12.5,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:04:40 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.955	22492173	107.412 ng m
Spiked Amount 100.000		Recovery =	107.41%
Target Compounds			
3) H TPH-DRO	2.500	172389755	436.671 ng

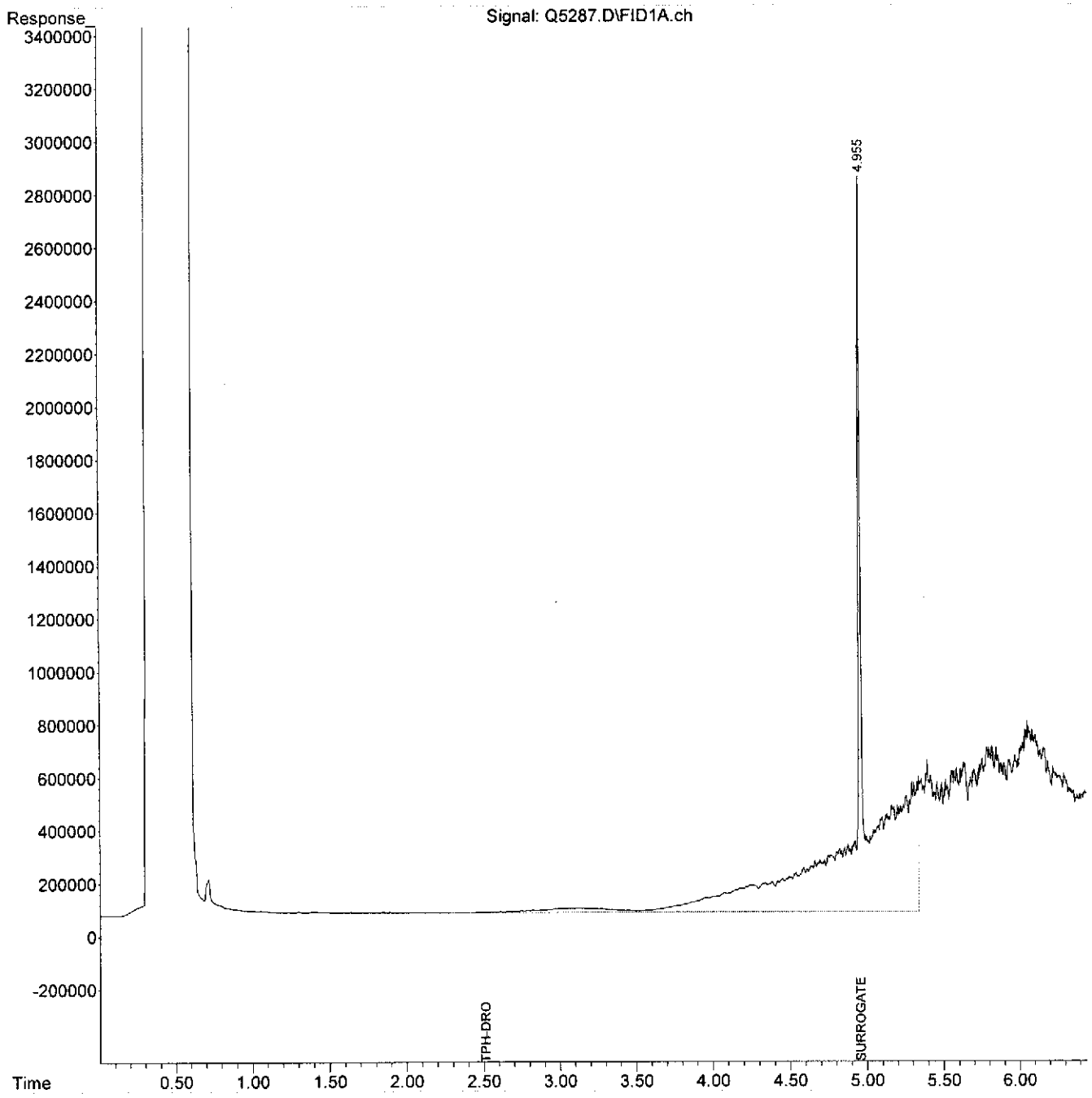
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5287.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:15 am
Operator : TB
Sample : L6/3.92-,12828-006,S,10.83g,12.5,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:04:40 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5288.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:25 am
Operator : TB
Sample : L7/3.83-,12828-007,S,10.22g,13.1,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:04:55 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.956	21922609	104.692 ng m
Spiked Amount 100.000		Recovery =	104.69%
Target Compounds			
3) H TPH-DRO	2.500	38642762	97.884 ng

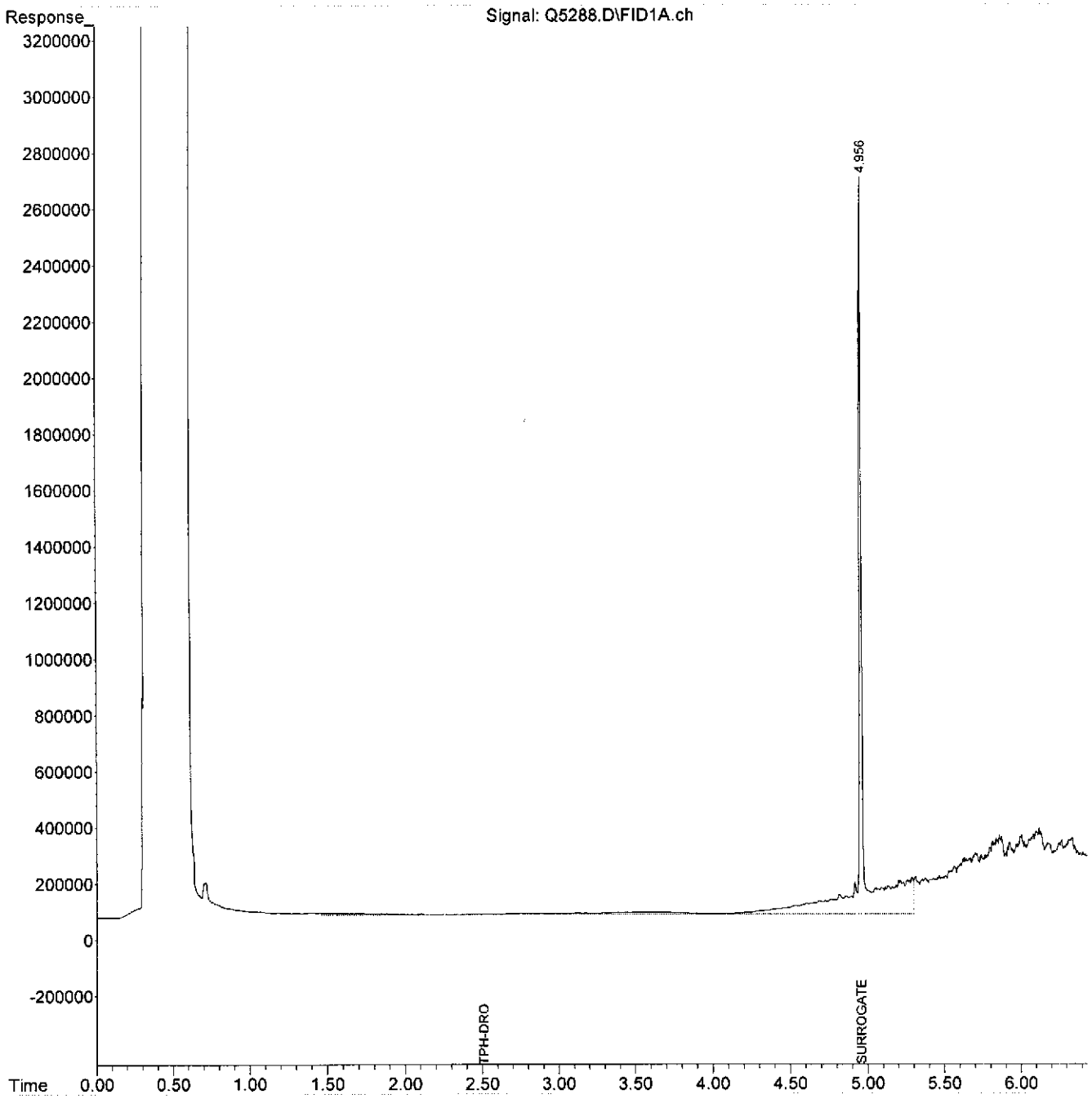
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5288.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:25 am
Operator : TB
Sample : L7/3.83-,12828-007,S,10.22g,13.1,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:04:55 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5355.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:06 pm
Operator : TB
Sample : L8/2-2.5,12828-008,S,10.65g,13.8,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,5
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:13:18 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.957	4187835	19.999	ng	m
Spiked Amount 100.000		Recovery = 20.00%			
Target Compounds					
3) H TPH-DRO	2.500	905803707	2294.444	ng	

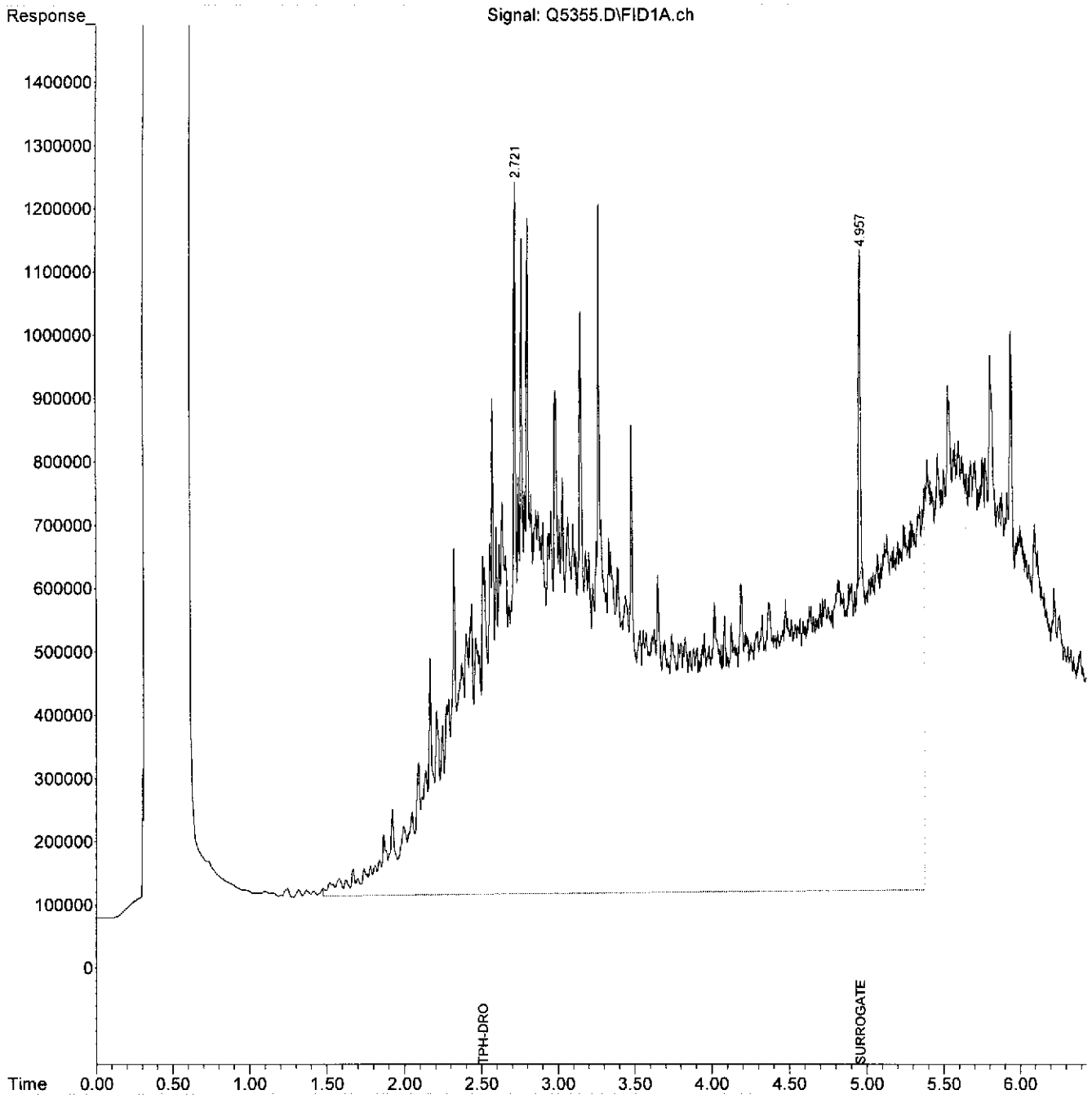
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5355.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:06 pm
Operator : TB
Sample : L8/2-2.5,12828-008,S,10.65g,13.8,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,5
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:13:18 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5290.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:45 am
Operator : TB
Sample : L9/2.25-,12828-009,S,10.37g,13.0,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:05:38 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.957	23415704	111.823 ng m
Spiked Amount 100.000		Recovery =	111.82%
Target Compounds			
3) H TPH-DRO	2.500	1390906384	3523.232 ng

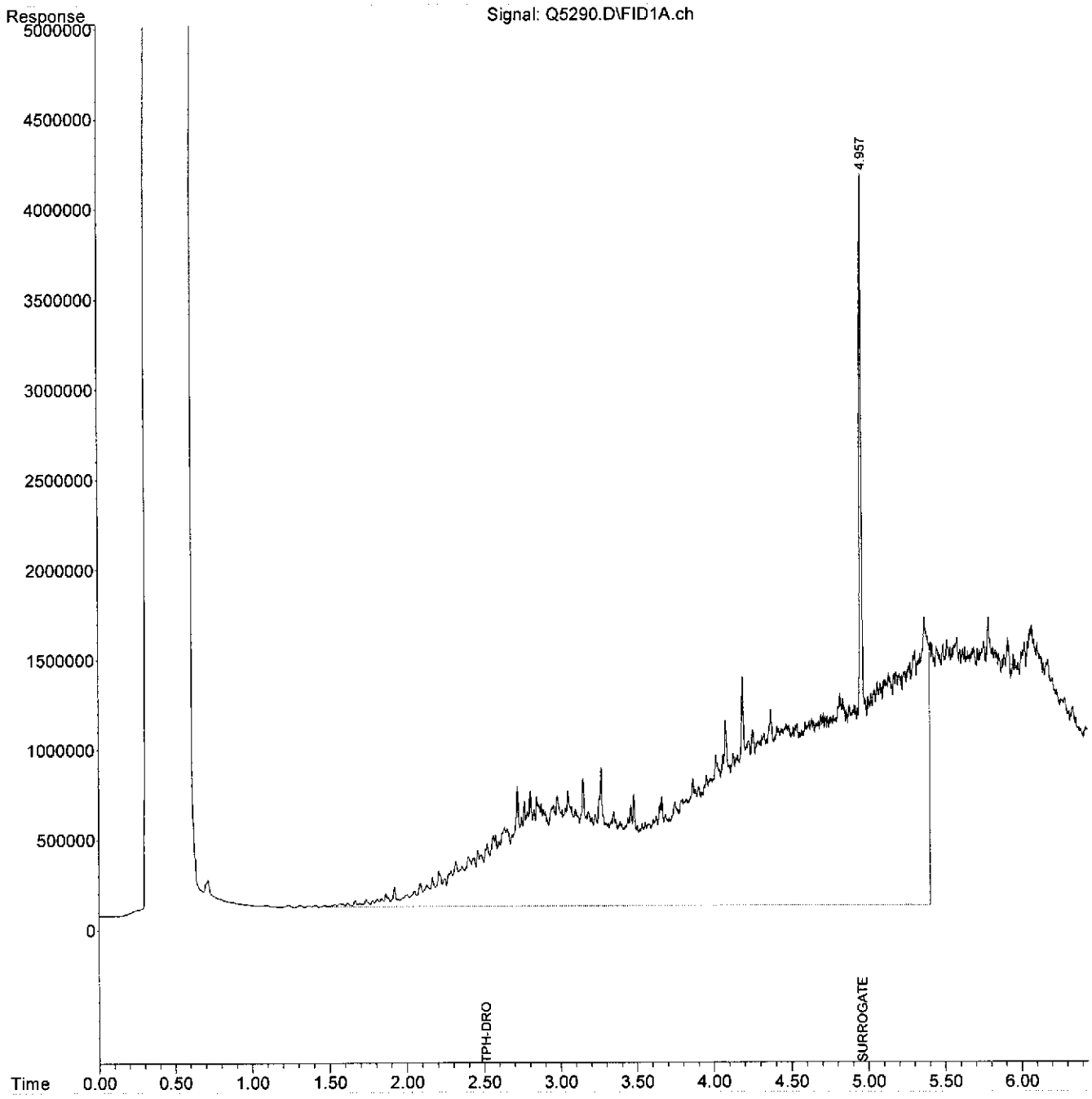
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5290.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:45 am
Operator : TB
Sample : L9/2.25-,12828-009,S,10.37g,13.0,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:05:38 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5291.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:56 am
Operator : TB
Sample : L10/3.17,12828-010,S,10.10g,14.7,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 62 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:05:58 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.955	22615612	108.002 ng m
Spiked Amount 100.000		Recovery = 108.00%	
Target Compounds			
3) H TPH-DRO	2.500	118388224	299.883 ng

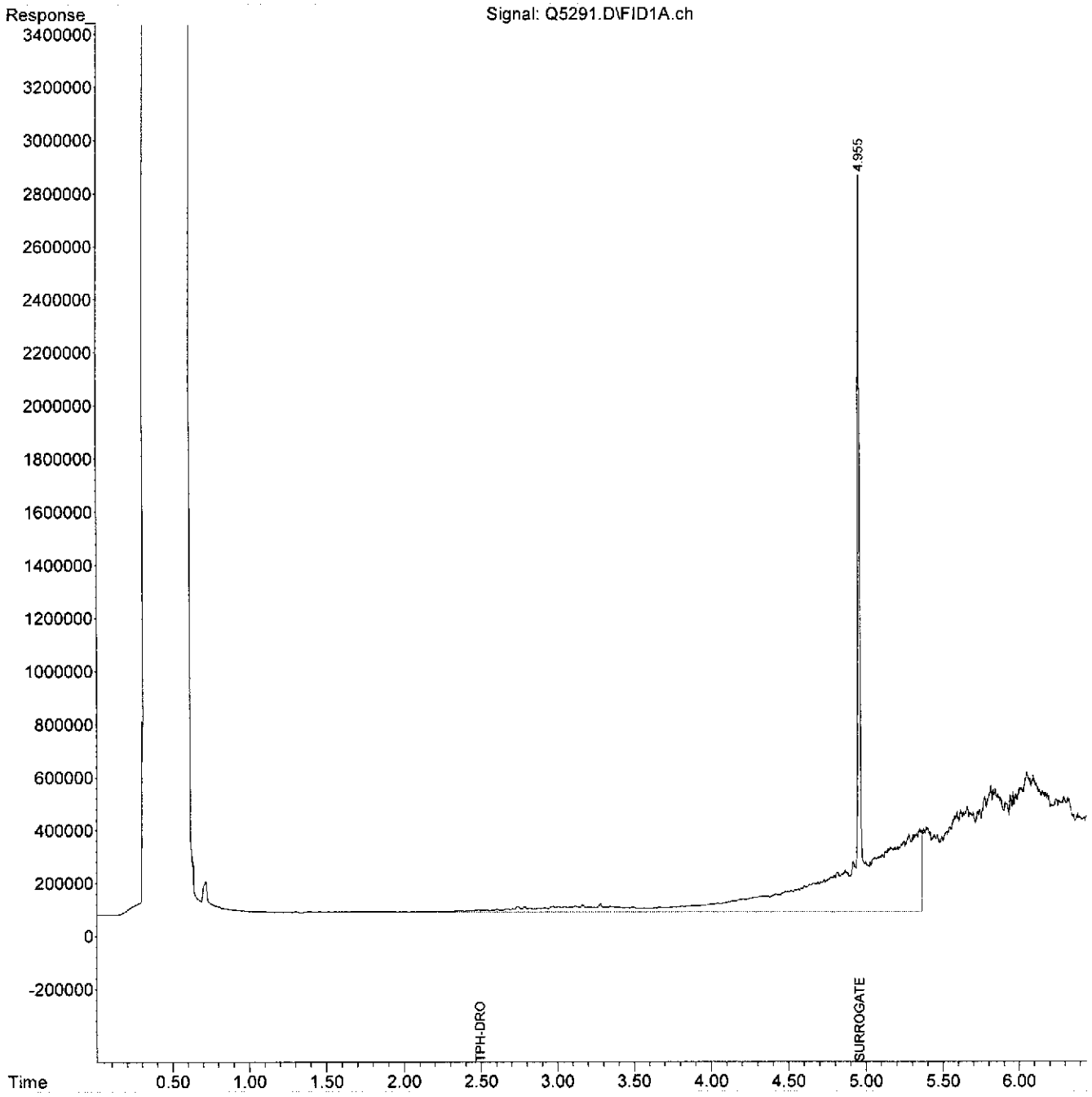
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5291.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:56 am
Operator : TB
Sample : L10/3.17,12828-010,S,10.10g,14.7,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 62 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:05:58 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5292.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:06 am
Operator : TB
Sample : L11/4-4.,12828-011,S,10.30g,14.5,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 63 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:08:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.955	22211662	106.073 ng m
Spiked Amount 100.000		Recovery = 106.07%	
Target Compounds			
3) H TPH-DRO	2.500	35755972	90.572 ng

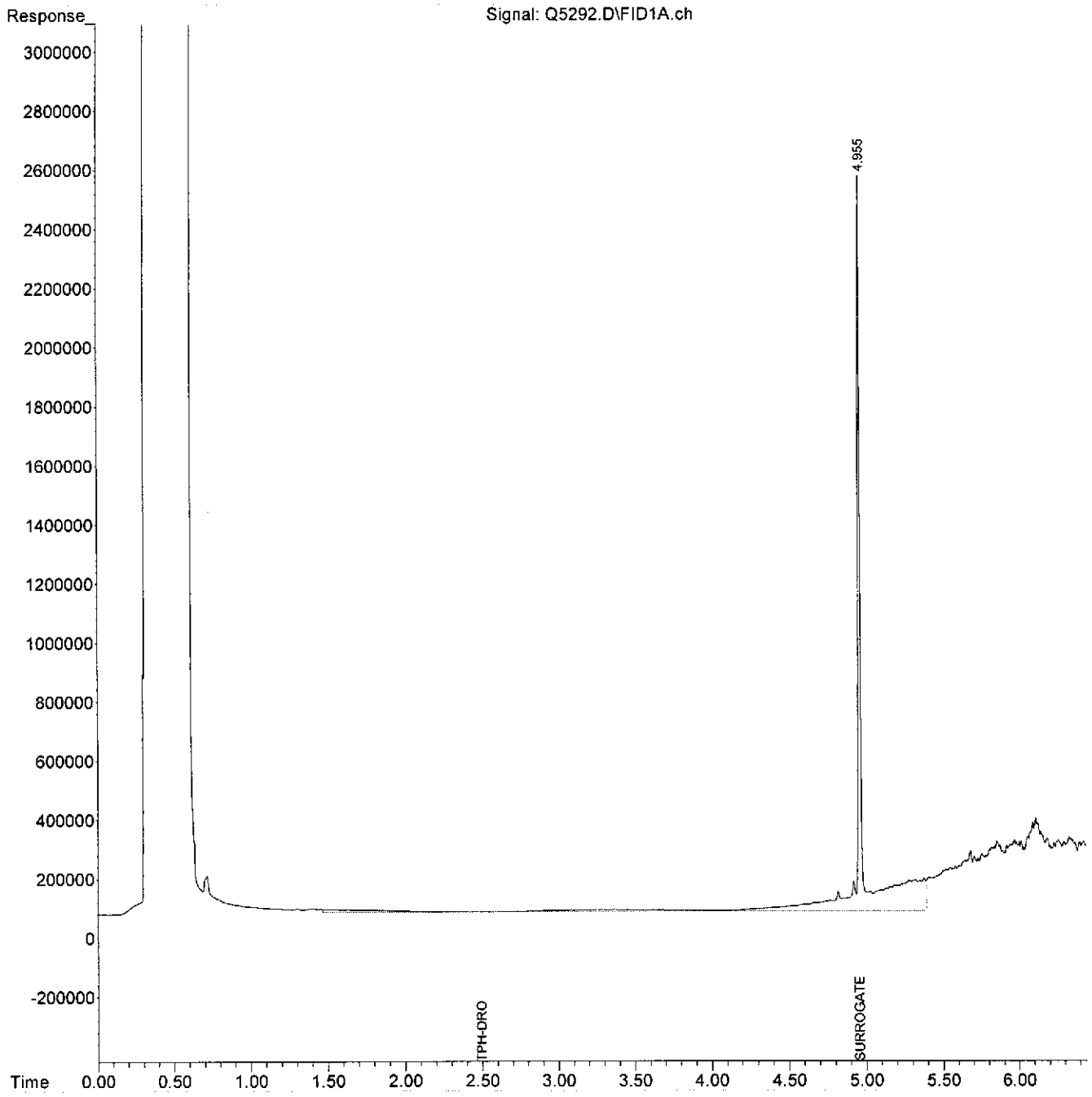
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5292.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:06 am
Operator : TB
Sample : L11/4-4.,12828-011,S,10.30g,14.5,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 63 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:08:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5356.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:16 pm
Operator : TB
Sample : T1-1/5.5,12828-012,S,10.41g,26.7,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,20
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:23:32 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.959	1282195	6.123	ng	m
Spiked Amount 100.000		Recovery =	6.12%		
Target Compounds					
3) H TPH-DRO	2.500	538823781	1364.866	ng	

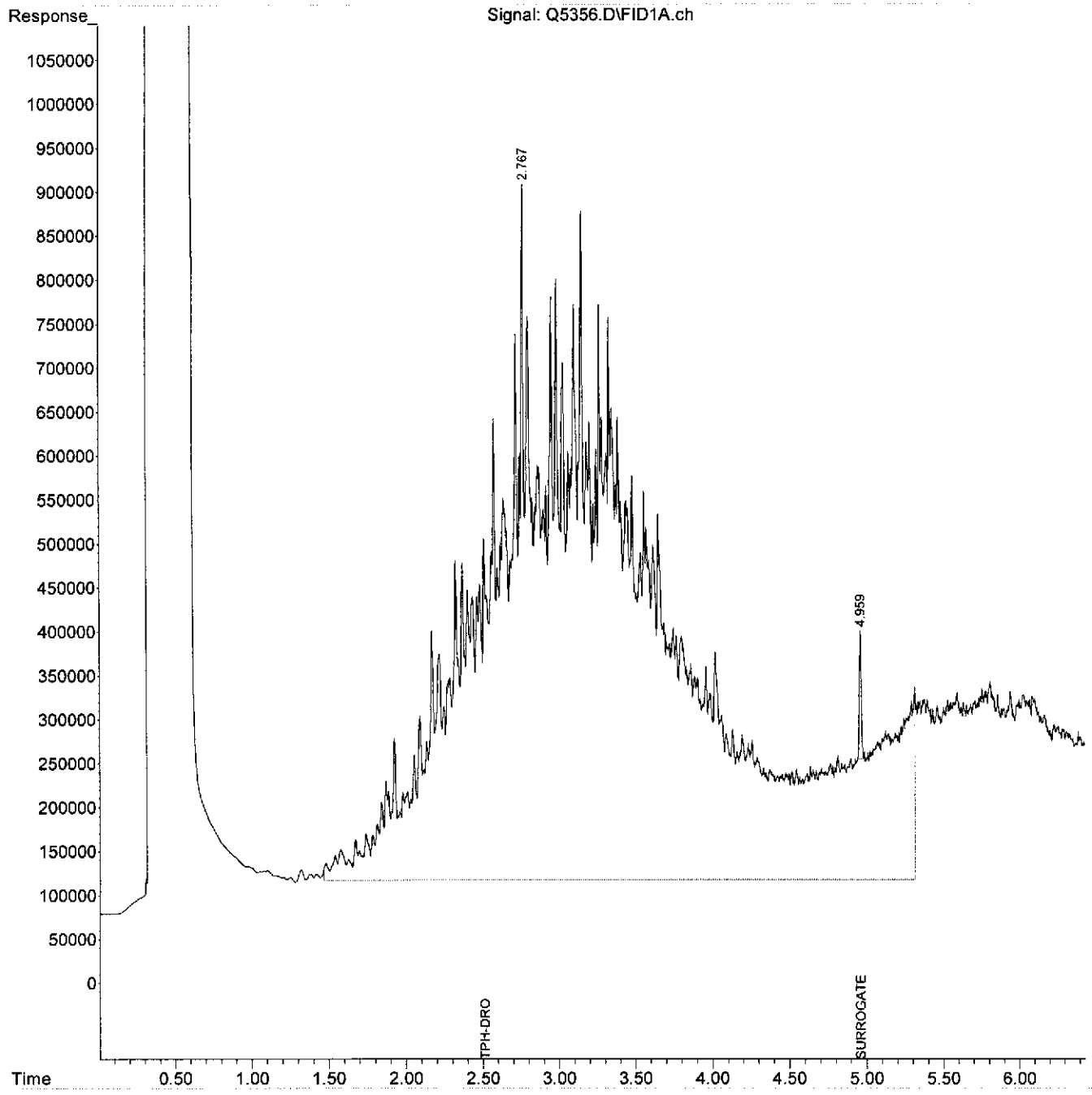
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5356.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:16 pm
Operator : TB
Sample : T1-1/5.5,12828-012,S,10.41g,26.7,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,20
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:23:32 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5357.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:26 pm
Operator : TB
Sample : T1-2/5.5,12828-013,S,10.81g,29.6,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,20
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:34:32 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.957	1247605	5.958 ng m
Spiked Amount 100.000		Recovery =	5.96%
Target Compounds			
3) H TPH-DRO	2.500	481526226	1219.729 ng

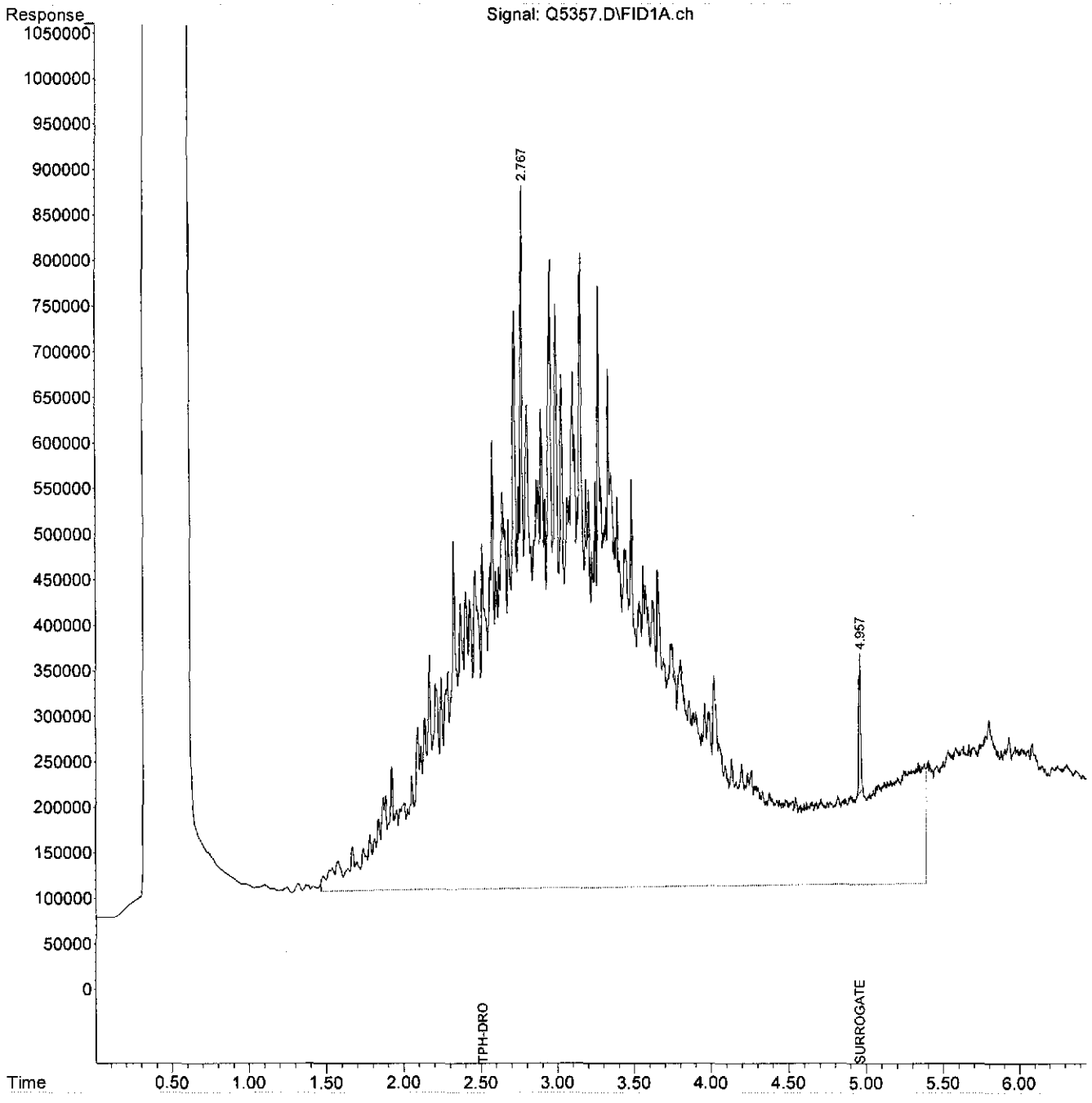
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5357.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:26 pm
Operator : TB
Sample : T1-2/5.5,12828-013,S,10.81g,29.6,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,20
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:34:32 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5358.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:36 pm
Operator : TB
Sample : T1-3/5.5,12828-014,S,10.22g,19.4,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,10
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:53:58 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.958	2287497	10.924	ng	m
Spiked Amount 100.000		Recovery = 10.92%			
Target Compounds					
3) H TPH-DRO	2.500	427378161	1082.569	ng	

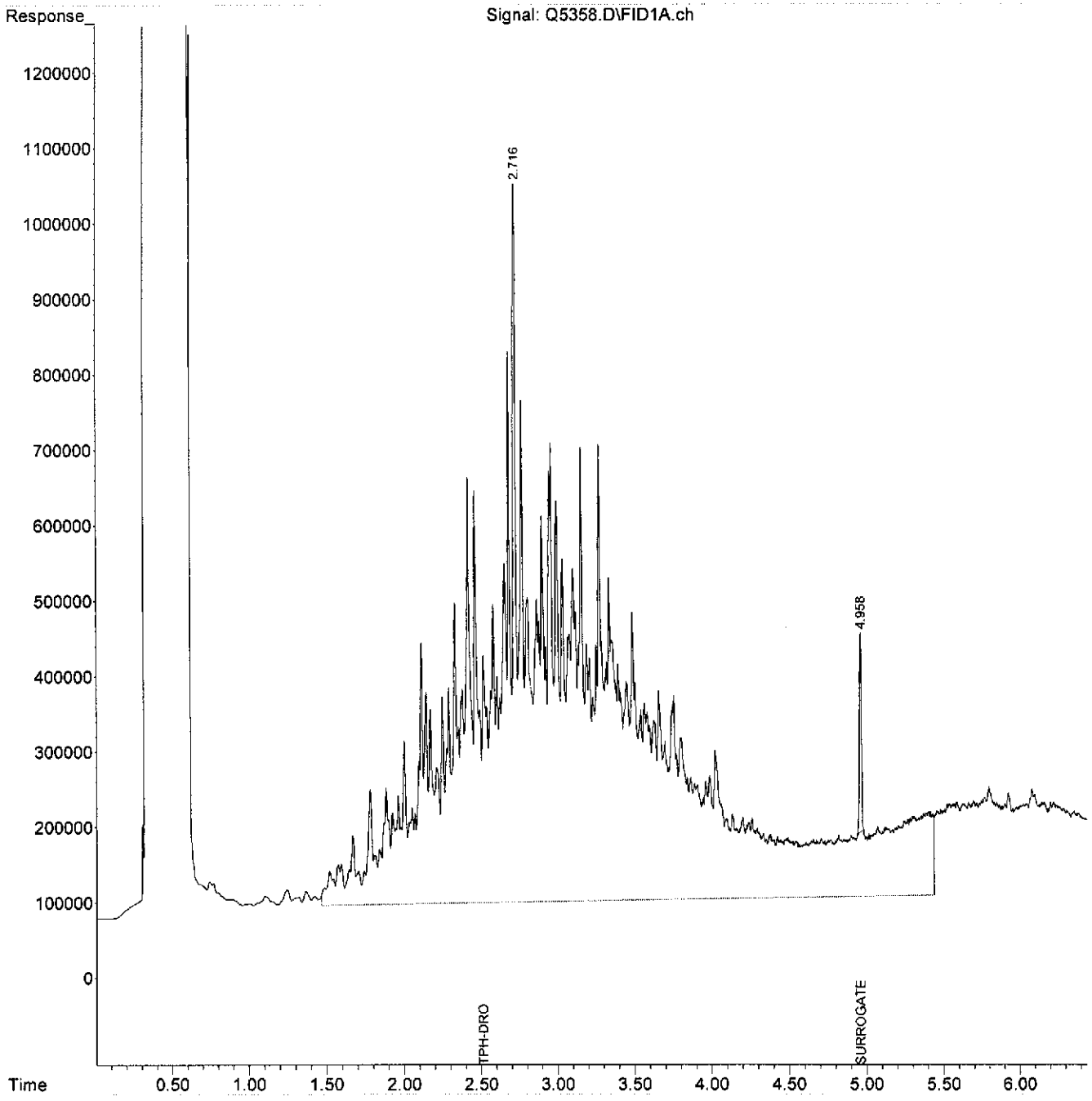
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5358.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:36 pm
Operator : TB
Sample : T1-3/5.5,12828-014,S,10.22g,19.4,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,10
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:53:58 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5359.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:47 pm
Operator : TB
Sample : T1-4/5.5,12828-015,S,10.62g,18.7,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,5
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:54:11 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.958	5026394	24.004 ng m
Spiked Amount 100.000		Recovery =	24.00%
Target Compounds			
3) H TPH-DRO	2.500	400530240	1014.562 ng

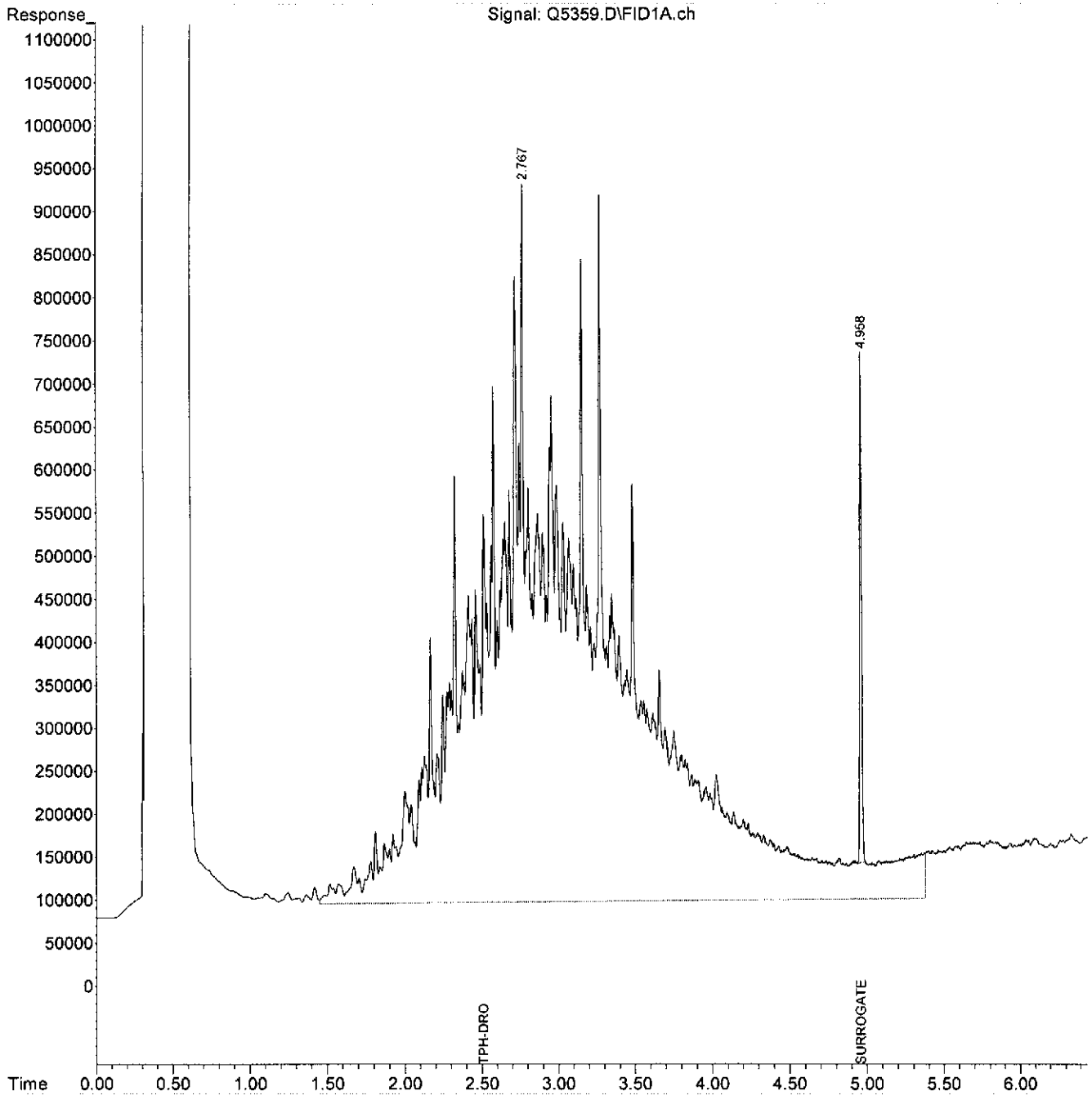
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5359.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:47 pm
Operator : TB
Sample : T1-4/5.5,12828-015,S,10.62g,18.7,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,5
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 15:54:11 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5360.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:57 pm
Operator : TB
Sample : T2-1/5.5,12828-016,S,10.04g,50.4,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,20
ALS Vial : 23 Sample Multiplier: 1

Integration File: autointl.e
Quant Time: Dec 22 16:05:24 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.955	1265570	6.044	ng	m
Spiked Amount 100.000		Recovery =	6.04%		
Target Compounds					
3) H TPH-DRO	2.500	825990803	2092.274	ng	

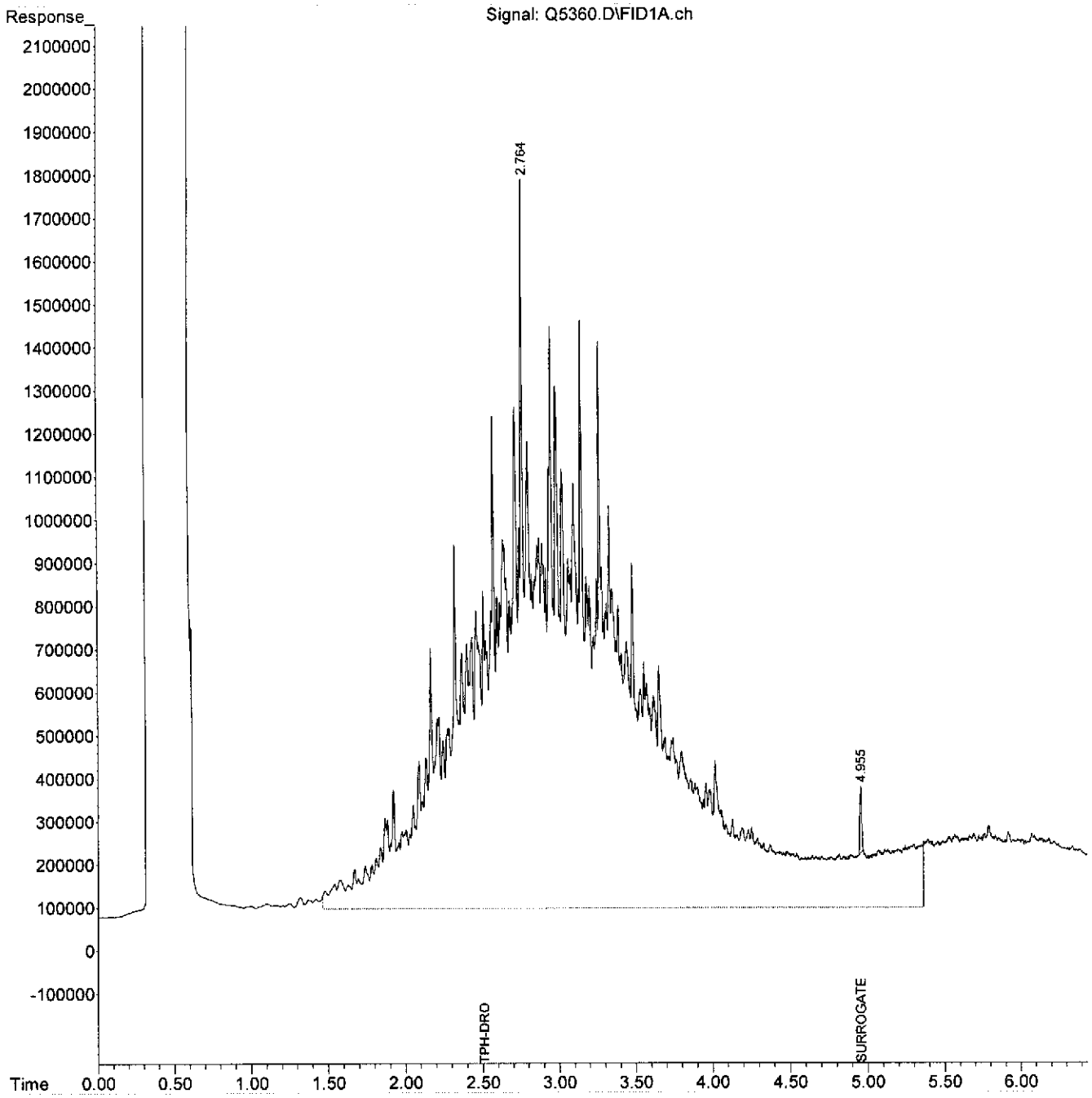
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5360.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 3:57 pm
Operator : TB
Sample : T2-1/5.5,12828-016,S,10.04g,50.4,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,20
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 16:05:24 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5361.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 4:07 pm
Operator : TB
Sample : T2-2/5.5,12828-017,S,10.65g,42.7,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,5
ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 16:17:54 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.957	5437457	25.967 ng m
Spiked Amount 100.000		Recovery = 25.97%	
Target Compounds			
3) H TPH-DRO	2.500	538329956	1363.616 ng

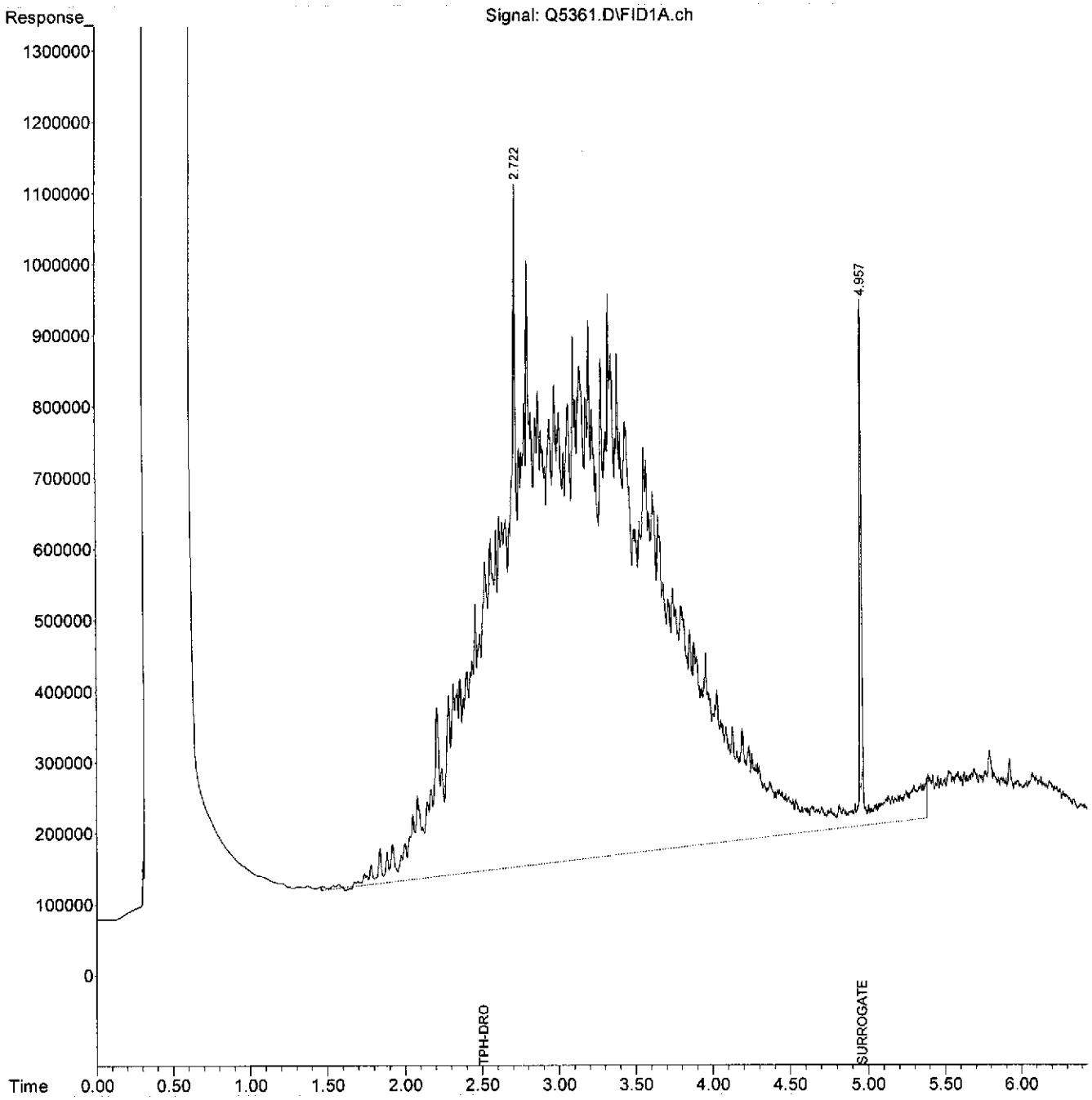
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5361.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 4:07 pm
Operator : TB
Sample : T2-2/5.5,12828-017,S,10.65g,42.7,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,5
ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 16:17:54 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5299.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 4:17 am
Operator : TB
Sample : T2-3/5.5,12828-018,S,10.49g,16.3,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 70 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:09:51 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.955	24021126	114.714	ng	m
Spiked Amount 100.000		Recovery = 114.71%			
Target Compounds					
3) H TPH-DRO	2.500	80729379	204.491	ng	

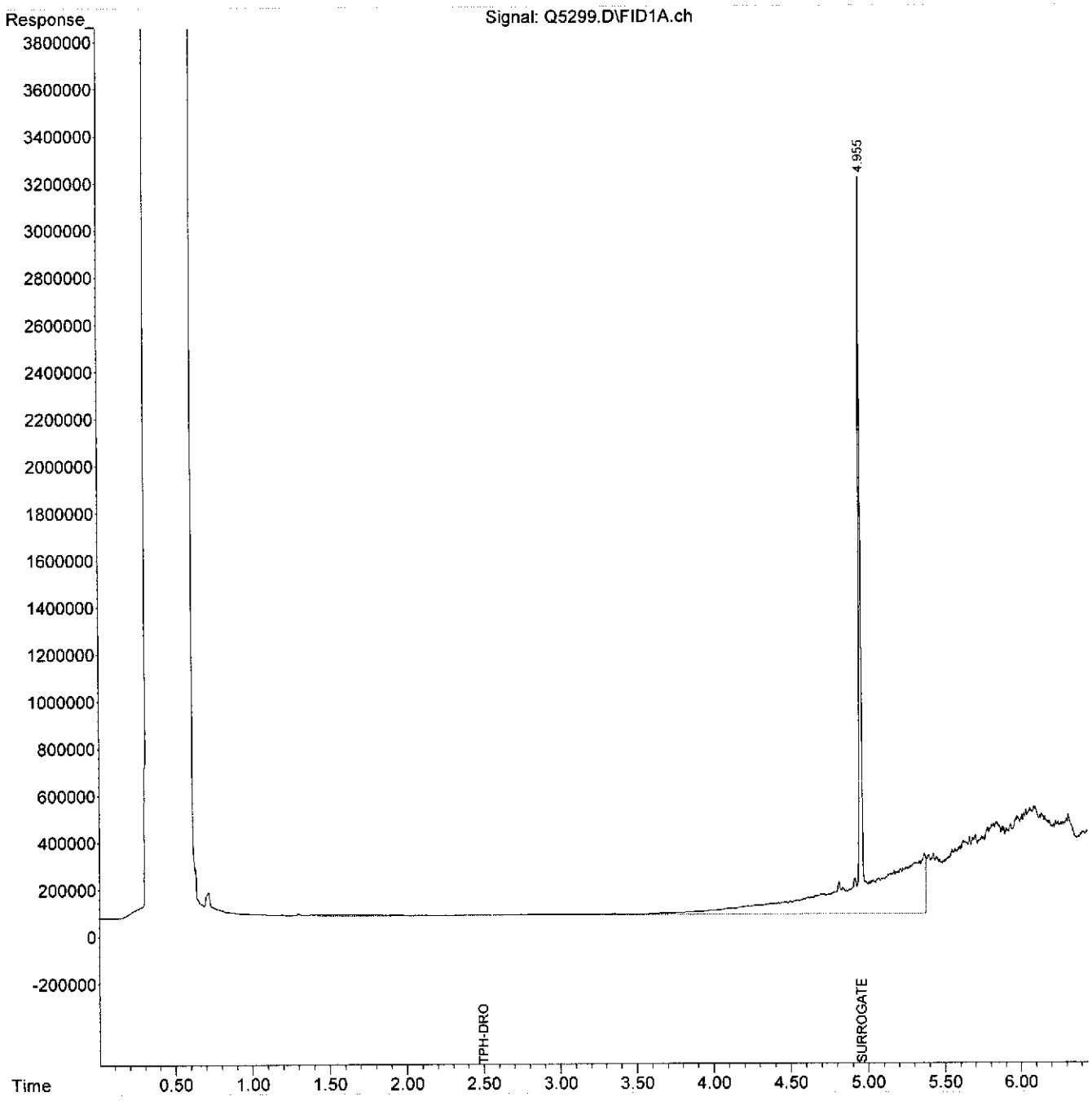
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5299.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 4:17 am
Operator : TB
Sample : T2-3/5.5,12828-018,S,10.49g,16.3,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 70 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:09:51 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5362.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 4:18 pm
Operator : TB
Sample : T2-4/5.5,12828-019,S,10.29g,22.2,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,20
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 16:24:50 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.959	1178353	5.627 ng m
Spiked Amount 100.000		Recovery =	5.63%
Target Compounds			
3) H TPH-DRO	2.500	375751202	951.796 ng

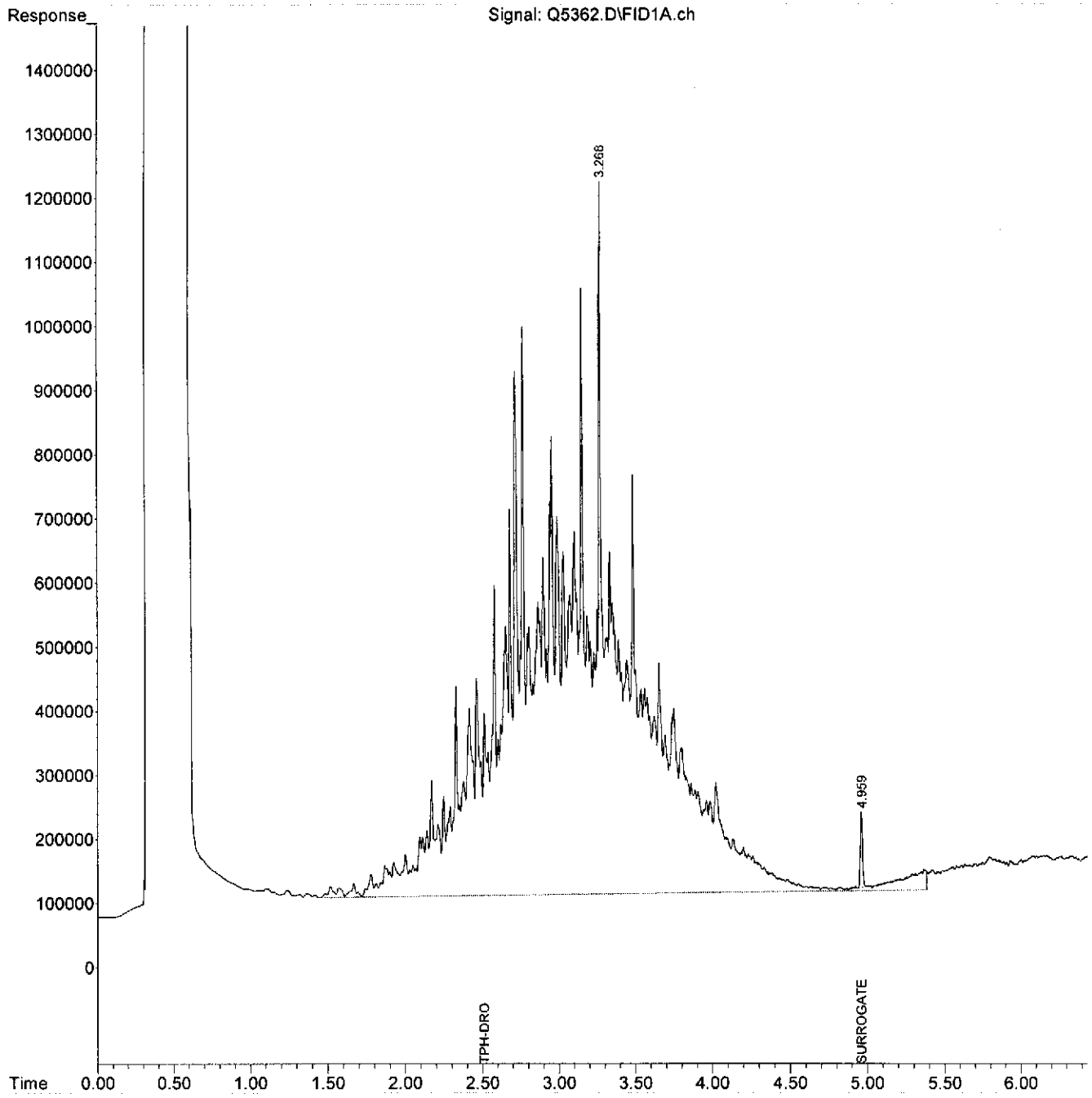
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5362.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 4:18 pm
Operator : TB
Sample : T2-4/5.5,12828-019,S,10.29g,22.2,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,20
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 16:24:50 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5301.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 4:38 am
Operator : TB
Sample : L12/1.92,12828-020,S,10.07g,15.5,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 72 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:10:16 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.956	23306930	111.303	ng	m
Spiked Amount 100.000		Recovery = 111.30%			
Target Compounds					
3) H TPH-DRO	2.500	135299587	342.720	ng	

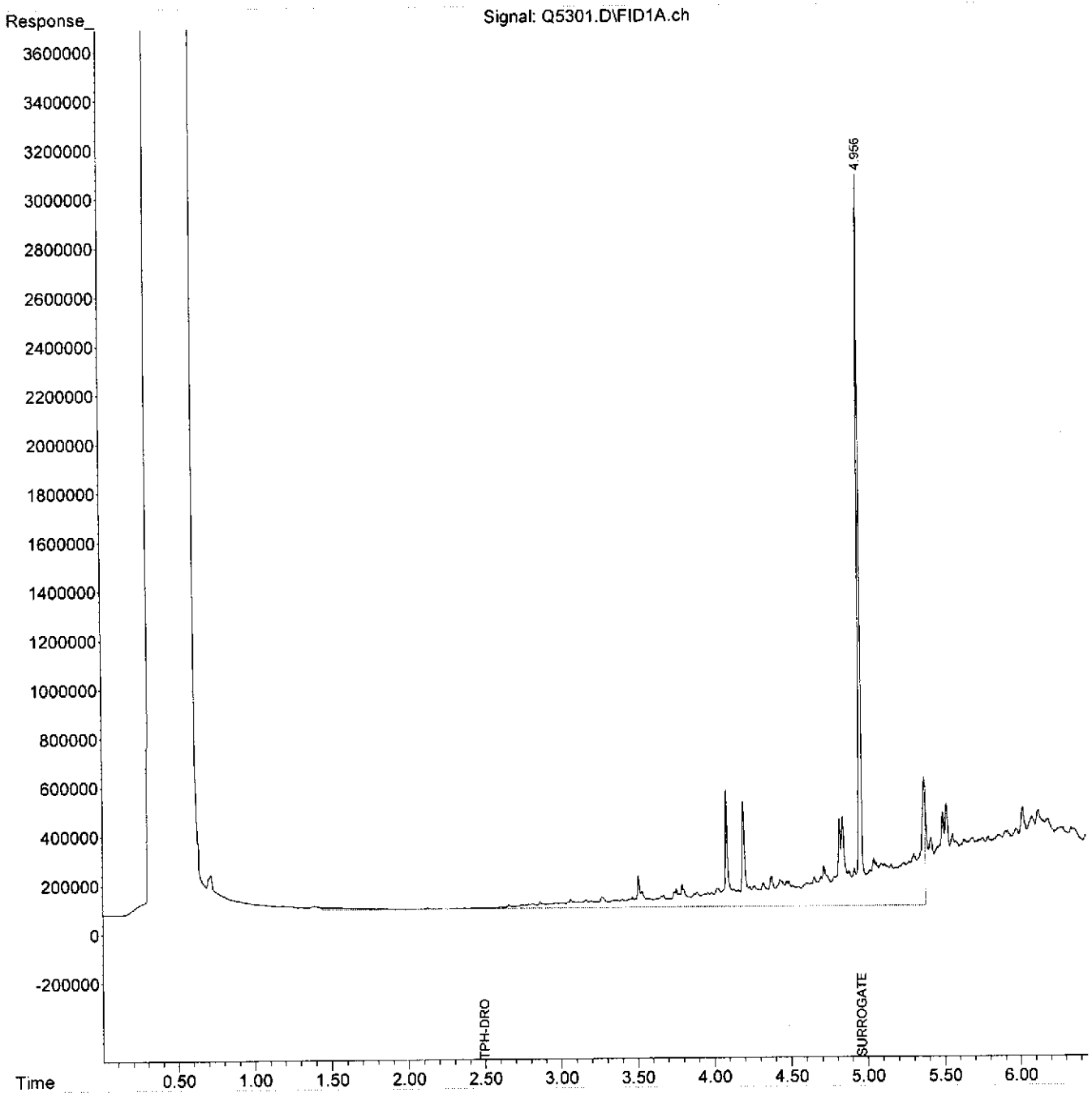
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5301.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 4:38 am
Operator : TB
Sample : L12/1.92,12828-020,S,10.07g,15.5,12/18/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 72 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:10:16 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5412.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 2:24 pm
Operator : TB
Sample : L13/1.92,12828-021,S,10.0g,12.7,12/21/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 14:36:50 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.957	23539378	112.413	ng	m
Spiked Amount 100.000		Recovery = 112.41%			
Target Compounds					
3) H TPH-DRO	2.500	835355152	2115.995	ng	

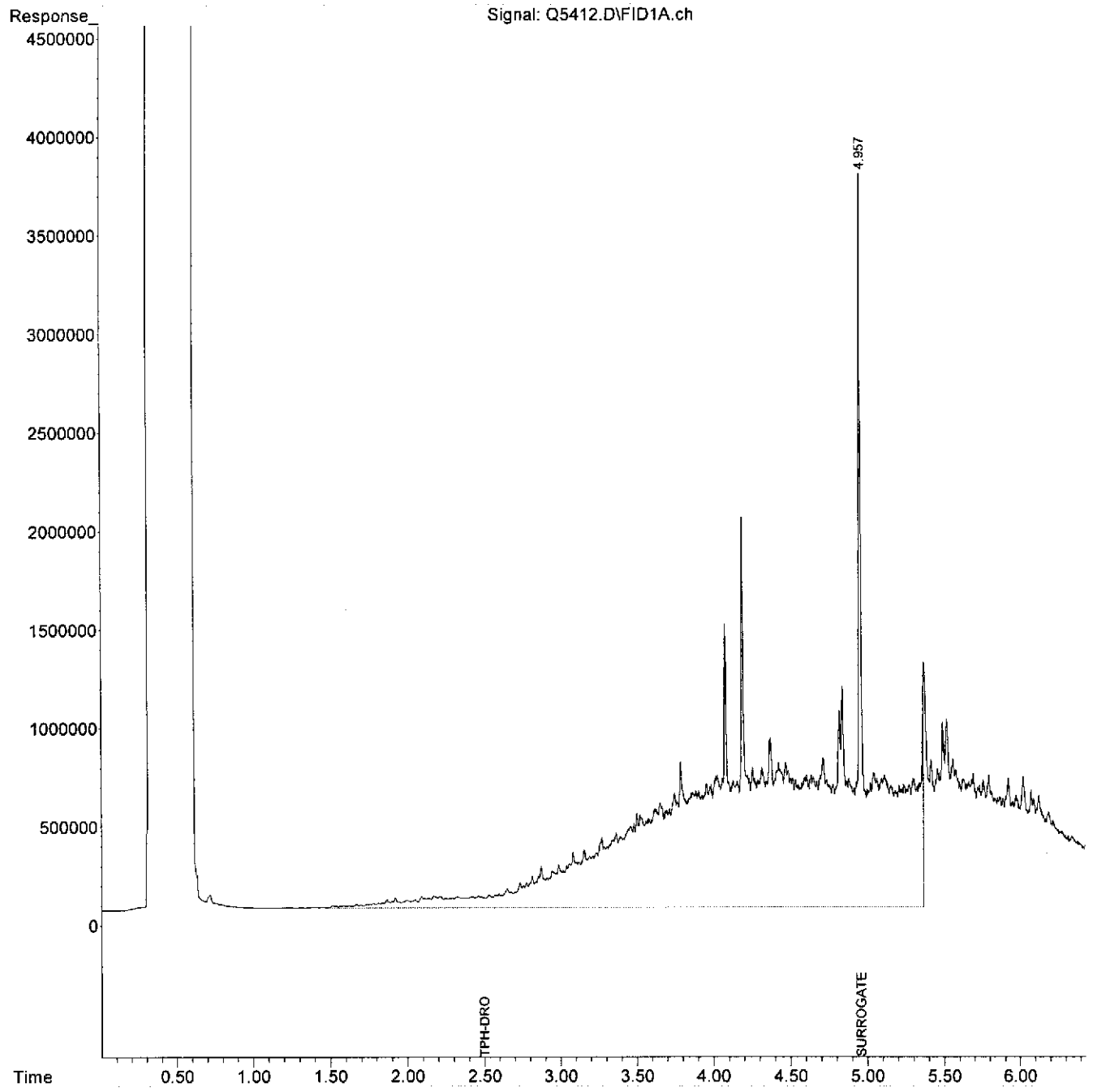
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5412.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 2:24 pm
Operator : TB
Sample : L13/1.92,12828-021,S,10.0g,12.7,12/21/09,15
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 14:36:50 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5413.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 3:05 pm
Operator : TB
Sample : L14/3-3.,12828-022,S,10.45g,26.2,12/21/09,15
Misc : PENNJERSEY/PALMER,12/17/09,12/18/09,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 15:13:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.956	26382062	125.989 ng
Spiked Amount 100.000		Recovery =	125.99%
Target Compounds			
3) H TPH-DRO	2.500	297237983	752.918 ng

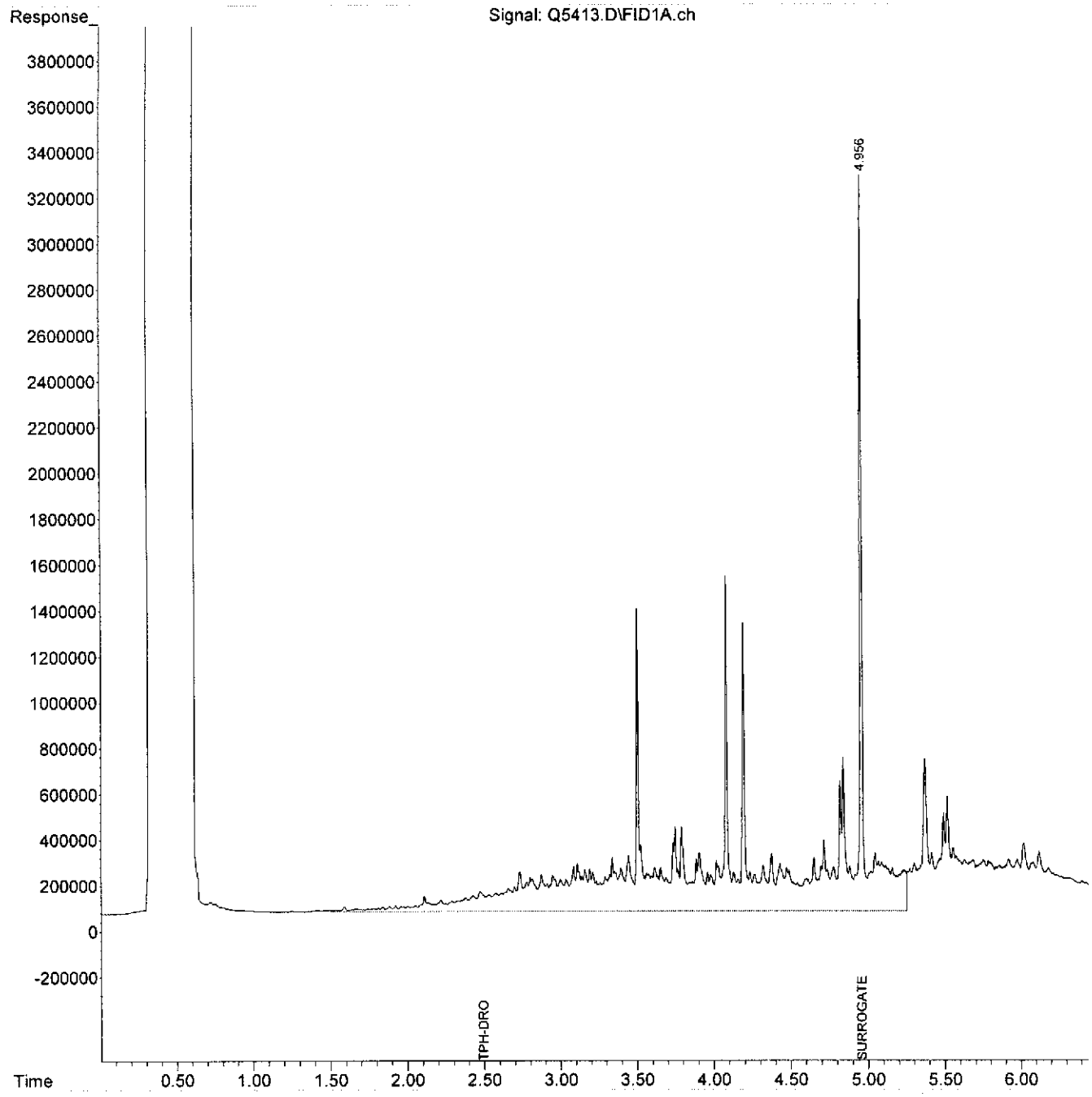
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5413.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 3:05 pm
Operator : TB
Sample : L14/3-3.,12828-022,S,10.45g,26.2,12/21/09,15
Misc : PENNJERSEY/PALMER,12/17/09,12/18/09,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 15:13:12 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5414.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 3:15 pm
Operator : TB
Sample : L15/2.5-,12828-023,S,10.25g,11.4,12/21/09,15
Misc : PENNJERSEY/PALMER,12/17/09,12/18/09,1
ALS Vial : 29 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 15:26:02 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.956	25076754	119.755 ng m
Spiked Amount 100.000		Recovery =	119.76%
Target Compounds			
3) H TPH-DRO	2.500	70326233	178.140 ng

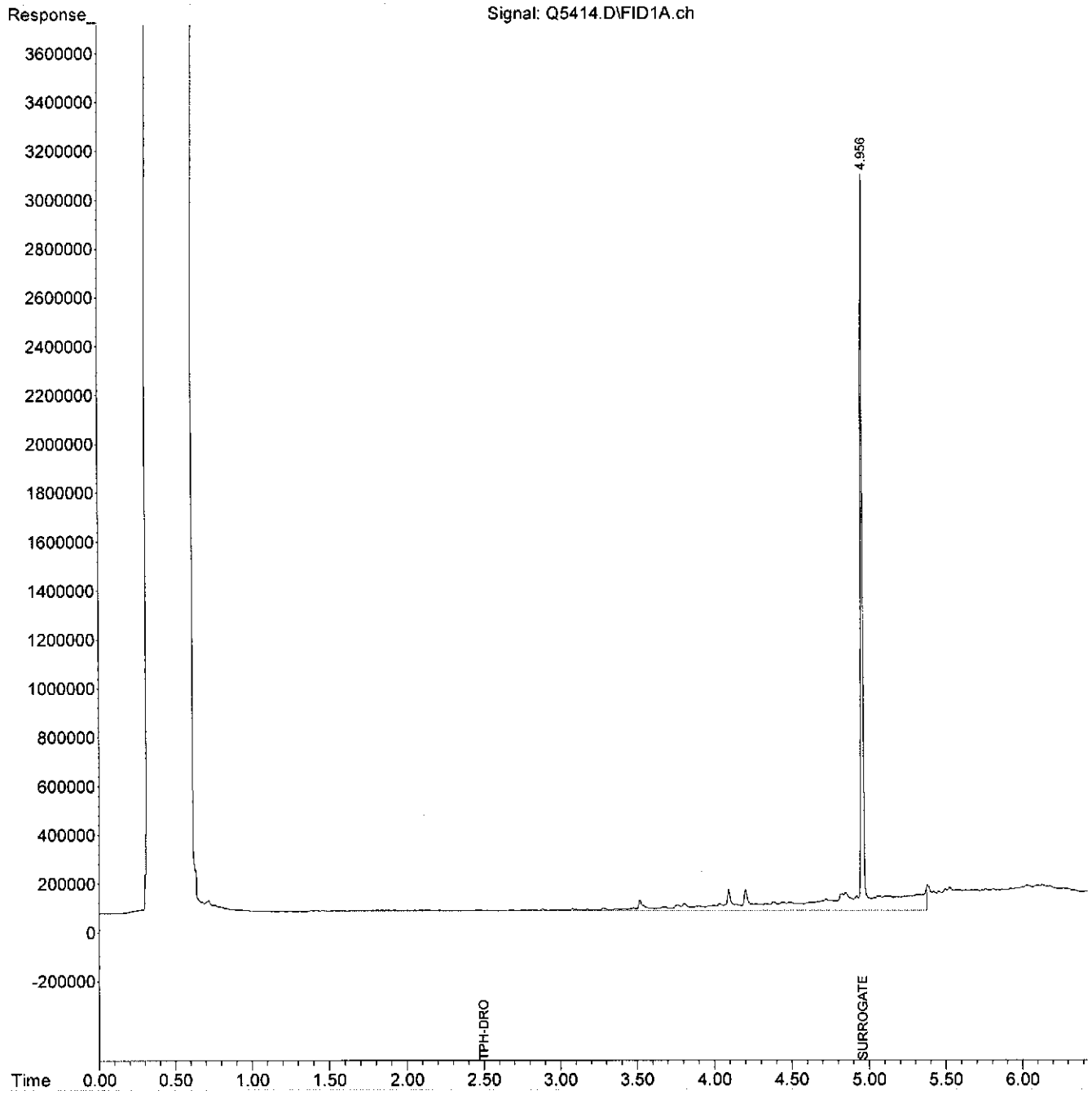
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5414.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 3:15 pm
Operator : TB
Sample : L15/2.5-,12828-023,S,10.25g,11.4,12/21/09,15
Misc : PENNJERSEY/PALMER,12/17/09,12/18/09,1
ALS Vial : 29 Sample Multiplier: 1

Integration File: autointl.e
Quant Time: Dec 23 15:26:02 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5281.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 1:14 am
Operator : TB
Sample : DRO,1218-BLK08,S,10.0g,0,12/18/09,15
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:03:09 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.958	21309950	101.766	ng	m
Spiked Amount 100.000		Recovery = 101.77%			
Target Compounds					

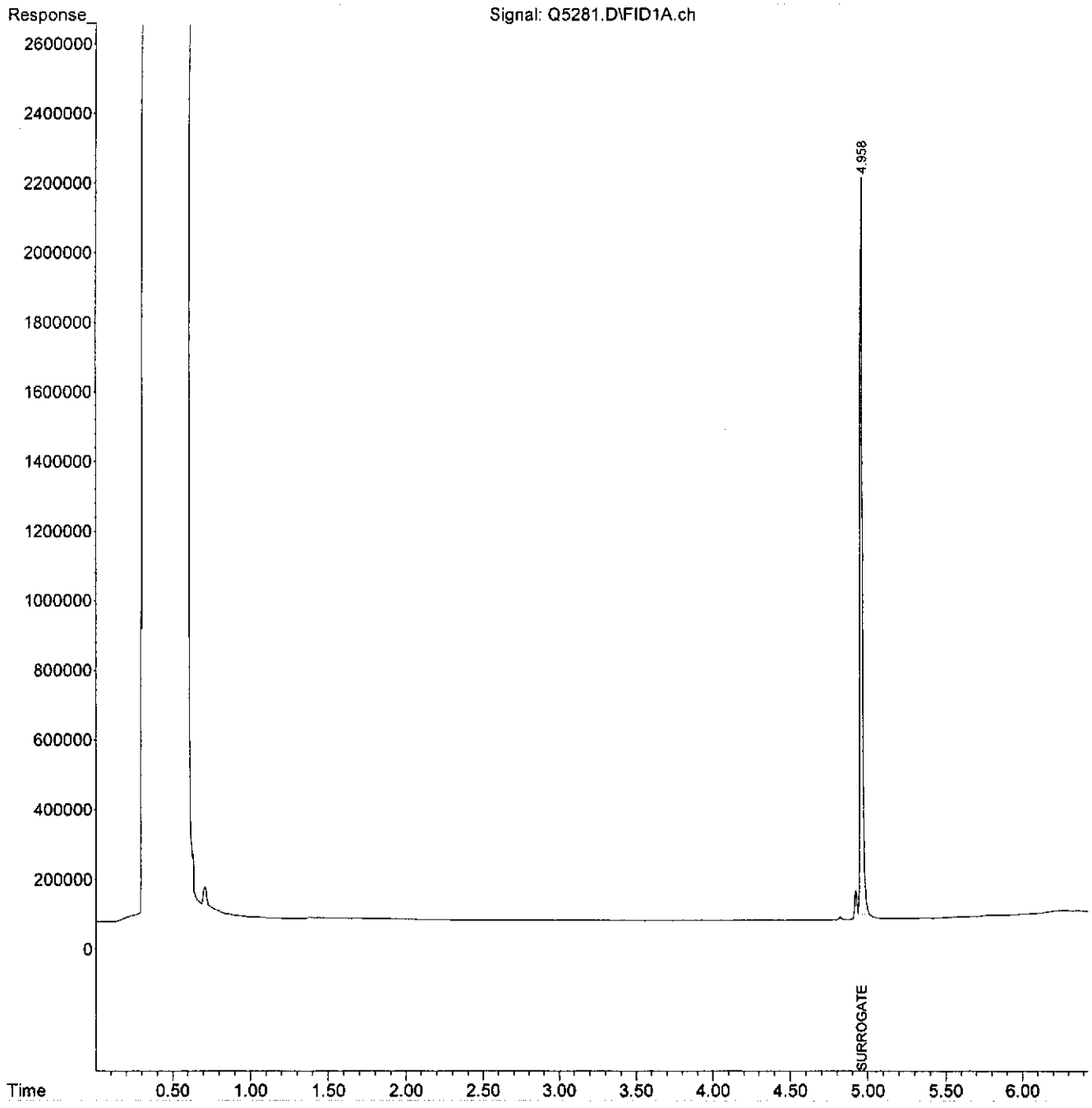
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5281.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 1:14 am
Operator : TB
Sample : DRO,1218-BLK08,S,10.0g,0,12/18/09,15
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:03:09 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



0139

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5372.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 6:01 pm
Operator : TB
Sample : DRO,1221-BLK02,S,10.0g,0,12/21/09,15
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 09:37:53 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:36:15 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.957	22796530	108.866	ng	m
Spiked Amount 100.000		Recovery = 108.87%			
Target Compounds					

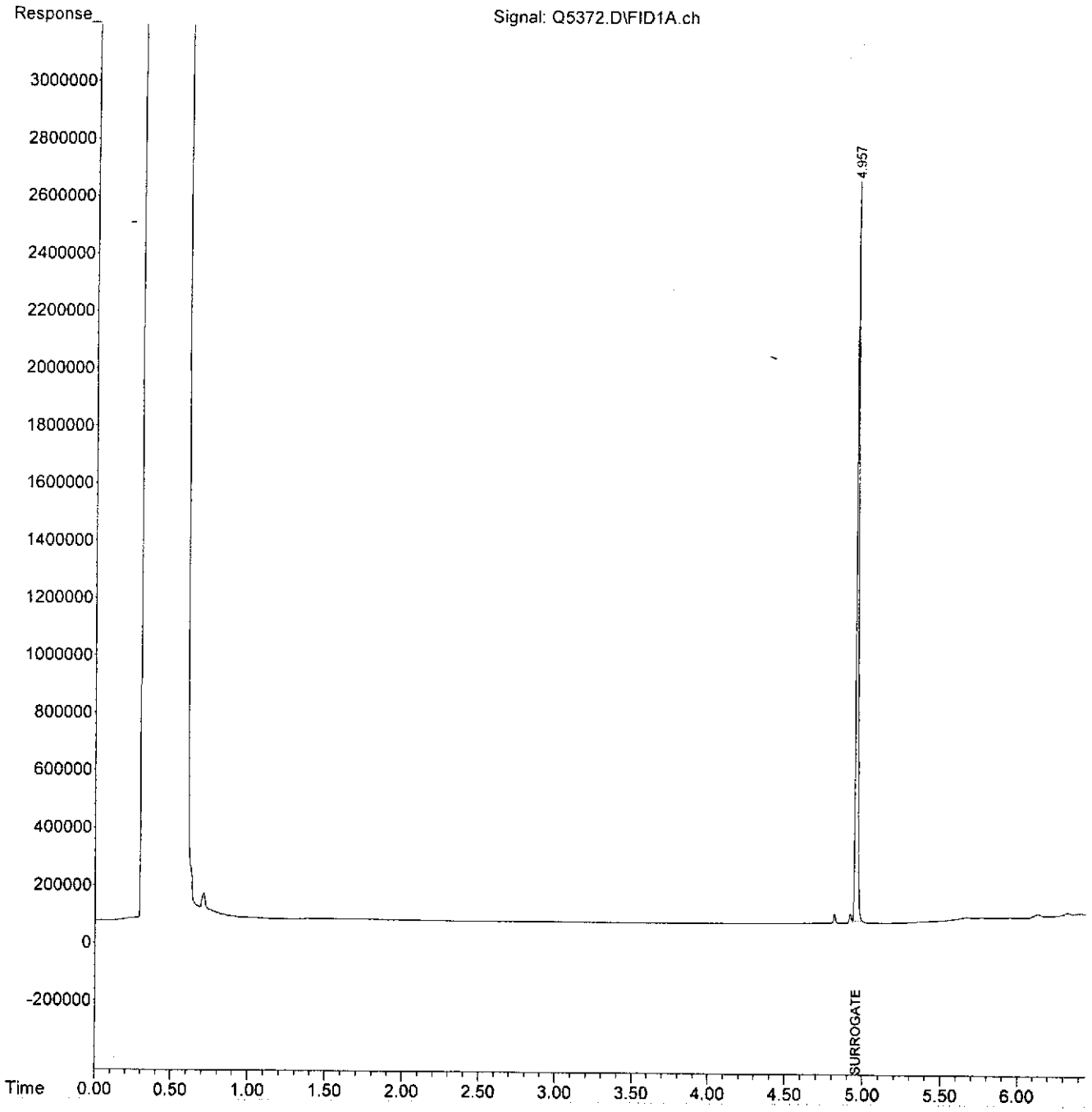
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5372.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 6:01 pm
Operator : TB
Sample : DRO,1221-BLK02,S,10.0g,0,12/21/09,15
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 09:37:53 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:36:15 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5280.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 12:53 am
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:02:59 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.958	24823917	118.548	ng	m
Spiked Amount 100.000		Recovery = 118.55%			
Target Compounds					
3) H TPH-DRO	2.500	403882368	1023.053	ng	

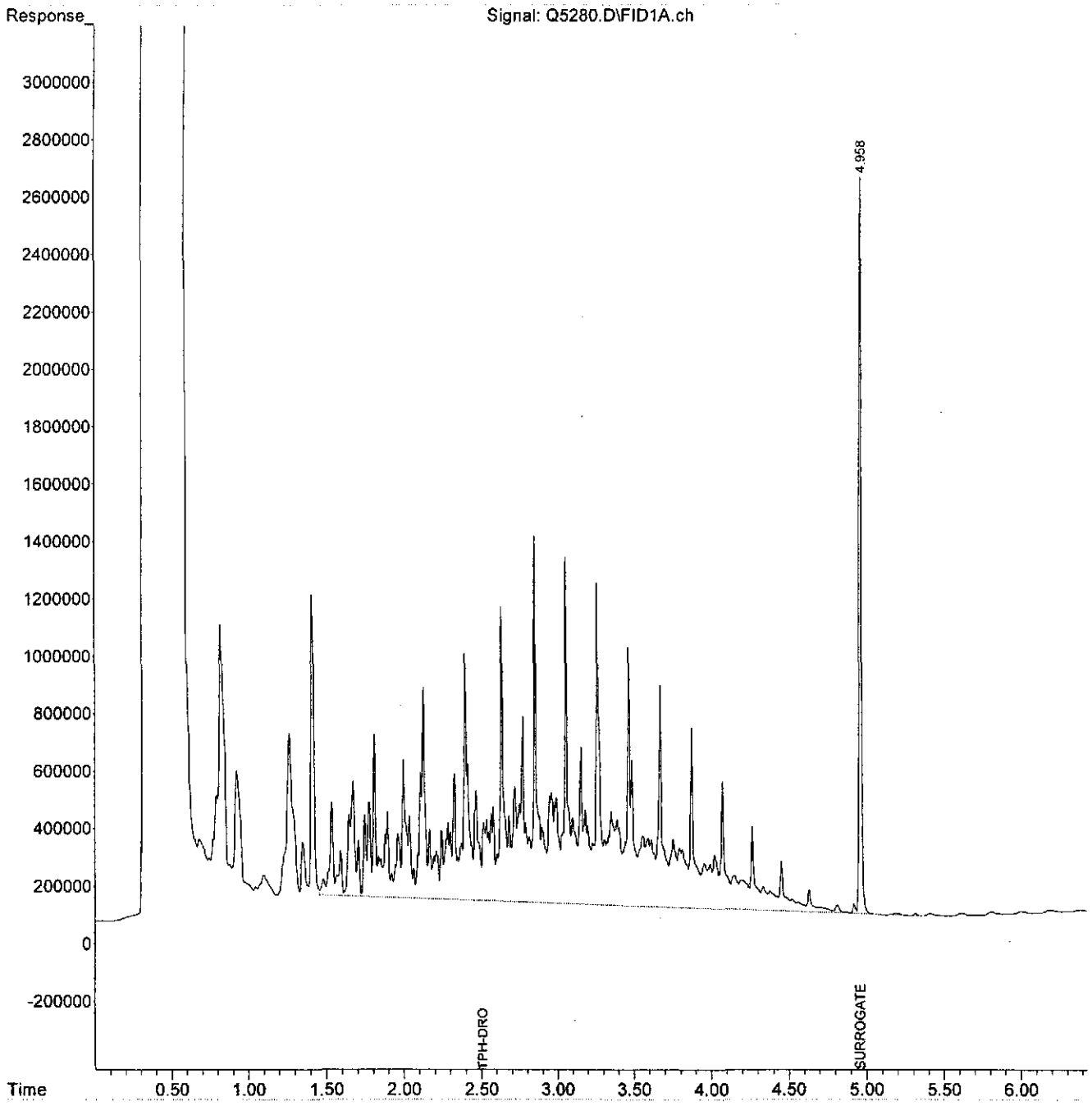
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5280.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 12:53 am
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:02:59 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



0143

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5351.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:24 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 14:33:21 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.957	20984207	100.211	ng	m
Spiked Amount 100.000		Recovery = 100.21%			
Target Compounds					
3) H TPH-DRO	2.500	407118597	1031.251	ng	

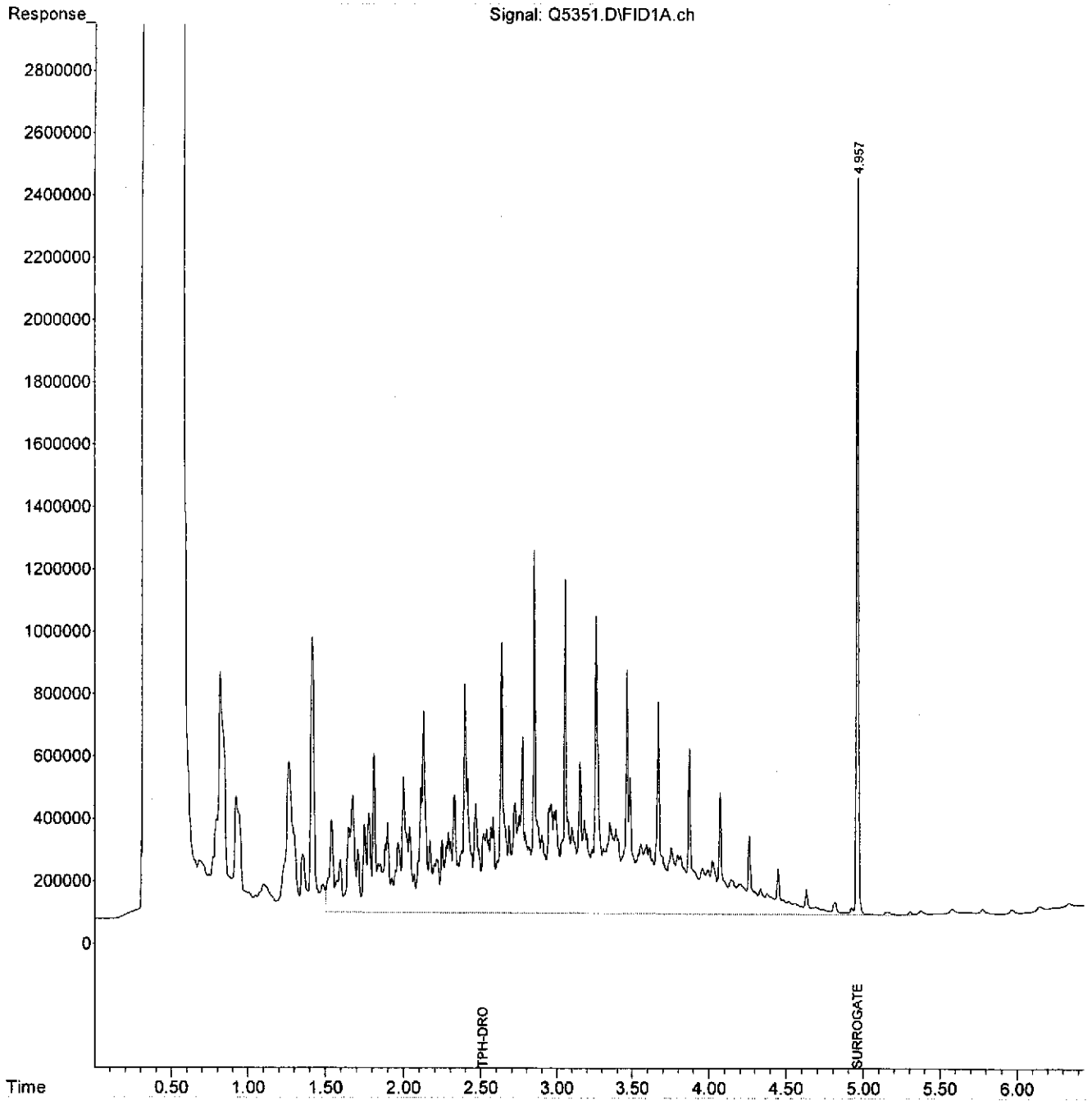
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5351.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 2:24 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 14:33:21 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



0145

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5305.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 5:19 am
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:11:44 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.957	24171191	115.430	ng	m
Spiked Amount 100.000		Recovery = 115.43%			
Target Compounds					
3) H TPH-DRO	2.500	406687288	1030.158	ng	

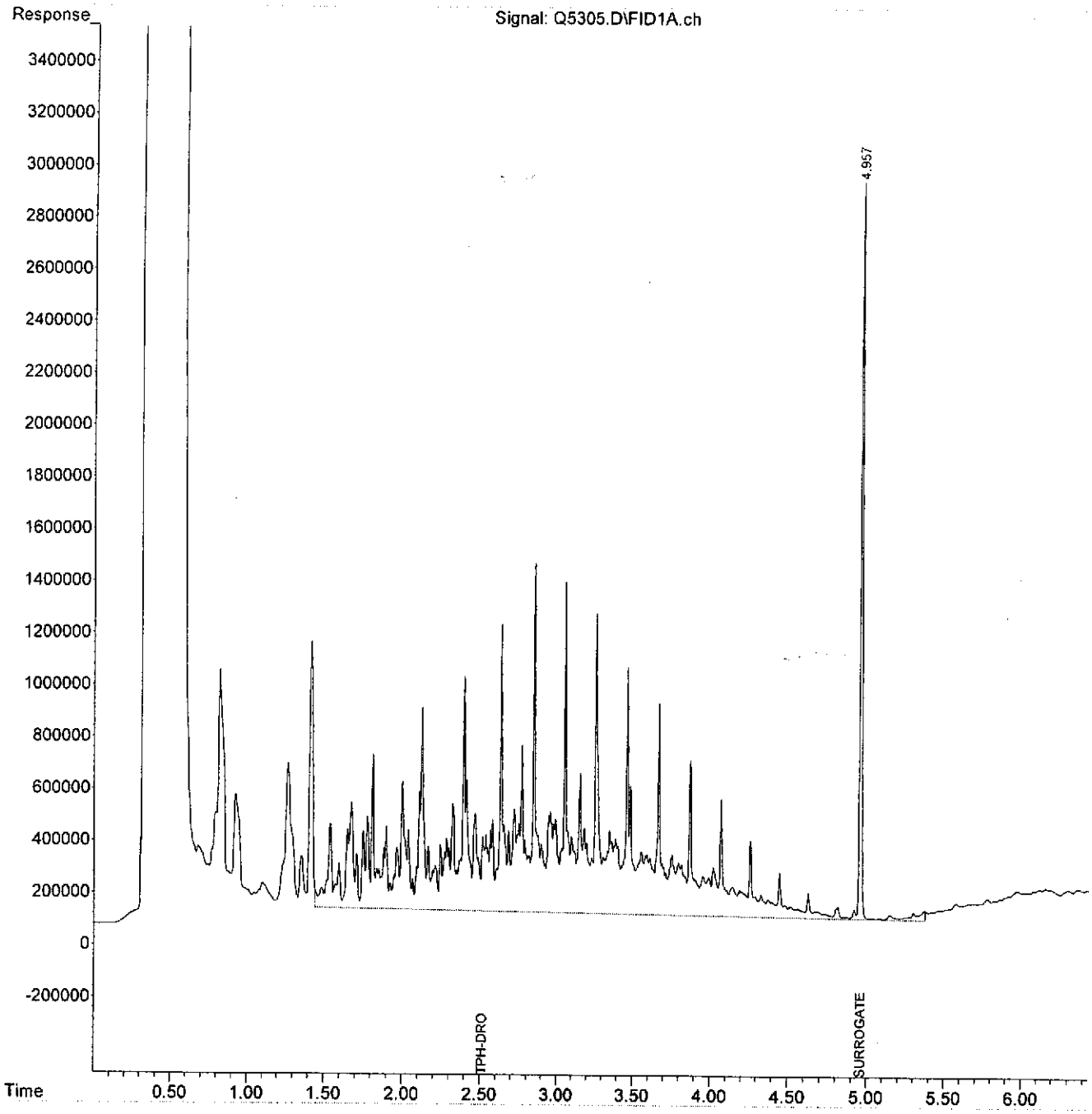
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5305.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 5:19 am
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 09:11:44 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5368.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 5:19 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 17:28:22 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.957	21517980	102.760 ng m
Spiked Amount 100.000		Recovery = 102.76%	
Target Compounds			
3) H TPH-DRO	2.500	355542775	900.607 ng

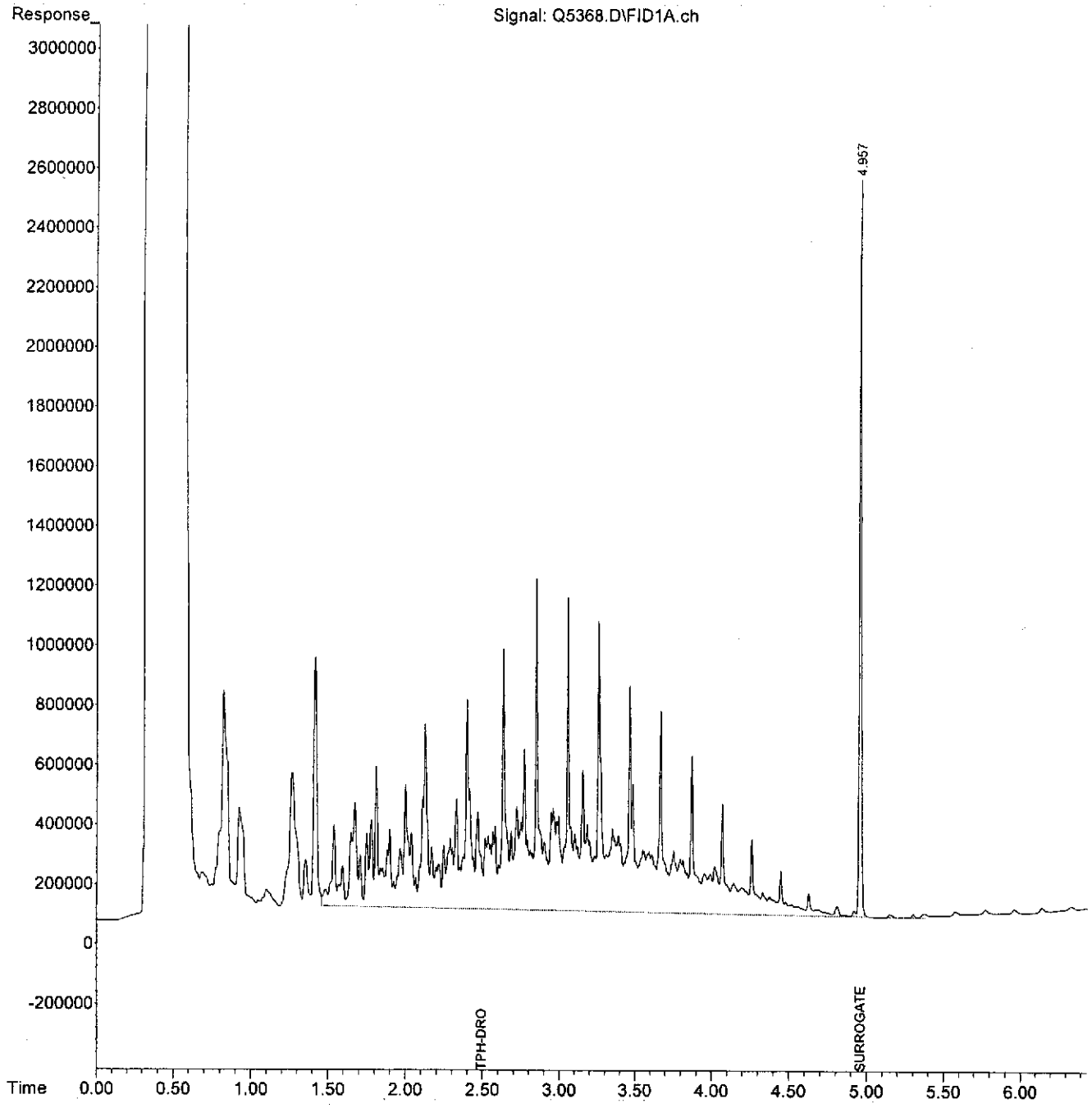
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5368.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 5:19 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 17:28:22 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



0149

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5279.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 12:43 am
Operator : TB
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 08:55:13 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
5) T n-Decane (C10)	1.417	53299956	200.000 ng
6) T n-Octacosane (C28)	5.297	54829313	200.000 ng

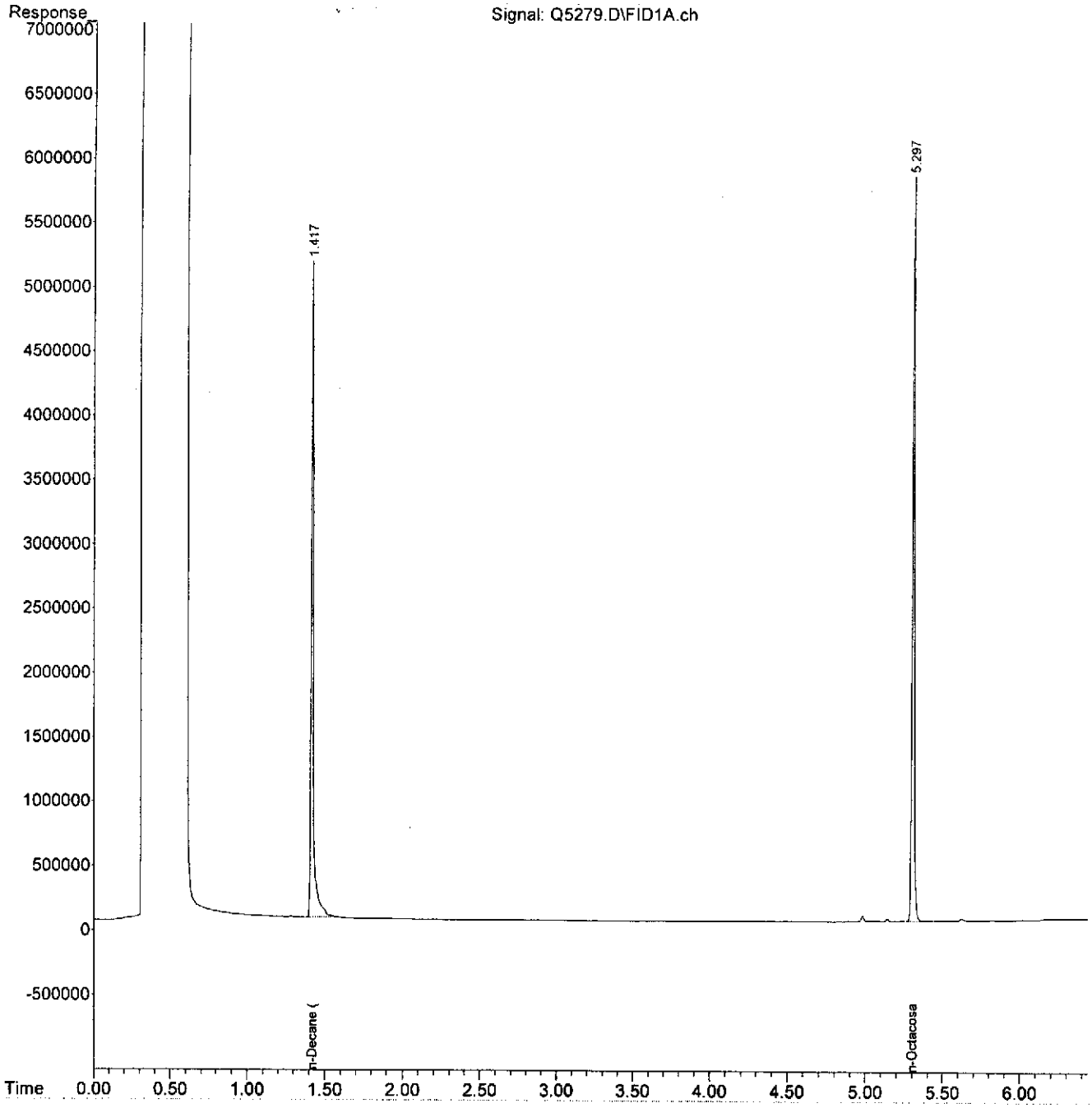
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-21-09\
Data File : Q5279.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 12:43 am
Operator : TB
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 08:55:13 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 08:55:02 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5338.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 11:08 am
Operator : TB
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 11:39:05 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
5) T n-Decane (C10)	1.418	54044916	202.795 ng
6) T n-Octacosane (C28)	5.305	56580724	206.389 ng

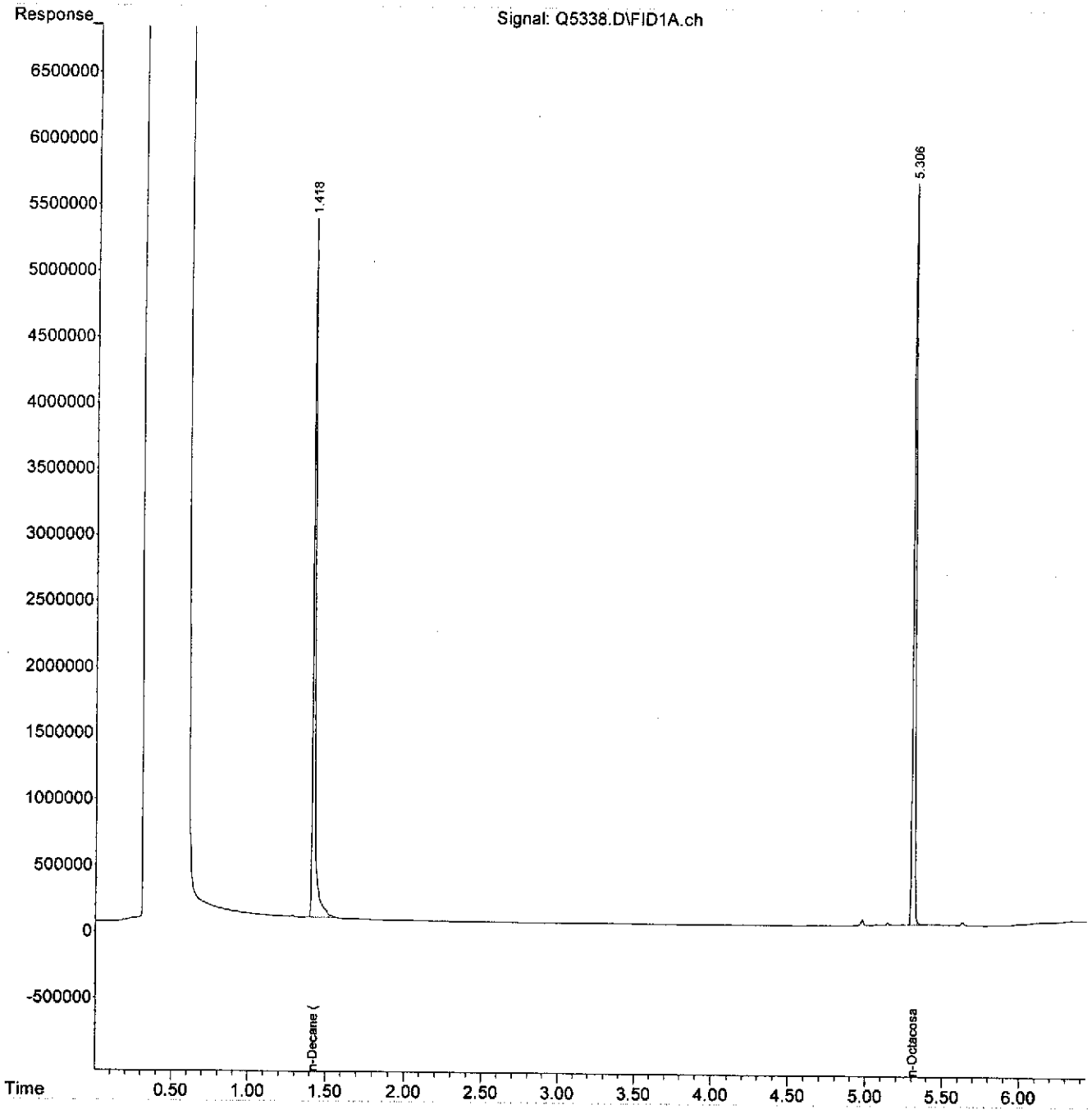
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5338.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 11:08 am
Operator : TB
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 22 11:39:05 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Tue Dec 22 11:38:54 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5371.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 5:51 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 09:37:45 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:36:15 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.958	20781629	99.243	ng	m
Spiked Amount 100.000		Recovery = 99.24%			
Target Compounds					
3) H TPH-DRO	2.500	402128362	1018.610	ng	

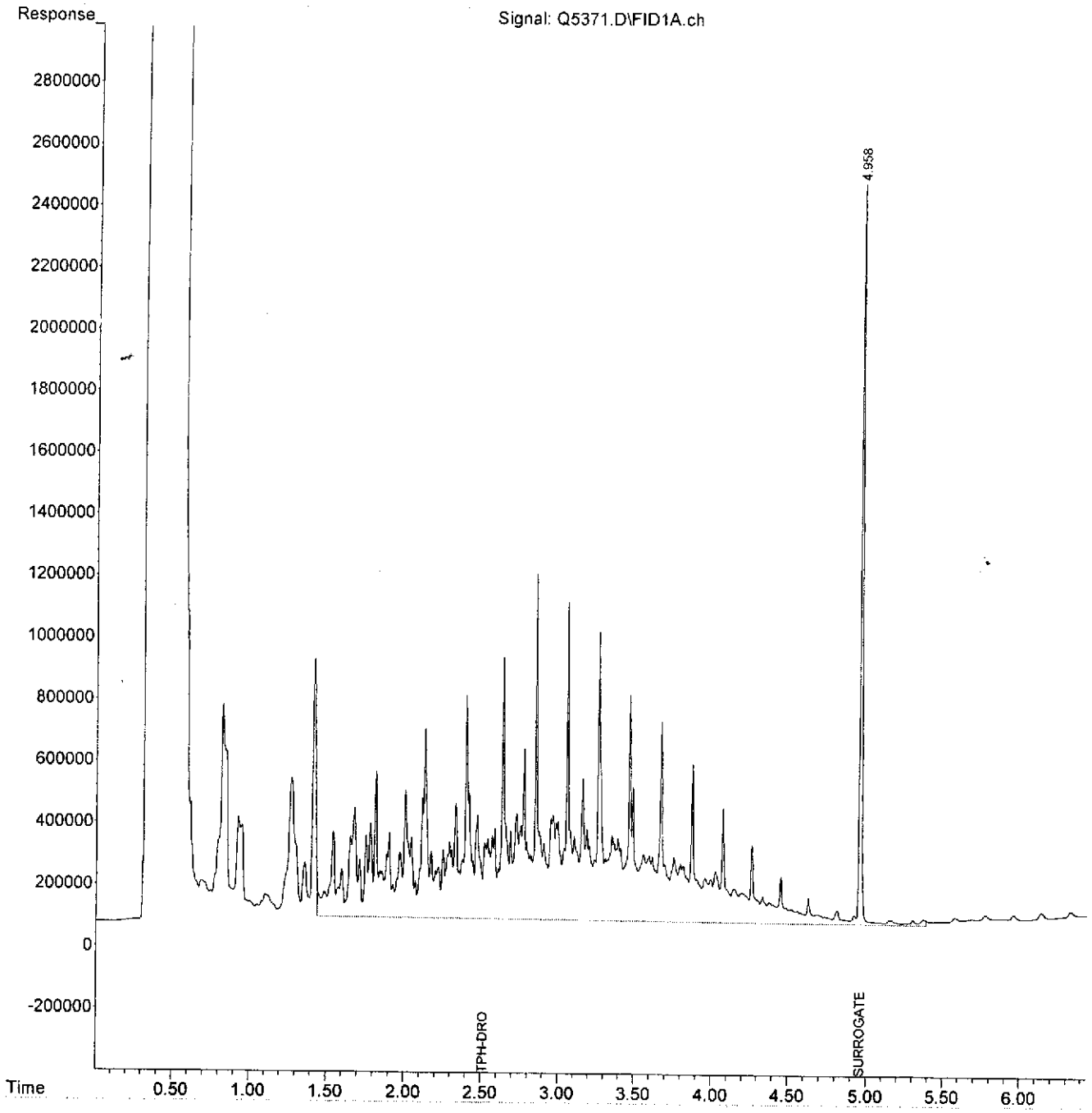
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5371.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 5:51 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 09:37:45 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:36:15 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5402.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 12:41 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 12:50:01 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.958	22528367	107.585	ng	m
Spiked Amount 100.000		Recovery = 107.58%			
Target Compounds					
3) H TPH-DRO	2.500	405833255	1027.995	ng	

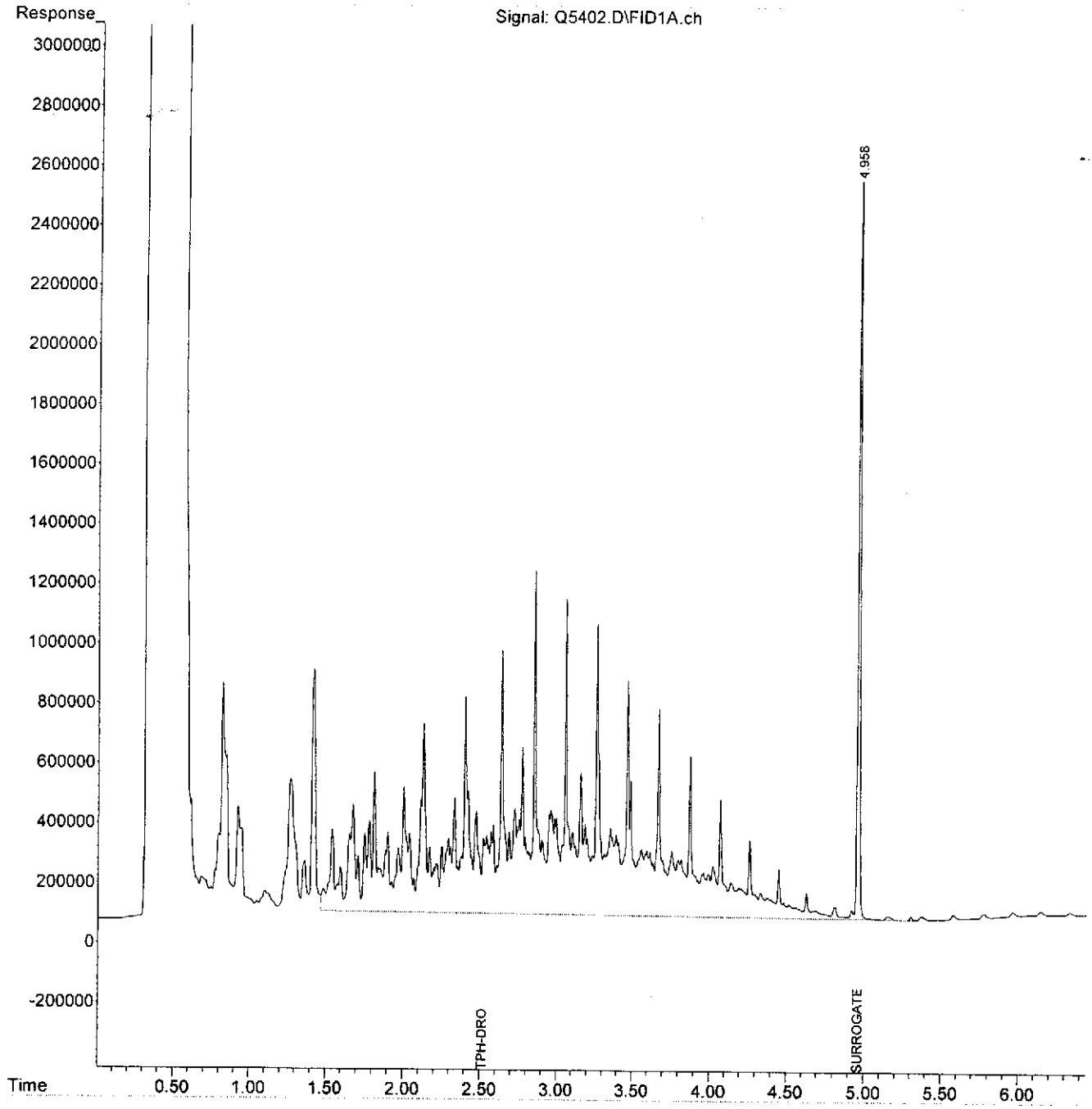
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5402.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 12:41 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 12:50:01 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



0157

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5384.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 8:06 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 10:29:48 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:36:15 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.978f	22202043	106.027 ng m
Spiked Amount 100.000		Recovery = 106.03%	
Target Compounds			
3) H TPH-DRO	2.500	409919249	1038.345 ng

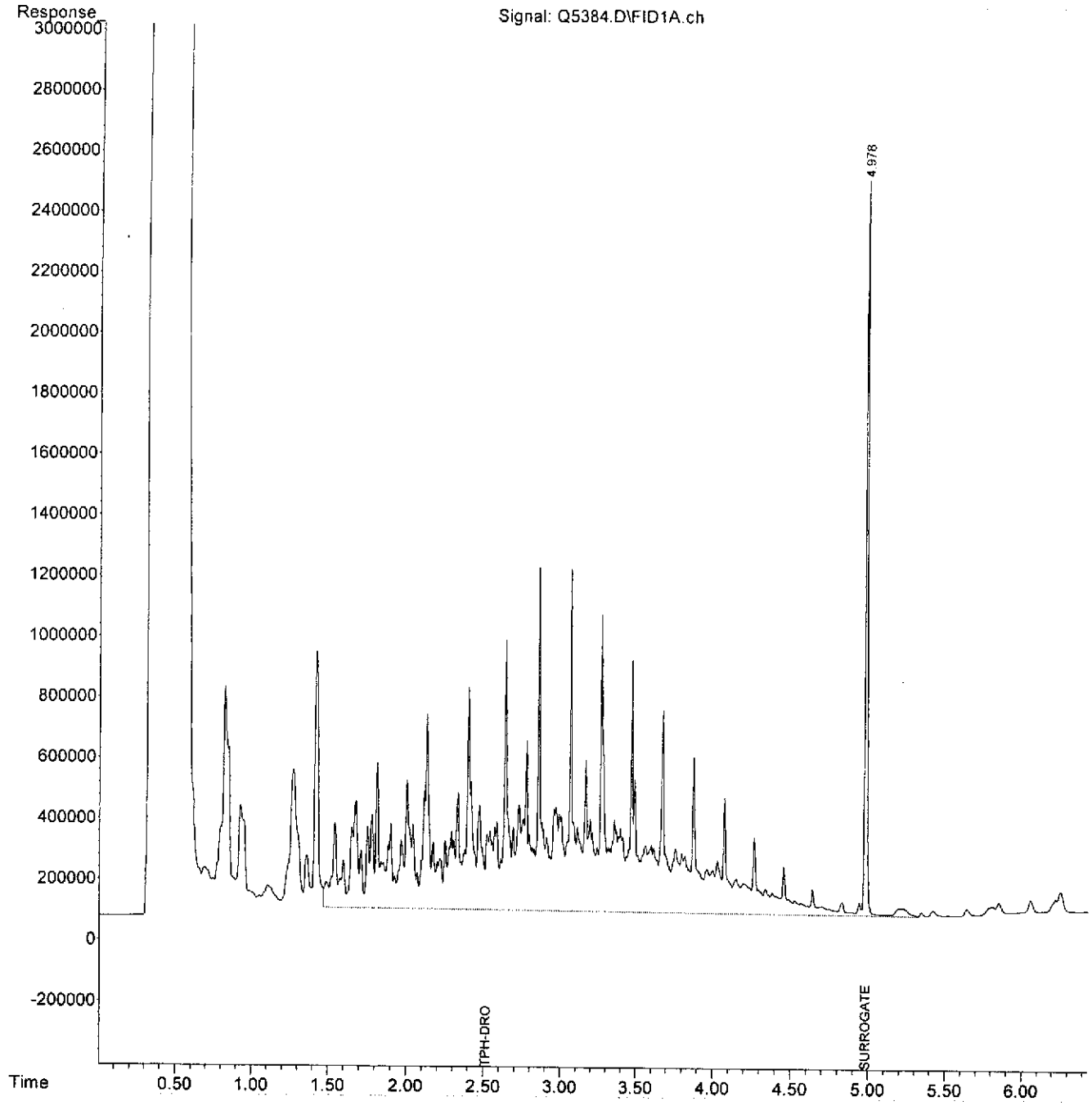
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5384.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 8:06 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 10:29:48 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:36:15 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5418.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 3:56 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 16:03:49 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.958	19242582	91.894 ng m
Spiked Amount 100.000		Recovery =	91.89%
Target Compounds			
3) H TPH-DRO	2.500	368060752	932.315 ng

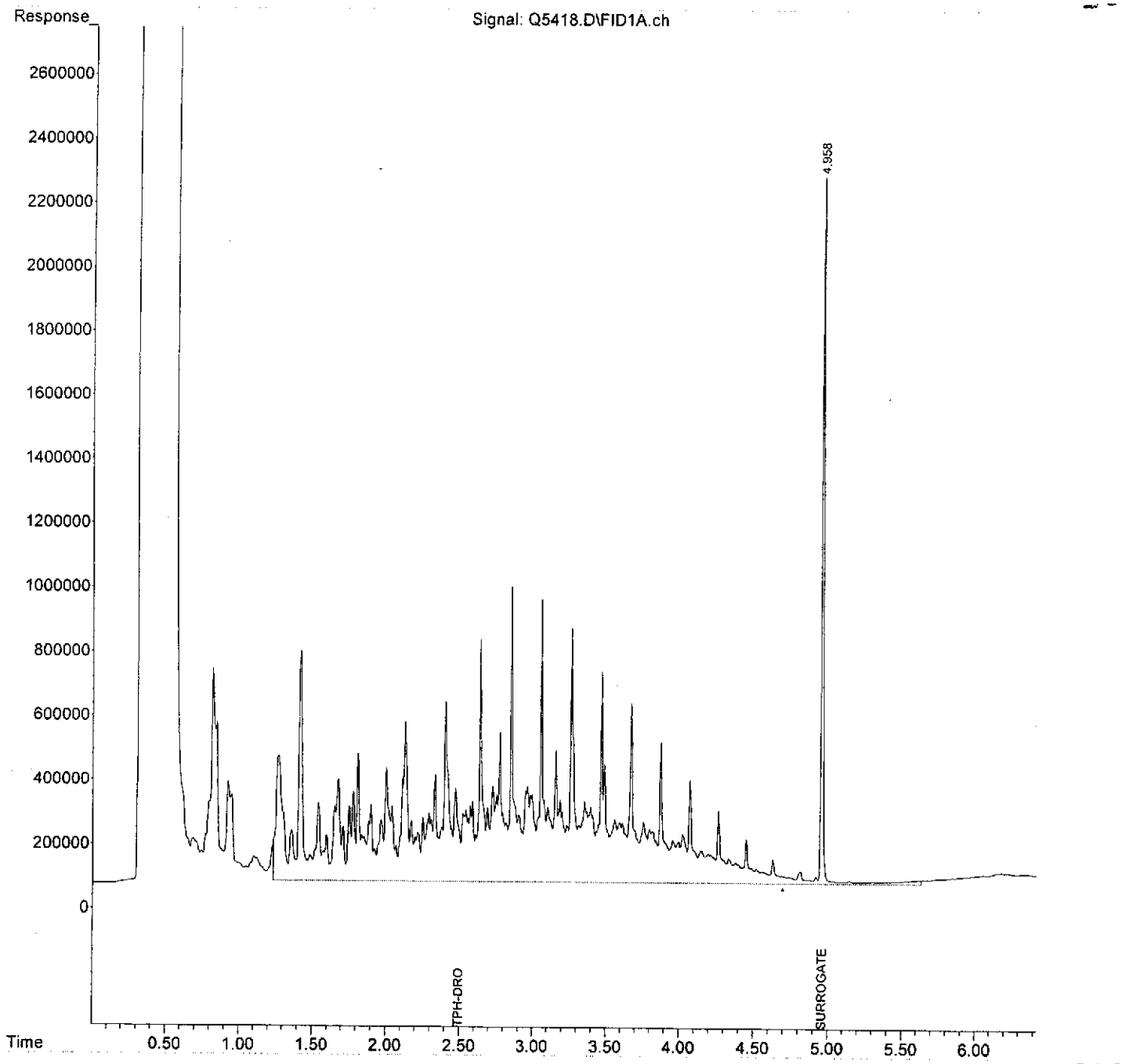
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5418.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 3:56 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 16:03:49 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



0161

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5370.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 5:40 pm
Operator : TB
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 09:36:25 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:36:15 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
5) T n-Decane (C10)	1.417	54209028	203.411 ng
6) T n-Octacosane (C28)	5.296	58186387	212.246 ng

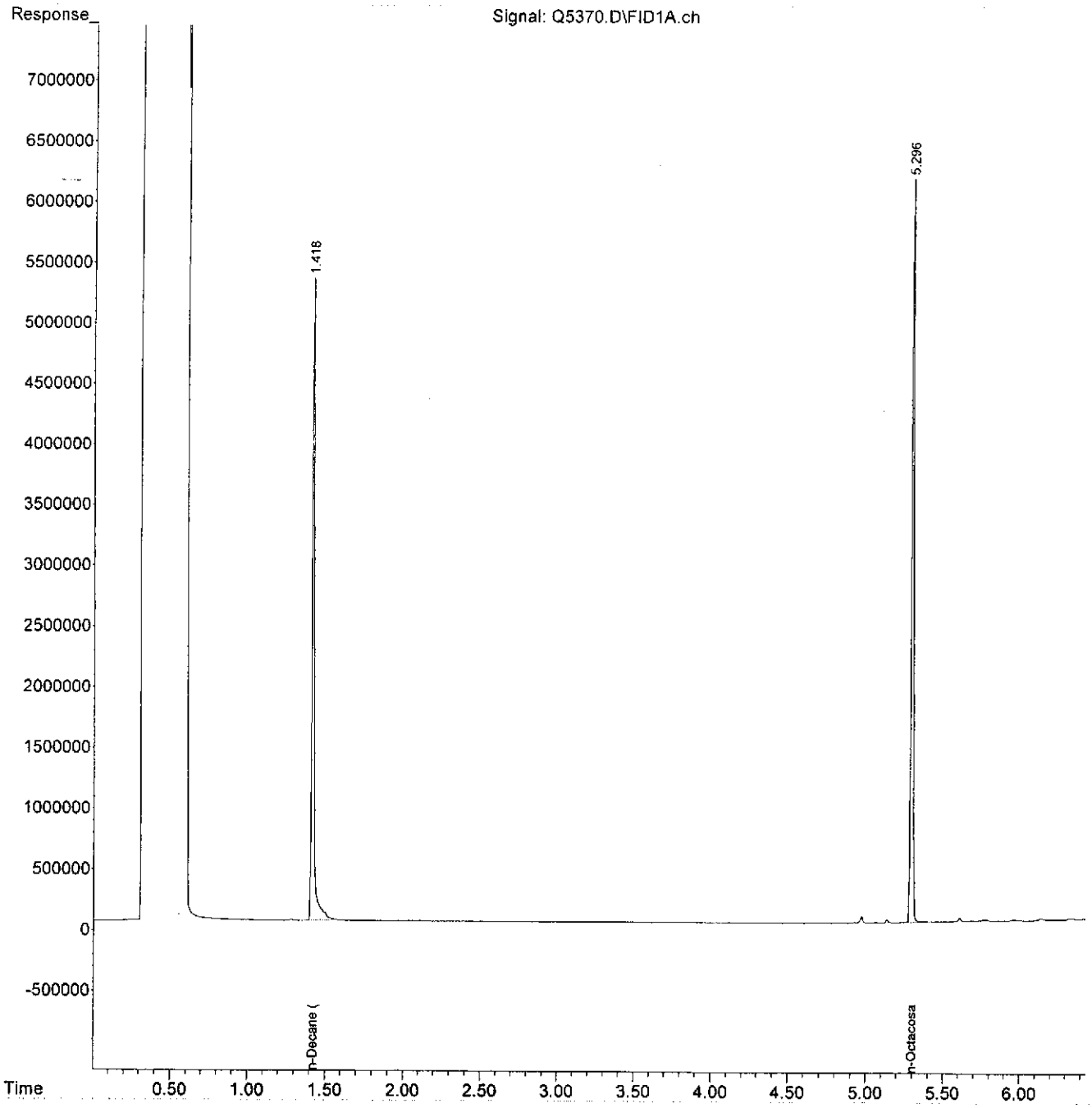
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-22-09\
Data File : Q5370.D
Signal(s) : FID1A.ch
Acq On : 22 Dec 9 5:40 pm
Operator : TB
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 09:36:25 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:36:15 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



0163

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5386.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 9:37 am
Operator : TB
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 09:45:42 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
5) T n-Decane (C10)	1.419	59286561	222.464 ng
6) T n-Octacosane (C28)	5.304	63035228	229.933 ng

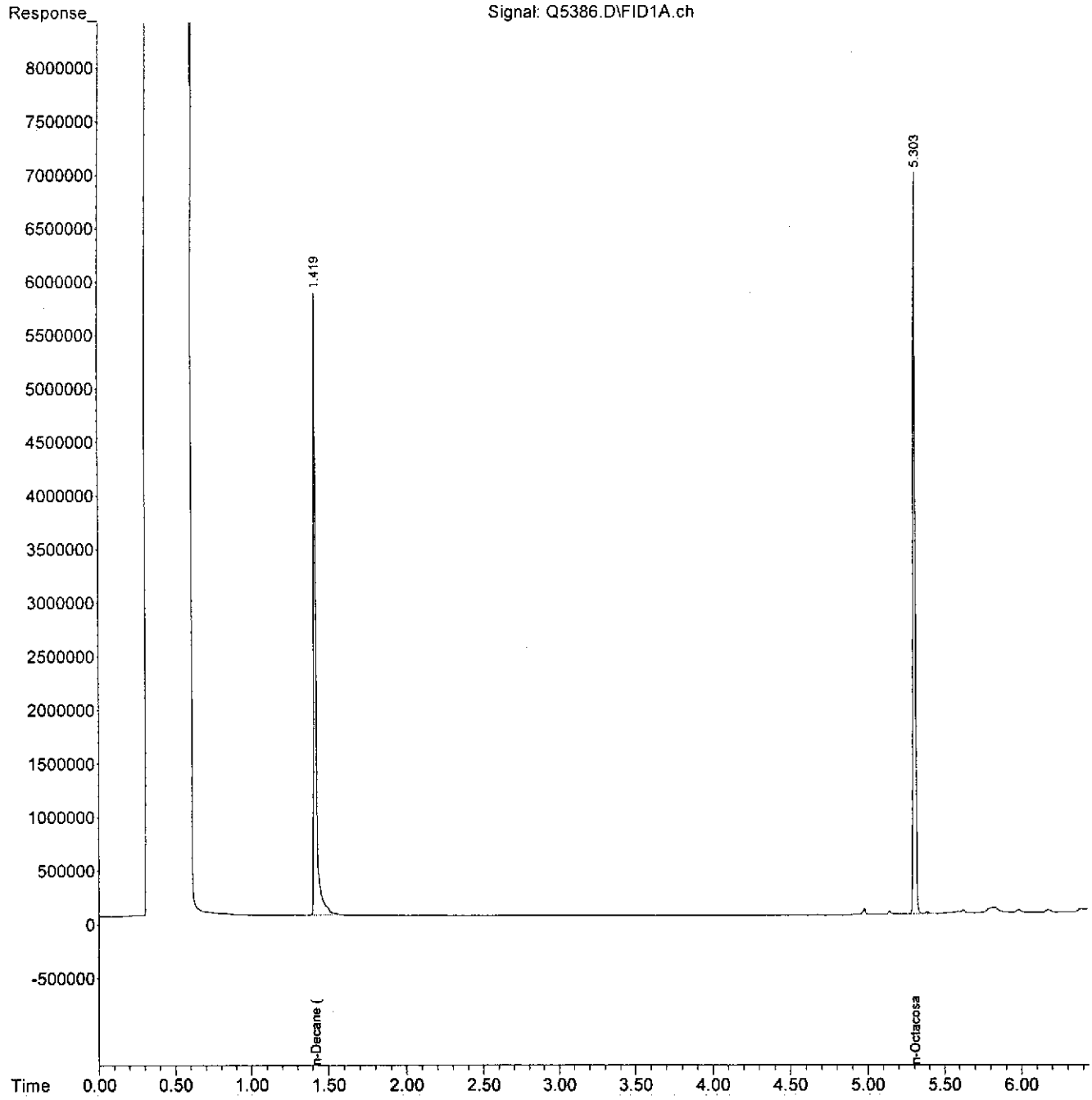
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-23-09\
Data File : Q5386.D
Signal(s) : FID1A.ch
Acq On : 23 Dec 9 9:37 am
Operator : TB
Sample : DRO/GRO_RT_IAS_3469,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 23 09:45:42 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 23 09:45:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



0165

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-30-09\
Data File : Q5748.D
Signal(s) : FID1A.ch
Acq On : 30 Dec 9 2:55 pm
Operator : TB
Sample : T1-1/5.5,12828-012,S,5.21g,26.7,12/29/09,1
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,50
ALS Vial : 31 Sample Multiplier: 1

GC Fingerprint

1/6/10-AD

Integration File: autoint1.e
Quant Time: Dec 30 15:11:01 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 30 09:33:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.965	400966	1.915	ng	m
Spiked Amount 100.000		Recovery =	1.92%		
Target Compounds					

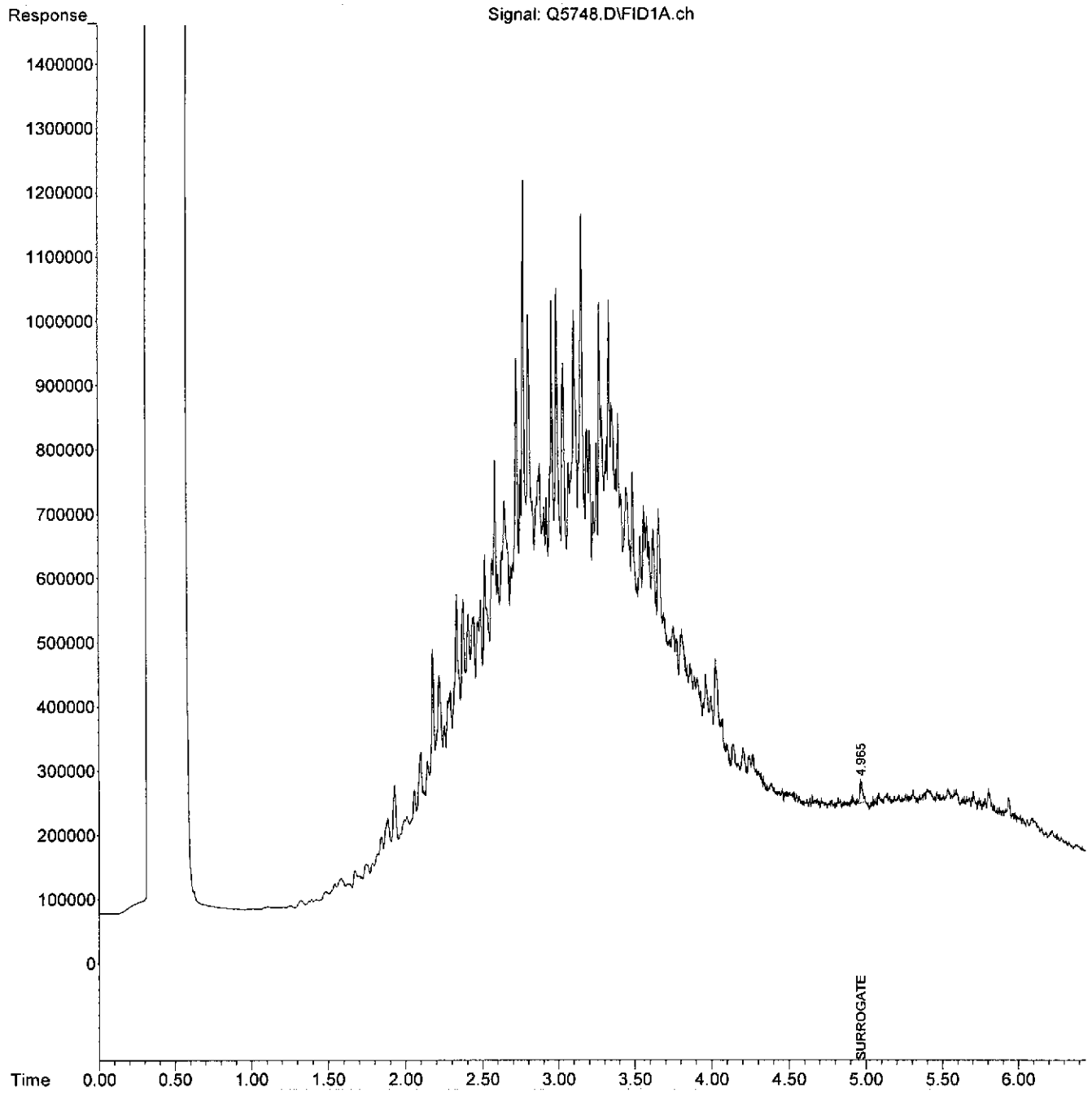
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-30-09\
Data File : Q5748.D
Signal(s) : FID1A.ch
Acq On : 30 Dec 9 2:55 pm
Operator : TB
Sample : T1-1/5.5,12828-012,S,5.21g,26.7,12/29/09,1
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,50
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 30 15:11:01 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 30 09:33:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-30-09\
Data File : Q5749.D
Signal(s) : FID1A.ch
Acq On : 30 Dec 9 3:05 pm
Operator : TB
Sample : T1-2/5.5,12828-013,S,5.03g,29.6,12/29/09,1
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,50
ALS Vial : 32 Sample Multiplier: 1

Integration File: autointl.e
Quant Time: Dec 30 15:13:01 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 30 09:33:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.965	421407	2.012 ng m
Spiked Amount 100.000		Recovery =	2.01%
Target Compounds			

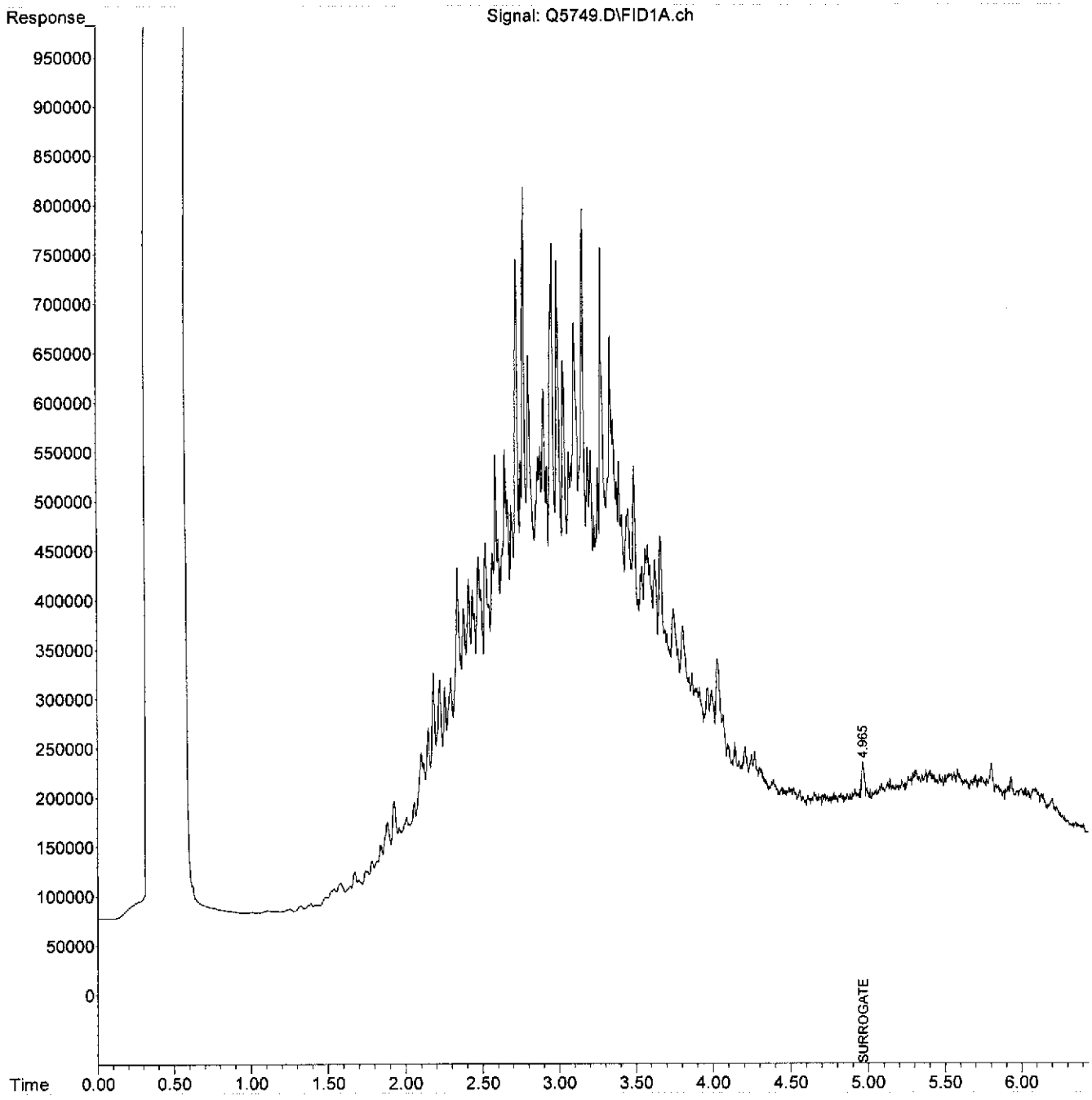
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-30-09\
Data File : Q5749.D
Signal(s) : FID1A.ch
Acq On : 30 Dec 9 3:05 pm
Operator : TB
Sample : T1-2/5.5,12828-013,S,5.03g,29.6,12/29/09,1
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,50
ALS Vial : 32 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 30 15:13:01 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 30 09:33:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\Q_2009\Q-Dec-09\12-30-09\
Data File : Q5750.D
Signal(s) : FID1A.ch
Acq On : 30 Dec 9 3:16 pm
Operator : TB
Sample : T2-1/5.5,12828-016,S,5.25g,50.4,12/29/09,1
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,50
ALS Vial : 33 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 30 15:25:46 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 30 09:33:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.963	465050	2.221	ng	m
Spiked Amount 100.000		Recovery =	2.22%		
Target Compounds					

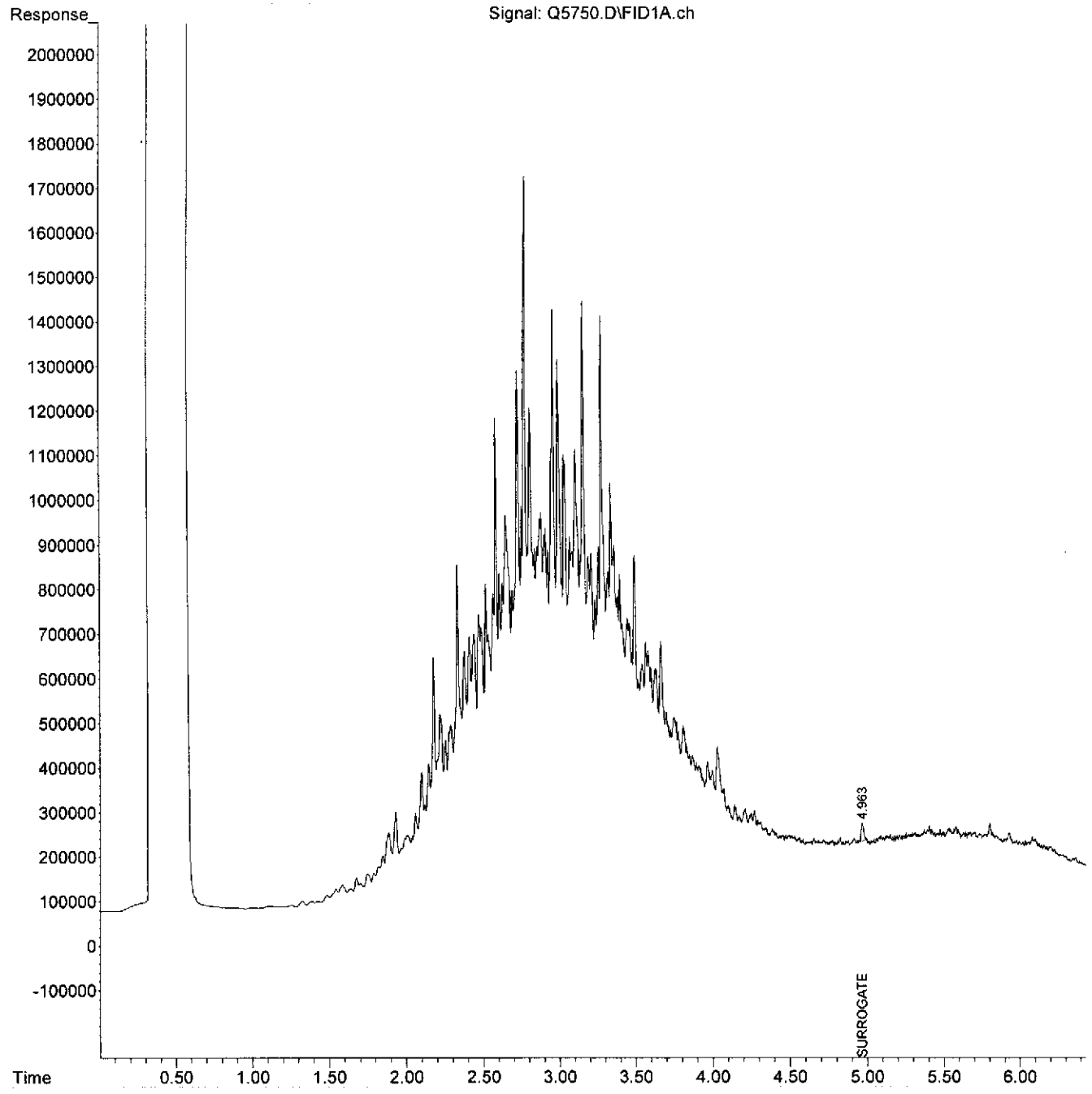
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\Q_2009\Q-Dec-09\12-30-09\
Data File : Q5750.D
Signal(s) : FID1A.ch
Acq On : 30 Dec 9 3:16 pm
Operator : TB
Sample : T2-1/5.5,12828-016,S,5.25g,50.4,12/29/09,1
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,50
ALS Vial : 33 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 30 15:25:46 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 30 09:33:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-30-09\
Data File : Q5751.D
Signal(s) : FID1A.ch
Acq On : 30 Dec 9 3:26 pm
Operator : TB
Sample : T2-2/5.5,12828-017,S,5.45g,42.7,12/29/09,1
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,50
ALS Vial : 34 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 30 15:33:23 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 30 09:33:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.974f	438694	2.095 ng m
Spiked Amount 100.000		Recovery =	2.10%
Target Compounds			

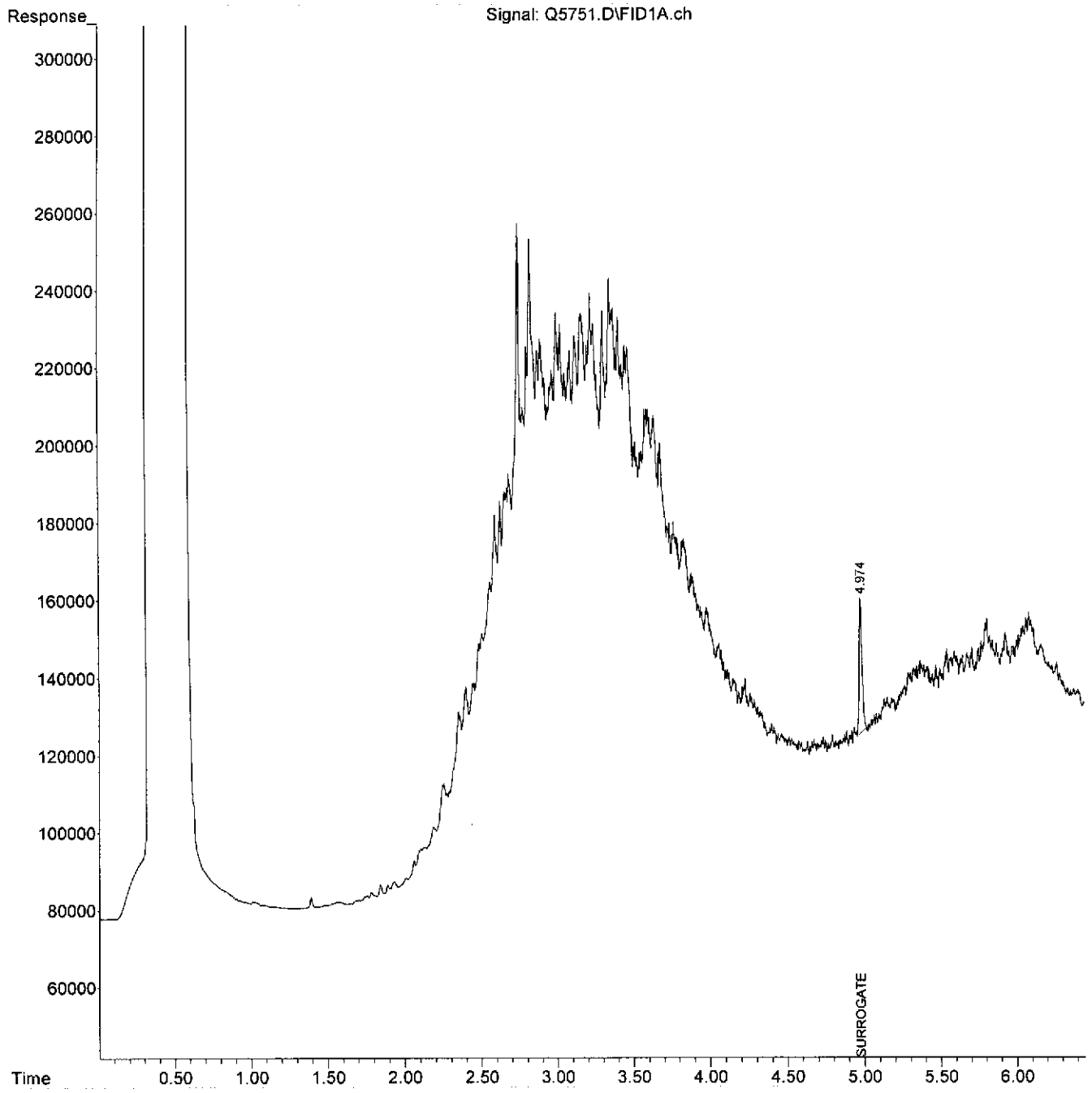
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-30-09\
Data File : Q5751.D
Signal(s) : FID1A.ch
Acq On : 30 Dec 9 3:26 pm
Operator : TB
Sample : T2-2/5.5,12828-017,S,5.45g,42.7,12/29/09,1
Misc : PENNJERSEY/PALMER,12/16/09,12/18/09,50
ALS Vial : 34 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 30 15:33:23 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 30 09:33:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-30-09\
Data File : Q5746.D
Signal(s) : FID1A.ch
Acq On : 30 Dec 9 2:34 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 30 14:41:16 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 30 09:33:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.964	23281958	111.184	ng	m
Spiked Amount 100.000		Recovery = 111.18%			
Target Compounds					
3) H TPH-DRO	2.500	422122193	1069.256	ng	

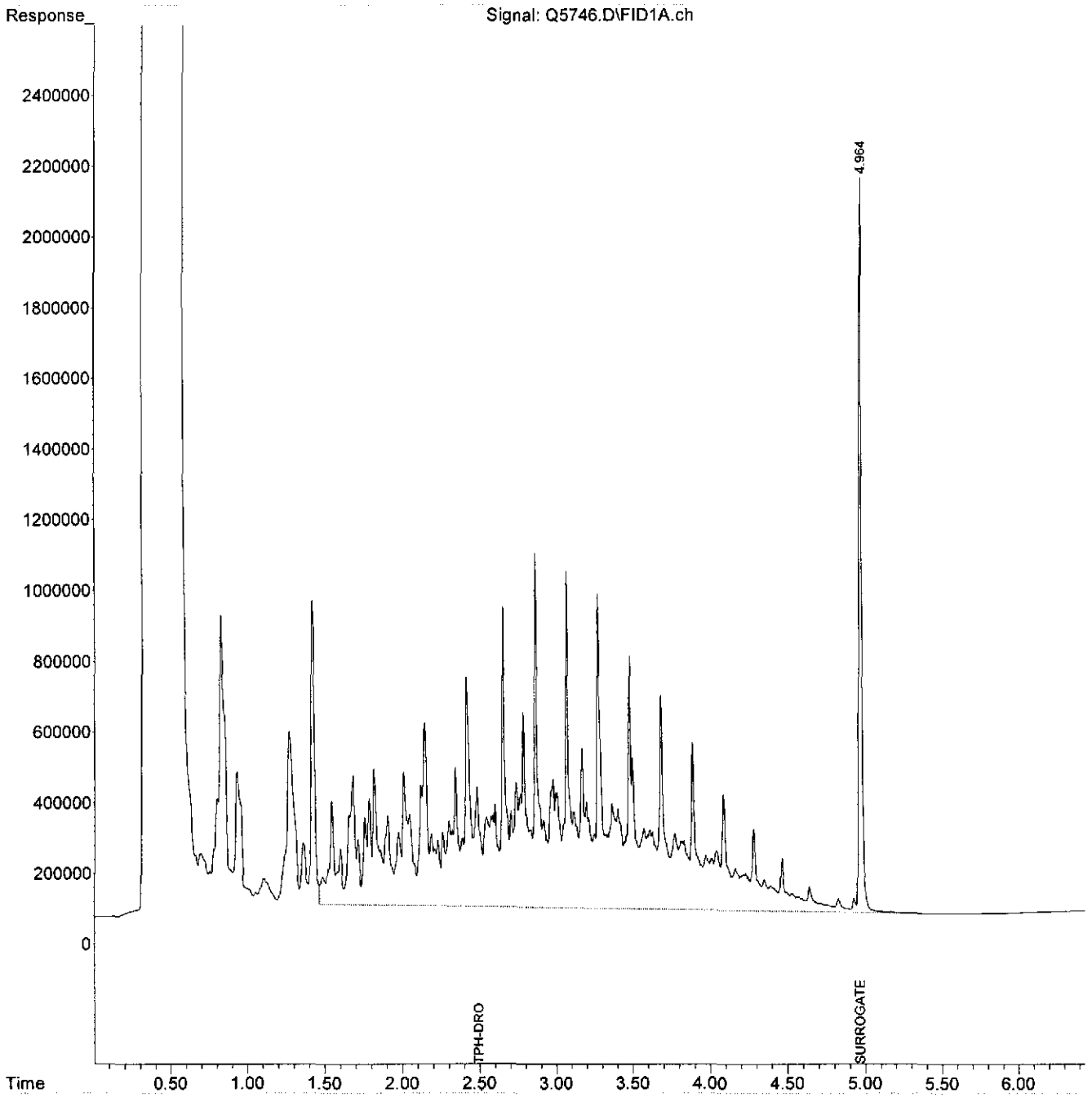
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\12-30-09\
Data File : Q5746.D
Signal(s) : FID1A.ch
Acq On : 30 Dec 9 2:34 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Dec 30 14:41:16 2009
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Wed Dec 30 09:33:32 2009
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



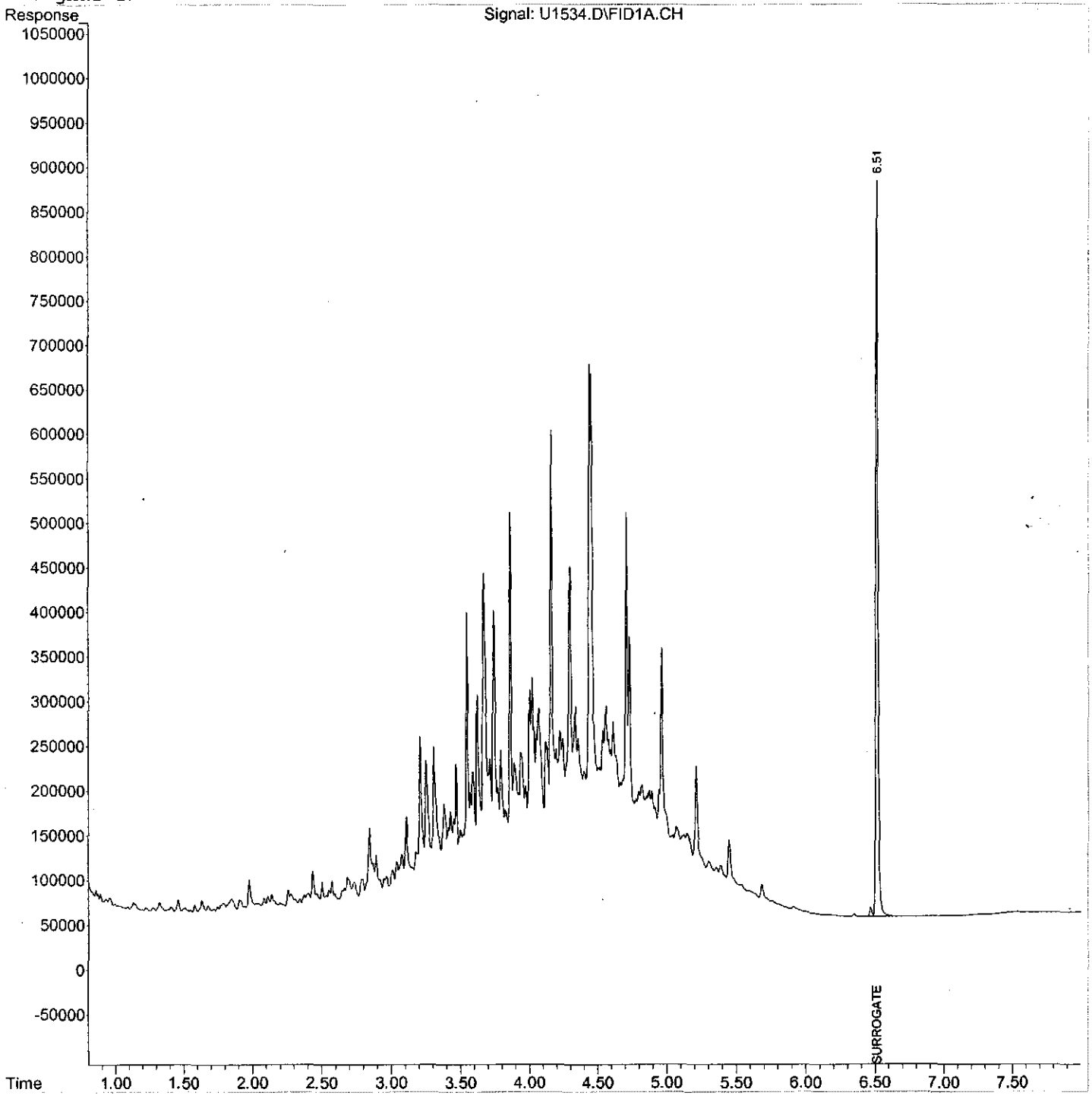
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\U-2008\U_JUN-08\06-30-08\U1534.D Vial: 20
Acq On : 30 Jun 2008 20:40 Operator: JP
Sample : Fuel oil #2,1000_PPM Inst : GC_U
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 1 10:32 2008 Quant Results File: UGRO0609.RES

Quant Method : C:\MSDCHEM\1\METHODS\UGRO0609.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 30 10:28:17 2008
Response via : Multiple Level Calibration
DataAcq Meth : UGRO0609.M

Volume Inj. :
Signal Phase :
Signal Info :

FUEL OIL #2



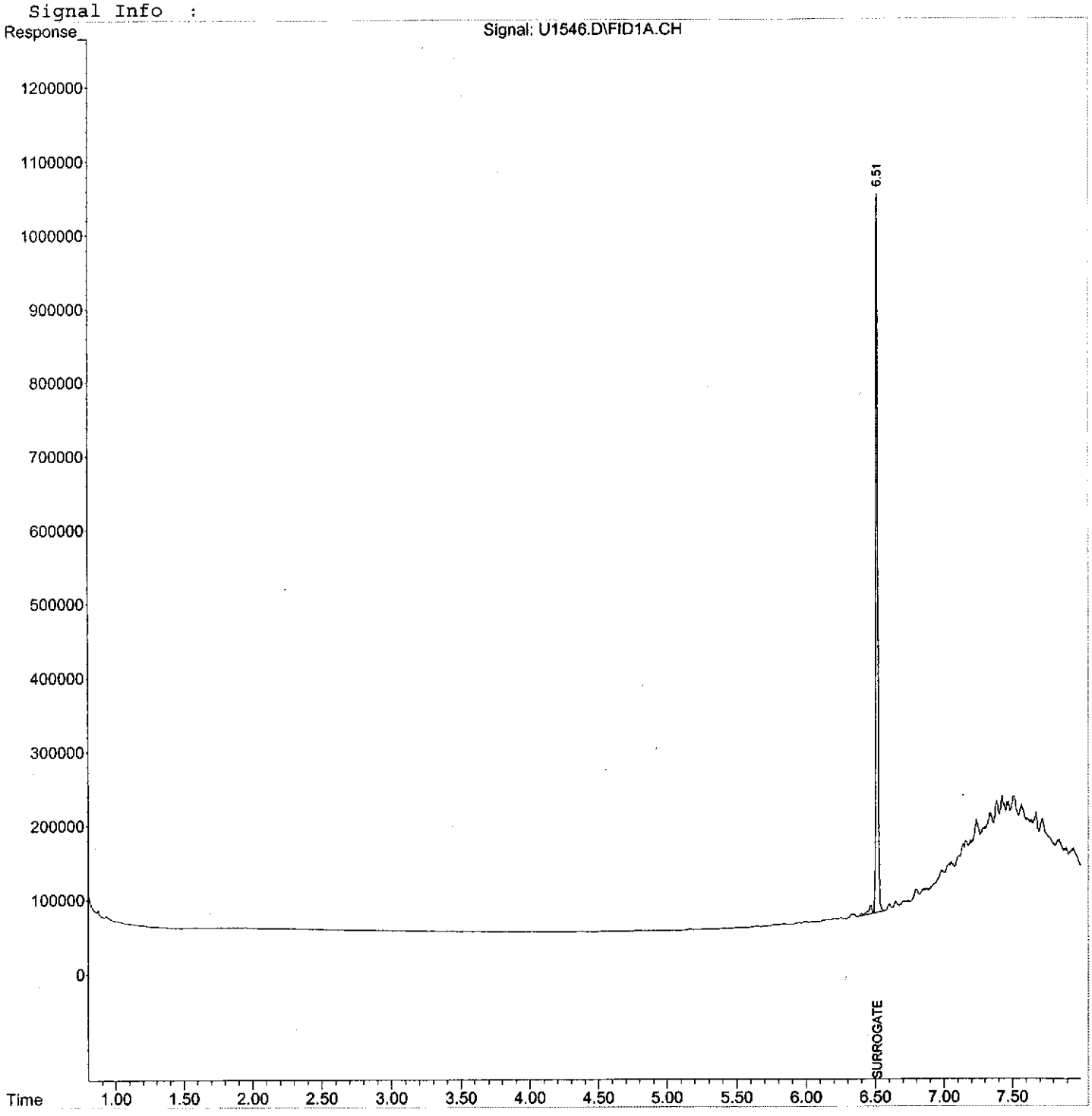
Quantitation Report (QT Reviewed)

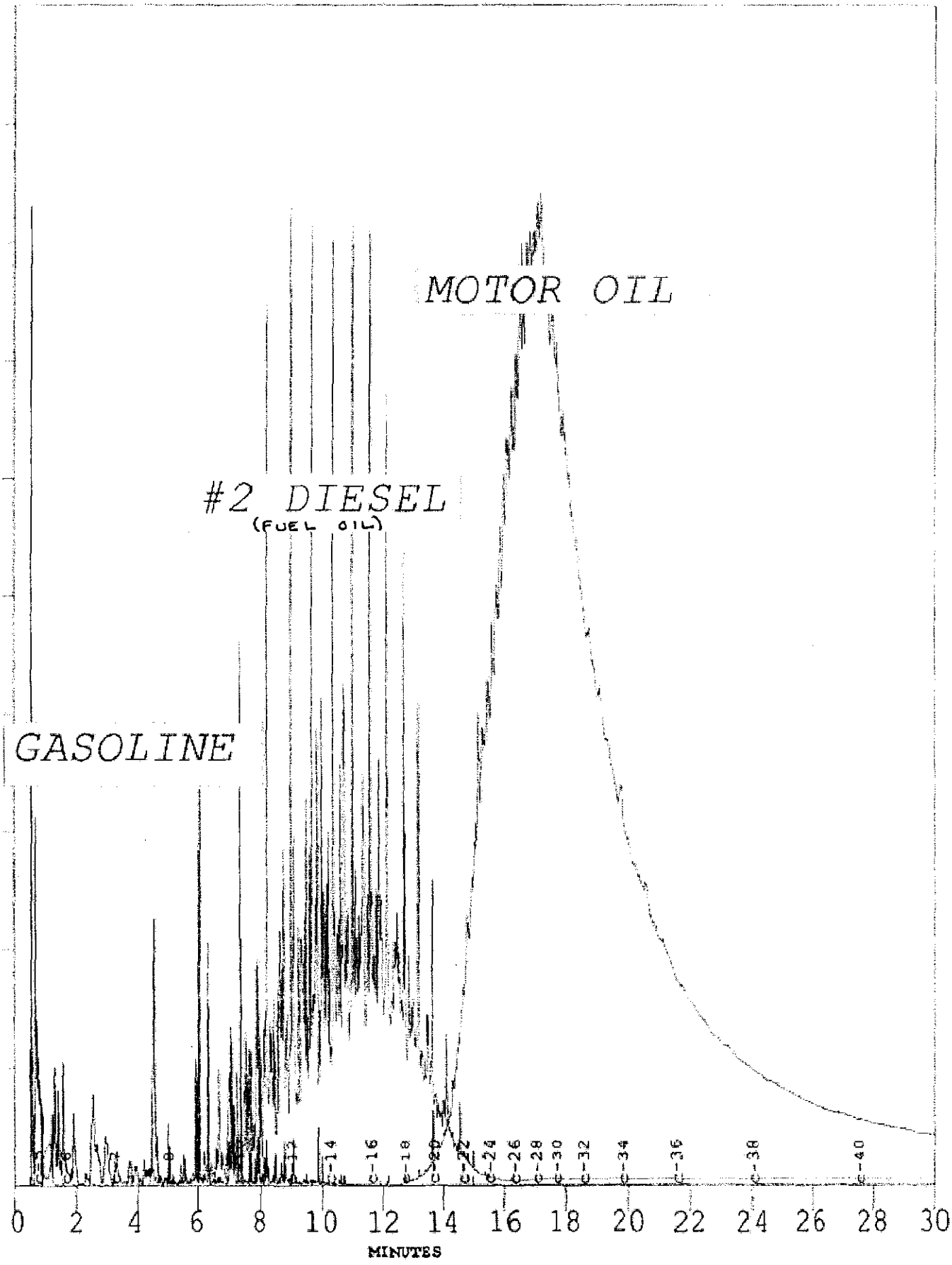
Data File : C:\MSDCHEM\1\DATA\U-2008\U_JUN-08\06-30-08\U1546.D Vial: 32
Acq On : 30 Jun 2008 23:29 Operator: JP
Sample : Motor Oil 30W,1000_PPM Inst : GC_U
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jul 1 10:33 2008 Quant Results File: UGRO0609.RES

Quant Method : C:\MSDCHEM\1\METHODS\UGRO0609.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 30 10:28:17 2008
Response via : Multiple Level Calibration
DataAcq Meth : UGRO0609.M

Volume Inj. :
Signal Phase :
Signal Info :

MOTOR OIL 30W




MOTOR OIL
#2 DIESEL
(FUEL OIL)
GASOLINE
C-14
C-16
C-18
C-20
C-22
C-24
C-26
C-28
C-30
C-32
C-34
C-36
C-38
C-40
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
MINUTES

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC/PA
Address:	2034 E. WELLINGTON RD.
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	D. KATZ
Sampler:	M. BROGAN
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC/PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC/PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE
DRO (3-5 day TAT) QAM025 (5 day TAT min.)
DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax 2 wk/Std
24 hr* 48 hr* 72 hr* 1 wk*
Hard Copy 3 wk/Std
Other *call for price

Results needed by: STD / STD

Rush TAT Charge **
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

EDD's
SRP. dbf format
SRP.wk1 format
lab approved custom EDD
NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	ANALYTICAL PARAMETERS: DRO	PAH	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
L1	3-3.5	12/16/09	1:00	S	1	1	✓	*								
L2	2.33-2.83		1:05		1	2	✓	*								
L3	2.92-3.42		1:40		1	3	✓	*								
L4	3.17-3.67		1:45		1	4	✓	*								
L5	2.92-3.42		1:20		1	5	✓	*								
L6	3.92-4.42		1:25		1	6	✓	*								
L7	3.83-4.33		1:30		1	7	✓	*								
L8	2-2.5		1:35		1	8	✓	*								
L9	2.25-2.75		1:40		1	9	✓	*								
L10	3.17-3.67		1:45		1	10	✓	*								

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company
Relinquished by:	12-18-09	9:45	Received by:
Relinquished by:	12/18/09	17:15	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:
* HOLD

Lab Case # 12828

PAGE: 1 of 3

3 COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC/PA
Address:	2034 E. WELLINGTON RD
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	D. KOTZ
Sampler:	M. BROGAN
Project Name:	PAUNGE
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC/PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC/PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC - MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax — 2 wk/Std
24 hr* 48 hr* 72 hr* 1 wk*

Hard Copy — 3 wk/Std
Other *call for price

Results needed by: STD / STD

Rush TAT Charge **
24 hr - 100%....
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

EDD's
SRP .dbf format
SRP .wk1 format
lab approved custom EDD
NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	DRO	PAH	FINGERPRINT OIL & WIPE	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
L11	4-4.5'	12/16/09	1:50	S	1	11	✓	*									
T1-1	5.5-6'		2:05	S	1	12	✓	*	✓								
T1-2			2:10	S	1	13	✓	*	✓								
T1-3			2:15	S	1	14	✓	*									
T1-4			2:20	S	1	15	✓	*									
T2-1			2:25	S	1	16	✓	*	✓								
T2-2			2:30	S	1	17	✓	*	✓								
T2-3			2:35	S	1	18	✓	*									
T2-4			2:40	S	1	19	✓	*									
L12	1.92-2.42		1:55	S	1	20	✓	*									

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company
Relinquished by:	12-18-09	945	Received by:
Relinquished by:	12/18/09	1215	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:
* HOLD

Lab Case # 12826

PAGE: 2 of 3

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Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER	
Company:	PEC/PA
Address:	2034 E. WELLINGTON RD. NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	D. KOTZ
Sampler:	M. BROGAN
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC/PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC/PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

SEE BELOW (under comments section for explanation)

Verbal/Fax 24 hr* 48 hr* 72 hr* 1 wk* **2 wk/Std**

Hard Copy Other *call for price **3 wk/Std**

Results needed by: STD / STD

Rush TAT Charge **

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format

Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

DISKETTE

SRP. dbf format
SRP.wk1 format
lab approved custom EDD
NO DISK/CD REQ'D

ANALYTICAL PARAMETERS

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	DRO	PAH	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
L13	1.92-2.42	12/16/09	2:00	S	1	21	✓	*								
L14	3-3.5	12/17/09	1:50	S	1	22	✓	*								
L15	2.5-3	↓	2:00	S	1	23										

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

MDL Req: Old GWQS - 11/05 GWQS - SCC - OTHER (SEE COMMENTS)

Signature/Company	Date	Time	Signature/Company
Relinquished by: MWMDR	12-18-09	945	Received by:
Relinquished by:	12/18/09	1215	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

* 1WDS

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2
QAM-025 (OQA-QAM025) - used for: all other fuel oils and unknown contamination

Lab Case # 12828

PAGE: 3 of 3

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

01/2007 rev

Ref No: G 393689198

PROJECT INFORMATION

E 0 9 - 1 2 8 2 8

Case No. E09-12828 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Dick Katz	**Received**	12/18/2009 12:15
EMail	pecinc@aol.com;nagorbm@yahoc ✓ EMail EDDs	**Verbal Due**	1/6/2010
Phone	(215) 860-1231 **Fax** 1(215) 860-9988	**Report Due**	1/13/2010

Report To

2034 E. Wellington Rd.

Newtown, PA 18940

Attn: Dick Katz

Bill To

2034 E. Wellington Rd.

Newtown, PA 18940

Attn: Dick Katz

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
12828-001	L1	3 / 3.5	12/16/2009@13:00	Soil	mg/Kg	1
12828-002	L2	2.33 / 2.83	12/16/2009@13:05	Soil	mg/Kg	1
12828-003	L3	2.92 / 3.42	12/16/2009@13:10	Soil	mg/Kg	1
12828-004	L4	3.17 / 3.67	12/16/2009@13:15	Soil	mg/Kg	1
12828-005	L5	2.92 / 3.42	12/16/2009@13:20	Soil	mg/Kg	1
12828-006	L6	3.92 / 4.42	12/16/2009@13:25	Soil	mg/Kg	1
12828-007	L7	3.83 / 4.33	12/16/2009@13:30	Soil	mg/Kg	1
12828-008	L8	2 / 2.5	12/16/2009@13:35	Soil	mg/Kg	1
12828-009	L9	2.25 / 2.75	12/16/2009@13:40	Soil	mg/Kg	1
12828-010	L10	3.17 / 3.67	12/16/2009@13:45	Soil	mg/Kg	1
12828-011	L11	4 / 4.5	12/16/2009@13:50	Soil	mg/Kg	1
12828-012	T1-1	5.5 / 6	12/16/2009@14:05	Soil	mg/Kg	1
12828-013	T1-2	5.5 / 6	12/16/2009@14:10	Soil	mg/Kg	1
12828-014	T1-3	5.5 / 6	12/16/2009@14:15	Soil	mg/Kg	1
12828-015	T1-4	5.5 / 6	12/16/2009@14:20	Soil	mg/Kg	1
12828-016	T2-1	5.5 / 6	12/16/2009@14:25	Soil	mg/Kg	1
12828-017	T2-2	5.5 / 6	12/16/2009@14:30	Soil	mg/Kg	1
12828-018	T2-3	5.5 / 6	12/16/2009@14:35	Soil	mg/Kg	1
12828-019	T2-4	5.5 / 6	12/16/2009@14:40	Soil	mg/Kg	1
12828-020	L12	1.92 / 2.42	12/16/2009@13:55	Soil	mg/Kg	1
12828-021	L13	1.92 / 2.42	12/16/2009@14:00	Soil	mg/Kg	1
12828-022	L14	3 / 3.5	12/17/2009@13:50	Soil	mg/Kg	1
12828-023	L15	2.5 / 3	12/17/2009@14:00	Soil	mg/Kg	1

Sample #	Tests	Status	QA Method
001	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
002	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
003	PAH	Cancel	8270C

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PROJECT INFORMATION

Case No. E09-12828 **Project PALMER**

Sample #	Tests	Status	QA Method
"	TPH-DRO-72 HR	Complete	8015B M
004	PAH	Run	8270C
"	TPH-DRO-72 HR	Complete	8015B M
005	PAH	Run	8270C
"	TPH-DRO-72 HR	Complete	8015B M
006	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
007	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
008	PAH	Run	8270C
"	TPH-DRO-72 HR	Complete	8015B M
009	PAH	Run	8270C
"	TPH-DRO-72 HR	Complete	8015B M
010	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
011	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
012	PAH	Run	8270C
"	GC Fingerprint	Run	8015B M
"	TPH-DRO-72 HR	Complete	8015B M
013	PAH	**Cancel**	8270C
"	GC Fingerprint	Run	8015B M
"	TPH-DRO-72 HR	Complete	8015B M
014	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
015	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
016	PAH	Run	8270C
"	GC Fingerprint	Run	8015B M
"	TPH-DRO-72 HR	Complete	8015B M
017	PAH	**Cancel**	8270C
"	GC Fingerprint	Run	8015B M
"	TPH-DRO-72 HR	Complete	8015B M
018	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
019	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
020	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
021	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
022	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M
023	PAH	**Cancel**	8270C
"	TPH-DRO-72 HR	Complete	8015B M

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PROJECT INFORMATION

Case No. E09-12828 **Project PALMER**

12/28/2009 13:57 by katie - REV 1

REV due 1/12

As per Mike Brogan, activate PAH for samples 4, 5, 8, 9, 12 and 16. Cancel others on hold.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 09** **12828** CLIENT: REC PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [JM] DATE 12/18/08

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [KNO] DATE 12/19/8

Laboratory Custody Chronicle

IAL Case No.
E09-12828

Client PennJersey Environmental Consulting

Project PALMER

Received On 12/18/2009@12:15

Department: Semivolatiles			*Prep. Date*	*Analyst*	*Analysis Date*	*Analyst*
PAH	12828-004	Soil	12/30/09	Kou-Liang	12/30/09	JC
"	-005	"	12/30/09	Kou-Liang	12/30/09	JC
"	-008	"	12/30/09	Kou-Liang	12/30/09	JC
"	-009	"	12/30/09	Kou-Liang	12/30/09	JC
"	-012	"	12/30/09	Kou-Liang	12/30/09	JC
"	-016	"	12/30/09	Kou-Liang	12/30/09	JC

Department: GC			*Prep. Date*	*Analyst*	*Analysis Date*	*Analyst*
GC Fingerprint	-012	Soil	12/29/09	Archimede	n/a	Tracy
"	-013	"	12/29/09	Archimede	n/a	Tracy
"	-016	"	12/29/09	Archimede	n/a	Tracy
"	-017	"	12/29/09	Archimede	n/a	Tracy
TPH-DRO-72 HR	-001	Soil	12/18/09	Archimede	n/a	Tracy
"	-002	"	12/18/09	Archimede	n/a	Tracy
"	-003	"	12/18/09	Archimede	n/a	Tracy
"	-004	"	12/18/09	Archimede	n/a	Tracy
"	-005	"	12/18/09	Archimede	n/a	Tracy
"	-006	"	12/18/09	Archimede	n/a	Tracy
"	-007	"	12/18/09	Archimede	n/a	Tracy
"	-008	"	12/18/09	Archimede	n/a	Tracy
"	-009	"	12/18/09	Archimede	n/a	Tracy
"	-010	"	12/18/09	Archimede	n/a	Tracy
"	-011	"	12/18/09	Archimede	n/a	Tracy
"	-012	"	12/18/09	Archimede	n/a	Tracy
"	-013	"	12/18/09	Archimede	n/a	Tracy
"	-014	"	12/18/09	Archimede	n/a	Tracy
"	-015	"	12/18/09	Archimede	n/a	Tracy
"	-016	"	12/18/09	Archimede	n/a	Tracy
"	-017	"	12/18/09	Archimede	n/a	Tracy
"	-018	"	12/18/09	Archimede	n/a	Tracy
"	-019	"	12/18/09	Archimede	n/a	Tracy
"	-020	"	12/18/09	Archimede	n/a	Tracy
"	-021	"	12/21/09	Archimede	n/a	Tracy
"	-022	"	12/21/09	Archimede	n/a	Tracy
"	-023	"	12/21/09	Archimede	n/a	Tracy

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IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT ADDENDUM

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E09-12828**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E09-12828

Client PennJersey Environmental Consulting

Project PALMER

Received On 12/18/2009@12:15

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
12828-001	L1	3/3.5	12/16/2009@13:00	Soil	1
12828-002	L2	2.33/2.83	12/16/2009@13:05	Soil	1
12828-003	L3	2.92/3.42	12/16/2009@13:10	Soil	1
12828-004	L4	3.17/3.67	12/16/2009@13:15	Soil	1
12828-005	L5	2.92/3.42	12/16/2009@13:20	Soil	1
12828-006	L6	3.92/4.42	12/16/2009@13:25	Soil	1
12828-007	L7	3.83/4.33	12/16/2009@13:30	Soil	1
12828-008	L8	2/2.5	12/16/2009@13:35	Soil	1
12828-009	L9	2.25/2.75	12/16/2009@13:40	Soil	1
12828-010	L10	3.17/3.67	12/16/2009@13:45	Soil	1
12828-011	L11	4/4.5	12/16/2009@13:50	Soil	1
12828-012	T1-1	5.5/6	12/16/2009@14:05	Soil	1
12828-013	T1-2	5.5/6	12/16/2009@14:10	Soil	1
12828-014	T1-3	5.5/6	12/16/2009@14:15	Soil	1
12828-015	T1-4	5.5/6	12/16/2009@14:20	Soil	1
12828-016	T2-1	5.5/6	12/16/2009@14:25	Soil	1
12828-017	T2-2	5.5/6	12/16/2009@14:30	Soil	1
12828-018	T2-3	5.5/6	12/16/2009@14:35	Soil	1
12828-019	T2-4	5.5/6	12/16/2009@14:40	Soil	1
12828-020	L12	1.92/2.42	12/16/2009@13:55	Soil	1
12828-021	L13	1.92/2.42	12/16/2009@14:00	Soil	1
12828-022	L14	3/3.5	12/17/2009@13:50	Soil	1
12828-023	L15	2.5/3	12/17/2009@14:00	Soil	1
12828-024	T1-1OIL	5.5/6	12/17/2009@14:05	Oil	
12828-025	T1-2OIL	5.5/6	12/17/2009@14:10	Oil	
12828-026	T2-1OIL	5.5/6	12/17/2009@14:25	Oil	

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

ADDENDUM

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received twenty-three (23) soil sample(s) from PennJersey Environmental Consulting (Project: PALMER) on December 18, 2009 for the analysis of:

(3) GC Fingerprint

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

1/11/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E09-12828 ADDENDUM

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

ADDENDUM
SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E09-12828

	Lab ID:	12828-024			12828-025			12828-026		
	Client ID:	T1-1OIL			T1-2OIL			T2-1OIL		
	Depth:	5.5/6			5.5/6			5.5/6		
	Matrix:	Soil			Soil			Soil		
	Sampled Date	12/16/09			12/16/09			12/16/09		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
GC-Fingerprint (Units)										
GC-Fingerprint		☼			☼			☼		

☼ - See attached pages

INTEGRATED ANALYTICAL LABORATORIES, LLC.

GC FINGERPRINT ANALYSIS

Client/Project: PennJersey Environmental Consulting/Palmer

Date Received: 12/18/09

Date Analyzed: 1/8/10

Lab ID	Client ID	RESULTS
12828-024	T1-1Oil /5.5-6	This sample closely resembles a Fuel Oil #2 Standard.*
12828-025	T1-2Oil /5.5-6	This sample closely resembles a Fuel Oil #2 Standard.*
12828-026	T2-1Oil /5.5-6	This sample closely resembles a Fuel Oil #2 Standard.*

*Variations in the sample as compared to the standards may be attributed to weathering. The most common forms of weathering are microbial degradation, evaporation and solubilization which can alter the composition of the material.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-08-10\
Data File : Q6226.D
Signal(s) : FID1A.ch
Acq On : 8 Jan 10 3:48 pm
Operator : TB
Sample : T1-1OIL/,12828-024,I,5g,0,01/08/10,1
Misc : PENNJERSEY/PALMER,12/17/09,12/18/09,50
ALS Vial : 4 Sample Multiplier: 1

Integration File: autointl.e
Quant Time: Jan 08 16:02:51 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Fri Jan 08 10:36:06 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.985f	424040	2.025 ng m
Spiked Amount 100.000		Recovery =	2.02%
Target Compounds			

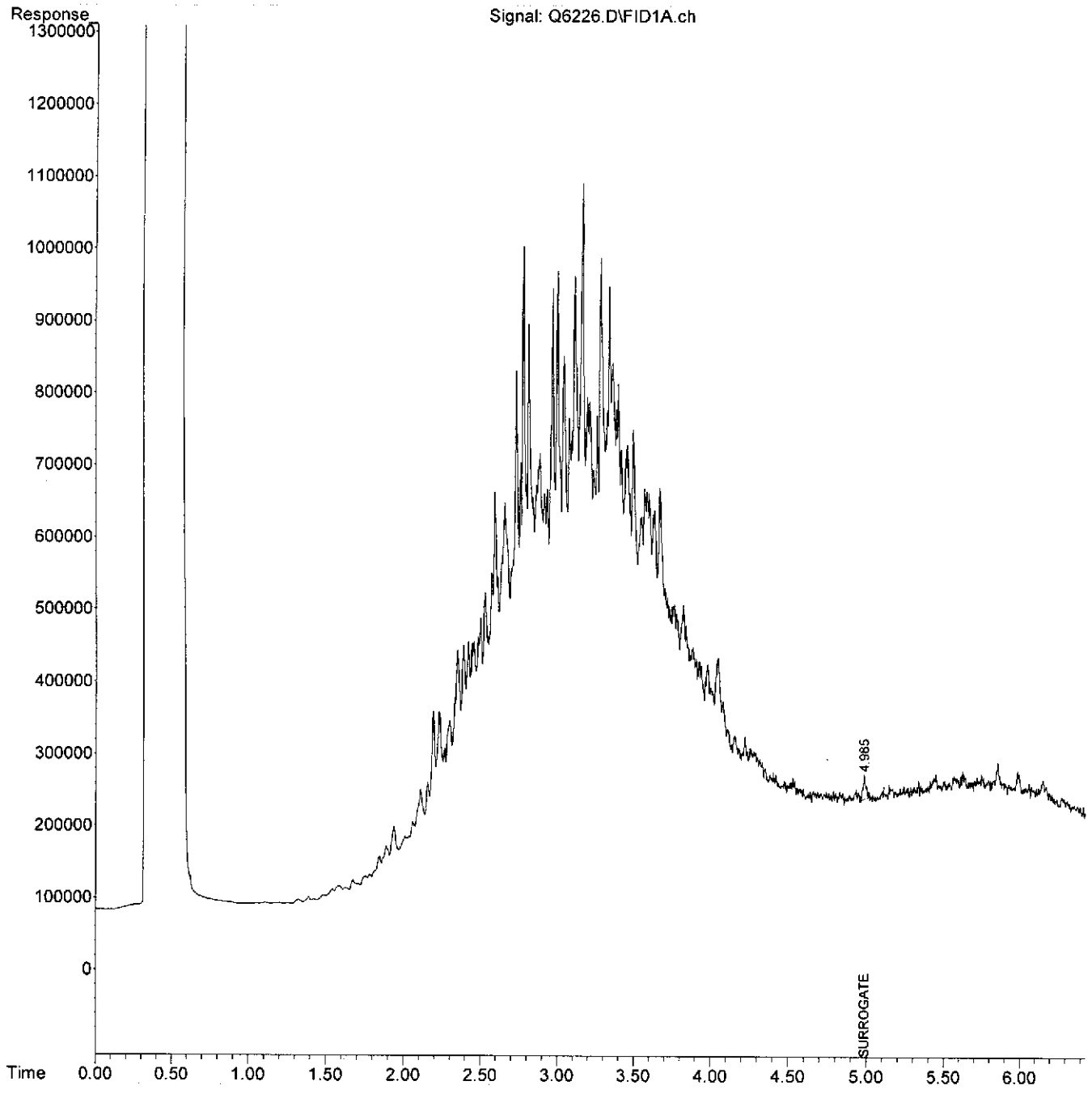
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-08-10\
Data File : Q6226.D
Signal(s) : FID1A.ch
Acq On : 8 Jan 10 3:48 pm
Operator : TB
Sample : T1-1OIL/,12828-024,I,5g,0,01/08/10,1
Misc : PENNJERSEY/PALMER,12/17/09,12/18/09,50
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 08 16:02:51 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Fri Jan 08 10:36:06 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-08-10\
Data File : Q6227.D
Signal(s) : FID1A.ch
Acq On : 8 Jan 10 3:59 pm
Operator : TB
Sample : T1-2OIL/,12828-025,I,5g,0,01/08/10,1
Misc : PENNJERSEY/PALMER,12/17/09,12/18/09,50
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 08 16:09:21 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Fri Jan 08 10:36:06 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.966	344196	1.644 ng m
Spiked Amount 100.000		Recovery =	1.64%
Target Compounds			

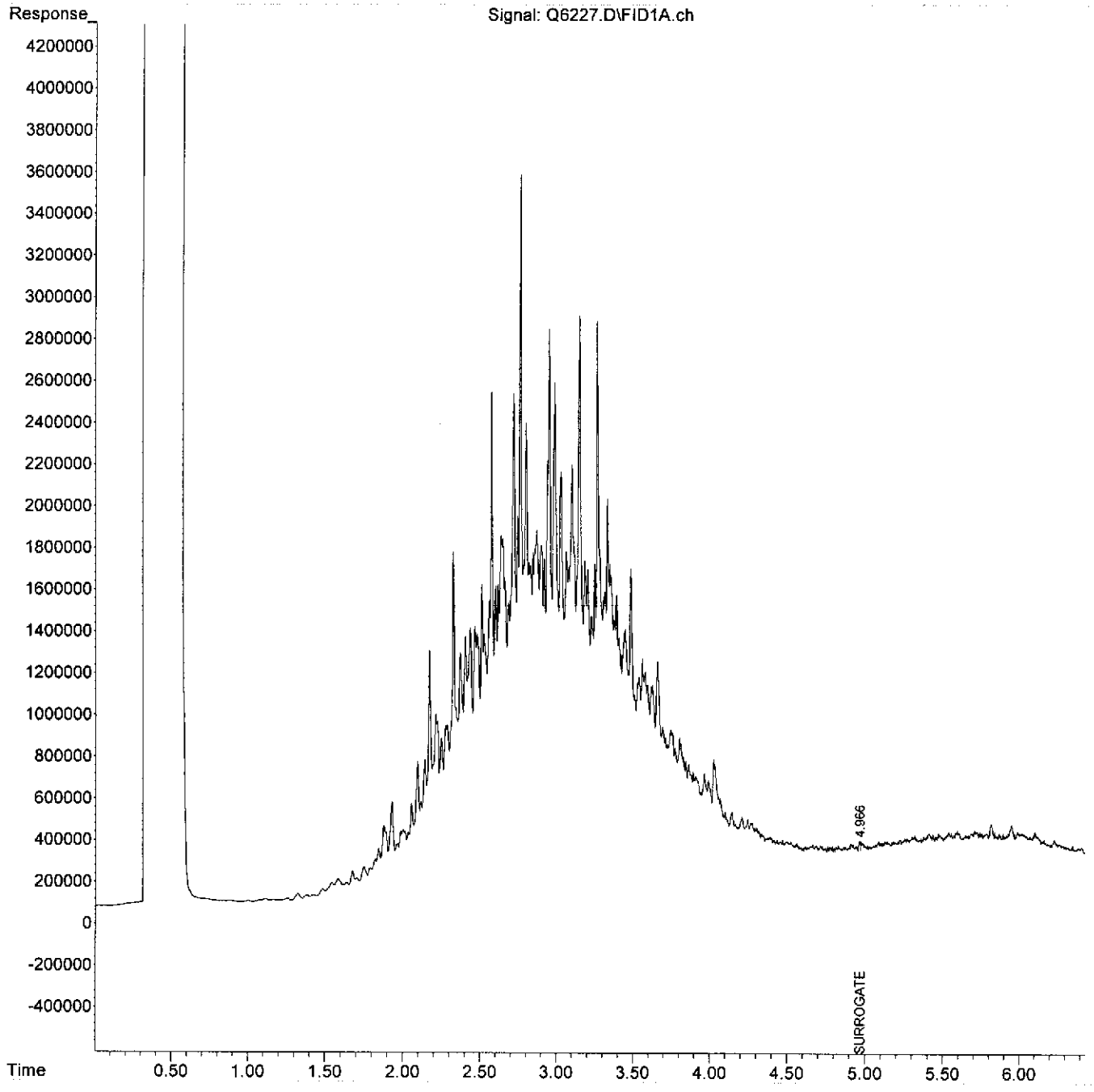
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-08-10\
Data File : Q6227.D
Signal(s) : FID1A.ch
Acq On : 8 Jan 10 3:59 pm
Operator : TB
Sample : T1-2OIL/,12828-025,I,5g,0,01/08/10,1
Misc : PENNJERSEY/PALMER,12/17/09,12/18/09,50
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 08 16:09:21 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Fri Jan 08 10:36:06 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-08-10\
Data File : Q6228.D
Signal(s) : FID1A.ch
Acq On : 8 Jan 10 4:09 pm
Operator : TB
Sample : T2-1OIL/,12828-026,I,5g,0,01/08/10,1
Misc : PENNJERSEY/PALMER,12/17/09,12/18/09,50
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 08 17:02:29 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Fri Jan 08 10:36:06 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.981f	320279	1.530	ng	m
Spiked Amount 100.000		Recovery =	1.53%		
Target Compounds					

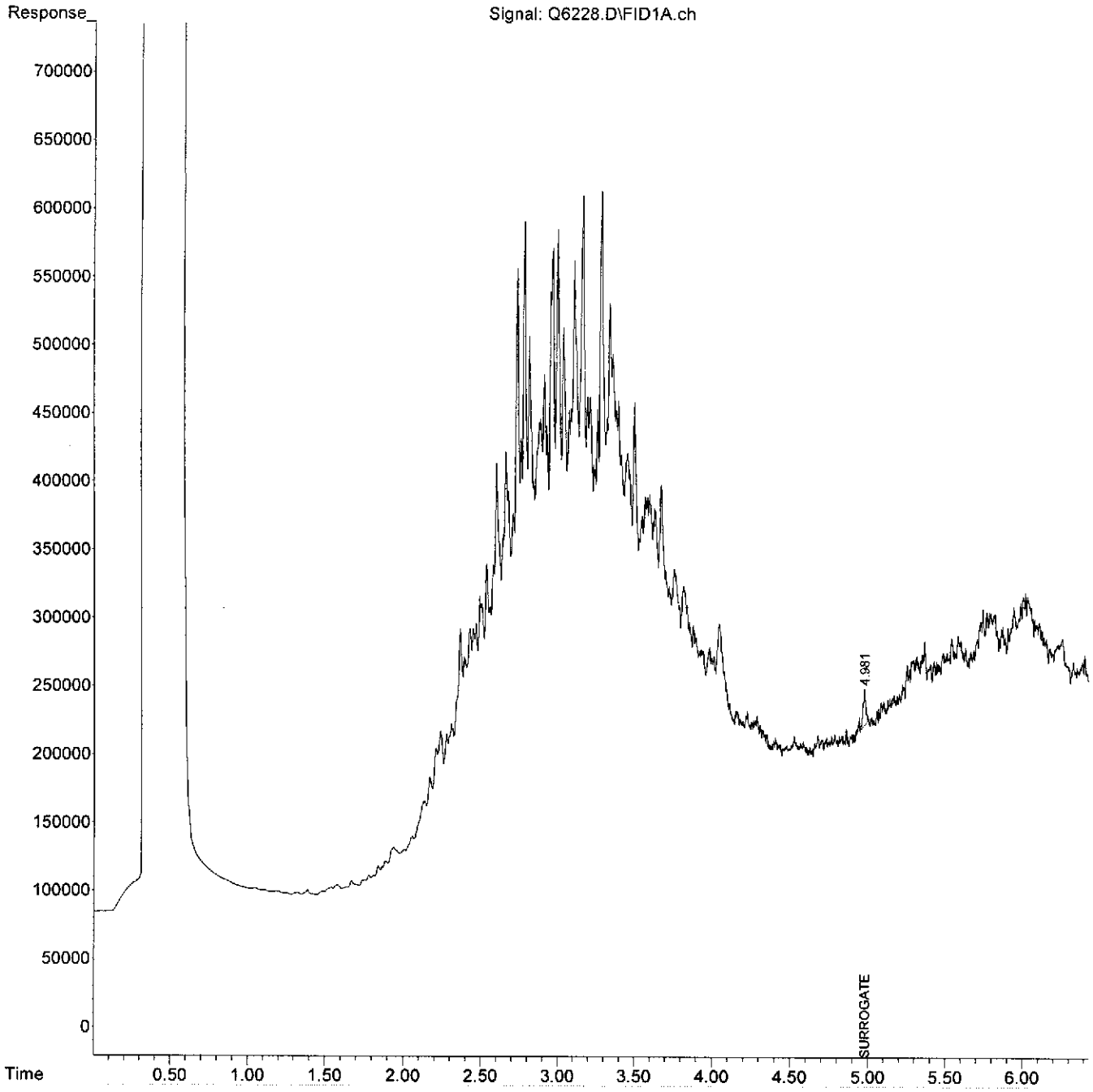
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-08-10\
Data File : Q6228.D
Signal(s) : FID1A.ch
Acq On : 8 Jan 10 4:09 pm
Operator : TB
Sample : T2-1OIL/,12828-026,I,5g,0,01/08/10,1
Misc : PENNJERSEY/PALMER,12/17/09,12/18/09,50
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 08 17:02:29 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Fri Jan 08 10:36:06 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-08-10\
Data File : Q6229.D
Signal(s) : FID1A.ch
Acq On : 8 Jan 10 4:19 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 08 17:02:37 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Fri Jan 08 10:36:06 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.969	22911595	109.415 ng m
Spiked Amount 100.000		Recovery = 109.41%	
Target Compounds			
3) H TPH-DRO	2.500	386270674	978.442 ng

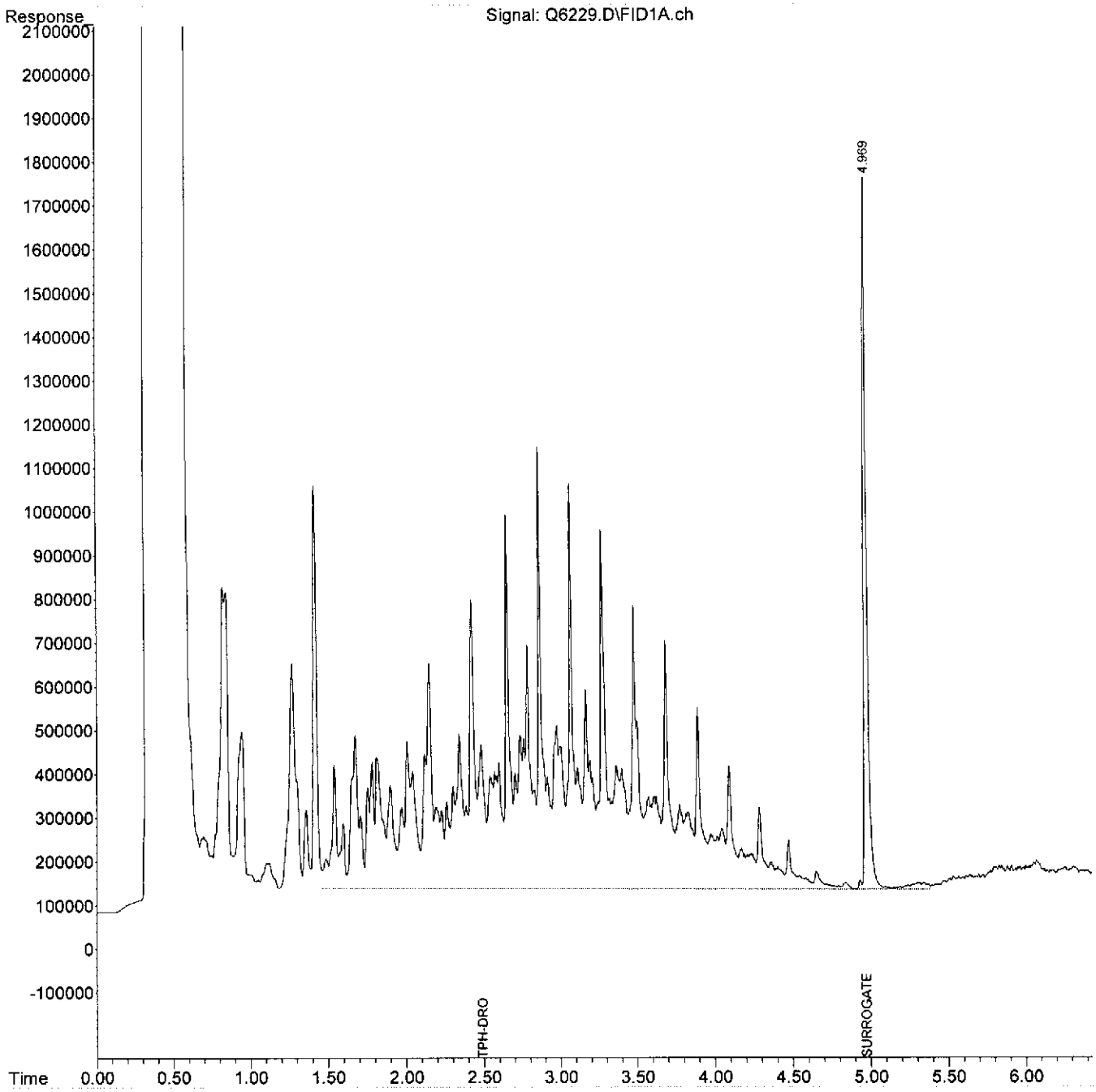
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-08-10\
Data File : Q6229.D
Signal(s) : FID1A.ch
Acq On : 8 Jan 10 4:19 pm
Operator : TB
Sample : DRO/GRO_IAS_3472,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 08 17:02:37 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO1210.M
Quant Title :
QLast Update : Fri Jan 08 10:36:06 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC/PA
Address:	2034 E. Wellington Rd.
	Newtown PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	D. Kotz
Sampler:	M. Brogan
Project Name:	Palmer
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC/PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC/PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE
DRO (3-5 day TAT) QAM025 (5 day TAT min.)
DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax 2 wk/Std
24 hr* 48 hr* 72 hr* 1 wk*
Hard Copy 3 wk/Std
Other *call for price

Results needed by: STD
STD

Rush TAT Charge **: 24 hr - 100%... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only (Reduced) Regulatory - 15% Surcharge applies Other (describe)

EDD's: SRP. dbf format (circled) SRP.wk1 format lab approved custom EDD NO EDD/CD REQ'D

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

ANALYTICAL PARAMETERS

Cooler Temp 4 °C

BOTTLES & PRESERVATIVES

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	DRO	PAH	HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
L1	3-3.5	12/16/09	1:00	S	1	1	✓	*								
L2	2.33-2.83		1:05		1	2	✓	*								
L3	2.92-3.42		1:10		1	3	✓	*								
L4	3.17-3.67		1:15		1	4	✓	*								
L5	2.92-3.42		1:20		1	5	✓	*								
L6	3.92-4.42		1:25		1	6	✓	*								
L7	3.83-4.33		1:30		1	7	✓	*								
L8	2-2.5		1:35		1	8	✓	*								
L9	2.25-2.75		1:40		1	9	✓	*								
L10	3.17-3.67		1:45		1	10	✓	*								

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company
Relinquished by:	12-18-09	9:45	Received by:
Relinquished by:	12/18/09	12:15	Received by:
			Received by:
			Received by:
			Received by:

Comments:
* 1:00

Lab Case # 12828

PAGE: 1 of 3

CLIENT COPY - PINK

0014

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC/PA
Address:	2034 E. Wellington Rd
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	D. KOTZ
Sampler:	M. BROGAN
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC/PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC/PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC - MUST CHOOSE
DRO (3-5 day TAT) QAM025 (5 day TAT min.)
DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax 24 hr* 48 hr* 2 wk/Std 72 hr* 1 wk*
Hard Copy 3 wk/Std
Other *call for price
Results needed by: STD STD

Rush TAT Charge **
24 hr - 100%....
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

EDD's
SRP .dbf format
SRP .wk1 format
lab approved custom EDD
NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

ANALYTICAL PARAMETERS

BOTTLES & PRESERVATIVES

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	DRO	PAH	FINGERPRINT OIL & WAX	HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
L11	4-4.5'	12/16/09	1:50	S	1	11	✓	*									
T1-1	5.5-6'		2:05	S	1	12	✓	*	✓								
T1-2			2:10	S	1	13	✓	*	✓								
T1-3			2:15	S	1	14	✓	*									
T1-4			2:20	S	1	15	✓	*									
T2-1			2:25	S	1	16	✓	*	✓								
T2-2			2:30	S	1	17	✓	*	✓								
T2-3			2:35	S	1	18	✓	*									
T2-4			2:40	S	1	19	✓	*									
L12	1.92-2.42		1:55	S	1	20	✓	*									

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company
Relinquished by:	12-18-09	945	Received by:
Relinquished by:	12/18/09	1215	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:
* HOLD

Lab Case # 12826

PAGE: 2 of 3

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0015

03/2009 rev Ref No: G 20020073

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER	
Company:	PEC/PA
Address:	2034 E. WELLINGTON RD.
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	D. KOTZ
Sampler:	M. BROWN
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC/PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC/PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE
DRO (3-5 day TAT) QAM025 (5 day TAT min.)
SEE BELOW (under comments section for explanation)

Verbal/Fax — 24 hr* 48 hr* 72 hr* 1 wk*
2 wk/Std
Hard Copy
3 wk/Std
Other *call for price
Results needed by: STD

Rush TAT Charge **
24 hr - 100%....
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

DISKETTE
SRP .dbf format
SRP .wk1 format
lab approved custom EDD
NO DISK/CD REQ'D

ANALYTICAL PARAMETERS

Cooler Temp 4 °C

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	DRO	PAH	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
L13	1.92-2.42	12/16/09	2:00	S	1	21	✓	*								
L14	3-3.5	12/17/09	1:50	S	1	22	✓	*								
L15	2.5-3	↓	2:00	S	1	23										

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

MDL Req: Old GWQS - 11/05 GWQS - SCC - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company
Relinquished by:	12-17-09	945	Received by:
Relinquished by:	12/18/09	1205	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:
* 1400

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2
QAM-025 (OQA-QAM025) - used for: all other fuel oils and unknown contamination

Lab Case # 12828

PAGE: 3 of 3

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0019

01/2007 rev

Ref No. G 39660198

PROJECT INFORMATION

E 0 9 - 1 2 8 2 8

Case No. E09-12828 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	NA
Contact	Dick Katz	**Received**	12/18/2009 12:15
EMail	pecinc@aol.com;nagorbm@yaho ☑ EMail EDDs	**Verbal Due**	1/11/2010
Phone	(215) 860-1231 **Fax** 1(215) 860-9988	**Report Due**	1/18/2010

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
12828-001	L1	3 / 3.5	12/16/2009@13:00	Soil	mg/Kg	1
12828-002	L2	2.33 / 2.83	12/16/2009@13:05	Soil	mg/Kg	1
12828-003	L3	2.92 / 3.42	12/16/2009@13:10	Soil	mg/Kg	1
12828-004	L4	3.17 / 3.67	12/16/2009@13:15	Soil	mg/Kg	1
12828-005	L5	2.92 / 3.42	12/16/2009@13:20	Soil	mg/Kg	1
12828-006	L6	3.92 / 4.42	12/16/2009@13:25	Soil	mg/Kg	1
12828-007	L7	3.83 / 4.33	12/16/2009@13:30	Soil	mg/Kg	1
12828-008	L8	2 / 2.5	12/16/2009@13:35	Soil	mg/Kg	1
12828-009	L9	2.25 / 2.75	12/16/2009@13:40	Soil	mg/Kg	1
12828-010	L10	3.17 / 3.67	12/16/2009@13:45	Soil	mg/Kg	1
12828-011	L11	4 / 4.5	12/16/2009@13:50	Soil	mg/Kg	1
12828-012	T1-1	5.5 / 6	12/16/2009@14:05	Soil	mg/Kg	1
12828-013	T1-2	5.5 / 6	12/16/2009@14:10	Soil	mg/Kg	1
12828-014	T1-3	5.5 / 6	12/16/2009@14:15	Soil	mg/Kg	1
12828-015	T1-4	5.5 / 6	12/16/2009@14:20	Soil	mg/Kg	1
12828-016	T2-1	5.5 / 6	12/16/2009@14:25	Soil	mg/Kg	1
12828-017	T2-2	5.5 / 6	12/16/2009@14:30	Soil	mg/Kg	1
12828-018	T2-3	5.5 / 6	12/16/2009@14:35	Soil	mg/Kg	1
12828-019	T2-4	5.5 / 6	12/16/2009@14:40	Soil	mg/Kg	1
12828-020	L12	1.92 / 2.42	12/16/2009@13:55	Soil	mg/Kg	1
12828-021	L13	1.92 / 2.42	12/16/2009@14:00	Soil	mg/Kg	1
12828-022	L14	3 / 3.5	12/17/2009@13:50	Soil	mg/Kg	1
12828-023	L15	2.5 / 3	12/17/2009@14:00	Soil	mg/Kg	1
12828-024	T1-1OIL	5.5 / 6	12/17/2009@14:05	Oil	mg/Kg	
12828-025	T1-2OIL	5.5 / 6	12/17/2009@14:10	Oil	mg/Kg	
12828-026	T2-1OIL	5.5 / 6	12/17/2009@14:25	Oil	mg/Kg	

Sample #	Tests	Status	QA Method
001	PAH	Cancel	8270C

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

January 07, 2010

0017

PROJECT INFORMATION

Case No. E09-12828 **Project** PALMER

Sample #	Tests	Status	QA Method
"	TPH-DRO-72 HR	Complete	8015B M
002	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
003	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
004	PAH	Complete	8270C
"	TPH-DRO-72 HR	Complete	8015B M
005	PAH	Complete	8270C
"	TPH-DRO-72 HR	Complete	8015B M
006	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
007	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
008	PAH	Complete	8270C
"	TPH-DRO-72 HR	Complete	8015B M
009	PAH	Complete	8270C
"	TPH-DRO-72 HR	Complete	8015B M
010	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
011	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
012	PAH	Complete	8270C
"	GC Fingerprint	Complete	8015B M
"	TPH-DRO-72 HR	Complete	8015B M
013	PAH	Cancel	8270C
"	GC Fingerprint	Complete	8015B M
"	TPH-DRO-72 HR	Complete	8015B M
014	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
015	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
016	PAH	Complete	8270C
"	GC Fingerprint	Complete	8015B M
"	TPH-DRO-72 HR	Complete	8015B M
017	PAH	Cancel	8270C
"	GC Fingerprint	Complete	8015B M
"	TPH-DRO-72 HR	Complete	8015B M
018	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
019	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
020	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
021	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
022	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
023	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
024	GC Fingerprint	Run	8015B M

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

PROJECT INFORMATION

E09-12828

Case No. E09-12828 **Project** PALMER

Sample #	Tests	Status	QA Method
025	GC Fingerprint	Run	8015B M
026	GC Fingerprint	Run	8015B M

12/28/2009 13:57 by katie - REV 1

REV due 1/12

As per Mike Brogan, activate PAH for samples 4, 5, 8, 9, 12 and 16. Cancel others on hold.

01/07/2010 12:50 by mark - ADD

ADD1 DUE 1/11/10

ANALYZE OIL LAYER OF SAMPLES #012, 013 & 016 FOR GC FINGERPRINT. SAMPLES LOGGED IN AS SAMPLES #024 - 026

ORIGINAL FAX SENT 1/6/10
HC SENT 1/8/10

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 09** **12828** CLIENT: REC PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE **Comments**

KEY
✓ = YES/NA
✗ = NO

✓	Bottles Intact
✓	no-Missing Bottles
✓	no-Extra Bottles
✓	Sufficient Sample Volume
✓	no-headspace/bubbles in VOs
✓	Labels intact/correct
✓	pH Check (exclude VOs)[1]
✓	Correct bottles/preservative
✓	Sufficient Holding/Prep Time[1]
	Sample to be Subcontracted
✓	**Chain of Custody is Clear**

[1] All samples with "Analyze immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [initials] DATE 12/18/08

CORRECTIVE ACTION REQUIRED: **YES** (SEE BELOW) **NO**

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES Date/ Time: NO

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [initials] DATE 12/18

REV 03/2009

Laboratory Custody Chronicle

IAL Case No.

E09-12828

Client PennJersey Environmental Consulting

Project PALMER

Received On 12/18/2009@12:15

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
PAH	12828-004	Soil	12/30/09	Kou-Liang	12/30/09	JC
"	-005	"	12/30/09	Kou-Liang	12/30/09	JC
"	-008	"	12/30/09	Kou-Liang	12/30/09	JC
"	-009	"	12/30/09	Kou-Liang	12/30/09	JC
"	-012	"	12/30/09	Kou-Liang	12/30/09	JC
"	-016	"	12/30/09	Kou-Liang	12/30/09	JC

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
GC Fingerprint	-012	Soil	12/29/09	Archimede	n/a	Tracy
"	-013	"	12/29/09	Archimede	n/a	Tracy
"	-016	"	12/29/09	Archimede	n/a	Tracy
"	-017	"	12/29/09	Archimede	n/a	Tracy
"	-024	Oil	1/ 8/10	Archimede	n/a	Tracy
"	-025	"	1/ 8/10	Archimede	n/a	Tracy
"	-026	"	1/ 8/10	Archimede	n/a	Tracy
TPH-DRO-72 HR	-001	Soil	12/18/09	Archimede	n/a	Tracy
"	-002	"	12/18/09	Archimede	n/a	Tracy
"	-003	"	12/18/09	Archimede	n/a	Tracy
"	-004	"	12/18/09	Archimede	n/a	Tracy
"	-005	"	12/18/09	Archimede	n/a	Tracy
"	-006	"	12/18/09	Archimede	n/a	Tracy
"	-007	"	12/18/09	Archimede	n/a	Tracy
"	-008	"	12/18/09	Archimede	n/a	Tracy
"	-009	"	12/18/09	Archimede	n/a	Tracy
"	-010	"	12/18/09	Archimede	n/a	Tracy
"	-011	"	12/18/09	Archimede	n/a	Tracy
"	-012	"	12/18/09	Archimede	n/a	Tracy
"	-013	"	12/18/09	Archimede	n/a	Tracy
"	-014	"	12/18/09	Archimede	n/a	Tracy
"	-015	"	12/18/09	Archimede	n/a	Tracy
"	-016	"	12/18/09	Archimede	n/a	Tracy
"	-017	"	12/18/09	Archimede	n/a	Tracy
"	-018	"	12/18/09	Archimede	n/a	Tracy
"	-019	"	12/18/09	Archimede	n/a	Tracy
"	-020	"	12/18/09	Archimede	n/a	Tracy
"	-021	"	12/21/09	Archimede	n/a	Tracy
"	-022	"	12/21/09	Archimede	n/a	Tracy
"	-023	"	12/21/09	Archimede	n/a	Tracy

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E10-00176**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy R QA Program

Sample Summary

IAL Case No.

E10-00176

Client PennJersey Environmental Consulting

Project PALMER

Received On 1/ 7/2010@14:40

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
00176-001	TRIP	n/a	1/ 7/2010	Aqueous	4
00176-002	FIELD	n/a	1/ 7/2010@09:30	Aqueous	4
00176-003	MW11	n/a	1/ 7/2010@09:55	Aqueous	9
00176-004	MW9	n/a	1/ 7/2010@11:20	Aqueous	9
00176-005	MW8	n/a	1/ 7/2010@12:20	Aqueous	9
00176-006	MW10	n/a	1/ 7/2010@13:35	Aqueous	9

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received six (6) aqueous sample(s) from PennJersey Environmental Consulting (Project: PALMER) on January 7, 2010 for the analysis of:

(2) TCL VOA + 10
(4) TCL VO+10
(6) Volatiles Method 8011
(4) TCL BNA+20
(4) Special BN + SIMS
(4) PCB
(4) TCL Pesticides
(4) TAL Metals
(4) Cyanide, Total

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

1/25/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E10-00176

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E10 - 00176

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	GC/MS Tuning Specifications: a. BFB Passed		✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4.	GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5.	GC/MS Calibration Requirements: a. Calibration Check Compounds		na
	b. System Performance Check Compounds		na
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
	If not met, were the calculations checked and the results qualified as "estimated"?		na
8.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		na
9.	Internal Standard Area/Retention Time Shift meet criteria		✓
10.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		na
11.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12.	Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

1/12/10
Date

rev 01/10

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS (Method 8011)

Lab Case Number: E10 - 00176

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		√
2. Standards Summary submitted.		√
3. Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		√
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	√	
5. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		√
6. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		√
7. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		√

Comments:

Organic Manager

01/13/10
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS SEMIVOLATILE ANALYSIS

Lab Case Number: E10 - 176

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. DFTPP Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series.		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
a. B/N Fraction _____		
b. Acid Fraction _____		
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
a. B/N Fraction _____		
b. Acid Fraction _____		
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
a. B/N Fraction _____		
b. Acid Fraction _____		
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
_____		
_____		
11. Analysis Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
_____		
_____		
12. Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

_____

_____

Organics Manager

1/14/10
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS SEMIVOLATILE ANALYSIS

Lab Case Number: E10- 176

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. DFTPP Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series.		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
a. B/N Fraction		
b. Acid Fraction		
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
a. B/N Fraction		
b. Acid Fraction		
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
a. B/N Fraction		
b. Acid Fraction		
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met	✓	
If not met, list number of days exceeded for each sample: Sample 7 → 10 : 8day (Sim only -)		
11. Analysis Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
12. Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

01/25/10
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S

Lab Case Number: E10 - 00176

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. Standards Summary submitted.		✓
3. Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5. Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7. Retention Time Shift Meet Criteria (if applicable).		✓
8. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

01/13/10
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PESTICIDES

Lab Case Number: E10 - 00176

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		V
2. Standards Summary submitted.		V
3. Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		V
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	V	
5. Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		V
6. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		V
7. Retention Time Shift Meet Criteria (if applicable).		V
8. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		V
9. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		V

Comments:

Organic Manager

01/14/10
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
METAL ANALYSIS

Lab Case Number: E10-00176

		No	Yes
1.	Calibration Summary Meet Criteria.		✓
2.	ICP Interference Check Sample Results Meets Criteria (if applicable)		✓
3.	Serial Dilution/Post Spike Summary Submitted (if applicable) / Meets Criteria		✓
4.	Internal Standards Meet Criteria (if applicable)		✓
5.	Laboratory Control Sample Summary Submitted (if applicable) / Meets Criteria		✓
6.	Blank Contamination: If yes, list compounds and concentrations in each blank:	✓	
7.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).		✓
8.	Extraction Holding Time Met. If not, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not, list number of days exceeded for each sample:		✓

Additional Comments:

Sample(s) used for aqueous metals analyses contained varying levels of sediment. Precautions were taken to use an aqueous representative of the sample. However, our experience has demonstrated that samples of this nature are very difficult to duplicate because the metals numbers are basically tied into the level of sediment present in the original sample. Additionally, as the remainder of the sample is stored under acidic conditions, some of the metals may continue to leach out into the water making any reproduction of the original number impossible. The rough amount of sediment present in the samples is as follows:

00176-006: Trace

Wei Cheng
Inorganic Manager

January 13, 2010
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E10-00176

	Lab ID:	00176-001			00176-002			00176-003			00176-004		
	Client ID:	TRIP			FIELD			MW11			MW9		
	Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
	Sampled Date	1/7/10			1/7/10			1/7/10			1/7/10		
PARAMETER(Units)		Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
Volatiles (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Trichlorofluoromethane		ND		1.00	ND		1.00	ND		1.00	0.576	J	1.00
Methyl tert-butyl ether (MTBE)		ND		0.500	ND		0.500	ND		0.500	0.636		0.500
1,1,1-Trichloroethane		ND		0.500	ND		0.500	ND		0.500	1.83		0.500
Trichloroethene		ND		0.500	ND		0.500	0.345	J	0.500	ND		0.500
TOTAL VO's:		ND			ND			0.345	J		3.04	J	
TOTAL TIC's:		ND			ND			ND			ND		
TOTAL VO's & TIC's:		ND			ND			0.345	J		3.04	J	
Volatiles Method 8011 (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
1,2-Dibromoethane (EDB)		ND		0.014	ND		0.014	ND		0.014	ND		0.014
1,2-Dibromo-3-chloropropane		ND		0.014	ND		0.014	ND		0.014	ND		0.014
Semivolatiles - BNA (Units)								*(ug/L-ppb)*			*(ug/L-ppb)*		
TOTAL BNA'S:		~			~			ND			ND		
TOTAL TIC's:		~		~	~		~	12.0			ND		
TOTAL BNA'S & TIC's:		~		~	~		~	12.0			ND		
PCB's (Units)								*(ug/L-ppb)*			*(ug/L-ppb)*		
Aroclor-1016		~		~	~		~	ND		0.050	ND		0.050
Aroclor-1221		~		~	~		~	ND		0.050	ND		0.050
Aroclor-1232		~		~	~		~	ND		0.050	ND		0.050
Aroclor-1242		~		~	~		~	ND		0.050	ND		0.050
Aroclor-1248		~		~	~		~	ND		0.050	ND		0.050
Aroclor-1254		~		~	~		~	ND		0.050	ND		0.050
Aroclor-1260		~		~	~		~	ND		0.050	ND		0.050
Pesticides (Units)								*(ug/L-ppb)*			*(ug/L-ppb)*		
alpha-BHC		~		~	~		~	ND		0.010	ND		0.010
beta-BHC		~		~	~		~	ND		0.010	ND		0.010
gamma-BHC (Lindane)		~		~	~		~	ND		0.010	ND		0.010
delta-BHC		~		~	~		~	ND		0.010	ND		0.010
Heptachlor		~		~	~		~	ND		0.010	ND		0.010
Aldrin		~		~	~		~	ND		0.010	ND		0.010
Heptachlor epoxide		~		~	~		~	ND		0.010	ND		0.010
Endosulfan I		~		~	~		~	ND		0.010	ND		0.010
4,4'-DDE		~		~	~		~	ND		0.010	ND		0.010
Dieldrin		~		~	~		~	ND		0.010	ND		0.010
Endrin		~		~	~		~	ND		0.010	ND		0.010
Endosulfan II		~		~	~		~	ND		0.010	ND		0.010
4,4'-DDD		~		~	~		~	ND		0.010	ND		0.010
Endrin aldehyde		~		~	~		~	ND		0.010	ND		0.010
Endosulfan sulfate		~		~	~		~	ND		0.010	ND		0.010
4,4'-DDT		~		~	~		~	ND		0.010	ND		0.010
Endrin ketone		~		~	~		~	ND		0.010	ND		0.010
Methoxychlor		~		~	~		~	ND		0.010	ND		0.010
alpha-Chlordane		~		~	~		~	ND		0.010	ND		0.010
gamma-Chlordane		~		~	~		~	ND		0.010	ND		0.010
Toxaphene		~		~	~		~	ND		0.125	ND		0.125

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E10-00176

	Lab ID:	00176-001			00176-002			00176-003			00176-004		
	Client ID:	TRIP			FIELD			MW11			MW9		
	Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
	Sampled Date	1/7/10			1/7/10			1/7/10			1/7/10		
PARAMETER(Units)		Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
Metals (Units)								*(ug/L-ppb)*			*(ug/L-ppb)*		
Aluminum		~		~	~		~	204		40.0	ND		40.0
Antimony		~		~	~		~	ND		4.00	ND		4.00
Arsenic		~		~	~		~	ND		2.00	ND		2.00
Barium		~		~	~		~	ND		40.0	148		40.0
Beryllium		~		~	~		~	ND		1.00	ND		1.00
Cadmium		~		~	~		~	ND		1.00	ND		1.00
Calcium		~		~	~		~	8350		200	36300		200
Chromium		~		~	~		~	ND		8.00	ND		8.00
Cobalt		~		~	~		~	ND		8.00	ND		8.00
Copper		~		~	~		~	ND		8.00	ND		8.00
Iron		~		~	~		~	216		100	ND		100
Lead		~		~	~		~	ND		2.00	ND		2.00
Magnesium		~		~	~		~	13300		200	9280		200
Manganese		~		~	~		~	105		4.00	1710		4.00
Mercury		~		~	~		~	ND		0.500	ND		0.500
Nickel		~		~	~		~	ND		4.00	ND		4.00
Potassium		~		~	~		~	10300		200	2610		200
Selenium		~		~	~		~	ND		8.00	ND		8.00
Silver		~		~	~		~	ND		2.00	ND		2.00
Sodium		~		~	~		~	215000		400	23100		400
Thallium		~		~	~		~	ND		1.00	ND		1.00
Vanadium		~		~	~		~	ND		8.00	ND		8.00
Zinc		~		~	~		~	35.3		8.00	152		8.00
General Analytical (Units)													
Cyanide, Total(ug/L-ppb)		~		~	~		~	ND		20.0	ND		20.0

	Lab ID:	00176-005			00176-006			00176-007			00176-008		
	Client ID:	MW8			MW10			MW11-SIM			MW9-SIM		
	Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
	Sampled Date	1/7/10			1/7/10			1/7/10			1/7/10		
PARAMETER(Units)		Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
Volatiles (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*								
Acetone		ND		1.00	2.17		1.00	~		~	~		~
Methyl tert-butyl ether (MTBE)		11.1		0.500	ND		0.500	~		~	~		~
1,1-Dichloroethane		0.315	J	0.500	ND		0.500	~		~	~		~
cis-1,2-Dichloroethene		0.678		0.500	ND		0.500	~		~	~		~
Isopropylbenzene		ND		0.500	6.40		0.500	~		~	~		~
Cyclohexane		ND		0.500	2.26		0.500	~		~	~		~
Methylcyclohexane		ND		0.500	8.40		0.500	~		~	~		~
TOTAL VO's:		12.1	J		19.2								
TOTAL TIC's:		4.30			524			~		~	~		~
TOTAL VO's & TIC's:		16.4	J		543			~		~	~		~
Volatiles Method 8011 (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*								
1,2-Dibromoethane (EDB)		ND		0.014	ND		0.014	~		~	~		~
1,2-Dibromo-3-chloropropane		ND		0.014	ND		0.014	~		~	~		~

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E10-00176

Lab ID:	00176-005			00176-006			00176-007			00176-008		
Client ID:	MW8			MW10			MW11-SIM			MW9-SIM		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date:	1/7/10			1/7/10			1/7/10			1/7/10		
PARAMETER(Units)	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
Semivolatiles - BNA (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*								
Naphthalene	ND		1.00	0.790	J	1.00	~		~	~		~
2-Methylnaphthalene	ND		1.00	71.9		1.00	~		~	~		~
Acenaphthylene	ND		1.00	0.896	J	1.00	~		~	~		~
Acenaphthene	ND		1.00	4.42		1.00	~		~	~		~
Fluorene	ND		1.00	6.81		1.00	~		~	~		~
Phenanthrene	ND		1.00	7.58		1.00	~		~	~		~
TOTAL BNA'S:	ND			92.4	J							
TOTAL TIC's:	16.2			357			~		~	~		~
TOTAL BNA'S & TIC's:	16.2			449	J		~		~	~		~
Semivolatiles - BN Special List (Units)							*(ug/L-ppb)*			*(ug/L-ppb)*		
Hexachlorobenzene	~		~	~		~	ND		0.020	ND		0.020
Benzo[a]anthracene	~		~	~		~	ND		0.100	ND		0.100
Benzo[b]fluoranthene	~		~	~		~	ND		0.100	ND		0.100
Benzo[k]fluoranthene	~		~	~		~	ND		0.100	ND		0.100
Benzo[a]pyrene	~		~	~		~	ND		0.100	ND		0.100
Indeno[1,2,3-cd]pyrene	~		~	~		~	ND		0.100	ND		0.100
Dibenz[a,h]anthracene	~		~	~		~	ND		0.100	ND		0.100
PCB's (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*								
Aroclor-1016	ND		0.050	ND		0.050	~		~	~		~
Aroclor-1221	ND		0.050	ND		0.050	~		~	~		~
Aroclor-1232	ND		0.050	ND		0.050	~		~	~		~
Aroclor-1242	ND		0.050	ND		0.050	~		~	~		~
Aroclor-1248	ND		0.050	ND		0.050	~		~	~		~
Aroclor-1254	ND		0.050	ND		0.050	~		~	~		~
Aroclor-1260	ND		0.050	ND		0.050	~		~	~		~
Pesticides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*								
alpha-BHC	ND		0.010	ND		0.010	~		~	~		~
beta-BHC	0.015		0.010	ND		0.010	~		~	~		~
gamma-BHC (Lindane)	ND		0.010	ND		0.010	~		~	~		~
delta-BHC	ND		0.010	ND		0.010	~		~	~		~
Heptachlor	ND		0.010	ND		0.010	~		~	~		~
Aldrin	ND		0.010	ND		0.010	~		~	~		~
Heptachlor epoxide	ND		0.010	ND		0.010	~		~	~		~
Endosulfan I	ND		0.010	ND		0.010	~		~	~		~
4,4'-DDE	ND		0.010	ND		0.010	~		~	~		~
Dieldrin	ND		0.010	ND		0.010	~		~	~		~
Endrin	ND		0.010	ND		0.010	~		~	~		~
Endosulfan II	ND		0.010	ND		0.010	~		~	~		~
4,4'-DDD	ND		0.010	ND		0.010	~		~	~		~
Endrin aldehyde	ND		0.010	ND		0.010	~		~	~		~
Endosulfan sulfate	ND		0.010	ND		0.010	~		~	~		~
4,4'-DDT	ND		0.010	ND		0.010	~		~	~		~
Endrin ketone	ND		0.010	ND		0.010	~		~	~		~
Methoxychlor	ND		0.010	ND		0.010	~		~	~		~
alpha-Chlordane	ND		0.010	ND		0.010	~		~	~		~
gamma-Chlordane	ND		0.010	ND		0.010	~		~	~		~
Toxaphene	ND		0.125	ND		0.125	~		~	~		~

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E10-00176

	Lab ID:	00176-005			00176-006			00176-007			00176-008		
	Client ID:	MW8			MW10			MW11-SIM			MW9-SIM		
	Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
	Sampled Date	1/7/10			1/7/10			1/7/10			1/7/10		
PARAMETER(Units)		Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
Metals (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*								
Aluminum		149		40.0	284		40.0	~		~	~		~
Antimony		ND		4.00	ND		4.00	~		~	~		~
Arsenic		ND		2.00	2.18		2.00	~		~	~		~
Barium		54.2		40.0	128		40.0	~		~	~		~
Beryllium		ND		1.00	ND		1.00	~		~	~		~
Cadmium		ND		1.00	ND		1.00	~		~	~		~
Calcium		107000		200	81200		200	~		~	~		~
Chromium		ND		8.00	ND		8.00	~		~	~		~
Cobalt		ND		8.00	ND		8.00	~		~	~		~
Copper		ND		8.00	ND		8.00	~		~	~		~
Iron		859		100	15300		100	~		~	~		~
Lead		6.88		2.00	ND		2.00	~		~	~		~
Magnesium		17800		200	22600		200	~		~	~		~
Manganese		2690		4.00	6370		4.00	~		~	~		~
Mercury		ND		0.500	ND		0.500	~		~	~		~
Nickel		ND		4.00	ND		4.00	~		~	~		~
Potassium		8380		200	8410		200	~		~	~		~
Selenium		ND		8.00	ND		8.00	~		~	~		~
Silver		ND		2.00	ND		2.00	~		~	~		~
Sodium		48300		400	26200		400	~		~	~		~
Thallium		ND		1.00	ND		1.00	~		~	~		~
Vanadium		ND		8.00	ND		8.00	~		~	~		~
Zinc		19.5		8.00	59.9		8.00	~		~	~		~
General Analytical (Units)													
Cyanide, Total(ug/L-ppb)		ND		20.0	ND		20.0	~		~	~		~

	Lab ID:	00176-009			00176-010		
	Client ID:	MW8-SIM			MW10-SIM		
	Matrix:	Aqueous			Aqueous		
	Sampled Date	1/7/10			1/7/10		
PARAMETER(Units)		Conc	Q	RL	Conc	Q	RL
Semivolatiles - BN Special List (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*		
Hexachlorobenzene		ND		0.020	ND		0.020
Benzo[a]anthracene		ND		0.100	ND		0.100
Benzo[b]fluoranthene		ND		0.100	ND		0.100
Benzo[k]fluoranthene		ND		0.100	ND		0.100
Benzo[a]pyrene		ND		0.100	ND		0.100
Indeno[1,2,3-cd]pyrene		ND		0.100	ND		0.100
Dibenz[a,h]anthracene		ND		0.100	ND		0.100

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-001
Client ID: TRIP
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0716.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.490
Chloromethane	ND		0.500	0.410
Vinyl chloride	ND		1.00	0.630
Bromomethane	ND		0.500	0.440
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		1.00	0.520
1,1-Dichloroethene	ND		0.500	0.440
Acetone	ND		1.00	0.920
Carbon disulfide	ND		0.500	0.430
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		0.500	0.380
Methyl tert-butyl ether (MTBE)	ND		0.500	0.110
1,1-Dichloroethane	ND		0.500	0.310
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	ND		0.500	0.360
Bromochloromethane	ND		0.500	0.250
Chloroform	ND		0.500	0.290
1,1,1-Trichloroethane	ND		0.500	0.370
Carbon tetrachloride	ND		0.500	0.330
1,2-Dichloroethane (EDC)	ND		0.500	0.240
Benzene	ND		0.500	0.280
Trichloroethene	ND		0.500	0.320
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.150
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.170

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-001
Client ID: TRIP
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0716.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.240
trans-1,3-Dichloropropene	ND		0.500	0.120
1,1,2-Trichloroethane	ND		0.500	0.170
Tetrachloroethene	ND		0.500	0.320
2-Hexanone	ND		0.500	0.150
Dibromochloromethane	ND		0.500	0.120
Chlorobenzene	ND		0.500	0.230
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.700
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.140
Isopropylbenzene	ND		0.500	0.270
1,1,2,2-Tetrachloroethane	ND		0.500	0.200
1,3-Dichlorobenzene	ND		0.500	0.150
1,4-Dichlorobenzene	ND		0.500	0.150
1,2-Dichlorobenzene	ND		0.500	0.190
1,2,4-Trichlorobenzene	ND		0.500	0.250
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.580
Methyl acetate	ND		1.00	0.930
Cyclohexane	ND		0.500	0.490
Methylcyclohexane	ND		0.500	0.460

Total Target Compounds: 0

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-001
Client ID: TRIP
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0716.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-002
Client ID: FIELD
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0717.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.490
Chloromethane	ND		0.500	0.410
Vinyl chloride	ND		1.00	0.630
Bromomethane	ND		0.500	0.440
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		1.00	0.520
1,1-Dichloroethene	ND		0.500	0.440
Acetone	ND		1.00	0.920
Carbon disulfide	ND		0.500	0.430
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		0.500	0.380
Methyl tert-butyl ether (MTBE)	ND		0.500	0.110
1,1-Dichloroethane	ND		0.500	0.310
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	ND		0.500	0.360
Bromochloromethane	ND		0.500	0.250
Chloroform	ND		0.500	0.290
1,1,1-Trichloroethane	ND		0.500	0.370
Carbon tetrachloride	ND		0.500	0.330
1,2-Dichloroethane (EDC)	ND		0.500	0.240
Benzene	ND		0.500	0.280
Trichloroethene	ND		0.500	0.320
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.150
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.170

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-002
Client ID: FIELD
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0717.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.240
trans-1,3-Dichloropropene	ND		0.500	0.120
1,1,2-Trichloroethane	ND		0.500	0.170
Tetrachloroethene	ND		0.500	0.320
2-Hexanone	ND		0.500	0.150
Dibromochloromethane	ND		0.500	0.120
Chlorobenzene	ND		0.500	0.230
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.700
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.140
Isopropylbenzene	ND		0.500	0.270
1,1,2,2-Tetrachloroethane	ND		0.500	0.200
1,3-Dichlorobenzene	ND		0.500	0.150
1,4-Dichlorobenzene	ND		0.500	0.150
1,2-Dichlorobenzene	ND		0.500	0.190
1,2,4-Trichlorobenzene	ND		0.500	0.250
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.580
Methyl acetate	ND		1.00	0.930
Cyclohexane	ND		0.500	0.490
Methylcyclohexane	ND		0.500	0.460

Total Target Compounds: 0

0019

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-002
Client ID: FIELD
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0717.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-003
Client ID: MW11
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0718.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.490
Chloromethane	ND		0.500	0.410
Vinyl chloride	ND		1.00	0.630
Bromomethane	ND		0.500	0.440
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		1.00	0.520
1,1-Dichloroethene	ND		0.500	0.440
Acetone	ND		1.00	0.920
Carbon disulfide	ND		0.500	0.430
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		0.500	0.380
Methyl tert-butyl ether (MTBE)	ND		0.500	0.110
1,1-Dichloroethane	ND		0.500	0.310
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	ND		0.500	0.360
Bromochloromethane	ND		0.500	0.250
Chloroform	ND		0.500	0.290
1,1,1-Trichloroethane	ND		0.500	0.370
Carbon tetrachloride	ND		0.500	0.330
1,2-Dichloroethane (EDC)	ND		0.500	0.240
Benzene	ND		0.500	0.280
Trichloroethene	0.345	J	0.500	0.320
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.150
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.170

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-003
Client ID: MW11
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0718.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.240
trans-1,3-Dichloropropene	ND		0.500	0.120
1,1,2-Trichloroethane	ND		0.500	0.170
Tetrachloroethene	ND		0.500	0.320
2-Hexanone	ND		0.500	0.150
Dibromochloromethane	ND		0.500	0.120
Chlorobenzene	ND		0.500	0.230
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.700
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.140
Isopropylbenzene	ND		0.500	0.270
1,1,2,2-Tetrachloroethane	ND		0.500	0.200
1,3-Dichlorobenzene	ND		0.500	0.150
1,4-Dichlorobenzene	ND		0.500	0.150
1,2-Dichlorobenzene	ND		0.500	0.190
1,2,4-Trichlorobenzene	ND		0.500	0.250
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.580
Methyl acetate	ND		1.00	0.930
Cyclohexane	ND		0.500	0.490
Methylcyclohexane	ND		0.500	0.460

Total Target Compounds: 0.345 J

0022

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-003
Client ID: MW11
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0718.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-004
Client ID: MW9
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0719.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.490
Chloromethane	ND		0.500	0.410
Vinyl chloride	ND		1.00	0.630
Bromomethane	ND		0.500	0.440
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	0.576	J	1.00	0.520
1,1-Dichloroethene	ND		0.500	0.440
Acetone	ND		1.00	0.920
Carbon disulfide	ND		0.500	0.430
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		0.500	0.380
Methyl tert-butyl ether (MTBE)	0.636		0.500	0.110
1,1-Dichloroethane	ND		0.500	0.310
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	ND		0.500	0.360
Bromochloromethane	ND		0.500	0.250
Chloroform	ND		0.500	0.290
1,1,1-Trichloroethane	1.83		0.500	0.370
Carbon tetrachloride	ND		0.500	0.330
1,2-Dichloroethane (EDC)	ND		0.500	0.240
Benzene	ND		0.500	0.280
Trichloroethene	ND		0.500	0.320
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.150
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.170

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-004
Client ID: MW9
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0719.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.240
trans-1,3-Dichloropropene	ND		0.500	0.120
1,1,2-Trichloroethane	ND		0.500	0.170
Tetrachloroethene	ND		0.500	0.320
2-Hexanone	ND		0.500	0.150
Dibromochloromethane	ND		0.500	0.120
Chlorobenzene	ND		0.500	0.230
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.700
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.140
Isopropylbenzene	ND		0.500	0.270
1,1,2,2-Tetrachloroethane	ND		0.500	0.200
1,3-Dichlorobenzene	ND		0.500	0.150
1,4-Dichlorobenzene	ND		0.500	0.150
1,2-Dichlorobenzene	ND		0.500	0.190
1,2,4-Trichlorobenzene	ND		0.500	0.250
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.580
Methyl acetate	ND		1.00	0.930
Cyclohexane	ND		0.500	0.490
Methylcyclohexane	ND		0.500	0.460
Total Target Compounds:	3.04	J		

0025

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-004
Client ID: MW9
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0719.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-005
Client ID: MW8
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0720.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.490
Chloromethane	ND		0.500	0.410
Vinyl chloride	ND		1.00	0.630
Bromomethane	ND		0.500	0.440
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		1.00	0.520
1,1-Dichloroethene	ND		0.500	0.440
Acetone	ND		1.00	0.920
Carbon disulfide	ND		0.500	0.430
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		0.500	0.380
Methyl tert-butyl ether (MTBE)	11.1		0.500	0.110
1,1-Dichloroethane	0.315	J	0.500	0.310
cis-1,2-Dichloroethene	0.678		0.500	0.190
2-Butanone (MEK)	ND		0.500	0.360
Bromochloromethane	ND		0.500	0.250
Chloroform	ND		0.500	0.290
1,1,1-Trichloroethane	ND		0.500	0.370
Carbon tetrachloride	ND		0.500	0.330
1,2-Dichloroethane (EDC)	ND		0.500	0.240
Benzene	ND		0.500	0.280
Trichloroethene	ND		0.500	0.320
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.150
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.170

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-005
Client ID: MW8
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0720.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.240
trans-1,3-Dichloropropene	ND		0.500	0.120
1,1,2-Trichloroethane	ND		0.500	0.170
Tetrachloroethene	ND		0.500	0.320
2-Hexanone	ND		0.500	0.150
Dibromochloromethane	ND		0.500	0.120
Chlorobenzene	ND		0.500	0.230
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.700
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.140
Isopropylbenzene	ND		0.500	0.270
1,1,2,2-Tetrachloroethane	ND		0.500	0.200
1,3-Dichlorobenzene	ND		0.500	0.150
1,4-Dichlorobenzene	ND		0.500	0.150
1,2-Dichlorobenzene	ND		0.500	0.190
1,2,4-Trichlorobenzene	ND		0.500	0.250
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.580
Methyl acetate	ND		1.00	0.930
Cyclohexane	ND		0.500	0.490
Methylcyclohexane	ND		0.500	0.460
Total Target Compounds:	12.1	J		

0028

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-005
Client ID: MW8
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Date File: E0720.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	4.30	17.58

Total TICs = 4.30

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-006
Client ID: MW10
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0721.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.490
Chloromethane	ND		0.500	0.410
Vinyl chloride	ND		1.00	0.630
Bromomethane	ND		0.500	0.440
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		1.00	0.520
1,1-Dichloroethene	ND		0.500	0.440
Acetone	2.17		1.00	0.920
Carbon disulfide	ND		0.500	0.430
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		0.500	0.380
Methyl tert-butyl ether (MTBE)	ND		0.500	0.110
1,1-Dichloroethane	ND		0.500	0.310
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	ND		0.500	0.360
Bromochloromethane	ND		0.500	0.250
Chloroform	ND		0.500	0.290
1,1,1-Trichloroethane	ND		0.500	0.370
Carbon tetrachloride	ND		0.500	0.330
1,2-Dichloroethane (EDC)	ND		0.500	0.240
Benzene	ND		0.500	0.280
Trichloroethene	ND		0.500	0.320
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.150
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.170

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-006
Client ID: MW10
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Data file: E0721.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.240
trans-1,3-Dichloropropene	ND		0.500	0.120
1,1,2-Trichloroethane	ND		0.500	0.170
Tetrachloroethene	ND		0.500	0.320
2-Hexanone	ND		0.500	0.150
Dibromochloromethane	ND		0.500	0.120
Chlorobenzene	ND		0.500	0.230
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.700
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.140
Isopropylbenzene	6.40		0.500	0.270
1,1,2,2-Tetrachloroethane	ND		0.500	0.200
1,3-Dichlorobenzene	ND		0.500	0.150
1,4-Dichlorobenzene	ND		0.500	0.150
1,2-Dichlorobenzene	ND		0.500	0.190
1,2,4-Trichlorobenzene	ND		0.500	0.250
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.580
Methyl acetate	ND		1.00	0.930
Cyclohexane	2.26		0.500	0.490
Methylcyclohexane	8.40		0.500	0.460

Total Target Compounds: 19.2

0031

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-006
Client ID: MW10
Date Received: 01/07/2010
Date Analyzed: 01/11/2010
Date File: E0721.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	29.7	14.49
	Unknown aromatic	26.6	14.64
	Unknown aromatic	76.2	15.48
	Unknown aromatic	29.7	15.99
	Unknown aromatic	62.8	16.75
	Unknown aromatic	36.3	17.11
	Unknown aromatic	103	17.36
	Unknown aromatic	85.6	17.58
	Unknown aromatic	38.2	18.69
	Unknown aromatic	35.7	18.92

Total TICs = 524

INTEGRATED ANALYTICAL LABORATORIES

VOLATILES by 8011

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-001
Client ID: TRIP
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: P6241.D

GC Column GC Column: DB-5/DB1701P
Sample wt/\ Sample wt/vol: 35ml
Matrix-Unit Matrix-Units: Aqueous-µg/L (ppb)
Dilution Fa(Dilution Factor: 1
% Moisture % Moisture: 100

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00855
1,2-Dibromo-3-chloropropane	ND		0.014	0.00855

INTEGRATED ANALYTICAL LABORATORIES

VOLATILES by 8011

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-002
Client ID: FIELD
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: P6242.D

GC Column GC Column: DB-5/DB1701P
Sample wt/v Sample wt/vol: 35ml
Matrix-Unit Matrix-Units: Aqueous-µg/L (ppb)
Dilution Fac Dilution Factor: 1
% Moisture % Moisture: 100

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00855
1,2-Dibromo-3-chloropropane	ND		0.014	0.00855

INTEGRATED ANALYTICAL LABORATORIES

VOLATILES by 8011

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-003
Client ID: MW11
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: P6243.D

GC Column GC Column: DB-5/DB1701P
Sample wt/v Sample wt/vol: 35ml
Matrix-Unit Matrix-Units: Aqueous-µg/L (ppb)
Dilution Fa Dilution Factor: 1
% Moisture % Moisture: 100

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00855
1,2-Dibromo-3-chloropropane	ND		0.014	0.00855

INTEGRATED ANALYTICAL LABORATORIES

VOLATILES by 8011

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-004
Client ID: MW9
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: P6244.D

GC Column GC Column: DB-5/DB1701P
Sample wt/\ Sample wt/vol: 35ml
Matrix-Unit Matrix-Units: Aqueous-µg/L (ppb)
Dilution Fac Dilution Factor: 1
% Moisture % Moisture: 100

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00855
1,2-Dibromo-3-chloropropane	ND		0.014	0.00855

INTEGRATED ANALYTICAL LABORATORIES

VOLATILES by 8011

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-005
Client ID: MW8
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: P6245.D

GC Column GC Column: DB-5/DB1701P
Sample wt/\ Sample wt/vol: 35ml
Matrix-Unit Matrix-Units: Aqueous-µg/L (ppb)
Dilution Fa(Dilution Factor: 1
% Moisture % Moisture: 100

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00855
1,2-Dibromo-3-chloropropane	ND		0.014	0.00855

INTEGRATED ANALYTICAL LABORATORIES

VOLATILES by 8011

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-006
Client ID: MW10
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: P6246.D

GC Column GC Column: DB-5/DB1701P
Sample wt/\ Sample wt/vol: 35ml
Matrix-Unit Matrix-Units: Aqueous-µg/L (ppb)
Dilution Fa(Dilution Factor: 1
% Moisture % Moisture: 100

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00855
1,2-Dibromo-3-chloropropane	ND		0.014	0.00855

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-003
Client ID: MW11
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9040.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.170
Phenol	ND		1.00	0.120
Bis(2-chloroethyl) ether	ND		1.00	0.150
2-Chlorophenol	ND		1.00	0.120
2-Methylphenol	ND		1.00	0.510
Bis(2-chloroisopropyl) ether	ND		1.00	0.080
4-Methylphenol	ND		1.00	0.160
N-Nitrosodi-n-propylamine	ND		1.00	0.250
Acetophenone	ND		1.00	0.220
Hexachloroethane	ND		1.00	0.240
Nitrobenzene	ND		1.00	0.180
Isophorone	ND		1.00	0.150
2-Nitrophenol	ND		1.00	0.240
2,4-Dimethylphenol	ND		1.00	0.170
Bis(2-chloroethoxy) methane	ND		1.00	0.130
2,4-Dichlorophenol	ND		1.00	0.130
Naphthalene	ND		1.00	0.110
4-Chloroaniline	ND		1.00	0.110
Hexachlorobutadiene	ND		1.00	0.360
Caprolactam	ND		1.00	0.150
4-Chloro-3-methylphenol	ND		1.00	0.180
2-Methylnaphthalene	ND		1.00	0.124
Hexachlorocyclopentadiene	ND		1.00	0.270
2,4,6-Trichlorophenol	ND		1.00	0.150
2,4,5-Trichlorophenol	ND		1.00	0.120
1,1'-Biphenyl	ND		1.00	0.170
2-Chloronaphthalene	ND		1.00	0.150
2-Nitroaniline	ND		1.00	0.170
Dimethyl phthalate	ND		1.00	0.130

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-003
Client ID: MW11
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9040.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.200
Acenaphthylene	ND		1.00	0.111
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.163
2,4-Dinitrophenol	ND		1.00	0.270
4-Nitrophenol	ND		1.00	0.250
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.160
Fluorene	ND		1.00	0.149
4-Chlorophenyl phenyl ether	ND		1.00	0.160
4-Nitroaniline	ND		1.00	0.230
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.140
4,6-Dinitro-2-methylphenol	ND		1.00	0.130
N-Nitrosodiphenylamine	ND		1.00	0.090
4-Bromophenyl phenyl ether	ND		1.00	0.270
Hexachlorobenzene	ND		1.00	0.240
Atrazine	ND		1.00	0.240
Pentachlorophenol	ND		1.00	0.220
Phenanthrene	ND		1.00	0.176
Anthracene	ND		1.00	0.150
Carbazole	ND		1.00	0.120
Di-n-butyl phthalate	ND		1.00	0.120
Fluoranthene	ND		1.00	0.126
Pyrene	ND		1.00	0.115
Butyl benzyl phthalate	ND		1.00	0.220
3,3'-Dichlorobenzidine	ND		3.00	0.190
Benzo[a]anthracene	ND		1.00	0.110
Chrysene	ND		1.00	0.144
Bis(2-ethylhexyl) phthalate	ND		1.00	0.410
Di-n-octyl phthalate	ND		1.00	0.160
Benzo[b]fluoranthene	ND		1.00	0.210
Benzo[k]fluoranthene	ND		1.00	0.270
Benzo[a]pyrene	ND		1.00	0.130
Indeno[1,2,3-cd]pyrene	ND		1.00	0.220
Dibenz[a,h]anthracene	ND		1.00	0.180
Benzo[g,h,i]perylene	ND		1.00	0.186

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-003
Client ID: MW11
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Date File: A9040.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	7.90	1.65
	Substituted benzene	4.10	4.68

Total TICs = 12.0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-004
Client ID: MW9
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9041.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.170
Phenol	ND		1.00	0.120
Bis(2-chloroethyl) ether	ND		1.00	0.150
2-Chlorophenol	ND		1.00	0.120
2-Methylphenol	ND		1.00	0.510
Bis(2-chloroisopropyl) ether	ND		1.00	0.080
4-Methylphenol	ND		1.00	0.160
N-Nitrosodi-n-propylamine	ND		1.00	0.250
Acetophenone	ND		1.00	0.220
Hexachloroethane	ND		1.00	0.240
Nitrobenzene	ND		1.00	0.180
Isophorone	ND		1.00	0.150
2-Nitrophenol	ND		1.00	0.240
2,4-Dimethylphenol	ND		1.00	0.170
Bis(2-chloroethoxy) methane	ND		1.00	0.130
2,4-Dichlorophenol	ND		1.00	0.130
Naphthalene	ND		1.00	0.110
4-Chloroaniline	ND		1.00	0.110
Hexachlorobutadiene	ND		1.00	0.360
Caprolactam	ND		1.00	0.150
4-Chloro-3-methylphenol	ND		1.00	0.180
2-Methylnaphthalene	ND		1.00	0.124
Hexachlorocyclopentadiene	ND		1.00	0.270
2,4,6-Trichlorophenol	ND		1.00	0.150
2,4,5-Trichlorophenol	ND		1.00	0.120
1,1'-Biphenyl	ND		1.00	0.170
2-Chloronaphthalene	ND		1.00	0.150
2-Nitroaniline	ND		1.00	0.170
Dimethyl phthalate	ND		1.00	0.130

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-004
Client ID: MW9
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9041.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.200
Acenaphthylene	ND		1.00	0.111
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.163
2,4-Dinitrophenol	ND		1.00	0.270
4-Nitrophenol	ND		1.00	0.250
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.160
Fluorene	ND		1.00	0.149
4-Chlorophenyl phenyl ether	ND		1.00	0.160
4-Nitroaniline	ND		1.00	0.230
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.140
4,6-Dinitro-2-methylphenol	ND		1.00	0.130
N-Nitrosodiphenylamine	ND		1.00	0.090
4-Bromophenyl phenyl ether	ND		1.00	0.270
Hexachlorobenzene	ND		1.00	0.240
Atrazine	ND		1.00	0.240
Pentachlorophenol	ND		1.00	0.220
Phenanthrene	ND		1.00	0.176
Anthracene	ND		1.00	0.150
Carbazole	ND		1.00	0.120
Di-n-butyl phthalate	ND		1.00	0.120
Fluoranthene	ND		1.00	0.126
Pyrene	ND		1.00	0.115
Butyl benzyl phthalate	ND		1.00	0.220
3,3'-Dichlorobenzidine	ND		3.00	0.190
Benzo[a]anthracene	ND		1.00	0.110
Chrysene	ND		1.00	0.144
Bis(2-ethylhexyl) phthalate	ND		1.00	0.410
Di-n-octyl phthalate	ND		1.00	0.160
Benzo[b]fluoranthene	ND		1.00	0.210
Benzo[k]fluoranthene	ND		1.00	0.270
Benzo[a]pyrene	ND		1.00	0.130
Indeno[1,2,3-cd]pyrene	ND		1.00	0.220
Dibenz[a,h]anthracene	ND		1.00	0.180
Benzo[g,h,i]perylene	ND		1.00	0.186

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-004
Client ID: MW9
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9041.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-005
Client ID: MW8
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9042.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.170
Phenol	ND		1.00	0.120
Bis(2-chloroethyl) ether	ND		1.00	0.150
2-Chlorophenol	ND		1.00	0.120
2-Methylphenol	ND		1.00	0.510
Bis(2-chloroisopropyl) ether	ND		1.00	0.080
4-Methylphenol	ND		1.00	0.160
N-Nitrosodi-n-propylamine	ND		1.00	0.250
Acetophenone	ND		1.00	0.220
Hexachloroethane	ND		1.00	0.240
Nitrobenzene	ND		1.00	0.180
Isophorone	ND		1.00	0.150
2-Nitrophenol	ND		1.00	0.240
2,4-Dimethylphenol	ND		1.00	0.170
Bis(2-chloroethoxy) methane	ND		1.00	0.130
2,4-Dichlorophenol	ND		1.00	0.130
Naphthalene	ND		1.00	0.110
4-Chloroaniline	ND		1.00	0.110
Hexachlorobutadiene	ND		1.00	0.360
Caprolactam	ND		1.00	0.150
4-Chloro-3-methylphenol	ND		1.00	0.180
2-Methylnaphthalene	ND		1.00	0.124
Hexachlorocyclopentadiene	ND		1.00	0.270
2,4,6-Trichlorophenol	ND		1.00	0.150
2,4,5-Trichlorophenol	ND		1.00	0.120
1,1'-Biphenyl	ND		1.00	0.170
2-Chloronaphthalene	ND		1.00	0.150
2-Nitroaniline	ND		1.00	0.170
Dimethyl phthalate	ND		1.00	0.130

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-005
Client ID: MW8
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9042.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.200
Acenaphthylene	ND		1.00	0.111
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.163
2,4-Dinitrophenol	ND		1.00	0.270
4-Nitrophenol	ND		1.00	0.250
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.160
Fluorene	ND		1.00	0.149
4-Chlorophenyl phenyl ether	ND		1.00	0.160
4-Nitroaniline	ND		1.00	0.230
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.140
4,6-Dinitro-2-methylphenol	ND		1.00	0.130
N-Nitrosodiphenylamine	ND		1.00	0.090
4-Bromophenyl phenyl ether	ND		1.00	0.270
Hexachlorobenzene	ND		1.00	0.240
Atrazine	ND		1.00	0.240
Pentachlorophenol	ND		1.00	0.220
Phenanthrene	ND		1.00	0.176
Anthracene	ND		1.00	0.150
Carbazole	ND		1.00	0.120
Di-n-butyl phthalate	ND		1.00	0.120
Fluoranthene	ND		1.00	0.126
Pyrene	ND		1.00	0.115
Butyl benzyl phthalate	ND		1.00	0.220
3,3'-Dichlorobenzidine	ND		3.00	0.190
Benzo[a]anthracene	ND		1.00	0.110
Chrysene	ND		1.00	0.144
Bis(2-ethylhexyl) phthalate	ND		1.00	0.410
Di-n-octyl phthalate	ND		1.00	0.160
Benzo[b]fluoranthene	ND		1.00	0.210
Benzo[k]fluoranthene	ND		1.00	0.270
Benzo[a]pyrene	ND		1.00	0.130
Indeno[1,2,3-cd]pyrene	ND		1.00	0.220
Dibenz[a,h]anthracene	ND		1.00	0.180
Benzo[g,h,i]perylene	ND		1.00	0.186

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-005
Client ID: MW8
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Date File: A9042.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown	6.90	4.85
	Unknown	9.30	5.46

Total TICs = 16.2

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-006
Client ID: MW10
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9043.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.170
Phenol	ND		1.00	0.120
Bis(2-chloroethyl) ether	ND		1.00	0.150
2-Chlorophenol	ND		1.00	0.120
2-Methylphenol	ND		1.00	0.510
Bis(2-chloroisopropyl) ether	ND		1.00	0.080
4-Methylphenol	ND		1.00	0.160
N-Nitrosodi-n-propylamine	ND		1.00	0.250
Acetophenone	ND		1.00	0.220
Hexachloroethane	ND		1.00	0.240
Nitrobenzene	ND		1.00	0.180
Isophorone	ND		1.00	0.150
2-Nitrophenol	ND		1.00	0.240
2,4-Dimethylphenol	ND		1.00	0.170
Bis(2-chloroethoxy) methane	ND		1.00	0.130
2,4-Dichlorophenol	ND		1.00	0.130
Naphthalene	0.790	J	1.00	0.110
4-Chloroaniline	ND		1.00	0.110
Hexachlorobutadiene	ND		1.00	0.360
Caprolactam	ND		1.00	0.150
4-Chloro-3-methylphenol	ND		1.00	0.180
2-Methylnaphthalene	71.9		1.00	0.124
Hexachlorocyclopentadiene	ND		1.00	0.270
2,4,6-Trichlorophenol	ND		1.00	0.150
2,4,5-Trichlorophenol	ND		1.00	0.120
1,1'-Biphenyl	ND		1.00	0.170
2-Chloronaphthalene	ND		1.00	0.150
2-Nitroaniline	ND		1.00	0.170
Dimethyl phthalate	ND		1.00	0.130

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-006
Client ID: MW10
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9043.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.200
Acenaphthylene	0.896	J	1.00	0.111
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	4.42		1.00	0.163
2,4-Dinitrophenol	ND		1.00	0.270
4-Nitrophenol	ND		1.00	0.250
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.160
Fluorene	6.81		1.00	0.149
4-Chlorophenyl phenyl ether	ND		1.00	0.160
4-Nitroaniline	ND		1.00	0.230
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.140
4,6-Dinitro-2-methylphenol	ND		1.00	0.130
N-Nitrosodiphenylamine	ND		1.00	0.090
4-Bromophenyl phenyl ether	ND		1.00	0.270
Hexachlorobenzene	ND		1.00	0.240
Atrazine	ND		1.00	0.240
Pentachlorophenol	ND		1.00	0.220
Phenanthrene	7.58		1.00	0.176
Anthracene	ND		1.00	0.150
Carbazole	ND		1.00	0.120
Di-n-butyl phthalate	ND		1.00	0.120
Fluoranthene	ND		1.00	0.126
Pyrene	ND		1.00	0.115
Butyl benzyl phthalate	ND		1.00	0.220
3,3'-Dichlorobenzidine	ND		3.00	0.190
Benzo[a]anthracene	ND		1.00	0.110
Chrysene	ND		1.00	0.144
Bis(2-ethylhexyl) phthalate	ND		1.00	0.410
Di-n-octyl phthalate	ND		1.00	0.160
Benzo[b]fluoranthene	ND		1.00	0.210
Benzo[k]fluoranthene	ND		1.00	0.270
Benzo[a]pyrene	ND		1.00	0.130
Indeno[1,2,3-cd]pyrene	ND		1.00	0.220
Dibenz[a,h]anthracene	ND		1.00	0.180
Benzo[g,h,i]perylene	ND		1.00	0.186

Total Target Compounds: 92.4 J

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-006
Client ID: MW10
Date Received: 01/07/2010
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Date File: A9043.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	6.10	2.39
	Substituted benzene	6.80	2.90
	Substituted benzene	6.50	2.92
	Substituted benzene	6.00	2.95
	Substituted benzene	7.20	3.19
	Substituted benzene	24.1	3.35
	Substituted benzene	9.00	3.69
	Substituted naphthalene	23.5	3.76
	Substituted benzene	5.70	3.82
	Substituted naphthalene	67.6	3.94
	Substituted benzene	8.00	4.17
	Substituted naphthalene	13.3	4.19
	Substituted naphthalene	40.3	4.23
	Substituted naphthalene	58.9	4.28
	Substituted naphthalene	17.4	4.35
	Substituted naphthalene	13.8	4.59
	Substituted naphthalene	10.5	4.60
	Substituted naphthalene	13.9	4.66
	Substituted naphthalene	12.1	4.71
	Unknown	6.50	5.12

Total TICs = 357

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-007
Client ID: MW11-SIM
Date Received: 01/07/2010
Date Extracted: 01/22/2010
Date Analyzed: 01/22/2010
Data file: A9196.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Hexachlorobenzene *	ND		0.020	0.010
Benzo[a]anthracene *	ND		0.100	0.050
Benzo[b]fluoranthene *	ND		0.100	0.050
Benzo[k]fluoranthene *	ND		0.100	0.050
Benzo[a]pyrene *	ND		0.100	0.050
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.050
Dibenz[a,h]anthracene *	ND		0.100	0.050

Total Target Compounds: 0

* --- RL & MDL from SIM run

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-008
Client ID: MW9-SIM
Date Received: 01/07/2010
Date Extracted: 01/22/2010
Date Analyzed: 01/22/2010
Data file: A9197.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Hexachlorobenzene *	ND		0.020	0.010
Benzo[a]anthracene *	ND		0.100	0.050
Benzo[b]fluoranthene *	ND		0.100	0.050
Benzo[k]fluoranthene *	ND		0.100	0.050
Benzo[a]pyrene *	ND		0.100	0.050
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.050
Dibenz[a,h]anthracene *	ND		0.100	0.050

Total Target Compounds: 0

* --- RL & MDL from SIM run

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-009
Client ID: MW8-SIM
Date Received: 01/07/2010
Date Extracted: 01/22/2010
Date Analyzed: 01/22/2010
Data file: A9198.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Hexachlorobenzene *	ND		0.020	0.010
Benzo[a]anthracene *	ND		0.100	0.050
Benzo[b]fluoranthene *	ND		0.100	0.050
Benzo[k]fluoranthene *	ND		0.100	0.050
Benzo[a]pyrene *	ND		0.100	0.050
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.050
Dibenz[a,h]anthracene *	ND		0.100	0.050

Total Target Compounds: 0

* --- RL & MDL from SIM run

0053

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-010
Client ID: MW10-SIM
Date Received: 01/07/2010
Date Extracted: 01/22/2010
Date Analyzed: 01/22/2010
Data file: A9199.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Hexachlorobenzene *	ND		0.020	0.010
Benzo[a]anthracene *	ND		0.100	0.050
Benzo[b]fluoranthene *	ND		0.100	0.050
Benzo[k]fluoranthene *	ND		0.100	0.050
Benzo[a]pyrene *	ND		0.100	0.050
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.050
Dibenz[a,h]anthracene *	ND		0.100	0.050

Total Target Compounds: 0

* --- RL & MDL from SIM run

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-003
Client ID: MW11
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: Y2484.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Total PCBs:	ND			

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-004
Client ID: MW9
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: Y2485.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Total PCBs:	ND			

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-005
Client ID: MW8
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: Y2486.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Total PCBs:	ND			

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-006
Client ID: MW10
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: Y2487.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Total PCBs:	ND			

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-003
Client ID: MW11
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/14/2010
Data file: V7482.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-004
Client ID: MW9
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/14/2010
Data file: V7483.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-005
Client ID: MW8
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/14/2010
Data file: V7484.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	0.015		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: PENNJERSEY/PALMER

Lab ID: 00176-006
Client ID: MW10
Date Received: 01/07/2010
Date Extracted: 01/12/2010
Date Analyzed: 01/14/2010
Data file: V7485.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E10-00176-003
Client ID: MW11
Date Received: 1/7/2010
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 011

Compound	Result	Q	DF	RL	Date Analyzed	Method
Aluminum	204		1	40.0	01/12/10	6020
Antimony	ND		1	4.00	01/12/10	6020
Arsenic	ND		1	2.00	01/12/10	6020
Barium	ND		1	40.0	01/12/10	6020
Beryllium	ND		1	1.00	01/12/10	6020
Cadmium	ND		1	1.00	01/12/10	6020
Calcium	8350		1	200	01/12/10	6020
Chromium	ND		1	8.00	01/12/10	6020
Cobalt	ND		1	8.00	01/12/10	6020
Copper	ND		1	8.00	01/12/10	6020
Iron	216		1	100	01/12/10	6020
Lead	ND		1	2.00	01/12/10	6020
Magnesium	13300		1	200	01/12/10	6020
Manganese	105		1	4.00	01/12/10	6020
Mercury	ND		1	0.500	01/11/10	7471A
Nickel	ND		1	4.00	01/12/10	6020
Potassium	10300		1	200	01/12/10	6020
Selenium	ND		1	8.00	01/12/10	6020
Silver	ND		1	2.00	01/12/10	6020
Sodium	215000		1	400	01/12/10	6020
Thallium	ND		1	1.00	01/12/10	6020
Vanadium	ND		1	8.00	01/12/10	6020
Zinc	35.3		1	8.00	01/12/10	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E10-00176-004
Client ID: MW9
Date Received: 1/7/2010
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 011

Compound	Result	Q	DF	RL	Date Analyzed	Method
Aluminum	ND		1	40.0	01/12/10	6020
Antimony	ND		1	4.00	01/12/10	6020
Arsenic	ND		1	2.00	01/12/10	6020
Barium	148		1	40.0	01/12/10	6020
Beryllium	ND		1	1.00	01/12/10	6020
Cadmium	ND		1	1.00	01/12/10	6020
Calcium	36300		1	200	01/12/10	6020
Chromium	ND		1	8.00	01/12/10	6020
Cobalt	ND		1	8.00	01/12/10	6020
Copper	ND		1	8.00	01/12/10	6020
Iron	ND		1	100	01/12/10	6020
Lead	ND		1	2.00	01/12/10	6020
Magnesium	9280		1	200	01/12/10	6020
Manganese	1710		1	4.00	01/12/10	6020
Mercury	ND		1	0.500	01/11/10	7471A
Nickel	ND		1	4.00	01/12/10	6020
Potassium	2610		1	200	01/12/10	6020
Selenium	ND		1	8.00	01/12/10	6020
Silver	ND		1	2.00	01/12/10	6020
Sodium	23100		1	400	01/12/10	6020
Thallium	ND		1	1.00	01/12/10	6020
Vanadium	ND		1	8.00	01/12/10	6020
Zinc	152		1	8.00	01/12/10	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E10-00176-005
Client ID: MW8
Date Received: 1/7/2010
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 011

Compound	Result	Q	DF	RL	Date Analyzed	Method
Aluminum	149		1	40.0	01/12/10	6020
Antimony	ND		1	4.00	01/12/10	6020
Arsenic	ND		1	2.00	01/12/10	6020
Barium	54.2		1	40.0	01/12/10	6020
Beryllium	ND		1	1.00	01/12/10	6020
Cadmium	ND		1	1.00	01/12/10	6020
Calcium	107000		1	200	01/12/10	6020
Chromium	ND		1	8.00	01/12/10	6020
Cobalt	ND		1	8.00	01/12/10	6020
Copper	ND		1	8.00	01/12/10	6020
Iron	859		1	100	01/12/10	6020
Lead	6.88		1	2.00	01/12/10	6020
Magnesium	17800		1	200	01/12/10	6020
Manganese	2690		1	4.00	01/12/10	6020
Mercury	ND		1	0.500	01/11/10	7471A
Nickel	ND		1	4.00	01/12/10	6020
Potassium	8380		1	200	01/12/10	6020
Selenium	ND		1	8.00	01/12/10	6020
Silver	ND		1	2.00	01/12/10	6020
Sodium	48300		1	400	01/12/10	6020
Thallium	ND		1	1.00	01/12/10	6020
Vanadium	ND		1	8.00	01/12/10	6020
Zinc	19.5		1	8.00	01/12/10	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: PENNJERSEY/PALMER

Lab ID: E10-00176-006
Client ID: MW10
Date Received: 1/7/2010
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 011

Compound	Result	Q	DF	RL	Date Analyzed	Method
Aluminum	284		1	40.0	01/12/10	6020
Antimony	ND		1	4.00	01/12/10	6020
Arsenic	2.18		1	2.00	01/12/10	6020
Barium	128		1	40.0	01/12/10	6020
Beryllium	ND		1	1.00	01/12/10	6020
Cadmium	ND		1	1.00	01/12/10	6020
Calcium	81200		1	200	01/12/10	6020
Chromium	ND		1	8.00	01/12/10	6020
Cobalt	ND		1	8.00	01/12/10	6020
Copper	ND		1	8.00	01/12/10	6020
Iron	15300		1	100	01/12/10	6020
Lead	ND		1	2.00	01/12/10	6020
Magnesium	22600		1	200	01/12/10	6020
Manganese	6370		1	4.00	01/12/10	6020
Mercury	ND		1	0.500	01/11/10	7471A
Nickel	ND		1	4.00	01/12/10	6020
Potassium	8410		1	200	01/12/10	6020
Selenium	ND		1	8.00	01/12/10	6020
Silver	ND		1	2.00	01/12/10	6020
Sodium	26200		1	400	01/12/10	6020
Thallium	ND		1	1.00	01/12/10	6020
Vanadium	ND		1	8.00	01/12/10	6020
Zinc	59.9		1	8.00	01/12/10	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Cyanide, Total

Client/Project: PENNJERSEY/PALMER

Date Received: 01/07/10 14:40

Lab ID	Client ID	Result	Q	DF	Matrix-Units	RL	% Solid	Date Analyzed
00176-003	MW11	ND		1	Aqueous-ug/L	20.0	0	01/08/10 14:38
00176-004	MW9	ND		1	Aqueous-ug/L	20.0	0	01/08/10 14:38
00176-005	MW8	ND		1	Aqueous-ug/L	20.0	0	01/08/10 14:38
00176-006	MW10	ND		1	Aqueous-ug/L	20.0	0	01/08/10 14:38

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E0538.D

BFB Injection Date: 01/05/2010

Inst ID: MSD_E

BFB Injection Time: 9:24

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.1			
75	30.0 - 60.0% of mass 95	58.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.5	(	0.7	)1
174	Great than 50.0% of mass 95	76.2			
175	5.0 - 9.0% of mass 174	5.3	(	6.9	)1
176	95.0 - 101.0% of mass 174	73.2	(	96.0	)1
177	5.0 - 9.0% of mass 176	5.0	(	6.8	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	E0539.D	01/05/2010	9:52
5PPB_STD	5PPB_STD	E0540.D	01/05/2010	10:21
1PPB_STD	1PPB_STD	E0541.D	01/05/2010	10:49
0.5PPB_STD	0.5PPB_STD	E0542.D	01/05/2010	11:17
100PPB_STD	100PPB_STD	E0543.D	01/05/2010	11:46
METHOD_BLK	METHOD_BLK	E0546.D	01/05/2010	13:21
OUTFALL_#4	13103-001	E0547.D	01/05/2010	13:49
LFB_20PPB	LFB_20PPB	E0548.D	01/05/2010	14:18
13098-001MS	13098-001MS	E0549.D	01/05/2010	14:46
13098-001MSD	13098-001MSD	E0550.D	01/05/2010	15:14
MW-14	13097-002	E0551.D	01/05/2010	15:42
TRIP_BLANK	13097-004	E0552.D	01/05/2010	16:11
MW-1	13098-001	E0553.D	01/05/2010	16:39
010-0004	00071-004	E0554.D	01/05/2010	17:09
010-0005	00071-005	E0555.D	01/05/2010	17:38
010-0007	00071-007	E0556.D	01/05/2010	18:06
010-0001	00071-001	E0557.D	01/05/2010	18:34
010-0002	00071-002	E0558.D	01/05/2010	19:03
010-0003	00071-003	E0559.D	01/05/2010	19:31
00071-006MS	00071-006MS	E0560.D	01/05/2010	19:59

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E0538.D BFB Injection Date : 01/05/201

Inst ID: MSD_E BFB Injection Time: 9:24

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.1			
75	30.0 - 60.0% of mass 95	58.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.5	(	0.7	)1
174	Great than 50.0% of mass 95	76.2			
175	5.0 - 9.0% of mass 174	5.3	(	6.9	)1
176	95.0 - 101.0% of mass 174	73.2	(	96.0	)1
177	5.0 - 9.0% of mass 176	5.0	(	6.8	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
00071-006MSD	00071-006MSD	E0561.D	01/05/2010	20:28
MW-2	13098-002	E0562.D	01/05/2010	20:56
MW-3	13098-003	E0563.D	01/05/2010	21:24
FIELD_BLANK	13098-004	E0564.D	01/05/2010	21:52
TRIP_BLANK	13098-005	E0565.D	01/05/2010	22:20
MW6	13157-001	E0566.D	01/05/2010	22:49
MW4	13157-002	E0567.D	01/05/2010	23:17
MW7	13157-003	E0568.D	01/05/2010	23:45
MW5	13157-004	E0569.D	01/06/2010	0:13
MW1D	13157-005	E0570.D	01/06/2010	0:41
MW2	13157-006	E0571.D	01/06/2010	1:09
MW3	13157-007	E0572.D	01/06/2010	1:37
MW8	13157-008	E0573.D	01/06/2010	2:06
MW1	13157-009	E0574.D	01/06/2010	2:34
FB	13157-010	E0575.D	01/06/2010	3:03
TB	13157-011	E0576.D	01/06/2010	3:31
MW	13156-001	E0577.D	01/06/2010	3:59
WELL_POINT	13155-001	E0578.D	01/06/2010	4:27
TW-1	13151-001	E0579.D	01/06/2010	4:55
K01-MID_TAP	13101-001	E0580.D	01/06/2010	5:23
K02-FINAL_TAP	13101-002	E0581.D	01/06/2010	5:52

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E0538.D BFB Injection Date : 01/05/201

Inst ID: MSD_E BFB Injection Time: 9:24

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.1			
75	30.0 - 60.0% of mass 95	58.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.5	(	0.7	)1
174	Great than 50.0% of mass 95	76.2			
175	5.0 - 9.0% of mass 174	5.3	(	6.9	)1
176	95.0 - 101.0% of mass 174	73.2	(	96.0	)1
177	5.0 - 9.0% of mass 176	5.0	(	6.8	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-1/9.88	13112-001	E0582.D	01/06/2010	6:20
MW-2/9.81	13112-002	E0583.D	01/06/2010	8:18
MW-3/9.62	13112-003	E0584.D	01/06/2010	8:47
TRIP_BLANK	13112-004	E0585.D	01/06/2010	9:15

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E0695.D BFB Injection Date: 01/11/2010

Inst ID: MSD_E BFB Injection Time: 9:12

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	18.3			
75	30.0 - 60.0% of mass 95	55.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.5			
173	Less than 2.0% of mass 174	0.5	(	0.6	)1
174	Great than 50.0% of mass 95	81.4			
175	5.0 - 9.0% of mass 174	5.4	(	6.6	)1
176	95.0 - 101.0% of mass 174	77.7	(	95.4	)1
177	5.0 - 9.0% of mass 176	4.3	(	5.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	E0697.D	01/11/2010	10:18
METHOD_BLK	METHOD_BLK	E0699.D	01/11/2010	11:55
MW-5-010410/30	00091-1DIL	E0700.D	01/11/2010	12:30
LFB_20PPB	LFB_20PPB	E0701.D	01/11/2010	12:59
00197-001MS	00197-001MS	E0702.D	01/11/2010	13:27
00197-001MSD	00197-001MSD	E0703.D	01/11/2010	13:55
RW-63-70	00198-001	E0704.D	01/11/2010	14:24
RW-64-70	00198-002	E0705.D	01/11/2010	14:52
RW-65-70	00198-003	E0706.D	01/11/2010	15:52
20220057-3_(IN	00141-002	E0707.D	01/11/2010	16:19
20220057-3_(OU	00141-003	E0708.D	01/11/2010	16:47
TMW-1/6.65	00188-001	E0709.D	01/11/2010	17:15
TW-1/5.6	00192-001	E0710.D	01/11/2010	17:44
MW-1/9	00197-001	E0711.D	01/11/2010	18:12
MW-2/9	00197-002	E0712.D	01/11/2010	18:40
MW-4/10	00197-003	E0713.D	01/11/2010	19:09
FB	00197-004	E0714.D	01/11/2010	19:37
TB	00197-005	E0715.D	01/11/2010	20:05
TRIP	00176-001	E0716.D	01/11/2010	20:33
FIELD	00176-002	E0717.D	01/11/2010	21:01

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E0695.D BFB Injection Date : 01/11/201

Inst ID: MSD_E BFB Injection Time: 9:12

m/z	Ion Abudance Criteria	%Relative Abundance		
50	15 - 40.0% of mass 95	18.3		
75	30.0 - 60.0% of mass 95	55.9		
95	Base peak, 100% relative abundance	100.0		
96	5.0 - 9.0% of mass 95	6.5		
173	Less than 2.0% of mass 174	0.5	(0.6	)1
174	Great than 50.0% of mass 95	81.4		
175	5.0 - 9.0% of mass 174	5.4	(6.6	)1
176	95.0 - 101.0% of mass 174	77.7	(95.4	)1
177	5.0 - 9.0% of mass 176	4.3	(5.6	)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW11	00176-003	E0718.D	01/11/2010	21:30
MW9	00176-004	E0719.D	01/11/2010	21:58
MW8	00176-005	E0720.D	01/11/2010	22:26
MW10	00176-006	E0721.D	01/11/2010	22:55

VOLATILE METHOD BLANK SUMMARY

Lab File ID: E0699.D Instrument ID: MSD_E

Date Analyzed: 01/11/2010 Time Analyzed: 11:55

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-5-010410/30	00091-1DIL	01/11/2010	12:30
LFB_20PPB	LFB_20PPB	01/11/2010	12:59
00197-001MS	00197-001MS	01/11/2010	13:27
00197-001MSD	00197-001MSD	01/11/2010	13:55
RW-63-70	00198-001	01/11/2010	14:24
RW-64-70	00198-002	01/11/2010	14:52
RW-65-70	00198-003	01/11/2010	15:52
20220057-3_(IN	00141-002	01/11/2010	16:19
20220057-3_(OU	00141-003	01/11/2010	16:47
TMW-1/6.65	00188-001	01/11/2010	17:15
TW-1/5.6	00192-001	01/11/2010	17:44
MW-1/9	00197-001	01/11/2010	18:12
MW-2/9	00197-002	01/11/2010	18:40
MW-4/10	00197-003	01/11/2010	19:09
FB	00197-004	01/11/2010	19:37
TB	00197-005	01/11/2010	20:05
TRIP	00176-001	01/11/2010	20:33
FIELD	00176-002	01/11/2010	21:01
MW11	00176-003	01/11/2010	21:30
MW9	00176-004	01/11/2010	21:58
MW8	00176-005	01/11/2010	22:26
MW10	00176-006	01/11/2010	22:55

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 01/11/2010
Data file: E0699.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.490
Chloromethane	ND		0.500	0.410
Vinyl chloride	ND		1.00	0.630
Bromomethane	ND		0.500	0.440
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		1.00	0.520
1,1-Dichloroethene	ND		0.500	0.440
Acetone	ND		1.00	0.920
Carbon disulfide	ND		0.500	0.430
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		0.500	0.380
Methyl tert-butyl ether (MTBE)	ND		0.500	0.110
1,1-Dichloroethane	ND		0.500	0.310
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	ND		0.500	0.360
Bromochloromethane	ND		0.500	0.250
Chloroform	ND		0.500	0.290
1,1,1-Trichloroethane	ND		0.500	0.370
Carbon tetrachloride	ND		0.500	0.330
1,2-Dichloroethane (EDC)	ND		0.500	0.240
Benzene	ND		0.500	0.280
Trichloroethene	ND		0.500	0.320
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.150
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.170

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 01/11/2010
Data file: E0699.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.240
trans-1,3-Dichloropropene	ND		0.500	0.120
1,1,2-Trichloroethane	ND		0.500	0.170
Tetrachloroethene	ND		0.500	0.320
2-Hexanone	ND		0.500	0.150
Dibromochloromethane	ND		0.500	0.120
Chlorobenzene	ND		0.500	0.230
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.700
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.140
Isopropylbenzene	ND		0.500	0.270
1,1,2,2-Tetrachloroethane	ND		0.500	0.200
1,3-Dichlorobenzene	ND		0.500	0.150
1,4-Dichlorobenzene	ND		0.500	0.150
1,2-Dichlorobenzene	ND		0.500	0.190
1,2,4-Trichlorobenzene	ND		0.500	0.250
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.580
Methyl acetate	ND		1.00	0.930
Cyclohexane	ND		0.500	0.490
Methylcyclohexane	ND		0.500	0.460

Total Target Compounds: 0

0075

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 01/11/2010
Date File: E0699.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

Response Factor Report MSD_E

Method Path : C:\MSDCHEM\1\METHODS\
Method File : EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624
Last Update : Tue Jan 05 12:08:48 2010
Response Via : Initial Calibration

Calibration Files
0.5 =E0542.D 1 =E0541.D 5 =E0540.D
20 =E0539.D 100 =E0543.D

		Compound	0.5	1	5	20	100	Avg	%RSD
1)	I	Pentafluorobenzene	ISTD						
2)	T	Dichlorodifluoromet	0.535	0.460	0.684	0.597	0.571	0.570	14.41
3)	P	Chloromethane	0.715	0.578	0.747	0.622	0.595	0.651	11.53
4)	C	Vinyl chloride		0.433	0.638	0.581	0.553	0.551	15.65
5)	T	Bromomethane	0.571	0.432	0.438	0.403	0.379	0.445	16.74
6)	T	Chloroethane	0.444	0.372	0.430	0.392	0.368	0.401	8.57
7)	T	Trichlorofluorometh		0.812	1.020	0.974	0.879	0.921	10.16
8)	T	Acrolein	0.042	0.034	0.027	0.023	0.026	0.030	24.79
9)	MC	1,1-Dichloroethene	0.487	0.424	0.513	0.490	0.468	0.476	7.04
10)	T	Acetone		0.173	0.175	0.164	0.198	0.177	8.19
11)	T	Carbon disulfide	1.440	1.187	1.631	1.607	1.652	1.503	13.03
12)	T	Vinyl acetate	1.283	1.150	1.408	1.418	1.669	1.386	13.87
13)	T	Methylene chloride			0.493	0.489	0.477	0.486	1.72
14)	T	Acrylonitrile	0.244	0.172	0.163	0.164	0.205	0.190	18.42
15)	T	tert-Butyl alcohol		0.023	0.020	0.015	0.030	0.022	30.27
16)	T	trans-1,2-Dichloroe	0.448	0.374	0.490	0.487	0.482	0.456	10.79
17)	T	Methyl tert-butyl e	1.432	1.272	1.500	1.516	1.761	1.496	11.80
18)	P	1,1-Dichloroethane	0.877	0.731	0.893	0.899	0.935	0.867	9.10
19)	T	Diisopropyl ether (	1.244	1.116	1.397	1.480	1.652	1.378	15.08
20)	T	cis-1,2-Dichloroeth	0.484	0.380	0.472	0.485	0.514	0.467	10.94
21)	T	2,2-Dichloropropane	0.591	0.521	0.668	0.687	0.691	0.632	11.67
22)	T	2-Butanone (MEK)	0.317	0.216	0.189	0.160	0.272	0.231	27.44
23)	T	Bromochloromethane	0.208	0.172	0.207	0.206	0.219	0.203	8.77
25)	C	Chloroform	0.963	0.784	0.949	0.954	0.993	0.929	8.88
26)	T	1,1,1-Trichloroetha	0.786	0.584	0.796	0.818	0.869	0.771	14.15
27)	T	Carbon tetrachlorid	0.569	0.449	0.679	0.730	0.753	0.636	19.89
28)	T	1,1-Dichloropropene	0.767	0.559	0.775	0.760	0.815	0.735	13.68
29)	T	1,2-Dichloroethane	0.912	0.742	0.881	0.868	0.947	0.870	8.90
30)	S	1,2-Dichloroethane-	0.818	0.800	0.790	0.781	0.780	0.794	1.97
31)	I	1,4-Difluorobenzene	ISTD						
32)	M	Benzene	1.325	1.161	1.439	1.408	1.511	1.369	9.79
33)	M	Trichloroethene	0.331	0.284	0.373	0.359	0.383	0.346	11.51
34)	C	1,2-Dichloropropane	0.314	0.252	0.320	0.325	0.353	0.313	11.96
35)	T	Dibromomethane	0.211	0.169	0.209	0.205	0.226	0.204	10.38
37)	T	Bromodichloromethan	0.430	0.341	0.459	0.480	0.530	0.448	15.61
38)	T	2-Chloroethyl vinyl	0.124	0.107	0.140	0.150	0.217	0.148	28.49
39)	T	cis-1,3-Dichloropro	0.355	0.337	0.490	0.534	0.628	0.469	26.19
40)	T	4-Methyl-2-pentanon	0.254	0.238	0.292	0.271	0.375	0.286	18.83
41)	S	Toluene-d8	1.315	1.310	1.323	1.349	1.361	1.332	1.69
42)	MC	Toluene	0.770	0.667	0.846	0.830	0.924	0.807	11.88
43)	T	trans-1,3-Dichlorop	0.373	0.335	0.491	0.529	0.647	0.475	26.35
44)	T	1,1,2-Trichloroetha	0.226	0.196	0.235	0.235	0.274	0.233	11.93
45)	T	Tetrachloroethene	0.318	0.281	0.364	0.352	0.391	0.341	12.52
46)	T	1,3-Dichloropropane	0.516	0.431	0.540	0.536	0.641	0.533	14.08
47)	T	2-Hexanone	0.197	0.158	0.219	0.216	0.308	0.220	25.06
48)	T	Dibromochloromethan	0.236	0.206	0.276	0.308	0.378	0.281	23.75
49)	T	1,2-Dibromoethane (	0.266	0.222	0.284	0.279	0.338	0.278	15.00
50)	I	Chlorobenzene-d5	ISTD						
51)	MP	Chlorobenzene	0.844	0.701	0.918	0.861	0.921	0.849	10.50
52)	T	1,1,1,2-Tetrachloro	0.271	0.214	0.310	0.322	0.344	0.292	17.46
53)	C	Ethylbenzene	1.448	1.246	1.744	1.726	1.916	1.616	16.48

54)	T	m,p-Xylene	0.497	0.432	0.643	0.613	0.646	0.566	17.06
55)	T	o-Xylene	0.431	0.362	0.607	0.610	0.629	0.528	23.21
56)	T	Styrene	0.689	0.615	1.020	1.045	1.115	0.897	25.38
57)	P	Bromoform	0.149	0.129	0.187	0.216	0.262	0.188	28.09
58)	T	Isopropylbenzene	1.085	1.010	1.690	1.714	1.845	1.469	26.56
59)	S	Bromofluorobenzene	0.615	0.616	0.637	0.655	0.644	0.633	2.77
60)	P	1,1,2,2-Tetrachloro	0.389	0.364	0.429	0.404	0.453	0.408	8.44
61)	T	Bromobenzene	0.366	0.308	0.401	0.392	0.413	0.376	11.08
62)	T	1,2,3-Trichloroprop	0.436	0.336	0.414	0.400	0.441	0.406	10.36
63)	T	n-Propylbenzene	1.548	1.305	2.051	2.018	2.210	1.827	20.91
64)	T	2-Chlorotoluene	1.019	0.890	1.307	1.299	1.372	1.177	17.86
65)	T	1,3,5-Trimethylbenz	1.001	0.829	1.457	1.446	1.531	1.253	25.25
66)	T	4-Chlorotoluene	0.993	1.026	1.541	1.517	1.308	1.277	20.42
67)	T	tert-Butylbenzene	0.737	0.627	1.156	1.174	1.226	0.984	28.39
68)	T	1,2,4-Trimethylbenz	0.967	0.892	1.500	1.447	1.531	1.267	24.54
69)	T	sec-Butylbenzene	1.065	1.000	1.719	1.697	1.797	1.456	26.69
70)	T	1,3-Dichlorobenzene	0.621	0.572	0.811	0.771	0.792	0.713	15.28
71)	T	4-Isopropyltoluene	0.842	0.801	1.410	1.420	1.496	1.194	28.63
72)	T	1,4-Dichlorobenzene	0.645	0.573	0.828	0.795	0.842	0.737	16.33
73)	T	n-Butylbenzene	0.781	0.721	1.268	1.281	1.390	1.088	28.69
74)	T	1,2-Dichlorobenzene	0.612	0.555	0.795	0.765	0.781	0.702	15.70
75)	T	1,2-Dibromo-3-chlor		0.068	0.085	0.087	0.112	0.088	20.40
76)	T	1,2,4-Trichlorobenz	0.318	0.309	0.464	0.469	0.534	0.419	23.88
77)	T	Hexachlorobutadiene	0.189	0.177	0.238	0.239	0.228	0.214	13.57
78)	T	Naphthalene	0.665	0.689	1.200	1.112	1.397	1.013	31.94
79)	T	1,2,3-Trichlorobenz	0.331	0.335	0.463	0.441	0.495	0.413	18.23
80)	T	1,1,2-Trichloro-1,2		0.297	0.423	0.383	0.339	0.360	15.17
81)	T	Methyl acetate		0.243	0.275	0.268	0.311	0.274	10.14
82)	T	Cyclohexane	0.922	0.833	0.623	0.578	0.573	0.706	22.80
83)	T	Methylcyclohexane	0.424	0.306	0.522	0.546	0.499	0.459	21.17

(#) = Out of Range

EA010510.M Tue Jan 05 12:09:10 2010

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0697.D
Acq On : 11 Jan 2010 10:18
Operator : DANA
Sample : 20PPB_STD,20PPB_STD,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 11 11:12:39 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	110	0.00
2	T	Dichlorodifluoromethane	0.570	0.724	-27.0	133	0.00
3	P	Chloromethane	0.651	0.768	-18.0	136	-0.01
4	C	Vinyl chloride	0.551	0.685	-24.3	130	0.00
5	T	Bromomethane	0.445	0.427	4.0	117	0.00
6	T	Chloroethane	0.401	0.429	-7.0	121	0.00
7	T	Trichlorofluoromethane	0.921	0.958	-4.0	108	0.00
8	T	Acrolein	0.030	0.022	26.7	105	0.00
9	MC	1,1-Dichloroethene	0.476	0.514	-8.0	116	0.00
10	T	Acetone	0.177	0.156	11.9	105	-0.02
11	T	Carbon disulfide	1.503	1.706	-13.5	117	-0.01
12	T	Vinyl acetate	1.386	1.459	-5.3	113	0.00
13	T	Methylene chloride	0.486	0.503	-3.5	113	-0.01
14	T	Acrylonitrile	0.190	0.157	17.4	105	-0.01
15	T	tert-Butyl alcohol (TBA)	0.022	0.015	31.8	114	0.00
16	T	trans-1,2-Dichloroethene	0.456	0.496	-8.8	112	0.00
17	T	Methyl tert-butyl ether (MT	1.496	1.538	-2.8	112	0.00
18	P	1,1-Dichloroethane	0.867	0.932	-7.5	114	0.00
19	T	Diisopropyl ether (DIPE)	1.378	1.573	-14.2	117	-0.01
20	T	cis-1,2-Dichloroethene	0.467	0.512	-9.6	116	0.00
21	T	2,2-Dichloropropane	0.632	0.731	-15.7	117	0.00
22	T	2-Butanone (MEK)	0.231	0.177	23.4	122	-0.03
23	T	Bromochloromethane	0.203	0.214	-5.4	114	0.00
25	C	Chloroform	0.929	0.957	-3.0	111	0.00
26	T	1,1,1-Trichloroethane	0.771	0.881	-14.3	119	0.00
27	T	Carbon tetrachloride	0.636	0.732	-15.1	110	0.00
28	T	1,1-Dichloropropene	0.735	0.773	-5.2	112	0.00
29	T	1,2-Dichloroethane (EDC)	0.870	0.810	6.9	103	0.00
30	S	1,2-Dichloroethane-d4	0.794	0.722	9.1	102	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	111	0.00
32	M	Benzene	1.369	1.422	-3.9	113	0.00
33	M	Trichloroethene	0.346	0.356	-2.9	110	0.00
34	C	1,2-Dichloropropane	0.313	0.329	-5.1	113	0.00
35	T	Dibromomethane	0.204	0.194	4.9	105	0.00
37	T	Bromodichloromethane	0.448	0.462	-3.1	107	0.00
38	T	2-Chloroethyl vinyl ether	0.148	0.147	0.7	109	0.00
39	T	cis-1,3-Dichloropropene	0.469	0.523	-11.5	109	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.286	0.261	8.7	107	0.00
41	S	Toluene-d8	1.332	1.309	1.7	108	0.00
42	MC	Toluene	0.807	0.825	-2.2	111	0.00
43	T	trans-1,3-Dichloropropene	0.475	0.482	-1.5	102	0.00
44	T	1,1,2-Trichloroethane	0.233	0.220	5.6	104	0.00
45	T	Tetrachloroethene	0.341	0.345	-1.2	109	0.00
46	T	1,3-Dichloropropane	0.533	0.508	4.7	106	0.00
47	T	2-Hexanone	0.220	0.200	9.1	103	0.00

48	T	Dibromochloromethane	0.281	0.286	-1.8	103	0.00
49	T	1,2-Dibromoethane (EDB)	0.278	0.262	5.8	104	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00
51	MP	Chlorobenzene	0.849	0.851	-0.2	109	0.00
52	T	1,1,1,2-Tetrachloroethane	0.292	0.317	-8.6	109	0.00
53	C	Ethylbenzene	1.616	1.702	-5.3	109	0.00
54	T	m,p-Xylene	0.566	0.609	-7.6	109	0.00
55	T	o-Xylene	0.528	0.605	-14.6	109	0.00
56	T	Styrene	0.897	1.021	-13.8	107	0.00
57	P	Bromoform	0.188	0.184	2.1	94	0.00
58	T	Isopropylbenzene	1.469	1.682	-14.5	108	0.00
59	S	Bromofluorobenzene	0.633	0.628	0.8	106	0.00
60	P	1,1,2,2-Tetrachloroethane	0.408	0.368	9.8	100	0.00
61	T	Bromobenzene	0.376	0.382	-1.6	107	0.00
62	T	1,2,3-Trichloropropane	0.406	0.297	26.8	82	0.00
63	T	n-Propylbenzene	1.827	1.973	-8.0	108	0.00
64	T	2-Chlorotoluene	1.177	1.255	-6.6	106	0.00
65	T	1,3,5-Trimethylbenzene	1.253	1.410	-12.5	107	0.00
66	T	4-Chlorotoluene	1.277	1.448	-13.4	105	0.00
67	T	tert-Butylbenzene	0.984	1.138	-15.7	107	0.00
68	T	1,2,4-Trimethylbenzene	1.267	1.403	-10.7	107	0.00
69	T	sec-Butylbenzene	1.456	1.676	-15.1	109	0.00
70	T	1,3-Dichlorobenzene	0.713	0.735	-3.1	105	0.00
71	T	4-Isopropyltoluene	1.194	1.375	-15.2	107	0.00
72	T	1,4-Dichlorobenzene	0.737	0.765	-3.8	106	0.00
73	T	n-Butylbenzene	1.088	1.259	-15.7	108	0.00
74	T	1,2-Dichlorobenzene	0.702	0.729	-3.8	105	0.00
75	T	1,2-Dibromo-3-chloropropane	0.088	0.069	21.6	88	0.00
76	T	1,2,4-Trichlorobenzene	0.419	0.449	-7.2	105	0.00
77	T	Hexachlorobutadiene	0.214	0.231	-7.9	106	0.00
78	T	Naphthalene	1.013	0.968	4.4	96	0.00
79	T	1,2,3-Trichlorobenzene	0.413	0.414	-0.2	103	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.360	0.389	-8.1	112	0.00
81	T	Methyl acetate	0.274	0.235	14.2	97	0.00
82	T	Cyclohexane	0.706	0.599	15.2	114	0.04
83	T	Methylcyclohexane	0.459	0.583	-27.0	117	0.00

(#) = Out of Range

EA010510.M Mon Jan 11 11:32:34 2010

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/11/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	AQUEOUS	E0699.D	96	95	96
00091-1DIL	AQUEOUS	E0700.D	90	97	100
LFB_20PPB	AQUEOUS	E0701.D	89	98	99
00197-001MS	AQUEOUS	E0702.D	90	97	99
00197-001MSD	AQUEOUS	E0703.D	91	97	100
00198-001	AQUEOUS	E0704.D	95	96	96
00198-002	AQUEOUS	E0705.D	98	95	96
00198-003	AQUEOUS	E0706.D	96	95	96
00141-002	AQUEOUS	E0707.D	94	97	101
00141-003	AQUEOUS	E0708.D	91	96	98
00188-001	AQUEOUS	E0709.D	89	93	96
00192-001	AQUEOUS	E0710.D	89	94	94
00197-001	AQUEOUS	E0711.D	90	95	96
00197-002	AQUEOUS	E0712.D	89	94	95
00197-003	AQUEOUS	E0713.D	91	94	95
00197-004	AQUEOUS	E0714.D	92	93	96
00197-005	AQUEOUS	E0715.D	91	95	96
00176-001	AQUEOUS	E0716.D	93	96	94
00176-002	AQUEOUS	E0717.D	96	94	97
00176-003	AQUEOUS	E0718.D	96	95	96
00176-004	AQUEOUS	E0719.D	96	95	95
00176-005	AQUEOUS	E0720.D	99	94	100
00176-006	AQUEOUS	E0721.D	95	96	101

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	83-101
SMC2 = Toluene-d8	30 ppb	91-100
SMC3 = Bromofluorobenzene	30 ppb	91-103

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 00197-001MSD
Client ID: 00197-001MSD
Date Received: NA
Date Analyzed: 01/11/2010
Data file: E0703.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
Chloromethane	20.0	0.0	21.2	106	0.0	22.0	110
Vinyl chloride	20.0	0.0	22.1	111	0.0	22.4	112
Bromomethane	20.0	0.0	17.3	87	0.0	17.4	87
Chloroethane	20.0	0.0	19.4	97	0.0	19.4	97
Trichlorofluoromethane	20.0	0.0	18.0	90	0.0	18.1	91
Acrolein	200	0.0	163.4	82	0.0	175.4	88
1,1-Dichloroethene	20.0	0.0	18.9	95	0.0	19.1	96
Methylene chloride	20.0	0.0	19.5	98	0.0	19.8	99
Acrylonitrile	200	0.0	183.3	92	0.0	187.2	94
trans-1,2-Dichloroethene	20.0	0.0	19.9	100	0.0	20.0	100
1,1-Dichloroethane	20.0	0.0	20.0	100	0.0	20.1	101
Chloroform	20.0	0.0	19.2	96	0.0	19.3	97
1,1,1-Trichloroethane	20.0	0.0	20.8	104	0.0	20.0	100
Carbon tetrachloride	20.0	0.0	20.6	103	0.0	21.2	106
1,2-Dichloroethane (EDC)	20.0	0.0	17.8	89	0.0	18.2	91
Benzene	20.0	0.0	19.7	99	0.0	19.7	99
Trichloroethene	20.0	0.0	19.1	96	0.0	19.3	97
1,2-Dichloropropane	20.0	0.0	20.2	101	0.0	19.9	100
Bromodichloromethane	20.0	0.0	19.2	96	0.0	19.3	97
2-Chloroethyl vinyl ether	20.0	0.0	21.0	105	0.0	20.3	102
cis-1,3-Dichloropropene	20.0	0.0	20.9	105	0.0	21.0	105
Toluene	20.0	0.0	19.0	95	0.0	19.0	95
trans-1,3-Dichloropropene	20.0	0.0	19.5	98	0.0	19.6	98
1,1,2-Trichloroethane	20.0	0.0	18.6	93	0.0	18.5	93
Tetrachloroethene	20.0	0.0	18.5	93	0.0	18.2	91
Dibromochloromethane	20.0	0.0	19.2	96	0.0	19.0	95
Chlorobenzene	20.0	0.0	19.1	96	0.0	19.0	95
Ethylbenzene	20.0	0.0	19.6	98	0.0	19.5	98
total-Xylenes	60.0	0.0	61.9	103	0.0	62.1	104
Bromoform	20.0	0.0	18.3	92	0.0	18.6	93
1,1,2,2-Tetrachloroethane	20.0	0.0	18.6	93	0.0	18.8	94
1,3-Dichlorobenzene	20.0	0.0	19.3	97	0.0	19.9	100
1,4-Dichlorobenzene	20.0	0.0	19.6	98	0.0	19.9	100
1,2-Dichlorobenzene	20.0	0.0	19.6	98	0.0	20.6	103

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E0539.D Date Analyzed: 01/05/2010

Instrument ID: MSD_E Time Analyzed: 9:52

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	742247	6.60	1075485	7.43	1052325	10.79
	UPPER LIMIT	1484494	7.10	2150970	7.93	2104650	11.29
	LOWER LIMIT	371123.5	6.10	537742.5	6.93	526162.5	10.29
	LAB SAMPLE ID						
01	5PPB_STD	796111	6.60	1143664	7.43	1111036	10.79
02	1PPB_STD	729716	6.60	1066057	7.43	1044847	10.79
03	0.5PPB_STD	712219	6.60	1046124	7.43	1024527	10.79
04	100PPB_STD	800025	6.60	1178045	7.43	1203509	10.79
05	METHOD_BLK	774739	6.60	1124270	7.43	1067137	10.79
06	13103-001	698160	6.60	1029564	7.43	995355	10.79
07	LFB_20PPB	749399	6.60	1084022	7.43	1066390	10.79
08	13098-001MS	789294	6.60	1151444	7.43	1119324	10.79
09	13098-001MSD	808985	6.60	1164846	7.43	1135861	10.79
10	13097-002	790719	6.60	1135372	7.43	1068925	10.79
11	13097-004	743172	6.60	1097763	7.43	1046861	10.79
12	13098-001	722014	6.60	1073162	7.43	1042261	10.79
13	00071-004	750025	6.60	1061563	7.43	1018943	10.79
14	00071-005	711012	6.60	1040996	7.43	1004256	10.79
15	00071-007	746210	6.60	1100943	7.43	1076203	10.79
16	00071-001	729047	6.60	1068818	7.43	1042277	10.79
17	00071-002	711144	6.60	1053139	7.43	1010478	10.79
18	00071-003	738775	6.60	1087123	7.43	1046736	10.79
19	00071-006MS	777877	6.60	1131121	7.43	1102946	10.79
20	00071-006MSD	782222	6.60	1152291	7.43	1131760	10.79
21	13098-002	785346	6.60	1149429	7.43	1115520	10.79
22	13098-003	783395	6.60	1167262	7.43	1120852	10.79

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E0539.D Date Analyzed: 01/05/2010

Instrument ID: MSD_E ime Analyzed: 9:52

	30UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	742247		6.60		1075485		7.43		1052325		10.79	
	UPPER LIMIT	1484494		7.10		2150970		7.93		2104650		11.29	
	LOWER LIMIT	371123.5		6.10		537742.5		6.93		526162.5		10.29	
	LAB SAMPLE ID												
23	13098-004	731462		6.60		1107086		7.43		1054919		10.79	
24	13098-005	722767		6.60		1078564		7.43		1025973		10.79	
25	13157-001	709376		6.60		1052776		7.43		1023929		10.79	
26	13157-002	671219		6.60		1010514		7.43		980086		10.79	
27	13157-003	684037		6.60		1017532		7.43		984217		10.79	
28	13157-004	682751		6.60		1011252		7.43		991294		10.79	
29	13157-005	659216		6.60		979544		7.43		943649		10.79	
30	13157-006	656065		6.60		974956		7.43		942794		10.79	
31	13157-007	662488		6.60		983855		7.43		981414		10.79	
32	13157-008	646238		6.60		965866		7.43		949010		10.79	
33	13157-009	647340		6.60		959748		7.43		938126		10.79	
34	13157-010	653638		6.60		988354		7.43		965997		10.79	
35	13157-011	624824		6.60		936701		7.43		923978		10.79	
36	13156-001	681986		6.60		1016819		7.43		999586		10.79	
37	13155-001	626971		6.60		941207		7.43		918053		10.79	
38	13151-001	669758		6.60		1004677		7.43		991686		10.79	
39	13101-001	685452		6.60		1011216		7.43		992199		10.79	
40	13101-002	633012		6.60		956130		7.43		939747		10.79	
41	13112-001	617604		6.60		937066		7.43		926704		10.79	
42	13112-002	666532		6.60		999358		7.43		959212		10.78	
43	13112-003	668951		6.60		990535		7.43		972045		10.79	
44	13112-004	664151		6.60		987336		7.43		956620		10.79	

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E0697.D

Date Analyzed: 01/11/2010

Instrument ID: MSD_E

Time Analyzed: 10:18

	30UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	817714		6.60		1198956		7.43		1158047		10.79	
	UPPER LIMIT	1635428		7.10		2397912		7.93		2316094		11.29	
	LOWER LIMIT	408857		6.10		599478		6.93		579023.5		10.29	
	LAB SAMPLE ID												
01	METHOD_BLK	785179		6.60		1158184		7.43		1104464		10.79	
02	00091-1DIL	778702		6.60		1134197		7.43		1111351		10.79	
03	LFB_20PPB	915143		6.60		1333711		7.43		1280700		10.79	
04	00197-001MS	891574		6.60		1302867		7.43		1257534		10.79	
05	00197-001MSD	860189		6.60		1263337		7.43		1212163		10.79	
06	00198-001	797965		6.60		1194085		7.43		1150090		10.79	
07	00198-002	747695		6.60		1124797		7.43		1073709		10.79	
08	00198-003	732434		6.60		1088715		7.43		1041280		10.79	
09	00141-002	738172		6.60		1077204		7.43		1050115		10.79	
10	00141-003	837268		6.60		1245668		7.43		1183684		10.79	
11	00188-001	919898		6.60		1382120		7.43		1300938		10.79	
12	00192-001	918143		6.60		1377507		7.43		1305199		10.79	
13	00197-001	912200		6.60		1382193		7.43		1340628		10.79	
14	00197-002	934349		6.60		1394736		7.43		1308065		10.79	
15	00197-003	887669		6.60		1355058		7.43		1268151		10.79	
16	00197-004	866208		6.60		1307385		7.43		1231376		10.79	
17	00197-005	812693		6.60		1213849		7.43		1152821		10.79	
18	00176-001	783237		6.60		1168210		7.43		1123499		10.79	
19	00176-002	741498		6.60		1105447		7.43		1053912		10.79	
20	00176-003	734519		6.60		1106343		7.43		1078608		10.79	
21	00176-004	711444		6.60		1059517		7.43		1017807		10.79	
22	00176-005	688500		6.60		1030675		7.43		978718		10.79	

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E0697.D Date Analyzed: 01/11/2010

Instrument ID: MSD_E ime Analyzed: 10:18

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	817714	6.60	1198956	7.43	1158047	10.79
	UPPER LIMIT	1635428	7.10	2397912	7.93	2316094	11.29
	LOWER LIMIT	408857	6.10	599478	6.93	579023.5	10.29
	LAB SAMPLE ID						
23	00176-006	770057	6.60	1165767	7.43	1111582	10.79
24							
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IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0716.D
Acq On : 11 Jan 2010 20:33
Operator : DANA
Sample : TRIP,00176-001,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 12 10:21:54 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.60	168	783237	30.00	UG	0.00
31) 1,4-Difluorobenzene	7.43	114	1168210	30.00	UG	0.00
50) Chlorobenzene-d5	10.79	117	1123499	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.95	65	580453	28.01	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 93.37%			
41) Toluene-d8	9.10	98	1485923	28.66	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.53%			
59) Bromofluorobenzene	12.19	95	671731	28.32	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 94.40%			

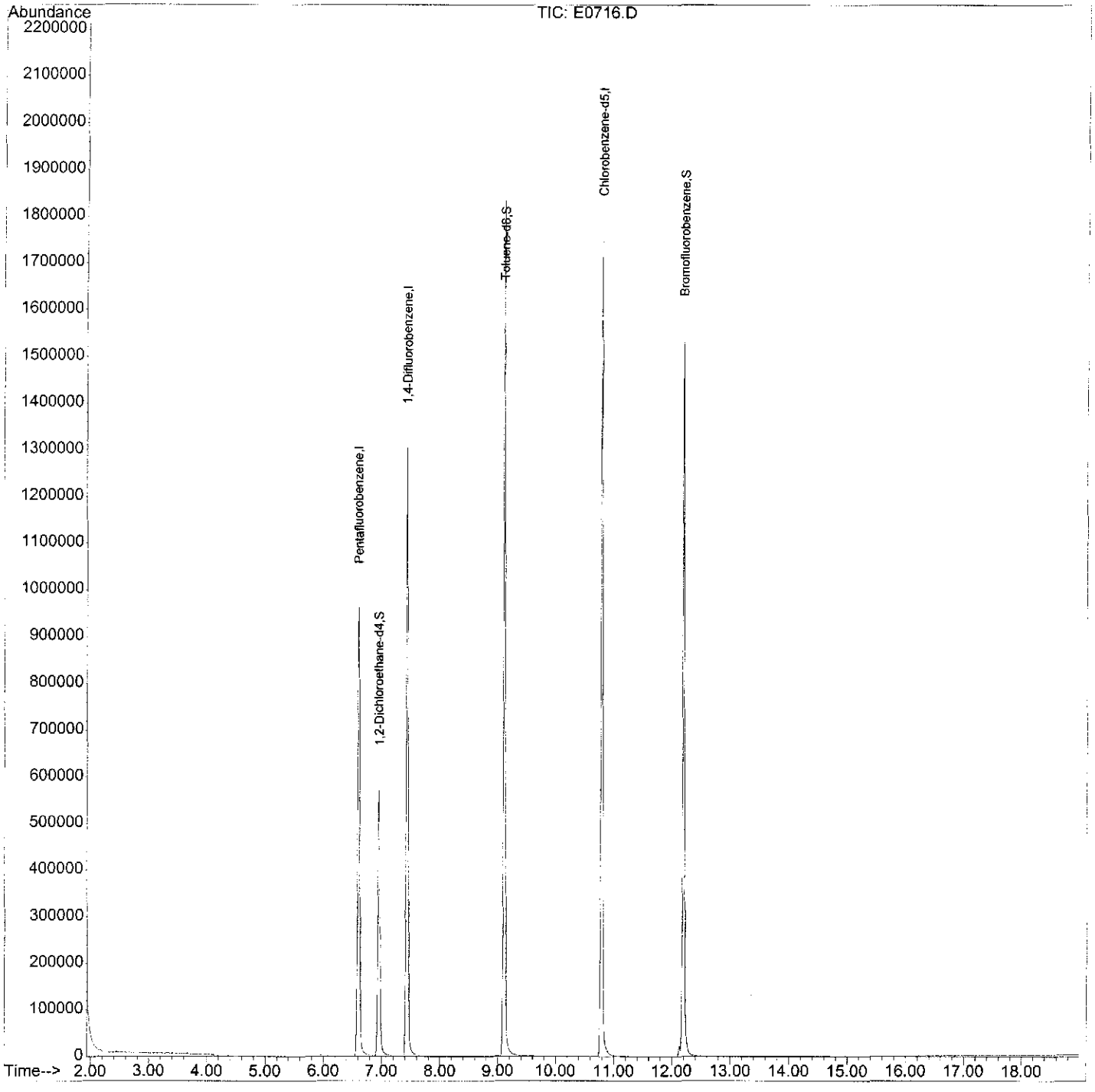
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0716.D
Acq On : 11 Jan 2010 20:33
Operator : DANA
Sample : TRIP,00176-001,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 12 10:21:54 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0716.D
Acq On : 11 Jan 2010 20:33
Operator : DANA
Sample : TRIP,00176-001,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 22 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.03 Max Peaks: 100
Stop Thrs : 0.03 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.598	876	889	934	rBV	962605	2413611	61.10%	13.665%
2	6.949	945	956	996	rBV	572770	1459106	36.94%	8.261%
3	7.431	1036	1048	1085	rBV	1304259	2963139	75.01%	16.776%
4	9.104	1354	1367	1411	rBV	1846395	3950228	100.00%	22.365%
5	10.787	1675	1688	1725	rBV	1750605	3650568	92.41%	20.668%
6	12.192	1947	1956	1987	rVB	1533557	3225835	81.66%	18.264%

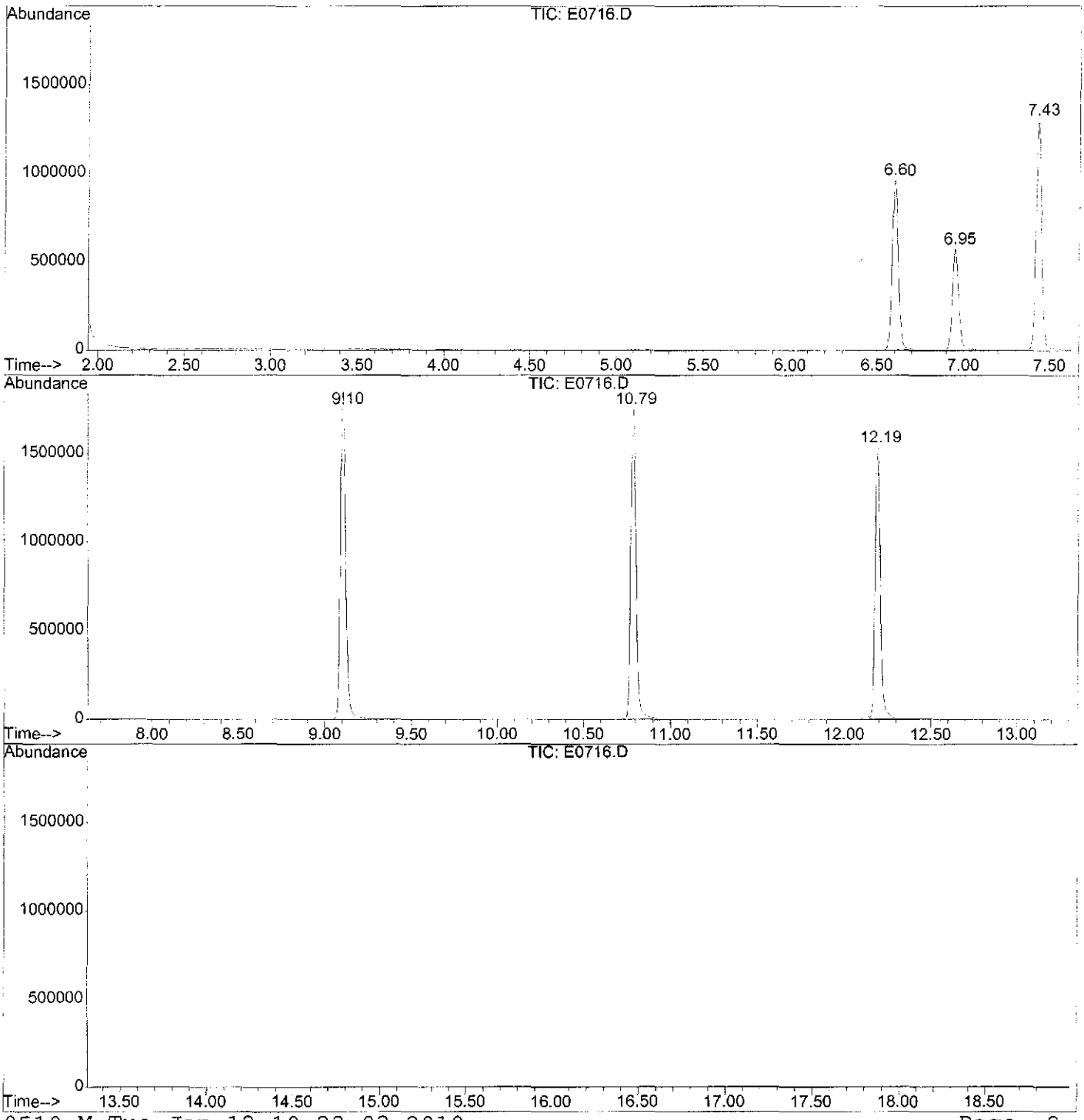
Sum of corrected areas: 17662487

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0716.D
Acq On : 11 Jan 2010 20:33
Operator : DANA
Sample : TRIP,00176-001,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0717.D
Acq On : 11 Jan 2010 21:01
Operator : DANA
Sample : FIELD,00176-002,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 12 10:22:46 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.60	168	741498	30.00	UG	0.00
31) 1,4-Difluorobenzene	7.43	114	1105447	30.00	UG	0.00
50) Chlorobenzene-d5	10.79	117	1053912	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.95	65	565010	28.80	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 96.00%			
41) Toluene-d8	9.10	98	1388075	28.29	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 94.30%			
59) Bromofluorobenzene	12.19	95	644605	28.97	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 96.57%			

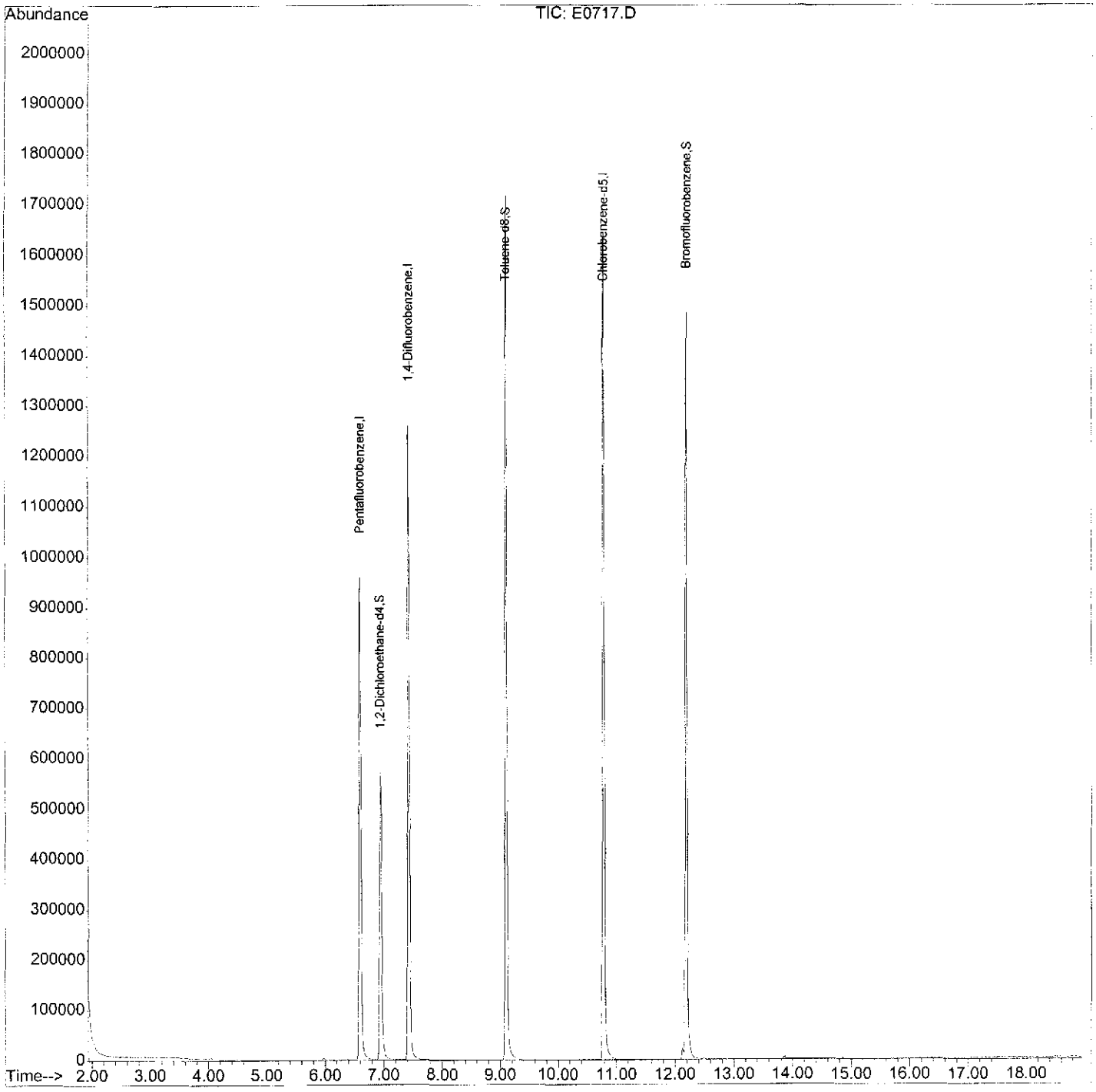
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0717.D
Acq On : 11 Jan 2010 21:01
Operator : DANA
Sample : FIELD,00176-002,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 12 10:22:46 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0717.D
Acq On : 11 Jan 2010 21:01
Operator : DANA
Sample : FIELD,00176-002,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 23 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.03 Max Peaks: 100
Stop Thrs : 0.03 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.598	873	889	932	rBV	959971	2306560	62.00%	13.720%
2	6.949	943	956	986	rBV	570982	1404463	37.75%	8.354%
3	7.432	1033	1048	1084	rBV	1260709	2820490	75.81%	16.776%
4	9.099	1355	1366	1407	rBV	1717945	3720404	100.00%	22.129%
5	10.782	1673	1687	1724	rBV	1636852	3455083	92.87%	20.551%
6	12.192	1947	1956	1985	rVB	1483945	3105154	83.46%	18.470%

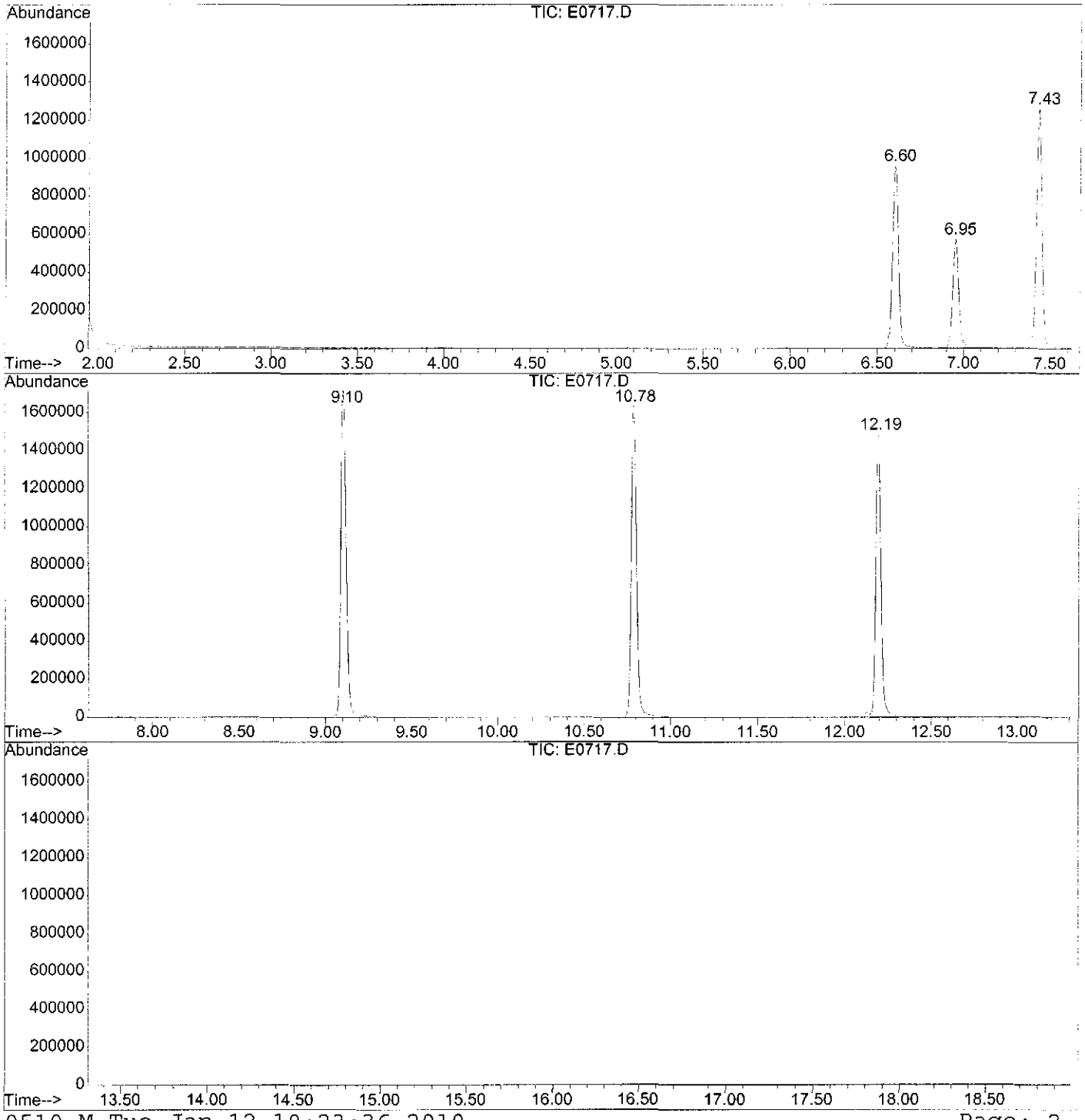
Sum of corrected areas: 16812154

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0717.D
Acq On : 11 Jan 2010 21:01
Operator : DANA
Sample : FIELD,00176-002,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0718.D
Acq On : 11 Jan 2010 21:30
Operator : DANA
Sample : MW11,00176-003,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 12 10:24:15 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration

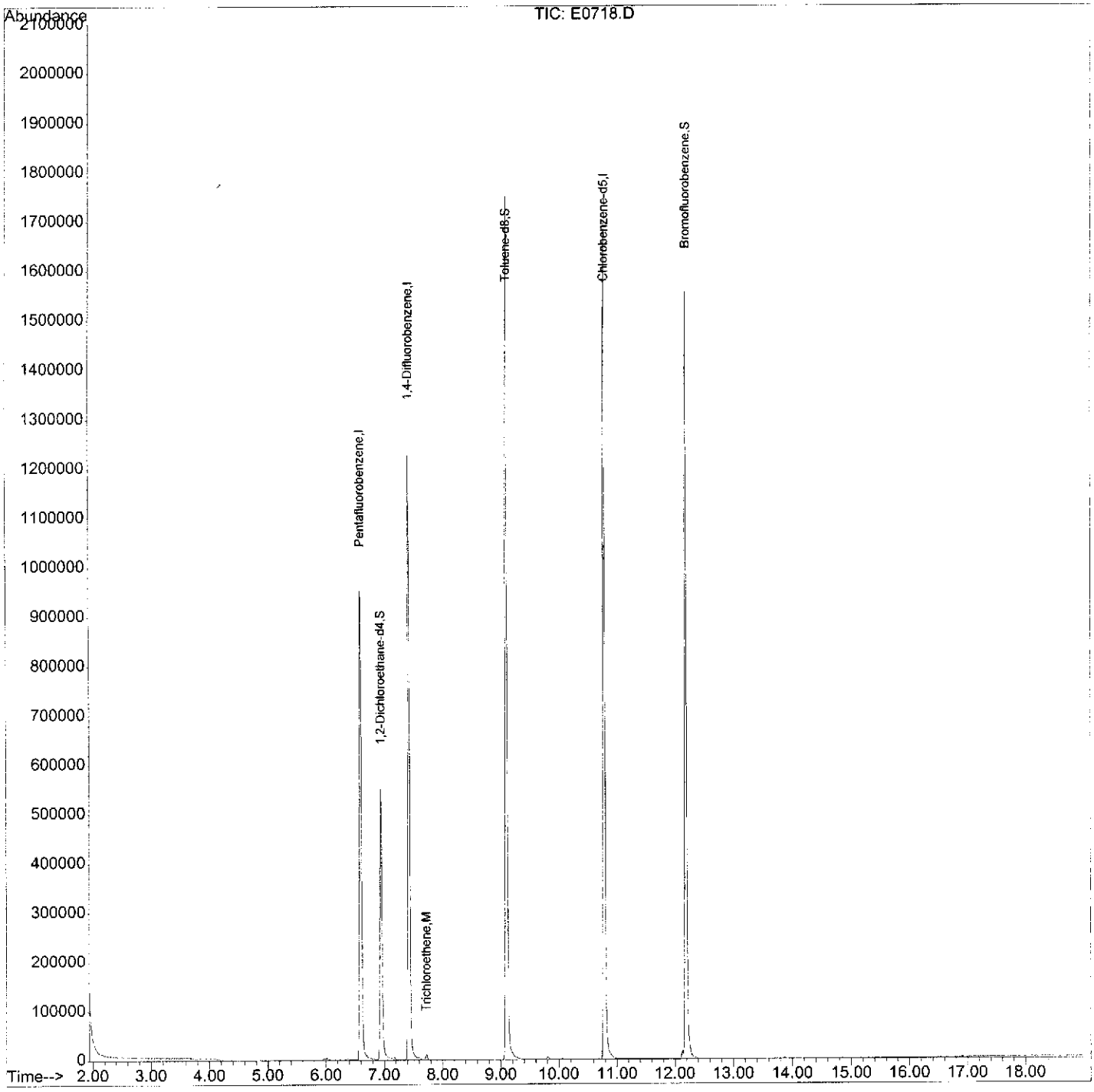
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.60	168	734519	30.00	UG	0.00
31) 1,4-Difluorobenzene	7.43	114	1106343	30.00	UG	0.00
50) Chlorobenzene-d5	10.79	117	1078608	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.95	65	556860	28.65	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.50%			
41) Toluene-d8	9.10	98	1399173	28.49	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 94.97%			
59) Bromofluorobenzene	12.19	95	653630	28.70	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.67%			
Target Compounds						Qvalue
33) Trichloroethene	7.73	95	4397	0.34	UG	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0718.D
Acq On : 11 Jan 2010 21:30
Operator : DANA
Sample : MW11,00176-003,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 12 10:24:15 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0718.D
Acq On : 11 Jan 2010 21:30
Operator : DANA
Sample : MW11,00176-003,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 24 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.03 Max Peaks: 100
Stop Thrs : 0.03 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.598	874	889	919	rBV	952898	2290618	61.24%	13.570%
2	6.949	944	956	988	rBV	551741	1375053	36.77%	8.146%
3	7.431	1033	1048	1074	rBV	1249895	2817994	75.35%	16.694%
4	9.104	1351	1367	1398	rBV	1750600	3740093	100.00%	22.157%
5	10.787	1674	1688	1723	rBV	1700061	3519788	94.11%	20.852%
6	12.192	1947	1956	1988	rVB	1553140	3136544	83.86%	18.581%

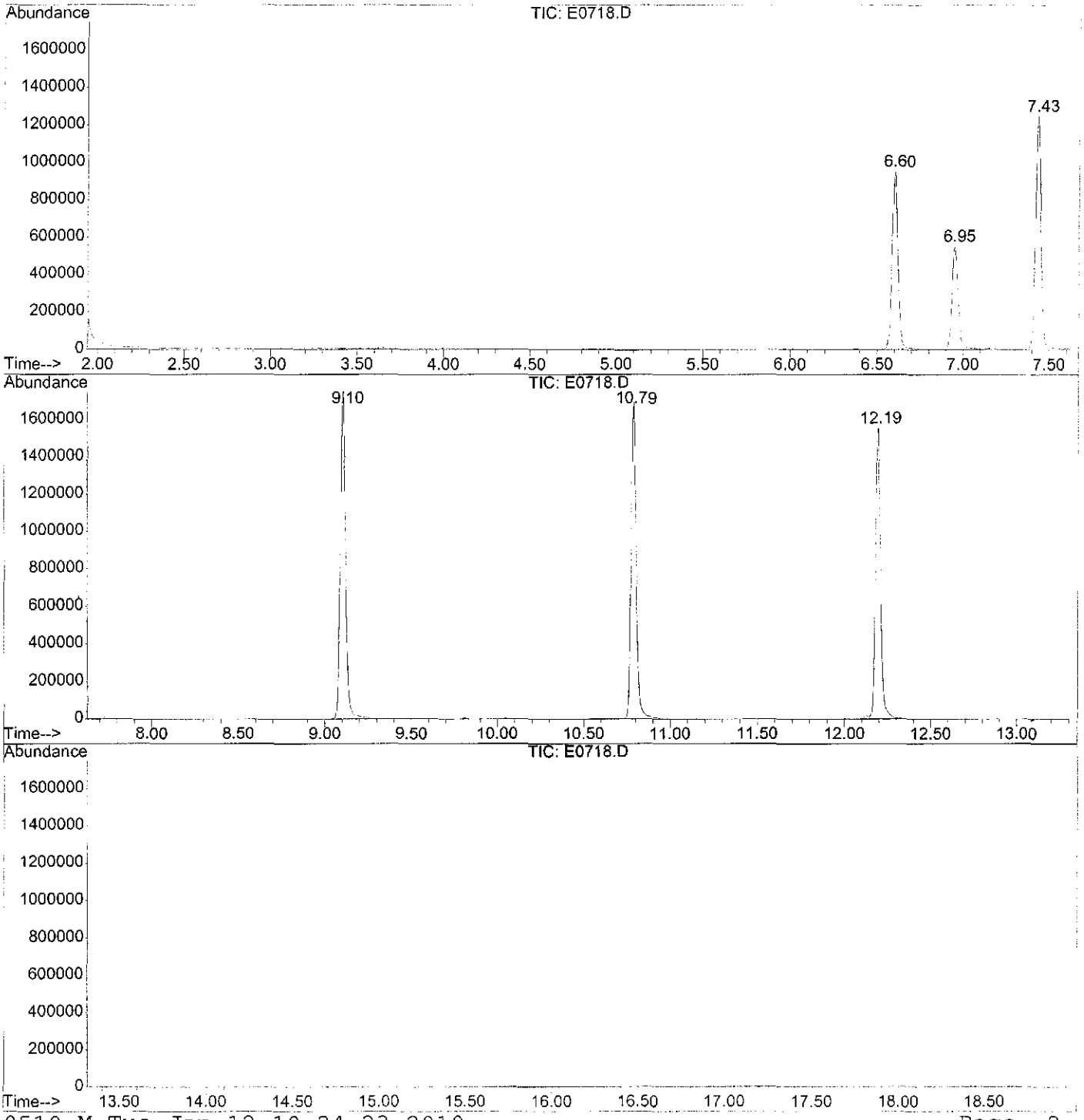
Sum of corrected areas: 16880090

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0718.D
Acq On : 11 Jan 2010 21:30
Operator : DANA
Sample : MW11,00176-003,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0719.D
Acq On : 11 Jan 2010 21:58
Operator : DANA
Sample : MW9,00176-004,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 12 10:25:24 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration

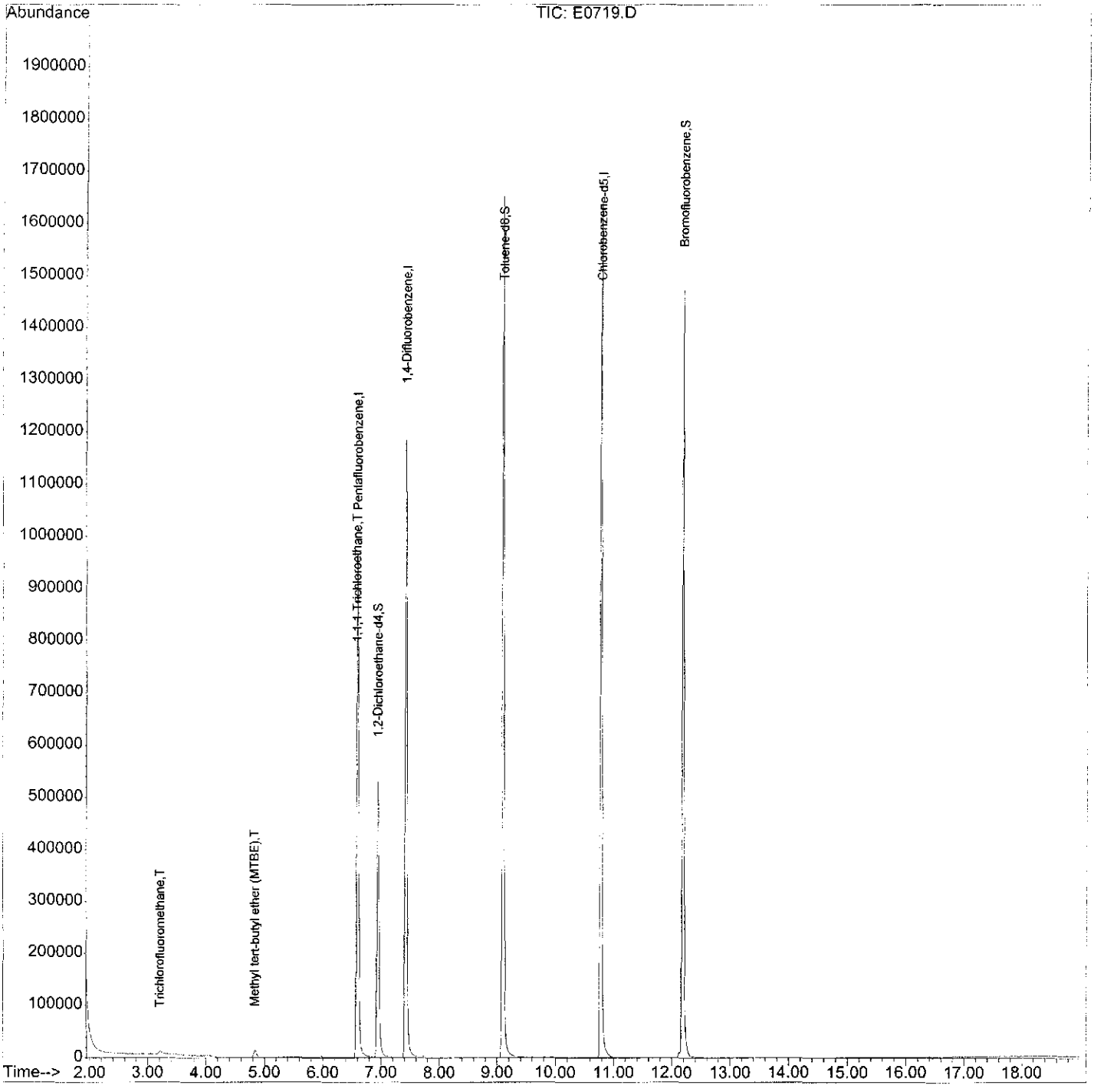
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.60	168	711444	30.00	UG	0.00
31) 1,4-Difluorobenzene	7.43	114	1059517	30.00	UG	0.00
50) Chlorobenzene-d5	10.79	117	1017807	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.95	65	540949	28.74	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.80%			
41) Toluene-d8	9.10	98	1335981	28.41	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 94.70%			
59) Bromofluorobenzene	12.19	95	614202	28.58	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.27%			
Target Compounds						Qvalue
7) Trichlorofluoromethane	3.22	101	12585m	0.58	UG	
17) Methyl tert-butyl ether (M	4.84	73	22573m	0.64	UG	
26) 1,1,1-Trichloroethane	6.58	97	33461	1.83	UG	# 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0719.D
Acq On : 11 Jan 2010 21:58
Operator : DANA
Sample : MW9,00176-004,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 12 10:25:24 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0719.D
Acq On : 11 Jan 2010 21:58
Operator : DANA
Sample : MW9,00176-004,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 25 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.03 Max Peaks: 100
Stop Thrs : 0.03 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.598	868	889	924	rBV	967142	2313809	65.01%	14.275%
2	6.949	943	956	980	rBV	530986	1341859	37.70%	8.278%
3	7.431	1035	1048	1085	rBV	1209327	2697494	75.79%	16.642%
4	9.104	1352	1367	1397	rBV	1655898	3559334	100.00%	21.959%
5	10.787	1673	1688	1727	rBV	1639184	3337854	93.78%	20.593%
6	12.192	1947	1956	1988	rVB	1470519	2958643	83.12%	18.253%

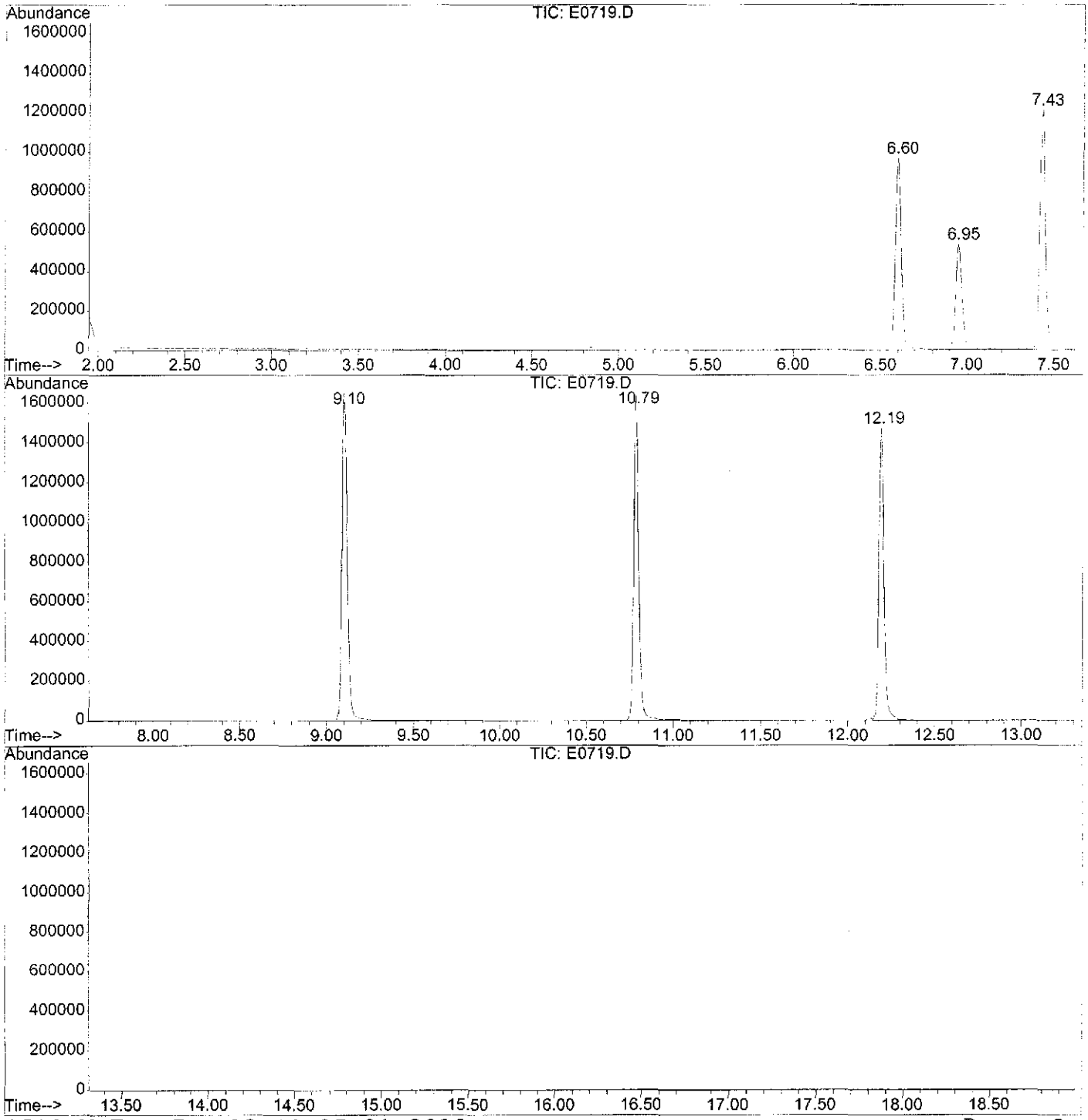
Sum of corrected areas: 16208993

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0719.D
Acq On : 11 Jan 2010 21:58
Operator : DANA
Sample : MW9,00176-004,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0720.D
Acq On : 11 Jan 2010 22:26
Operator : DANA
Sample : MW8,00176-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 12 10:26:52 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration

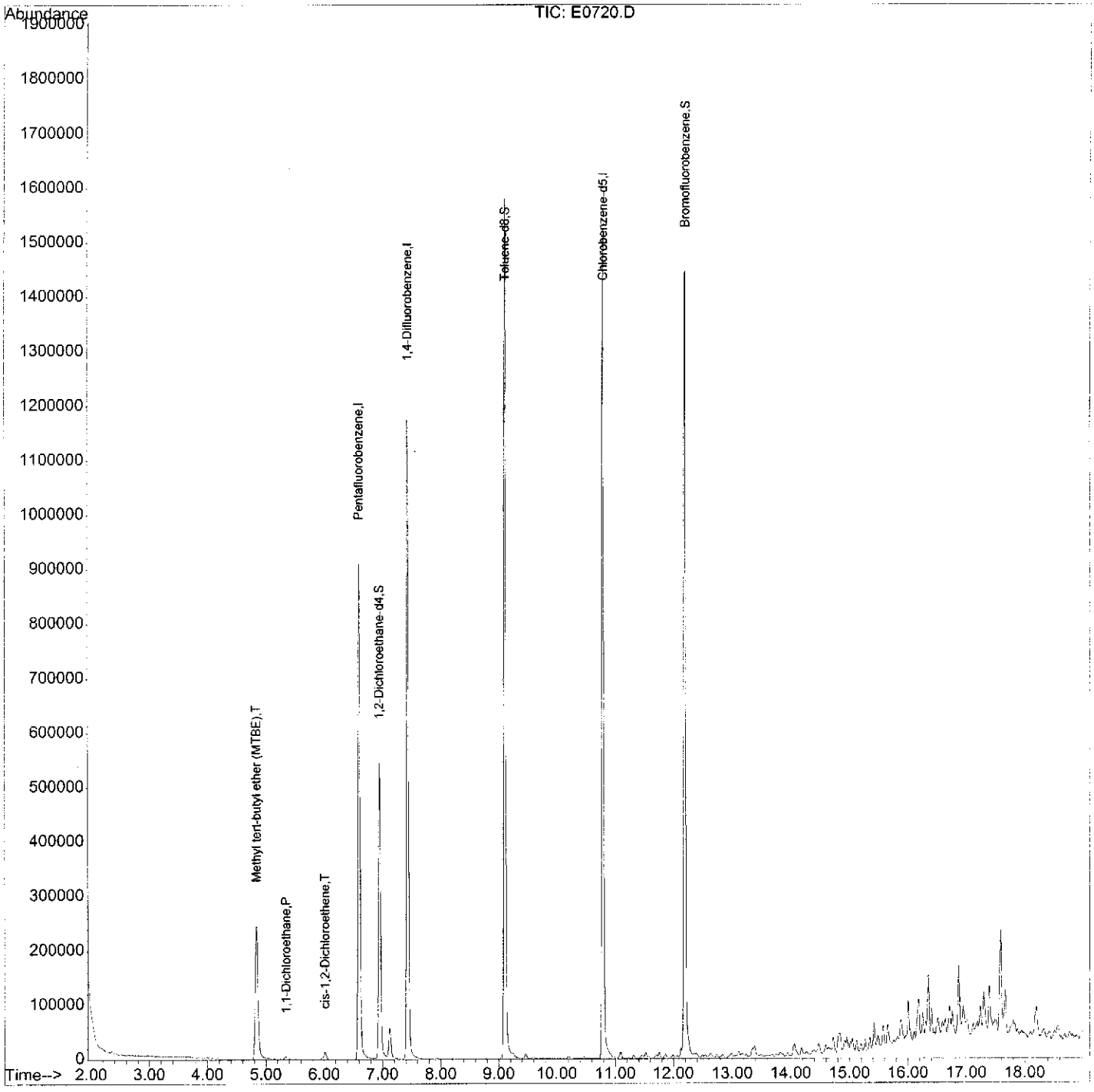
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.60	168	688500	30.00	UG		0.00
31) 1,4-Difluorobenzene	7.43	114	1030675	30.00	UG		0.00
50) Chlorobenzene-d5	10.79	117	978718	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.95	65	539447	29.61	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 98.70%				
41) Toluene-d8	9.10	98	1290127	28.20	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 94.00%				
59) Bromofluorobenzene	12.19	95	619064	29.96	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 99.87%				
Target Compounds							Qvalue
17) Methyl tert-butyl ether (M	4.84	73	382427	11.14	UG		100
18) 1,1-Dichloroethane	5.34	63	6264	0.31	UG		98
20) cis-1,2-Dichloroethene	6.01	96	7259	0.68	UG	#	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0720.D
Acq On : 11 Jan 2010 22:26
Operator : DANA
Sample : MW8,00176-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 12 10:26:52 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0720.D
Acq On : 11 Jan 2010 22:26
Operator : DANA
Sample : MW8,00176-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 26 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.03 Max Peaks: 100
Stop Thrs : 0.03 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.841	539	554	583	rBV	246014	825777	23.92%	4.016%
2	6.598	875	889	919	rBV	911246	2165233	62.73%	10.529%
3	6.949	944	956	979	rBV	543655	1311801	38.00%	6.379%
4	7.122	979	989	1009	rVB2	55150	155489	4.50%	0.756%
5	7.432	1035	1048	1074	rBV	1202144	2627111	76.11%	12.775%
6	9.104	1350	1367	1390	rBV	1587170	3451685	100.00%	16.785%
7	10.787	1674	1688	1724	rBV	1565445	3271020	94.77%	15.906%
8	12.192	1947	1956	1984	rVB	1441418	2973974	86.16%	14.462%
9	14.053	2302	2311	2329	rBV	22809	77133	2.23%	0.375%
10	14.819	2448	2457	2458	rBV5	36521	69583	2.02%	0.338%
11	15.422	2565	2572	2577	rBV	48072	87177	2.53%	0.424%
12	15.579	2594	2602	2610	rBV3	37172	76754	2.22%	0.373%
13	15.653	2610	2616	2631	rVV10	36079	84319	2.44%	0.410%
14	15.873	2651	2658	2671	rBV7	37554	100376	2.91%	0.488%
15	15.999	2677	2682	2696	rVB	72918	158100	4.58%	0.769%
16	16.182	2706	2717	2723	rBV6	71377	197703	5.73%	0.961%
17	16.256	2723	2731	2736	rVV3	44207	80658	2.34%	0.392%
18	16.345	2743	2748	2754	rVV3	111240	190251	5.51%	0.925%
19	16.402	2754	2759	2766	rVB4	46519	84056	2.44%	0.409%
20	16.523	2771	2782	2789	rVV9	35790	108030	3.13%	0.525%
21	16.596	2789	2796	2800	rVV9	27600	71181	2.06%	0.346%
22	16.706	2809	2817	2823	rVV6	56690	141215	4.09%	0.687%
23	16.759	2823	2827	2839	rVV2	45820	101019	2.93%	0.491%
24	16.869	2839	2848	2856	rVV2	129089	294255	8.52%	1.431%
25	16.942	2856	2862	2871	rVV6	54214	165074	4.78%	0.803%
26	17.011	2871	2875	2886	rVV10	29440	73533	2.13%	0.358%
27	17.241	2912	2919	2924	rVV5	52587	120303	3.49%	0.585%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0720.D
Acq On : 11 Jan 2010 22:26
Operator : DANA
Sample : MW8,00176-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 26 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.03 Max Peaks: 100
Stop Thrs : 0.03 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

28	17.294	2924	2929	2941	rVV5	77710	208269	6.03%	1.013%
29	17.388	2941	2947	2959	rVV5	88545	236734	6.86%	1.151%
30	17.482	2959	2965	2975	rVV5	26184	97554	2.83%	0.474%
31	17.582	2975	2984	2992	rVV	189713	471705	13.67%	2.294%
32	17.661	2992	2999	3009	rVB3	80435	187432	5.43%	0.911%
33	17.802	3009	3026	3037	rBV3	24064	108533	3.14%	0.528%
34	18.201	3088	3102	3112	rVV9	56429	191147	5.54%	0.930%

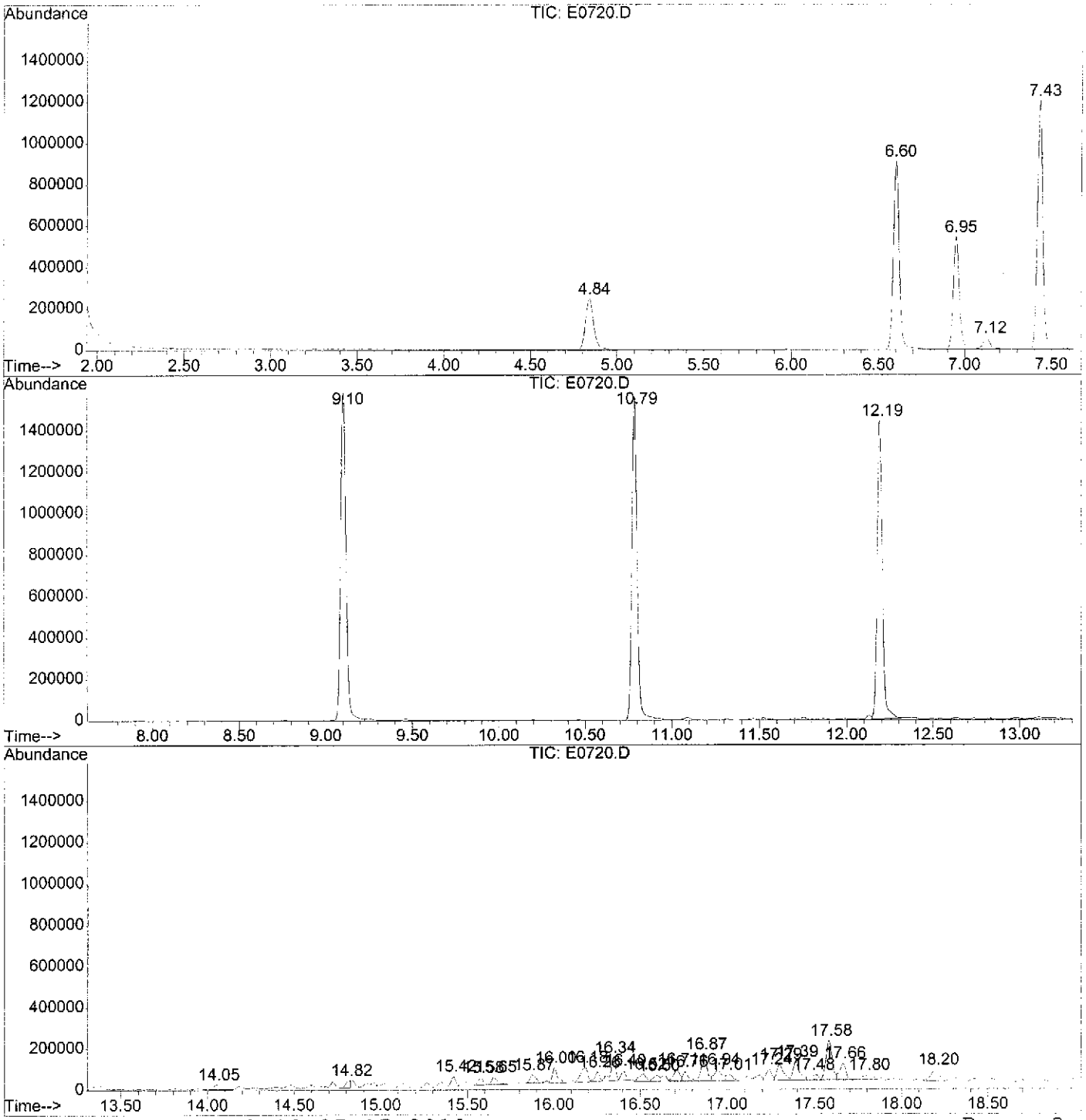
Sum of corrected areas: 20564184

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0720.D
Acq On : 11 Jan 2010 22:26
Operator : DANA
Sample : MW8,00176-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0720.D
Acq On : 11 Jan 2010 22:26
Operator : DANA
Sample : MW8,00176-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

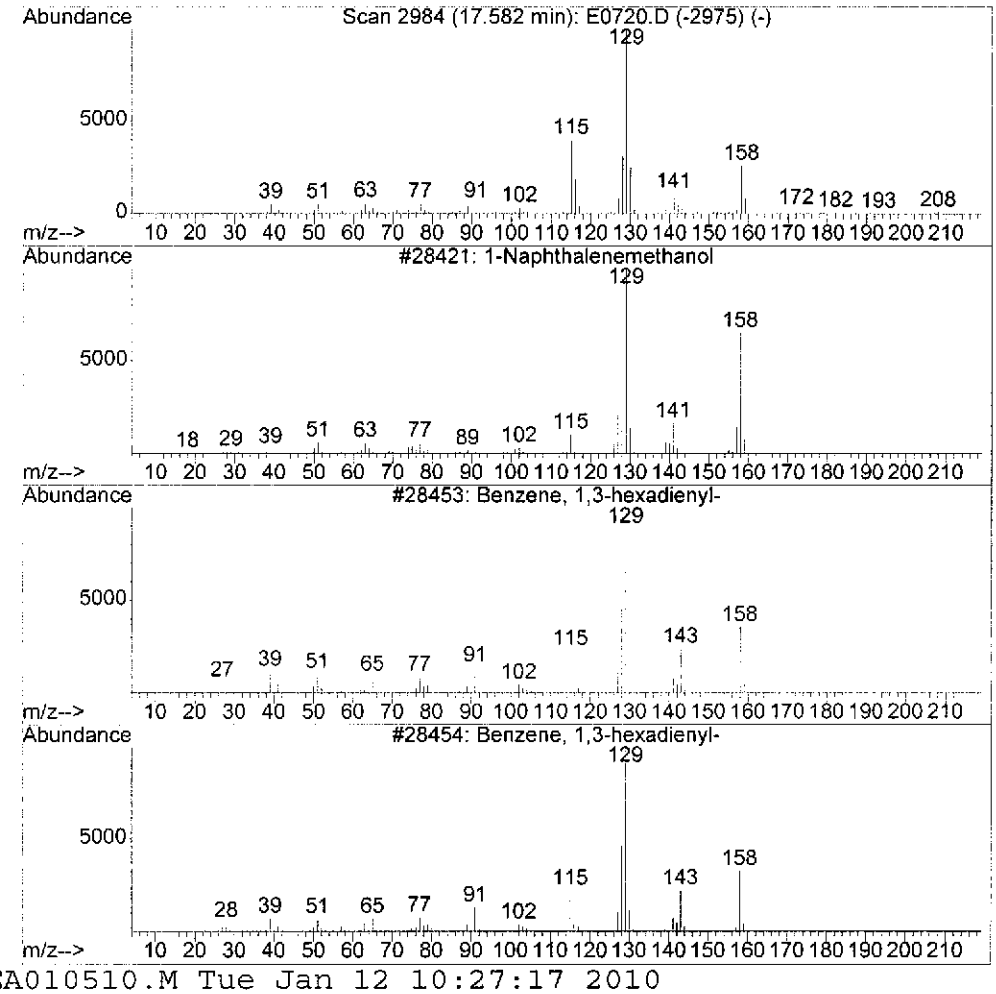
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

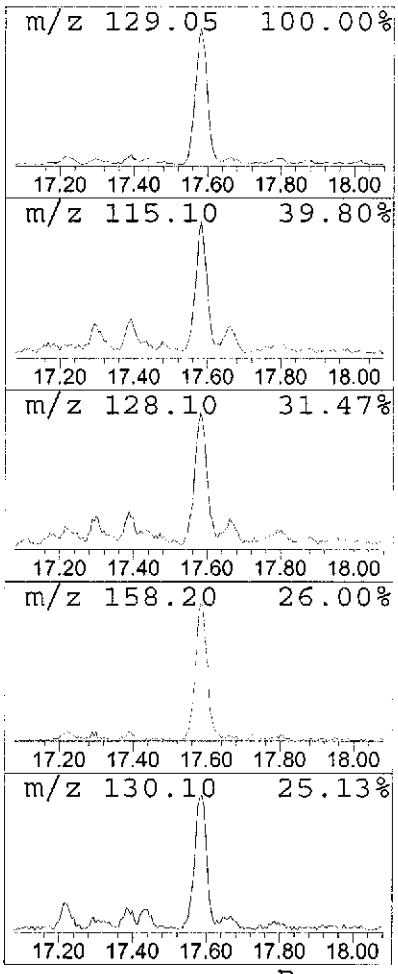
****

Peak Number 1 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.58	4.33 UG	471705	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Naphthalenemethanol	158	C11H10O	004780-79-4	64
2	Benzene, 1,3-hexadienyl-	158	C12H14	041635-77-2	52
3	Benzene, 1,3-hexadienyl-	158	C12H14	041635-77-2	52
4	Benzonitrile, 4-ethenyl-	129	C9H7N	003435-51-6	32
5	5H-Benzocycloheptene, 6,7-dihydro-	144	C11H12	007125-62-4	25





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jan 12 10:28:24 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration

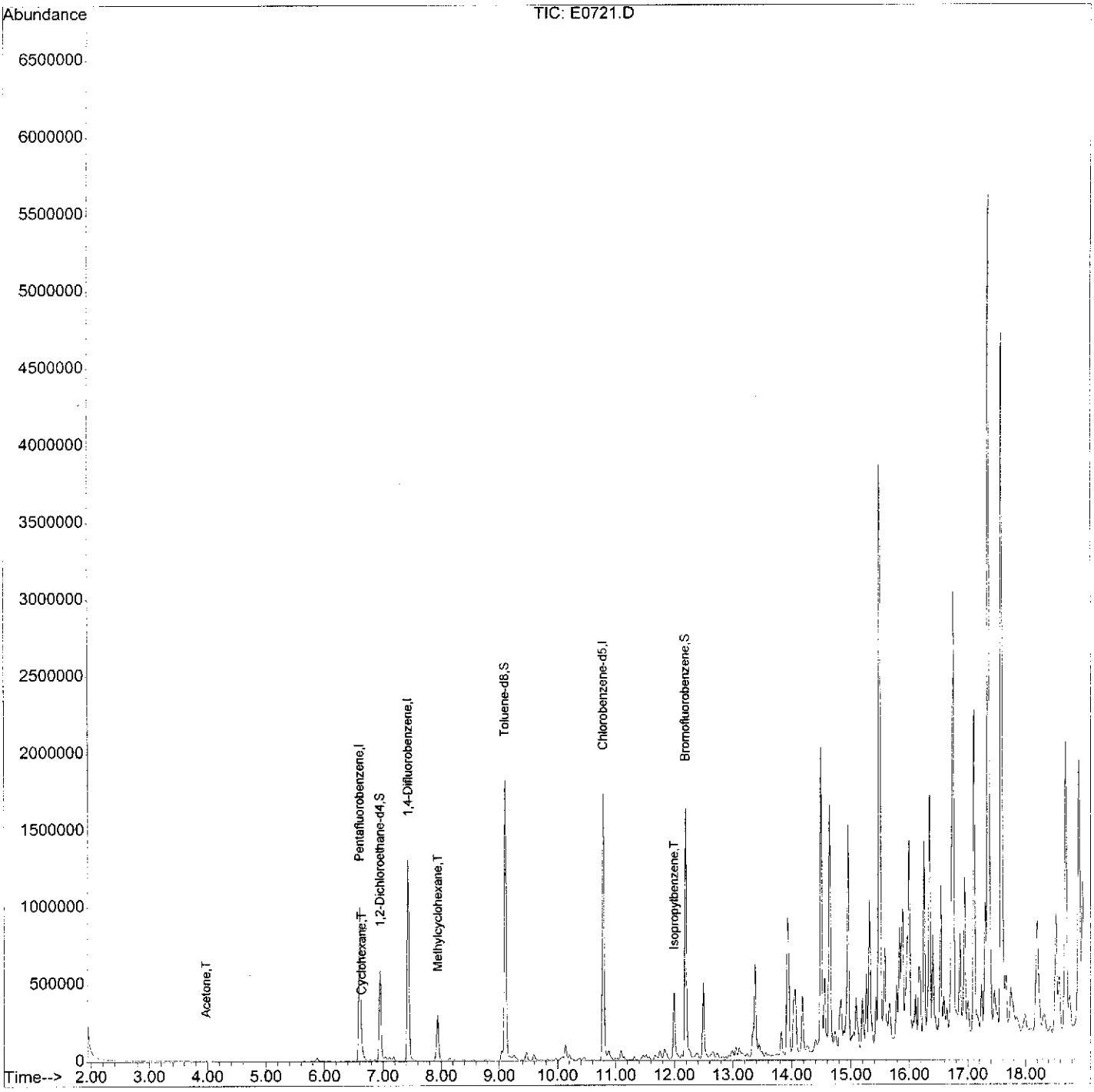
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.60	168	770057	30.00	UG	0.00
31) 1,4-Difluorobenzene	7.43	114	1165767	30.00	UG	0.00
50) Chlorobenzene-d5	10.79	117	1111582	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.95	65	579530	28.44	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 94.80%			
41) Toluene-d8	9.10	98	1483304	28.67	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.57%			
59) Bromofluorobenzene	12.19	95	709619	30.24	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 100.80%			
Target Compounds						Qvalue
10) Acetone	3.97	43	9881m	2.17	UG	
58) Isopropylbenzene	11.99	105	348115	6.40	UG	100
82) Cyclohexane	6.64	56	59036m	2.26	UG	
83) Methylcyclohexane	7.93	83	142919	8.40	UG	# 93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jan 12 10:28:24 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.03 Max Peaks: 100
Stop Thrs : 0.03 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.598	875	889	918	rBV	1018123	2576847	20.85%	1.970%
2	6.949	945	956	968	rBV	586851	1401232	11.34%	1.071%
3	7.432	1035	1048	1096	rBV	1308462	2971410	24.04%	2.271%
4	7.940	1128	1145	1174	rBV2	299009	790300	6.39%	0.604%
5	9.099	1358	1366	1383	rVB	1806759	3834680	31.03%	2.931%
6	10.782	1673	1687	1700	rBV	1735234	3614479	29.25%	2.763%
7	11.993	1903	1918	1937	rBV	427861	976380	7.90%	0.746%
8	12.187	1947	1955	1981	rVB	1640392	3378949	27.34%	2.583%
9	12.491	2004	2013	2030	rBV	488330	1038779	8.41%	0.794%
10	13.377	2163	2182	2190	rBV2	601383	1571157	12.71%	1.201%
11	13.823	2258	2267	2279	rVB	153958	324291	2.62%	0.248%
12	13.928	2279	2287	2299	rBV3	896713	2430689	19.67%	1.858%
13	14.059	2299	2312	2324	rVB3	408756	1343714	10.87%	1.027%
14	14.179	2324	2335	2345	rBV2	364177	740267	5.99%	0.566%
15	14.494	2383	2395	2402	rBV	1935436	3579862	28.97%	2.737%
16	14.557	2402	2407	2415	rVV	407934	756767	6.12%	0.579%
17	14.641	2415	2423	2434	rVB3	1553351	3207886	25.96%	2.452%
18	14.730	2434	2440	2449	rVB5	99961	249484	2.02%	0.191%
19	14.835	2449	2460	2466	rBV3	307415	918983	7.44%	0.703%
20	14.955	2472	2483	2491	rVB	1407380	2685984	21.73%	2.053%
21	15.092	2504	2509	2522	rVB2	326490	796268	6.44%	0.609%
22	15.197	2522	2529	2537	rBV2	329362	751162	6.08%	0.574%
23	15.265	2537	2542	2547	rVV	453205	771916	6.25%	0.590%
24	15.317	2547	2552	2566	rVB	936328	1878000	15.20%	1.436%
25	15.427	2566	2573	2576	rBV3	301279	503812	4.08%	0.385%
26	15.485	2576	2584	2594	rVV2	3739980	9174692	74.24%	7.014%
27	15.574	2594	2601	2612	rVV3	583830	1433027	11.60%	1.095%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.03 Max Peaks: 100
Stop Thrs : 0.03 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

28	15.658	2612	2617	2631	rVB6	227818	558362	4.52%	0.427%
29	15.778	2631	2640	2644	rBV2	344753	639026	5.17%	0.489%
30	15.831	2644	2650	2654	rVV	685138	1380283	11.17%	1.055%
31	15.889	2654	2661	2666	rVV2	794745	2039952	16.51%	1.559%
32	15.993	2666	2681	2692	rVB3	1223946	3574663	28.93%	2.733%
33	16.104	2698	2702	2707	rVB3	241231	360770	2.92%	0.276%
34	16.166	2707	2714	2724	rVB3	422729	1168638	9.46%	0.893%
35	16.256	2724	2731	2737	rBV	1239734	2083845	16.86%	1.593%
36	16.345	2737	2748	2754	rVV2	1531140	3063126	24.79%	2.342%
37	16.402	2754	2759	2774	rVB	622280	1201405	9.72%	0.918%
38	16.539	2774	2785	2790	rBV	941868	1670654	13.52%	1.277%
39	16.586	2790	2794	2800	rVV5	220524	437715	3.54%	0.335%
40	16.638	2800	2804	2810	rVV4	142609	256286	2.07%	0.196%
41	16.748	2810	2825	2841	rVV2	2856227	7562028	61.19%	5.781%
42	16.869	2841	2848	2855	rVV	627321	1307223	10.58%	0.999%
43	16.948	2855	2863	2869	rVV	995931	1920376	15.54%	1.468%
44	17.005	2869	2874	2884	rVB3	200289	425881	3.45%	0.326%
45	17.110	2884	2894	2912	rBV	2089556	4375551	35.41%	3.345%
46	17.236	2912	2918	2923	rVV3	296476	541612	4.38%	0.414%
47	17.299	2923	2930	2933	rVV2	829427	1591237	12.88%	1.216%
48	17.357	2933	2941	2955	rVV	5429934	12358136	100.00%	9.447%
49	17.462	2955	2961	2974	rVV9	253112	847138	6.85%	0.648%
50	17.577	2974	2983	2995	rVV	4529173	10309028	83.42%	7.881%
51	17.661	2995	2999	3006	rVV3	354219	755920	6.12%	0.578%
52	17.750	3006	3016	3031	rVV4	279532	1142098	9.24%	0.873%
53	17.849	3031	3035	3048	rVB9	94216	275135	2.23%	0.210%
54	17.986	3048	3061	3077	rBV5	110869	384040	3.11%	0.294%
55	18.201	3088	3102	3117	rBV3	718387	2407119	19.48%	1.840%
56	18.316	3117	3124	3138	rVB8	115560	398135	3.22%	0.304%
57	18.526	3151	3164	3170	rBV	771314	1974347	15.98%	1.509%
58	18.584	3170	3175	3184	rVB2	338377	757728	6.13%	0.579%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.03 Max Peaks: 100
Stop Thrs : 0.03 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

59	18.694	3184	3196	3205	rBV	1867582	4606461	37.27%	3.521%
60	18.767	3205	3210	3220	rVB4	197121	437992	3.54%	0.335%
61	18.919	3220	3239	3245	rBV	1730281	4300993	34.80%	3.288%

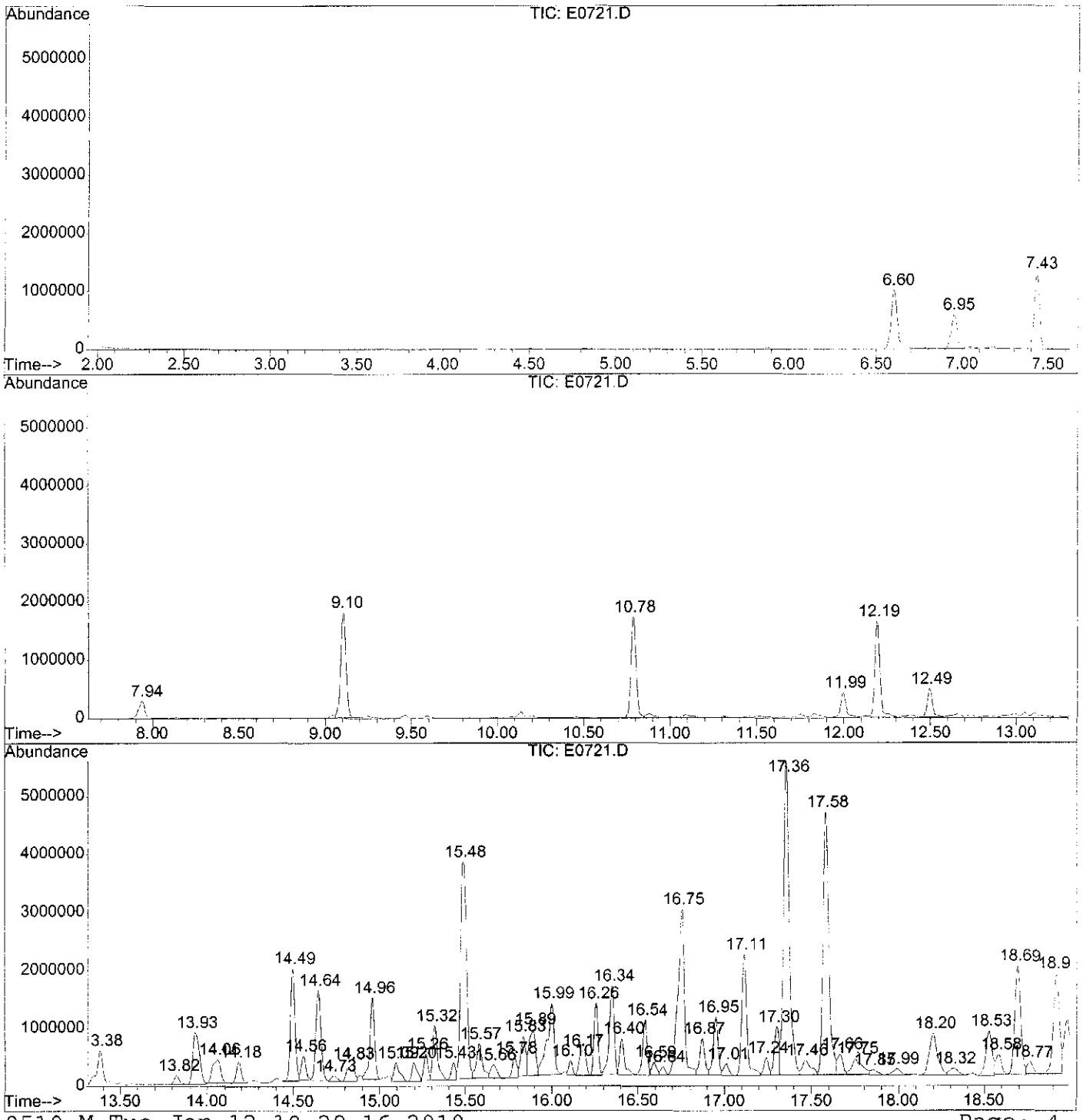
Sum of corrected areas: 130813920

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



0114

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

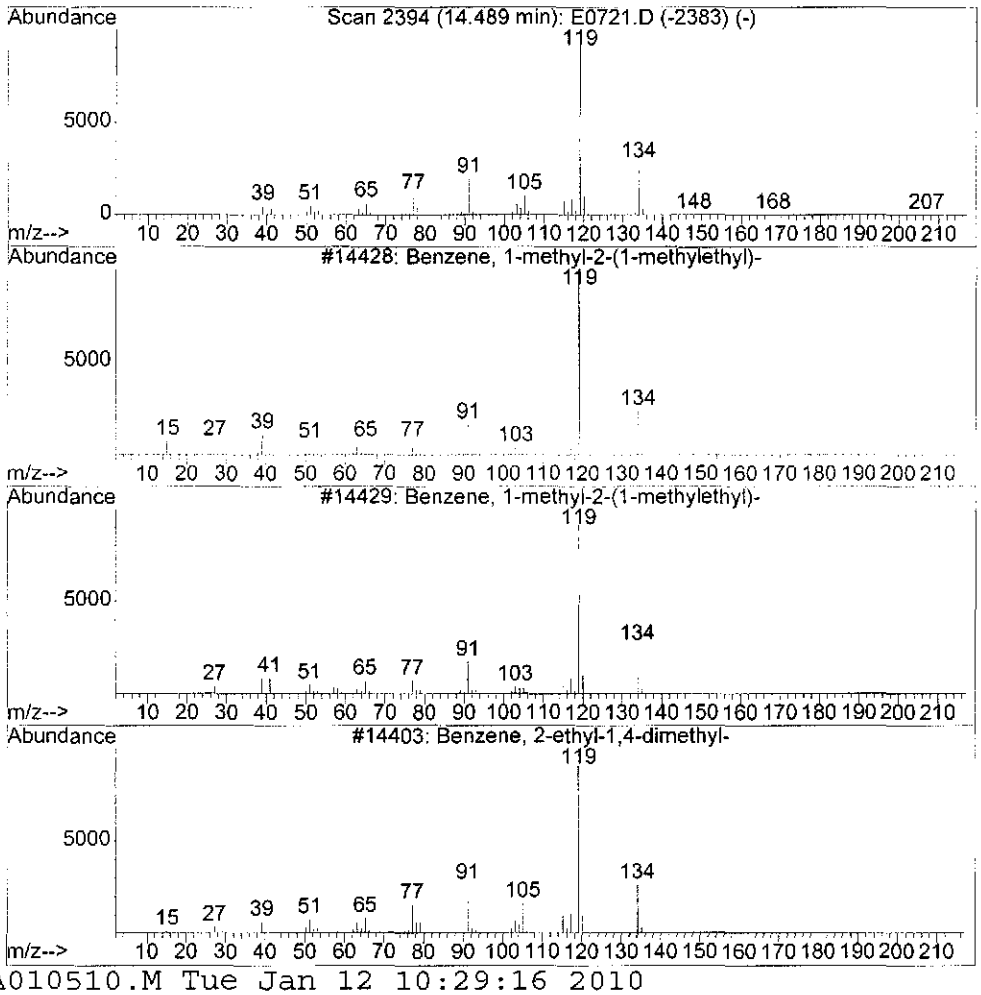
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

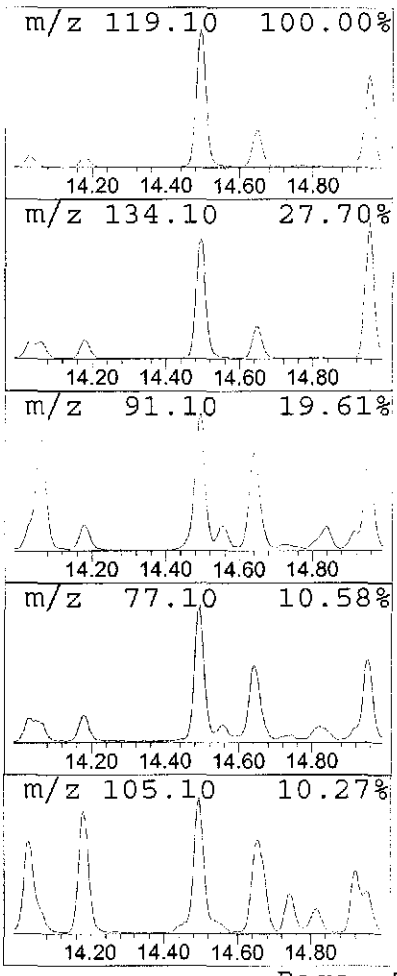
****

Peak Number 1 Substituted benzene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.49	29.71 UG	3579860	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
3	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	95
4	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	95
5	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

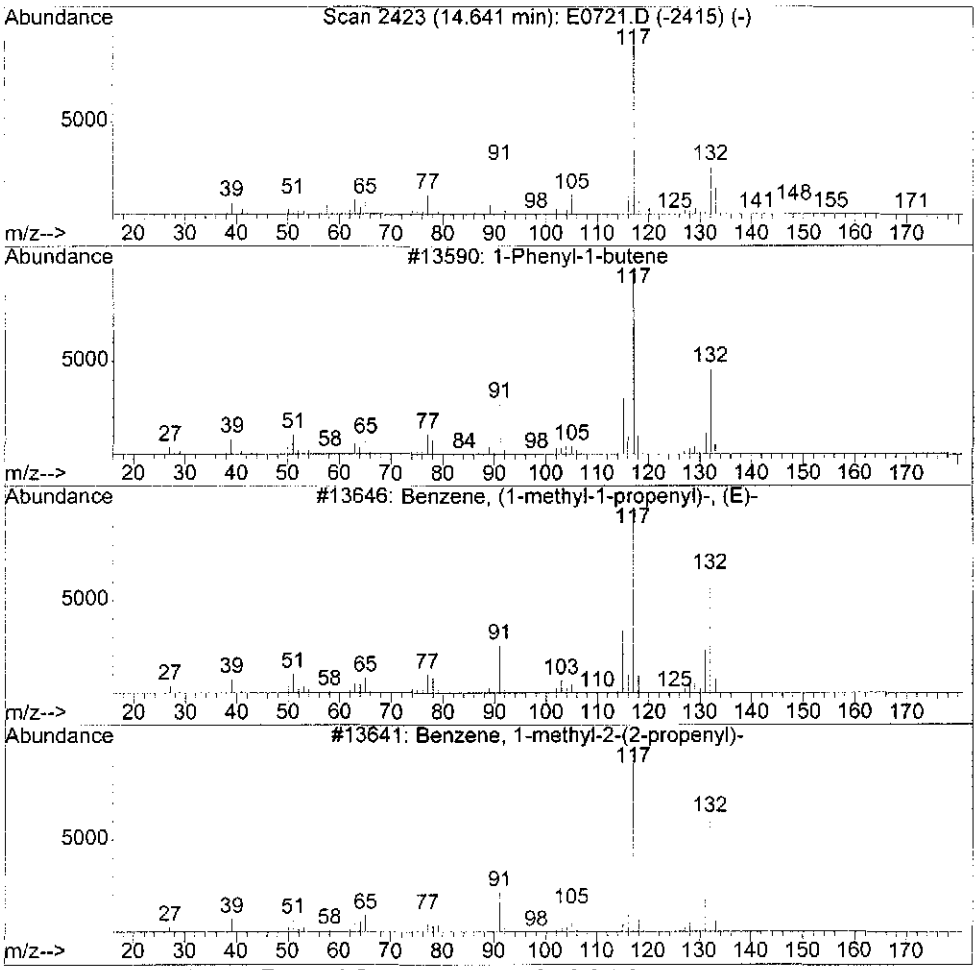
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

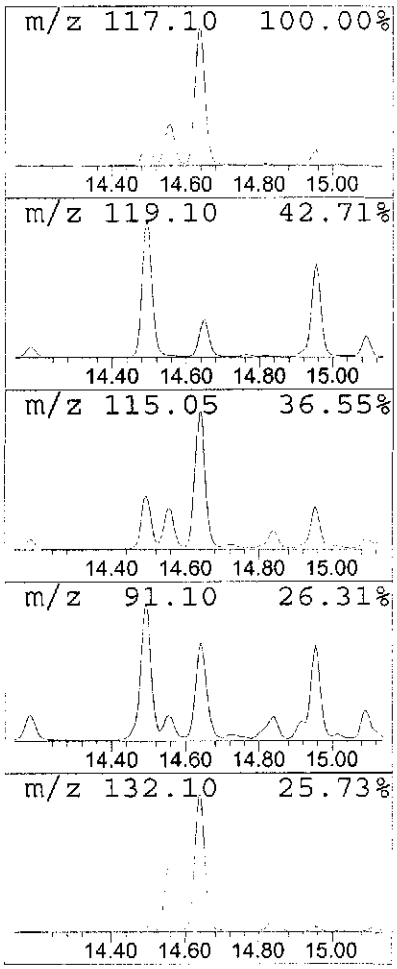
****

Peak Number 2 Unknown aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.64	26.63 UG	3207890	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Phenyl-1-butene	132	C10H12	000824-90-8	86
2	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	70
3	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	70
4	3-Phenylbut-1-ene	132	C10H12	000934-10-1	64
5	Indan, 1-methyl-	132	C10H12	000767-58-8	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

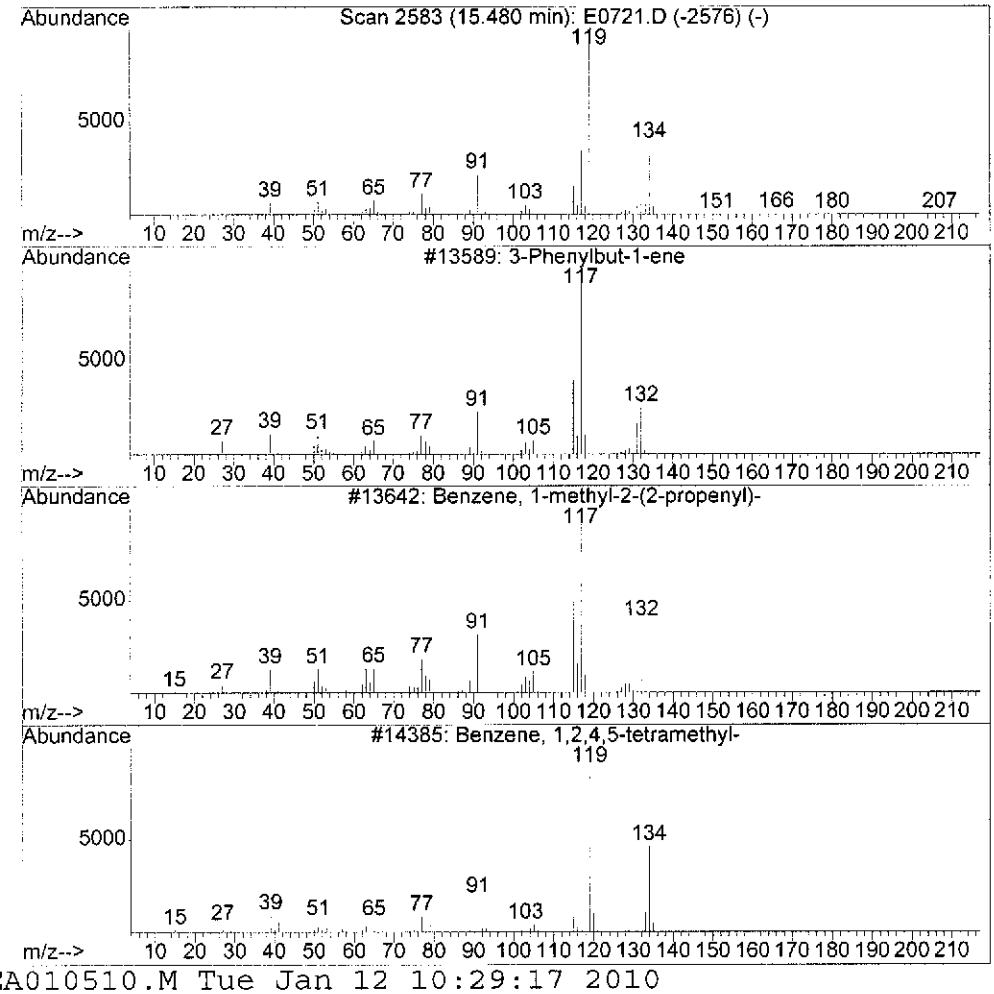
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

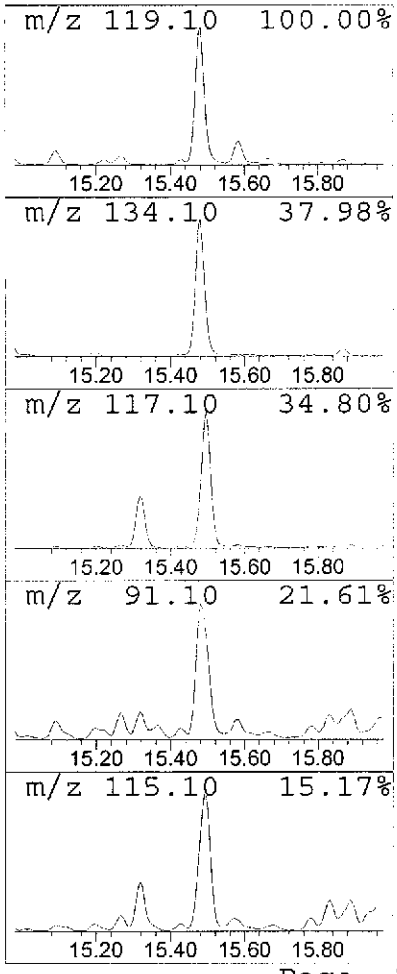
****

Peak Number 3 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.48	76.15 UG	9174690	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Phenylbut-1-ene	132	C10H12	000934-10-1	70
2	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	70
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	64
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	64
5	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	64





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

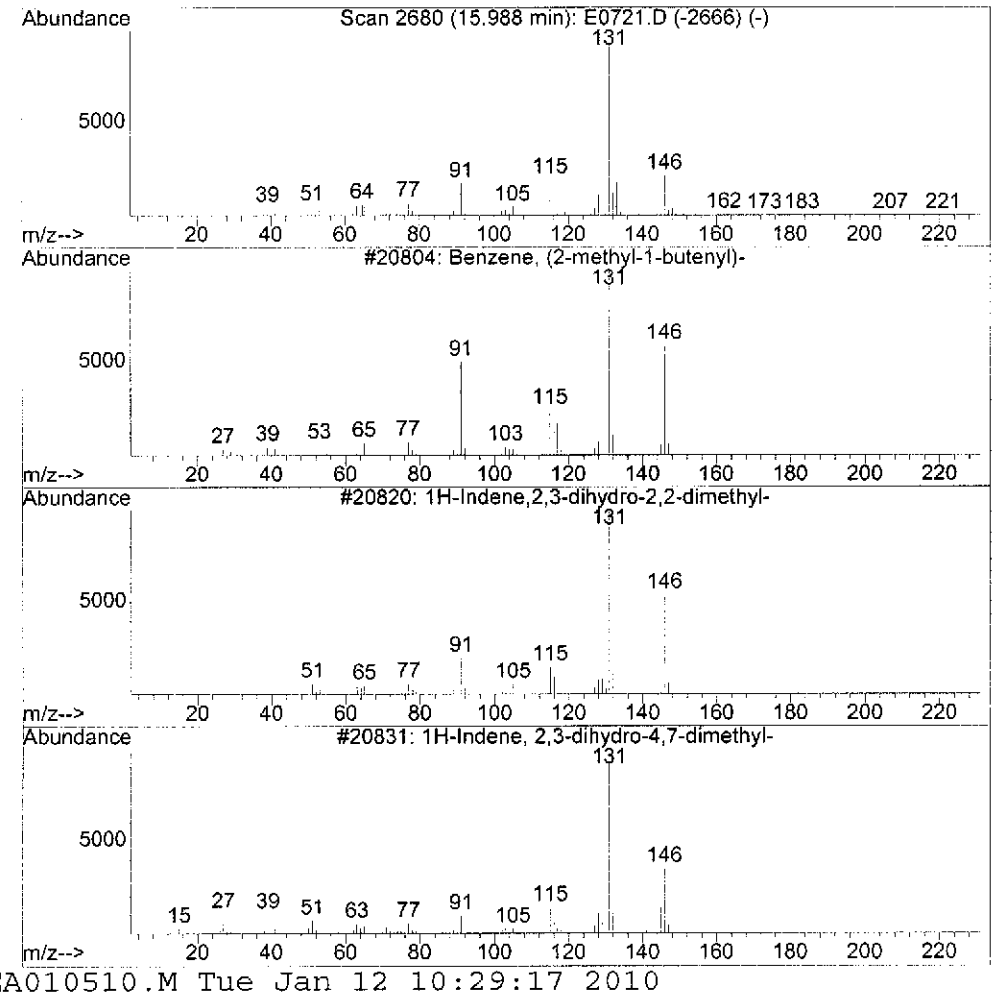
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

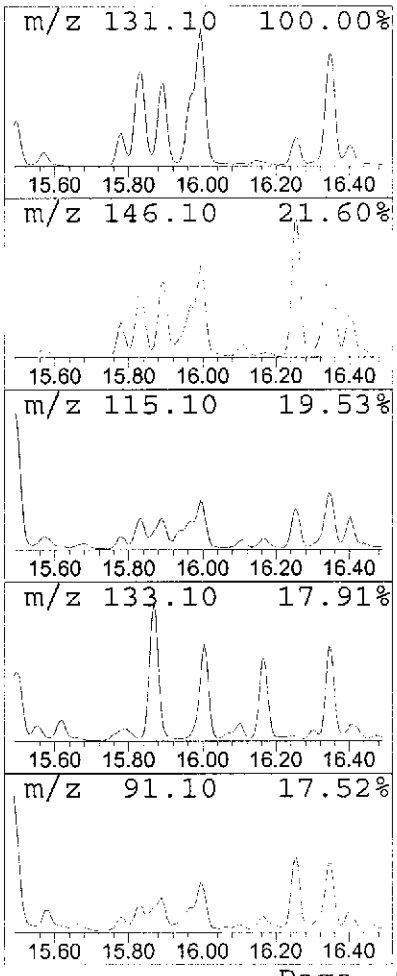
****

Peak Number 4 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.99	29.67 UG	3574660	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (2-methyl-1-butenyl)-	146	C11H14	056253-64-6	93
2	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	87
3	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	87
4	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	87
5	Benzene, 1-methyl-4-(1-methyl-2-...	146	C11H14	097664-18-1	81





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

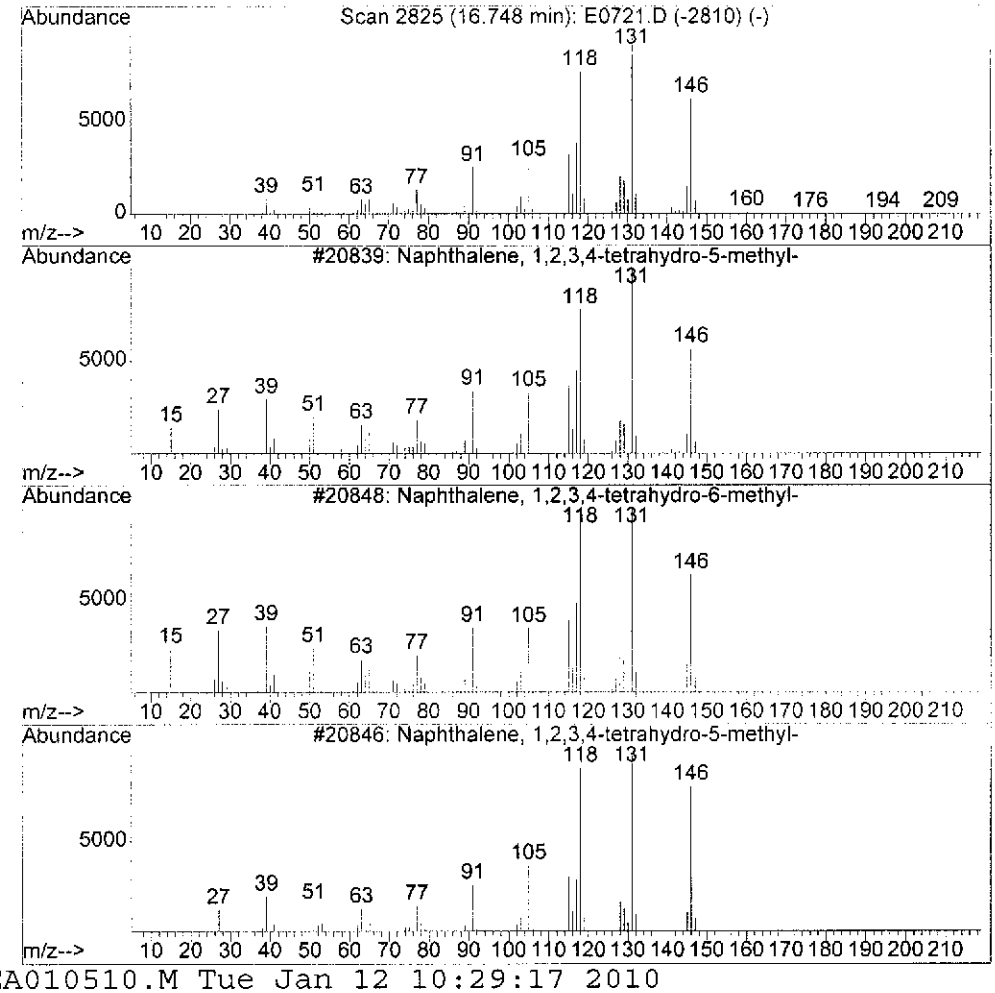
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

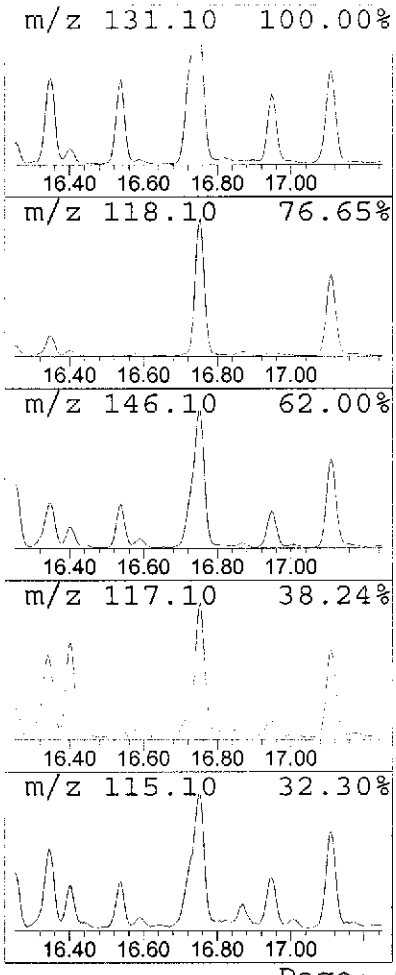
****

Peak Number 5 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.75	62.76 UG	7562030	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	96
2	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	96
3	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	96
4	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	95
5	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

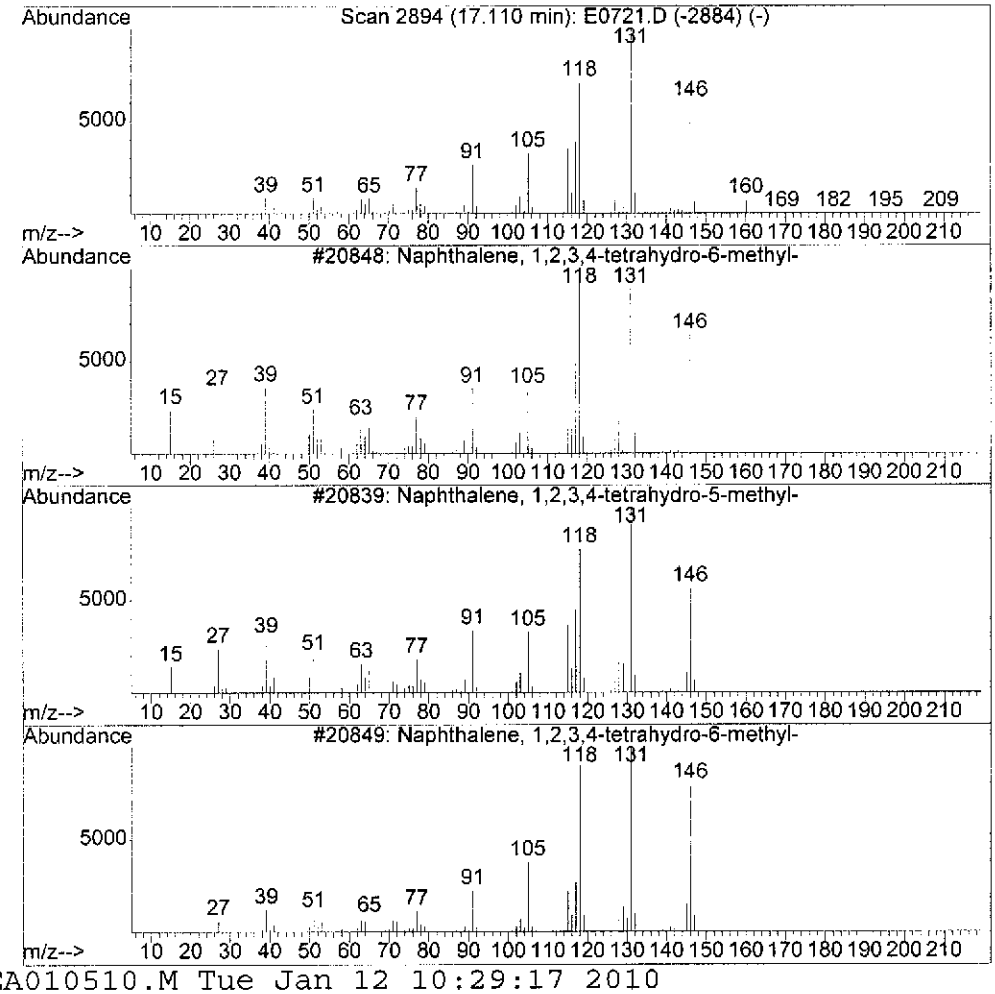
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

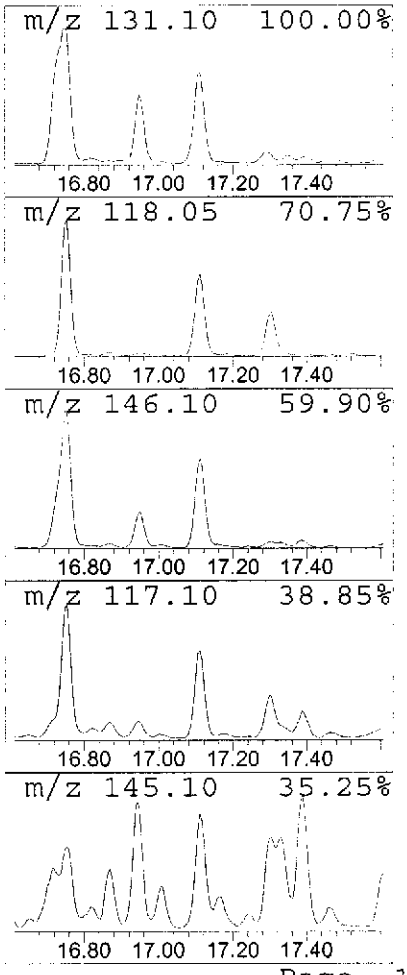
****

Peak Number 6 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.11	36.32 UG	4375550	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	95
2	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	93
3	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	81
4	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	81
5	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	81





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

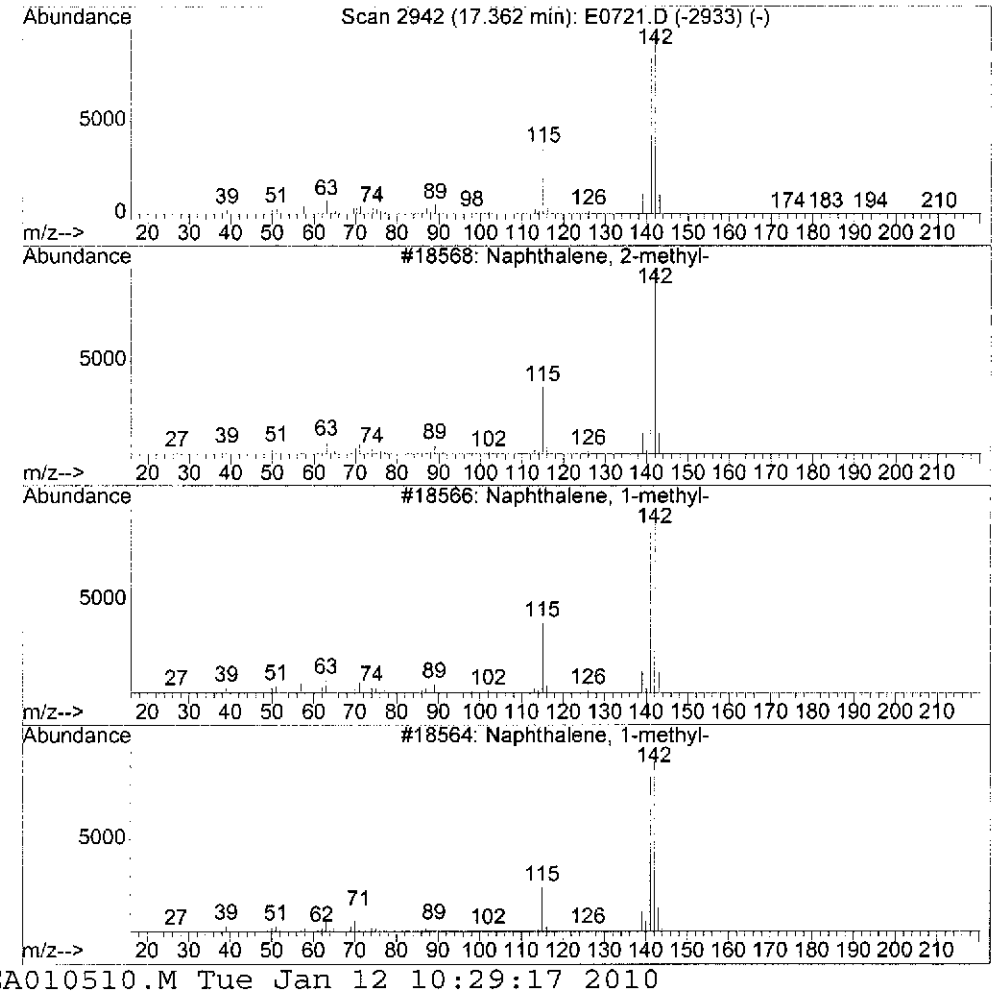
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

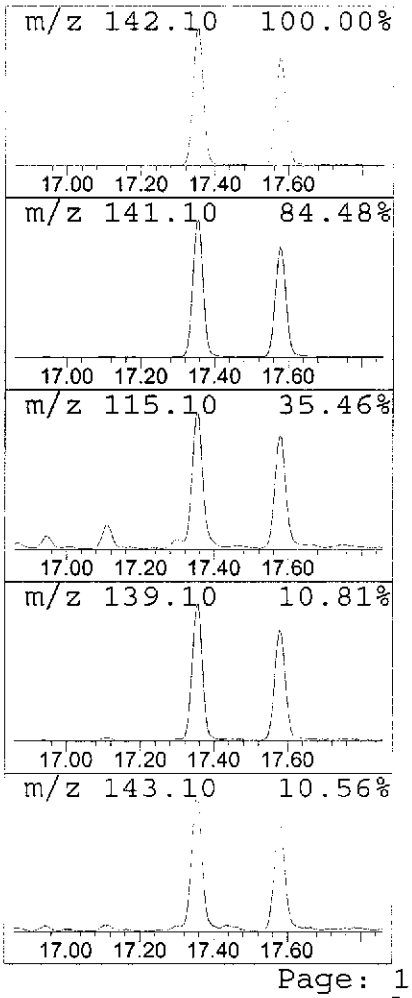
****

Peak Number 7 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.36	102.57 UG	12358100	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	91
5	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

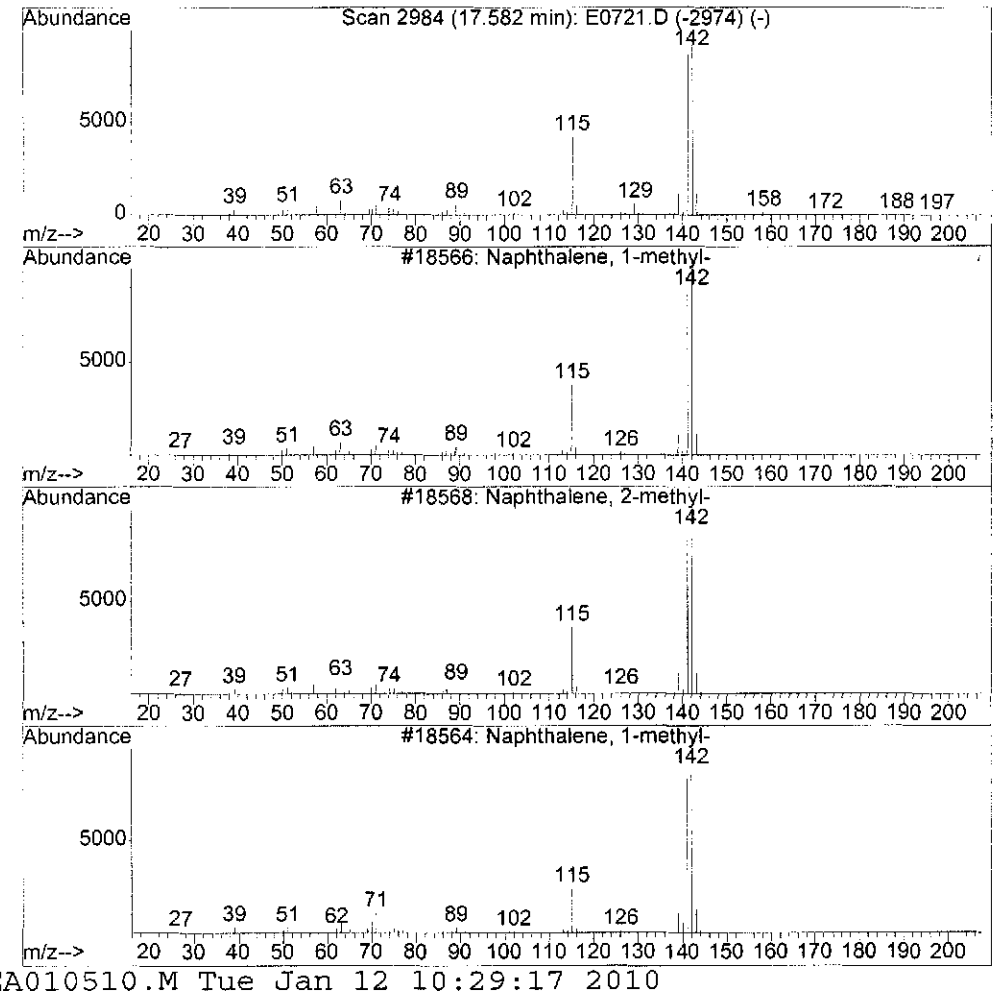
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

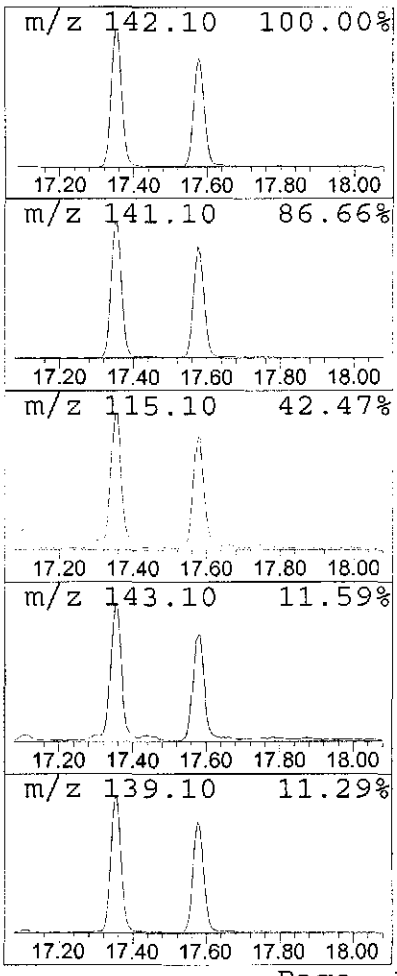
****

Peak Number 8 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.58	85.56 UG	10309000	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Benzocycloheptatriene	142	C11H10	000264-09-5	91
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

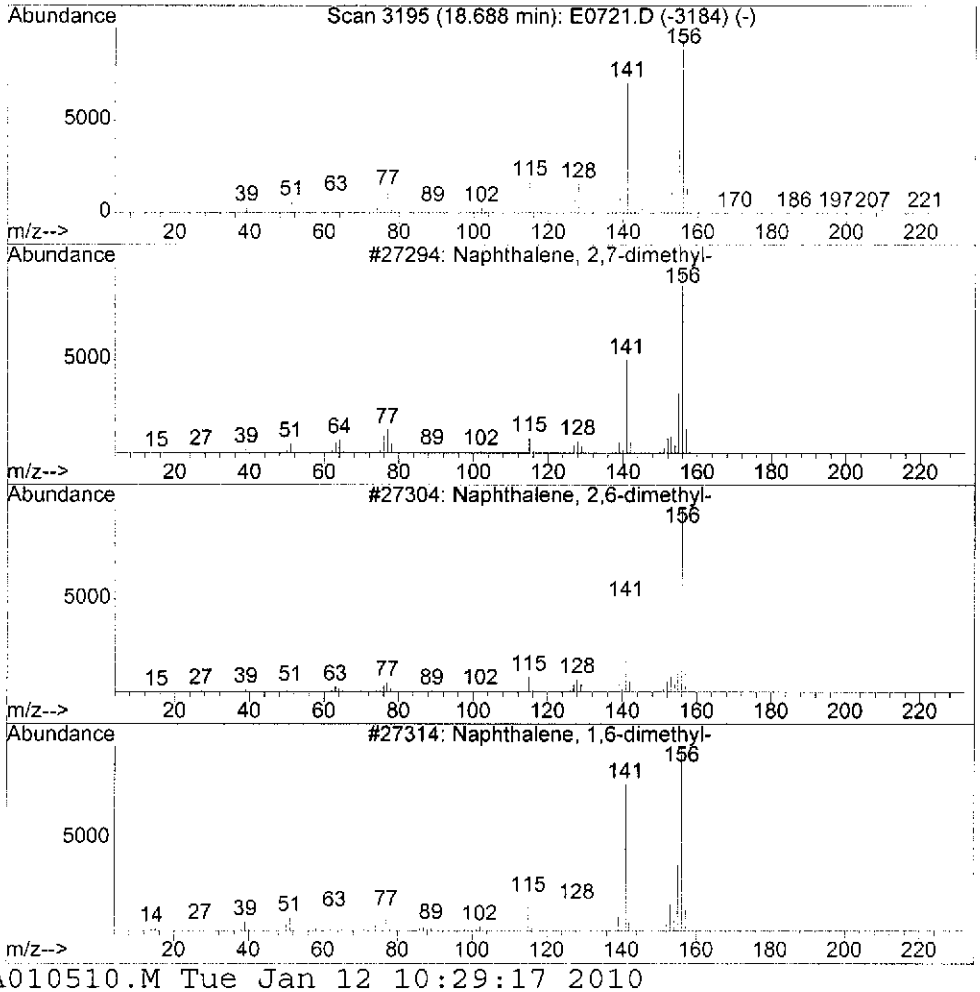
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

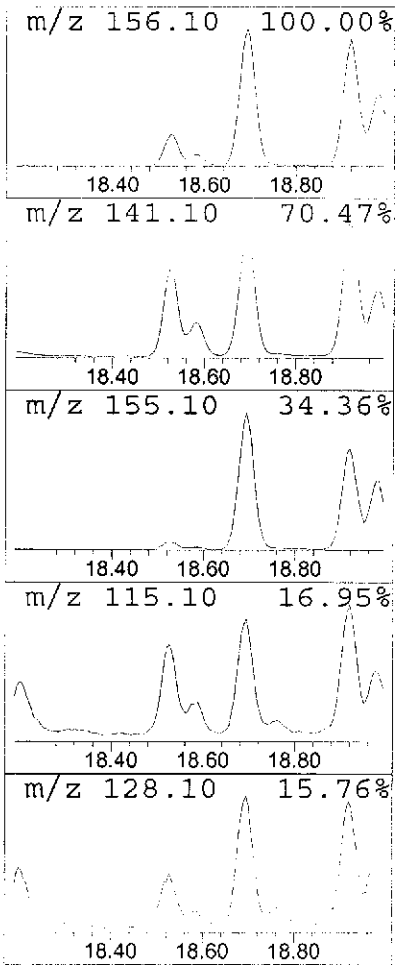
****

Peak Number 9 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.69	38.23 UG	4606460	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
2	Naphthalene, 2,6-dimethyl-	156	C12H12	000581-42-0	97
3	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	97
4	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	96
5	Naphthalene, 1,3-dimethyl-	156	C12H12	000575-41-7	96





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0721.D
Acq On : 11 Jan 2010 22:55
Operator : DANA
Sample : MW10,00176-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

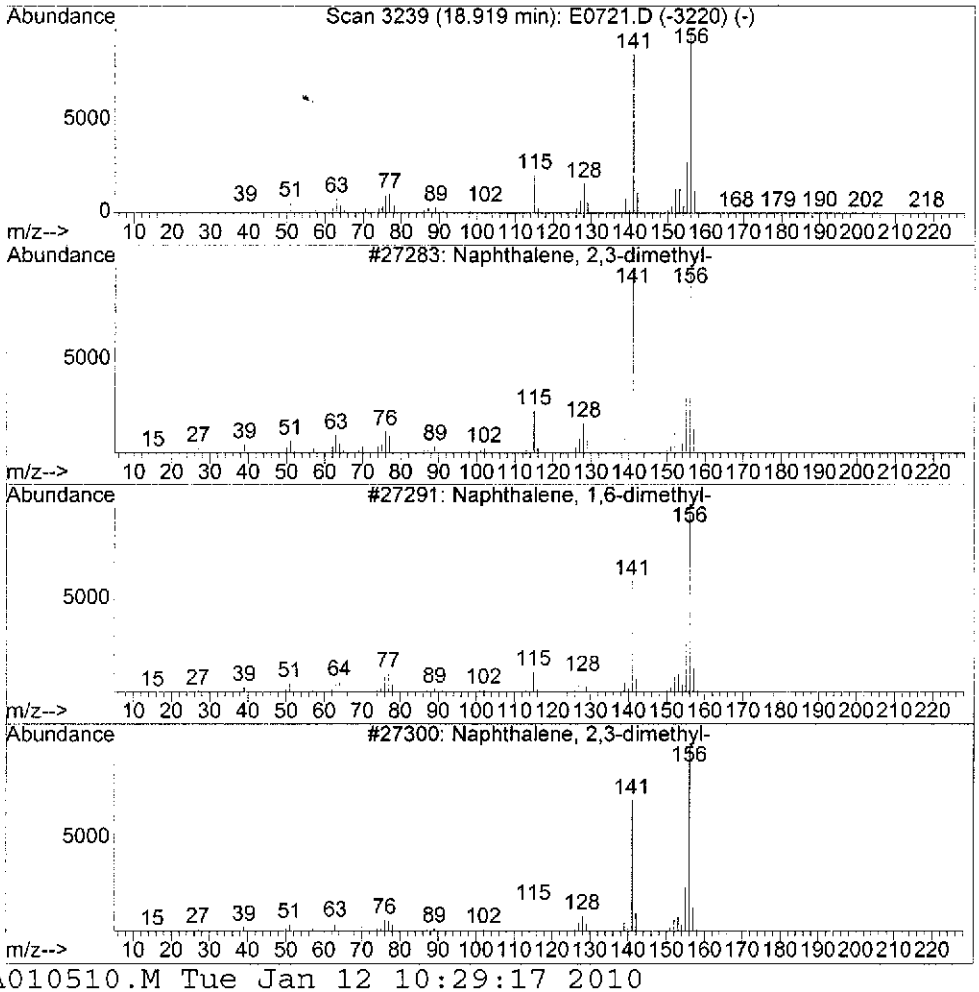
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

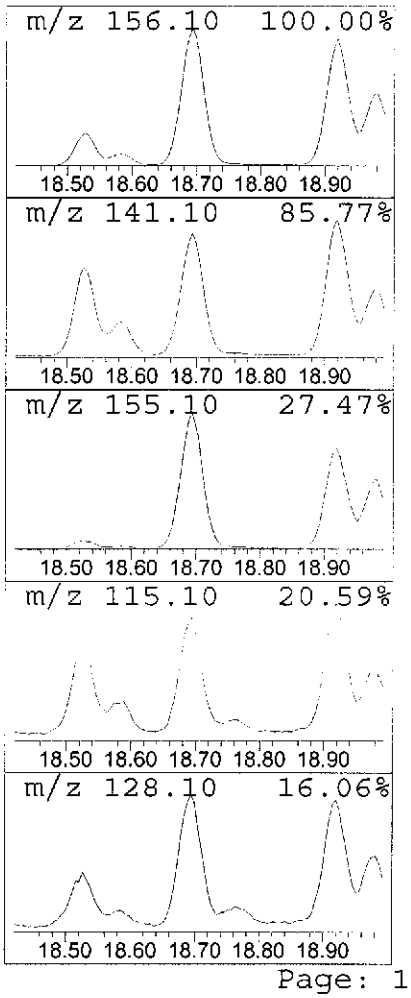
****

Peak Number 10 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.92	35.70 UG	4300990	Chlorobenzene-d5	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	98
2	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	97
3	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	97
4	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	96
5	Naphthalene, 1,3-dimethyl-	156	C12H12	000575-41-7	96





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0699.D
Acq On : 11 Jan 2010 11:55
Operator : DANA
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 11 12:37:47 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.60	168	785179	30.00	UG	0.00
31) 1,4-Difluorobenzene	7.43	114	1158184	30.00	UG	0.00
50) Chlorobenzene-d5	10.79	117	1104464	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.95	65	595373	28.66	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.53%			
41) Toluene-d8	9.10	98	1465535	28.51	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.03%			
59) Bromofluorobenzene	12.19	95	671272	28.79	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.97%			

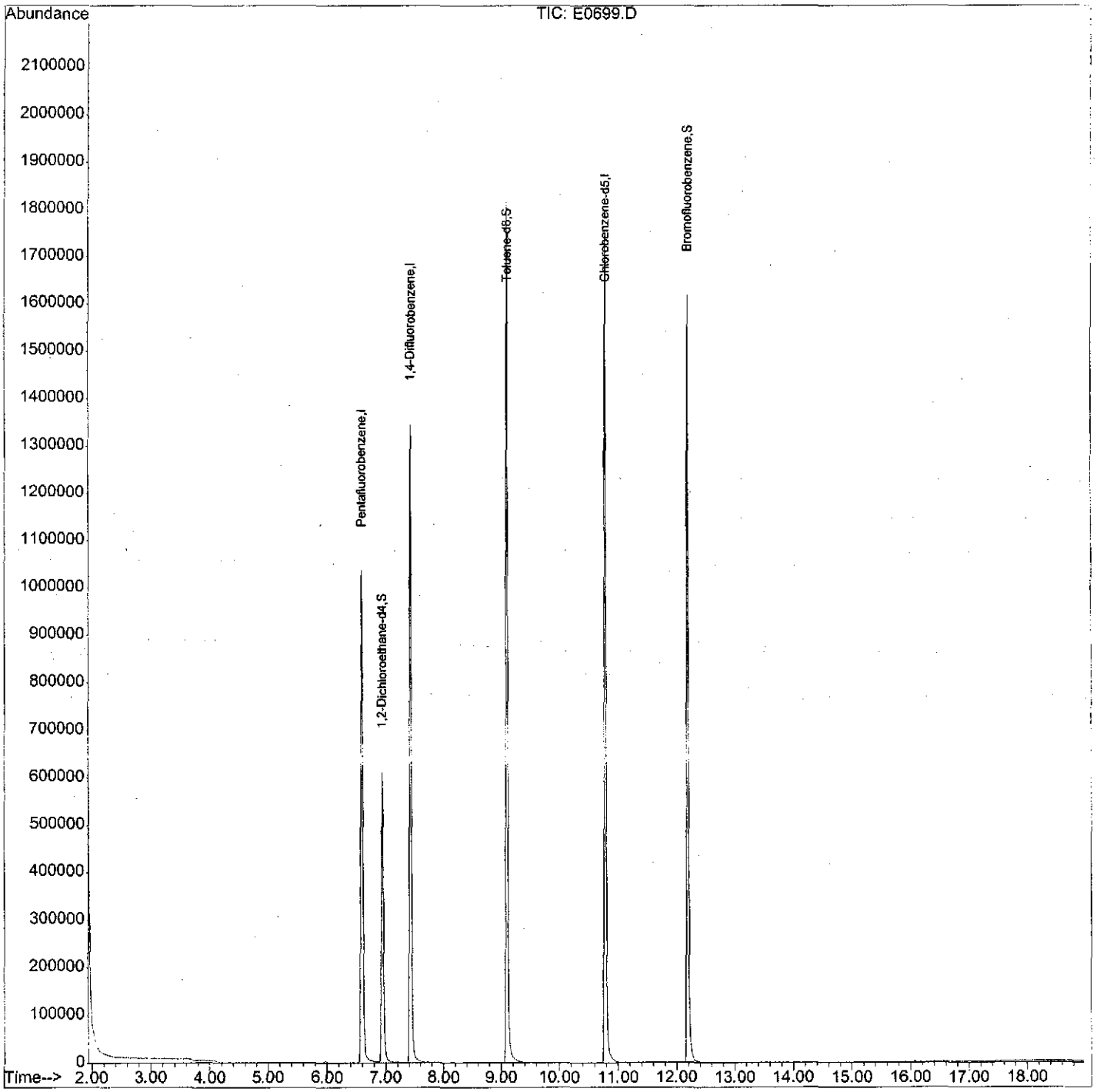
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0699.D
Acq On : 11 Jan 2010 11:55
Operator : DANA
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 11 12:37:47 2010
Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 05 12:08:48 2010
Response via : Initial Calibration



0126

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0699.D
Acq On : 11 Jan 2010 11:55
Operator : DANA
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 2 % of largest Peak
Start Thrs: 0.03 Max Peaks: 100
Stop Thrs : 0.03 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\EA010510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.598	874	889	940	rBV	1037048	2463577	62.60%	13.890%
2	6.949	945	956	986	rVV	610711	1465732	37.24%	8.264%
3	7.432	1035	1048	1084	rBV	1343975	2952179	75.01%	16.645%
4	9.104	1350	1367	1416	rBV	1827557	3935576	100.00%	22.190%
5	10.787	1676	1688	1725	rBV	1743197	3648719	92.71%	20.572%
6	12.192	1944	1956	1989	rBV	1616520	3270175	83.09%	18.438%

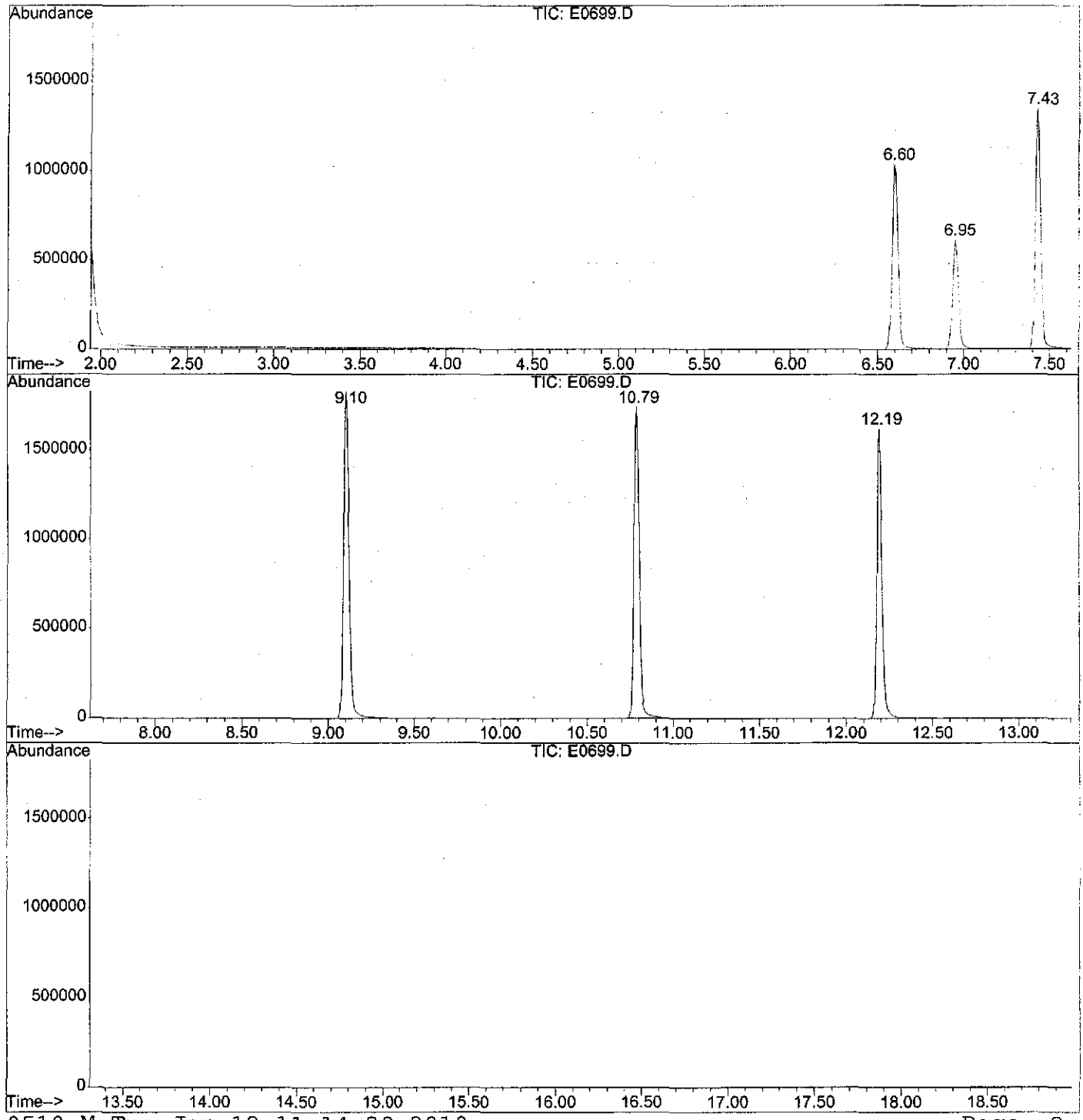
Sum of corrected areas: 17735958

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\01-11-10\
Data File : E0699.D
Acq On : 11 Jan 2010 11:55
Operator : DANA
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\EA010510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



0128

8011 METHOD BLANK SUMMARY

Lab File ID: P6235.D

Instrument ID: GC-P

Date Extracted: 01/12/2010

Matrix: AQUEOUS

Date Analyzed: 01/12/2010

Time Analyzed: 11:39

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-1	00082-001	01/12/2010	12:02
MW-2	00082-002	01/12/2010	12:13
MW-3	00082-003	01/12/2010	12:25
FB010510	00082-004	01/12/2010	12:36
TRIP_BLANK	00082-005	01/12/2010	12:59
TRIP	00176-001	01/12/2010	01:13
FIELD	00176-002	01/12/2010	01:25
MW11	00176-003	01/12/2010	01:36
MW9	00176-004	01/12/2010	01:47
MW8	00176-005	01/12/2010	01:59
MW10	00176-006	01/12/2010	02:52
8011	00082-001-MS01	01/12/2010	03:04
8011	00082-001-MSD01	01/12/2010	03:15
8011	PBA0112-MS	01/12/2010	03:38

INTEGRATED ANALYTICAL LABORATORIES

VOLATILES by 8011

Client/Project: NA

Lab ID: 0112-BLK
Client ID: 8011
Date Received: NA
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: P6235.D

GC Column GC Column: DB-5/DB1701P
Sample wt/\ Sample wt/vol: 35ml
Matrix-Unit Matrix-Units: Aqueous-µg/L (ppb)
Dilution Fa(Dilution Factor: 1
% Moisture % Moisture: 100

Compound	Concentration	Q	RL	MDL
1,2-Dibromoethane (EDB)	ND		0.014	0.00855
1,2-Dibromo-3-chloropropane	ND		0.014	0.00855

8011 INITIAL CALIBRATION

Date Analyzed: 01/12/2010

Instrument ID: GC-P
GC Column (1st): RTX-CLP1

Data File: P6233.D P6232.D P6231.D P6230.D P6229.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	0.25	0.5	1	1.5	2	RT	FROM	TO
1,2-Dibromoethane	2.64	2.64	2.64	2.64	2.64	2.64	2.57	2.71
1,2-Dibromo-3-chloropropane	4.83	4.83	4.83	4.83	4.84	4.83	4.75	4.91

Compound	CALIBRATION FACTORS					MEAN	
	0.25	0.5	1	1.5	2	CF	%RSD
1,2-Dibromoethane	251786	261307	241390	221191	242525	243640	6.12
1,2-Dibromo-3-chloropro	435166	418438	406026	376247	395706	406317	5.50

GC Column (2nd) RTX-CLP2

Data File: P6233.C P6232.C P6231.C P6230.C P6229.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	0.25	0.5	1	1.5	2	RT	FROM	TO
1,2-Dibromoethane	2.64	2.64	2.64	2.64	2.64	2.64	2.57	2.71
1,2-Dibromo-3-chloropro	4.84	4.83	4.84	4.83	4.84	4.84	4.76	4.92

Compound	CALIBRATION FACTORS					MEAN	
	0.25	0.5	1	1.5	2	CF	%RSD
1,2-Dibromoethane	250357	276617	250818	231990	256787	253314	6.32
1,2-Dibromo-3-chloropro	429869	440582	436631	381265	414058	420481	5.74

8011 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 01/12/2010 **Instrument ID:** GC-P

Data File: P6234.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.64	2.57	2.71	243640	255434	4.84
1,2-Dibromo-3-chloropropane	4.84	4.75	4.91	406317	427089	5.11

GC Column (2nd): RTX-CLP2

Data File: P6234.C

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.64	2.57	2.71	253314	260301	2.76
1,2-Dibromo-3-chloropropane	4.84	4.76	4.92	420481	410457	2.38

8011 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 01/12/2010 **Instrument ID:** GC-P

Data File: P6250.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.64	2.57	2.71	243640	227695	6.54
1,2-Dibromo-3-chloropropane	4.83	4.75	4.91	406317	379778	6.53

GC Column (2nd): RTX-CLP2

Data File: P6250.C

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2-Dibromoethane	2.64	2.57	2.71	253314	233195	7.94
1,2-Dibromo-3-chloropropane	4.83	4.76	4.92	420481	379070	9.85

8011 MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 00082-001-MSD01

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC	QC LIMITS REC.
1,2-Dibromoethane (EDB)	1.0	0.0	0.8	80	60 - 140
1,2-Dibromo-3-chloropropane	1.0	0.0	0.9	90	60 - 140

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	#	MSD % REC	% RP #	QC LIMITS RPD	QC LIMITS REC.
1,2-Dibromoethane (EDB)	0.0	0.9		90	12	14	60 - 140
1,2-Dibromo-3-chloropropane	0.0	0.9		90	0	14	60 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

8011 BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBA0112-MS

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
1,2-Dibromoethane (	1.0	0.0	0.8	80	60 - 140
1,2-Dibromo-3-chlor	1.0	0.0	0.9	90	60 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6241.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6241.D\ECD2A.CH
Acq On : 12 Jan 2010 1:13 pm Operator: IB
Sample : TRIP,00176-001,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 13:19:49 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Initial Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

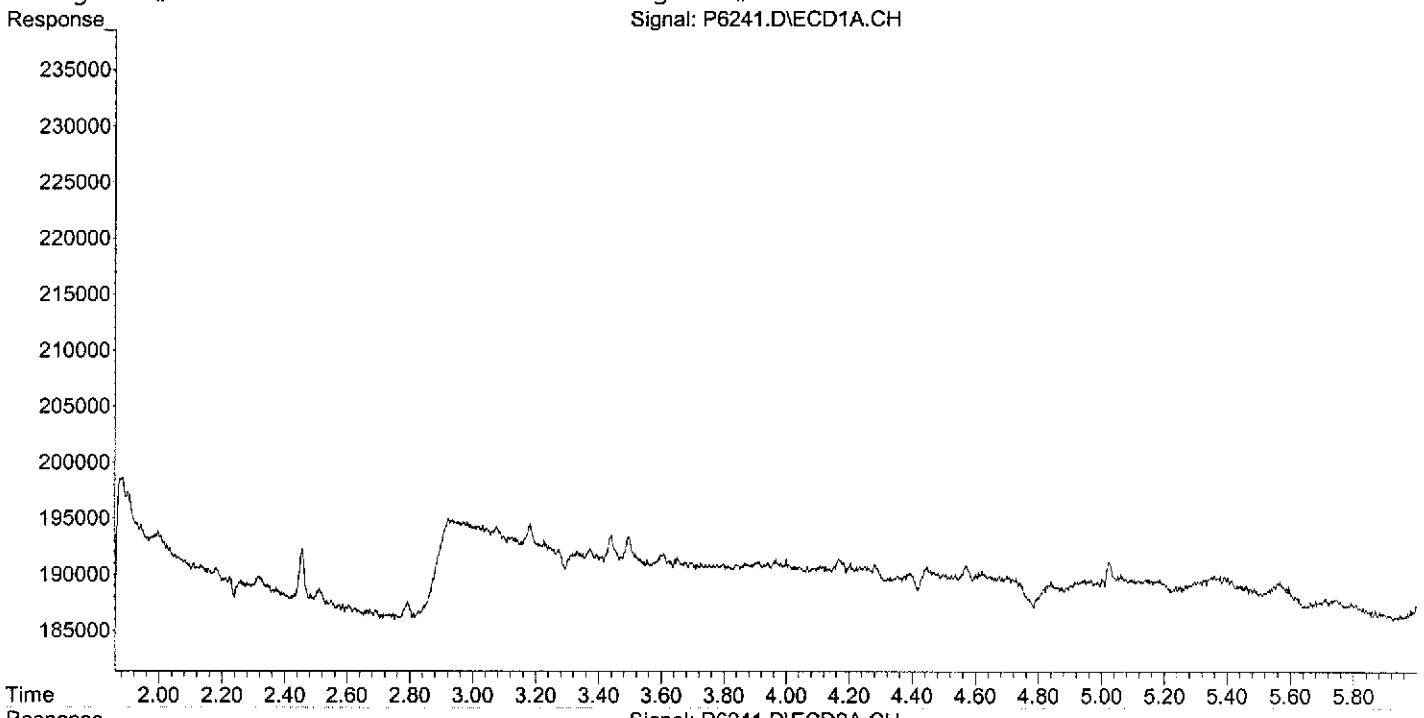
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

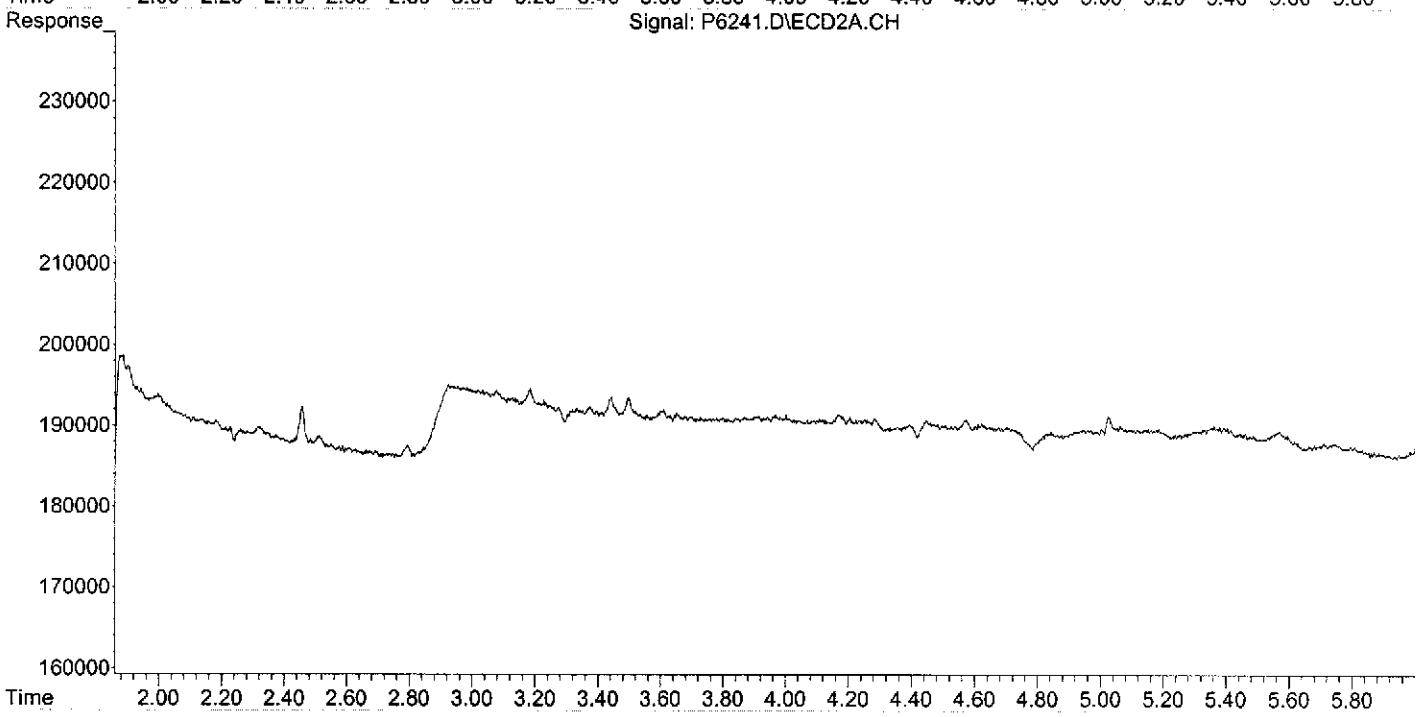
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6241.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6241.D\ECD2A.CH
Acq On : 12 Jan 2010 1:13 pm Operator: IB
Sample : TRIP,00176-001,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 13:37 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Multiple Level Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6242.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6242.D\ECD2A.CH
Acq On : 12 Jan 2010 1:25 pm Operator: IB
Sample : FIELD,00176-002,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 13:31:23 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Initial Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

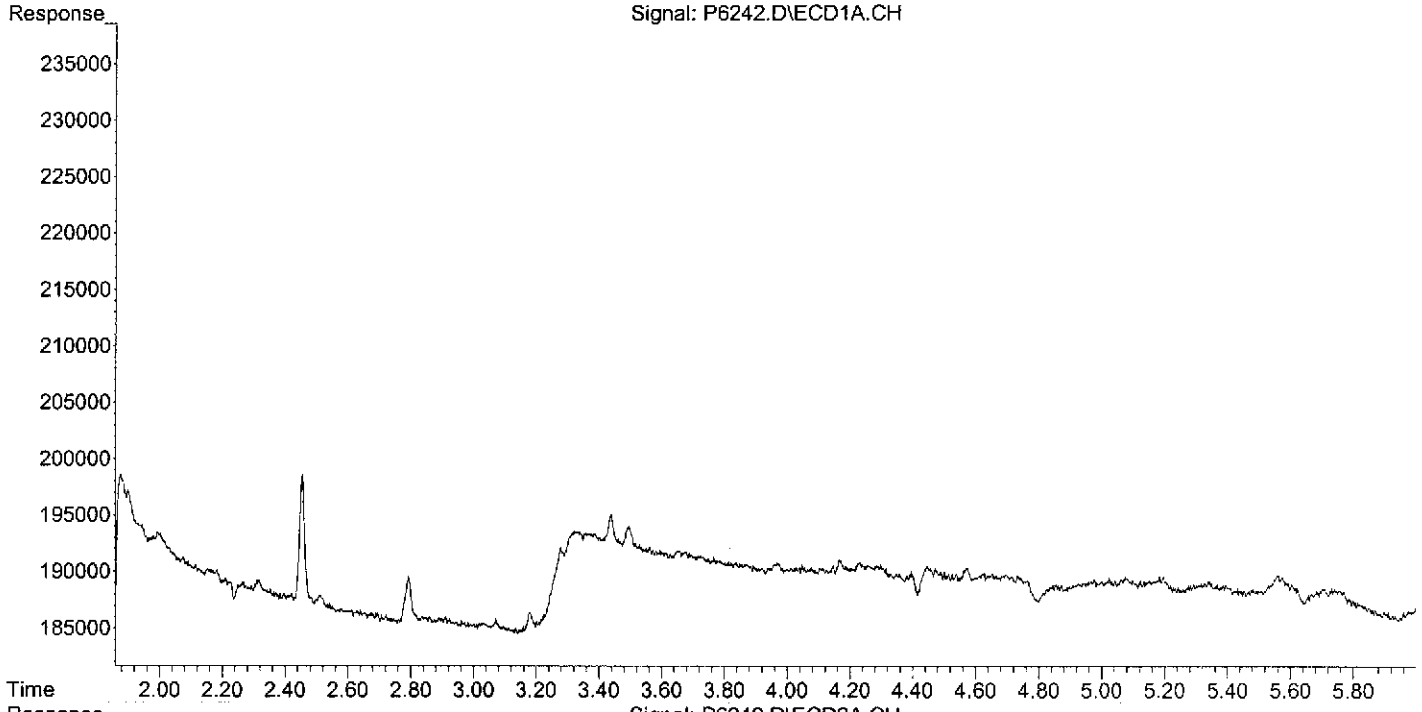
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

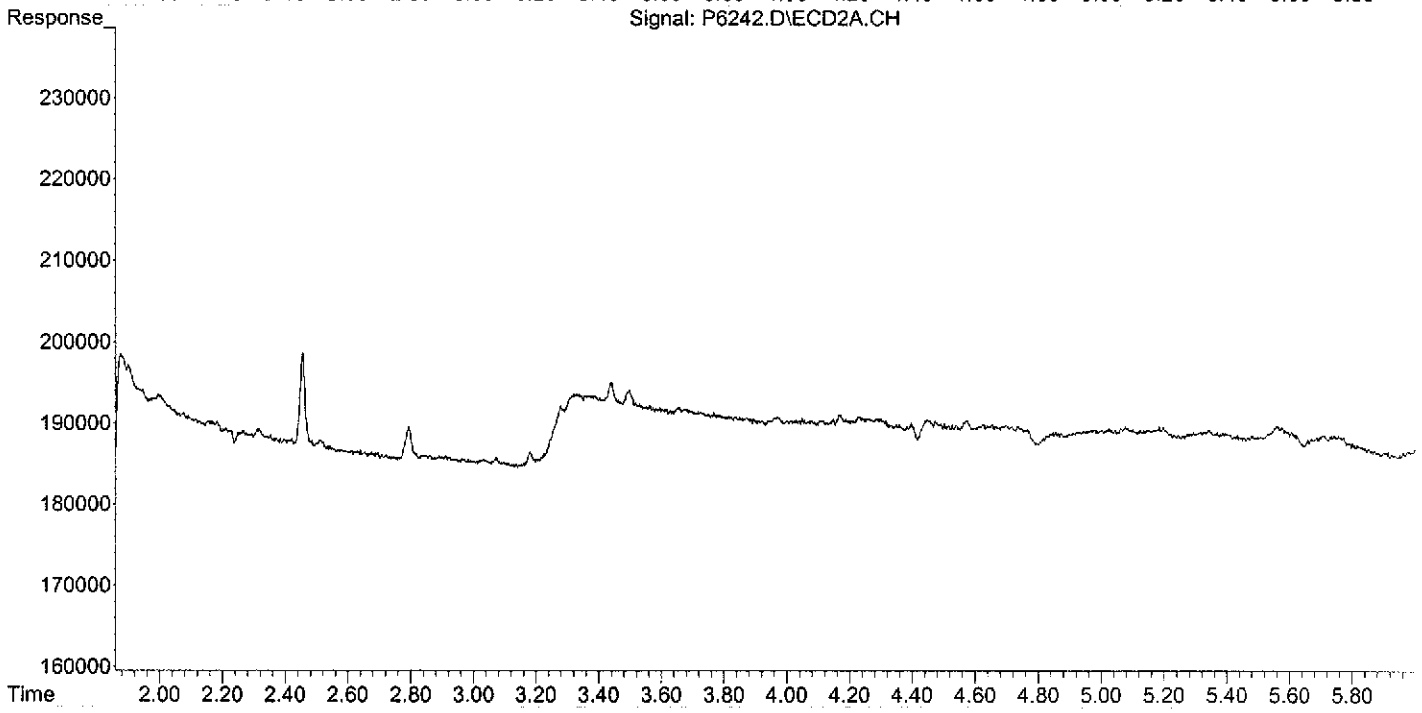
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6242.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6242.D\ECD2A.CH
Acq On : 12 Jan 2010 1:25 pm Operator: IB
Sample : FIELD,00176-002,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 13:37 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Multiple Level Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6243.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6243.D\ECD2A.CH
Acq On : 12 Jan 2010 1:36 pm Operator: IB
Sample : MW11,00176-003,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 13:42:51 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Initial Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

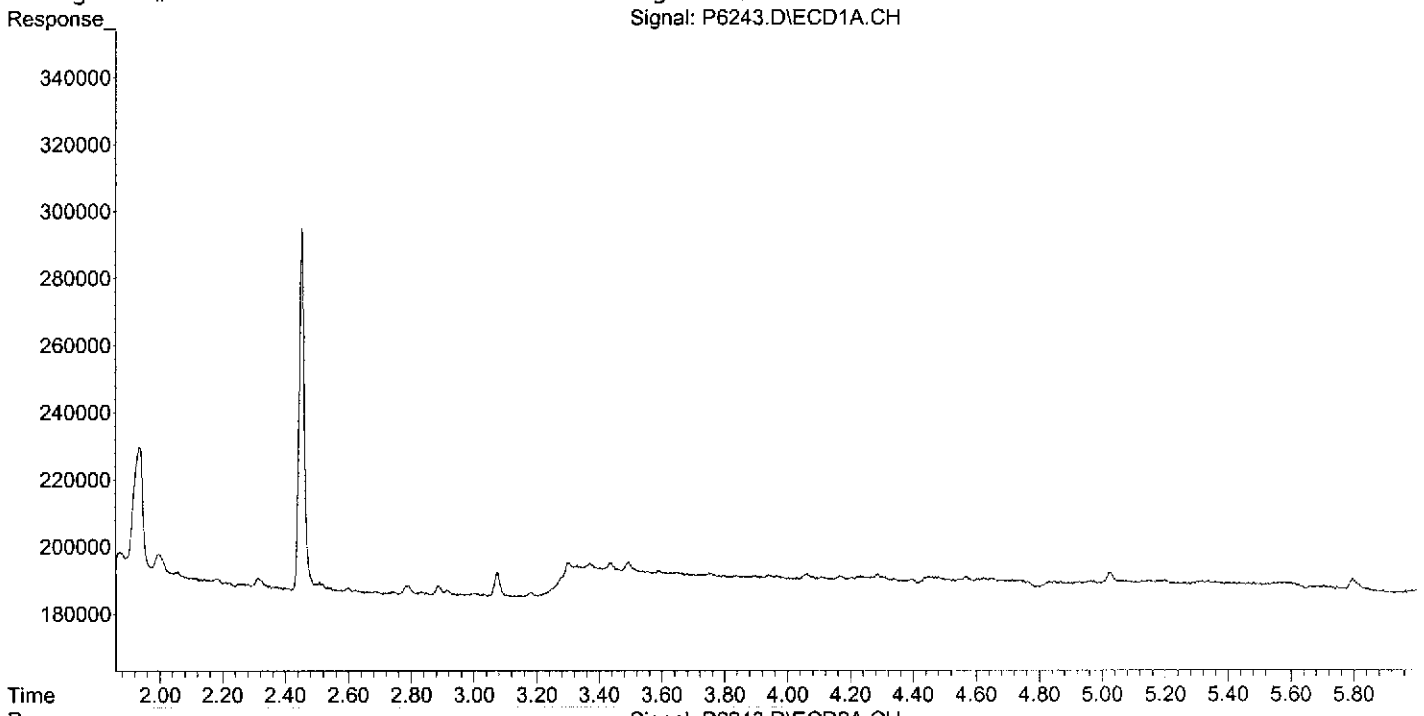
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

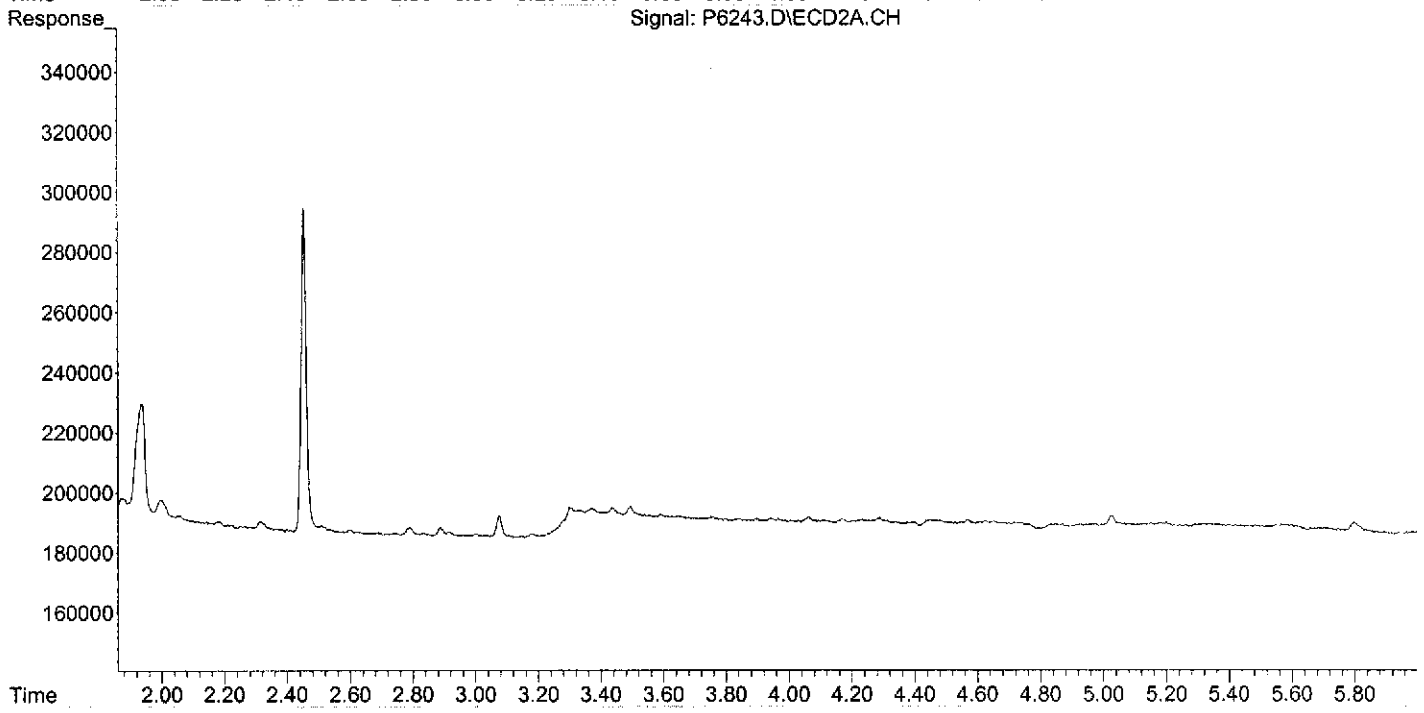
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6243.D\ECD1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6243.D\ECD2A.CH
Acq On : 12 Jan 2010 1:36 pm Operator: IB
Sample : MW11,00176-003,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 13:45 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Multiple Level Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6244.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6244.D\ECD2A.CH
Acq On : 12 Jan 2010 1:47 pm Operator: IB
Sample : MW9,00176-004,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 13:54:12 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Initial Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

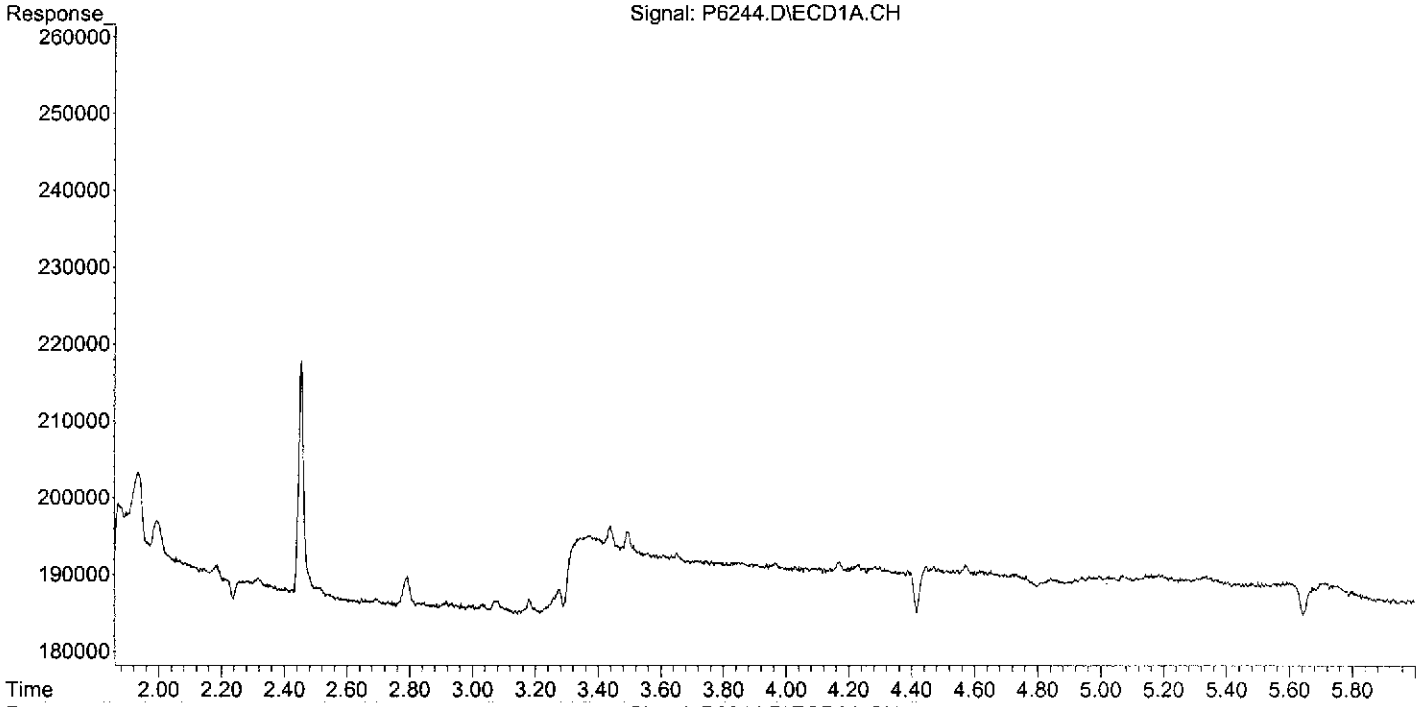
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

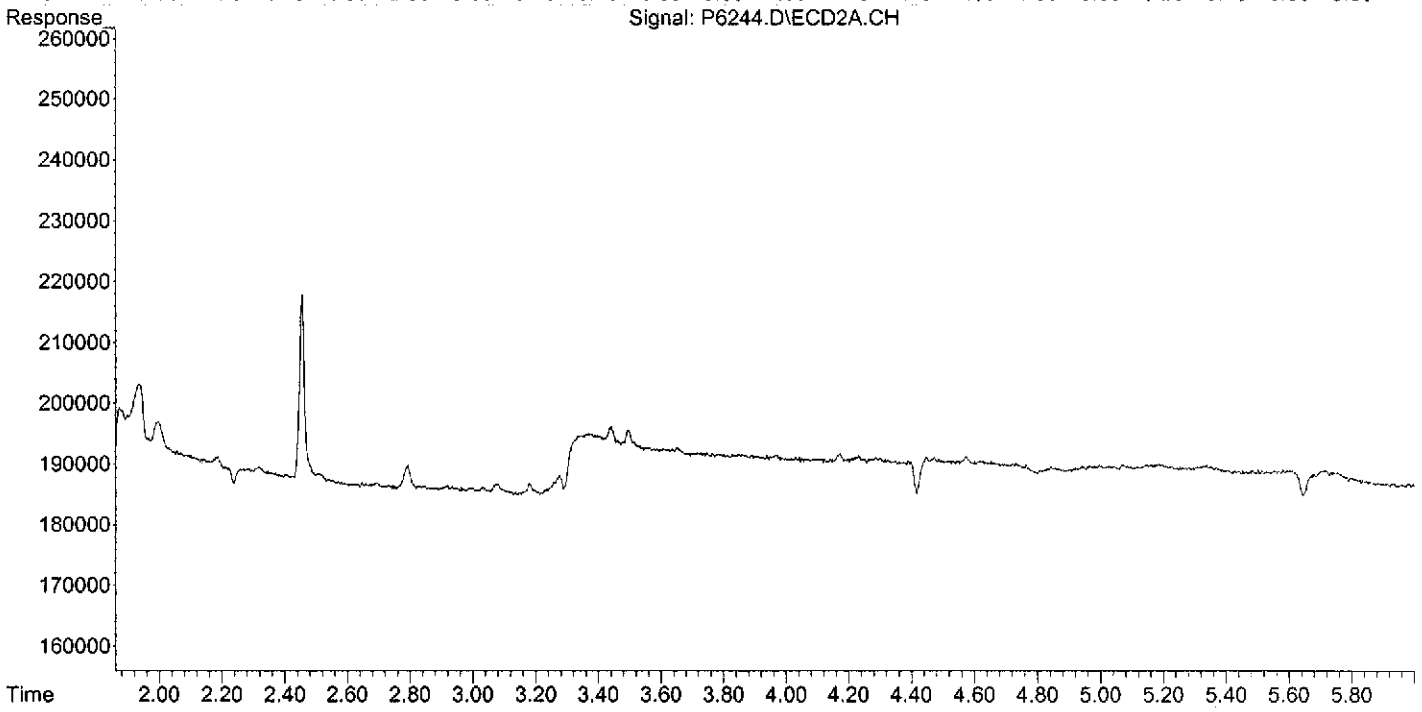
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6244.D\ECD1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6244.D\ECD2A.CH
Acq On : 12 Jan 2010 1:47 pm Operator: IB
Sample : MW9,00176-004,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 13:56 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Multiple Level Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6245.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6245.D\ECD2A.CH
Acq On : 12 Jan 2010 1:59 pm Operator: IB
Sample : MW8,00176-005,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 14:05:34 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Initial Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

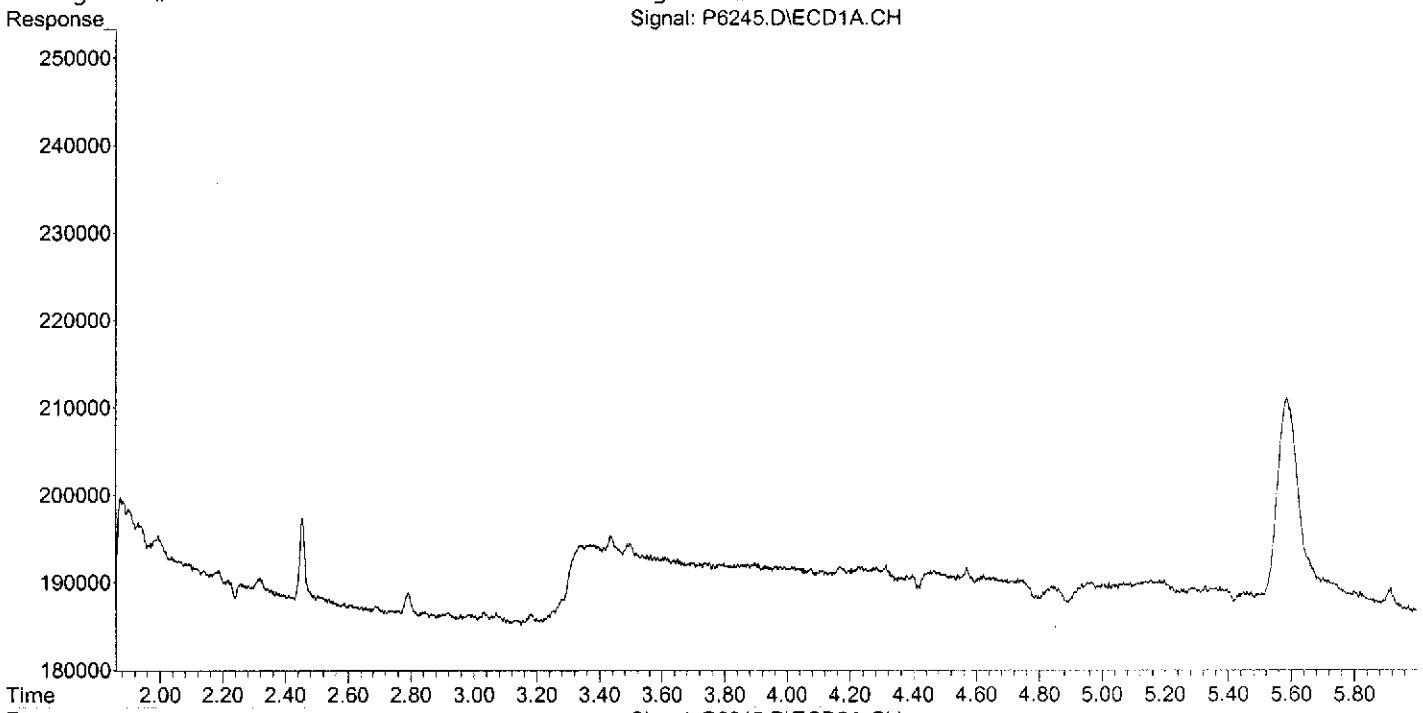
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

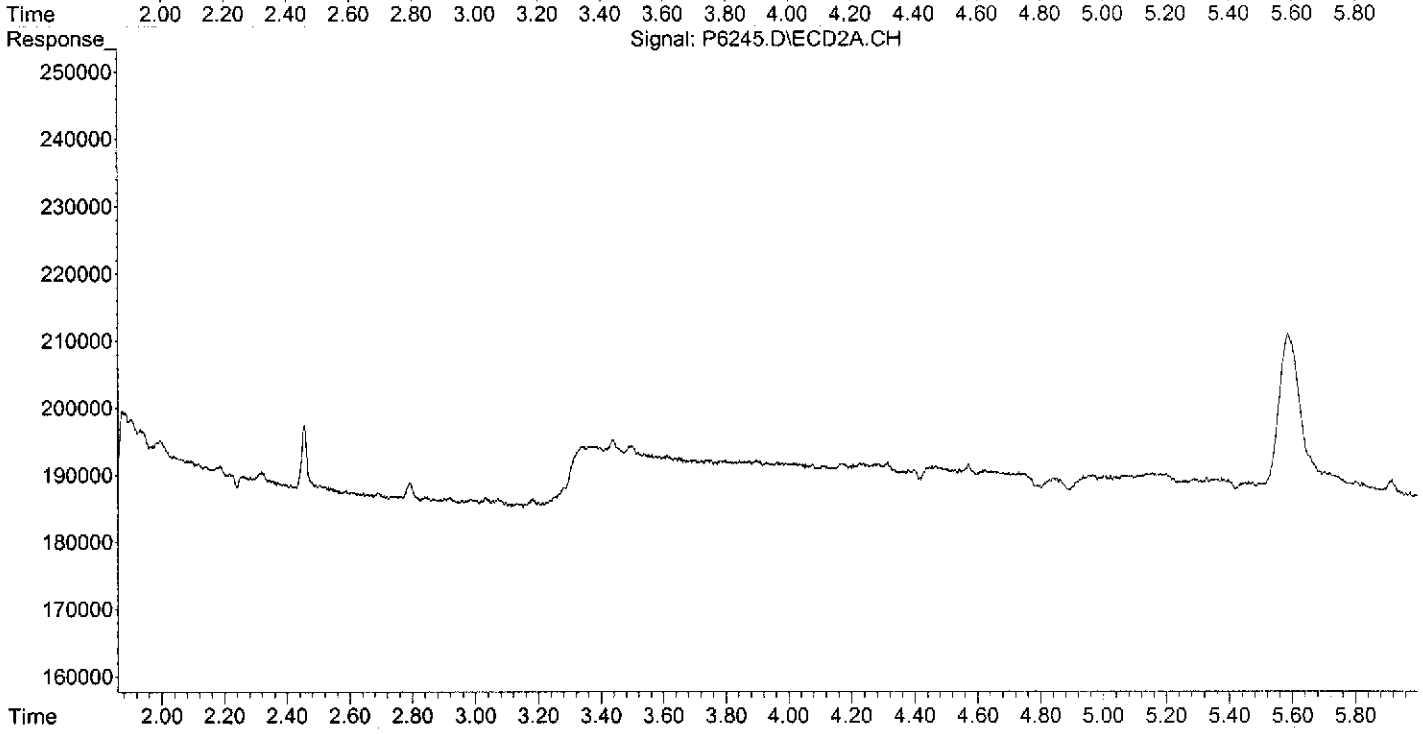
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6245.D\ECD1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6245.D\ECD2A.CH
Acq On : 12 Jan 2010 1:59 pm Operator: IB
Sample : MW8,00176-005,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 14:06 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Multiple Level Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6246.D\ECD1A.CH Vial: 13
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6246.D\ECD2A.CH
Acq On : 12 Jan 2010 2:52 pm Operator: IB
Sample : MW10,00176-006,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 14:58:50 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Initial Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

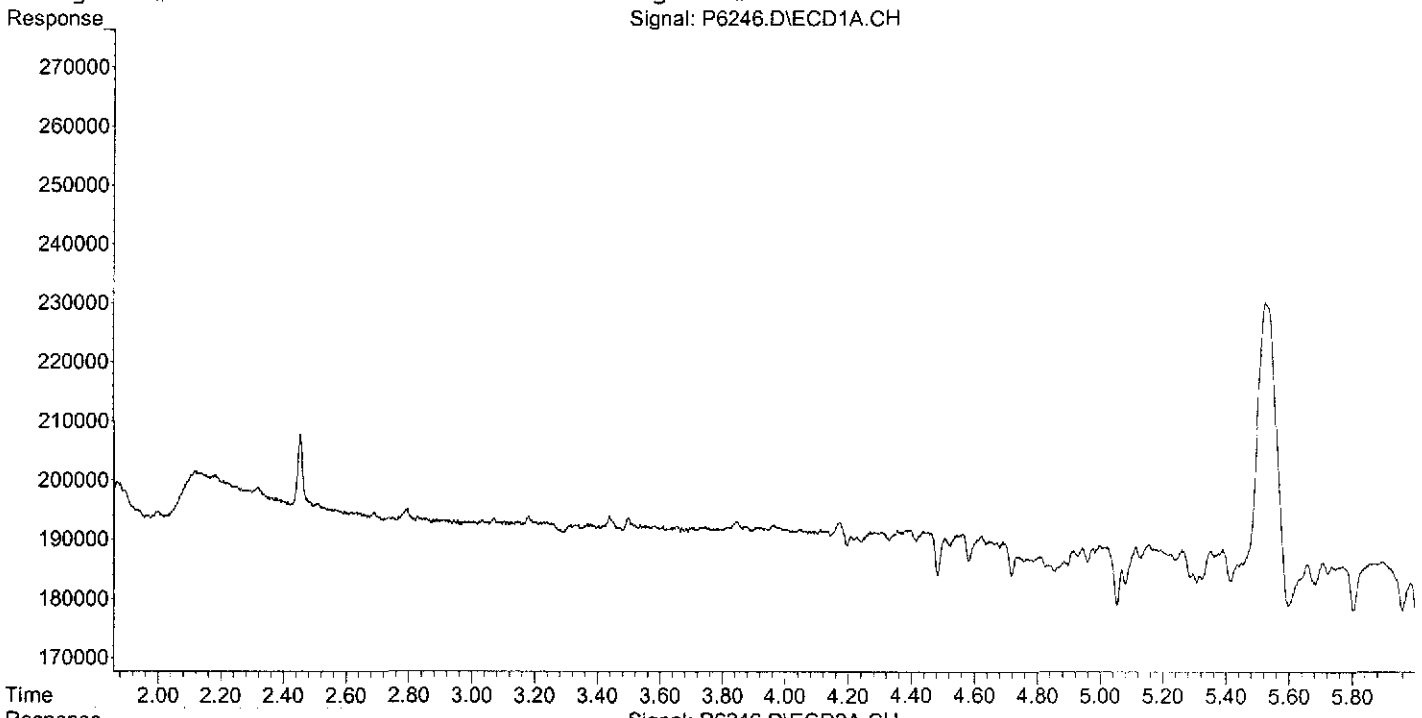
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

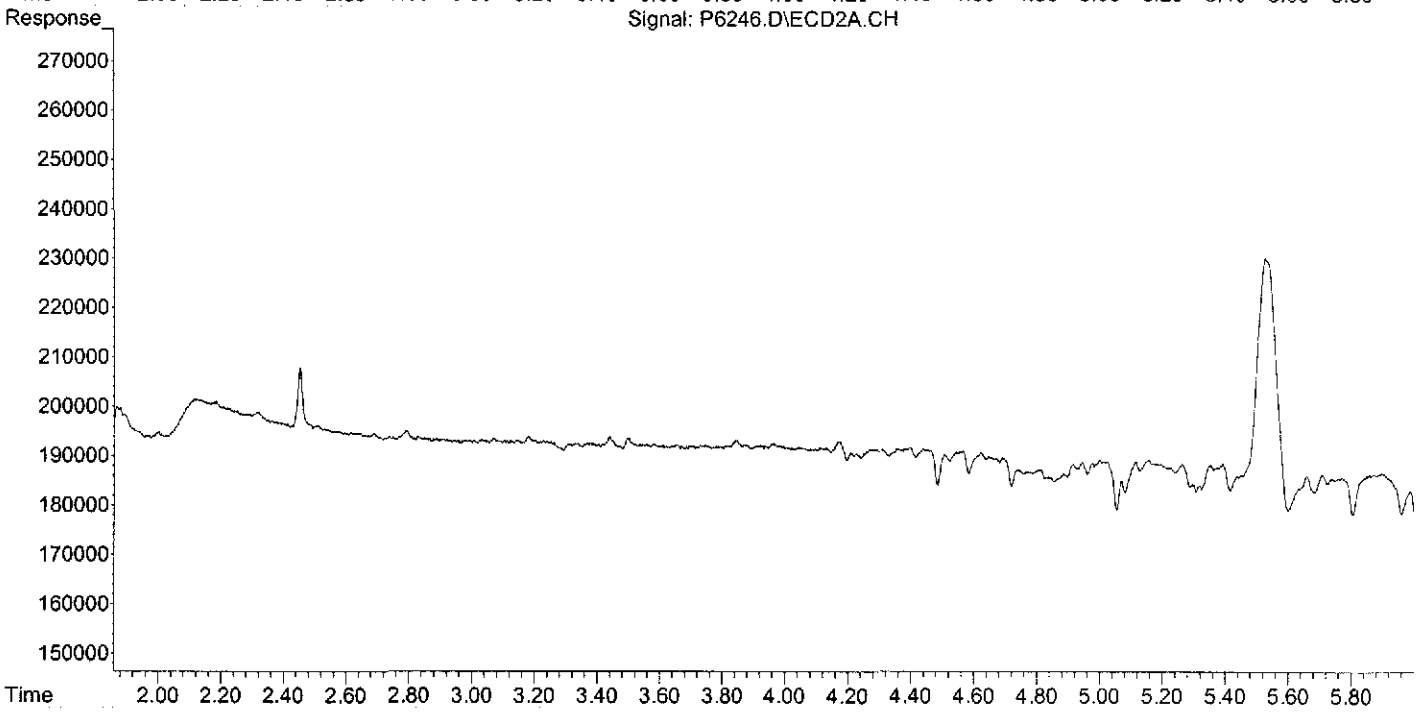
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6246.D\ECD1A.CH Vial: 13
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6246.D\ECD2A.CH
Acq On : 12 Jan 2010 2:52 pm Operator: IB
Sample : MW10,00176-006,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 15:02 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Multiple Level Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6235.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6235.D\ECD2A.CH
Acq On : 12 Jan 2010 11:39 am Operator: IB
Sample : 8011,0112-BLK,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 11:45:36 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Initial Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

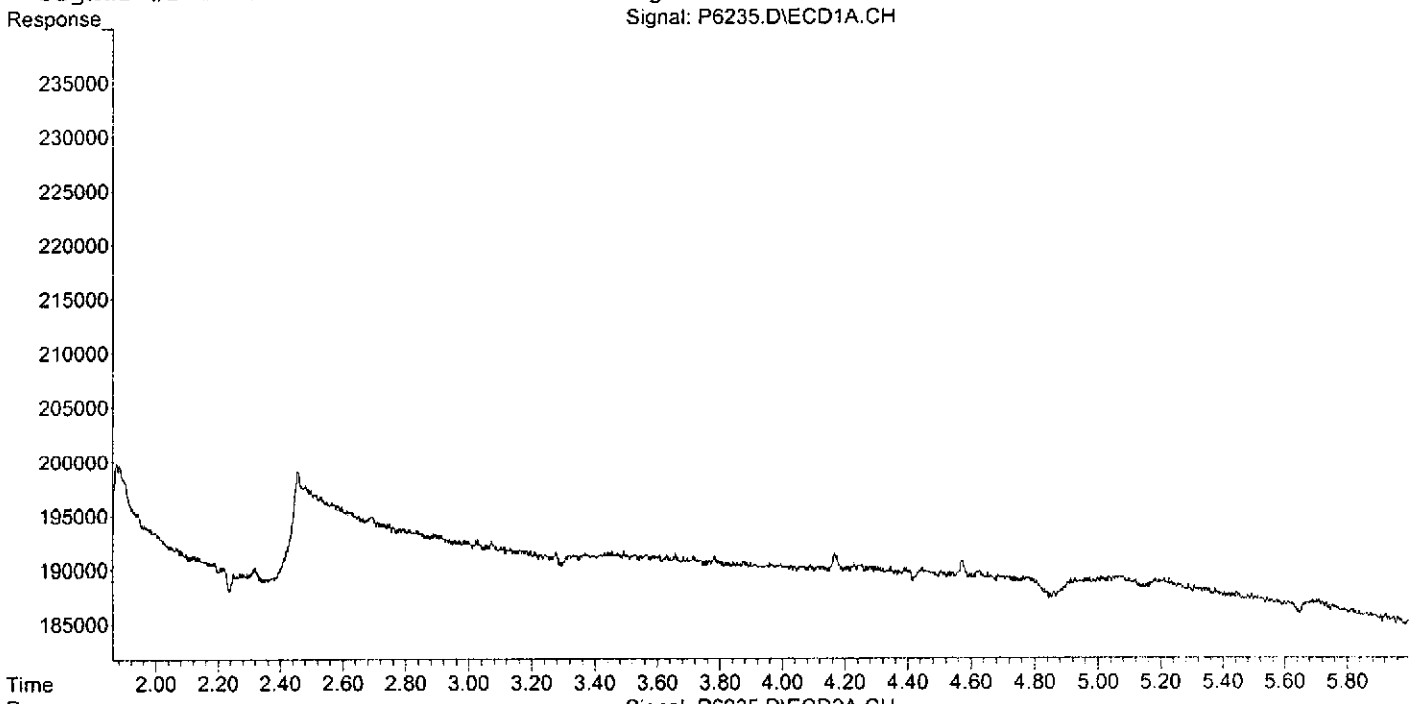
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

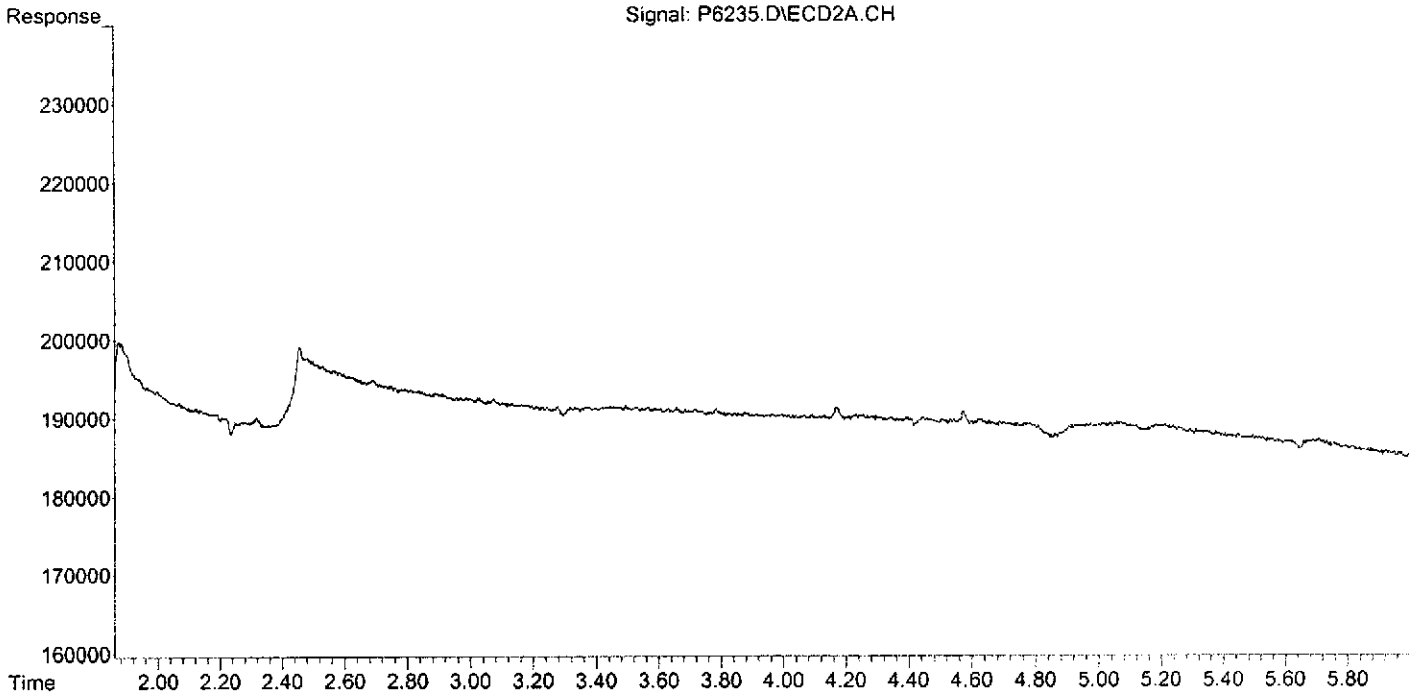
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6235.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6235.D\ECD2A.CH
Acq On : 12 Jan 2010 11:39 am Operator: IB
Sample : 8011,0112-BLK,A,35ml,100,01/12/10,1 Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 13:36 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Multiple Level Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6234.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6234.D\ECD2A.CH
Acq On : 12 Jan 2010 11:22 am Operator: IB
Sample : 8011_C_IAS_3587,1_PPB Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 11:29:08 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Initial Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
	Target Compounds						
3) T	1,2-Dibromoethan	2.64	2.64	255434	260301	1.028	1.015
4) T	1,2-Dibromo-3-ch	4.84	4.84	427089	410457	1.036	0.976

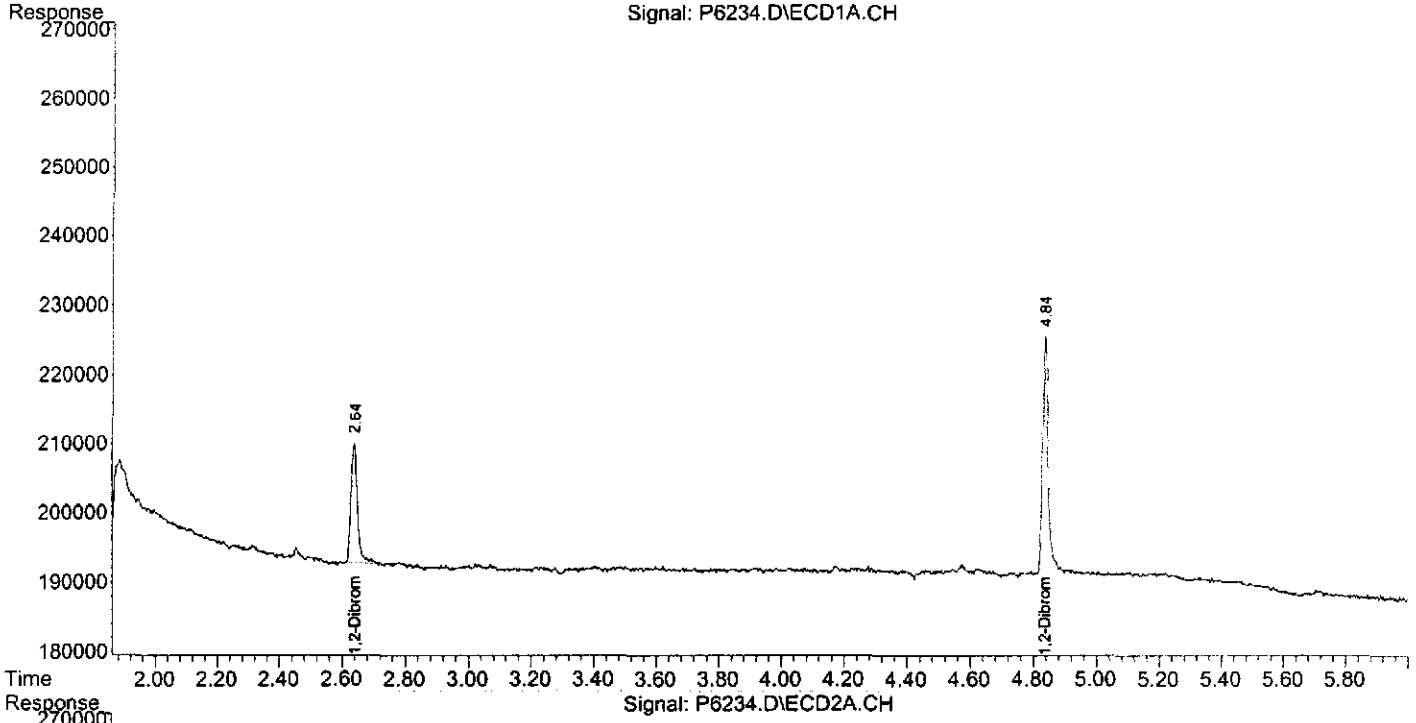
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

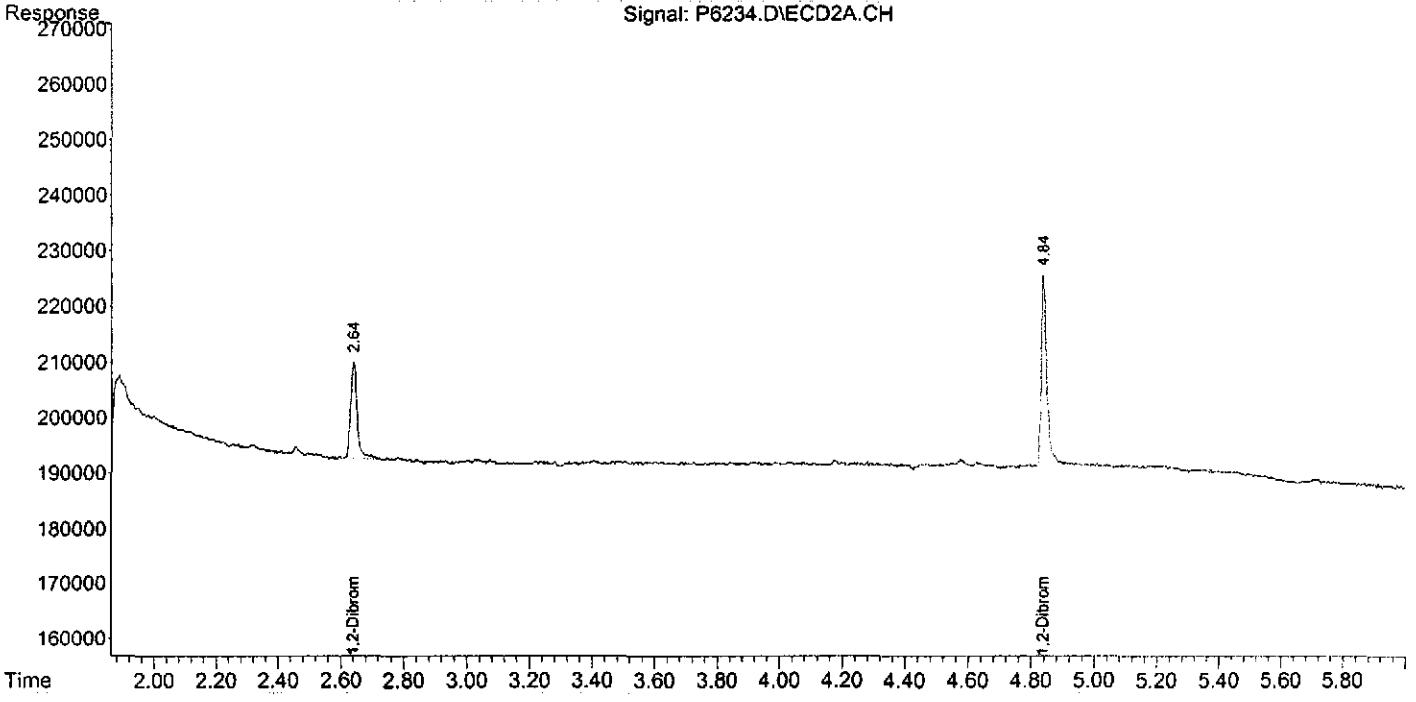
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6234.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6234.D\ECD2A.CH
Acq On : 12 Jan 2010 11:22 am Operator: IB
Sample : 8011_C_IAS_3587,1_PPB Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 11:34 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Multiple Level Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6250.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6250.D\ECD2A.CH
Acq On : 12 Jan 2010 4:48 pm Operator: IB
Sample : 8011_C_IAS_3587,1_PPB Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 12 16:54:57 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Initial Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

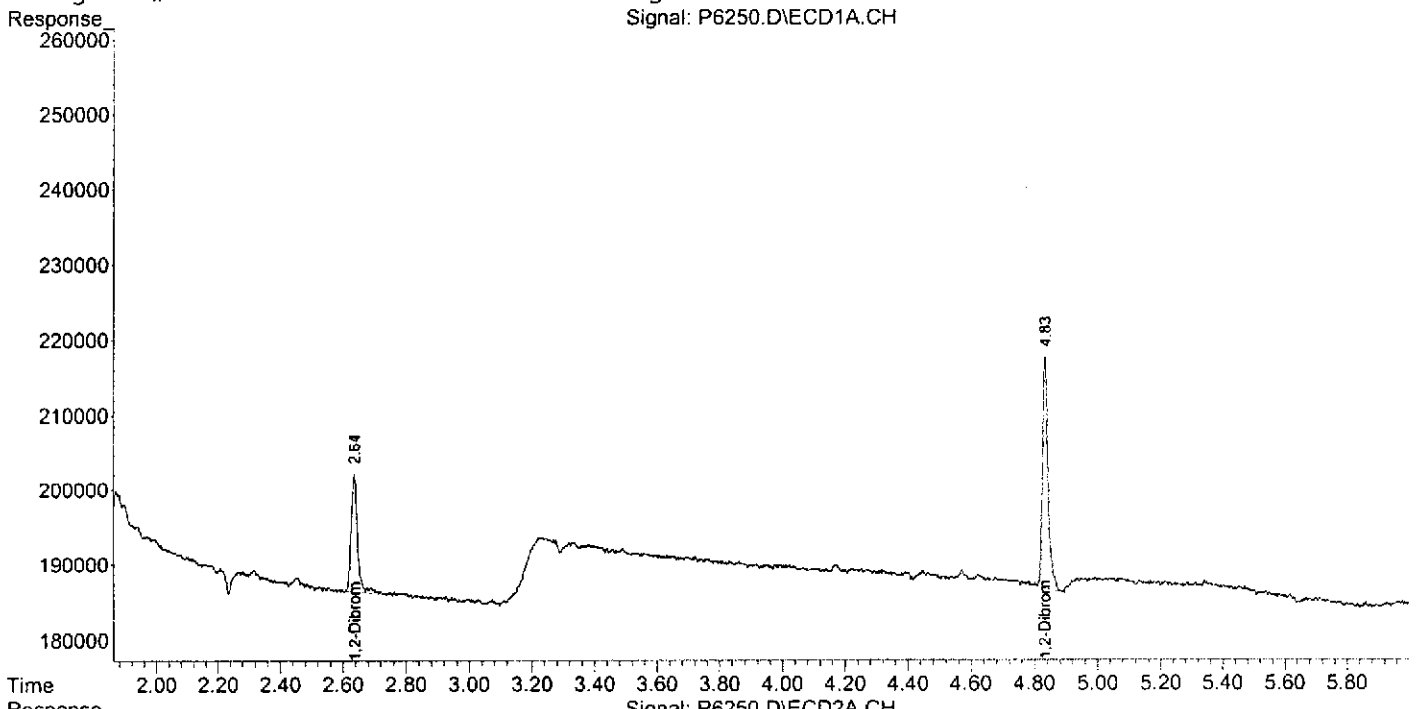
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
	Target Compounds						
3) T	1,2-Dibromoethan	2.64	2.64	227695	233195	0.916	0.909m
4) T	1,2-Dibromo-3-ch	4.83	4.83	379778	379070	0.921	0.902

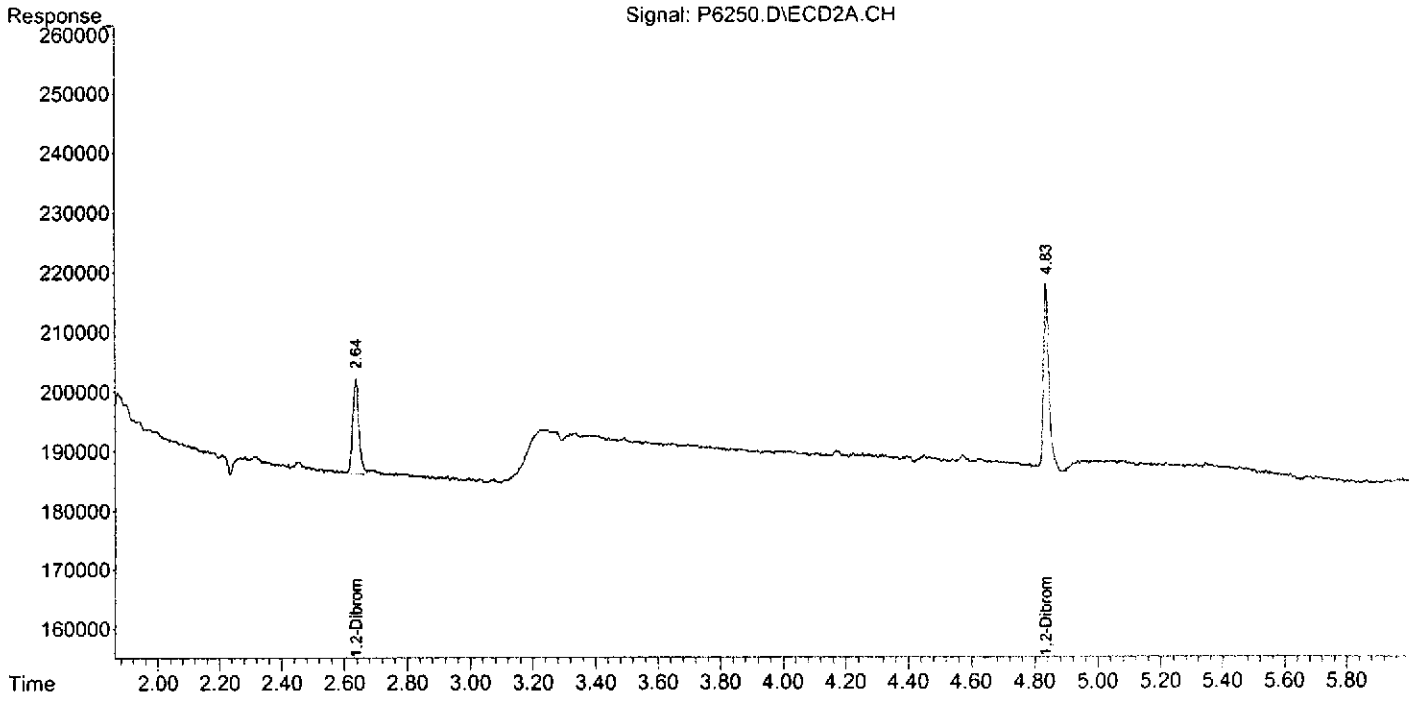
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\01-12-10\P6250.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\01-12-10\P6250.D\ECD2A.CH
Acq On : 12 Jan 2010 4:48 pm Operator: IB
Sample : 8011_C_IAS_3587,1_PPB Inst : GC_P
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Jan 13 9:22 2010 Quant Results File: PBR0112.RES

Quant Method : C:\MSDCHEM\1\METHODS\PBR0112.M (Chemstation Integrator)
Title :
Last Update : Tue Jan 12 11:17:23 2010
Response via : Multiple Level Calibration
DataAcq Meth : PBR0112.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A8950.D

DFTPP Injection Date : 01/12/2010

Inst ID: MSDA

DFTPP Injection Time: 7:10

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	57.6			
68	Less than 2.0% of mass 69	1.0	(	1.6	)1
69	Mass 69 relative abundance	60.9			
70	Less than 2.0% of mass 69	0.7	(	1.1	)1
127	40.0 - 60.0% of mass 198	58.7			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.5			
275	10.0 - 30.0% of mass 198	19.8			
365	Greater than 1.0% of mass 198	1.4			
441	Present, but less than mass 443	6.52	(	74.0	)3
442	40.0 - 100.0% of mass 198	44.3			
443	17.0 - 23.0% of mass 442	8.8	(	19.9	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN002-10	1ng-BNA	A8951.D	01/12/2010	7:35
ABN004-10	10ng-BNA	A8952.D	01/12/2010	7:50
ABN005-10	20ng-BNA	A8953.D	01/12/2010	8:05
ABN006-10	40ng-BNA	A8954.D	01/12/2010	8:20
ABN007-10	80ng-BNA	A8955.D	01/12/2010	8:36
ABN008-10	120ng-BNA	A8956.D	01/12/2010	8:51
ABN014-15	120ng-OLMO4	A8957.D	01/12/2010	9:06
ABN013-14	80ng-OLMO4	A8958.D	01/12/2010	9:21
ABN012-10	40ng-OLMO4	A8959.D	01/12/2010	9:37
ABN011-10	20ng-OLMO4	A8960.D	01/12/2010	9:52
ABN011-10	10ng-OLMO4	A8961.D	01/12/2010	10:07
ABN009-09	1ng-OLMO4	A8962.D	01/12/2010	10:22
ABN002-10	1ng-BNA	A8963.D	01/12/2010	10:38

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A8950.D DFTPP Injection Date : 01/12/2010

Inst ID: MSDA DFTPP Injection Time: 7:10

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	57.6			
68	Less than 2.0% of mass 69	1.0	(	1.6	)1
69	Mass 69 relative abundance	60.9			
70	Less than 2.0% of mass 69	0.7	(	1.1	)1
127	40.0 - 60.0% of mass 198	58.7			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.5			
275	10.0 - 30.0% of mass 198	19.8			
365	Greater than 1.0% of mass 198	1.4			
441	Present, but less than mass 443	6.52	(	74.0	)3
442	40.0 - 100.0% of mass 198	44.3			
443	17.0 - 23.0% of mass 442	8.8	(	19.9	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN015-10	0.1ng-sim	A8964.D	01/12/2010	10:53
ABN016-10	0.2ng-sim	A8965.D	01/12/2010	11:06
ABN017-10	0.5ng-sim	A8966.D	01/12/2010	11:19
ABN018-10	1ng-sim	A8967.D	01/12/2010	11:32
ABN019-10	2ng-sim	A8968.D	01/12/2010	11:45

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A9012.D DFTPP Injection Date : 01/13/2010

Inst ID: MSDA DFTPP Injection Time: 6:12

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	34.2			
68	Less than 2.0% of mass 69	0.7	(	1.8	)1
69	Mass 69 relative abundance	40.1			
70	Less than 2.0% of mass 69	0.2	(	0.5	)1
127	40.0 - 60.0% of mass 198	48.3			
197	Less than 1.0% of mass 198	0.6			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.2			
275	10.0 - 30.0% of mass 198	24.5			
365	Greater than 1.0% of mass 198	1.8			
441	Present, but less than mass 443	11.13	(	73.0	)3
442	40.0 - 100.0% of mass 198	78.2			
443	17.0 - 23.0% of mass 442	15.2	(	19.5	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN020-10	40ng-BNA	A9013.D	01/13/2010	6:21
ABN021-10	40ng-OLMO4	A9014.D	01/13/2010	6:36
TW-1/4	00127-001	A9016.D	01/13/2010	7:04
TP-1	00131-001	A9017.D	01/13/2010	7:19
.	Method_Blank	A9029.D	01/13/2010	11:25
.	LCS	A9030.D	01/13/2010	11:40
.	MS(00176-003)	A9031.D	01/13/2010	11:56
.	MSD(00176-003)	A9032.D	01/13/2010	12:11
B-2-GW/10	00166-001	A9033.D	01/13/2010	12:26
PZ-1/8.91	00167-001	A9034.D	01/13/2010	12:41
MW-1/9	00197-001	A9035.D	01/13/2010	12:56
MW-2/9	00197-002	A9036.D	01/13/2010	13:11
MW-4/10	00197-003	A9037.D	01/13/2010	13:26
FB	00197-004	A9038.D	01/13/2010	13:42
MW-9	00171-001	A9039.D	01/13/2010	13:57
MW11	00176-003	A9040.D	01/13/2010	14:12
MW9	00176-004	A9041.D	01/13/2010	14:27
MW8	00176-005	A9042.D	01/13/2010	14:42
MW10	00176-006	A9043.D	01/13/2010	14:57
.	Method_Blank	A9044.D	01/13/2010	15:12
.	LCS	A9045.D	01/13/2010	15:27
TW-1/5.6	00192-001	A9046.D	01/13/2010	15:42
CUH-MW1-B	00187-001	A9047.D	01/13/2010	15:57

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A9012.D DFTPP Injection Date : 01/13/2010

Inst ID: MSDA DFTPP Injection Time: 6:12

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	34.2			
68	Less than 2.0% of mass 69	0.7	(	1.8	)1
69	Mass 69 relative abundance	40.1			
70	Less than 2.0% of mass 69	0.2	(	0.5	)1
127	40.0 - 60.0% of mass 198	48.3			
197	Less than 1.0% of mass 198	0.6			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.2			
275	10.0 - 30.0% of mass 198	24.5			
365	Greater than 1.0% of mass 198	1.8			
441	Present, but less than mass 443	0.00	(	73.0	)3
442	40.0 - 100.0% of mass 198	78.2			
443	17.0 - 23.0% of mass 442	15.2	(	19.5	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
FB	00187-002	A9048.D	01/13/2010	16:12
FB	00163-009	A9049.D	01/13/2010	16:27
MW-1	00184-001	A9050.D	01/13/2010	16:42
MW-2	00184-002	A9051.D	01/13/2010	16:58
MW-3	00184-003	A9052.D	01/13/2010	17:13
MW-4	00184-004	A9053.D	01/13/2010	17:28
MW-5	00184-005	A9054.D	01/13/2010	17:43
MW-9	00171-001	A9055.D	01/13/2010	17:58

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A9190.D DFTPP Injection Date : 01/22/2010

Inst ID: MSDA DFTPP Injection Time: 10:13

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	36.2			
68	Less than 2.0% of mass 69	0.6	(	1.5	)1
69	Mass 69 relative abundance	41.0			
70	Less than 2.0% of mass 69	0.4	(	0.9	)1
127	40.0 - 60.0% of mass 198	50.6			
197	Less than 1.0% of mass 198	0.5			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.7			
275	10.0 - 30.0% of mass 198	22.4			
365	Greater than 1.0% of mass 198	2.1			
441	Present, but less than mass 443	9.38	(	69.4	)3
442	40.0 - 100.0% of mass 198	66.6			
443	17.0 - 23.0% of mass 442	13.5	(	20.3	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN020-10	40ng_BNA	A9191.D	01/22/2010	10:21
ABN021-10	40ng_OLMO4	A9192.D	01/22/2010	10:36
FB11610-A	00491-010	A9194.D	01/22/2010	11:05
.	Method_Blank	A9212.D	01/22/2010	15:00
.	LCS	A9213.D	01/22/2010	15:15
.	MS(00594-001)	A9214.D	01/22/2010	15:31
.	MSD(00594-001)	A9215.D	01/22/2010	15:46
INFLUENT	00594-001	A9216.D	01/22/2010	16:01
BETWEEN_TREATM	00594-002	A9217.D	01/22/2010	16:16
EFFLUENT	00594-003	A9218.D	01/22/2010	16:31
MW-1/4	00603-001	A9219.D	01/22/2010	16:46
K01	00617-001	A9220.D	01/22/2010	17:02
K02	00617-002	A9221.D	01/22/2010	17:17
SR-MW1	00636-001	A9222.D	01/22/2010	17:32
SR-MW2	00636-002	A9223.D	01/22/2010	17:47
TW1	00634-001	A9224.D	01/22/2010	18:02
TW2	00634-002	A9225.D	01/22/2010	18:17
TW3	00634-003	A9226.D	01/22/2010	18:32
TW4	00634-004	A9227.D	01/22/2010	18:47
FB-011810	00609-045	A9228.D	01/22/2010	19:02
FB-011910	00609-046	A9229.D	01/22/2010	19:17
INFLUENT	00594-001	A9230.D	01/22/2010	17:32

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A9190.D DFTPP Injection Date : 01/22/2010

Inst ID: MSDA DFTPP Injection Time: 10:13

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	36.2			
68	Less than 2.0% of mass 69	0.6	(	1.5	)1
69	Mass 69 relative abundance	41.0			
70	Less than 2.0% of mass 69	0.4	(	0.9	)1
127	40.0 - 60.0% of mass 198	50.6			
197	Less than 1.0% of mass 198	0.5			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.7			
275	10.0 - 30.0% of mass 198	22.4			
365	Greater than 1.0% of mass 198	2.1			
441	Present, but less than mass 443	9.38	(	69.4	)3
442	40.0 - 100.0% of mass 198	66.6			
443	17.0 - 23.0% of mass 442	13.5	(	20.3	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN022-10	0.5ng_SIM	A9193.D	01/22/2010	10:52
.	Method_Blank	A9195.D	01/22/2010	11:21
MW11-SIM	00176-007	A9196.D	01/22/2010	11:34
MW9-SIM	00176-008	A9197.D	01/22/2010	11:47
MW8-SIM	00176-009	A9198.D	01/22/2010	12:00
MW10-SIM	00176-010	A9199.D	01/22/2010	12:12
INFLUENT	00594-001	A9200.D	01/22/2010	12:25
BETWEEN_TREATM	00594-002	A9201.D	01/22/2010	12:38
EFFLUENT	00594-003	A9202.D	01/22/2010	12:51
MW-1/4	00603-001	A9203.D	01/22/2010	13:04
K01	00617-001	A9204.D	01/22/2010	13:17
K02	00617-002	A9205.D	01/22/2010	13:30
SR-MW1	00636-001	A9206.D	01/22/2010	13:43
SR-MW2	00636-002	A9207.D	01/22/2010	13:56
TW1	00634-001	A9208.D	01/22/2010	14:09
TW2	00634-002	A9209.D	01/22/2010	14:22
TW3	00634-003	A9210.D	01/22/2010	14:35
TW4	00634-004	A9211.D	01/22/2010	14:47

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: A9029.D

Instrument ID: MSDA

Date Extracted: 01/08/10

Matrix: AQUEOUS

Date Analyzed: 01/13/2010

Time Analyzed: 11:25

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
	LCS	01/13/2010	11:40
	MS(00176-003)	01/13/2010	11:56
	MSD(00176-003)	01/13/2010	12:11
B-2-GW/10	00166-001	01/13/2010	12:26
PZ-1/8.91	00167-001	01/13/2010	12:41
MW-1/9	00197-001	01/13/2010	12:56
MW-2/9	00197-002	01/13/2010	13:11
MW-4/10	00197-003	01/13/2010	13:26
FB	00197-004	01/13/2010	13:42
MW-9	00171-001	01/13/2010	13:57
MW11	00176-003	01/13/2010	14:12
MW9	00176-004	01/13/2010	14:27
MW8	00176-005	01/13/2010	14:42
MW10	00176-006	01/13/2010	14:57
MW-9	00171-001	01/13/2010	17:58

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9029.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.190
Pyridine	ND		1.00	0.130
Benzaldehyde	ND		1.00	0.170
Phenol	ND		1.00	0.120
Aniline	ND		1.00	0.160
Bis(2-chloroethyl) ether	ND		1.00	0.150
2-Chlorophenol	ND		1.00	0.120
1,3-Dichlorobenzene	ND		1.00	0.170
1,4-Dichlorobenzene	ND		1.00	0.140
Benzyl alcohol	ND		1.00	0.190
1,2-Dichlorobenzene	ND		1.00	0.190
2-Methylphenol	ND		1.00	0.510
Bis(2-chloroisopropyl) ether	ND		1.00	0.080
4-Methylphenol	ND		1.00	0.160
N-Nitrosodi-n-propylamine	ND		1.00	0.250
Acetophenone	ND		1.00	0.220
3-Methylphenol	ND		1.00	0.160
Hexachloroethane	ND		1.00	0.240
Nitrobenzene	ND		1.00	0.180
Isophorone	ND		1.00	0.150
2-Nitrophenol	ND		1.00	0.240
2,4-Dimethylphenol	ND		1.00	0.170
Bis(2-chloroethoxy) methane	ND		1.00	0.130
Benzoic acid	ND		1.00	0.220
2,4-Dimethylaniline	ND		1.00	0.160
2,4-Dichlorophenol	ND		1.00	0.130
1,2,4-Trichlorobenzene	ND		1.00	0.180
Naphthalene	ND		1.00	0.110
4-Chloroaniline	ND		1.00	0.110
4-Aminotoluene	ND		2.00	0.260
Hexachlorobutadiene	ND		1.00	0.360
Caprolactam	ND		1.00	0.150
2-Aminotoluene	ND		2.00	0.260
4-Chloro-3-methylphenol	ND		1.00	0.180
2-Methylnaphthalene	ND		1.00	0.124
Hexachlorocyclopentadiene	ND		1.00	0.270
2,4,6-Trichlorophenol	ND		1.00	0.150
2,4,5-Trichlorophenol	ND		1.00	0.120
1,1'-Biphenyl	ND		1.00	0.170
2-Chloronaphthalene	ND		1.00	0.150
2-Nitroaniline	ND		1.00	0.170
Dimethyl phthalate	ND		1.00	0.130

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9029.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.200
Acenaphthylene	ND		1.00	0.111
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.163
2,4-Dinitrophenol	ND		1.00	0.270
4-Nitrophenol	ND		1.00	0.250
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.160
Fluorene	ND		1.00	0.149
4-Chlorophenyl phenyl ether	ND		1.00	0.160
4-Nitroaniline	ND		1.00	0.230
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.140
4,6-Dinitro-2-methylphenol	ND		1.00	0.130
N-Nitrosodiphenylamine	ND		1.00	0.090
1,2-Diphenylhydrazine	ND		1.00	0.080
4-Bromophenyl phenyl ether	ND		1.00	0.270
Hexachlorobenzene	ND		1.00	0.240
Atrazine	ND		1.00	0.240
Pentachlorophenol	ND		1.00	0.220
Phenanthrene	ND		1.00	0.176
Anthracene	ND		1.00	0.150
Carbazole	ND		1.00	0.120
Di-n-butyl phthalate	ND		1.00	0.120
Fluoranthene	ND		1.00	0.126
Benzidine	ND		3.00	0.320
Pyrene	ND		1.00	0.115
3,3'-Dimethylbenzidine	ND		3.00	0.550
Butyl benzyl phthalate	ND		1.00	0.220
3,3'-Dichlorobenzidine	ND		3.00	0.190
Benzo[a]anthracene	ND		1.00	0.110
Chrysene	ND		1.00	0.144
Bis(2-ethylhexyl) phthalate	ND		1.00	0.410
Di-n-octyl phthalate	ND		1.00	0.160
Benzo[b]fluoranthene	ND		1.00	0.210
Benzo[k]fluoranthene	ND		1.00	0.270
Benzo[a]pyrene	ND		1.00	0.130
Indeno[1,2,3-cd]pyrene	ND		1.00	0.220
Dibenz[a,h]anthracene	ND		1.00	0.180
Benzo[g,h,i]perylene	ND		1.00	0.186

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9029.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: A9195.D

Instrument ID: MSDA

Date Extracted: 01/22/10

Matrix: AQUEOUS

Date Analyzed: 01/22/2010

Time Analyzed: 11:21

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW11-SIM	00176-007	01/22/2010	11:34
MW9-SIM	00176-008	01/22/2010	11:47
MW8-SIM	00176-009	01/22/2010	12:00
MW10-SIM	00176-010	01/22/2010	12:12
INFLUENT	00594-001	01/22/2010	12:25
BETWEEN_TREA	00594-002	01/22/2010	12:38
EFFLUENT	00594-003	01/22/2010	12:51
MW-1/4	00603-001	01/22/2010	13:04
K01	00617-001	01/22/2010	13:17
K02	00617-002	01/22/2010	13:30
SR-MW1	00636-001	01/22/2010	13:43
SR-MW2	00636-002	01/22/2010	13:56
TW1	00634-001	01/22/2010	14:09
TW2	00634-002	01/22/2010	14:22
TW3	00634-003	01/22/2010	14:35
TW4	00634-004	01/22/2010	14:47

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: A9212.D

Instrument ID: MSDA

Date Extracted: 01/22/10

Matrix: AQUEOUS

Date Analyzed: 01/22/2010

Time Analyzed: 15:00

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
FB11610-A	00491-010	01/22/2010	11:05
.	LCS	01/22/2010	15:15
.	MS(00594-001)	01/22/2010	15:31
.	MSD(00594-001)	01/22/2010	15:46
INFLUENT	00594-001	01/22/2010	16:01
BETWEEN_TREA	00594-002	01/22/2010	16:16
EFFLUENT	00594-003	01/22/2010	16:31
MW-1/4	00603-001	01/22/2010	16:46
K01	00617-001	01/22/2010	17:02
K02	00617-002	01/22/2010	17:17
SR-MW1	00636-001	01/22/2010	17:32
SR-MW2	00636-002	01/22/2010	17:47
TW1	00634-001	01/22/2010	18:02
TW2	00634-002	01/22/2010	18:17
TW3	00634-003	01/22/2010	18:32
TW4	00634-004	01/22/2010	18:47
FB-011810	00609-045	01/22/2010	19:02
FB-011910	00609-046	01/22/2010	19:17
INFLUENT	00594-001	01/22/2010	17:32

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 01/22/2010
Date Analyzed: 01/22/2010
Data file: A9212.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.190
Pyridine	ND		1.00	0.130
Benzaldehyde	ND		1.00	0.170
Phenol	ND		1.00	0.120
Aniline	ND		1.00	0.160
Bis(2-chloroethyl) ether	ND		1.00	0.150
2-Chlorophenol	ND		1.00	0.120
1,3-Dichlorobenzene	ND		1.00	0.170
1,4-Dichlorobenzene	ND		1.00	0.140
Benzyl alcohol	ND		1.00	0.190
1,2-Dichlorobenzene	ND		1.00	0.190
2-Methylphenol	ND		1.00	0.510
Bis(2-chloroisopropyl) ether	ND		1.00	0.080
4-Methylphenol	ND		1.00	0.160
N-Nitrosodi-n-propylamine	ND		1.00	0.250
Acetophenone	ND		1.00	0.220
3-Methylphenol	ND		1.00	0.160
Hexachloroethane	ND		1.00	0.240
Nitrobenzene	ND		1.00	0.180
Isophorone	ND		1.00	0.150
2-Nitrophenol	ND		1.00	0.240
2,4-Dimethylphenol	ND		1.00	0.170
Bis(2-chloroethoxy) methane	ND		1.00	0.130
Benzoic acid	ND		1.00	0.220
2,4-Dimethylaniline	ND		1.00	0.160
2,4-Dichlorophenol	ND		1.00	0.130
1,2,4-Trichlorobenzene	ND		1.00	0.180
Naphthalene	ND		1.00	0.110
4-Chloroaniline	ND		1.00	0.110
4-Aminotoluene	ND		2.00	0.260
Hexachlorobutadiene	ND		1.00	0.360
Caprolactam	ND		1.00	0.150
2-Aminotoluene	ND		2.00	0.260
4-Chloro-3-methylphenol	ND		1.00	0.180
2-Methylnaphthalene	ND		1.00	0.124
Hexachlorocyclopentadiene	ND		1.00	0.270
2,4,6-Trichlorophenol	ND		1.00	0.150
2,4,5-Trichlorophenol	ND		1.00	0.120
1,1'-Biphenyl	ND		1.00	0.170
2-Chloronaphthalene	ND		1.00	0.150
2-Nitroaniline	ND		1.00	0.170
Dimethyl phthalate	ND		1.00	0.130

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 01/22/2010
Date Analyzed: 01/22/2010
Data file: A9212.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.200
Acenaphthylene	ND		1.00	0.111
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.163
2,4-Dinitrophenol	ND		1.00	0.270
4-Nitrophenol	ND		1.00	0.250
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.160
Fluorene	ND		1.00	0.149
4-Chlorophenyl phenyl ether	ND		1.00	0.160
4-Nitroaniline	ND		1.00	0.230
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.140
4,6-Dinitro-2-methylphenol	ND		1.00	0.130
N-Nitrosodiphenylamine	ND		1.00	0.090
1,2-Diphenylhydrazine	ND		1.00	0.080
4-Bromophenyl phenyl ether	ND		1.00	0.270
Hexachlorobenzene *	ND		0.020	0.010
Atrazine	ND		1.00	0.240
Pentachlorophenol	ND		0.100	0.050
Phenanthrene	ND		1.00	0.176
Anthracene	ND		1.00	0.150
Carbazole	ND		1.00	0.120
Di-n-butyl phthalate	ND		1.00	0.120
Fluoranthene	ND		1.00	0.126
Benzidine	ND		3.00	0.320
Pyrene	ND		1.00	0.115
3,3'-Dimethylbenzidine	ND		3.00	0.550
Butyl benzyl phthalate	ND		1.00	0.220
3,3'-Dichlorobenzidine	ND		3.00	0.190
Benzo[a]anthracene *	ND		0.100	0.050
Chrysene	ND		1.00	0.144
Bis(2-ethylhexyl) phthalate	ND		1.00	0.410
Di-n-octyl phthalate	ND		1.00	0.160
Benzo[b]fluoranthene *	ND		0.100	0.050
Benzo[k]fluoranthene *	ND		0.100	0.050
Benzo[a]pyrene *	ND		0.100	0.050
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.050
Dibenz[a,h]anthracene *	ND		0.100	0.050
Benzo[g,h,i]perylene	ND		1.00	0.186

Total Target Compounds: 0

* --- RL & MDL from SIM run

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 01/22/2010
Date Analyzed: 01/22/2010
Data file: A9212.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Response Factor Report MSD_A

Method Path : C:\msdchem\1\METHODS\
Method File : AW0210.M
Title : BNA CALIBRATION METHOD
Last Update : Tue Jan 12 13:22:00 2010
Response Via : Initial Calibration

Calibration Files
1 =A8951.D 10 =A8952.D 20 =A8953.D 40 =A8954.D 80 =A8955.D
120 =A8956.D

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------							
2)	T	N-Nitrosodimet...	0.812	0.830	0.805	0.834	0.819	0.873	0.829	2.90
3)	T	Pyridine	0.820	0.907	0.927	0.908	0.871	0.924	0.893	4.60
4)	S	2-Fluorophenol	1.437	1.419	1.343	1.408	1.313	1.362	1.380	3.52
5)	T	Benzaldehyde	1.045	1.073	0.944	0.990	0.899	0.873	0.971	8.19
6)	S	Phenol-d5	1.883	1.785	1.725	1.816	1.769	1.807	1.798	2.94
7)	MC	Phenol	2.149	1.842	1.799	1.672	1.798	1.764	1.838	8.87
8)	T	Aniline	0.815	0.749	0.762	0.752	0.765	0.773	0.769	3.12
9)	T	Bis(2-chloroet...	1.185	1.036	1.006	0.973	0.986	0.968	1.025	7.98
10)	M	2-Chlorophenol	1.551	1.321	1.322	1.344	1.387	1.386	1.385	6.23
11)	T	1,3-Dichlorobe...	1.571	1.378	1.430	1.392	1.406	1.417	1.432	4.92
12)	MC	1,4-Dichlorobe...	1.709	1.494	1.479	1.449	1.485	1.561	1.529	6.25
13)	T	Benzyl alcohol	0.840	0.827	0.875	0.923	0.871	0.985	0.887	6.62
14)	T	1,2-Dichlorobe...	1.478	1.377	1.398	1.404	1.420	1.403	1.413	2.45
15)	T	2-Methylphenol	1.172	1.172	1.267	1.240	1.262	1.281	1.232	3.95
16)	T	Bis(2-chlorois...	1.830	1.744	1.701	1.640	1.592	1.635	1.690	5.14
17)	T	4-Methylphenol	1.317	1.293	1.272	1.316	1.338	1.393	1.322	3.17
18)	MP	N-Nitrosodi-n-...	0.925	0.918	0.938	0.915	0.924	0.914	0.922	0.96
19)	T	Acetophenone	1.669	1.793	1.737	1.827	1.805	1.920	1.792	4.73
20)	T	3-Methylphenol	1.317	1.293	1.272	1.311	1.337	1.389	1.320	3.06
21)	T	Hexachloroethane	0.541	0.492	0.495	0.455	0.474	0.503	0.493	5.94
22)	T	2,6-Dimethylph...							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.326	0.331	0.335	0.346	0.352	0.372	0.343	4.90
25)	T	Nitrobenzene	0.420	0.343	0.339	0.286	0.338	0.327	0.342	12.74
26)	T	Isophorone	0.691	0.639	0.659	0.630	0.644	0.646	0.651	3.34
27)	TC	2-Nitrophenol	0.164	0.164	0.172	0.172	0.183	0.185	0.173	5.26
28)	T	2,4-Dimethylph...	0.335	0.302	0.313	0.321	0.415	0.310	0.332	12.60
29)	T	Bis(2-chloroet...	0.426	0.398	0.413	0.392	0.399	0.386	0.402	3.68
30)	T	Benzoic acid	0.127	0.126	0.119	0.154	0.123	0.133	0.130	9.57
31)	T	2,4-Dimethylan...	0.419	0.423	0.435	0.426	0.433	0.438	0.429	1.75
32)	TC	2,4-Dichloroph...	0.252	0.264	0.268	0.267	0.276	0.267	0.265	2.93
33)	M	1,2,4-Trichlor...	0.318	0.289	0.292	0.282	0.284	0.299	0.294	4.47
34)	T	Naphthalene	1.165	1.078	1.080	1.041	1.028	1.049	1.073	4.60
35)	T	4-Chloroaniline	0.542	0.536	0.534	0.545	0.553	0.527	0.540	1.68
36)	T	4-Aminotoluene	0.669	0.644	0.650	0.621	0.620	0.652	0.643	2.98
37)	TC	Hexachlorobuta...	0.167	0.150	0.150	0.154	0.151	0.158	0.155	4.24
38)	T	Caprolactam	0.103	0.123	0.128	0.131	0.132	0.132	0.125	8.89
39)	T	2-Aminotoluene	0.669	0.644	0.650	0.621	0.620	0.652	0.643	2.98
40)	MC	4-Chloro-3-met...	0.264	0.260	0.267	0.271	0.273	0.272	0.268	1.97
41)	T	2-Methylnaphth...	0.686	0.627	0.648	0.644	0.634	0.654	0.649	3.21
42)	T	2,5-Dimethylph...							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocycl...	0.256	0.283	0.302	0.322	0.332	0.360	0.309	11.94
45)	TC	2,4,6-Trichlor...	0.312	0.313	0.328	0.304	0.334	0.339	0.322	4.25
46)	T	2,4,5-Trichlor...	0.293	0.331	0.339	0.342	0.357	0.353	0.336	6.86
47)	S	2-Fluorobiphenyl	1.264	1.304	1.312	1.322	1.244	1.271	1.286	2.40
48)	T	1,1'-Biphenyl	1.512	1.436	1.439	1.481	1.380	1.501	1.458	3.40
49)	T	2-Chloronaphth...	1.156	1.036	1.059	1.061	1.003	1.077	1.065	4.82
50)	T	2-Nitroaniline	0.249	0.202	0.249	0.258	0.283	0.266	0.251	10.88

51)	T	Dimethyl phtha...	1.191	1.143	1.173	1.106	1.161	1.122	1.149	2.77
52)	T	2,6-Dinitrotol...	0.197	0.187	0.210	0.237	0.244	0.273	0.225	14.39
53)	T	Acenaphthylene	1.725	1.719	1.776	1.736	1.745	1.731	1.738	1.17
54)	T	3-Nitroaniline	0.266	0.246	0.279	0.288	0.302	0.273	0.276	6.89
55)	MC	Acenaphthene	1.210	1.104	1.084	1.140	1.066	1.093	1.116	4.69
56)	TP	2,4-Dinitrophenol	0.111	0.076	0.103	0.095	0.084	0.095	0.094	13.38
57)	MP	4-Nitrophenol	0.236	0.183	0.207	0.199	0.196	0.203	0.204	8.66
58)	M	2,4-Dinitrotol...	0.276	0.245	0.292	0.264	0.272	0.214	0.260	10.54
59)	T	Dibenzofuran	1.642	1.495	1.538	1.530	1.483	1.542	1.539	3.65
60)	T	Diethyl phthalate	1.052	1.046	1.088	1.069	1.070	1.049	1.062	1.53
61)	T	Fluorene	1.342	1.245	1.277	1.280	1.204	1.232	1.263	3.79
62)	T	4-Chlorophenyl...	0.618	0.580	0.590	0.577	0.603	0.577	0.591	2.83
63)	T	4-Nitroaniline	0.324	0.250	0.292	0.311	0.327	0.315	0.303	9.57
64)		1,2,4,5-Tetrac...	0.601	0.538	0.534	0.542	0.551	0.548	0.552	4.48
65)	T	3,5-Dimethylph...							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-...	0.103	0.090	0.101	0.115	0.117	0.114	0.107	9.93
68)	TC	N-Nitrosodiphe...	0.536	0.548	0.554	0.539	0.563	0.579	0.553	2.90
69)	T	1,2-Diphenylhy...	0.686	0.743	0.737	0.736	0.743	0.742	0.731	3.07
70)	S	2,4,6-Tribromo...	0.147	0.161	0.148	0.151	0.148	0.156	0.152	3.63
71)	T	4-Bromophenyl ...	0.216	0.213	0.217	0.224	0.225	0.237	0.222	4.02
72)	T	Hexachlorobenzene	0.267	0.253	0.259	0.245	0.255	0.274	0.259	3.94
73)	T	Atrazine	0.136	0.177	0.185	0.194	0.204	0.210	0.184	14.42
74)	MC	Pentachlorophenol	0.115	0.134	0.144	0.147	0.158	0.168	0.144	12.85
75)	T	Phenanthrene	1.093	1.067	1.100	1.087	1.085	1.042	1.079	1.97
76)	T	Anthracene	1.093	1.068	1.100	1.087	1.094	1.084	1.088	1.02
77)	T	Carbazole	0.923	0.963	0.979	0.962	0.989	0.939	0.959	2.56
78)	T	Di-n-butyl pht...	0.884	0.993	1.068	1.039	1.053	1.128	1.027	8.05
79)	TC	Fluoranthene	0.963	1.028	1.092	1.045	1.021	1.055	1.034	4.13
80)	T	Benzidine	0.352	0.339	0.349	0.401	0.401	0.431	0.379	9.81
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.056	1.086	1.109	1.172	1.192	1.242	1.143	6.19
84)	S	Terphenyl-d14	0.882	0.878	0.884	0.916	0.890	0.899	0.892	1.59
85)	T	3,3'-Dimethylb...	0.344	0.339	0.339	0.364	0.353	0.390	0.355	5.56
86)	T	Butyl benzyl p...	0.461	0.470	0.521	0.550	0.596	0.527	0.521	9.72
87)	T	3,3'-Dichlorob...	0.270	0.249	0.283	0.318	0.316	0.332	0.295	10.96
88)	T	Benzo[a]anthra...	0.957	0.907	0.950	0.960	0.963	0.980	0.953	2.57
89)	T	Chrysene	0.972	0.919	0.906	0.922	0.933	0.948	0.933	2.55
90)	T	Bis(2-ethylhex...	0.481	0.469	0.527	0.550	0.589	0.515	0.522	8.49
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl pht...	0.987	0.699	0.850	0.961	0.877	0.843	0.869	11.79
94)	T	Benzo[b]fluora...	0.918	0.810	0.862	0.913	0.968	1.123	0.932	11.54
95)	T	Benzo[k]fluora...	1.272	1.174	1.186	1.208	1.189	1.056	1.181	5.98
96)	TC	Benzo[a]pyrene	0.912	0.755	0.805	0.833	0.889	0.930	0.854	7.96
97)	T	Indeno[1,2,3-c...	0.808	0.841	0.909	1.059	1.019	1.080	0.953	12.17
98)	T	Dibenz[a,h]ant...	0.586	0.662	0.745	0.827	0.813	0.888	0.753	14.96
99)	T	Benzo[g,h,i]pe...	0.762	0.781	0.792	0.876	0.950	1.018	0.863	12.01
100)	T	3,3'-Dimethoxy...							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

AW0210.M Tue Jan 12 13:22:09 2010 MSD_A

Response Factor Report MSD_A

Method Path : C:\MSDCHEM\1\METHODS\
Method File : ASIM0110.M
Title : BNA CALIBRATION METHOD
Last Update : Wed Jan 13 06:33:24 2010
Response Via : Initial Calibration

Calibration Files
0.1 =A8964.D 0.2 =A8965.D 0.5 =A8966.D 1 =A8967.D 2 =A8968.D

		Compound	0.1	0.2	0.5	1	2	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	ISTD						
23)	I	Naphthalene-d8	ISTD						
43)	I	Acenaphthene-d10	ISTD						
66)	I	Phenanthrene-d10	ISTD						
72)	T	Hexachlorobenzene	0.142	0.160	0.183	0.168	0.157	0.162	9.43
74)	MC	Pentachlorophenol	0.024	0.035	0.028	0.027	0.031	0.029	14.60
82)	I	Chrysene-d12	ISTD						
88)	T	Benzo[a]anthracene	0.276	0.237	0.282	0.235	0.232	0.252	9.58
92)	I	Perylene-d12	ISTD						
94)	T	Benzo[b]fluorant...	0.224	0.191	0.227	0.183	0.199	0.205	9.62
95)	T	Benzo[k]fluorant...	0.464	0.323	0.464	0.391	0.415	0.411	14.28
96)	TC	Benzo[a]pyrene	0.198	0.160	0.226	0.178	0.206	0.194	13.15
97)	T	Indeno[1,2,3-cd]...	0.165	0.137	0.172	0.136	0.172	0.156	11.76
98)	T	Dibenz[a,h]anthr...	0.119	0.116	0.144	0.096	0.128	0.120	14.57

(#) = Out of Range

ASIM0110.M Wed Jan 13 06:33:32 2010 MSD_A

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9013.D
Acq On : 13 Jan 2010 6:21
Operator : LIMS import
Sample : ABN020-10,40ng-BNA
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Jan 13 13:18:07 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 11:20:10 2010
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00
2	T	N-Nitrosodimethylamine	0.829	0.769	7.2	83	-0.01
3	T	Pyridine	0.893	0.841	5.8	84	0.00
4	S	2-Fluorophenol	1.380	1.298	5.9	83	0.00
5	T	Benzaldehyde	0.971	0.868	10.6	79	0.00
6	S	Phenol-d5	1.798	1.701	5.4	85	0.00
7	MC	Phenol	1.838	1.598	13.1	86	0.00
8	T	Aniline	0.769	0.720	6.4	87	0.00
9	T	Bis(2-chloroethyl) ether	1.025	0.904	11.8	84	0.00
10	M	2-Chlorophenol	1.385	1.295	6.5	87	0.00
11	T	1,3-Dichlorobenzene	1.432	1.381	3.6	90	0.00
12	MC	1,4-Dichlorobenzene	1.529	1.409	7.8	88	0.00
13	T	Benzyl alcohol	0.887	0.902	-1.7	88	0.00
14	T	1,2-Dichlorobenzene	1.413	1.391	1.6	90	0.00
15	T	2-Methylphenol	1.232	1.211	1.7	88	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.690	1.526	9.7	84	0.00
17	T	4-Methylphenol	1.322	1.284	2.9	88	-0.01
18	MP	N-Nitrosodi-n-propylamine	0.922	0.905	1.8	90	-0.01
19	T	Acetophenone	1.792	1.827	-2.0	90	0.00
20	T	3-Methylphenol	1.320	1.281	3.0	88	-0.01
21	T	Hexachloroethane	0.493	0.473	4.1	94	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	90	0.00
24	S	Nitrobenzene-d5	0.343	0.328	4.4	86	0.00
25	T	Nitrobenzene	0.342	0.307	10.2	97	0.00
26	T	Isophorone	0.651	0.606	6.9	87	-0.01
27	TC	2-Nitrophenol	0.173	0.166	4.0	87	0.00
28	T	2,4-Dimethylphenol	0.332	0.313	5.7	88	0.00
29	T	Bis(2-chloroethoxy) methane	0.402	0.384	4.5	89	0.00
30	T	Benzoic acid	0.130	0.136	-4.6	80	-0.03
31	T	2,4-Dimethylaniline	0.429	0.428	0.2	91	0.00
32	TC	2,4-Dichlorophenol	0.265	0.267	-0.8	90	0.00
33	M	1,2,4-Trichlorobenzene	0.294	0.291	1.0	93	0.00
34	T	Naphthalene	1.073	1.052	2.0	91	0.00
35	T	4-Chloroaniline	0.540	0.538	0.4	89	0.00
36	T	4-Aminotoluene	0.643	0.617	4.0	90	0.00
37	TC	Hexachlorobutadiene	0.155	0.151	2.6	89	0.00
38	T	Caprolactam	0.125	0.118	5.6	81	-0.02
39	T	2-Aminotoluene	0.643	0.617	4.0	90	0.00
40	MC	4-Chloro-3-methylphenol	0.268	0.269	-0.4	90	0.00
41	T	2-Methylnaphthalene	0.649	0.667	-2.8	94	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	91	0.00
44	TP	Hexachlorocyclopentadiene	0.309	0.308	0.3	87	0.00
45	TC	2,4,6-Trichlorophenol	0.322	0.332	-3.1	99	0.00

46	T	2,4,5-Trichlorophenol	0.336	0.350	-4.2	93	0.00
47	S	2-Fluorobiphenyl	1.286	1.353	-5.2	93	0.00
48	T	1,1'-Biphenyl	1.458	1.471	-0.9	90	0.00
49	T	2-Chloronaphthalene	1.065	1.071	-0.6	92	0.00
50	T	2-Nitroaniline	0.251	0.246	2.0	87	0.00
51	T	Dimethyl phthalate	1.149	1.128	1.8	93	0.00
52	T	2,6-Dinitrotoluene	0.225	0.232	-3.1	89	0.00
53	T	Acenaphthylene	1.738	1.783	-2.6	94	0.00
54	T	3-Nitroaniline	0.276	0.287	-4.0	91	0.00
55	MC	Acenaphthene	1.116	1.119	-0.3	89	0.00
56	TP	2,4-Dinitrophenol	0.094	0.082	12.8	79	0.00
57	MP	4-Nitrophenol	0.204	0.171	16.2	78	0.00
58	M	2,4-Dinitrotoluene	0.260	0.301	-15.8	104	0.00
59	T	Dibenzofuran	1.539	1.506	2.1	90	0.00
60	T	Diethyl phthalate	1.062	1.070	-0.8	91	0.00
61	T	Fluorene	1.263	1.239	1.9	88	0.00
62	T	4-Chlorophenyl phenyl ether	0.591	0.620	-4.9	98	0.00
63	T	4-Nitroaniline	0.303	0.276	8.9	81	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.552	0.572	-3.6	96	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	87	0.00
67	T	4,6-Dinitro-2-methylphenol	0.107	0.086	19.6	65	0.00
68	TC	N-Nitrosodiphenylamine	0.553	0.570	-3.1	92	0.00
69	T	1,2-Diphenylhydrazine	0.731	0.736	-0.7	87	0.00
70	S	2,4,6-Tribromophenol	0.152	0.157	-3.3	91	0.00
71	T	4-Bromophenyl phenyl ether	0.222	0.233	-5.0	91	0.00
72	T	Hexachlorobenzene	0.259	0.275	-6.2	98	0.00
73	T	Atrazine	0.184	0.204	-10.9	92	0.00
74	MC	Pentachlorophenol	0.144	0.136	5.6	81	0.00
75	T	Phenanthrene	1.079	1.088	-0.8	87	0.03
76	T	Anthracene	1.088	1.089	-0.1	87	0.00
77	T	Carbazole	0.959	0.954	0.5	87	0.00
78	T	Di-n-butyl phthalate	1.027	1.036	-0.9	87	0.00
79	TC	Fluoranthene	1.034	1.016	1.7	85	0.00
80	T	Benzidine	0.379	0.368	2.9	80	0.01
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	87	0.01
83	M	Pyrene	1.143	1.158	-1.3	86	0.01
84	S	Terphenyl-d14	0.892	0.929	-4.1	88	0.02
85	T	3,3'-Dimethylbenzidine	0.355	0.331	6.8	79	0.02
86	T	Butyl benzyl phthalate	0.521	0.541	-3.8	85	0.02
87	T	3,3'-Dichlorobenzidine	0.295	0.320	-8.5	88	0.02
88	T	Benzo[a]anthracene	0.953	0.936	1.8	85	0.02
89	T	Chrysene	0.933	0.955	-2.4	90	0.02
90	T	Bis(2-ethylhexyl) phthalate	0.522	0.553	-5.9	87	0.02
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	97	0.02
93	TC	Di-n-octyl phthalate	0.869	0.807	7.1	82	0.02
94	T	Benzo[b]fluoranthene	0.932	0.880	5.6	94	0.01
95	T	Benzo[k]fluoranthene	1.181	1.077	8.8	87	0.01
96	TC	Benzo[a]pyrene	0.854	0.855	-0.1	100	0.01
97	T	Indeno[1,2,3-cd]pyrene	0.953	1.091	-14.5	100	-0.01
98	T	Dibenz[a,h]anthracene	0.753	0.848	-12.6	100	0.00
99	T	Benzo[g,h,i]perylene	0.863	1.029	-19.2	114	-0.01
100	T	3,3'-Dimethoxybenzidine					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

AW0210.M Wed Jan 13 13:18:12 2010 MSD_A

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9191.D
Acq On : 22 Jan 2010 10:21
Operator :
Sample : ABN020-10,40ng_BNA
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Jan 22 11:11:31 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
2	T	N-Nitrosodimethylamine	0.829	0.890	-7.4	111	-0.01
3	T	Pyridine	0.893	0.888	0.6	102	0.00
4	S	2-Fluorophenol	1.380	1.315	4.7	97	0.00
5	T	Benzaldehyde	0.971	1.011	-4.1	108	0.00
6	S	Phenol-d5	1.798	1.870	-4.0	107	0.00
7	MC	Phenol	1.838	1.731	5.8	108	0.00
8	T	Aniline	0.769	0.777	-1.0	108	0.00
9	T	Bis(2-chloroethyl) ether	1.025	1.037	-1.2	111	0.00
10	M	2-Chlorophenol	1.385	1.380	0.4	107	0.00
11	T	1,3-Dichlorobenzene	1.432	1.395	2.6	104	0.00
12	MC	1,4-Dichlorobenzene	1.529	1.519	0.7	109	0.00
13	T	Benzyl alcohol	0.887	0.931	-5.0	105	-0.01
14	T	1,2-Dichlorobenzene	1.413	1.401	0.8	104	0.00
15	T	2-Methylphenol	1.232	1.288	-4.5	108	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.690	1.713	-1.4	109	0.00
17	T	4-Methylphenol	1.322	1.397	-5.7	111	-0.01
18	MP	N-Nitrosodi-n-propylamine	0.922	1.063	-15.3	121	-0.01
19	T	Acetophenone	1.792	1.838	-2.6	105	-0.01
20	T	3-Methylphenol	1.320	1.395	-5.7	111	-0.01
21	T	Hexachloroethane	0.493	0.503	-2.0	115	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	108	0.00
24	S	Nitrobenzene-d5	0.343	0.355	-3.5	111	0.00
25	T	Nitrobenzene	0.342	0.337	1.5	127	0.00
26	T	Isophorone	0.651	0.657	-0.9	113	-0.01
27	TC	2-Nitrophenol	0.173	0.183	-5.8	115	0.00
28	T	2,4-Dimethylphenol	0.332	0.314	5.4	106	0.00
29	T	Bis(2-chloroethoxy) methane	0.402	0.407	-1.2	112	0.00
30	T	Benzoic acid	0.130	0.150	-15.4	105	-0.03
31	T	2,4-Dimethylaniline	0.429	0.429	0.0	109	0.00
32	TC	2,4-Dichlorophenol	0.265	0.264	0.4	107	0.00
33	M	1,2,4-Trichlorobenzene	0.294	0.284	3.4	109	0.00
34	T	Naphthalene	1.073	1.034	3.6	107	-0.01
35	T	4-Chloroaniline	0.540	0.540	0.0	107	0.00
36	T	4-Aminotoluene	0.643	0.639	0.6	111	-0.01
37	TC	Hexachlorobutadiene	0.155	0.145	6.5	101	0.00
38	T	Caprolactam	0.125	0.133	-6.4	110	-0.02
39	T	2-Aminotoluene	0.643	0.639	0.6	111	-0.01
40	MC	4-Chloro-3-methylphenol	0.268	0.272	-1.5	108	0.00
41	T	2-Methylnaphthalene	0.649	0.648	0.2	109	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	111	0.00
44	TP	Hexachlorocyclopentadiene	0.309	0.269	12.9	93	0.00
45	TC	2,4,6-Trichlorophenol	0.322	0.316	1.9	116	0.00

46	T	2,4,5-Trichlorophenol	0.336	0.332	1.2	108	0.00
47	S	2-Fluorobiphenyl	1.286	1.300	-1.1	109	0.00
48	T	1,1'-Biphenyl	1.458	1.425	2.3	107	0.00
49	T	2-Chloronaphthalene	1.065	1.027	3.6	108	0.00
50	T	2-Nitroaniline	0.251	0.284	-13.1	123	0.00
51	T	Dimethyl phthalate	1.149	1.116	2.9	112	0.00
52	T	2,6-Dinitrotoluene	0.225	0.249	-10.7	117	-0.01
53	T	Acenaphthylene	1.738	1.734	0.2	111	0.00
54	T	3-Nitroaniline	0.276	0.290	-5.1	112	-0.01
55	MC	Acenaphthene	1.116	1.051	5.8	103	0.00
56	TP	2,4-Dinitrophenol	0.094	0.089	5.3	105	0.00
57	MP	4-Nitrophenol	0.204	0.187	8.3	104	0.00
58	M	2,4-Dinitrotoluene	0.260	0.310	-19.2	131	0.00
59	T	Dibenzofuran	1.539	1.495	2.9	109	0.00
60	T	Diethyl phthalate	1.062	1.059	0.3	110	0.00
61	T	Fluorene	1.263	1.258	0.4	109	0.00
62	T	4-Chlorophenyl phenyl ether	0.591	0.566	4.2	109	0.00
63	T	4-Nitroaniline	0.303	0.289	4.6	104	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.552	0.512	7.2	105	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	105	0.00
67	T	4,6-Dinitro-2-methylphenol	0.107	0.091	15.0	83	0.00
68	TC	N-Nitrosodiphenylamine	0.553	0.573	-3.6	111	0.00
69	T	1,2-Diphenylhydrazine	0.731	0.768	-5.1	109	0.00
70	S	2,4,6-Tribromophenol	0.152	0.150	1.3	104	0.00
71	T	4-Bromophenyl phenyl ether	0.222	0.228	-2.7	107	0.00
72	T	Hexachlorobenzene	0.259	0.246	5.0	105	0.00
73	T	Atrazine	0.184	0.194	-5.4	105	0.00
74	MC	Pentachlorophenol	0.144	0.127	11.8	90	0.00
75	T	Phenanthrene	1.079	1.071	0.7	103	0.00
76	T	Anthracene	1.088	1.087	0.1	104	0.00
77	T	Carbazole	0.959	0.947	1.3	103	0.00
78	T	Di-n-butyl phthalate	1.027	1.113	-8.4	112	0.00
79	TC	Fluoranthene	1.034	0.992	4.1	99	0.00
80	T	Benzidine	0.379	0.418	-10.3	112	0.00
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	89	0.00
83	M	Pyrene	1.143	1.253	-9.6	96	0.00
84	S	Terphenyl-d14	0.892	0.983	-10.2	96	0.00
85	T	3,3'-Dimethylbenzidine	0.355	0.289	18.6	71	0.00
86	T	Butyl benzyl phthalate	0.521	0.468	10.2	76	0.00
87	T	3,3'-Dichlorobenzidine	0.295	0.321	-8.8	90	0.00
88	T	Benzo[a]anthracene	0.953	0.936	1.8	87	0.00
89	T	Chrysene	0.933	0.935	-0.2	91	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.522	0.609	-16.7	99	0.00
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	100	0.00
93	TC	Di-n-octyl phthalate	0.869	0.944	-8.6	98	0.00
94	T	Benzo[b]fluoranthene	0.932	0.900	3.4	98	0.00
95	T	Benzo[k]fluoranthene	1.181	1.128	4.5	93	0.00
96	TC	Benzo[a]pyrene	0.854	0.885	-3.6	106	0.00
97	T	Indeno[1,2,3-cd]pyrene	0.953	1.122	-17.7	106	-0.03
98	T	Dibenz[a,h]anthracene	0.753	0.880	-16.9	106	-0.03
99	T	Benzo[g,h,i]perylene	0.863	1.017	-17.8	116	-0.03
100	T	3,3'-Dimethoxybenzidine					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

AW0210.M Fri Jan 22 11:11:43 2010 MSD_A

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9193.D
Acq On : 22 Jan 2010 10:52
Operator :
Sample : ABN022-10,0.5ng_SIM
Misc :
ALS Vial : 99 Sample Multiplier: 1

Quant Time: Jan 22 11:28:53 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	140	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	146	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	139	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	129	0.00
72	T	Hexachlorobenzene	0.162	0.145	10.5	102	0.00
74	MC	Pentachlorophenol	0.029	0.026	10.3	119	0.00
82	I	Chrysene-d12	1.000	1.000	0.0	129	0.00
88	T	Benzo[a]anthracene	0.252	0.289	-14.7	133	0.00
92	I	Perylene-d12	1.000	1.000	0.0	151	0.00
94	T	Benzo[b]fluoranthene	0.205	0.244	-19.0	163	0.00
95	T	Benzo[k]fluoranthene	0.411	0.443	-7.8	145	0.00
96	TC	Benzo[a]pyrene	0.194	0.207	-6.7	139	0.00
97	T	Indeno[1,2,3-cd]pyrene	0.156	0.174	-11.5	153	0.00
98	T	Dibenz[a,h]anthracene	0.120	0.135	-12.5	143	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ASIM0110.M Fri Jan 22 11:28:57 2010 MSD_A

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/13/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
40ng-OLMO4		A9014.D	N/A	N/A	N/A	N/A	N/A	N/A
00127-001	AQUEOUS	A9016.D	N/A	N/A	48	80	N/A	86
00131-001	AQUEOUS	A9017.D	N/A	N/A	52	64	N/A	86
Method_Blank	AQUEOUS	A9029.D	73	80	61	72	76	73
LCS	AQUEOUS	A9030.D	73	82	60	67	82	69
MS(00176-003)	AQUEOUS	A9031.D	58	65	64	68	63	79
MSD(00176-003)	AQUEOUS	A9032.D	55	62	65	73	60	79
00166-001	AQUEOUS	A9033.D	N/A	N/A	46	54	N/A	79
00167-001	AQUEOUS	A9034.D	N/A	N/A	34	50	N/A	73
00197-001	AQUEOUS	A9035.D	N/A	N/A	53	63	N/A	72
00197-002	AQUEOUS	A9036.D	N/A	N/A	46	53	N/A	67
00197-003	AQUEOUS	A9037.D	N/A	N/A	48	56	N/A	74
00197-004	AQUEOUS	A9038.D	N/A	N/A	51	63	N/A	85
00171-001	AQUEOUS	A9039.D	N/A	N/A	41	54	N/A	78
00176-003	AQUEOUS	A9040.D	29	20	49	62	73	79
00176-004	AQUEOUS	A9041.D	21	13	52	62	67	66
00176-005	AQUEOUS	A9042.D	21	12	52	67	72	75
00176-006	AQUEOUS	A9043.D	23	14	58	61	80	72
Method_Blank	AQUEOUS	A9044.D	70	77	67	77	75	82
LCS	AQUEOUS	A9045.D	70	76	66	73	77	74
00192-001	AQUEOUS	A9046.D	N/A	N/A	40	50	N/A	76
00187-001	AQUEOUS	A9047.D	N/A	N/A	59	68	N/A	83

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/13/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
00187-002	AQUEOUS	A9048.D	N/A	N/A	44	49	N/A	65
00163-009	AQUEOUS	A9049.D	N/A	N/A	68	81	N/A	108
00184-001	AQUEOUS	A9050.D	N/A	N/A	46	56	N/A	73
00184-002	AQUEOUS	A9051.D	N/A	N/A	46	65	N/A	93
00184-003	AQUEOUS	A9052.D	N/A	N/A	31	40	N/A	63
00184-004	AQUEOUS	A9053.D	N/A	N/A	40	50	N/A	69
00184-005	AQUEOUS	A9054.D	N/A	N/A	34	28	N/A	40
00171-001	AQUEOUS	A9055.D	N/A	N/A	30	60	N/A	75

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/22/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
40ng_OLMO4		A9192.D	N/A	N/A	N/A	N/A	N/A	N/A
00491-010	AQUEOUS	A9194.D	16	10	53	63	51	81
Method_Blank	AQUEOUS	A9212.D	55	55	58	65	46	73
LCS	AQUEOUS	A9213.D	59	62	65	67	56	72
MS(00594-001)	AQUEOUS	A9214.D	22	15	68	66	74	65
MSD(00594-001)	AQUEOUS	A9215.D	21	16	68	67	81	67
00594-001	AQUEOUS	A9216.D	N/A	N/A	47	49	N/A	53
00594-002	AQUEOUS	A9217.D	N/A	N/A	35	39	N/A	49
00594-003	AQUEOUS	A9218.D	N/A	N/A	44	50	N/A	62
00603-001	AQUEOUS	A9219.D	N/A	N/A	39	45	N/A	66
00617-001	AQUEOUS	A9220.D	N/A	N/A	42	50	N/A	67
00617-002	AQUEOUS	A9221.D	N/A	N/A	39	47	N/A	70
00636-001	AQUEOUS	A9222.D	N/A	N/A	46	54	N/A	68
00636-002	AQUEOUS	A9223.D	N/A	N/A	42	50	N/A	60
00634-001	AQUEOUS	A9224.D	N/A	N/A	45	53	N/A	64
00634-002	AQUEOUS	A9225.D	N/A	N/A	40	45	N/A	57
00634-003	AQUEOUS	A9226.D	N/A	N/A	41	48	N/A	61
00634-004	AQUEOUS	A9227.D	N/A	N/A	40	43	N/A	57
00609-045	AQUEOUS	A9228.D	N/A	N/A	44	53	N/A	66
00609-046	AQUEOUS	A9229.D	N/A	N/A	36	44	N/A	61
00594-001	AQUEOUS	A9230.D	N/A	N/A	40	46	N/A	50

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

AQUEOUS SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: MSD(00176 Batch No.: B0113W

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	40.0	0.0	34.9	87	35 - 116
2-Chlorophenol	40.0	0.0	33.4	84	37 - 112
1,4-Dichlorobenzene	40.0	0.0	32.3	81	29 - 109
N-Nitrosodi-n-propylamine	40.0	0.0	39.2	98	38 - 119
1,2,4-Trichlorobenzene	40.0	0.0	35.3	88	33 - 100
4-Chloro-3-methylphenol	40.0	0.0	38.9	97	42 - 118
Acenaphthene	40.0	0.0	35.8	90	20 - 132
4-Nitrophenol	40.0	0.0	30.1	75	31 - 123
2,4-Dinitrotoluene	40.0	0.0	47.0	118	24 - 130
Pentachlorophenol	40.0	0.0	36.9	92	29 - 123
Pyrene	40.0	0.0	41.2	103	31 - 133

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	REC.
Phenol	0.0	34.7	87	0	14	35 - 116
2-Chlorophenol	0.0	33.4	84	0	13	37 - 112
1,4-Dichlorobenzene	0.0	32.2	81	0	14	29 - 109
N-Nitrosodi-n-propylamine	0.0	39.0	98	0	12	38 - 119
1,2,4-Trichlorobenzene	0.0	35.8	90	2	13	33 - 100
4-Chloro-3-methylphenol	0.0	38.3	96	1	22	42 - 118
Acenaphthene	0.0	37.0	93	3	18	20 - 132
4-Nitrophenol	0.0	33.5	84	11	26	31 - 123
2,4-Dinitrotoluene	0.0	49.1	123	4	19	24 - 130
Pentachlorophenol	0.0	37.8	95	3	19	29 - 123
Pyrene	0.0	40.9	102	1	17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: MSD(00176-003)
Client ID: .
Date Received: NA
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9032.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
N-Nitrosodimethylamine	40.0	0.0	33.3	83	0.0	33.6	84
Benzaldehyde	40.0	0.0	3.2	8	0.0	3.5	9
Phenol	40.0	0.0	34.9	87	0.0	34.7	87
Aniline	40.0	0.0	32.2	81	0.0	32.1	80
Bis(2-chloroethyl) ether	40.0	0.0	32.4	81	0.0	32.4	81
2-Chlorophenol	40.0	0.0	33.4	84	0.0	33.4	84
1,3-Dichlorobenzene	40.0	0.0	32.2	81	0.0	32.4	81
1,4-Dichlorobenzene	40.0	0.0	32.3	81	0.0	32.2	81
Benzyl alcohol	40.0	0.0	37.7	94	0.0	38.0	95
1,2-Dichlorobenzene	40.0	0.0	33.4	84	0.0	33.8	85
2-Methylphenol	40.0	0.0	38.1	95	0.0	38.2	96
Bis(2-chloroisopropyl) ether	40.0	0.0	32.5	81	0.0	32.5	81
4-Methylphenol	40.0	0.0	38.6	97	0.0	38.0	95
N-Nitrosodi-n-propylamine	40.0	0.0	39.2	98	0.0	39.0	98
Acetophenone	40.0	0.0	35.0	88	0.0	35.2	88
3-Methylphenol	40.0	0.0	38.6	97	0.0	38.0	95
Hexachloroethane	40.0	0.0	33.7	84	0.0	34.3	86
Nitrobenzene	40.0	0.0	33.0	83	0.0	33.5	84
Isophorone	40.0	0.0	35.9	90	0.0	36.2	91
2-Nitrophenol	40.0	0.0	34.5	86	0.0	35.4	89
2,4-Dimethylphenol	40.0	0.0	36.4	91	0.0	35.6	89
Bis(2-chloroethoxy) methane	40.0	0.0	36.5	91	0.0	35.8	90
Benzoic acid	40.0	0.0	43.2	108	0.0	44.4	111
2,4-Dimethylaniline	40.0	0.0	32.4	81	0.0	32.4	81
2,4-Dichlorophenol	40.0	0.0	37.8	95	0.0	37.0	93
1,2,4-Trichlorobenzene	40.0	0.0	35.3	88	0.0	35.8	90
Naphthalene	40.0	0.0	34.6	87	0.0	34.4	86
4-Chloroaniline	40.0	0.0	36.3	91	0.0	36.7	92
Hexachlorobutadiene	40.0	0.0	35.0	88	0.0	35.0	88
Caprolactam	40.0	0.0	39.4	99	0.0	39.1	98
4-Chloro-3-methylphenol	40.0	0.0	38.9	97	0.0	38.3	96
2-Methylnaphthalene	40.0	0.0	38.7	97	0.0	37.3	93
Hexachlorocyclopentadiene	40.0	0.0	31.5	79	0.0	32.5	81
2,4,6-Trichlorophenol	40.0	0.0	36.3	91	0.0	38.5	96
2,4,5-Trichlorophenol	40.0	0.0	38.6	97	0.0	41.2	103
1,1'-Biphenyl	40.0	0.0	34.7	87	0.0	37.0	93
2-Chloronaphthalene	40.0	0.0	35.2	88	0.0	37.7	94
2-Nitroaniline	40.0	0.0	39.4	99	0.0	42.2	106
Dimethyl phthalate	40.0	0.0	38.5	96	0.0	40.1	100

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: MSD(00176-003)
Client ID: .
Date Received: NA
Date Extracted: 01/08/2010
Date Analyzed: 01/13/2010
Data file: A9032.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
2,6-Dinitrotoluene	40.0	0.0	39.9	100	0.0	42.7	107
Acenaphthylene	40.0	0.0	36.0	90	0.0	38.3	96
3-Nitroaniline	40.0	0.0	39.3	98	0.0	42.2	106
Acenaphthene	40.0	0.0	35.8	90	0.0	37.0	93
2,4-Dinitrophenol	40.0	0.0	34.1	85	0.0	36.6	92
4-Nitrophenol	40.0	0.0	30.1	75	0.0	33.5	84
2,4-Dinitrotoluene	40.0	0.0	47.0	118	0.0	49.1	123
Dibenzofuran	40.0	0.0	37.4	94	0.0	40.1	100
Diethyl phthalate	40.0	0.0	38.8	97	0.0	40.8	102
Fluorene	40.0	0.0	36.7	92	0.0	39.4	99
4-Chlorophenyl phenyl ether	40.0	0.0	37.9	95	0.0	39.8	100
4-Nitroaniline	40.0	0.0	31.0	78	0.0	32.8	82
4,6-Dinitro-2-methylphenol	40.0	0.0	31.0	78	0.0	31.7	79
N-Nitrosodiphenylamine	40.0	0.0	42.4	106	0.0	42.5	106
1,2-Diphenylhydrazine	40.0	0.0	38.6	97	0.0	38.7	97
4-Bromophenyl phenyl ether	40.0	0.0	43.2	108	0.0	42.7	107
Hexachlorobenzene	40.0	0.0	41.6	104	0.0	42.8	107
Atrazine	40.0	0.0	13.8	35	0.0	13.9	35
Pentachlorophenol	40.0	0.0	36.9	92	0.0	37.8	95
Phenanthrene	40.0	0.0	39.2	98	0.0	40.9	102
Anthracene	40.0	0.0	40.4	101	0.0	41.3	103
Carbazole	40.0	0.0	39.0	98	0.0	39.8	100
Di-n-butyl phthalate	40.0	0.0	42.3	106	0.0	42.8	107
Fluoranthene	40.0	0.0	40.2	101	0.0	41.1	103
Benzidine	40.0	0.0	5.8	15	0.0	6.2	16
Pyrene	40.0	0.0	41.2	103	0.0	40.9	102
3,3'-Dimethylbenzidine	40.0	0.0	17.7	44	0.0	17.8	45
Butyl benzyl phthalate	40.0	0.0	45.0	113	0.0	44.1	110
3,3'-Dichlorobenzidine	40.0	0.0	42.0	105	0.0	41.4	104
Benzo[a]anthracene	40.0	0.0	39.6	99	0.0	39.9	100
Chrysene	40.0	0.0	40.7	102	0.0	41.2	103
Bis(2-ethylhexyl) phthalate	40.0	0.0	45.6	114	0.0	44.0	110
Di-n-octyl phthalate	40.0	0.0	42.5	106	0.0	42.7	107
Benzo[b]fluoranthene	40.0	0.0	44.7	112	0.0	40.3	101
Benzo[k]fluoranthene	40.0	0.0	37.8	95	0.0	39.8	100
Benzo[a]pyrene	40.0	0.0	39.1	98	0.0	39.2	98
Indeno[1,2,3-cd]pyrene	40.0	0.0	47.7	119	0.0	46.0	115
Dibenz[a,h]anthracene	40.0	0.0	47.2	118	0.0	47.8	120
Benzo[g,h,i]perylene	40.0	0.0	47.6	119	0.0	48.3	121

AQUEOUS SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 00594-001 Batch No.: A012110W

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	40.0	0.0	27.9	70	35 - 116
2-Chlorophenol	40.0	0.0	27.0	68	37 - 112
1,4-Dichlorobenzene	40.0	0.0	26.0	65	29 - 109
N-Nitrosodi-n-propylamine	40.0	0.0	32.5	81	38 - 119
1,2,4-Trichlorobenzene	40.0	0.0	28.3	71	33 - 100
4-Chloro-3-methylphenol	40.0	0.0	31.7	79	42 - 118
Acenaphthene	40.0	7.5	40.4	82	20 - 132
4-Nitrophenol	40.0	0.0	29.4	74	31 - 123
2,4-Dinitrotoluene	40.0	0.0	47.5	119	24 - 130
Pentachlorophenol	40.0	0.0	33.4	84	29 - 123
Pyrene	40.0	1.8	34.8	83	31 - 133

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	0.0	28.3	71	1	14	35 - 116
2-Chlorophenol	0.0	27.4	69	1	13	37 - 112
1,4-Dichlorobenzene	0.0	25.8	65	0	14	29 - 109
N-Nitrosodi-n-propylamine	0.0	33.8	85	5	12	38 - 119
1,2,4-Trichlorobenzene	0.0	27.5	69	3	13	33 - 100
4-Chloro-3-methylphenol	0.0	31.5	79	0	22	42 - 118
Acenaphthene	7.5	39.8	81	1	18	20 - 132
4-Nitrophenol	0.0	29.7	74	0	26	31 - 123
2,4-Dinitrotoluene	0.0	46.5	116	3	19	24 - 130
Pentachlorophenol	0.0	34.4	86	2	19	29 - 123
Pyrene	1.8	34.7	82	1	17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 00594-001
Client ID: INFLUENT
Date Received: 01/20/2010
Date Extracted: 01/22/2010
Date Analyzed: 01/22/2010
Data file: A9216.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
N-Nitrosodimethylamine	40.0	0.0	25.4	64	0.0	26.8	67
Benzaldehyde	40.0	0.0	48.9	122	0.0	49.5	124
Phenol	40.0	0.0	27.9	70	0.0	28.3	71
Aniline	40.0	0.0	22.0	55	0.0	21.8	55
Bis(2-chloroethyl) ether	40.0	0.0	26.7	67	0.0	27.2	68
2-Chlorophenol	40.0	0.0	27.0	68	0.0	27.4	69
1,3-Dichlorobenzene	40.0	0.0	25.7	64	0.0	25.4	64
1,4-Dichlorobenzene	40.0	0.0	26.0	65	0.0	25.8	65
Benzyl alcohol	40.0	0.0	30.6	77	0.0	31.8	80
1,2-Dichlorobenzene	40.0	0.0	26.7	67	0.0	26.5	66
2-Methylphenol	40.0	0.0	33.7	84	0.0	33.2	83
Bis(2-chloroisopropyl) ether	40.0	0.0	27.4	69	0.0	27.3	68
4-Methylphenol	40.0	0.0	31.3	78	0.0	32.7	82
N-Nitrosodi-n-propylamine	40.0	0.0	32.5	81	0.0	33.8	85
Acetophenone	40.0	0.0	39.5	99	0.0	38.3	96
3-Methylphenol	40.0	0.0	31.3	78	0.0	32.7	82
Hexachloroethane	40.0	0.0	77.4	194	0.0	77.9	195
Nitrobenzene	40.0	0.0	29.6	74	0.0	30.4	76
Isophorone	40.0	0.0	30.3	76	0.0	31.1	78
2-Nitrophenol	40.0	0.0	29.3	73	0.0	29.3	73
2,4-Dimethylphenol	40.0	0.0	32.5	81	0.0	32.5	81
Bis(2-chloroethoxy) methane	40.0	0.0	30.5	76	0.0	30.3	76
Benzoic acid	40.0	0.0	31.8	80	0.0	38.6	97
2,4-Dimethylaniline	40.0	0.0	23.7	59	0.0	23.1	58
2,4-Dichlorophenol	40.0	0.0	30.2	76	0.0	29.7	74
1,2,4-Trichlorobenzene	40.0	0.0	28.3	71	0.0	27.5	69
Naphthalene	40.0	114.0	150.8	92	114.0	158.4	111
4-Chloroaniline	40.0	0.0	30.0	75	0.0	37.3	93
Hexachlorobutadiene	40.0	0.0	26.2	66	0.0	26.6	67
Caprolactam	40.0	0.0	34.3	86	0.0	41.5	104
4-Chloro-3-methylphenol	40.0	0.0	31.7	79	0.0	31.5	79
2-Methylnaphthalene	40.0	176.2	211.3	88	176.2	217.5	103
Hexachlorocyclopentadiene	40.0	0.0	24.3	61	0.0	26.0	65
2,4,6-Trichlorophenol	40.0	0.0	33.0	83	0.0	32.9	82
2,4,5-Trichlorophenol	40.0	0.0	32.6	82	0.0	32.6	82
1,1'-Biphenyl	40.0	10.1	42.9	82	10.1	41.3	78
2-Chloronaphthalene	40.0	0.0	30.2	76	0.0	30.0	75
2-Nitroaniline	40.0	0.0	39.2	98	0.0	41.7	104
Dimethyl phthalate	40.0	0.0	44.6	112	0.0	44.5	111

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 00594-001
Client ID: INFLUENT
Date Received: 01/20/2010
Date Extracted: 01/22/2010
Date Analyzed: 01/22/2010
Data file: A9216.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
2,6-Dinitrotoluene	40.0	0.0	35.2	88	0.0	36.4	91
Acenaphthylene	40.0	1.3	33.0	79	1.3	33.1	80
3-Nitroaniline	40.0	0.0	32.2	81	0.0	32.9	82
Acenaphthene	40.0	7.5	40.4	82	7.5	39.8	81
2,4-Dinitrophenol	40.0	0.0	73.4	184	0.0	22.0	55
4-Nitrophenol	40.0	0.0	29.4	74	0.0	29.7	74
2,4-Dinitrotoluene	40.0	0.0	47.5	119	0.0	46.5	116
Dibenzofuran	40.0	4.6	35.8	78	4.6	35.3	77
Diethyl phthalate	40.0	0.0	32.2	81	0.0	31.3	78
Fluorene	40.0	9.1	40.3	78	9.1	40.2	78
4-Chlorophenyl phenyl ether	40.0	0.0	29.6	74	0.0	28.9	72
4-Nitroaniline	40.0	0.0	30.5	76	0.0	28.0	70
4,6-Dinitro-2-methylphenol	40.0	0.0	31.9	80	0.0	34.4	86
N-Nitrosodiphenylamine	40.0	0.0	56.0	140	0.0	46.6	117
1,2-Diphenylhydrazine	40.0	0.0	39.3	98	0.0	41.9	105
4-Bromophenyl phenyl ether	40.0	0.0	34.8	87	0.0	35.3	88
Hexachlorobenzene	40.0	0.0	32.1	80	0.0	32.3	81
Atrazine	40.0	0.0	6.0	15	0.0	5.7	14
Pentachlorophenol	40.0	0.0	33.4	84	0.0	34.4	86
Phenanthrene	40.0	15.9	55.6	99	15.9	55.5	99
Anthracene	40.0	1.5	35.6	85	1.5	36.6	88
Carbazole	40.0	0.0	34.0	85	0.0	33.1	83
Di-n-butyl phthalate	40.0	0.0	37.3	93	0.0	38.1	95
Fluoranthene	40.0	0.0	32.1	80	0.0	32.6	82
Benzidine	40.0	0.0	3.1	8	0.0	2.8	7
Pyrene	40.0	1.8	34.8	83	1.8	34.7	82
3,3'-Dimethylbenzidine	40.0	0.0	1.1	3	0.0	1.9	5
Butyl benzyl phthalate	40.0	0.0	29.8	75	0.0	30.4	76
3,3'-Dichlorobenzidine	40.0	0.0	15.2	38	0.0	16.4	41
Benzo[a]anthracene	40.0	0.0	33.4	84	0.0	33.3	83
Chrysene	40.0	0.0	33.3	83	0.0	33.6	84
Bis(2-ethylhexyl) phthalate	40.0	0.0	39.6	99	0.0	41.0	103
Di-n-octyl phthalate	40.0	0.0	38.8	97	0.0	39.8	100
Benzo[b]fluoranthene	40.0	0.0	35.9	90	0.0	39.3	98
Benzo[k]fluoranthene	40.0	0.0	33.7	84	0.0	30.8	77
Benzo[a]pyrene	40.0	0.0	37.6	94	0.0	36.7	92
Indeno[1,2,3-cd]pyrene	40.0	0.0	42.8	107	0.0	44.2	111
Dibenz[a,h]anthracene	40.0	0.0	42.1	105	0.0	45.7	114
Benzo[g,h,i]perylene	40.0	0.0	41.7	104	0.0	42.7	107

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A8951.D

Date Analyzed: 01/12/2010

Instrument ID: MSDA

Time Analyzed: 7:35

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	177447	2.78	695878	3.48	412191	4.48
	UPPER LIMIT	354894	3.28	1391756	3.98	824382	4.98
	LOWER LIMIT	88724	2.28	347939	2.98	206096	3.98
	LAB SAMPLE ID						
01	10ng-BNA	181372	2.78	706847	3.48	405457	4.48
02	20ng-BNA	169635	2.78	672271	3.48	387716	4.48
03	40ng-BNA	159471	2.78	639652	3.48	364118	4.48
04	80ng-BNA	148598	2.78	584871	3.48	340936	4.48
05	120ng-BNA	147360	2.78	595263	3.48	338501	4.48
06	120ng-OLMO4	139081	2.78	559975	3.48	339407	4.48
07	80ng-OLMO4	137739	2.78	567064	3.48	337441	4.48
08	40ng-OLMO4	128503	2.78	519823	3.48	310055	4.48
09	20ng-OLMO4	141473	2.78	575800	3.48	331313	4.48
10	10ng-OLMO4	130962	2.78	542140	3.48	317559	4.48
11	1ng-OLMO4	127741	2.78	519980	3.48	311564	4.48
12	1ng-BNA	120488	2.78	490907	3.48	283589	4.48
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A8951.D

Date Analyzed: 01/12/2010

Instrument ID: MSDA

Time Analyzed: 7:35

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	678481		5.32		657167		6.99		420776		8.30	
	UPPER LIMIT	1356962		5.82		1314334		7.49		841552		8.80	
	LOWER LIMIT	339241		4.82		328584		6.49		210388		7.80	
	LAB SAMPLE ID												
01	10ng-BNA	653526		5.32		643001		6.98		488265		8.29	
02	20ng-BNA	635869		5.32		628415		6.99		465850		8.29	
03	40ng-BNA	581166		5.32		525243		6.99		393497		8.29	
04	80ng-BNA	535485		5.32		463525		6.99		371769		8.29	
05	120ng-BNA	495270		5.32		411715		6.99		375288		8.30	
06	120ng-OLMO4	550268		5.32		471219		6.99		352552		8.29	
07	80ng-OLMO4	547696		5.32		478078		6.99		361778		8.29	
08	40ng-OLMO4	506112		5.32		464957		6.98		347678		8.29	
09	20ng-OLMO4	539260		5.32		490707		6.99		362689		8.29	
10	10ng-OLMO4	520902		5.32		489313		6.99		361207		8.29	
11	1ng-OLMO4	511345		5.32		468450		6.99		361647		8.29	
12	1ng-BNA	464260		5.32		423348		6.99		333374		8.29	
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A9013.D

Date Analyzed: 01/13/2010

Instrument ID: MSDA

Time Analyzed: 6:21

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	144286		2.78		578737		3.48		331613		4.48	
	UPPER LIMIT	288572		3.28		1157474		3.98		663226		4.98	
	LOWER LIMIT	72143		2.28		289369		2.98		165807		3.98	
	LAB SAMPLE ID												
01	40ng-OLMO4	129148		2.78		533956		3.48		311314		4.48	
02	00127-001	139798		2.78		566659		3.48		325726		4.48	
03	00131-001	131041		2.78		549804		3.48		325601		4.48	
04	Method_Blank	145199		2.78		589392		3.48		351605		4.48	
05	LCS	124672		2.78		507318		3.48		304194		4.48	
06	MS(00176-003)	125702		2.78		518228		3.48		324397		4.48	
07	MSD(00176-003)	117783		2.78		483926		3.48		283503		4.48	
08	00166-001	144960		2.78		590409		3.48		362990		4.48	
09	00167-001	108953		2.78		452275		3.48		268063		4.48	
10	00197-001	137840		2.78		570970		3.48		336201		4.48	
11	00197-002	137404		2.78		549417		3.48		327932		4.48	
12	00197-003	153631		2.78		626110		3.48		377420		4.48	
13	00197-004	118312		2.78		485430		3.48		287324		4.48	
14	00171-001	135071		2.78		543020		3.48		326302		4.48	
15	00176-003	121492		2.78		501696		3.48		286871		4.48	
16	00176-004	135063		2.78		551247		3.48		320623		4.48	
17	00176-005	121483		2.78		502164		3.48		287775		4.48	
18	00176-006	154515		2.78		615047		3.48		372844		4.48	
19	Method_Blank	131829		2.78		549069		3.48		330414		4.48	
20	LCS	126516		2.78		515378		3.48		305763		4.48	
21	00192-001	127086		2.78		524868		3.48		296624		4.48	
22	00187-001	139833		2.78		571868		3.48		349267		4.48	

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A9013.D

Date Analyzed: 01/13/2010

Instrument ID: MSDA

Time Analyzed: 6:21

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	507515		5.32		456193		7.00		383319		8.32	
	UPPER LIMIT	1015030		5.82		912386		7.50		766638		8.82	
	LOWER LIMIT	253758		4.82		228097		6.50		191660		7.82	
	LAB SAMPLE ID												
01	40ng-OLMO4	506873		5.32		460546		6.99		359170		8.29	
02	00127-001	496272		5.32		430959		6.99		351093		8.29	
03	00131-001	504203		5.32		453236		6.98		347484		8.29	
04	Method_Blank	535825		5.32		487934		6.99		399784		8.30	
05	LCS	490536		5.32		440323		6.99		359304		8.30	
06	MS(00176-003)	479888		5.32		415426		6.99		332379		8.29	
07	MSD(00176-003)	436044		5.32		394488		6.99		321680		8.29	
08	00166-001	559432		5.32		496329		6.99		400085		8.30	
09	00167-001	432059		5.32		389589		6.98		297406		8.29	
10	00197-001	530443		5.32		480128		6.99		375800		8.29	
11	00197-002	508730		5.32		481576		6.98		393975		8.29	
12	00197-003	585164		5.32		509922		6.98		402422		8.29	
13	00197-004	441339		5.32		431087		6.99		341835		8.29	
14	00171-001	501014		5.32		435360		6.99		338640		8.30	
15	00176-003	445426		5.32		423726		6.98		345111		8.29	
16	00176-004	494638		5.32		468551		6.98		374018		8.29	
17	00176-005	447306		5.32		455431		6.98		380883		8.29	
18	00176-006	595540		5.34		513450		7.06		405878		8.40	
19	Method_Blank	532802		5.32		463539		6.98		367330		8.29	
20	LCS	490007		5.32		440683		6.98		351110		8.29	
21	00192-001	452229		5.32		414392		6.98		359783		8.29	
22	00187-001	536846		5.32		481373		6.98		380488		8.29	

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A9013.D

Date Analyzed: 01/13/2010

Instrument ID: MSDA

Time Analyzed: 6:21

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	144286	2.78	578737	3.48	331613	4.48
	UPPER LIMIT	288572	3.28	1157474	3.98	663226	4.98
	LOWER LIMIT	72143	2.28	289369	2.98	165807	3.98
	LAB SAMPLE ID						
01	00187-002	131155	2.78	529529	3.48	312407	4.47
02	00163-009	123890	2.78	516128	3.48	301643	4.48
03	00184-001	148703	2.78	615757	3.48	372541	4.48
04	00184-002	121653	2.78	486419	3.48	269572	4.47
05	00184-003	111207	2.78	442851	3.48	252489	4.48
06	00184-004	123925	2.78	496767	3.48	296983	4.48
07	00184-005	228583	2.78	902788	3.48	528087	4.48
08	00171-001	132477	2.78	526418	3.48	304969	4.48
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A9013.D Date Analyzed: 01/13/2010

Instrument ID: MSDA Time Analyzed: 6:21

	50UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	507515	5.32	456193	7.00	383319	8.32
	UPPER LIMIT	1015030	5.82	912386	7.50	766638	8.82
	LOWER LIMIT	253758	4.82	228097	6.50	191660	7.82
	LAB SAMPLE ID						
01	00187-002	492265	5.32	472930	6.98	387822	8.29
02	00163-009	476362	5.32	429856	6.98	369542	8.28
03	00184-001	570040	5.32	527240	6.98	426769	8.29
04	00184-002	409076	5.32	421631	6.98	426037	8.29
05	00184-003	381437	5.32	368867	6.98	359509	8.29
06	00184-004	450909	5.32	449687	6.98	422572	8.29
07	00184-005	812457	5.32	801504	6.99	761529	8.29
08	00171-001	472301	5.32	472865	6.98	410587	8.29
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A8964.D

Date Analyzed: 01/12/2010

Instrument ID: MSDA

Time Analyzed: 10:53

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	1348		2.37		3988		2.92		2004		3.79	
	UPPER LIMIT	2696		2.87		7976		3.42		4008		4.29	
	LOWER LIMIT	674		1.87		1994		2.42		1002		3.29	
	LAB SAMPLE ID												
01	0.2ng-sim	1361		2.37		4032		2.92		2584		3.79	
02	0.5ng-sim	1261		2.37		3699		2.92		2122		3.79	
03	1ng-sim	1381		2.37		4065		2.92		2935		3.79	
04	2ng-sim	1422		2.37		4371		2.92		3000		3.79	
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A8964.D

Date Analyzed: 01/12/2010

Instrument ID: MSDA

Time Analyzed: 10:53

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	29258		4.59		40665		6.26		44768		7.64	
	UPPER LIMIT	58516		5.09		81330		6.76		89536		8.14	
	LOWER LIMIT	14629		4.09		20333		5.76		22384		7.14	
	LAB SAMPLE ID												
01	0.2ng-sim	30369		4.59		45007		6.25		46756		7.64	
02	0.5ng-sim	29268		4.59		42154		6.26		44252		7.64	
03	1ng-sim	31103		4.59		45473		6.25		46541		7.64	
04	2ng-sim	33330		4.59		49274		6.25		51272		7.64	
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22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A9191.D

Date Analyzed: 01/22/2010

Instrument ID: MSDA

Time Analyzed: 10:21

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	166171		2.78		691384		3.48		405248		4.48	
	UPPER LIMIT	332342		3.28		1382768		3.98		810496		4.98	
	LOWER LIMIT	83086		2.28		345692		2.98		202624		3.98	
	LAB SAMPLE ID												
01	40ng_OLMO4	168114		2.78		702598		3.48		406400		4.47	
02	00491-010	201564		2.78		826087		3.48		473070		4.48	
03	Method_Blank	192349		2.78		817320		3.48		451810		4.47	
04	LCS	157207		2.78		654107		3.48		381032		4.47	
05	MS(00594-001)	170896		2.78		689117		3.48		365799		4.48	
06	MSD(00594-001)	195437		2.78		791066		3.48		405255		4.48	
07	00594-001	179981		2.78		757523		3.48		417380		4.48	
08	00594-002	169985		2.78		734407		3.48		433448		4.47	
09	00594-003	164883		2.78		668781		3.48		378909		4.47	
10	00603-001	183903		2.78		784540		3.48		451232		4.47	
11	00617-001	216697		2.78		916821		3.48		534750		4.48	
12	00617-002	168369		2.78		707935		3.48		406294		4.47	
13	00636-001	200846		2.78		837256		3.48		478672		4.47	
14	00636-002	184152		2.78		767136		3.48		439545		4.47	
15	00634-001	182572		2.78		759939		3.48		437489		4.47	
16	00634-002	220899		2.78		925115		3.48		533264		4.47	
17	00634-003	207795		2.78		870664		3.48		506709		4.47	
18	00634-004	228893		2.78		966732		3.48		556046		4.47	
19	00609-045	178110		2.78		749306		3.48		406714		4.47	
20	00609-046	205594		2.78		850662		3.48		480234		4.47	
21	00594-001	214066		2.78		855563		3.48		478306		4.48	
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A9191.D

Date Analyzed: 01/22/2010

Instrument ID: MSDA

Time Analyzed: 10:21

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	607431		5.32		469494		6.99		392272		8.30	
	UPPER LIMIT	1214862		5.82		938988		7.49		784544		8.80	
	LOWER LIMIT	303716		4.82		234747		6.49		196136		7.80	
	LAB SAMPLE ID												
01	40ng_OLMO4	621794		5.32		466553		6.98		381121		8.28	
02	00491-010	690528		5.32		511502		6.99		386515		8.29	
03	Method_Blank	685225		5.32		505846		6.98		382962		8.29	
04	LCS	567747		5.32		427138		6.98		325532		8.29	
05	MS(00594-001)	476936		5.32		408536		6.99		355996		8.29	
06	MSD(00594-001)	494466		5.32		432528		6.99		402154		8.29	
07	00594-001	585515		5.32		454129		6.98		418980		8.29	
08	00594-002	672094		5.32		525900		6.99		429504		8.29	
09	00594-003	602441		5.32		478668		6.99		391824		8.29	
10	00603-001	713182		5.32		544448		6.98		436536		8.29	
11	00617-001	778102		5.32		605012		6.99		493154		8.29	
12	00617-002	639280		5.32		490287		6.98		397286		8.28	
13	00636-001	760691		5.32		560169		6.98		447145		8.28	
14	00636-002	716743		5.32		532392		6.98		431338		8.28	
15	00634-001	679368		5.32		523980		6.98		417663		8.28	
16	00634-002	813483		5.32		607358		6.98		489184		8.28	
17	00634-003	762661		5.32		565449		6.98		452359		8.28	
18	00634-004	854781		5.32		702334		6.98		564816		8.28	
19	00609-045	628947		5.32		467342		6.98		369496		8.28	
20	00609-046	757362		5.32		573210		6.98		450332		8.28	
21	00594-001	677812		5.33		545894		7.05		439485		8.39	
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A9193.D

Date Analyzed: 01/22/2010

Instrument ID: MSDA

Time Analyzed: 10:52

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	1761		2.37		5403		2.92		2956		3.79	
	UPPER LIMIT	3522		2.87		10806		3.42		5912		4.29	
	LOWER LIMIT	881		1.87		2702		2.42		1478		3.29	
	LAB SAMPLE ID												
01	Method_Blank	1699		2.37		5332		2.92		3027		3.79	
02	00176-007	1859		2.37		5792		2.92		3267		3.79	
03	00176-008	1952		2.37		6087		2.92		3524		3.79	
04	00176-009	1749		2.37		5511		2.92		3425		3.79	
05	00176-010	2939		2.37		9400		2.92		5738		3.79	
06	00594-001	2212		2.37		7354		2.92		3164		3.79	
07	00594-002	2068		2.37		6012		2.92		3449		3.79	
08	00594-003	2058		2.37		6158		2.92		3097		3.79	
09	00603-001	1704		2.37		5239		2.92		2973		3.79	
10	00617-001	1933		2.37		6090		2.92		3404		3.79	
11	00617-002	2072		2.37		6569		2.92		4073		3.79	
12	00636-001	1882		2.37		5889		2.92		3351		3.79	
13	00636-002	1941		2.37		6043		2.92		3439		3.79	
14	00634-001	1994		2.37		6261		2.92		3772		3.79	
15	00634-002	1683		2.37		5251		2.92		3044		3.79	
16	00634-003	1969		2.37		6361		2.92		3863		3.79	
17	00634-004	2007		2.37		6352		2.92		3743		3.79	
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A9193.D

Date Analyzed: 01/22/2010

Instrument ID: MSDA

Time Analyzed: 10:52

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	37710	4.59	54466	6.25	66988	7.64
	UPPER LIMIT	75420	5.09	108932	6.75	133976	8.14
	LOWER LIMIT	18855	4.09	27233	5.75	33494	7.14
	LAB SAMPLE ID						
01	Method_Blank	39776	4.59	56076	6.25	63671	7.64
02	00176-007	43037	4.59	60546	6.25	71251	7.64
03	00176-008	47541	4.59	67135	6.25	78150	7.63
04	00176-009	43906	4.59	56027	6.25	65734	7.63
05	00176-010	66570	4.59	96732	6.25	126617	7.63
06	00594-001	36891	4.59	50564	6.25	81445	7.64
07	00594-002	44995	4.59	57312	6.25	77694	7.64
08	00594-003	42917	4.59	58152	6.25	74955	7.64
09	00603-001	38884	4.59	53268	6.25	65641	7.64
10	00617-001	48775	4.59	67159	6.25	81893	7.64
11	00617-002	51996	4.59	66140	6.25	80345	7.64
12	00636-001	42842	4.59	57979	6.25	70592	7.64
13	00636-002	47142	4.59	61178	6.25	70029	7.64
14	00634-001	48403	4.59	63056	6.25	74577	7.64
15	00634-002	40001	4.59	56667	6.26	65589	7.64
16	00634-003	48085	4.59	63244	6.25	73118	7.64
17	00634-004	47817	4.59	63390	6.25	74076	7.64
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9040.D
Acq On : 13 Jan 2010 14:12
Operator : LIMS import
Sample : MW11,00176-003,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 14 07:11:17 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.779	152	121492	40.00	UG	0.00
23) Naphthalene-d8	3.479	136	501696	40.00	UG	0.00
43) Acenaphthene-d10	4.479	164	286871	40.00	UG	0.00
66) Phenanthrene-d10	5.319	188	445426	40.00	UG	0.00
82) Chrysene-d12	6.983	240	423726	40.00	UG	-0.01
92) Perylene-d12	8.293	264	345111	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.121	112	120778	28.81	UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 28.81%			
6) Phenol-d5	2.554	99	109100	19.98	UG	-0.01
Spiked Amount 100.000	Range 10 - 102		Recovery = 19.98%			
24) Nitrobenzene-d5	3.078	82	104958	24.37	UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 48.74%			
47) 2-Fluorobiphenyl	4.073	172	286616	31.07	UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 62.14%			
70) 2,4,6-Tribromophenol	4.929	330	122784	72.67	UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 72.67%			
84) Terphenyl-d14	6.228	244	371022	39.28	UG	0.00
Spiked Amount 50.000	Range 23 - 124		Recovery = 78.56%			

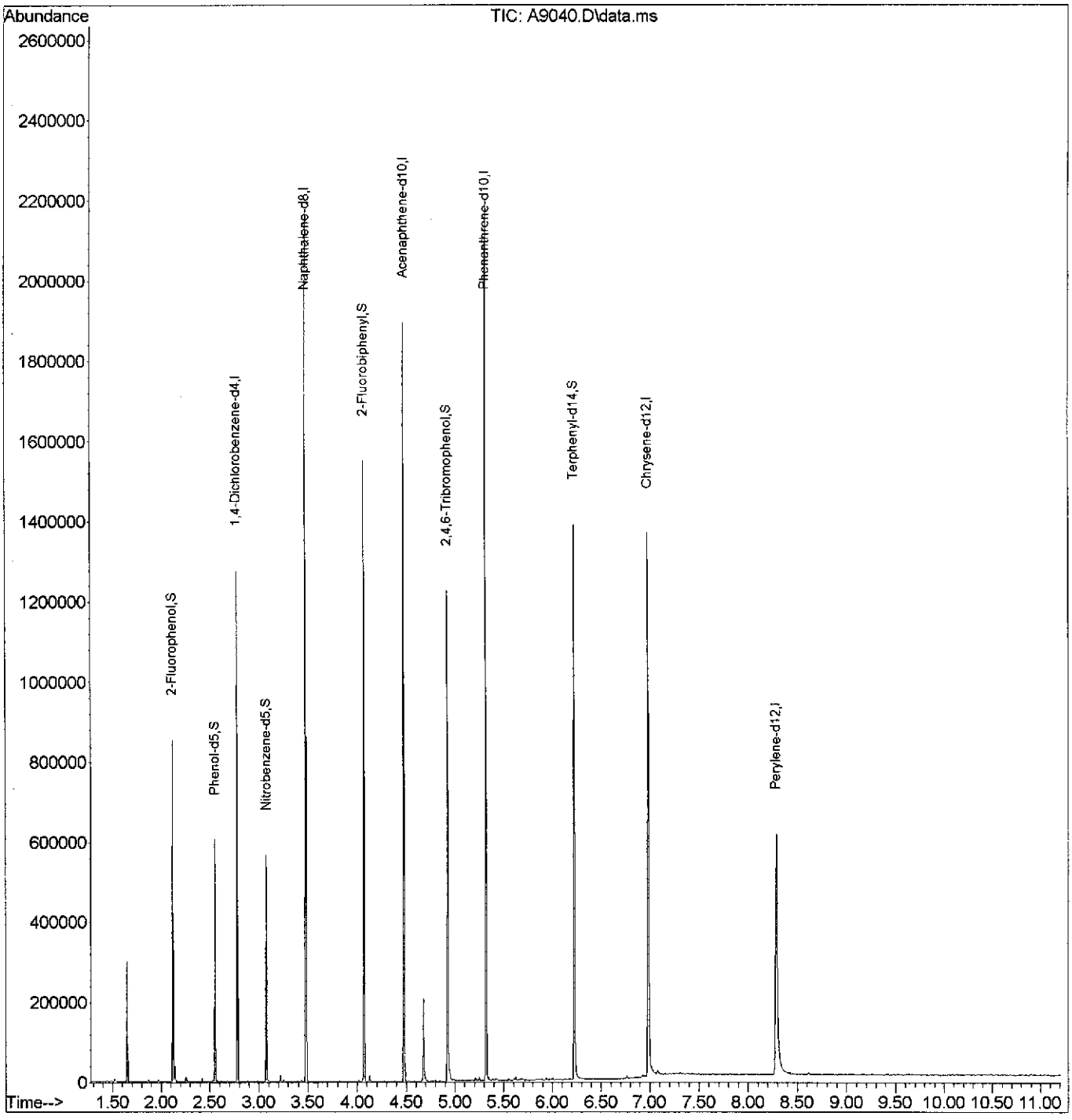
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9040.D
Acq On : 13 Jan 2010 14:12
Operator : LIMS import
Sample : MW11,00176-003,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 14 07:11:17 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9040.D
Acq On : 13 Jan 2010 14:12
Operator : LIMS import
Sample : MW11,00176-003,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 23 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\AW0210.M
Title : BNA CALIBRATION METHOD

Signal : TIC: A9040.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.650	69	71	74	rVB	299398	130590	11.31%	1.367%
2	2.121	157	159	161	rBV	851184	360087	31.17%	3.769%
3	2.554	238	240	243	rBV	604181	262915	22.76%	2.752%
4	2.779	280	282	285	rVB	1275476	660093	57.15%	6.908%
5	3.078	335	338	340	rBV	566727	302125	26.16%	3.162%
6	3.479	410	413	416	rBV	2148706	981657	84.99%	10.274%
7	4.073	521	524	526	rBV	1546365	767723	66.47%	8.035%
8	4.479	597	600	602	rBV	1895237	1155059	100.00%	12.089%
9	4.677	635	637	647	rVB	207634	119126	10.31%	1.247%
10	4.923	681	683	686	rBV2	1223117	750873	65.01%	7.858%
11	5.319	754	757	760	rBV	2192313	1122563	97.19%	11.749%
12	6.228	924	927	929	rBV	1382073	969058	83.90%	10.142%
13	6.983	1065	1068	1083	rBV	1354931	1089922	94.36%	11.407%
14	8.288	1306	1312	1328	rBV	599591	883127	76.46%	9.243%

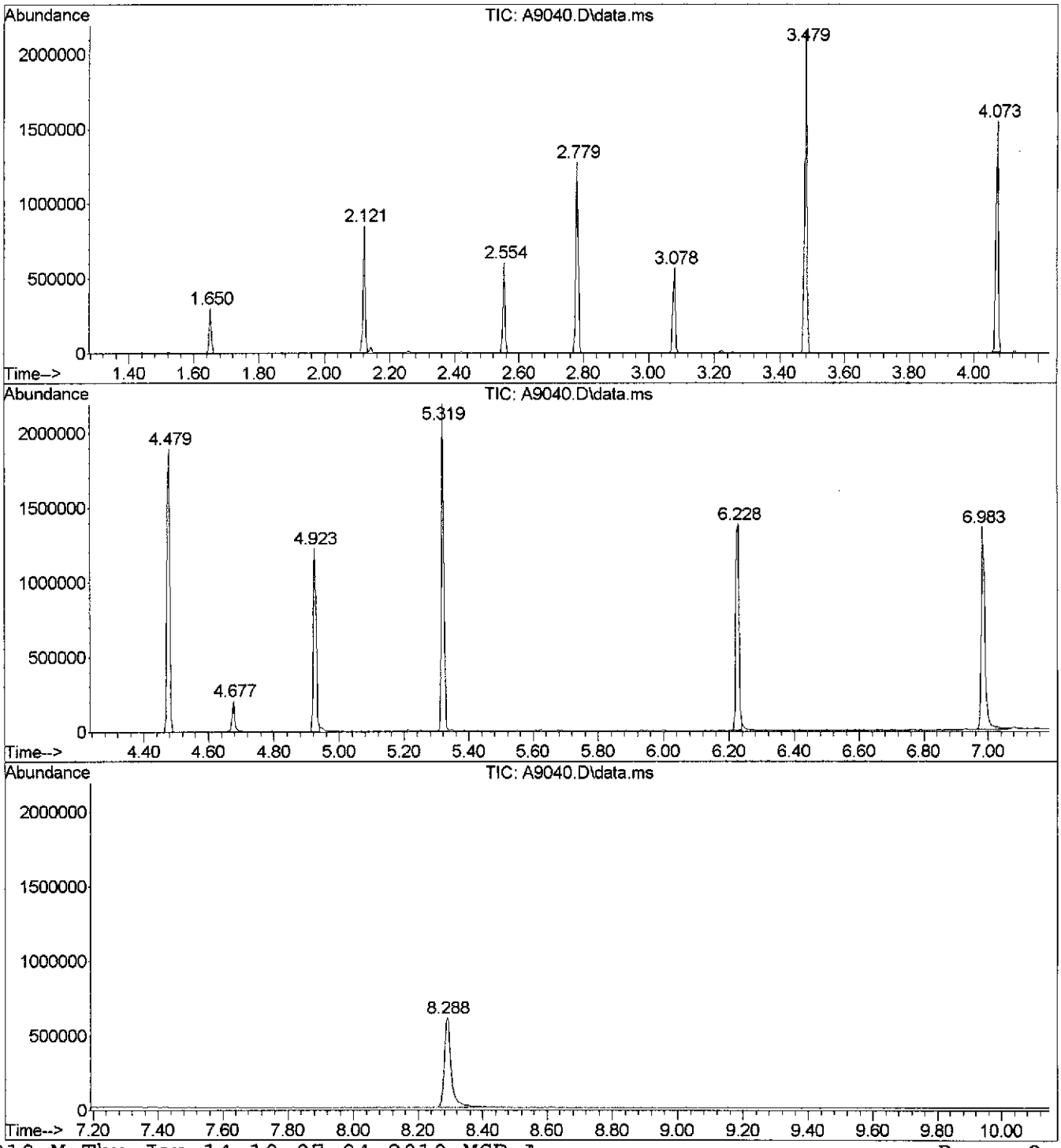
Sum of corrected areas: 9554918

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9040.D
Acq On : 13 Jan 2010 14:12
Operator : LIMS import
Sample : MW11,00176-003,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



0201

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9040.D
Acq On : 13 Jan 2010 14:12
Operator : LIMS import
Sample : MW11,00176-003,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

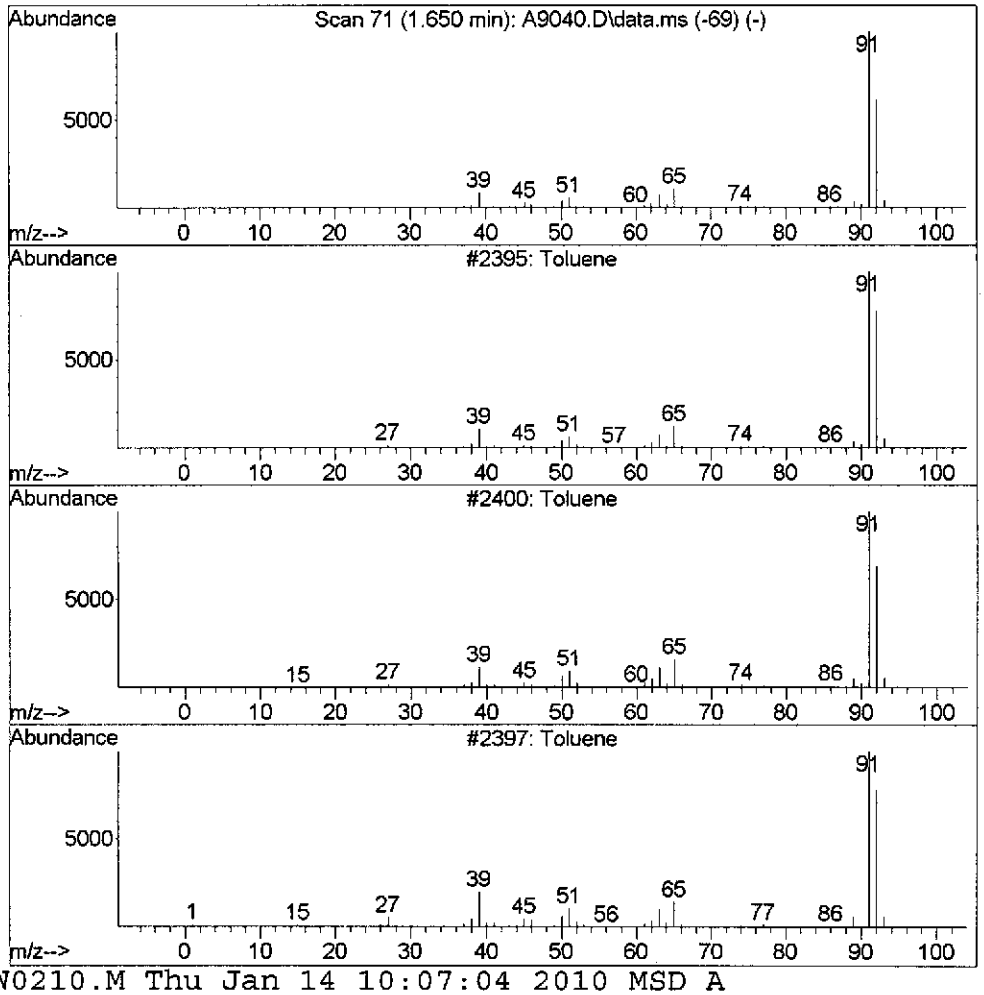
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

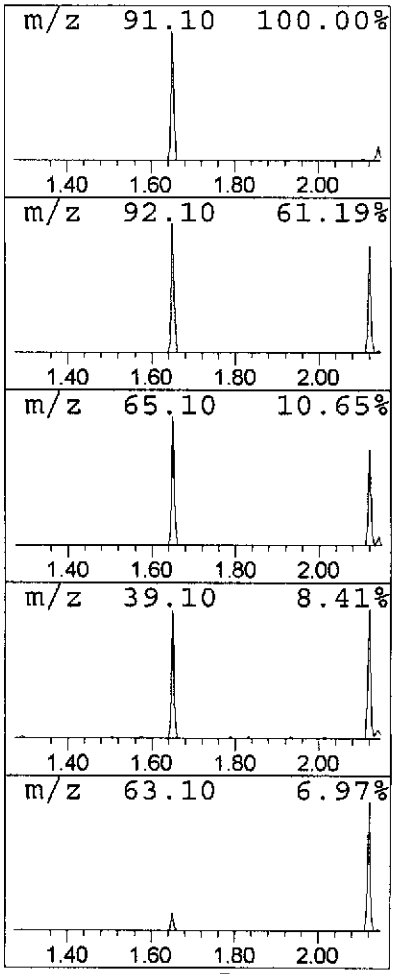
****

Peak Number 1 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.65	7.91 UG	130590	1,4-Dichlorobenzene-d4	2.78

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Toluene	92	C7H8	000108-88-3	95
2	Toluene	92	C7H8	000108-88-3	91
3	Toluene	92	C7H8	000108-88-3	91
4	Toluene	92	C7H8	000108-88-3	91
5	Toluene	92	C7H8	000108-88-3	91





0202

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9040.D
Acq On : 13 Jan 2010 14:12
Operator : LIMS import
Sample : MW11,00176-003,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

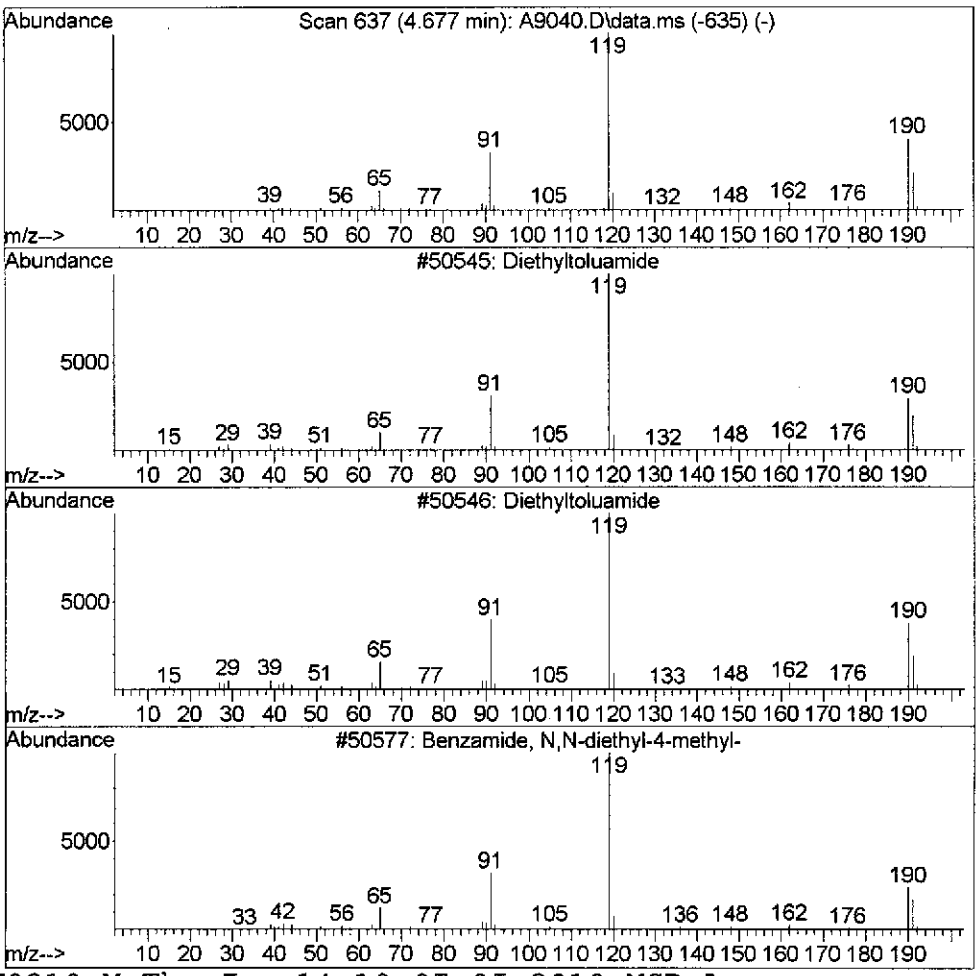
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

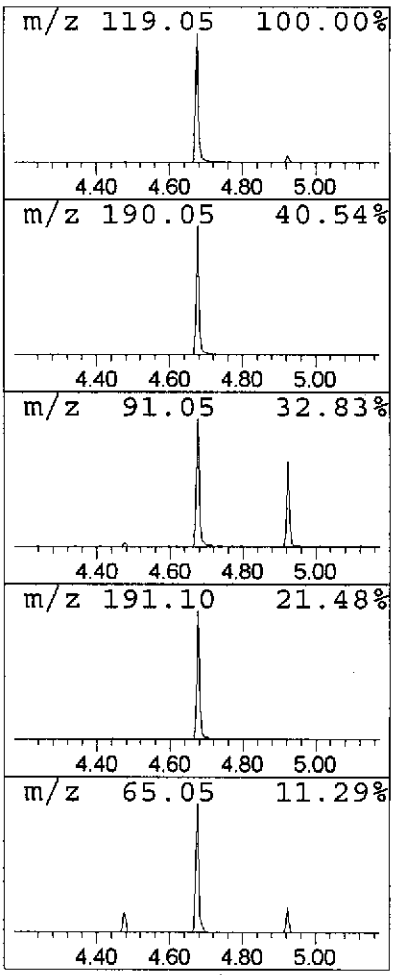
****

Peak Number 2 Substituted benzene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.68	4.13 UG	119126	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diethyltoluamide	191	C12H17NO	000134-62-3	95
2	Diethyltoluamide	191	C12H17NO	000134-62-3	94
3	Benzamide, N,N-diethyl-4-methyl-	191	C12H17NO	002728-05-4	91
4	Diethyltoluamide	191	C12H17NO	000134-62-3	91
5	Diethyltoluamide	191	C12H17NO	000134-62-3	91





0203

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9041.D
Acq On : 13 Jan 2010 14:27
Operator : LIMS import
Sample : MW9,00176-004,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 14 07:12:20 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.779	152	135063	40.00	UG	0.00
23) Naphthalene-d8	3.479	136	551247	40.00	UG	0.00
43) Acenaphthene-d10	4.479	164	320623	40.00	UG	0.00
66) Phenanthrene-d10	5.319	188	494638	40.00	UG	0.00
82) Chrysene-d12	6.983	240	468551	40.00	UG	-0.01
92) Perylene-d12	8.288	264	374018	40.00	UG	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	2.121	112	97754	20.97	UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 20.97%			
6) Phenol-d5	2.554	99	76693	12.64	UG	-0.01
Spiked Amount 100.000	Range 10 - 102		Recovery = 12.64%			
24) Nitrobenzene-d5	3.078	82	123384	26.07	UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 52.14%			
47) 2-Fluorobiphenyl	4.073	172	321783	31.21	UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 62.42%			
70) 2,4,6-Tribromophenol	4.929	330	125949	67.13	UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 67.13%			
84) Terphenyl-d14	6.218	244	343978	32.93	UG	0.00
Spiked Amount 50.000	Range 23 - 124		Recovery = 65.86%			

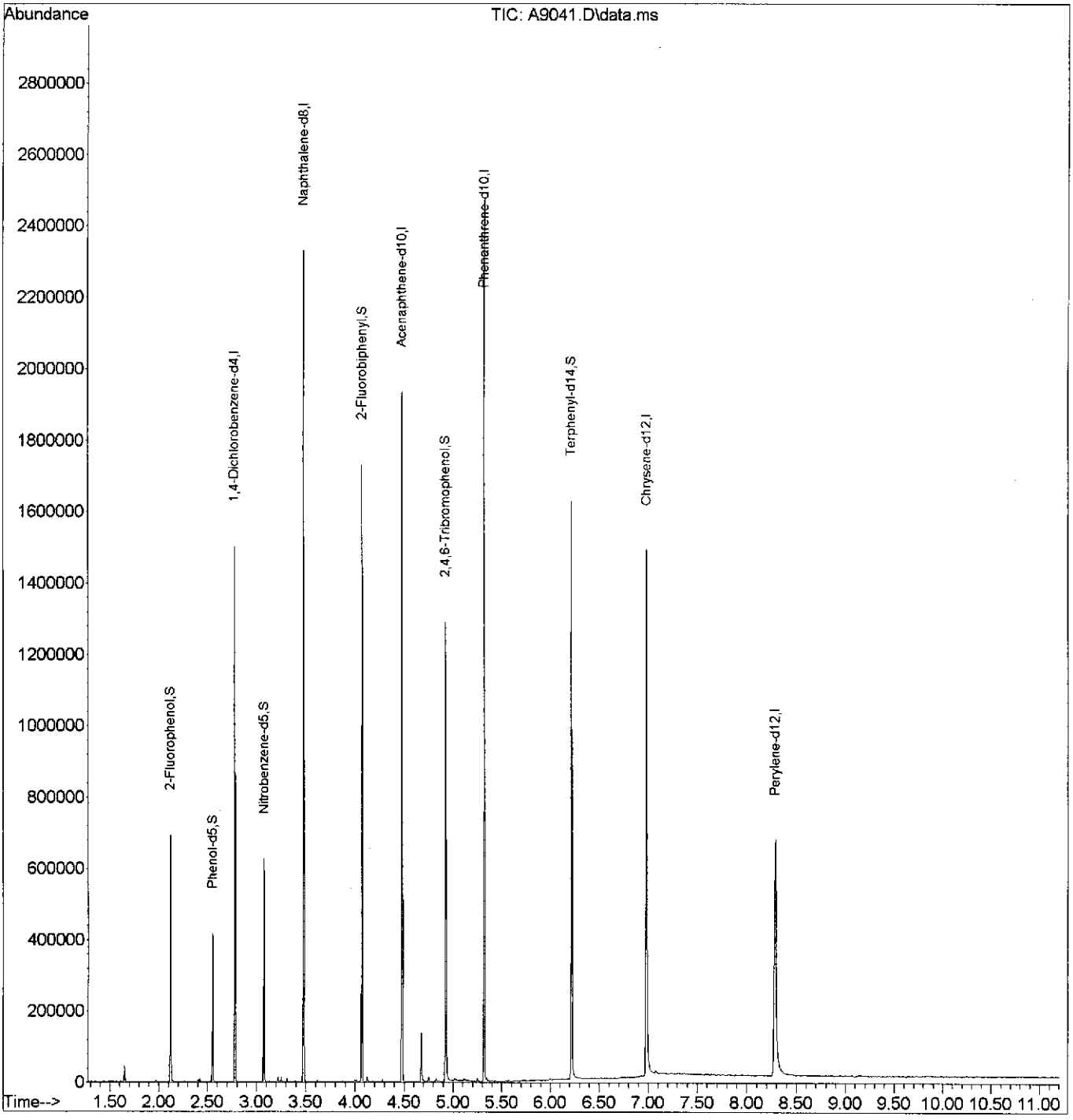
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9041.D
Acq On : 13 Jan 2010 14:27
Operator : LIMS import
Sample : MW9,00176-004,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 14 07:12:20 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration



0205

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9041.D
Acq On : 13 Jan 2010 14:27
Operator : LIMS import
Sample : MW9,00176-004,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

AW0210.M Thu Jan 14 10:07:55 2010 MSD_A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9042.D
Acq On : 13 Jan 2010 14:42
Operator : LIMS import
Sample : MW8,00176-005,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 14 07:13:55 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.779	152	121483	40.00	UG	0.00
23) Naphthalene-d8	3.479	136	502164	40.00	UG	0.00
43) Acenaphthene-d10	4.479	164	287775	40.00	UG	0.00
66) Phenanthrene-d10	5.319	188	447306	40.00	UG	0.00
82) Chrysene-d12	6.983	240	455431	40.00	UG	-0.01
92) Perylene-d12	8.288	264	380883	40.00	UG	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	2.121	112	87421	20.85	UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 20.85%			
6) Phenol-d5	2.554	99	66939	12.26	UG	-0.01
Spiked Amount 100.000	Range 10 - 102		Recovery = 12.26%			
24) Nitrobenzene-d5	3.078	82	112579	26.11	UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 52.22%			
47) 2-Fluorobiphenyl	4.073	172	309342	33.43	UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 66.86%			
70) 2,4,6-Tribromophenol	4.923	330	122744	72.34	UG	-0.01
Spiked Amount 100.000	Range 22 - 115		Recovery = 72.34%			
84) Terphenyl-d14	6.218	244	378254	37.26	UG	0.00
Spiked Amount 50.000	Range 23 - 124		Recovery = 74.52%			

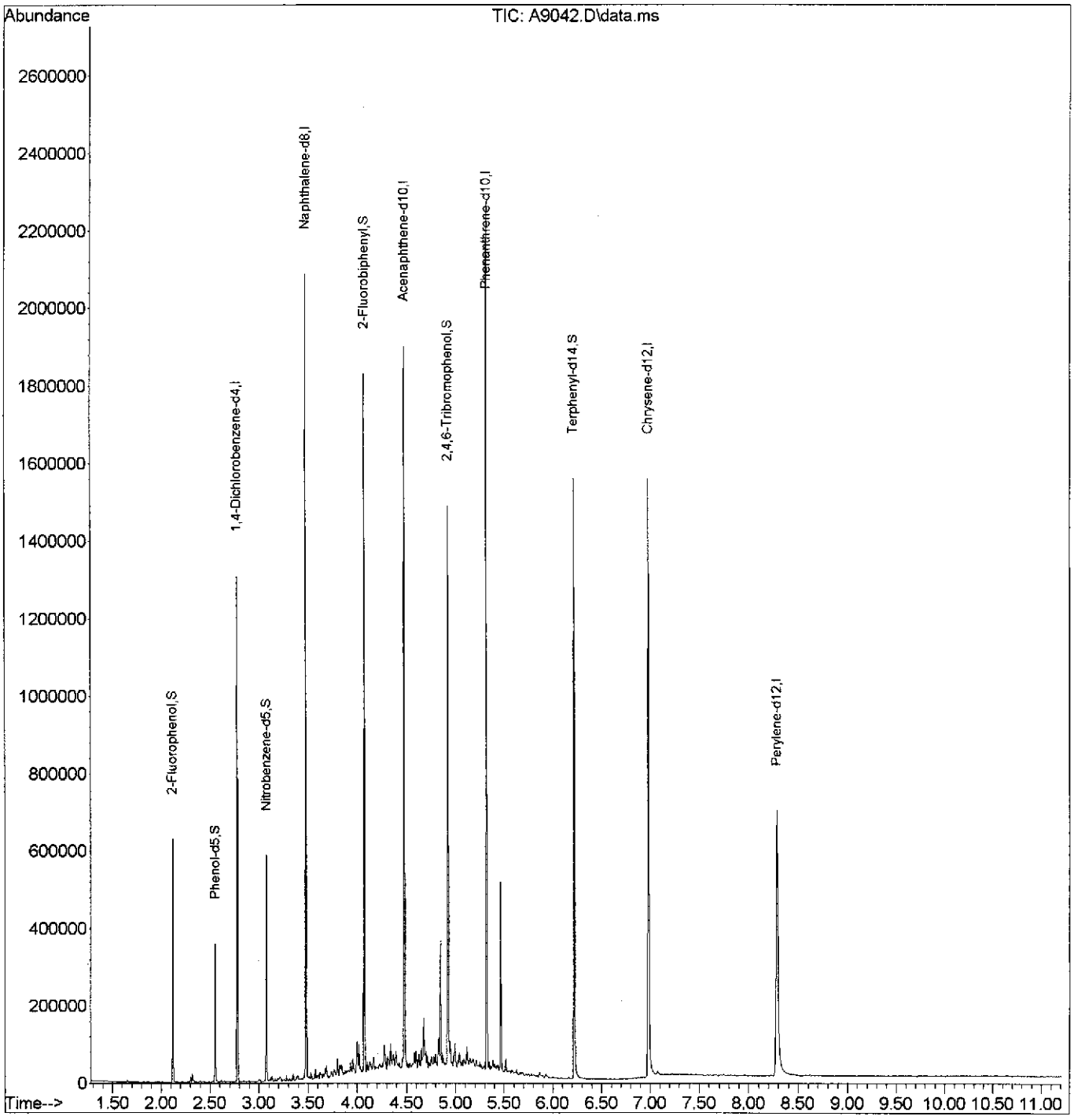
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9042.D
Acq On : 13 Jan 2010 14:42
Operator : LIMS import
Sample : MW8,00176-005,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 14 07:13:55 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9042.D
Acq On : 13 Jan 2010 14:42
Operator : LIMS import
Sample : MW8,00176-005,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 25 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\AW0210.M
Title : BNA CALIBRATION METHOD

Signal : TIC: A9042.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.121	156	159	162	rBV	628754	260181	22.20%	2.395%
2	2.554	237	240	242	rBV	357031	159256	13.59%	1.466%
3	2.779	279	282	285	rBV	1306830	665278	56.77%	6.125%
4	3.078	335	338	340	rBV	582224	324663	27.70%	2.989%
5	3.479	410	413	416	rVB	2071928	990584	84.52%	9.120%
6	3.683	447	451	454	rVB3	33284	35596	3.04%	0.328%
7	3.795	469	472	475	rVB	45545	30175	2.57%	0.278%
8	3.822	475	477	478	rBV	28188	21820	1.86%	0.201%
9	3.838	478	480	483	rVB4	25697	22643	1.93%	0.208%
10	3.955	500	502	507	rVB3	36531	29168	2.49%	0.269%
11	4.003	507	511	512	rBV	79921	69551	5.93%	0.640%
12	4.019	512	514	517	rVB2	65810	31453	2.68%	0.290%
13	4.073	521	524	526	rBV	1798526	853448	72.82%	7.857%
14	4.126	531	534	538	rBV5	25404	28192	2.41%	0.260%
15	4.164	538	541	543	rVV4	33074	26636	2.27%	0.245%
16	4.276	557	562	566	rVB4	62715	67313	5.74%	0.620%
17	4.308	566	568	572	rBV4	34965	41343	3.53%	0.381%
18	4.340	572	574	577	rVV2	62934	43526	3.71%	0.401%
19	4.367	577	579	581	rVV2	31897	28383	2.42%	0.261%
20	4.389	581	583	588	rVV2	39472	36606	3.12%	0.337%
21	4.479	597	600	602	rBV	1841206	1136713	96.99%	10.465%
22	4.581	612	619	621	rBV7	37333	33921	2.89%	0.312%
23	4.597	621	622	624	rVB	45258	23207	1.98%	0.214%
24	4.624	624	627	629	rBV3	37871	26341	2.25%	0.243%
25	4.651	629	632	633	rBV	46403	24901	2.12%	0.229%
26	4.677	633	637	639	rBV	110913	66516	5.68%	0.612%
27	4.758	649	652	655	rBV5	26612	23613	2.01%	0.217%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9042.D
Acq On : 13 Jan 2010 14:42
Operator : LIMS import
Sample : MW8,00176-005,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 25 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\AW0210.M
Title : BNA CALIBRATION METHOD

28	4.827	663	665	667	rBV2	73814	61036	5.21%	0.562%
29	4.849	667	669	672	rVB	318037	195424	16.67%	1.799%
30	4.923	680	683	686	rBV	1438522	788454	67.28%	7.259%
31	4.945	686	687	689	rVV2	57968	32264	2.75%	0.297%
32	4.993	692	696	700	rVB4	59826	60036	5.12%	0.553%
33	5.036	700	704	708	rBV3	38352	42967	3.67%	0.396%
34	5.084	711	713	717	rBV3	20429	26362	2.25%	0.243%
35	5.116	717	719	723	rBV2	44747	30845	2.63%	0.284%
36	5.319	754	757	760	rBV	2240669	1128599	96.30%	10.391%
37	5.464	781	784	787	rBV	489290	262943	22.44%	2.421%
38	6.218	922	925	928	rBV	1547814	990069	84.48%	9.115%
39	6.983	1064	1068	1081	rBV	1544731	1171969	100.00%	10.790%
40	8.288	1305	1312	1332	rBV	684454	969703	82.74%	8.928%

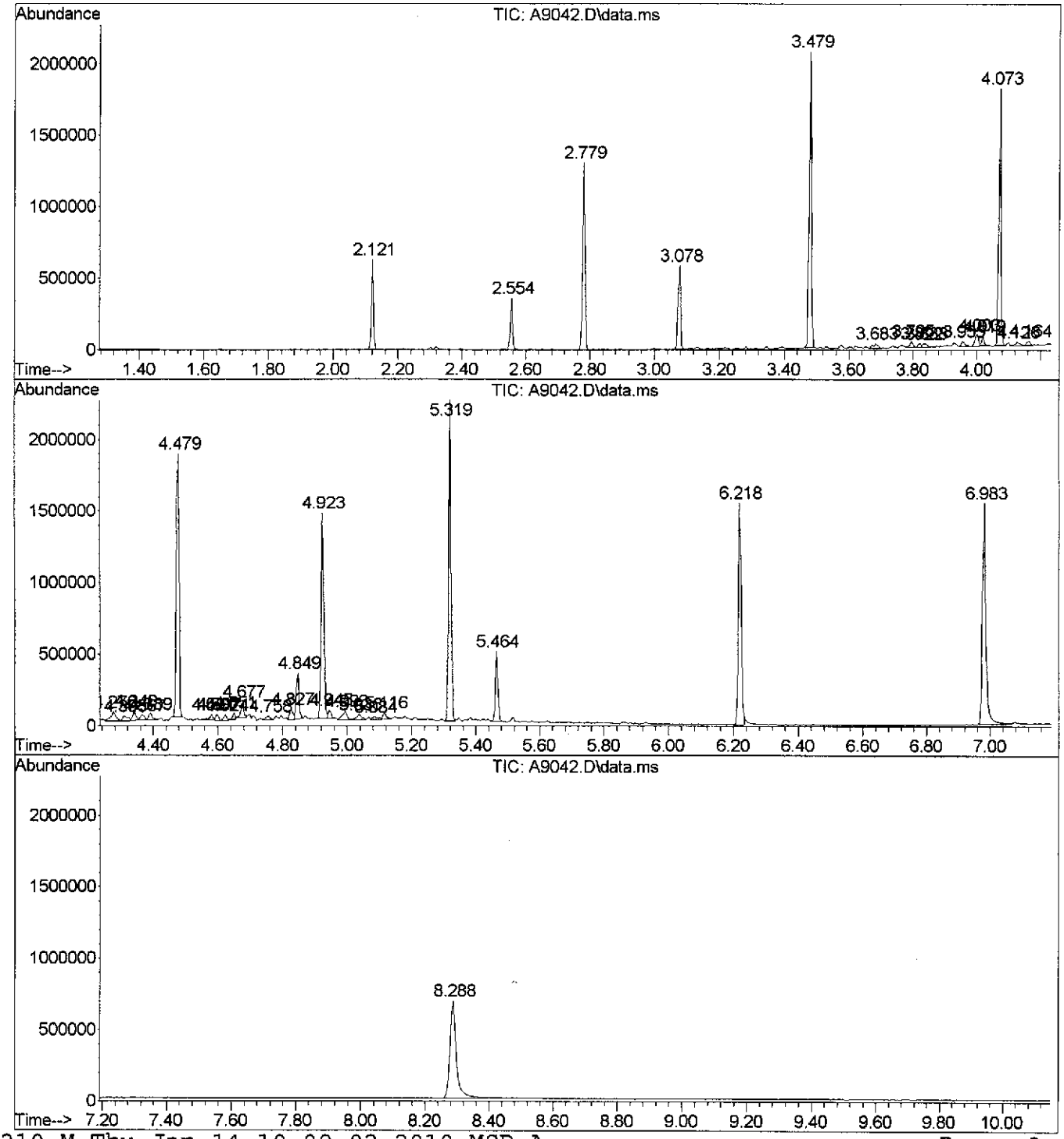
Sum of corrected areas: 10861698

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9042.D
Acq On : 13 Jan 2010 14:42
Operator : LIMS import
Sample : MW8,00176-005,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9042.D
Acq On : 13 Jan 2010 14:42
Operator : LIMS import
Sample : MW8,00176-005,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

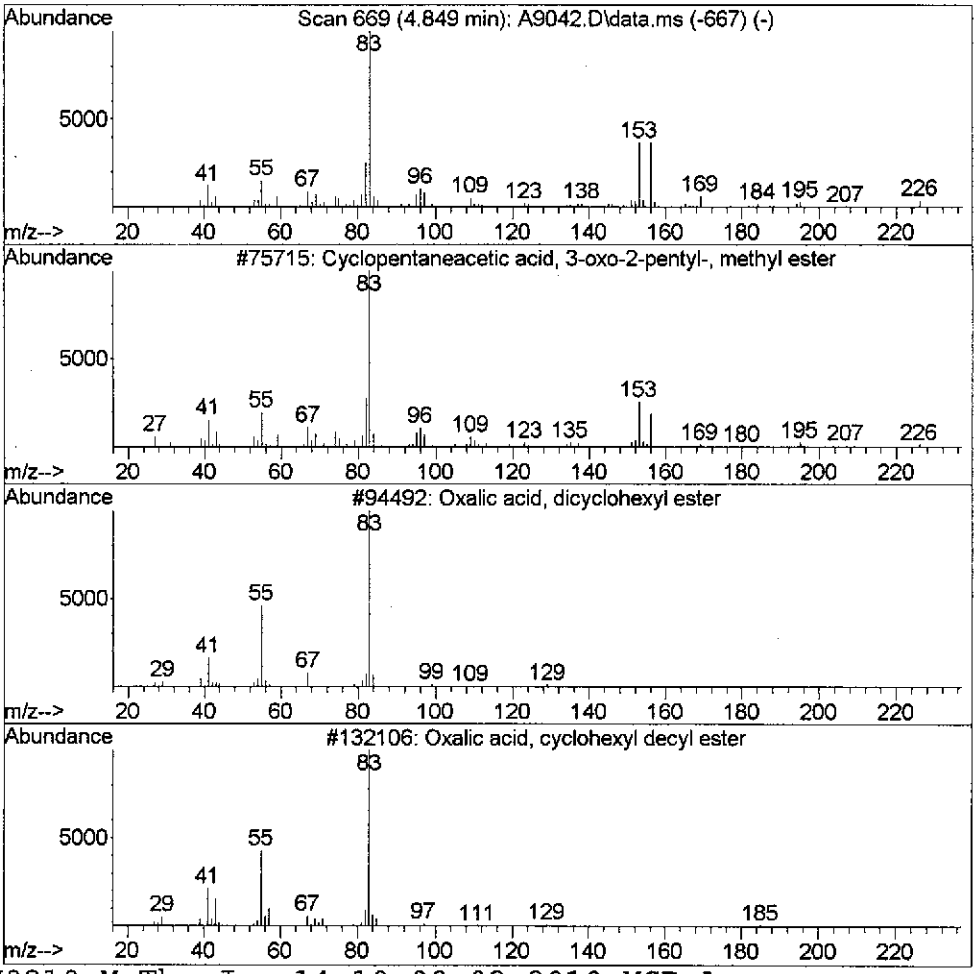
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

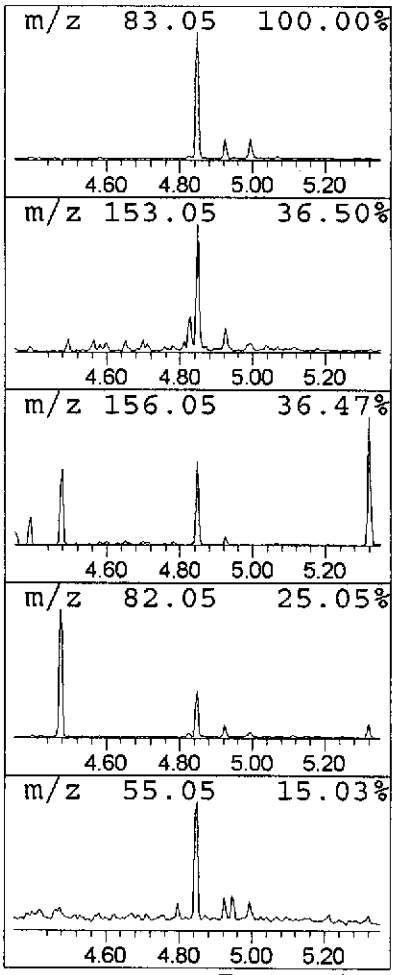
****

Peak Number 1 Unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.85	6.88 UG	195424	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentaneacetic acid, 3-oxo-2...	226	C13H22O3	024851-98-7	86
2	Oxalic acid, dicyclohexyl ester	254	C14H22O4	1000309-30-9	38
3	Oxalic acid, cyclohexyl decyl ester	312	C18H32O4	1000309-31-2	38
4	1H-Imidazol-2-amine	83	C3H5N3	007720-39-0	35
5	3-Methyl-2-butenoic acid, tridec...	278	C18H30O2	1000299-31-7	35





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9042.D
Acq On : 13 Jan 2010 14:42
Operator : LIMS import
Sample : MW8,00176-005,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

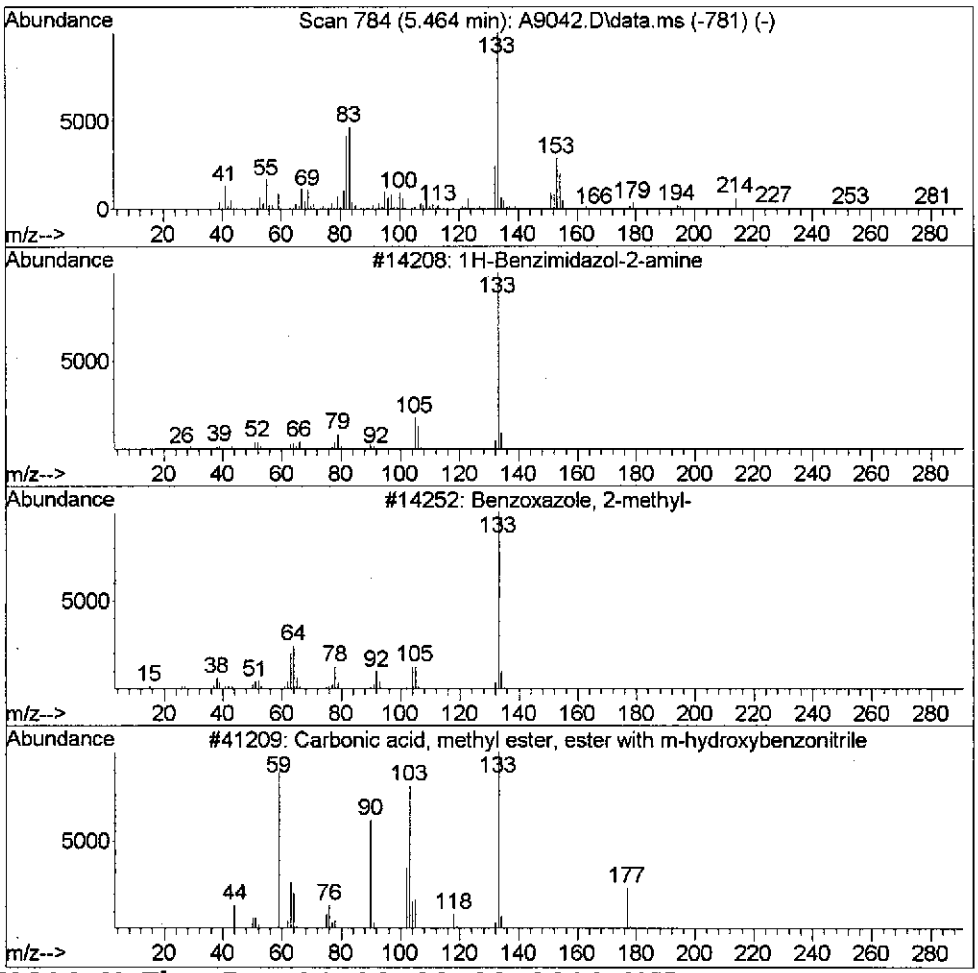
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

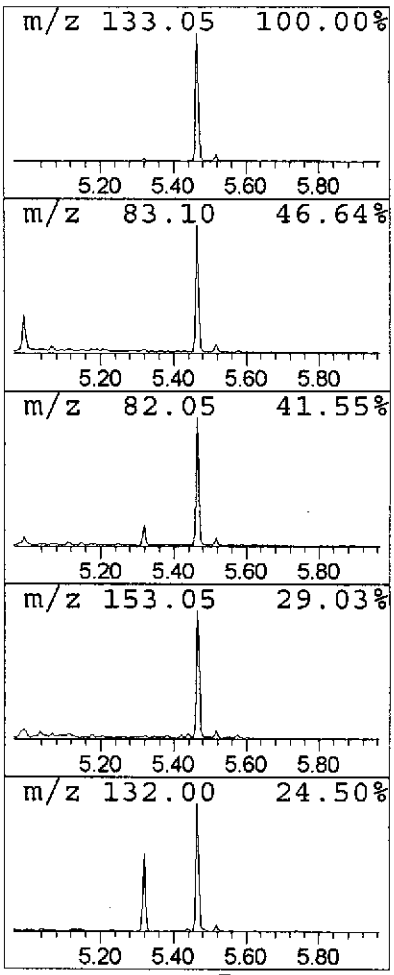
****

Peak Number 2 Unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.46	9.32 UG	262943	Phenanthrene-d10	5.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Benzimidazol-2-amine	133	C7H7N3	000934-32-7	10
2	Benzoxazole, 2-methyl-	133	C8H7NO	000095-21-6	9
3	Carbonic acid, methyl ester, est...	177	C9H7NO3	017175-19-8	9
4	1H-Indol-5-ol	133	C8H7NO	001953-54-4	9
5	4-Propyl-3-thiosemicarbazide	133	C4H11N3S	013431-35-1	9





0213

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 14 07:16:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration

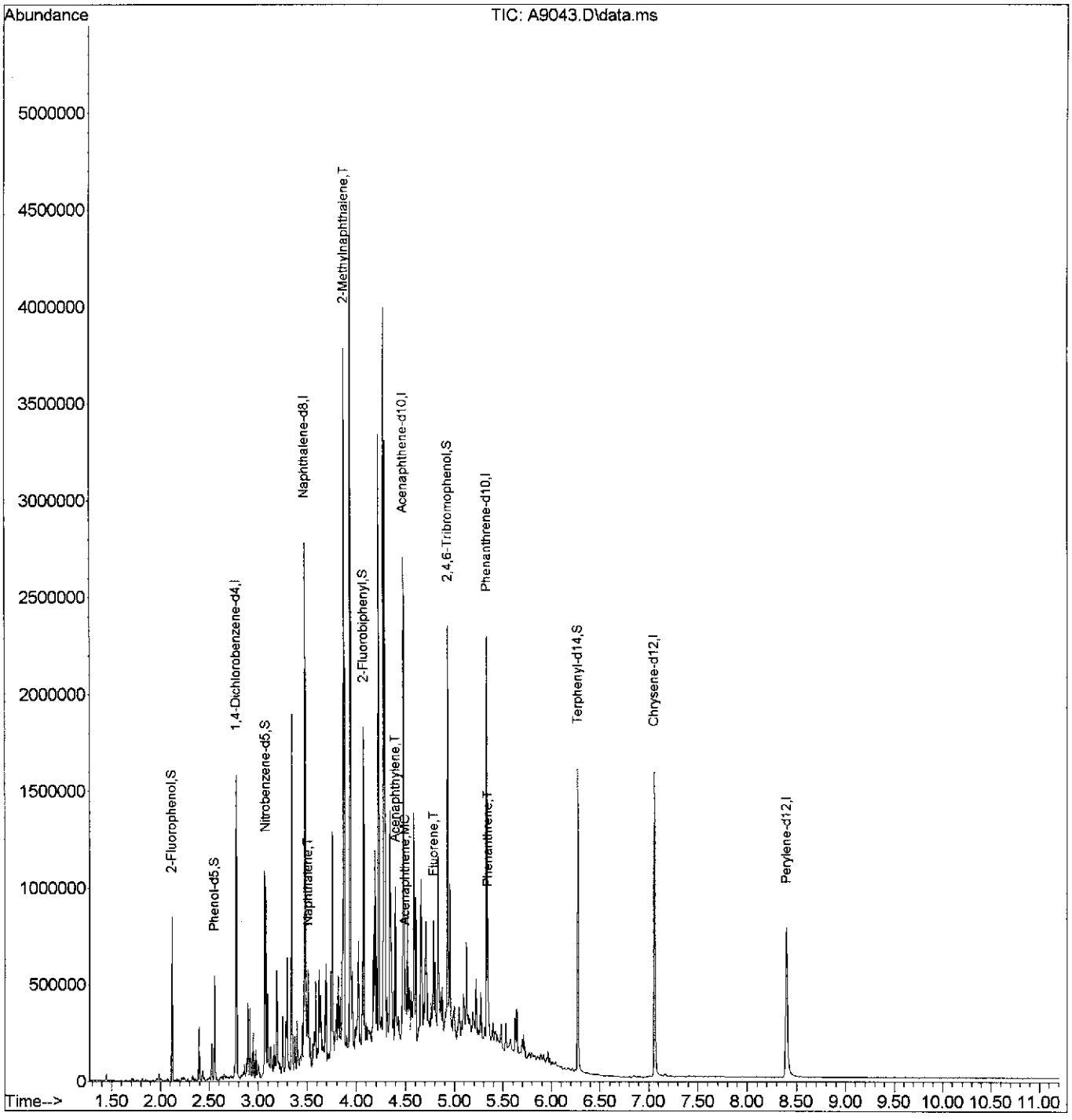
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.779	152	154515	40.00	UG	0.00
23) Naphthalene-d8	3.479	136	615047	40.00	UG	0.00
43) Acenaphthene-d10	4.485	164	372844	40.00	UG	0.00
66) Phenanthrene-d10	5.335	188	595540	40.00	UG	0.01
82) Chrysene-d12	7.063	240	513450	40.00	UG	0.07
92) Perylene-d12	8.400	264	405878	40.00	UG	0.10
System Monitoring Compounds						
4) 2-Fluorophenol	2.121	112	122634	23.00	UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 23.00%			
6) Phenol-d5	2.554	99	99702	14.36	UG	-0.01
Spiked Amount 100.000	Range 10 - 102		Recovery = 14.36%			
24) Nitrobenzene-d5	3.078	82	153011	28.98	UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 57.96%			
47) 2-Fluorobiphenyl	4.073	172	367623	30.66	UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 61.32%			
70) 2,4,6-Tribromophenol	4.934	330	179634	79.52	UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 79.52%			
84) Terphenyl-d14	6.271	244	410257	35.85	UG	0.05
Spiked Amount 50.000	Range 23 - 124		Recovery = 71.70%			
Target Compounds						Qvalue
34) Naphthalene	3.511	128	13031	0.79	UG	# 1
41) 2-Methylnaphthalene	3.875	142	717185	71.86	UG	99
53) Acenaphthylene	4.399	152	14513	0.90	UG	# 1
55) Acenaphthene	4.501	153	45981	4.42	UG	87
61) Fluorene	4.784	166	80130	6.81	UG	# 88
75) Phenanthrene	5.346	178	121692	7.58	UG	# 93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 14 07:16:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration



0215

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\AW0210.M
Title : BNA CALIBRATION METHOD

Signal : TIC: A9043.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.121	156	159	161	rBV	845453	363080	11.90%	0.877%
2	2.393	208	210	214	rVB	276587	148210	4.86%	0.358%
3	2.527	232	235	237	rVB	187066	120350	3.94%	0.291%
4	2.554	237	240	244	rBV	540779	259699	8.51%	0.627%
5	2.779	279	282	285	rVB2	1551008	974318	31.93%	2.353%
6	2.896	302	304	306	rVB	374133	166423	5.45%	0.402%
7	2.918	306	308	310	rVV	349406	159253	5.22%	0.385%
8	2.950	310	314	317	rVB	235994	145581	4.77%	0.352%
9	2.976	317	319	321	rBV	149610	77013	2.52%	0.186%
10	2.998	321	323	328	rVB4	75885	72823	2.39%	0.176%
11	3.067	333	336	340	rBV3	1047668	987814	32.38%	2.385%
12	3.094	340	341	346	rVB2	384313	278657	9.13%	0.673%
13	3.126	346	347	352	rVB4	137520	111803	3.66%	0.270%
14	3.164	352	354	355	rBV2	144560	66841	2.19%	0.161%
15	3.190	358	359	362	rBV	495164	324507	10.64%	0.784%
16	3.217	362	364	368	rVB3	60096	59711	1.96%	0.144%
17	3.255	368	371	373	rBV2	296811	165843	5.44%	0.400%
18	3.281	374	376	378	rBV2	263346	218653	7.17%	0.528%
19	3.297	378	379	381	rVB	566663	214612	7.03%	0.518%
20	3.346	385	388	391	rVB	1839589	1086781	35.62%	2.624%
21	3.378	391	394	396	rBV	175984	106286	3.48%	0.257%
22	3.399	396	398	402	rBV	254492	152706	5.01%	0.369%
23	3.436	402	405	406	rBV3	50953	50824	1.67%	0.123%
24	3.453	406	408	409	rBV	196203	87178	2.86%	0.210%
25	3.479	409	413	416	rBV	2657779	1805197	59.17%	4.359%
26	3.501	416	417	418	rBV	121348	45373	1.49%	0.110%
27	3.511	418	419	421	rVB	451987	199769	6.55%	0.482%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\AW0210.M
Title : BNA CALIBRATION METHOD

28	3.527	421	422	426	rVB	155421	114395	3.75%	0.276%
29	3.559	426	428	429	rBV	124596	64628	2.12%	0.156%
30	3.570	429	430	432	rBV	143988	112706	3.69%	0.272%
31	3.586	432	433	435	rVB	402300	224998	7.37%	0.543%
32	3.624	438	440	441	rBV	433247	221046	7.25%	0.534%
33	3.693	450	453	455	rVB2	507451	406468	13.32%	0.981%
34	3.757	460	465	469	rBV3	1176046	1059617	34.73%	2.558%
35	3.800	469	473	474	rVV3	249891	214464	7.03%	0.518%
36	3.816	474	476	478	rVV2	382815	258270	8.47%	0.624%
37	3.838	478	480	481	rVV	263727	148089	4.85%	0.358%
38	3.859	482	484	485	rVV	764548	442603	14.51%	1.069%
39	3.875	485	487	489	rVB	3596370	2163522	70.91%	5.224%
40	3.939	495	499	501	rBV	4371339	3050981	100.00%	7.367%
41	3.961	501	503	507	rVB2	408309	256999	8.42%	0.621%
42	3.993	507	509	510	rBV	117866	87111	2.86%	0.210%
43	4.025	512	515	520	rVB	536998	364497	11.95%	0.880%
44	4.062	520	522	523	rBV	236527	165657	5.43%	0.400%
45	4.073	523	524	527	rVV	1631465	975375	31.97%	2.355%
46	4.100	527	529	531	rVV2	101190	62005	2.03%	0.150%
47	4.116	531	532	535	rVV2	75761	70991	2.33%	0.171%
48	4.175	539	543	544	rBV2	558551	366377	12.01%	0.885%
49	4.191	544	546	548	rVV	975631	608550	19.95%	1.469%
50	4.207	548	549	551	rVV	427633	209426	6.86%	0.506%
51	4.228	551	553	556	rVV	3114930	1839625	60.30%	4.442%
52	4.282	560	563	564	rVV	3760446	2690373	88.18%	6.496%
53	4.314	567	569	572	rBV3	212043	155813	5.11%	0.376%
54	4.346	572	575	576	rVV	1155424	792595	25.98%	1.914%
55	4.378	579	581	582	rVB2	107705	61153	2.00%	0.148%
56	4.399	582	585	587	rBV	798038	539216	17.67%	1.302%
57	4.426	588	590	595	rVB6	121315	130052	4.26%	0.314%
58	4.479	595	600	602	rBV	2490921	1826708	59.87%	4.411%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\AW0210.M
Title : BNA CALIBRATION METHOD

59	4.501	602	604	606	rVV2	306177	245791	8.06%	0.593%
60	4.522	606	608	609	rVV	594368	255551	8.38%	0.617%
61	4.538	609	611	613	rVB3	221885	170855	5.60%	0.413%
62	4.560	613	615	618	rBV3	200705	174350	5.71%	0.421%
63	4.586	618	620	622	rVV	1098458	632195	20.72%	1.526%
64	4.602	622	623	626	rVB	746046	479944	15.73%	1.159%
65	4.635	626	629	630	rBV3	75412	68739	2.25%	0.166%
66	4.656	630	633	637	rBV	769157	633477	20.76%	1.530%
67	4.683	637	638	639	rBV	107110	45222	1.48%	0.109%
68	4.709	639	643	646	rVB	514128	551142	18.06%	1.331%
69	4.763	651	653	654	rBV2	123370	62356	2.04%	0.151%
70	4.790	655	658	659	rVV2	542283	407261	13.35%	0.983%
71	4.800	659	660	664	rVB2	332412	216668	7.10%	0.523%
72	4.832	664	666	669	rBV2	878109	585053	19.18%	1.413%
73	4.859	669	671	673	rVV2	162406	113582	3.72%	0.274%
74	4.875	673	674	676	rVB	224086	103601	3.40%	0.250%
75	4.907	678	680	682	rBV3	66608	60454	1.98%	0.146%
76	4.934	682	685	687	rVV	2040833	1173859	38.47%	2.834%
77	4.955	687	689	691	rVB2	743955	400597	13.13%	0.967%
78	4.998	694	697	701	rVB3	173365	192604	6.31%	0.465%
79	5.046	701	706	709	rBV3	167032	200946	6.59%	0.485%
80	5.073	709	711	713	rBV2	76262	58388	1.91%	0.141%
81	5.089	713	714	718	rBV	188057	166251	5.45%	0.401%
82	5.121	718	720	722	rBV	427637	245290	8.04%	0.592%
83	5.185	731	732	737	rVV4	90090	80684	2.64%	0.195%
84	5.223	737	739	742	rVB	294186	179588	5.89%	0.434%
85	5.271	745	748	753	rVB	239965	169555	5.56%	0.409%
86	5.335	757	760	761	rBV	2069621	1507374	49.41%	3.640%
87	5.357	763	764	767	rVB	83729	48421	1.59%	0.117%
88	5.394	769	771	773	rVB2	94454	64388	2.11%	0.155%
89	5.426	773	777	778	rVB3	54546	60888	2.00%	0.147%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\AW0210.M
Title : BNA CALIBRATION METHOD

90	5.480	785	787	790	rVB	124592	91830	3.01%	0.222%
91	5.528	793	796	799	rBV2	145436	113877	3.73%	0.275%
92	5.624	812	814	816	rBV	173142	109387	3.59%	0.264%
93	5.640	816	817	821	rVB2	228018	154859	5.08%	0.374%
94	5.699	826	828	829	rBV	74644	52328	1.72%	0.126%
95	6.271	932	935	938	rBV	1553569	1058620	34.70%	2.556%
96	7.057	1079	1082	1092	rBV	1574466	1295842	42.47%	3.129%
97	8.400	1327	1333	1357	rBV	769419	1050634	34.44%	2.537%

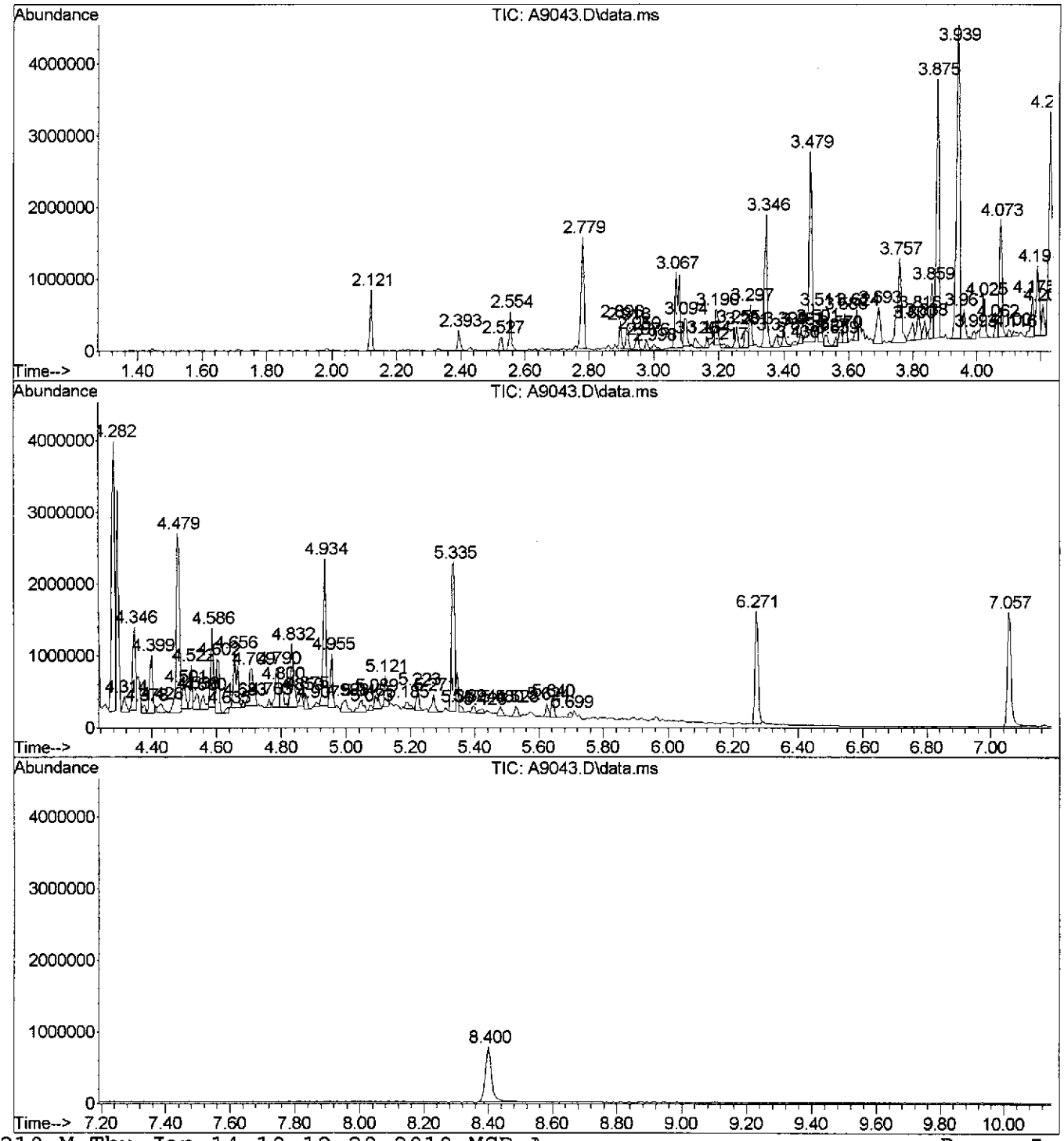
Sum of corrected areas: 41416066

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P



0220

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

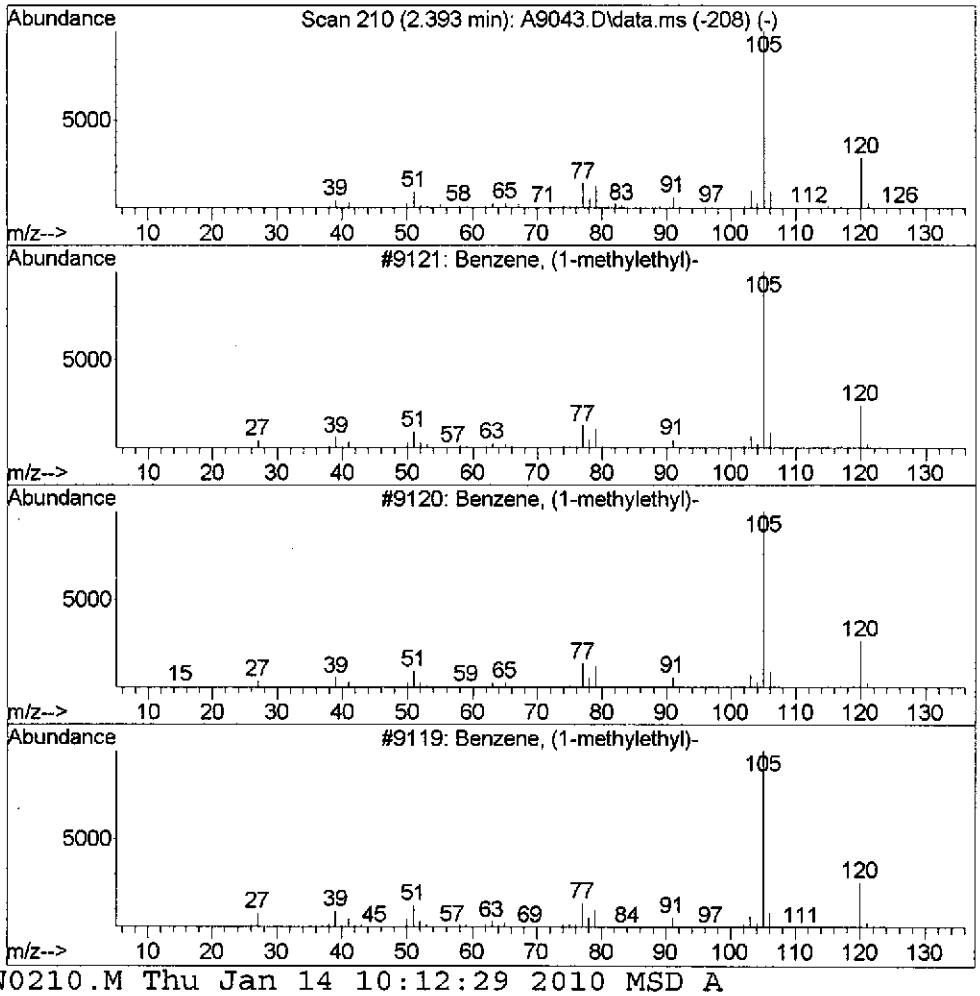
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

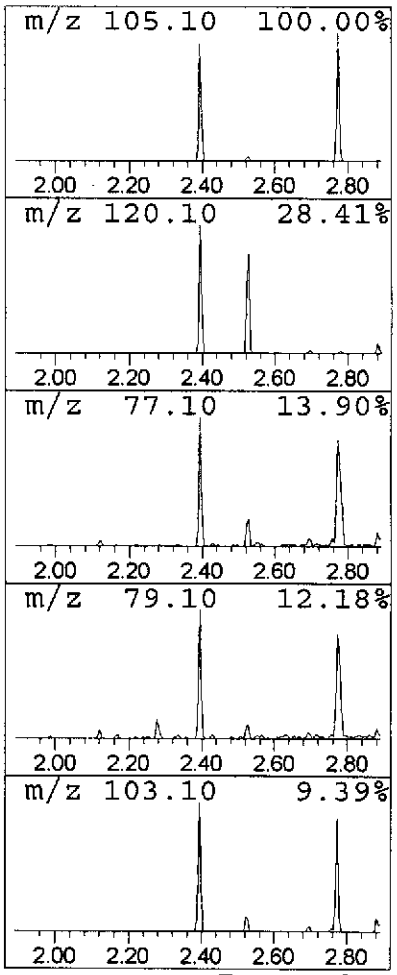
****

Peak Number 1 Substituted benzene Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.39	6.08 UG	148210	1,4-Dichlorobenzene-d4	2.78

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	94
2	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	94
3	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	91
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	91
5	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	80





0221

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

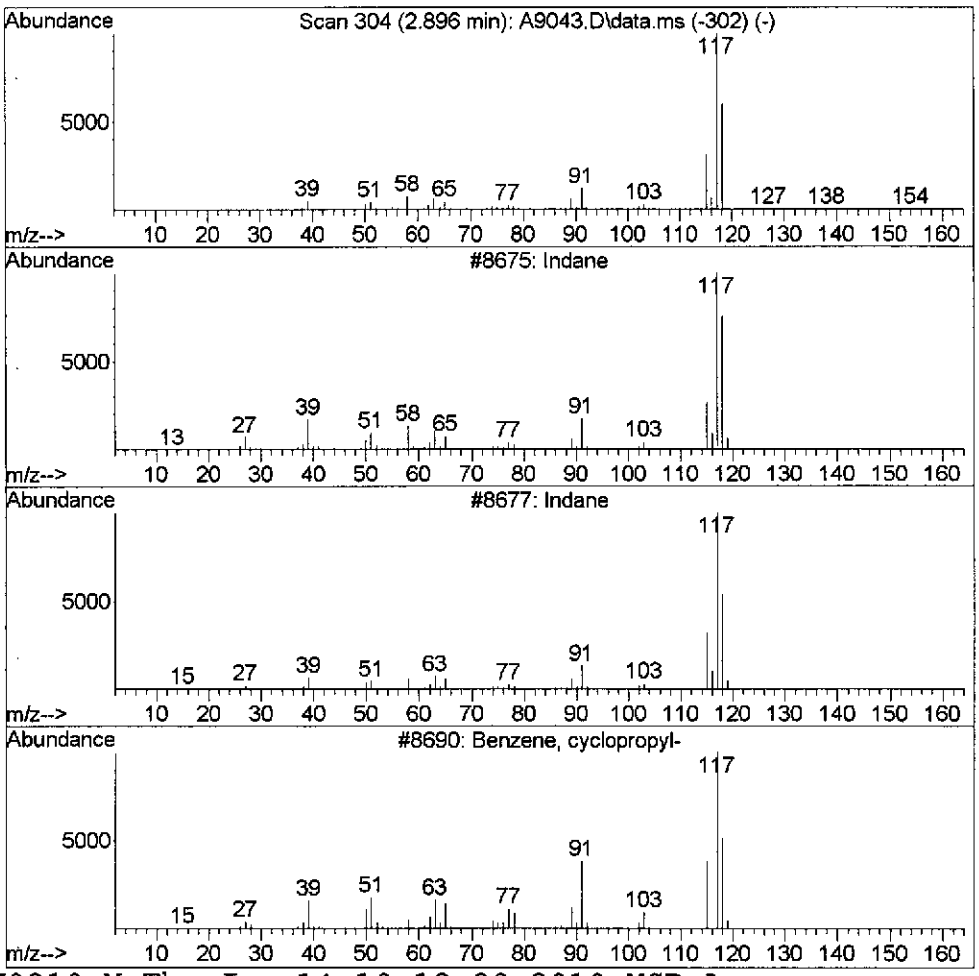
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

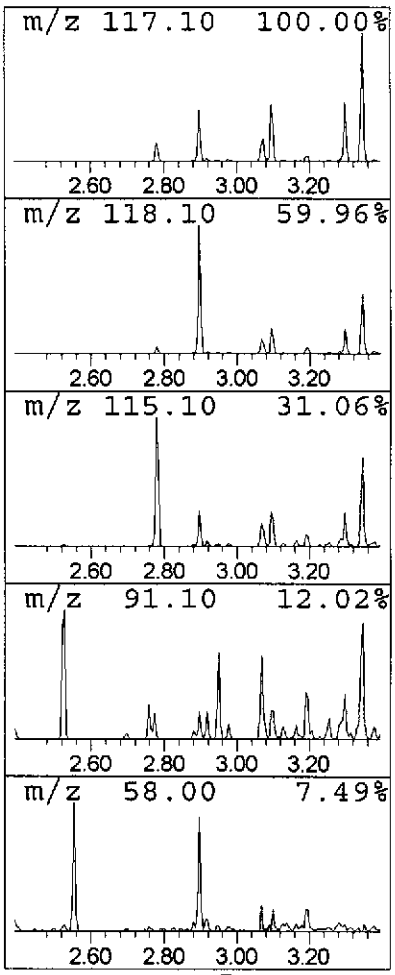
****

Peak Number 2 Substituted benzene Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.90	6.83 UG	166423	1,4-Dichlorobenzene-d4	2.78

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	87
2	Indane	118	C9H10	000496-11-7	81
3	Benzene, cyclopropyl-	118	C9H10	000873-49-4	72
4	Tetracyclo[3.3.1.0(2,8).0(4,6)]-...	118	C9H10	1000191-13-7	72
5	Benzene, cyclopropyl-	118	C9H10	000873-49-4	72





0222

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

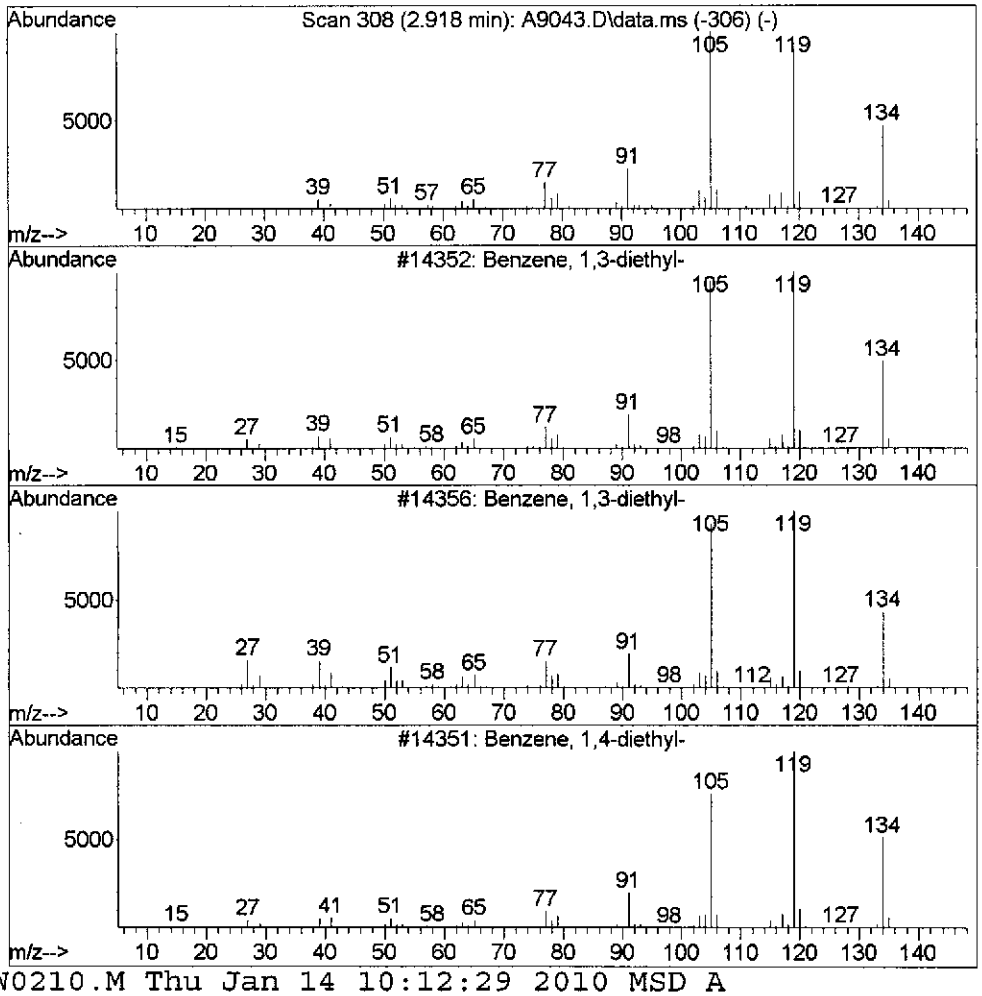
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

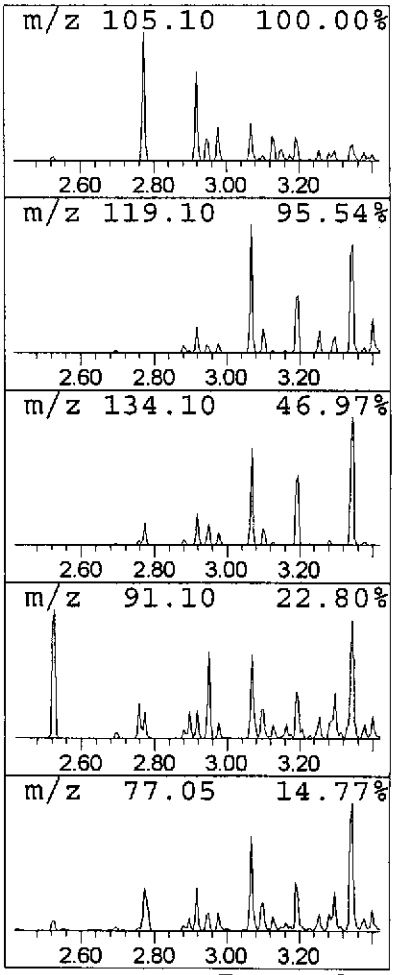
****

Peak Number 3 Substituted benzene Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.92	6.54 UG	159253	1,4-Dichlorobenzene-d4	2.78

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	96
2	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	94
3	Benzene, 1,4-diethyl-	134	C10H14	000105-05-5	93
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	93
5	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	91





0223

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

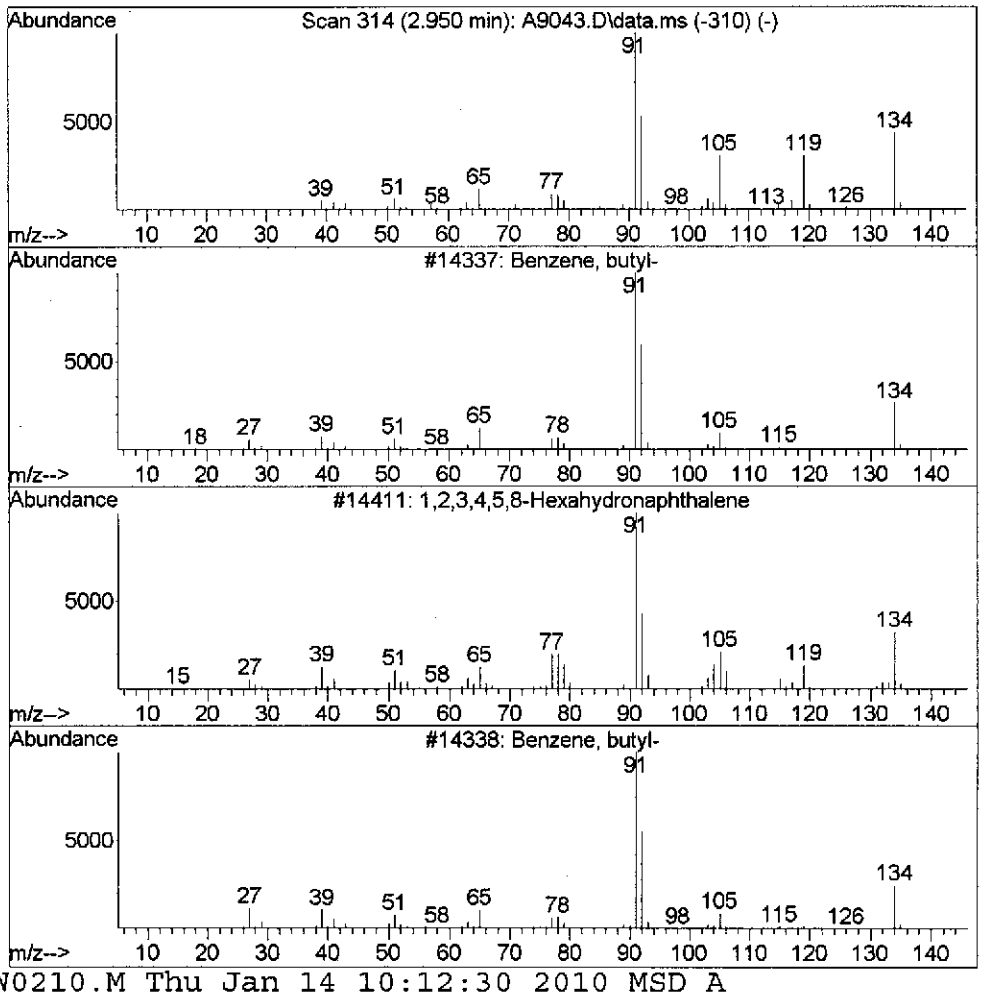
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

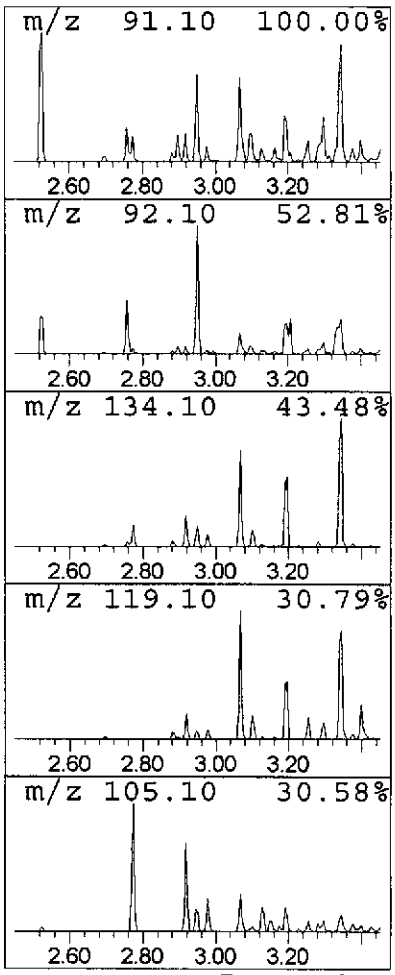
****

Peak Number 4 Substituted benzene Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.95	5.98 UG	145581	1,4-Dichlorobenzene-d4	2.78

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, butyl-	134	C10H14	000104-51-8	68
2	1,2,3,4,5,8-Hexahydronaphthalene	134	C10H14	036231-13-7	64
3	Benzene, butyl-	134	C10H14	000104-51-8	59
4	Benzene, butyl-	134	C10H14	000104-51-8	59
5	Benzene, (2-methylpropyl)-	134	C10H14	000538-93-2	53





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

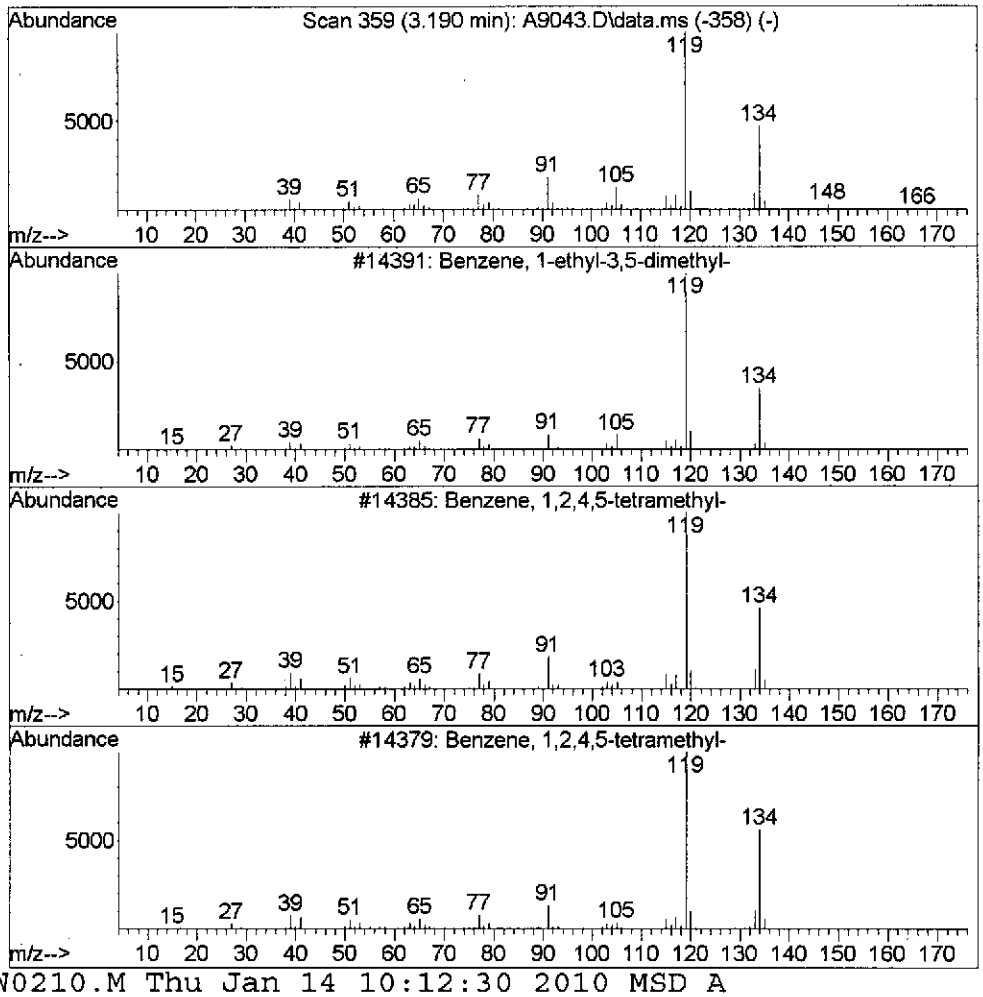
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

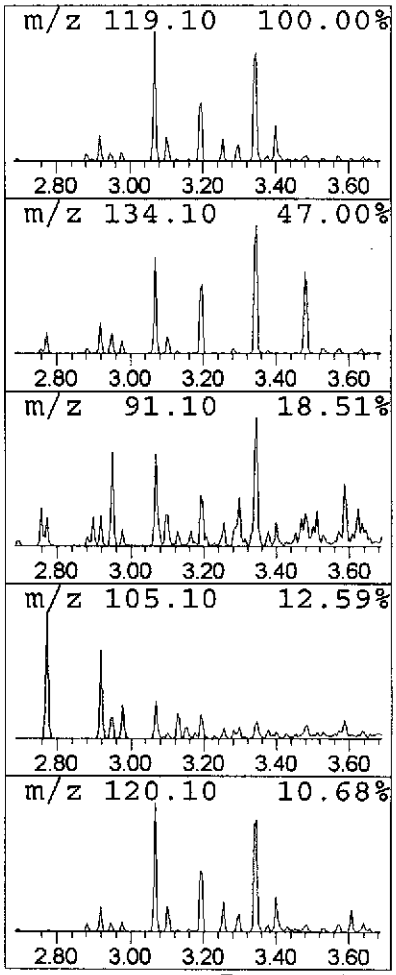
****

Peak Number 5 Substituted benzene Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.19	7.19 UG	324507	Naphthalene-d8	3.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	94
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	94
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	93
4	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	93
5	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	93





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

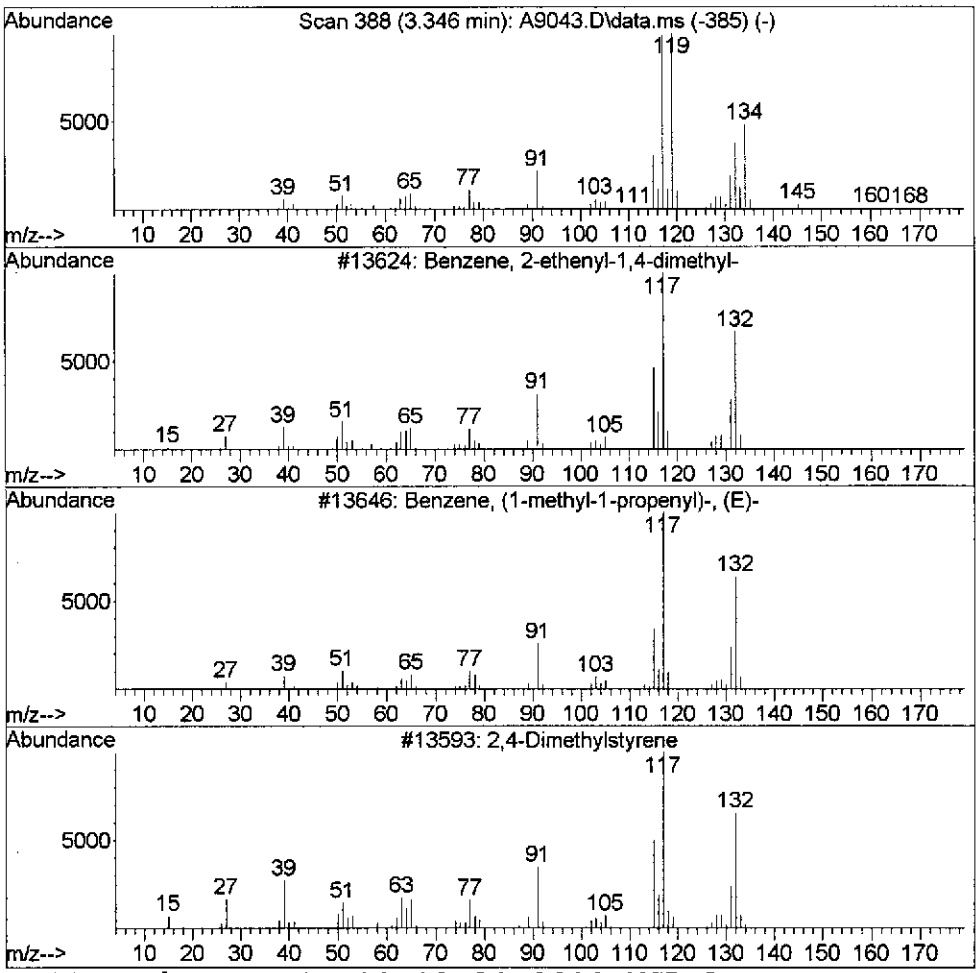
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

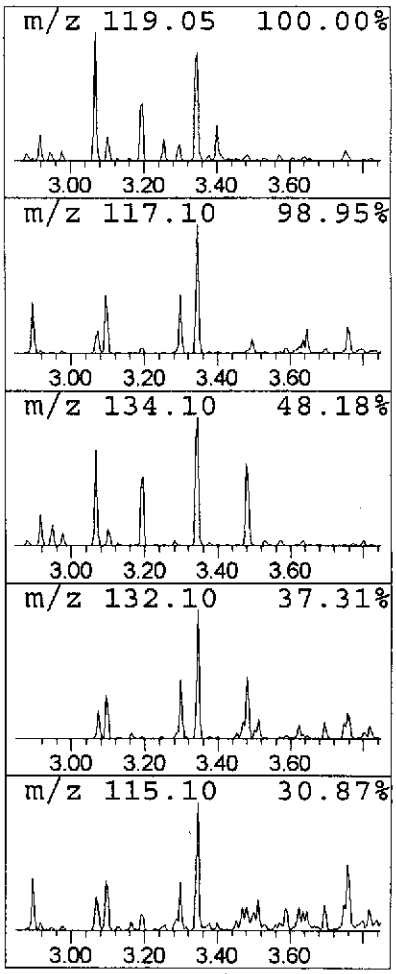
****

Peak Number 6 Substituted benzene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.35	24.08 UG	1086780	Naphthalene-d8	3.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethenyl-1,4-dimethyl-	132	C10H12	002039-89-6	86
2	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	64
3	2,4-Dimethylstyrene	132	C10H12	002234-20-0	55
4	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	50
5	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	50





0226

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

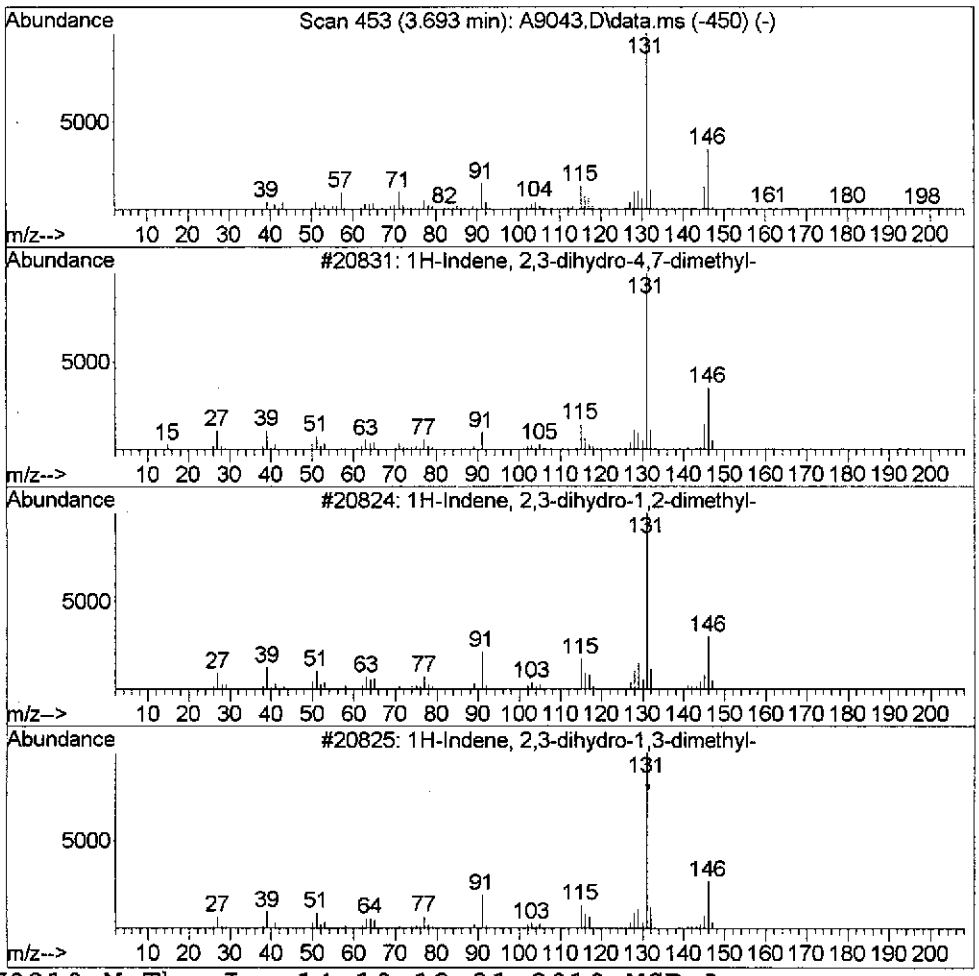
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

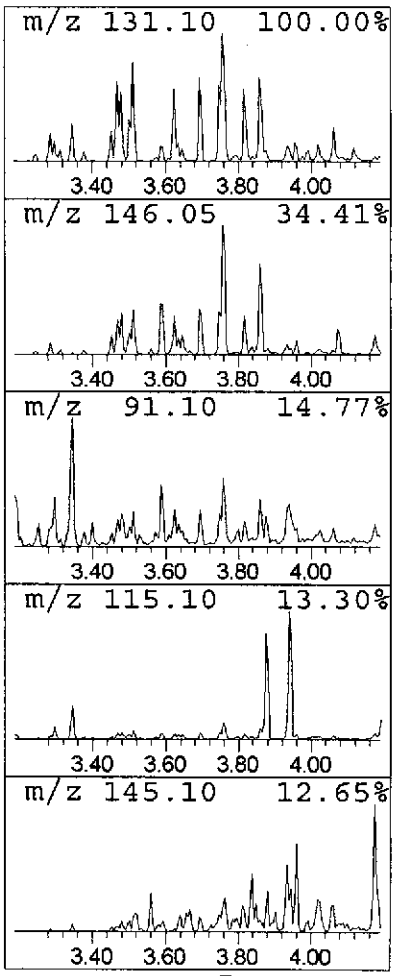
****

Peak Number 7 Substituted benzene Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.69	9.01 UG	406468	Naphthalene-d8	3.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	95
2	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	94
3	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	94
4	Bicyclo[4.2.0]octa-1,3,5-triene,...	146	C11H14	027087-54-3	91
5	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	91





0227

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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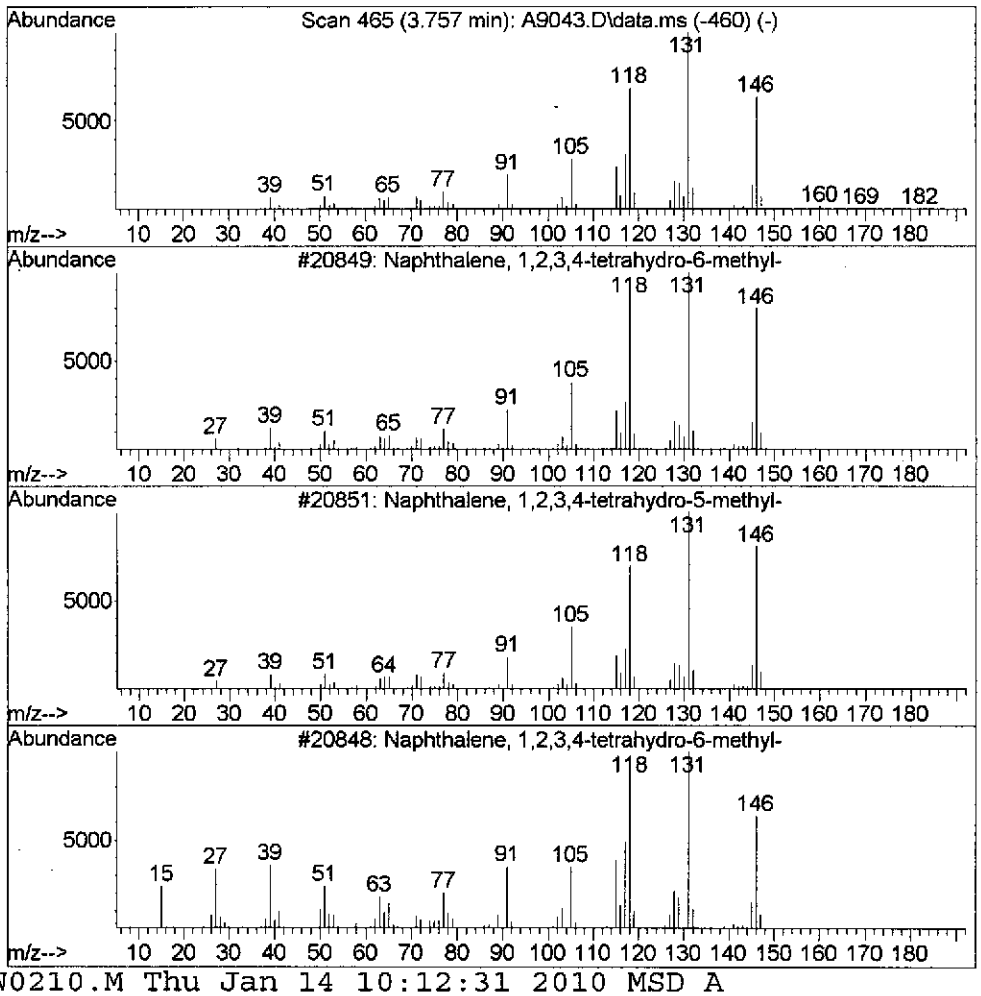
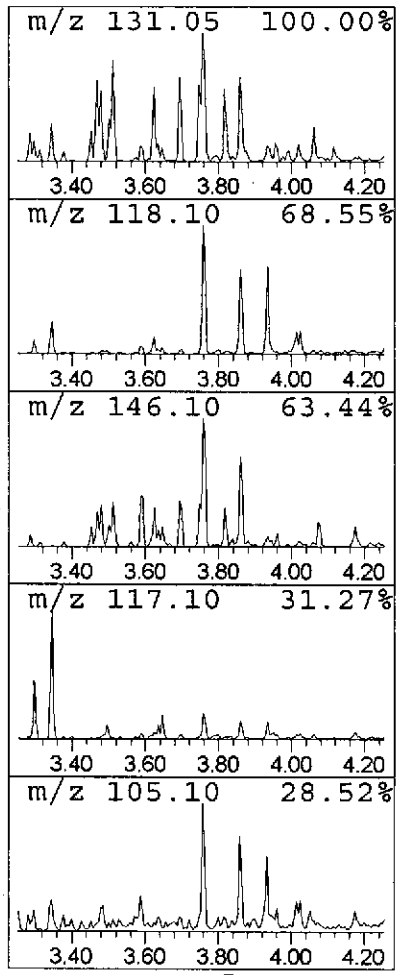
Peak Number 8 Substituted naphthalene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.76	23.48 UG	1059620	Naphthalene-d8	3.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	98
2	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	97
3	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	97
4	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	96
5	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	95





0228

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

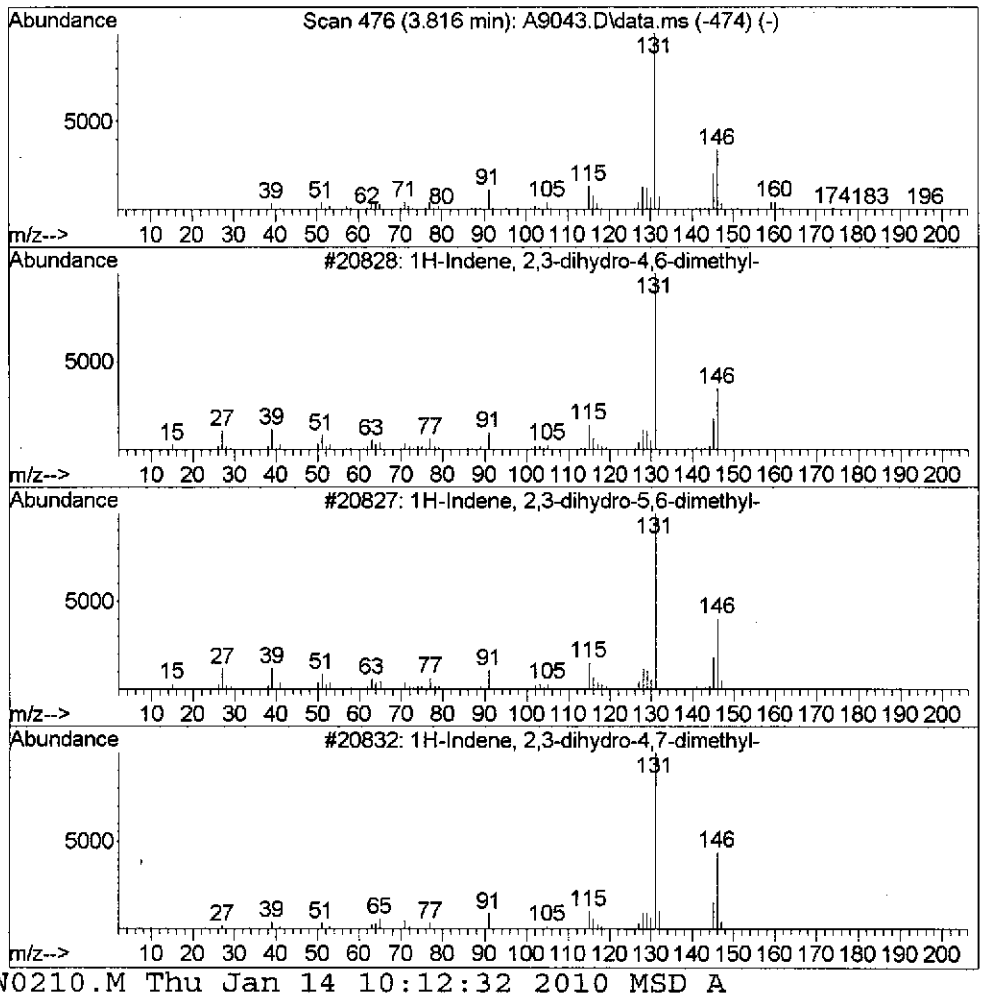
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

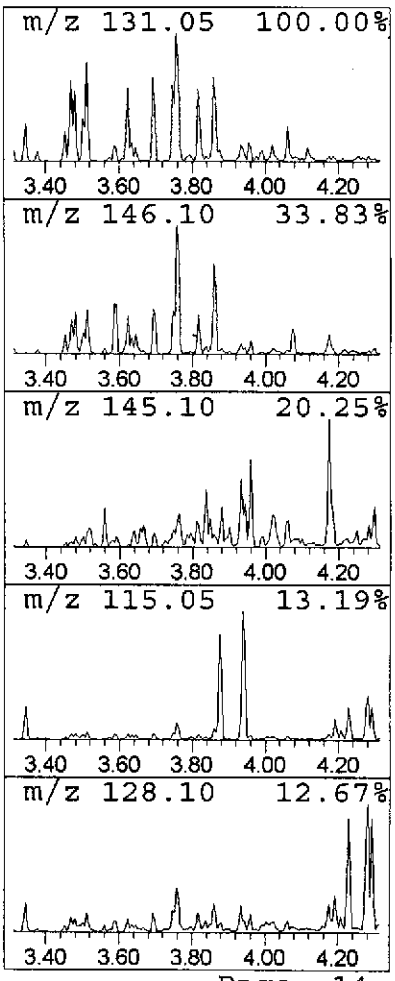
****

Peak Number 9 Substituted benzene Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.82	5.72 UG	258270	Naphthalene-d8	3.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,6-dimet...	146	C11H14	001685-82-1	93
2	1H-Indene, 2,3-dihydro-5,6-dimet...	146	C11H14	001075-22-5	93
3	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90
4	.alpha.,.beta.,.beta.-Trimethyls...	146	C11H14	000769-57-3	87
5	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	81





0229

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

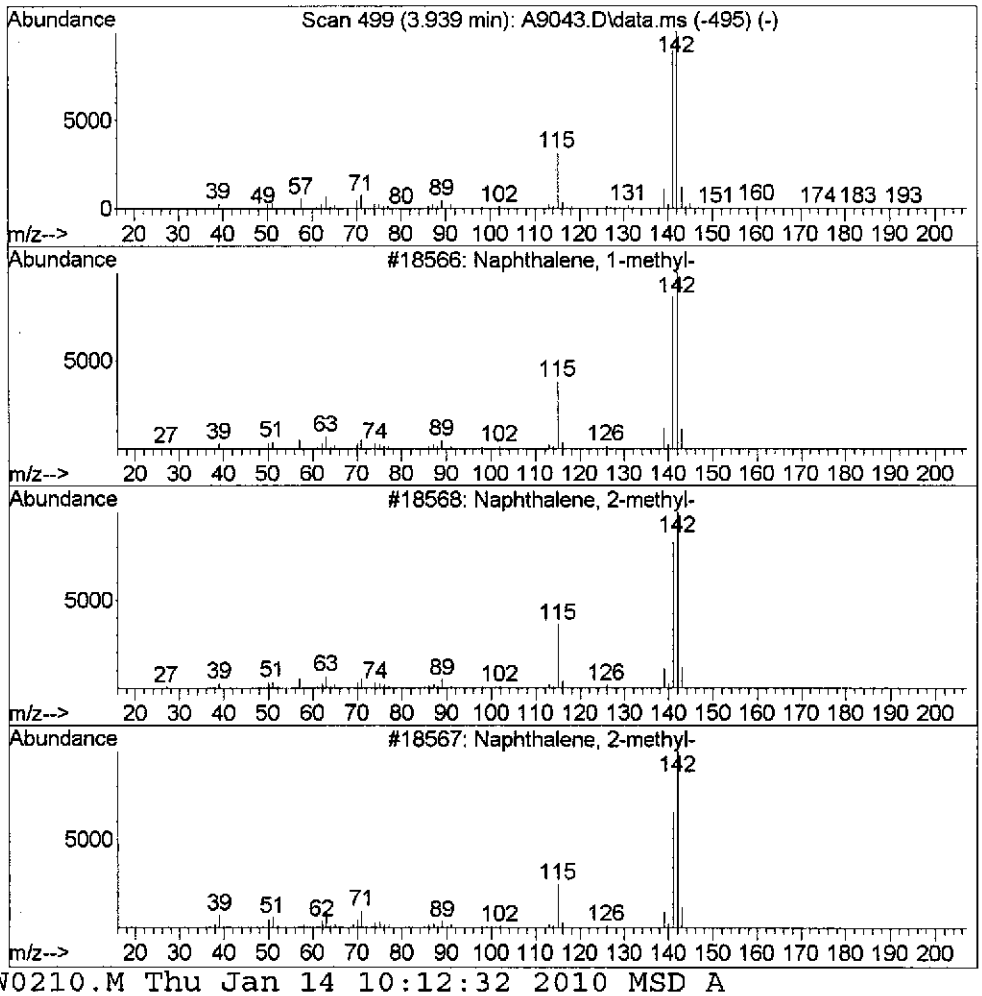
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

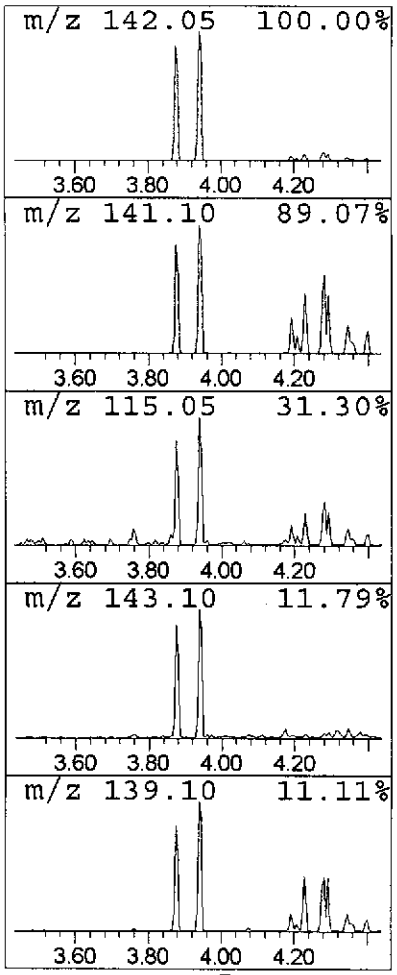
****

Peak Number 10 Substituted naphthalene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.94	67.60 UG	3050980	Naphthalene-d8	3.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
3	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
5	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	91





0230

Library Search Compound Report

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Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

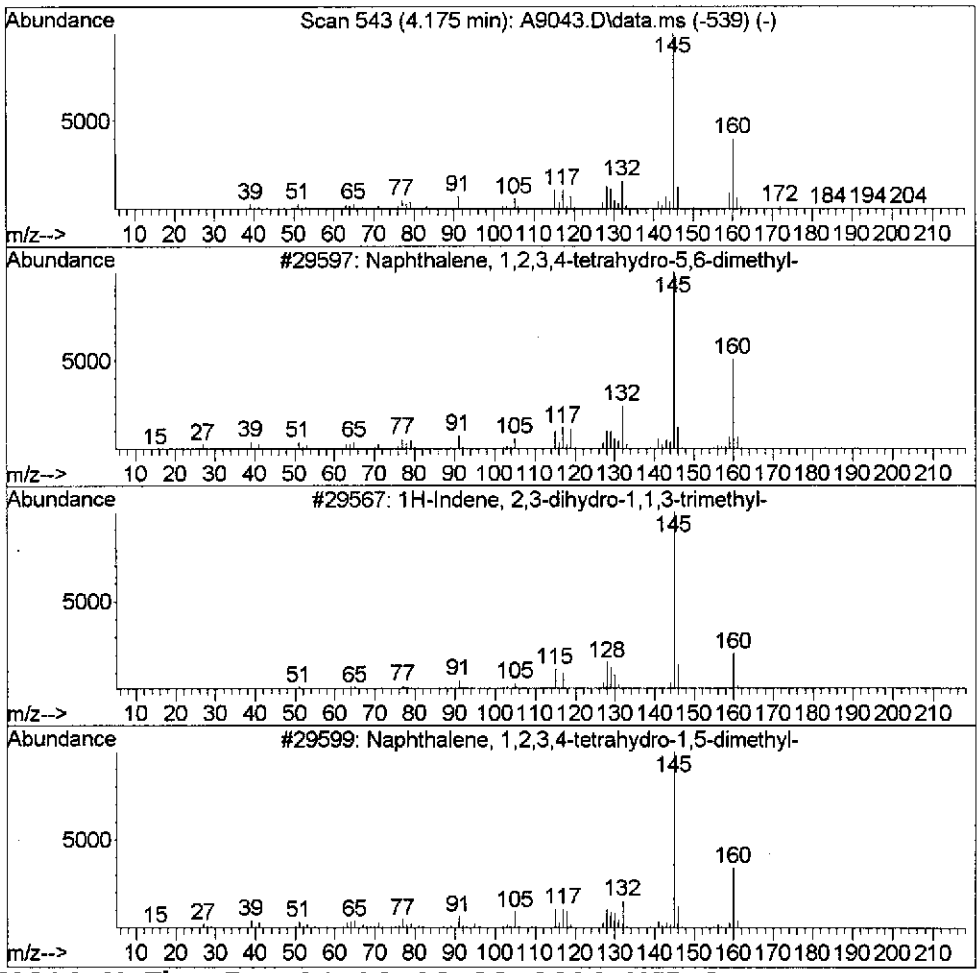
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

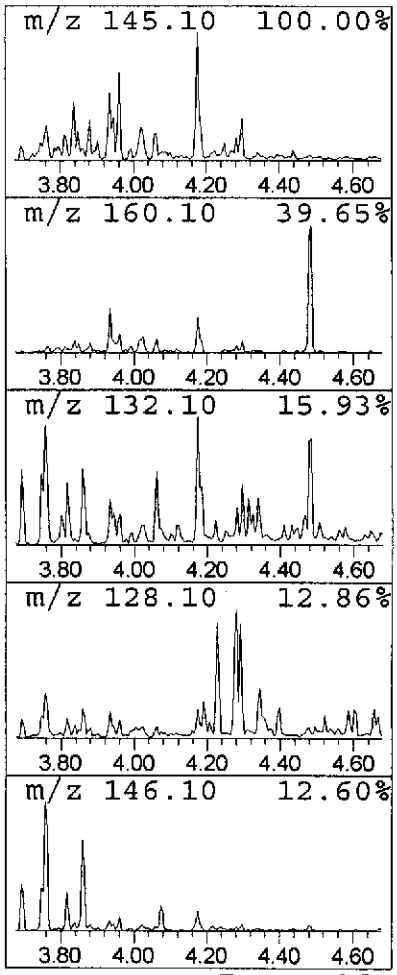
****

Peak Number 11 Substituted benzene Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.17	8.02 UG	366377	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	020027-77-4	94
2	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	94
3	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	021564-91-0	94
4	Benzene, 4-(2-butenyl)-1,2-dimet...	160	C12H16	054340-86-2	93
5	Benzene, 1-(2-butenyl)-2,3-dimet...	160	C12H16	054340-85-1	90





0231

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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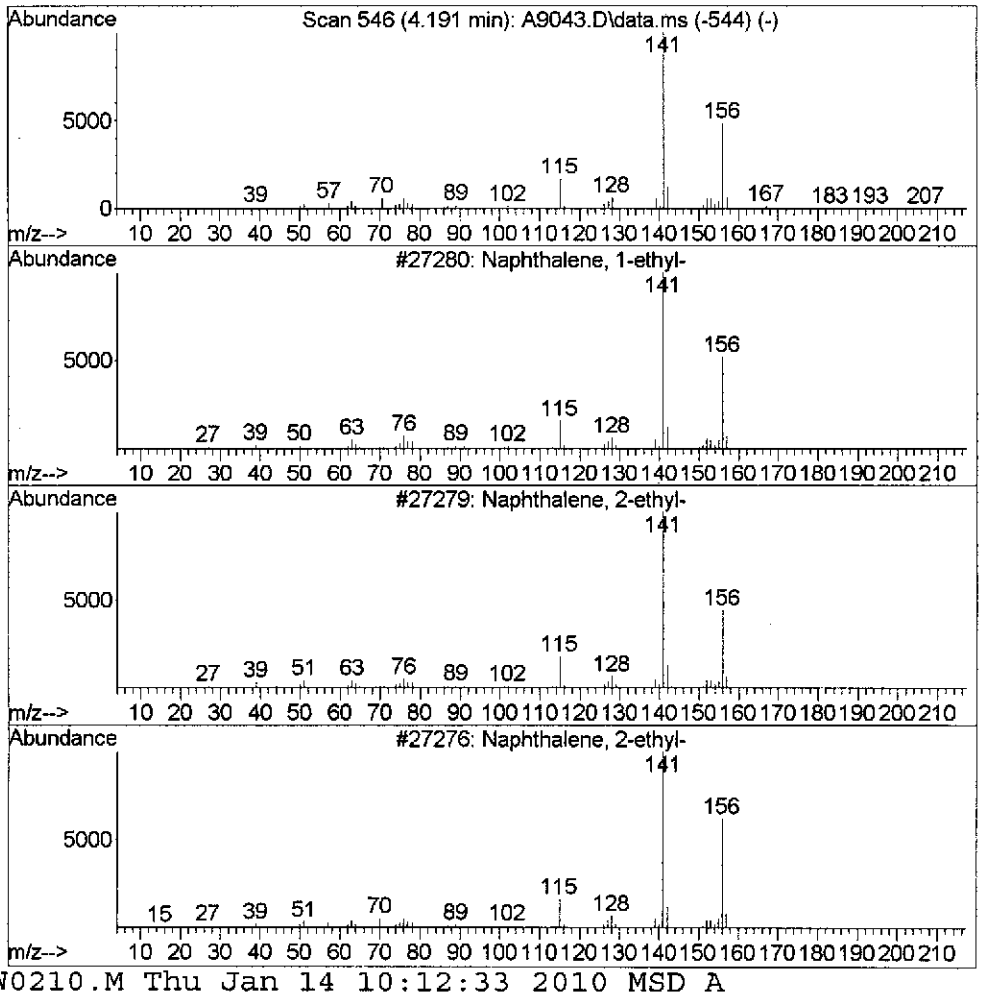
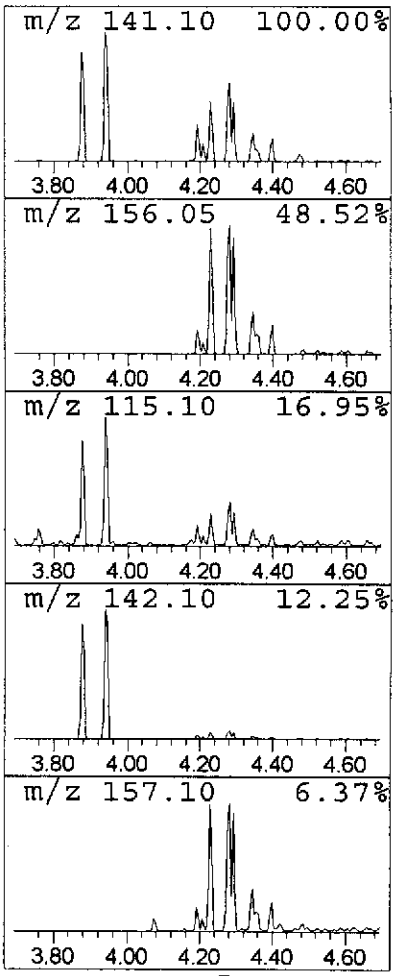
Peak Number 12 Substituted naphthalene Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.19	13.33 UG	608550	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-ethyl-	156	C12H12	001127-76-0	97
2	Naphthalene, 2-ethyl-	156	C12H12	000939-27-5	97
3	Naphthalene, 2-ethyl-	156	C12H12	000939-27-5	97
4	Naphthalene, 2-ethyl-	156	C12H12	000939-27-5	97
5	Naphthalene, 1-ethyl-	156	C12H12	001127-76-0	94





0232

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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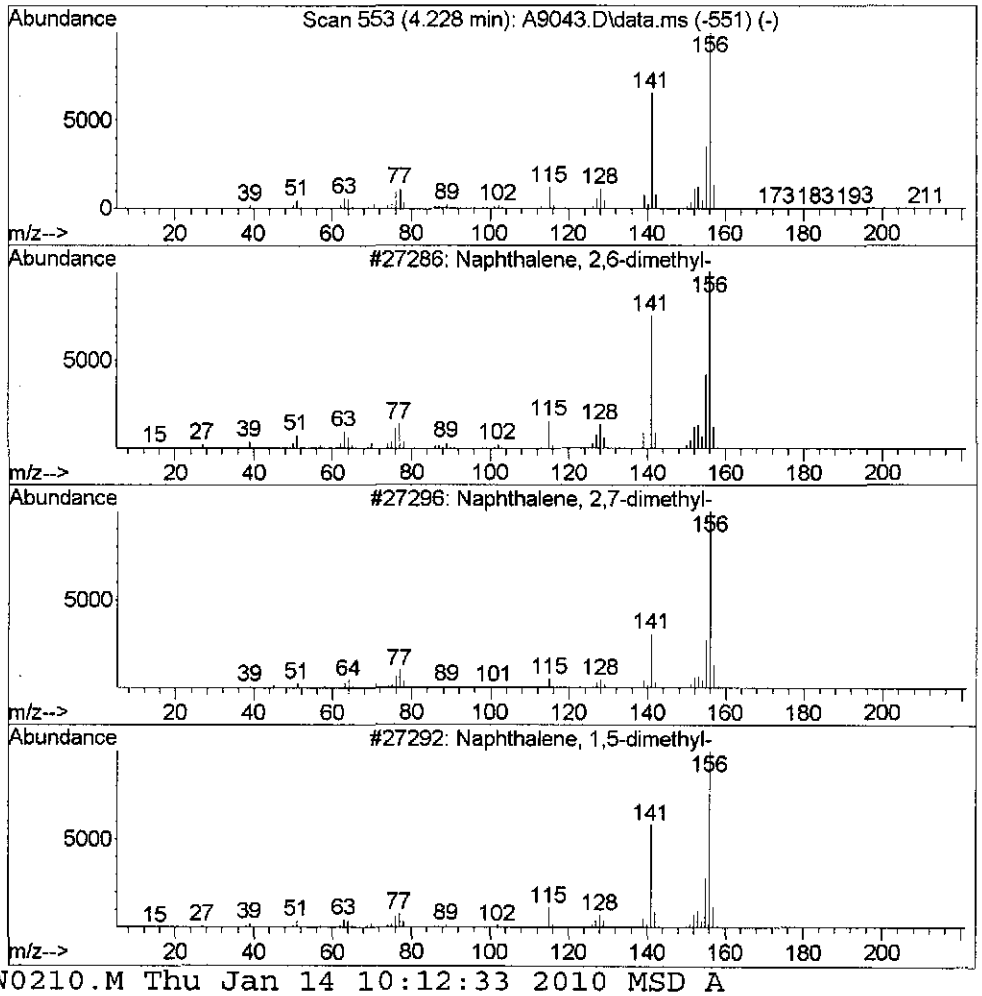
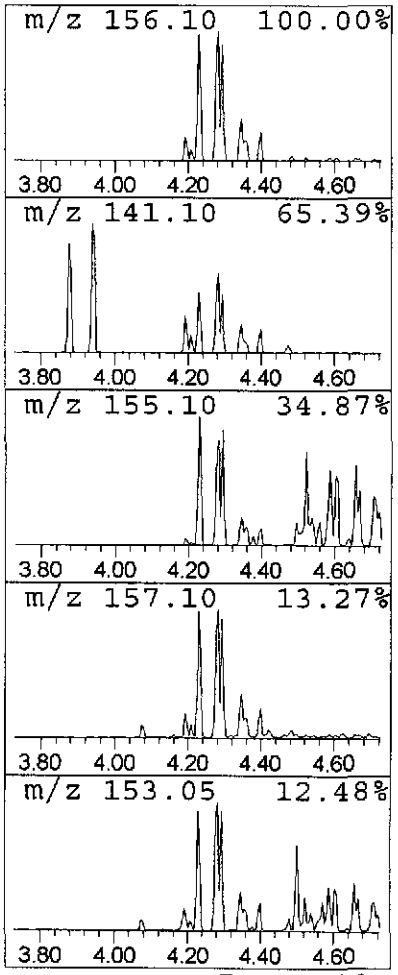
Peak Number 13 Substituted naphthalene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.23	40.28 UG	1839630	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,6-dimethyl-	156	C12H12	000581-42-0	98
2	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
3	Naphthalene, 1,5-dimethyl-	156	C12H12	000571-61-9	97
4	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	97
5	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97





0233

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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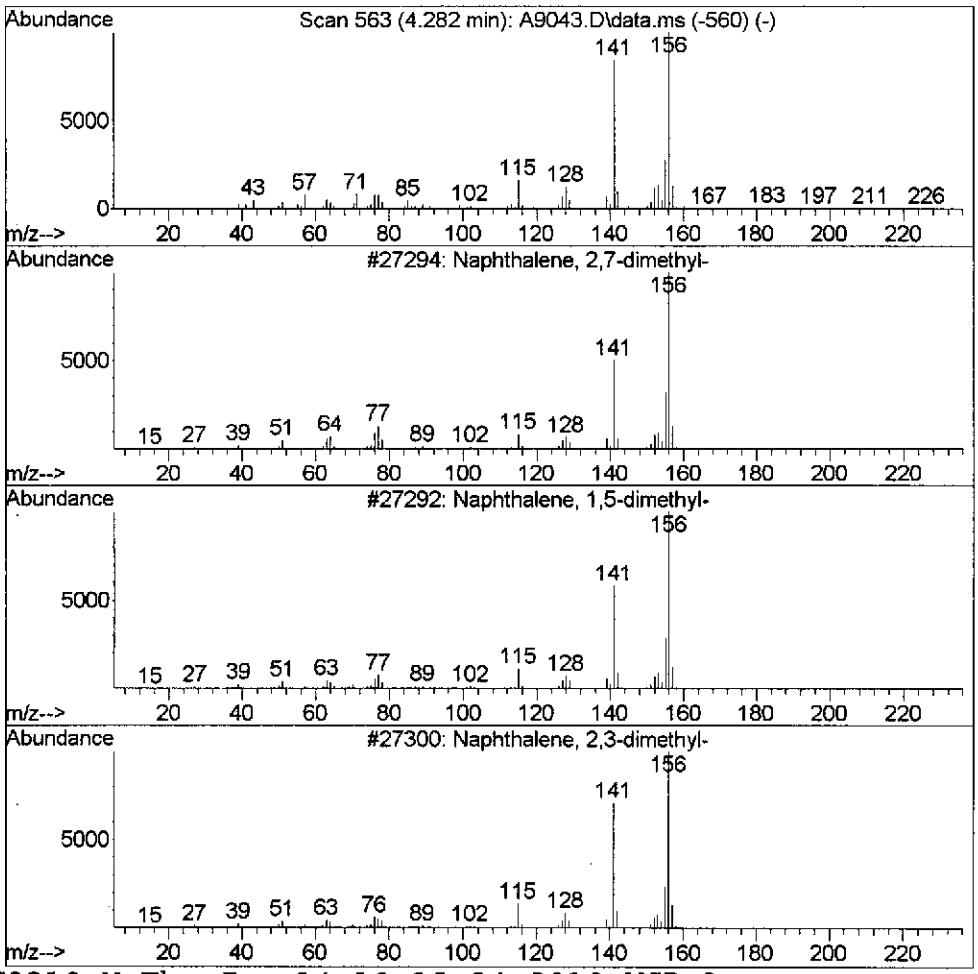
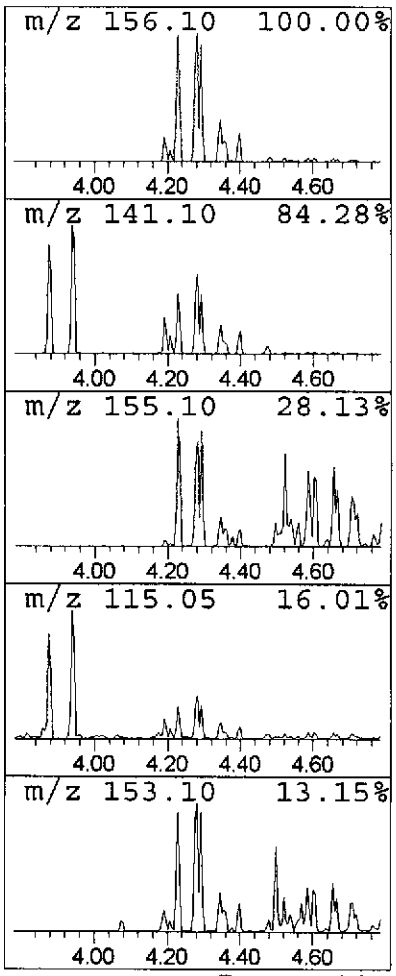
Peak Number 14 Substituted naphthalene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.28	58.91 UG	2690370	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
2	Naphthalene, 1,5-dimethyl-	156	C12H12	000571-61-9	97
3	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	97
4	Naphthalene, 1,3-dimethyl-	156	C12H12	000575-41-7	97
5	Naphthalene, 1,4-dimethyl-	156	C12H12	000571-58-4	97





0234

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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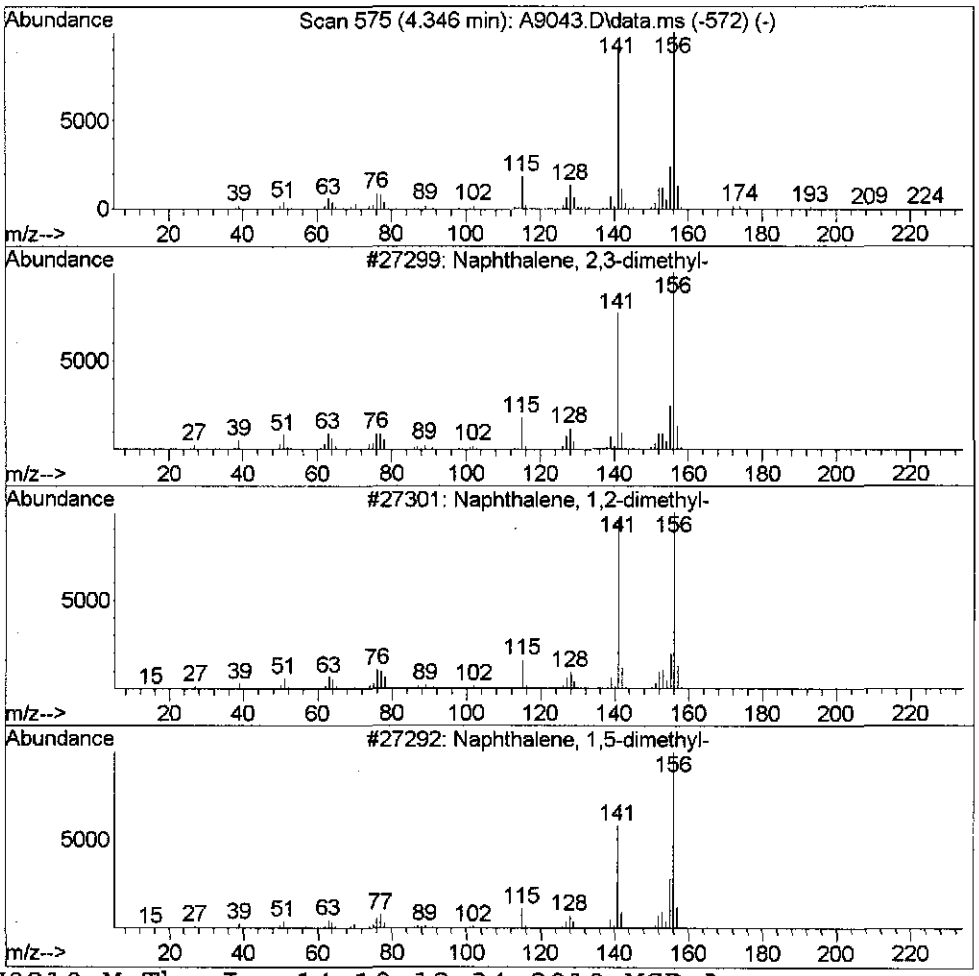
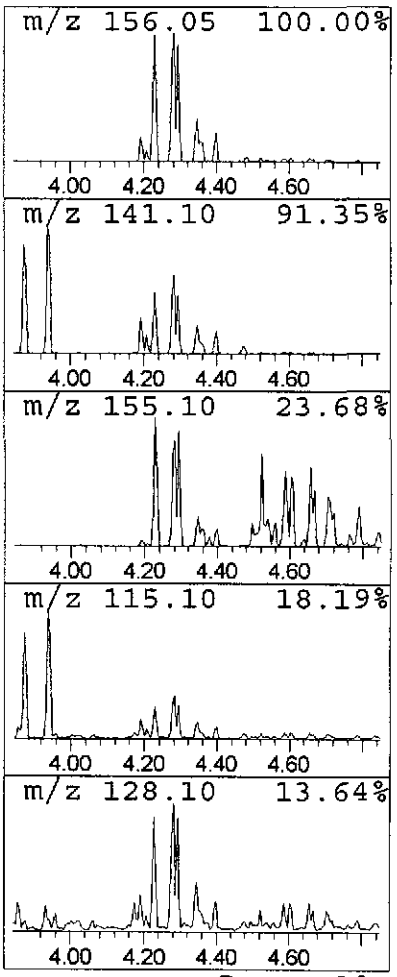
Peak Number 15 Substituted naphthalene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.35	17.36 UG	792595	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	97
2	Naphthalene, 1,2-dimethyl-	156	C12H12	000573-98-8	97
3	Naphthalene, 1,5-dimethyl-	156	C12H12	000571-61-9	97
4	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	97
5	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	97





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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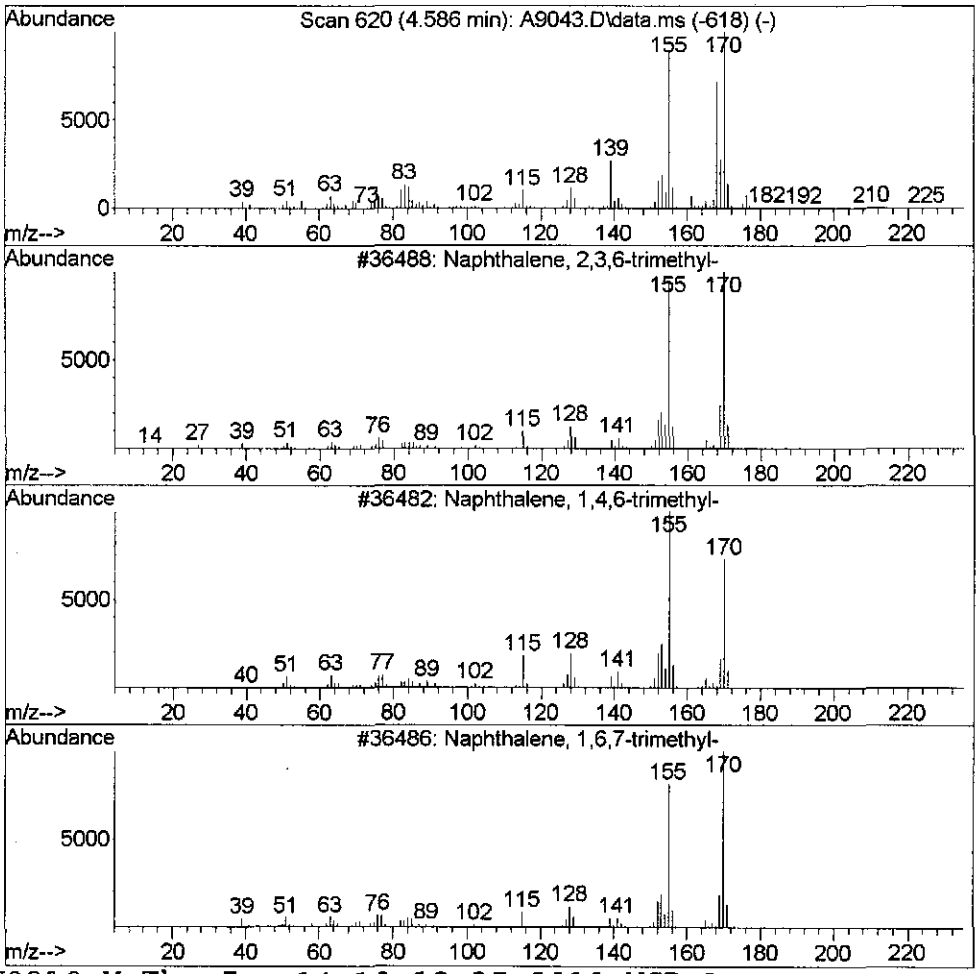
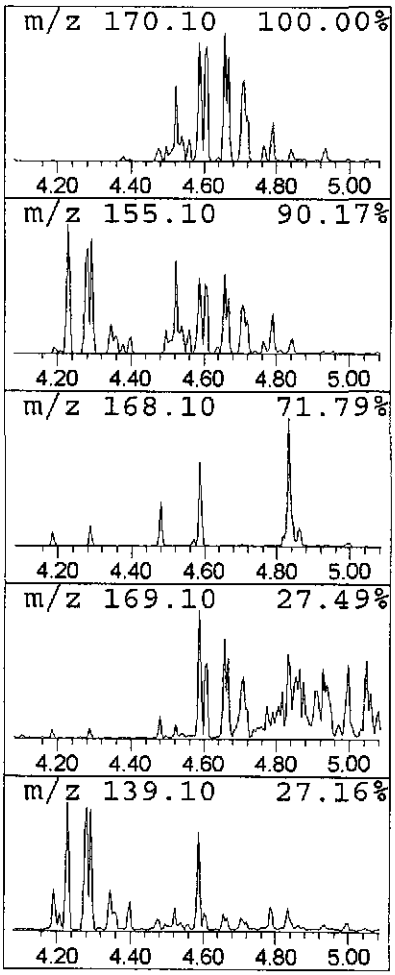
Peak Number 16 Substituted naphthalene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.59	13.84 UG	632195	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	96
2	Naphthalene, 1,4,6-trimethyl-	170	C13H14	002131-42-2	95
3	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	95
4	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	95
5	Naphthalene, 1,4,5-trimethyl-	170	C13H14	002131-41-1	94





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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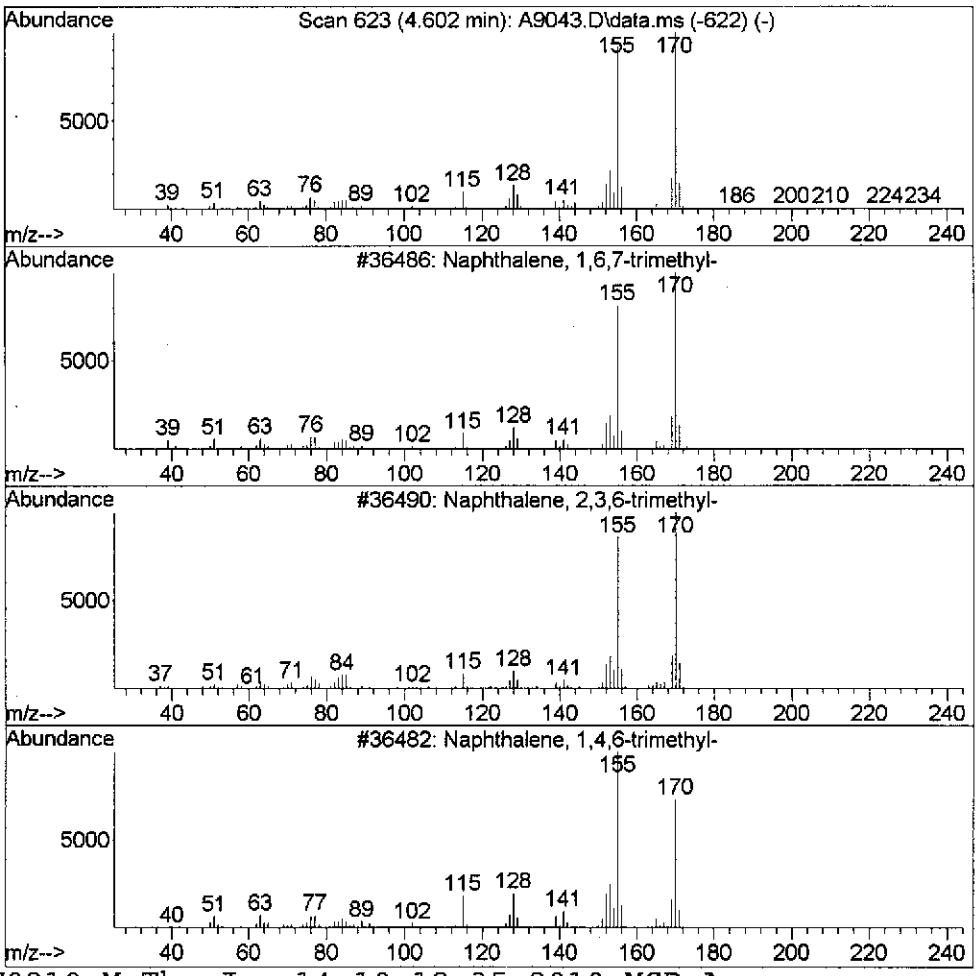
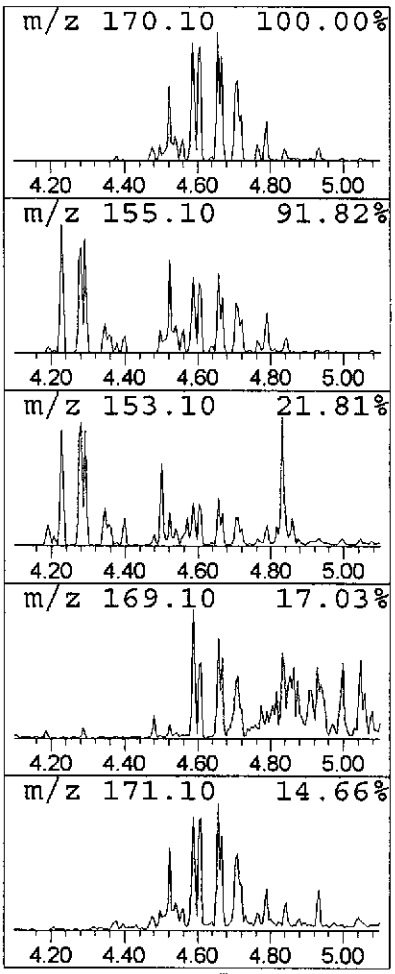
Peak Number 17 Substituted naphthalene Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.60	10.51 UG	479944	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	98
2	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	97
3	Naphthalene, 1,4,6-trimethyl-	170	C13H14	002131-42-2	97
4	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	96
5	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	96





0237

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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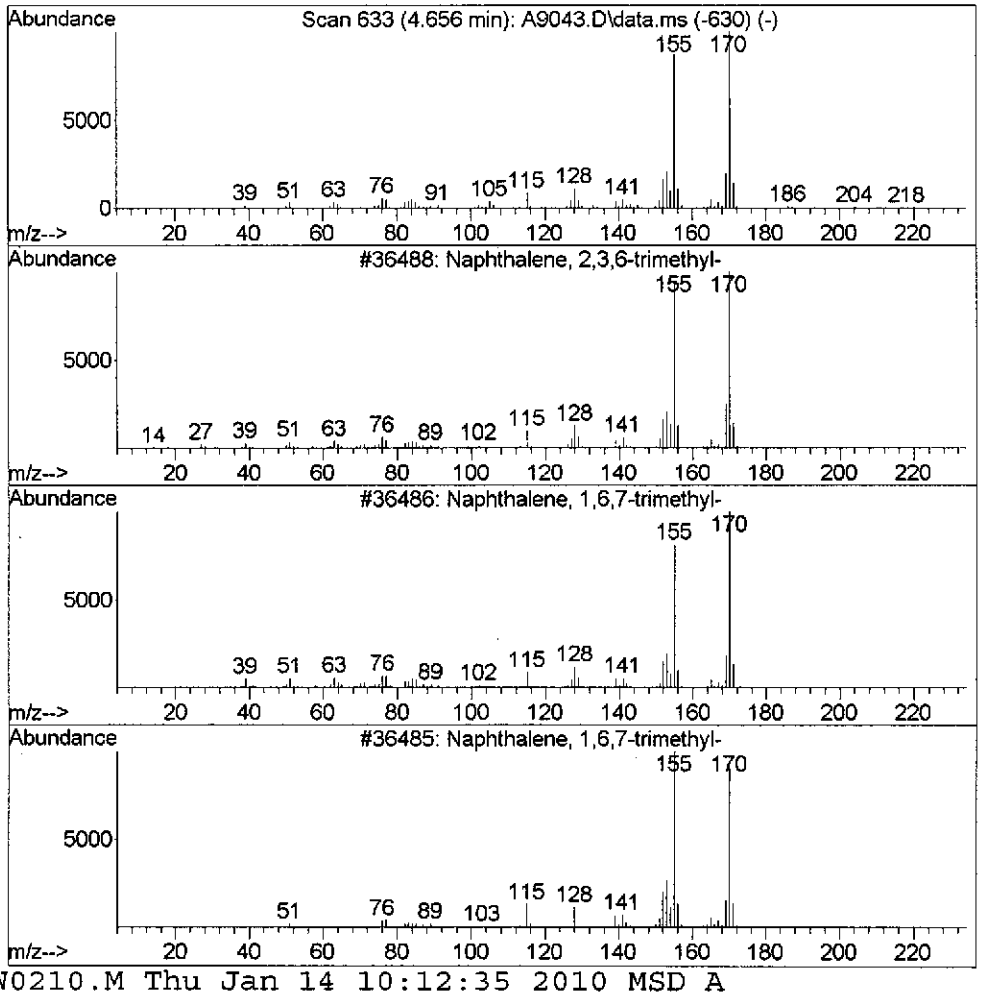
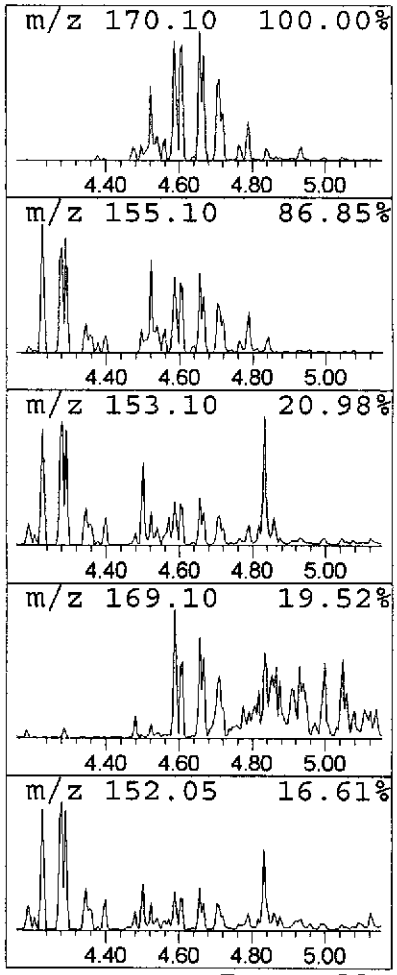
Peak Number 18 Substituted naphthalene Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.66	13.87 UG	633477	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	98
2	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	97
3	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	97
4	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	97
5	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	97





0238

Library Search Compound Report

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Data File : A9043.D
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Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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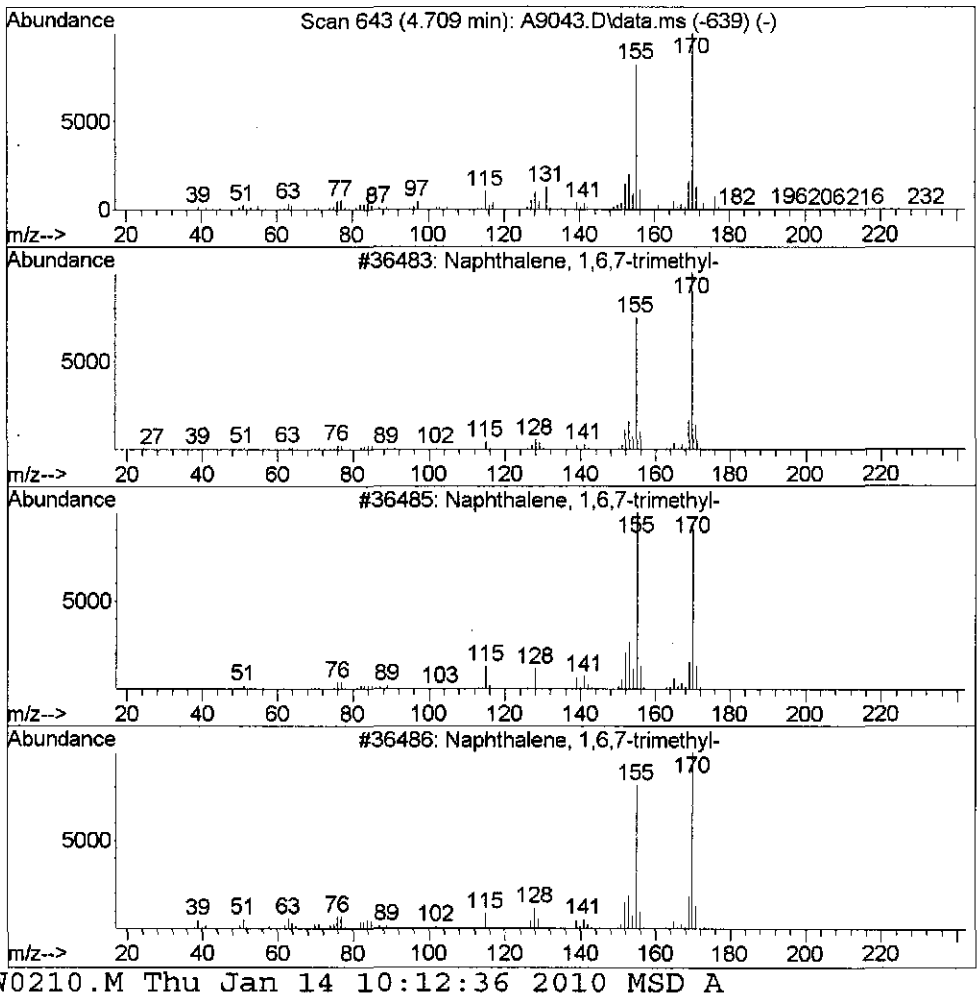
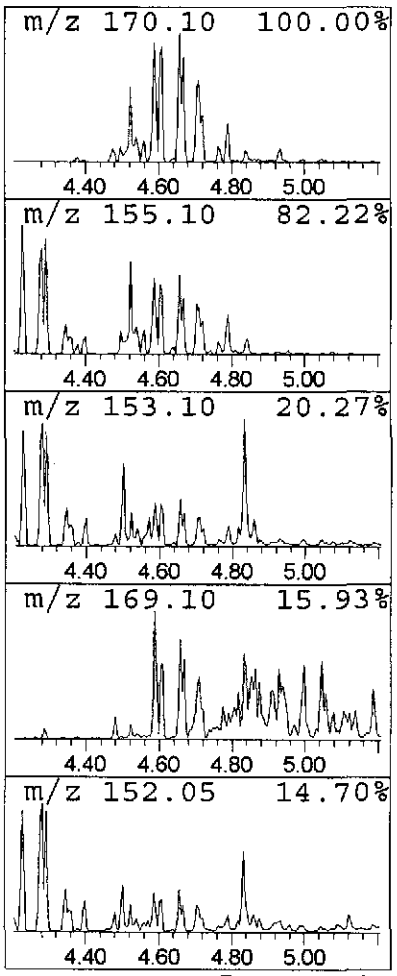
Peak Number 19 Substituted naphthalene Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.71	12.07 UG	551142	Acenaphthene-d10	4.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	97
2	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	95
3	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	95
4	Naphthalene, 1,4,6-trimethyl-	170	C13H14	002131-42-2	95
5	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	94





0239

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9043.D
Acq On : 13 Jan 2010 14:57
Operator : LIMS import
Sample : MW10,00176-006,A,1000ml,100,01/08/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

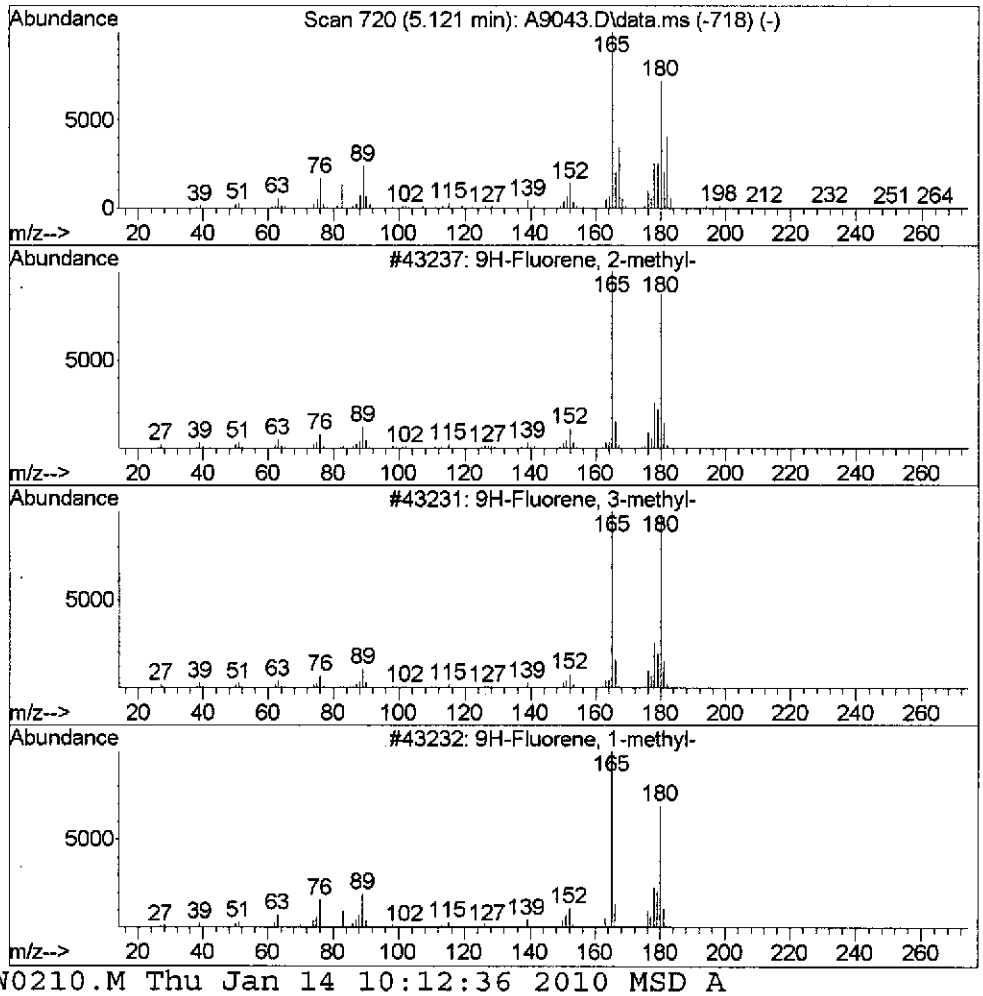
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

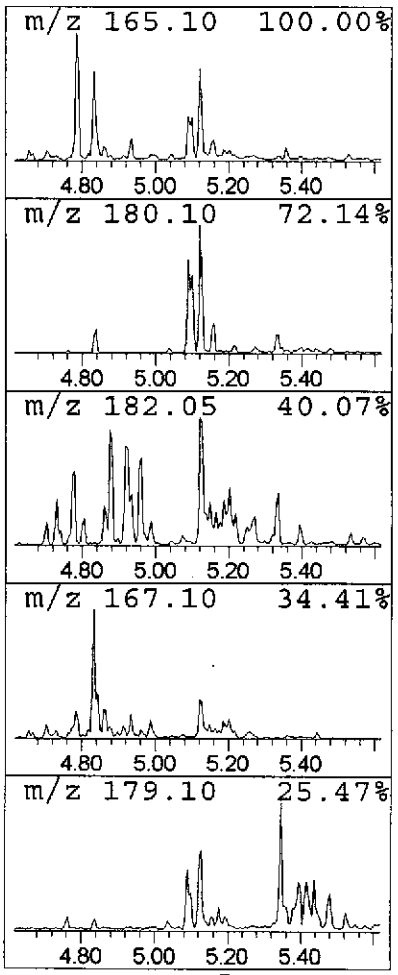
****

Peak Number 20 Unknown — Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.12	6.51 UG	245290	Phenanthrene-d10	5.34

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9H-Fluorene, 2-methyl-	180	C14H12	001430-97-3	83
2	9H-Fluorene, 3-methyl-	180	C14H12	002523-39-9	60
3	9H-Fluorene, 1-methyl-	180	C14H12	001730-37-6	60
4	9H-Fluorene, 1-methyl-	180	C14H12	001730-37-6	55
5	9H-Fluorene, 9-methyl-	180	C14H12	002523-37-7	55





0240

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9196.D
Acq On : 22 Jan 2010 11:34
Operator :
Sample : MW11-SIM,00176-007,A,1000ml,100,01/22/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 22 11:52:03 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.366	152	1859	1.00	UG	0.00
23) Naphthalene-d8	2.920	136	5792	1.00	UG	0.00
43) Acenaphthene-d10	3.787	164	3267	1.00	UG	0.00
66) Phenanthrene-d10	4.587	188	43037	1.00	UG	0.00
82) Chrysene-d12	6.249	240	60546	1.00	UG	0.00
92) Perylene-d12	7.636	264	71251	1.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.000	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		
47) 2-Fluorobiphenyl	0.000	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
84) Terphenyl-d14	0.000	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		

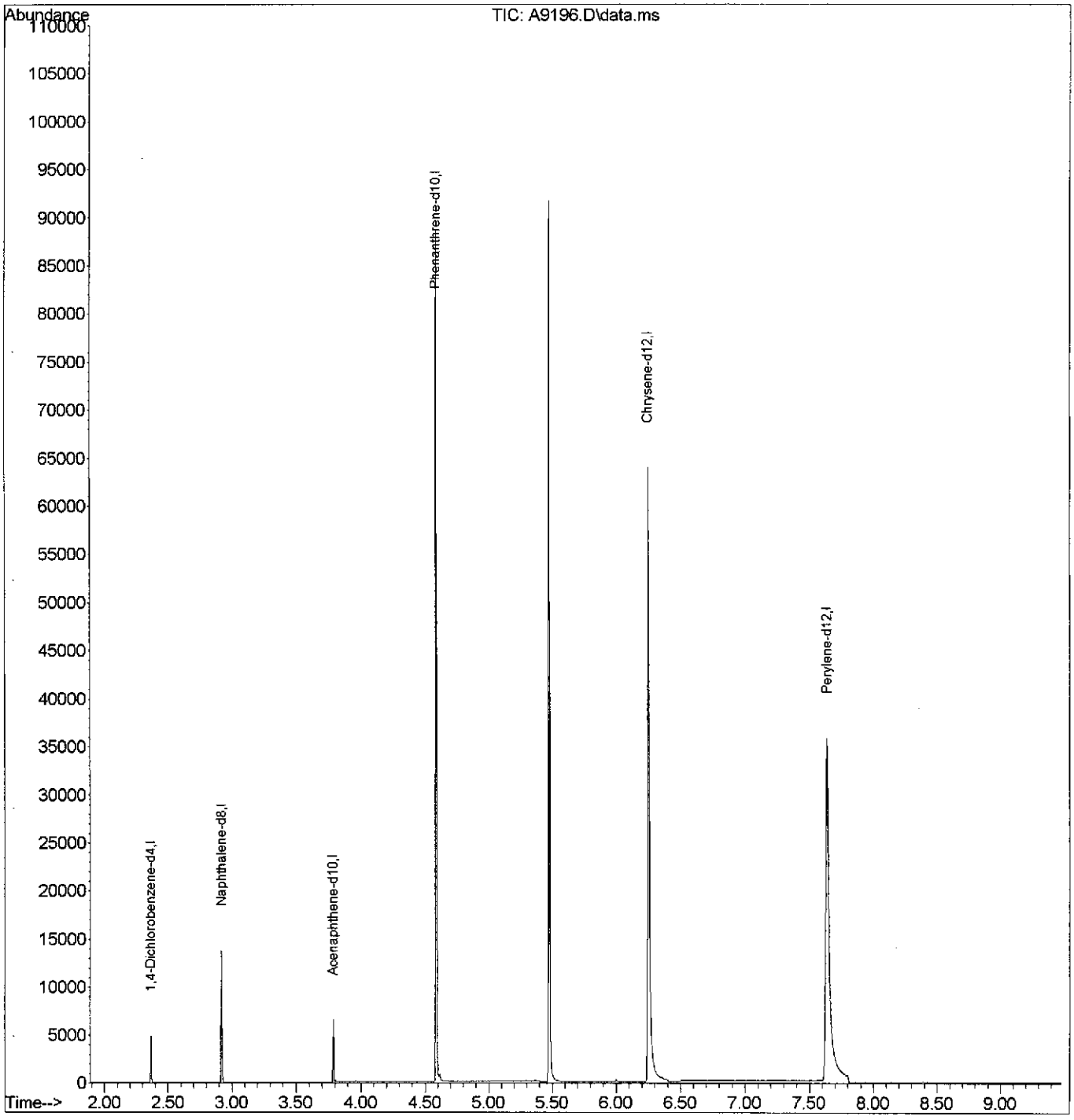
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9196.D
Acq On : 22 Jan 2010 11:34
Operator :
Sample : MW11-SIM,00176-007,A,1000ml,100,01/22/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 22 11:52:03 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration



0242

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9197.D
Acq On : 22 Jan 2010 11:47
Operator :
Sample : MW9-SIM,00176-008,A,1000ml,100,01/22/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 22 12:09:39 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.366	152	1952	1.00	UG	0.00
23) Naphthalene-d8	2.920	136	6087	1.00	UG	0.00
43) Acenaphthene-d10	3.787	164	3524	1.00	UG	0.00
66) Phenanthrene-d10	4.587	188	47541	1.00	UG	0.00
82) Chrysene-d12	6.248	240	67135	1.00	UG	0.00
92) Perylene-d12	7.635	264	78150	1.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.000	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.000	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.000	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

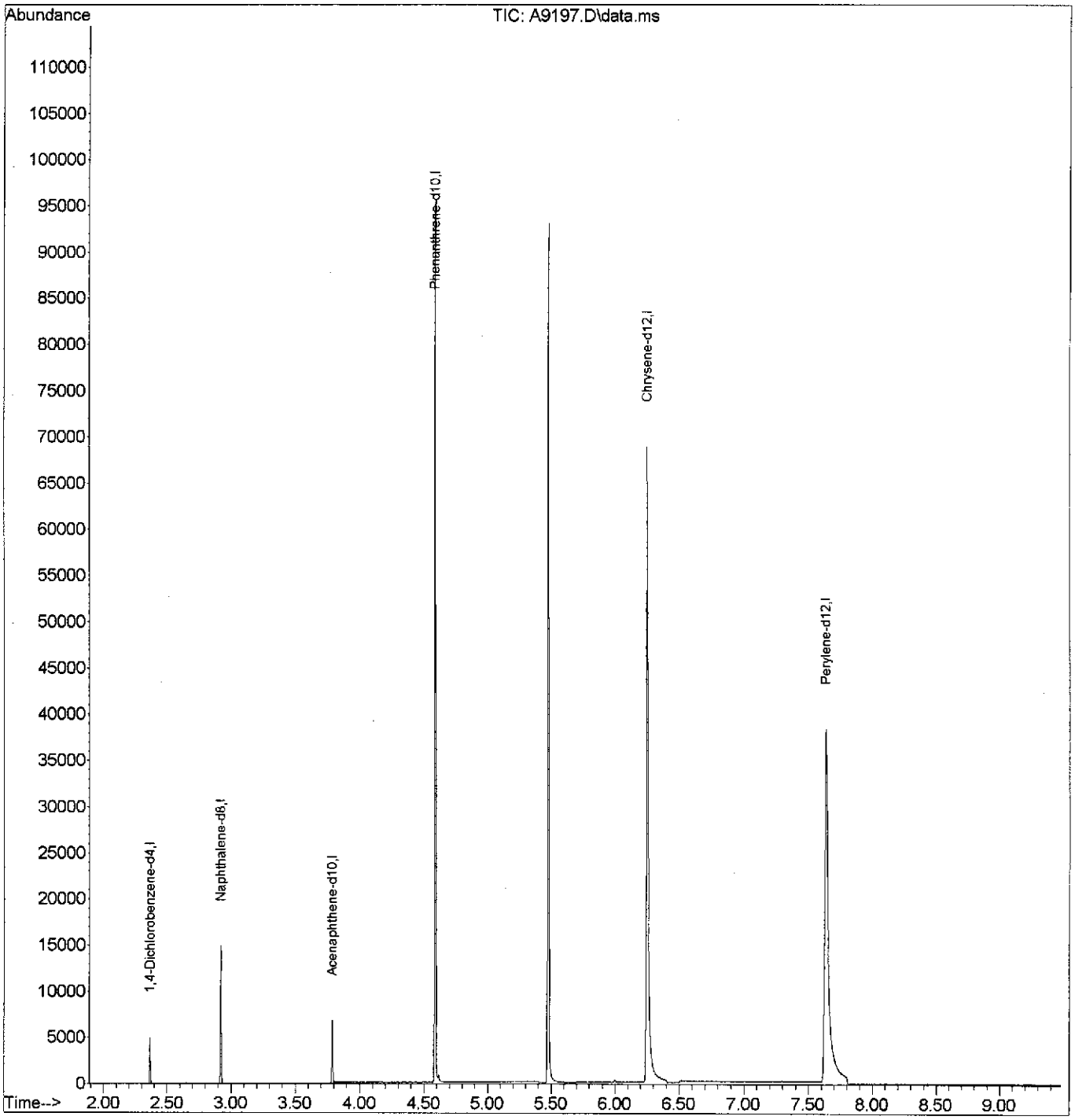
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9197.D
Acq On : 22 Jan 2010 11:47
Operator :
Sample : MW9-SIM,00176-008,A,1000ml,100,01/22/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 22 12:09:39 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9198.D
Acq On : 22 Jan 2010 12:00
Operator :
Sample : MW8-SIM,00176-009,A,1000ml,100,01/22/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 12:10:40 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.366	152	1749	1.00	UG	0.00
23) Naphthalene-d8	2.920	136	5511	1.00	UG	0.00
43) Acenaphthene-d10	3.787	164	3425	1.00	UG	0.00
66) Phenanthrene-d10	4.587	188	43906	1.00	UG	0.00
82) Chrysene-d12	6.248	240	56027	1.00	UG	0.00
92) Perylene-d12	7.635	264	65734	1.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.000	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.000	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.000	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

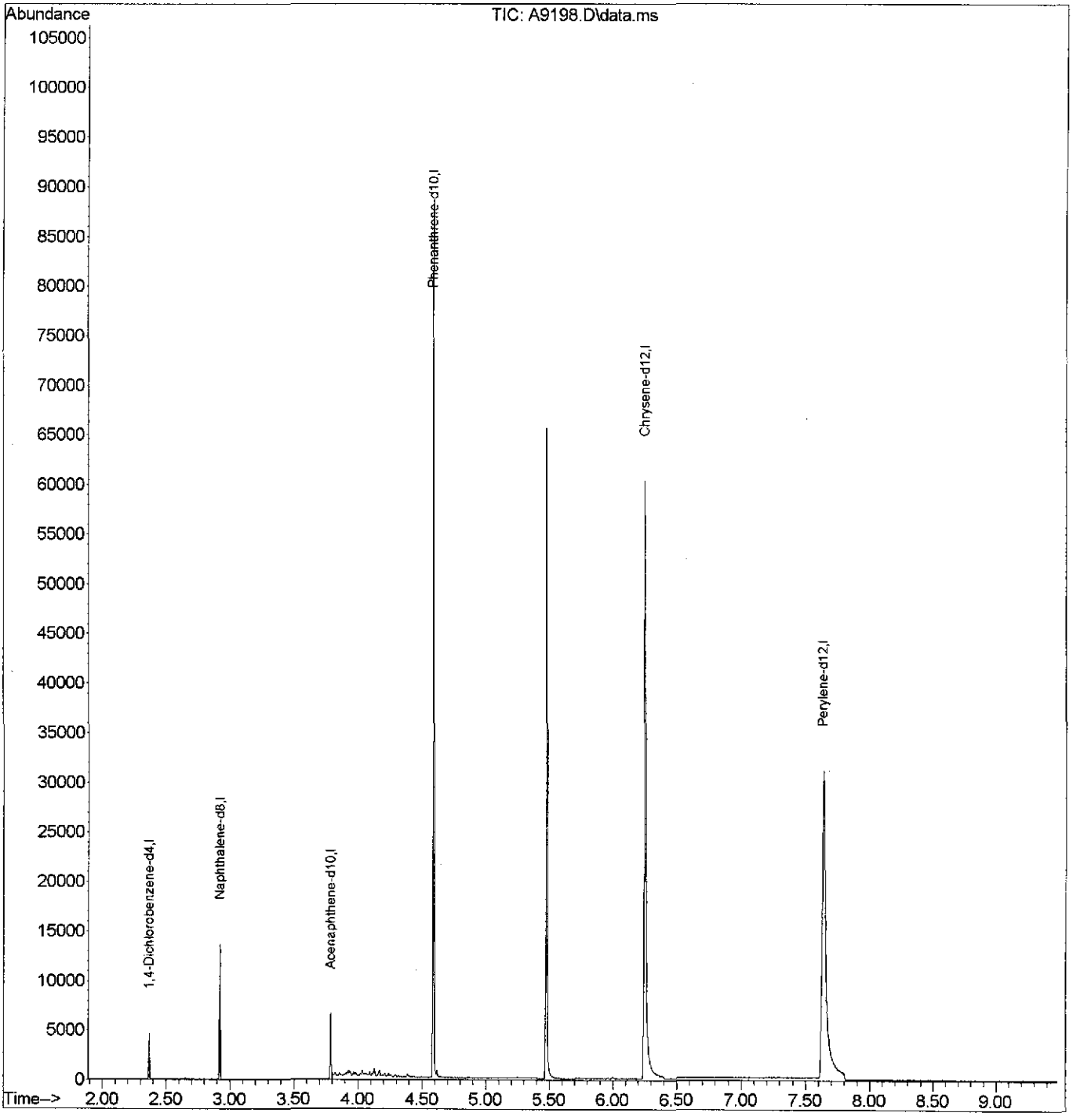
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9198.D
Acq On : 22 Jan 2010 12:00
Operator :
Sample : MW8-SIM,00176-009,A,1000ml,100,01/22/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 12:10:40 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9199.D
Acq On : 22 Jan 2010 12:12
Operator :
Sample : MW10-SIM,00176-010,A,1000ml,100,01/22/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 22 12:52:21 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.366	152	2939	1.00	UG	0.00
23) Naphthalene-d8	2.921	136	9400	1.00	UG	0.00
43) Acenaphthene-d10	3.788	164	5738	1.00	UG	0.00
66) Phenanthrene-d10	4.588	188	66570	1.00	UG	0.00
82) Chrysene-d12	6.247	240	96732	1.00	UG	0.00
92) Perylene-d12	7.634	264	126617	1.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
24) Nitrobenzene-d5	0.000	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		
47) 2-Fluorobiphenyl	0.000	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery =	0.00%#		
84) Terphenyl-d14	0.000	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery =	0.00%#		

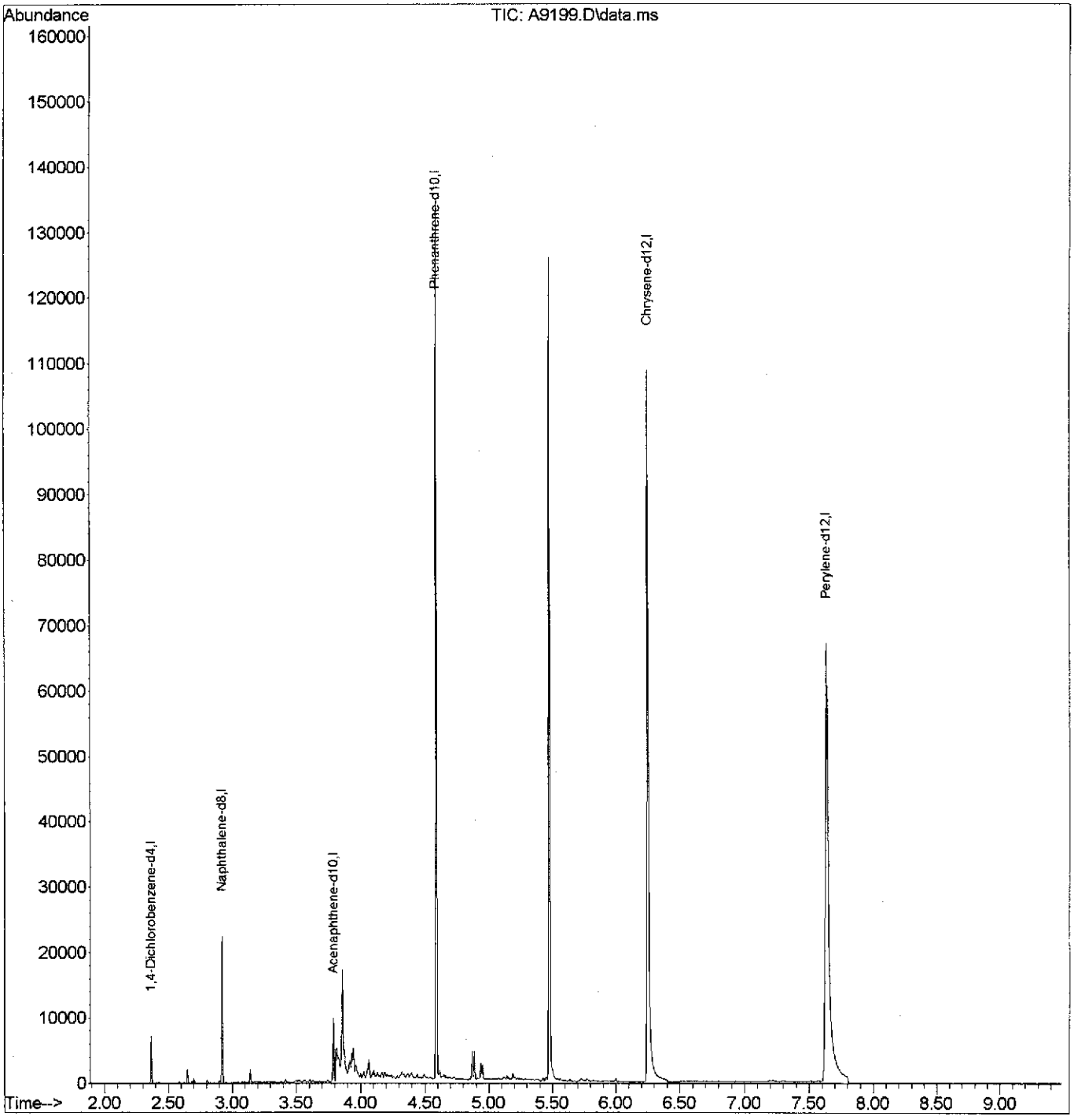
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9199.D
Acq On : 22 Jan 2010 12:12
Operator :
Sample : MW10-SIM,00176-010,A,1000ml,100,01/22/10
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 22 12:52:21 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9029.D
Acq On : 13 Jan 2010 11:25
Operator : LIMS import
Sample : .,Method_Blank,A,1000ml,100,01/08/10
Misc : NA,NA,NA,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 13 11:34:23 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.779	152	145199	40.00	UG	0.00
23) Naphthalene-d8	3.479	136	589392	40.00	UG	0.00
43) Acenaphthene-d10	4.479	164	351605	40.00	UG	0.00
66) Phenanthrene-d10	5.319	188	535825	40.00	UG	0.00
82) Chrysene-d12	6.988	240	487934	40.00	UG	0.00
92) Perylene-d12	8.298	264	399784	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	2.121	112	364929	72.84	UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 72.84%			
6) Phenol-d5	2.559	99	520793	79.82	UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 79.82%			
24) Nitrobenzene-d5	3.078	82	154091	30.45	UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 60.90%			
47) 2-Fluorobiphenyl	4.073	172	406170	35.92	UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 71.84%			
70) 2,4,6-Tribromophenol	4.929	330	154007	75.77	UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 75.77%			
84) Terphenyl-d14	6.228	244	397857	36.58	UG	0.00
Spiked Amount 50.000	Range 23 - 124		Recovery = 73.16%			

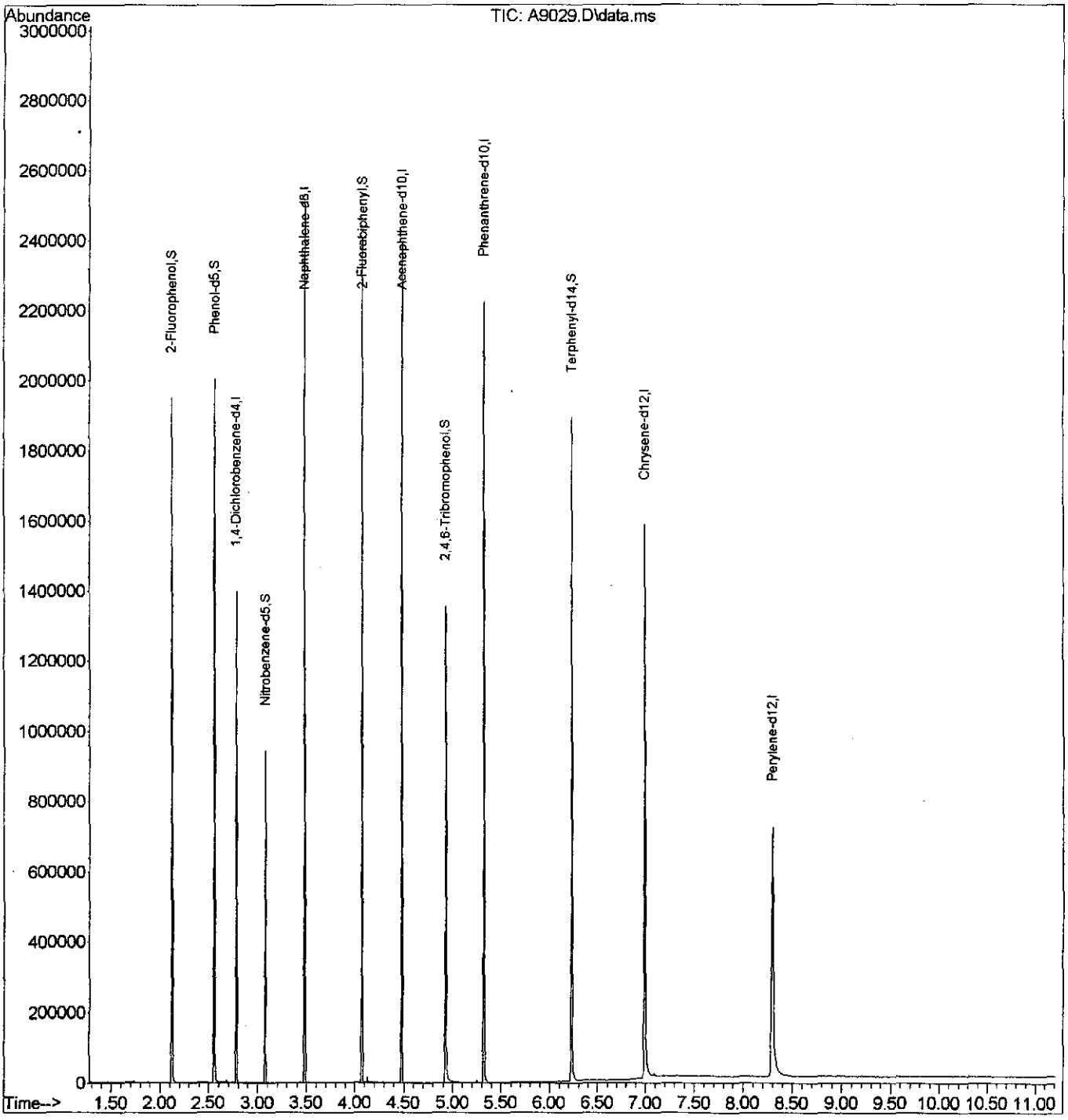
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9029.D
Acq On : 13 Jan 2010 11:25
Operator : LIMS import
Sample : .,Method_Blank,A,1000ml,100,01/08/10
Misc : NA,NA,NA,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 13 11:34:23 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-13-10\
Data File : A9029.D
Acq On : 13 Jan 2010 11:25
Operator : LIMS import
Sample : .,Method_Blank,A,1000ml,100,01/08/10
Misc : NA,NA,NA,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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AW0210.M Wed Jan 13 11:35:11 2010 MSD_A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9212.D
Acq On : 22 Jan 2010 15:00
Operator :
Sample : .,Method_Blank,A,1000ml,100,01/22/10
Misc : NA,NA,NA,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 25 07:44:45 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.778	152	192349	40.00	UG	0.00
23) Naphthalene-d8	3.479	136	817320	40.00	UG	0.00
43) Acenaphthene-d10	4.474	164	451810	40.00	UG	0.00
66) Phenanthrene-d10	5.319	188	685225	40.00	UG	0.00
82) Chrysene-d12	6.982	240	505846	40.00	UG	-0.01
92) Perylene-d12	8.288	264	382962	40.00	UG	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	2.121	112	363879	54.82	UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 54.82%			
6) Phenol-d5	2.554	99	475257	54.98	UG	-0.01
Spiked Amount 100.000	Range 10 - 102		Recovery = 54.98%			
24) Nitrobenzene-d5	3.073	82	204452	29.14	UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 58.28%			
47) 2-Fluorobiphenyl	4.073	172	472951	32.55	UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 65.10%			
70) 2,4,6-Tribromophenol	4.923	330	119879	46.12	UG	-0.01
Spiked Amount 100.000	Range 22 - 115		Recovery = 46.12%			
84) Terphenyl-d14	6.223	244	409912	36.35	UG	0.00
Spiked Amount 50.000	Range 23 - 124		Recovery = 72.70%			

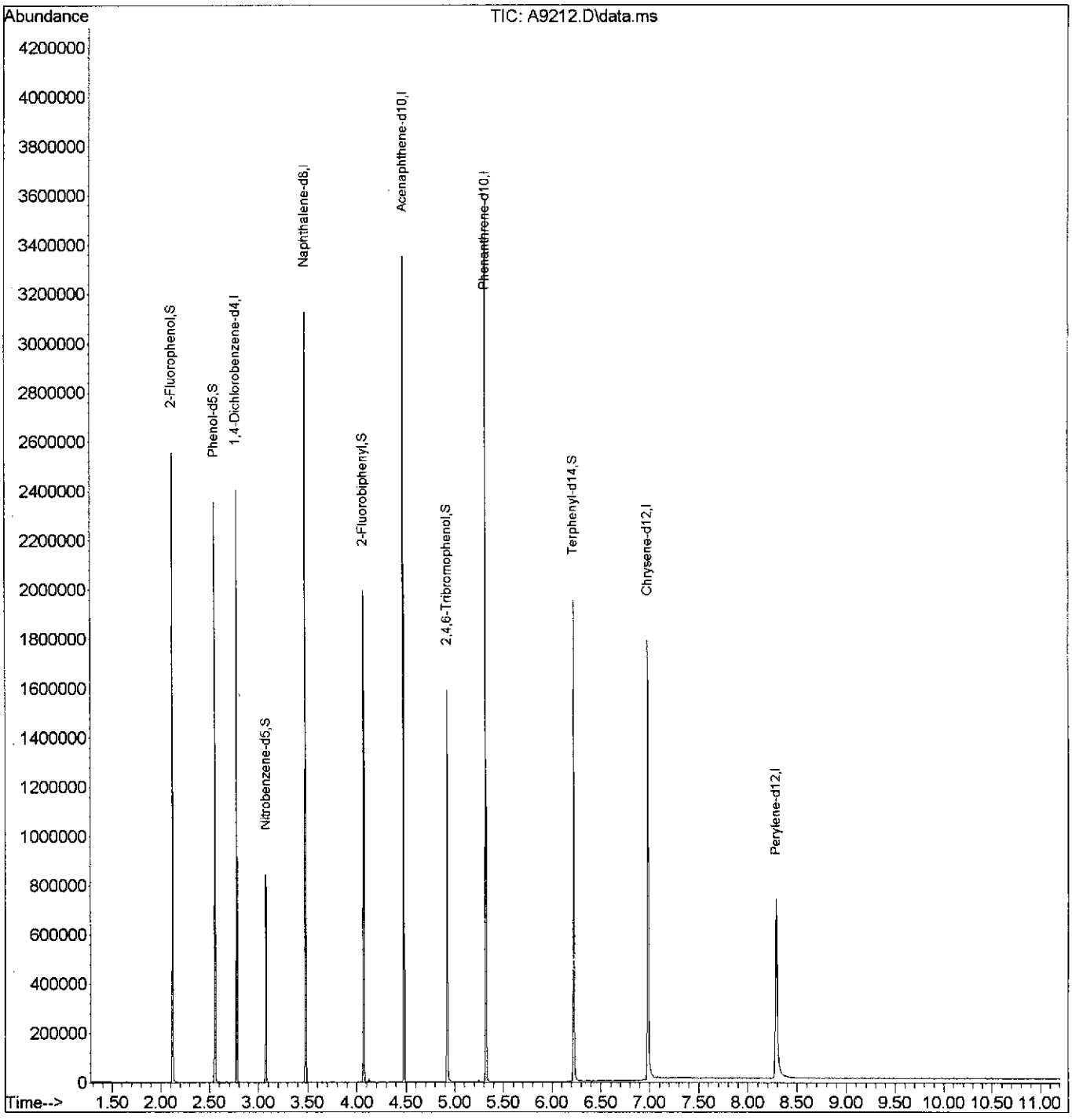
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9212.D
Acq On : 22 Jan 2010 15:00
Operator :
Sample : .,Method_Blank,A,1000ml,100,01/22/10
Misc : NA,NA,NA,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 25 07:44:45 2010
Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Tue Jan 12 13:22:00 2010
Response via : Initial Calibration



0253

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9195.D
Acq On : 22 Jan 2010 11:21
Operator :
Sample : .,Method_Blank,A,1000ml,100,01/22/10
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 11:37:05 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.366	152	1699	1.00	UG	0.00
23) Naphthalene-d8	2.920	136	5332	1.00	UG	0.00
43) Acenaphthene-d10	3.787	164	3027	1.00	UG	0.00
66) Phenanthrene-d10	4.587	188	39776	1.00	UG	0.00
82) Chrysene-d12	6.248	240	56076	1.00	UG	0.00
92) Perylene-d12	7.635	264	63671	1.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.000	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.000	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.000	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

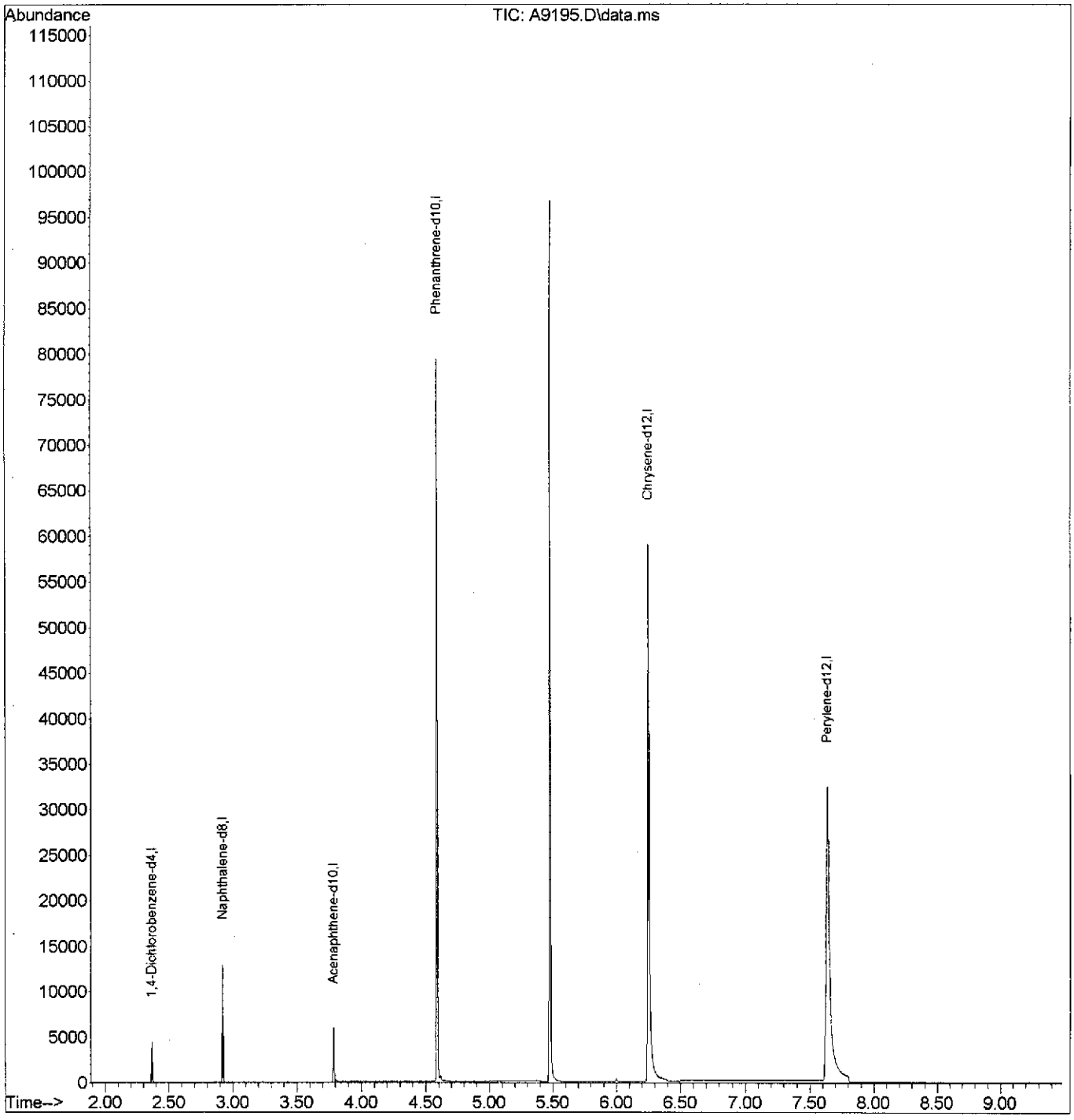
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9195.D
Acq On : 22 Jan 2010 11:21
Operator :
Sample : .,Method_Blank,A,1000ml,100,01/22/10
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 11:37:05 2010
Quant Method : C:\MSDCHEM\1\METHODS\ASIM0110.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 13 06:35:01 2010
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\01-22-10\
Data File : A9212.D
Acq On : 22 Jan 2010 15:00
Operator :
Sample : .,Method_Blank,A,1000ml,100,01/22/10
Misc : NA,NA,NA,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW0210.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

AW0210.M Mon Jan 25 09:50:22 2010 MSD_A

PCB METHOD BLANK SUMMARY

Lab File ID:	Y2481.D	Instrument ID:	GC-Y
Date Extracted:	01/12/2010	Matrix:	AQUEOUS
Date Analyzed:	01/12/2010	Time Analyzed:	20:42

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-1	00239-001	01/12/2010	20:59
MW-2	00239-002	01/12/2010	21:16
MW11	00176-003	01/12/2010	21:33
MW9	00176-004	01/12/2010	21:51
MW8	00176-005	01/12/2010	22:08
MW10	00176-006	01/12/2010	22:25
GW/5	00250-006	01/12/2010	22:42
MW_WELL_WA	00199-003	01/12/2010	22:59
PCB	00239-001-MS03	01/12/2010	23:16
PCB	00239-001-MSD03	01/12/2010	23:33
PCB	PBA0112-MS03	01/12/2010	23:50

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: NA

Lab ID: 0112-BLK03
Client ID: PCB
Date Received: NA
Date Extracted: 01/12/2010
Date Analyzed: 01/12/2010
Data file: Y2481.D

GC Column GC Column: DB-5/DB1701P
Sample wt/\ Sample wt/vol: 1000ml
Matrix-Unit Matrix-Units: Aqueous-µg/L (ppb)
Dilution Fa Dilution Factor: 1
% Moisture % Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Total PCBs:	ND			

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/05/2010 **Instrument ID:** GC-

GC Column (1st): DB-5

Data File: Y2403.D Y2402.D Y2401.D Y2400.D Y2399.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.91	3.92	3.91	3.92	3.92	3.92	3.85	3.99
Aroclor-1016 {2}	4.79	4.80	4.80	4.80	4.80	4.80	4.73	4.87
Aroclor-1016 {3}	5.37	5.37	5.37	5.37	5.37	5.37	5.30	5.44
Aroclor-1016 {4}	5.89	5.90	5.90	5.90	5.90	5.90	5.83	5.97
Aroclor-1016 {5}	6.30	6.30	6.30	6.30	6.30	6.30	6.23	6.37
Aroclor-1221			2.70				2.63	2.77
Aroclor-1221 {2}			3.69				3.62	3.76
Aroclor-1221 {3}			3.83				3.76	3.90
Aroclor-1221 {4}			3.91				3.84	3.98
Aroclor-1221 {5}			4.55				4.48	4.62
Aroclor-1232			3.92				3.85	3.99
Aroclor-1232 {2}			4.80				4.73	4.87
Aroclor-1232 {3}			5.49				5.42	5.56
Aroclor-1232 {4}			6.10				6.03	6.17
Aroclor-1232 {5}			6.30				6.23	6.37
Aroclor-1242			4.80				4.73	4.87
Aroclor-1242 {2}			5.77				5.70	5.84
Aroclor-1242 {3}			6.10				6.03	6.17
Aroclor-1242 {4}			6.81				6.74	6.88
Aroclor-1242 {5}			7.09				7.02	7.16
Aroclor-1248			5.22				5.14	5.30
Aroclor-1248 {2}			5.77				5.69	5.85
Aroclor-1248 {3}			6.10				6.02	6.18
Aroclor-1248 {4}			6.82				6.74	6.90
Aroclor-1248 {5}			7.09				7.01	7.17
Aroclor-1254			7.21				7.13	7.29
Aroclor-1254 {2}			7.66				7.58	7.74
Aroclor-1254 {3}			7.83				7.74	7.92
Aroclor-1254 {4}			8.27				8.18	8.36
Aroclor-1254 {5}			9.12				9.03	9.21
Aroclor-1260	9.12	9.12	9.12	9.12	9.12	9.12	8.22	10.02
Aroclor-1260 {2}	9.80	9.80	9.80	9.80	9.80	9.80	8.90	10.70
Aroclor-1260 {3}	10.27	10.27	10.27	10.27	10.27	10.27	9.37	11.17
Aroclor-1260 {4}	10.76	10.76	10.76	10.76	10.76	10.76	9.86	11.66
Aroclor-1260 {5}	11.82	11.82	11.82	11.82	11.82	11.82	10.92	12.72

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/05/2010 **Instrument ID:** GC-

GC Column (1st): DB-5

Data File: Y2403.D Y2402.D Y2401.D Y2400.D Y2399.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	2223822	1951458	2026663	1878481	1823073	1980699	7.88
Aroclor-1016 {2}	2219397	2761341	2723248	2363252	2497329	2512913	9.22
Aroclor-1016 {3}	3877986	3759077	3651797	3437824	3422538	3629845	5.49
Aroclor-1016 {4}	1987828	2015436	1798377	1657428	1642126	1820239	9.71
Aroclor-1016 {5}	3147385	3247833	3066553	2897620	2943071	3060492	4.71
Aroclor-1221			696351				
Aroclor-1221 {2}			1049923				
Aroclor-1221 {3}			722430				
Aroclor-1221 {4}			2561531				
Aroclor-1221 {5}			590601				
Aroclor-1232			1710064				
Aroclor-1232 {2}			930864				
Aroclor-1232 {3}			961161				
Aroclor-1232 {4}			925851				
Aroclor-1232 {5}			1339543				
Aroclor-1242			1801711				
Aroclor-1242 {2}			1258712				
Aroclor-1242 {3}			1690226				
Aroclor-1242 {4}			2647612				
Aroclor-1242 {5}			2440410				
Aroclor-1248			4130540				
Aroclor-1248 {2}			2386861				
Aroclor-1248 {3}			2808090				
Aroclor-1248 {4}			4932918				
Aroclor-1248 {5}			4066405				
Aroclor-1254			5888661				
Aroclor-1254 {2}			3887819				
Aroclor-1254 {3}			7305449				
Aroclor-1254 {4}			7483174				
Aroclor-1254 {5}			7325184				
Aroclor-1260	10201613	9059885	9039966	8423069	8523493	9049605	7.81
Aroclor-1260 {2}	4320898	4080142	4031098	3754494	3834565	4004240	5.56
Aroclor-1260 {3}	10482338	9619142	9731479	9101351	9285463	9643955	5.52
Aroclor-1260 {4}	5513357	5280039	5022729	4641892	4775671	5046738	7.08
Aroclor-1260 {5}	1738089	2050762	1907060	1664709	1680871	1808298	9.18
					Average %RSD		7.21

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/05/2010 **Instrument ID:** GC-

GC Column (2nd): RTX-CLP2

Data File: Y2403.C Y2402.C Y2401.C Y2400.C Y2399.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	500	1000	2000	RT	FROM	TO
Aroclor-1016	4.35	4.35	4.35	4.35	4.35	4.35	4.28	4.42
Aroclor-1016 {2}	4.97	4.97	4.96	4.97	4.97	4.97	4.90	5.04
Aroclor-1016 {3}	5.73	5.73	5.73	5.73	5.73	5.73	5.66	5.80
Aroclor-1016 {4}	5.95	5.95	5.94	5.95	5.95	5.95	5.88	6.02
Aroclor-1016 {5}	6.13	6.12	6.12	6.12	6.12	6.12	6.05	6.19
Aroclor-1221			2.96				2.89	3.03
Aroclor-1221 {2}			4.01				3.94	4.08
Aroclor-1221 {3}			4.25				4.18	4.32
Aroclor-1221 {4}			4.35				4.28	4.42
Aroclor-1221 {5}			5.73				5.66	5.80
Aroclor-1232			4.35				4.28	4.42
Aroclor-1232 {2}			5.36				5.29	5.43
Aroclor-1232 {3}			5.94				5.87	6.01
Aroclor-1232 {4}			6.12				6.05	6.19
Aroclor-1232 {5}			6.72				6.65	6.79
Aroclor-1242			5.36				5.29	5.43
Aroclor-1242 {2}			6.12				6.05	6.19
Aroclor-1242 {3}			6.72				6.65	6.79
Aroclor-1242 {4}			6.88				6.81	6.95
Aroclor-1242 {5}			7.41				7.34	7.48
Aroclor-1248			5.73				5.65	5.81
Aroclor-1248 {2}			6.32				6.24	6.40
Aroclor-1248 {3}			6.73				6.65	6.81
Aroclor-1248 {4}			6.88				6.80	6.96
Aroclor-1248 {5}			7.23				7.15	7.31
Aroclor-1254			7.72				7.64	7.80
Aroclor-1254 {2}			8.32				8.24	8.40
Aroclor-1254 {3}			8.93				8.84	9.02
Aroclor-1254 {4}			9.16				9.07	9.25
Aroclor-1254 {5}			9.75				9.66	9.84
Aroclor-1260	8.76	8.75	8.75	8.75	8.75	8.75	7.85	9.65
Aroclor-1260 {2}	9.16	9.16	9.16	9.16	9.16	9.16	8.26	10.06
Aroclor-1260 {3}	10.35	10.35	10.35	10.35	10.35	10.35	9.45	11.25
Aroclor-1260 {4}	10.86	10.85	10.85	10.85	10.85	10.85	9.95	11.75
Aroclor-1260 {5}	11.45	11.45	11.45	11.45	11.45	11.45	10.55	12.35

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/05/2010 **Instrument ID:** GC-

GC Column (2nd): RTX-CLP2

Data File: Y2403.C Y2402.C Y2401.C Y2400.C Y2399.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	459945	406316	372432	337893	323900	380097	14.45
Aroclor-1016 {2}	910548	798044	715874	651597	627699	740752	15.61
Aroclor-1016 {3}	1933696	1676497	1611279	1484699	1450110	1631256	11.80
Aroclor-1016 {4}	848966	799052	711263	647015	630044	727268	13.06
Aroclor-1016 {5}	665303	595849	546668	502536	495034	561078	12.62
Aroclor-1221			143625				
Aroclor-1221 {2}			197997				
Aroclor-1221 {3}			133260				
Aroclor-1221 {4}			453464				
Aroclor-1221 {5}			93619				
Aroclor-1232			306493				
Aroclor-1232 {2}			119077				
Aroclor-1232 {3}			264885				
Aroclor-1232 {4}			200040				
Aroclor-1232 {5}			282970				
Aroclor-1242			223697				
Aroclor-1242 {2}			382726				
Aroclor-1242 {3}			507590				
Aroclor-1242 {4}			429307				
Aroclor-1242 {5}			430662				
Aroclor-1248			747354				
Aroclor-1248 {2}			1117277				
Aroclor-1248 {3}			810750				
Aroclor-1248 {4}			700197				
Aroclor-1248 {5}			412435				
Aroclor-1254			1141455				
Aroclor-1254 {2}			899738				
Aroclor-1254 {3}			914060				
Aroclor-1254 {4}			594290				
Aroclor-1254 {5}			1421864				
Aroclor-1260	1269667	1099057	955347	869098	857142	1010062	17.26
Aroclor-1260 {2}	1439742	1267695	1129334	1022283	1011738	1174158	15.40
Aroclor-1260 {3}	1096491	1005039	895645	801162	810075	921682	13.85
Aroclor-1260 {4}	2082692	1999281	1906062	1694893	1740576	1884701	8.78
Aroclor-1260 {5}	1455785	1470178	1385941	1210026	1249615	1354309	8.78
					Average %RSD		13.16

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 01/12/2010 **Instrument ID:** GC-Y

Data File: Y2480.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.92	3.85	3.99	1980699	1899220	4.11
Aroclor-1016 {2}	4.80	4.73	4.87	2512913	2329357	7.30
Aroclor-1016 {3}	5.37	5.30	5.44	3629845	3394660	6.48
Aroclor-1016 {4}	5.90	5.83	5.97	1820239	1676607	7.89
Aroclor-1016 {5}	6.30	6.23	6.37	3060492	2860755	6.53
Aroclor-1260	9.12	8.22	10.02	9049605	8173937	9.68
Aroclor-1260 {2}	9.80	8.90	10.70	4004240	3656565	8.68
Aroclor-1260 {3}	10.27	9.37	11.17	9643955	8759022	9.18
Aroclor-1260 {4}	10.76	9.86	11.66	5046738	4489982	11.03
Aroclor-1260 {5}	11.82	10.92	12.72	1808298	1639601	9.33
					Average %D	8.02

Data File: Y2480.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.35	4.28	4.42	380097	363812	4.28
Aroclor-1016 {2}	4.96	4.90	5.04	740752	697771	5.80
Aroclor-1016 {3}	5.73	5.66	5.80	1631256	1572262	3.62
Aroclor-1016 {4}	5.94	5.88	6.02	727268	694724	4.47
Aroclor-1016 {5}	6.12	6.05	6.19	561078	532463	5.10
Aroclor-1260	8.75	7.85	9.65	1010062	918278	9.09
Aroclor-1260 {2}	9.16	8.26	10.06	1174158	1085861	7.52
Aroclor-1260 {3}	10.35	9.45	11.25	921682	852867	7.47
Aroclor-1260 {4}	10.85	9.95	11.75	1884701	1807462	4.10
Aroclor-1260 {5}	11.44	10.55	12.35	1354309	1309753	3.29
					Average %D	5.47

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 01/13/2010 **Instrument ID:** GC-Y

Data File: Y2493.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.91	3.85	3.99	1980699	1849287	6.63
Aroclor-1016 {2}	4.80	4.73	4.87	2512913	2229409	11.28
Aroclor-1016 {3}	5.37	5.30	5.44	3629845	3293918	9.25
Aroclor-1016 {4}	5.90	5.83	5.97	1820239	1621296	10.93
Aroclor-1016 {5}	6.30	6.23	6.37	3060492	2756604	9.93
Aroclor-1260	9.12	8.22	10.02	9049605	7779934	14.03
Aroclor-1260 {2}	9.80	8.90	10.70	4004240	3481172	13.06
Aroclor-1260 {3}	10.27	9.37	11.17	9643955	7956867	17.49
Aroclor-1260 {4}	10.76	9.86	11.66	5046738	4242116	15.94
Aroclor-1260 {5}	11.82	10.92	12.72	1808298	1623133	10.24
					Average %D	11.88

Data File: Y2493.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.35	4.28	4.42	380097	386624	1.72
Aroclor-1016 {2}	4.96	4.90	5.04	740752	741639	0.12
Aroclor-1016 {3}	5.73	5.66	5.80	1631256	1673399	2.58
Aroclor-1016 {4}	5.94	5.88	6.02	727268	742947	2.16
Aroclor-1016 {5}	6.12	6.05	6.19	561078	565764	0.84
Aroclor-1260	8.75	7.85	9.65	1010062	982947	2.68
Aroclor-1260 {2}	9.16	8.26	10.06	1174158	1170474	0.31
Aroclor-1260 {3}	10.35	9.45	11.25	921682	923364	0.18
Aroclor-1260 {4}	10.85	9.95	11.75	1884701	1997470	5.98
Aroclor-1260 {5}	11.44	10.55	12.35	1354309	1472414	8.72
					Average %D	2.53

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/12/2010

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	0112-BLK03	AQUEOUS	130		121		142		125	
MW-1	00239-001	AQUEOUS	77		102		116		118	
MW-2	00239-002	AQUEOUS	101		129		134		146	
MW11	00176-003	AQUEOUS	104		132		125		147	
MW9	00176-004	AQUEOUS	86		121		121		134	
MW8	00176-005	AQUEOUS	69		128		113		146	
MW10	00176-006	AQUEOUS	57		124		95		141	
GW/5	00250-006	AQUEOUS	85		52		132		84	
MW_WELL_WA	00199-003	AQUEOUS	76		107		110		128	
PCB	00239-001-MS03	AQUEOUS	93		104		134		130	
PCB	00239-001-MSD03	AQUEOUS	94		119		136		147	
PCB	PBA0112-MS03	AQUEOUS	84		74		98		90	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	23-172	13-170

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

AQUEOUS PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 00239-001-MSD03

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Aroclor-1016	2.5	0.0	3.1	124	45 - 155
Aroclor-1260	2.5	0.0	2.6	104	45 - 155

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	3.0	120	3	25	45 - 155
Aroclor-1260	0.0	2.7	108	4	25	45 - 155

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

AQUEOUS PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBA0112-MS03

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Aroclor-1016	2.5	0.0	2.3	92	70 - 130
Aroclor-1260	2.5	0.0	1.9	76	70 - 130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.43 **DCB 1** 12.92 **TCMX 2** 3.45 **DCB 2** 13.13

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	0112-BLK03	01/12/2010	20:42	3.43		12.92		3.45		13.13	
MW-1	00239-001	01/12/2010	20:59	3.43		12.92		3.45		13.13	
MW-2	00239-002	01/12/2010	21:16	3.43		12.92		3.45		13.13	
MW11	00176-003	01/12/2010	21:33	3.43		12.92		3.45		13.13	
MW9	00176-004	01/12/2010	21:51	3.41		12.92		3.43		13.13	
MW8	00176-005	01/12/2010	22:08	3.43		12.92		3.45		13.13	
MW10	00176-006	01/12/2010	22:25	3.41		12.92		3.43		13.13	
GW/5	00250-006	01/12/2010	22:42	3.44		12.93		3.46		13.14	
MW_WELL_WA	00199-003	01/12/2010	22:59	3.44		12.92		3.46		13.13	
PCB	00239-001-MS03	01/12/2010	23:16	3.43		12.92		3.45		13.13	
PCB	00239-001-MSD03	01/12/2010	23:33	3.43		12.92		3.45		13.13	
PCB	PBA0112-MS03	01/12/2010	23:50	3.43		12.92		3.45		13.13	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2484.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 21:33
Operator : JP
Sample : MW11,00176-003,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:31:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.43	3.45	12142.0E6	2527.1E6	103.529	124.901
Spiked Amount 100.000	Range 75 - 125		Recovery =		103.53%	124.90%
2) S DCB	12.92	13.13	2766.1E6	763.2E6	132.282m	147.235m
Spiked Amount 100.000			Recovery =		132.28%	147.24%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

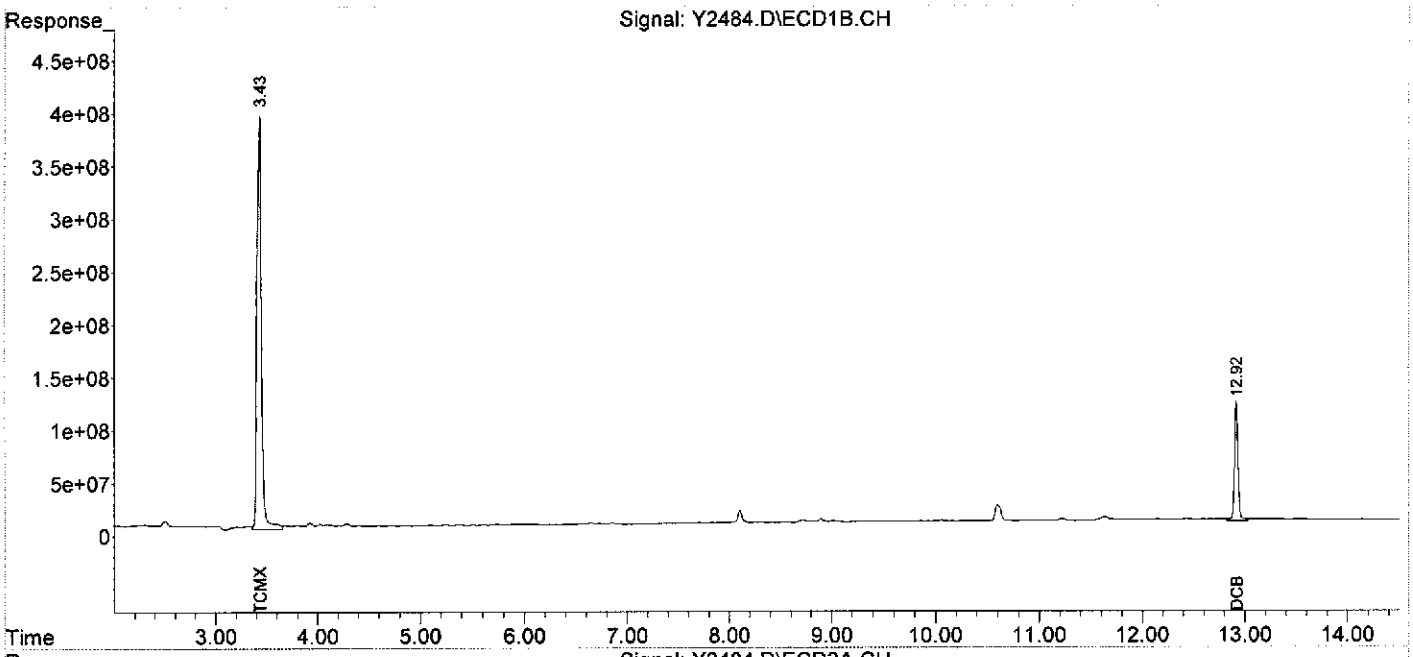
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

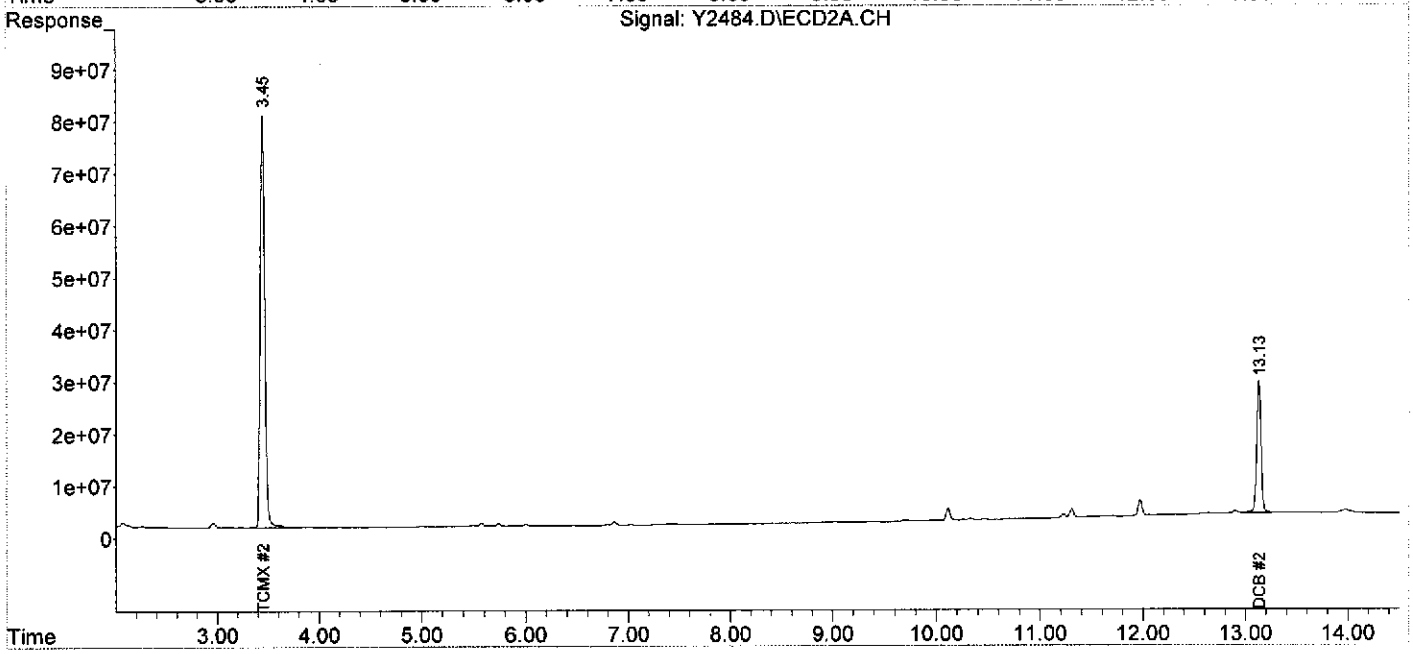
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2484.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 21:33
Operator : JP
Sample : MW11,00176-003,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:31:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2485.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 21:51
Operator : JP
Sample : MW9,00176-004,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:33:24 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.41	3.43	10030.8E6	2440.4E6	85.527	120.614 #
Spiked Amount 100.000	Range 75 - 125		Recovery =		85.53%	120.61%
2) S DCB	12.92	13.13	2526.4E6	695.0E6	120.819m	134.064m
Spiked Amount 100.000			Recovery =		120.82%	134.06%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

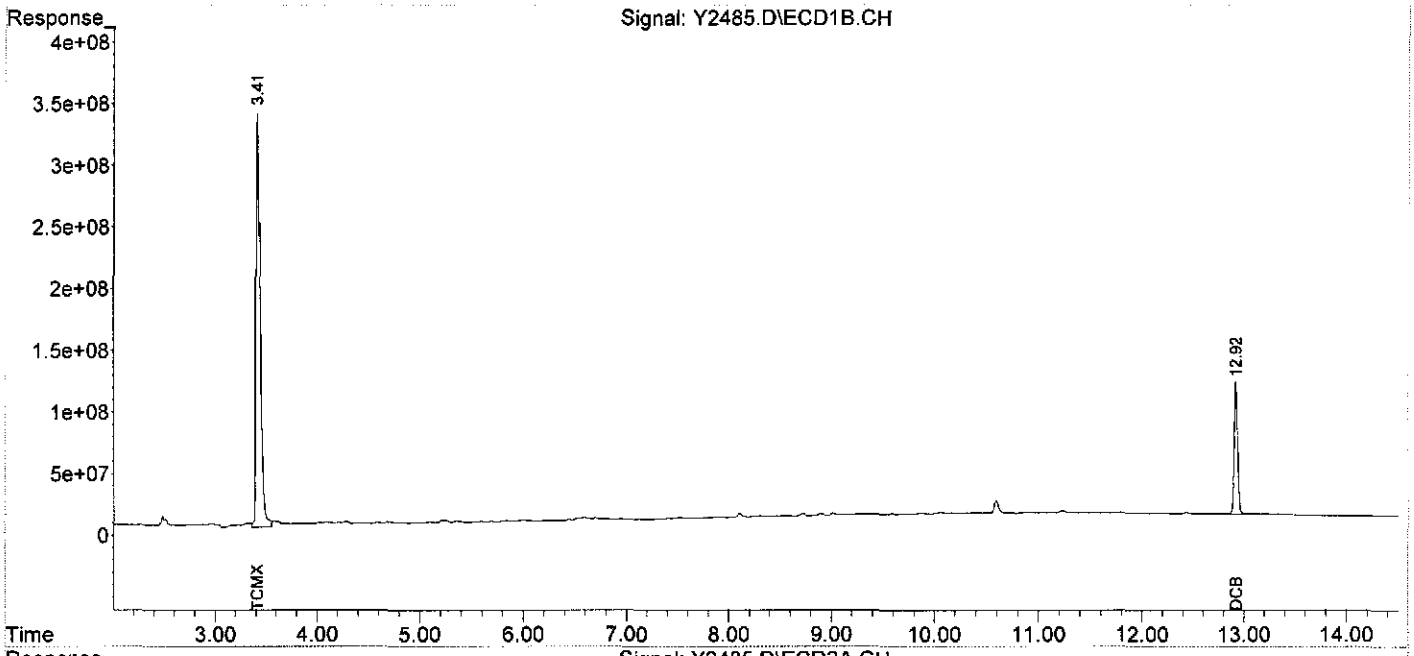
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

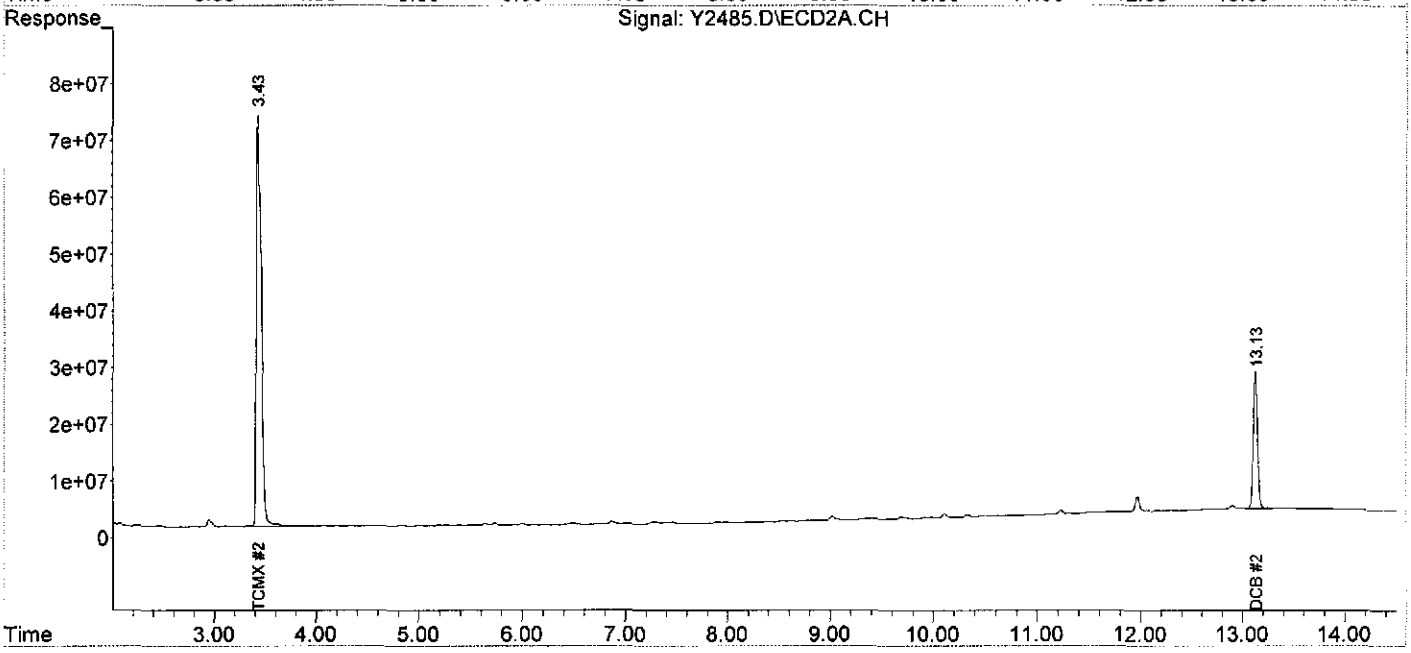
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2485.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 21:51
Operator : JP
Sample : MW9,00176-004,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:33:24 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2486.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 22:08
Operator : JP
Sample : MW8,00176-005,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:33:56 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.43	3.45	8079.0E6	2295.2E6	68.886	113.439 #
Spiked Amount 100.000	Range 75 - 125		Recovery =		68.89%#	113.44%
2) S DCB	12.92	13.13	2682.4E6	755.1E6	128.283m	145.662m
Spiked Amount 100.000			Recovery =		128.28%	145.66%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

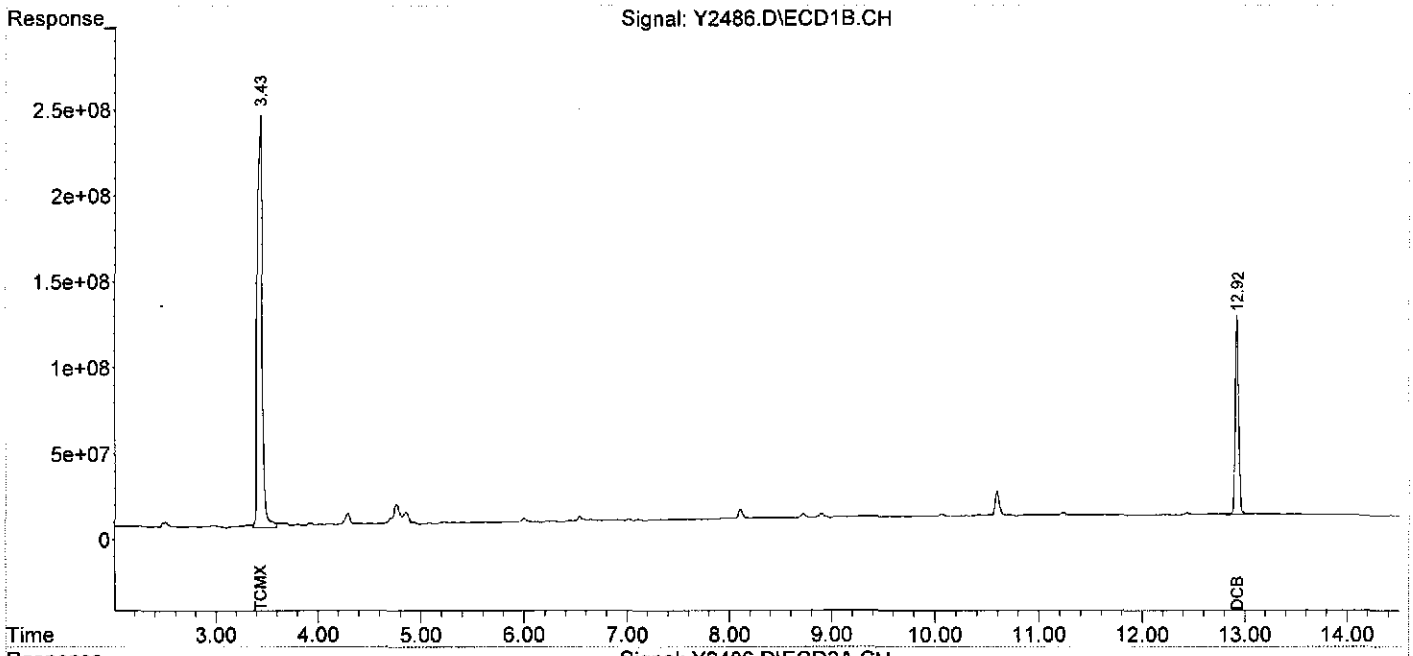
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

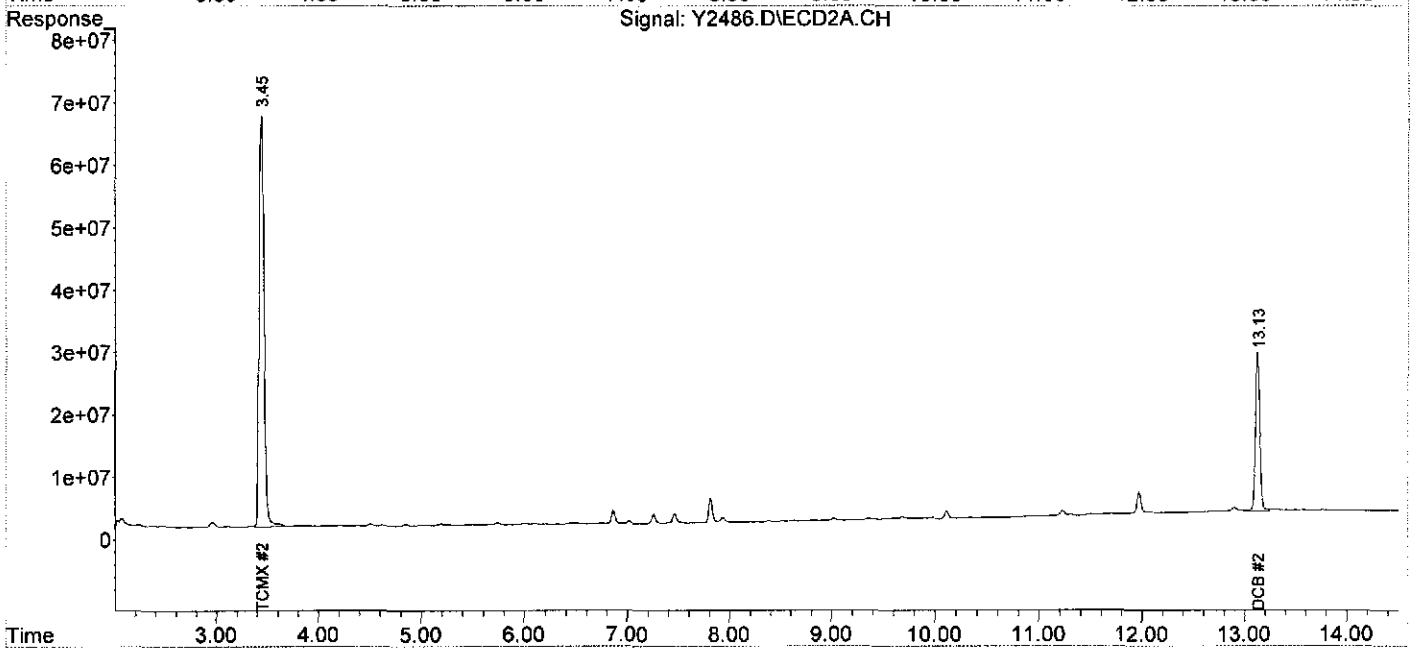
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2486.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 22:08
Operator : JP
Sample : MW8,00176-005,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:33:56 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2487.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 22:25
Operator : JP
Sample : MW10,00176-006,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:34:32 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.41	3.43	6647.6E6	1926.9E6	56.681	95.236 #
Spiked Amount 100.000	Range 75 - 125		Recovery =		56.68%#	95.24%
2) S DCB	12.92	13.13	2592.3E6	729.6E6	123.971m	140.749m
Spiked Amount 100.000			Recovery =		123.97%	140.75%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

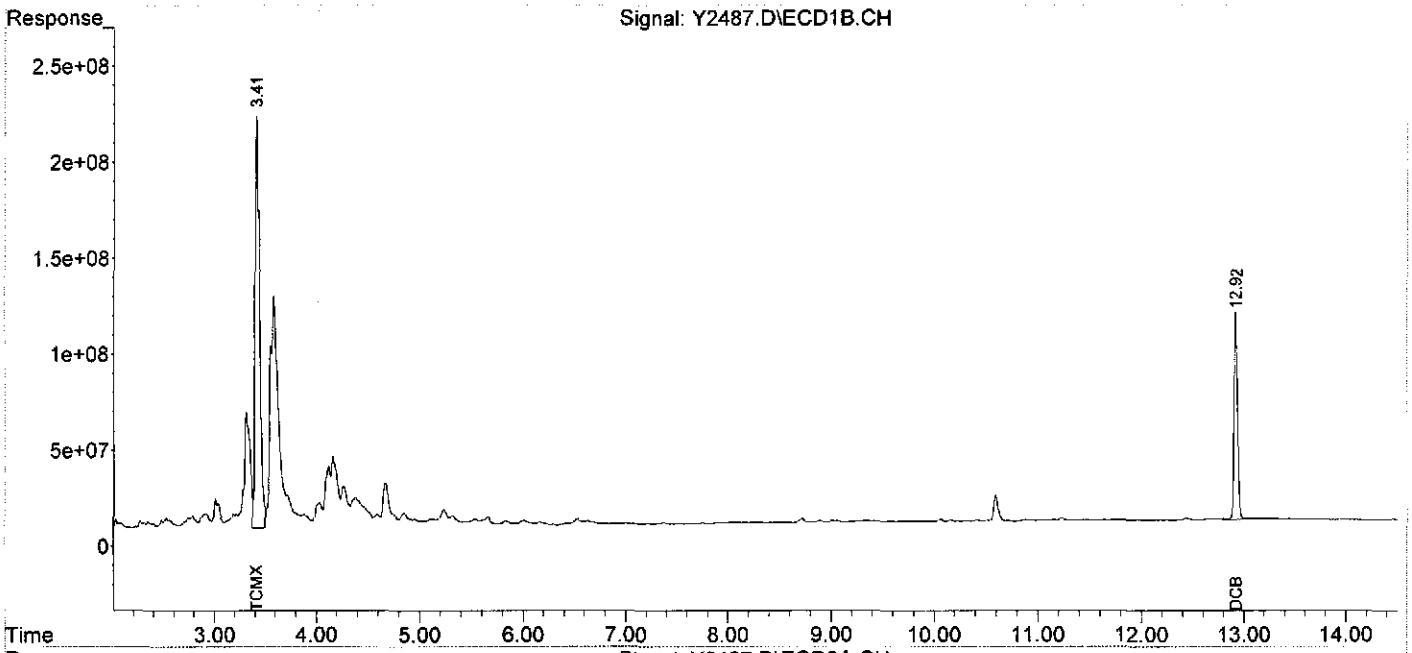
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

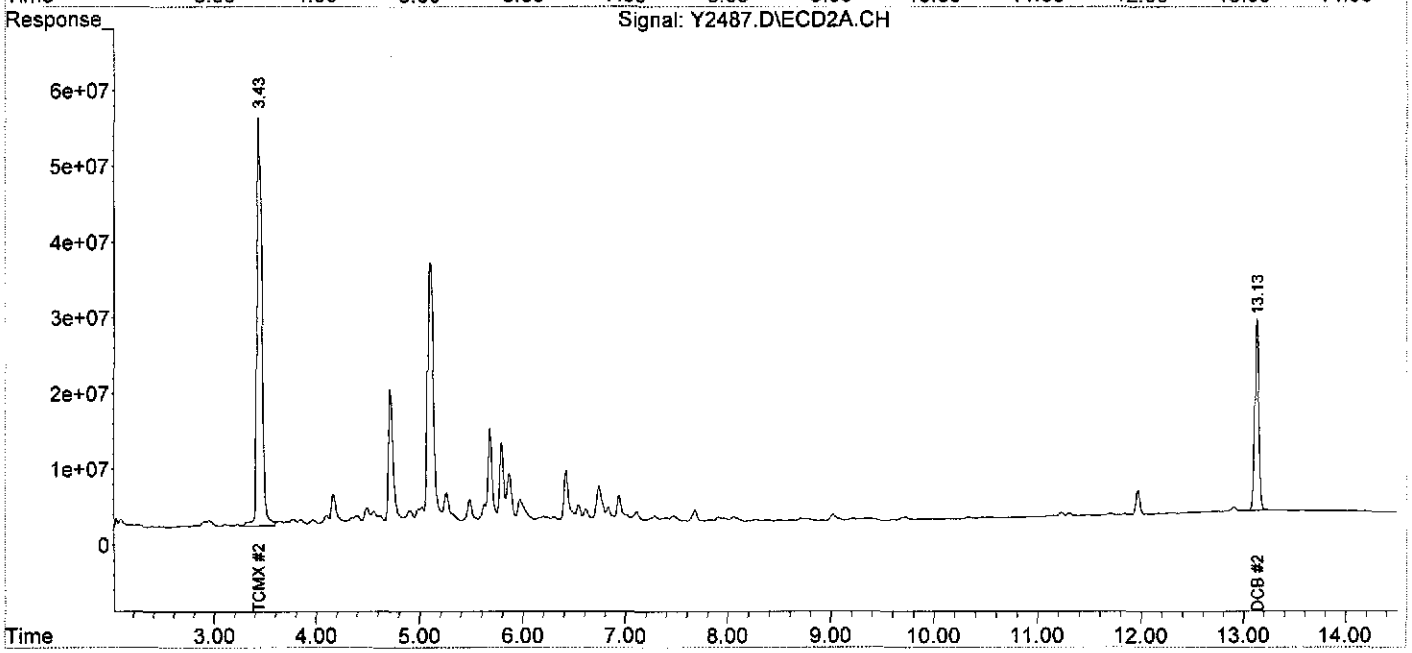
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2487.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 22:25
Operator : JP
Sample : MW10,00176-006,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:34:32 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2481.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 20:42
Operator : JP
Sample : PCB,0112-BLK03,A,1000ml,100,01/12/10,1
Misc : NA,NA,NA,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:24:28 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.43	3.45	15293.5E6	2863.1E6	130.400	141.509
Spiked Amount 100.000	Range 75 - 125		Recovery =		130.40%#	141.51%#
2) S DCB	12.92	13.13	2520.3E6	646.4E6	120.529m	124.701m
Spiked Amount 100.000			Recovery =		120.53%	124.70%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

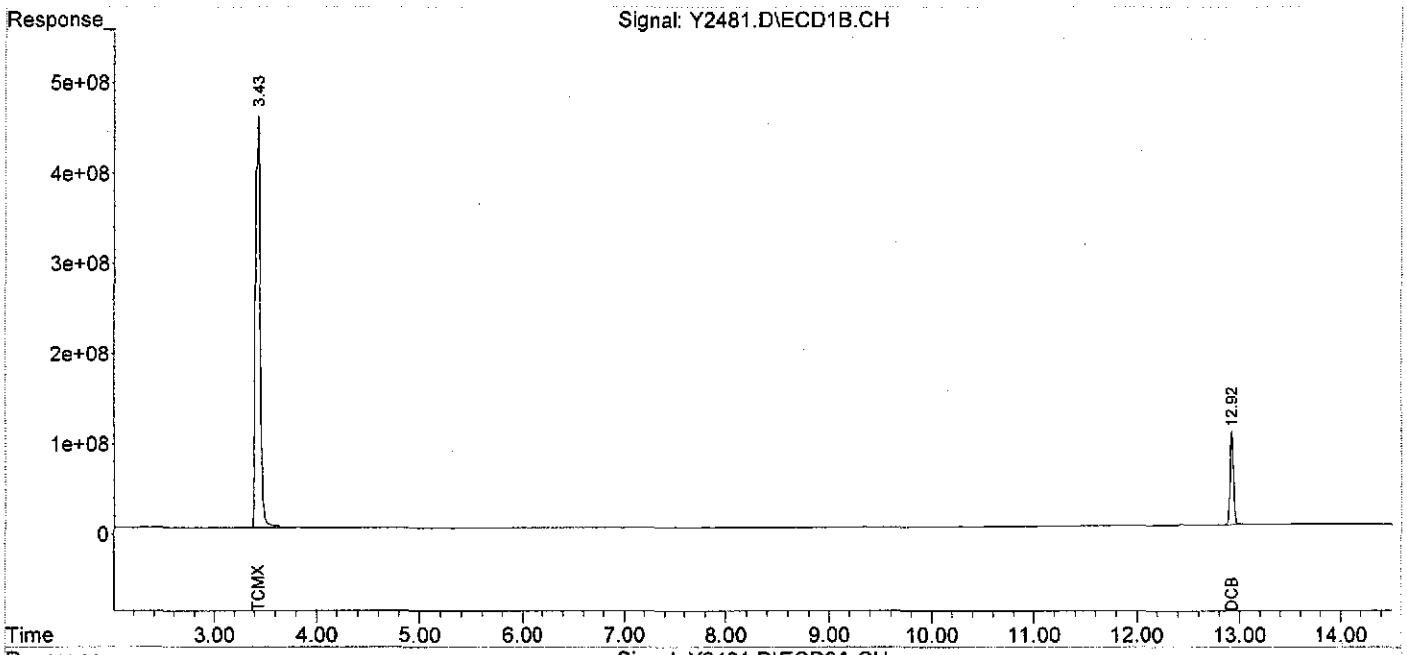
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

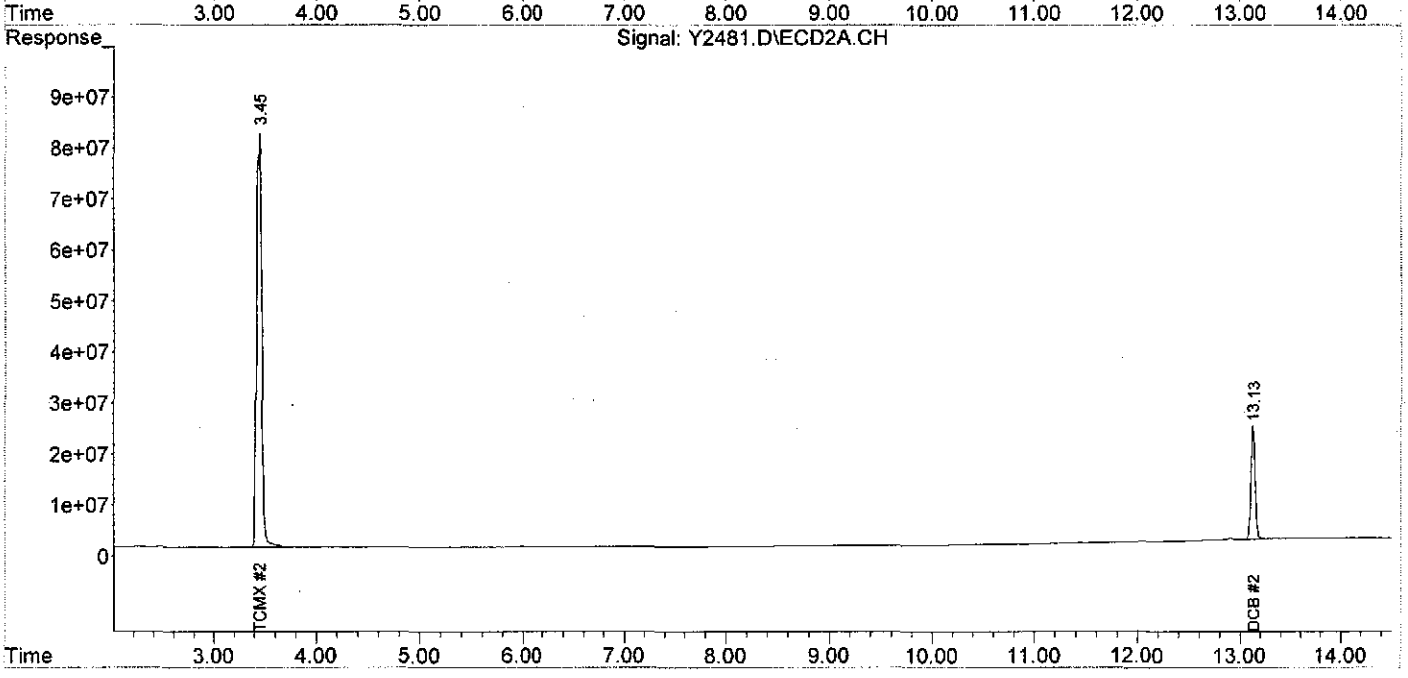
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2481.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 20:42
Operator : JP
Sample : PCB,0112-BLK03,A,1000ml,100,01/12/10,1
Misc : NA,NA,NA,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:24:28 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2480.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 20:25
Operator : JP
Sample : 8082_C_IAS_3424,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:04:15 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1)	S TCMX		3.42	3.44	11577.5E6	2087.2E6	98.715	103.160
	Spiked Amount	100.000	Range	75 - 125	Recovery	=	98.72%	103.16%
2)	S DCB		12.92	13.13	2024.6E6	547.5E6	96.825	105.614
	Spiked Amount	100.000			Recovery	=	96.83%	105.61%
	Target Compounds							
3)	L2 Aroclor-1016		3.92	4.35	949.6E6	181.9E6	482.374	478.577
4)	L2 Aroclor-1016	{2}	4.80	4.96	1164.7E6	348.9E6	468.594	470.988
5)	L2 Aroclor-1016	{3}	5.37	5.73	1697.3E6	786.1E6	472.569	481.918
6)	L2 Aroclor-1016	{4}	5.90	5.94	838.3E6	347.4E6	461.187	484.510
7)	L2 Aroclor-1016	{5}	6.30	6.12	1430.4E6	266.2E6	470.166	474.500
	Sum Aroclor-1016				6080.3E6	1930.5E6	2354.889	2390.492
Average	Aroclor-1016						470.978	478.098
	Sum Aroclor-1221				0	0	N.D.	N.D.
Average	Aroclor-1221						0.000	0.000
	Sum Aroclor-1232				0	0	N.D.	N.D.
Average	Aroclor-1232						0.000	0.000
	Sum Aroclor-1242				0	0	N.D.	N.D.
Average	Aroclor-1242						0.000	0.000
	Sum Aroclor-1248				0	0	N.D.	N.D.
Average	Aroclor-1248						0.000	0.000
	Sum Aroclor-1254				0	0	N.D.	N.D.
Average	Aroclor-1254						0.000	0.000
33)	L8 Aroclor-1260		9.12	8.75	4087.0E6	459.1E6	454.873	454.565
34)	L8 Aroclor-1260	{2}	9.80	9.16	1828.3E6	542.9E6	460.505	462.400
35)	L8 Aroclor-1260	{3}	10.27	10.35	4379.5E6	426.4E6	452.786	460.453
36)	L8 Aroclor-1260	{4}	10.76	10.85	2245.0E6	903.7E6	443.609	480.867
37)	L8 Aroclor-1260	{5}	11.82	11.44	819.8E6	654.9E6	437.197	483.602
	Sum Aroclor-1260				13359.6E6	2987.1E6	2248.970	2341.888
Average	Aroclor-1260						449.794	468.378

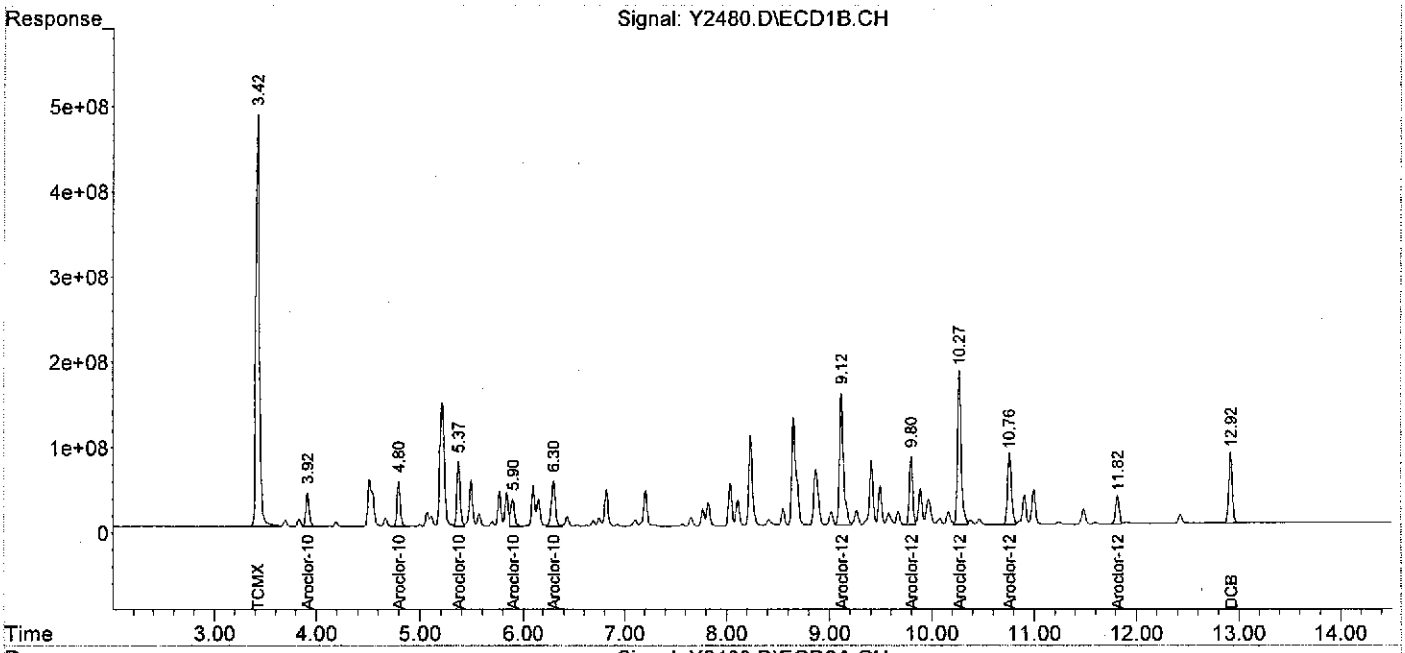
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

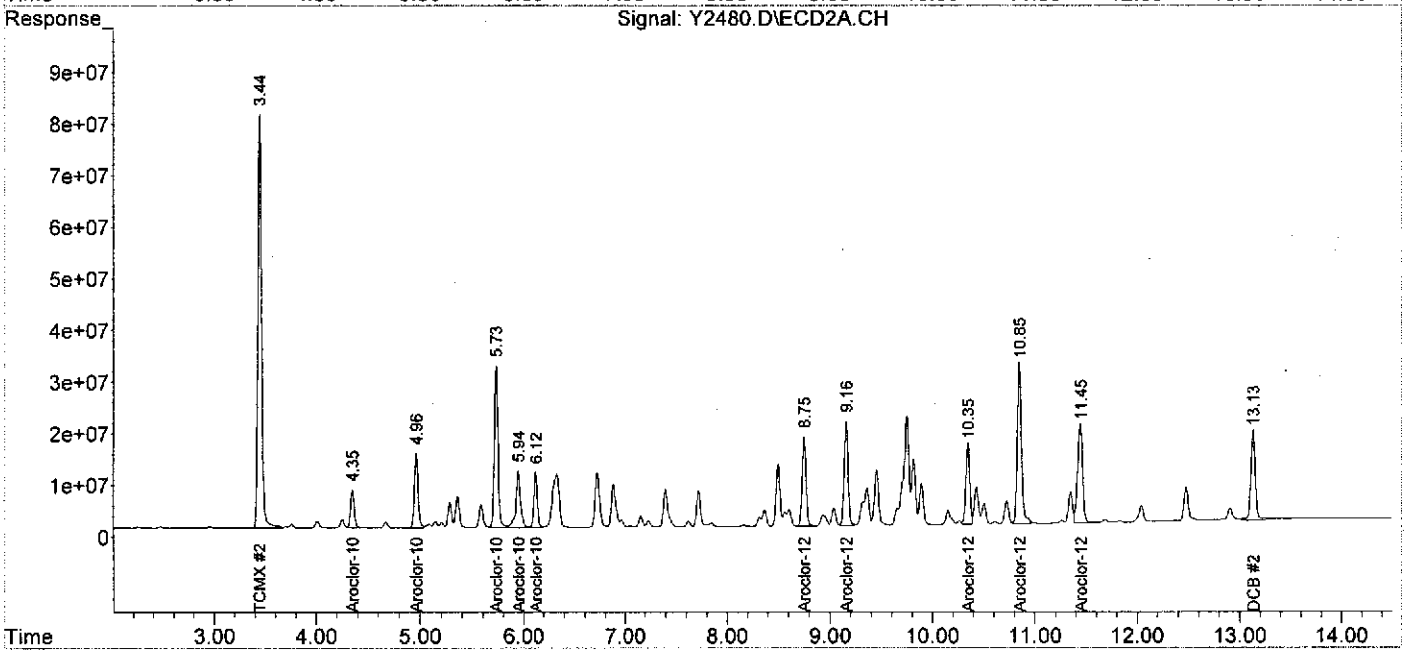
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2480.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jan 2010 20:25
Operator : JP
Sample : 8082_C_IAS_3424,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:04:15 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2493.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jan 2010 00:59
Operator : JP
Sample : 8082_C_IAS_3424,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:06:51 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
	System Monitoring Compounds								
1) S	TCMX		3.42	3.44	11264.0E6	2218.2E6	96.042	109.632	
Spiked Amount	100.000	Range	75 - 125		Recovery =		96.04%	109.63%	
2) S	DCB		12.92	13.13	1936.7E6	539.1E6	92.620	103.992m	
Spiked Amount	100.000				Recovery =		92.62%	103.99%	
	Target Compounds								
3) L2	Aroclor-1016		3.91	4.35	924.6E6	193.3E6	469.691	508.586	
4) L2	Aroclor-1016	(2)	4.80	4.96	1114.7E6	370.8E6	448.488	500.599	
5) L2	Aroclor-1016	(3)	5.37	5.73	1647.0E6	836.7E6	458.545	512.917	
6) L2	Aroclor-1016	(4)	5.90	5.94	810.6E6	371.5E6	445.973	518.141	
7) L2	Aroclor-1016	(5)	6.30	6.12	1378.3E6	282.9E6	453.048	504.176	
Sum	Aroclor-1016				5875.3E6	2055.2E6	2275.745	2544.419	
Average	Aroclor-1016						455.149	508.884	
Sum	Aroclor-1221				0	0	N.D.	N.D.	
Average	Aroclor-1221						0.000	0.000	
Sum	Aroclor-1232				0	0	N.D.	N.D.	
Average	Aroclor-1232						0.000	0.000	
Sum	Aroclor-1242				0	0	N.D.	N.D.	
Average	Aroclor-1242						0.000	0.000	
Sum	Aroclor-1248				0	0	N.D.	N.D.	
Average	Aroclor-1248						0.000	0.000	
Sum	Aroclor-1254				0	0	N.D.	N.D.	
Average	Aroclor-1254						0.000	0.000	
33) L8	Aroclor-1260		9.12	8.75	3890.0E6	491.5E6	432.947m	486.577	
34) L8	Aroclor-1260	(2)	9.80	9.16	1740.6E6	585.2E6	438.417m	498.431	
35) L8	Aroclor-1260	(3)	10.27	10.35	3978.4E6	461.7E6	411.320m	498.514	
36) L8	Aroclor-1260	(4)	10.76	10.85	2121.1E6	998.7E6	419.120m	531.418	#
37) L8	Aroclor-1260	(5)	11.82	11.44	811.6E6	736.2E6	432.805m	543.662	#
Sum	Aroclor-1260				12541.6E6	3273.3E6	2134.608	2558.602	
Average	Aroclor-1260						426.922	511.720	

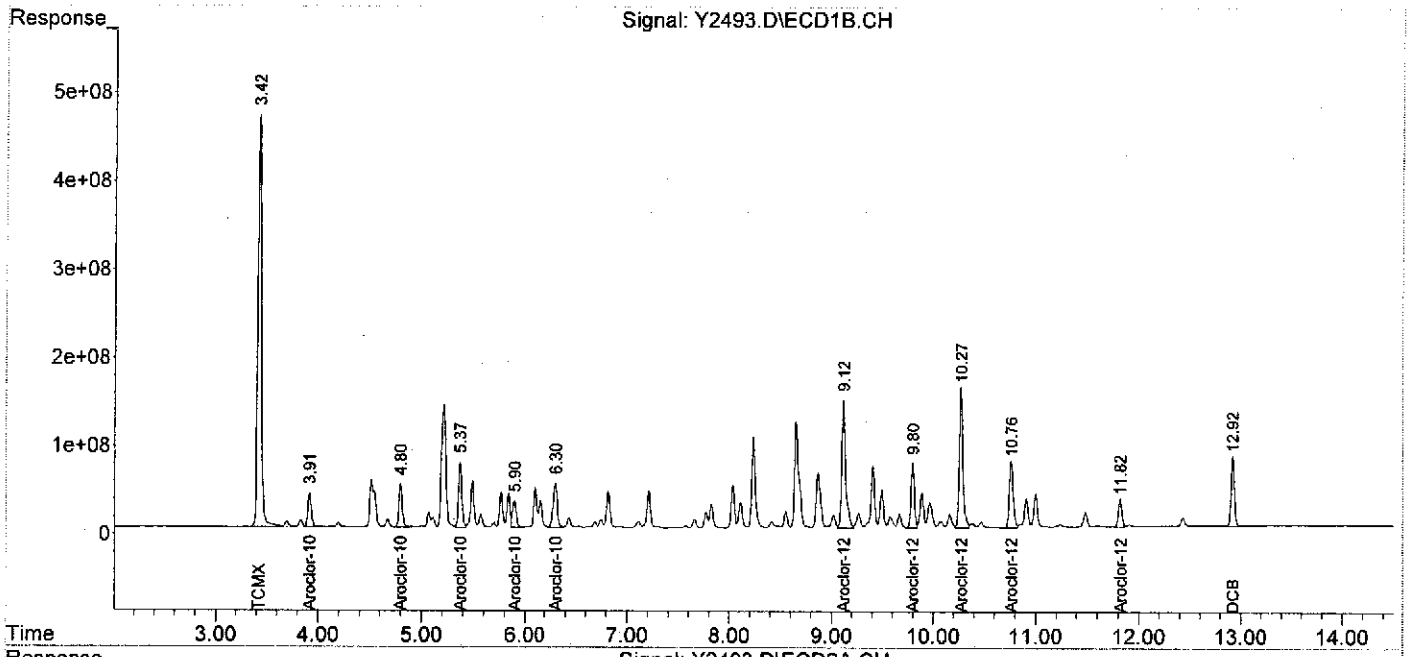
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

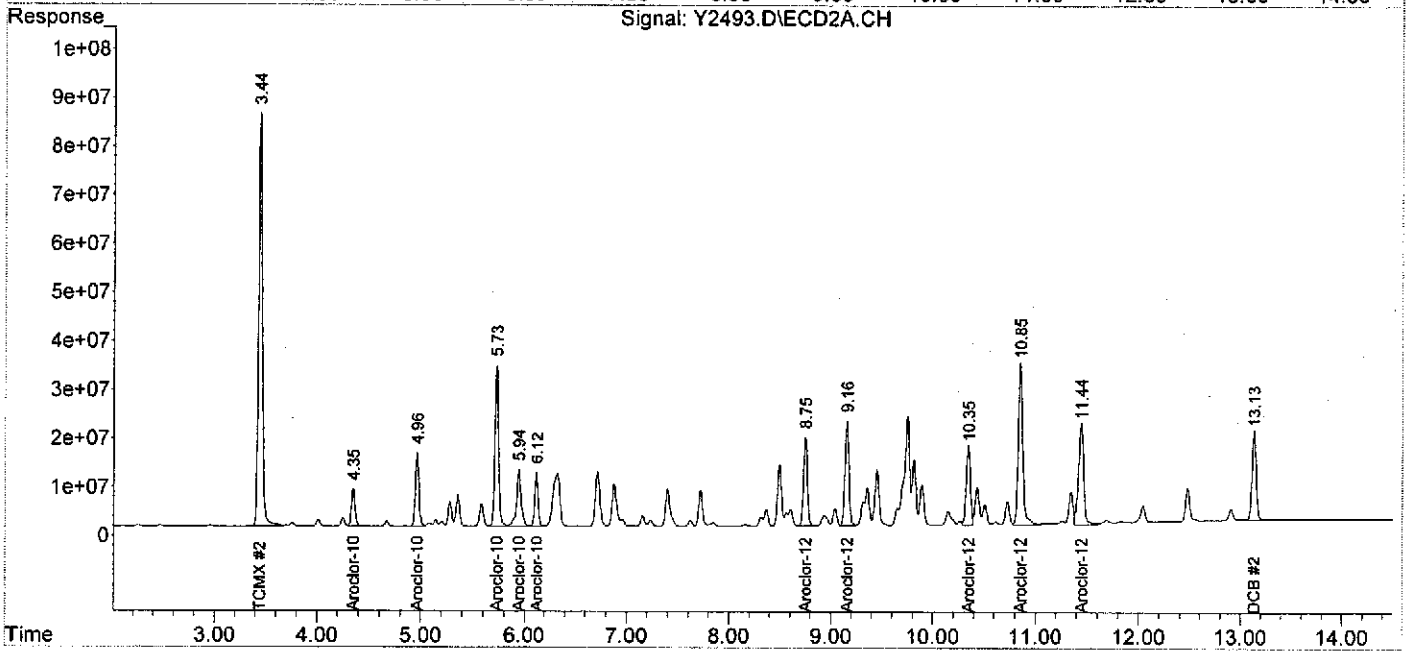
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-12-10\
Data File : Y2493.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jan 2010 00:59
Operator : JP
Sample : 8082_C_IAS_3424,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 13 09:06:51 2010
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0105.M
Quant Title :
QLast Update : Tue Jan 05 15:50:02 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0282

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V7308.D

Instrument ID: GC-V

Date Extracted: 12/28/2009

Matrix: AQUEOUS

Date Analyzed: 12/29/2009

Time Analyzed: 16:00

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
136-TWP-1	12953-001	12/29/2009	16:12
136-TWP-2	12953-002	12/29/2009	16:24
208-TWP-2	12953-003	12/29/2009	16:36
Pest	121953-003-MS08	12/29/2009	16:48
Pest	121953-003-MSD08	12/29/2009	17:01
Pest	PBA1228-MS08	12/29/2009	17:13

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 1228-BLK08
Client ID: Pest
Date Received: NA
Date Extracted: 12/28/2009
Date Analyzed: 12/29/2009
Data file: V7308.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.005
beta-BHC	ND		0.005
gamma-BHC (Lindane)	ND		0.005
delta-BHC	ND		0.005
Heptachlor	ND		0.005
Aldrin	ND		0.005
Heptachlor epoxide	ND		0.005
Endosulfan I	ND		0.005
4,4'-DDE	ND		0.005
Dieldrin	ND		0.005
Endrin	ND		0.005
Endosulfan II	ND		0.005
4,4'-DDD	ND		0.005
Endrin aldehyde	ND		0.005
Endosulfan sulfate	ND		0.005
4,4'-DDT	ND		0.005
Chlordane	ND		0.015
Toxaphene	ND		0.015

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V7479.D

Instrument ID: GC-V

Date Extracted: 01/12/2010

Matrix: AQUEOUS

Date Analyzed: 01/14/2010

Time Analyzed: 10:10

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-1	00239-001	01/14/2010	10:23
MW-2	00239-002	01/14/2010	10:35
MW11	00176-003	01/14/2010	10:47
MW9	00176-004	01/14/2010	10:59
MW8	00176-005	01/14/2010	11:11
MW10	00176-006	01/14/2010	11:24
Pest	PBA0112-MS03	01/14/2010	11:36

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 0112-BLK03
Client ID: Pest
Date Received: NA
Date Extracted: 01/12/2010
Date Analyzed: 01/14/2010
Data file: V7479.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Chlordane	ND		0.125	0.060
Toxaphene	ND		0.125	0.060

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/06/2010 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V7414.D V7413.D V7412.D V7411.D V7410.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	3.23	3.23	3.23	3.23	3.23	3.23	3.17	3.29
beta-BHC	3.66	3.66	3.65	3.65	3.65	3.65	3.59	3.71
gamma-BHC (Lindane	3.57	3.57	3.57	3.57	3.57	3.57	3.51	3.63
delta-BHC	3.87	3.87	3.87	3.87	3.87	3.87	3.81	3.93
Heptachlor	4.12	4.12	4.12	4.12	4.12	4.12	4.04	4.20
Aldrin	4.50	4.50	4.50	4.50	4.50	4.50	4.42	4.58
Heptachlor epoxide	5.28	5.28	5.28	5.28	5.28	5.28	5.20	5.36
Endosulfan I	5.83	5.83	5.83	5.83	5.83	5.83	5.75	5.91
4,4'-DDE	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
Dieldrin	6.17	6.17	6.17	6.17	6.17	6.17	6.07	6.27
Endrin	6.51	6.51	6.51	6.51	6.51	6.51	6.41	6.61
Endosulfan II	6.82	6.82	6.82	6.82	6.82	6.82	6.72	6.92
4,4'-DDD	6.60	6.60	6.59	6.59	6.59	6.59	6.49	6.69
Endrin aldehyde	7.30	7.30	7.30	7.30	7.30	7.30	7.18	7.42
Endosulfan sulfate	7.73	7.73	7.73	7.73	7.73	7.73	7.61	7.85
4,4'-DDT	6.96	6.96	6.96	6.96	6.96	6.96	6.84	7.08
Endrin ketone	7.98	7.98	7.98	7.98	7.98	7.98	7.86	8.10
Methoxychlor	7.49	7.48	7.48	7.48	7.48	7.48	7.36	7.60
alpha-Chlordane	5.63	5.63	5.63	5.64	5.63	5.63	5.55	5.71
gamma-Chlordane	5.45	5.45	5.45	5.45	5.45	5.45	5.37	5.53
Chlordane 500 ppb			4.03				3.95	4.11
Chlordane {2}			4.66				4.58	4.74
Chlordane {3}			5.45				5.37	5.53
Chlordane {4}			5.63				5.55	5.71
Chlordane {5}			6.73				6.65	6.81
Toxaphene 500 ppb			6.13				6.05	6.21
Toxaphene {2}			6.55				6.47	6.63
Toxaphene {3}			6.96				6.88	7.04
Toxaphene {4}			7.41				7.33	7.49
Toxaphene {5}			7.96				7.88	8.04

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/06/2010 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V7414.D V7413.D V7412.D V7411.D V7410.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	152852	161762	166088	172526	175088	165663	5.36
beta-BHC	67141	62707	64506	65447	64070	64774	2.55
gamma-BHC (Lindane	132725	137653	139120	146216	148643	140871	4.61
delta-BHC	139769	135336	138492	148162	146385	141629	3.84
Heptachlor	127569	134531	138102	143682	143772	137531	4.95
Aldrin	140770	136349	138910	142102	143636	140354	2.02
Heptachlor epoxide	129106	124480	125999	129539	129206	127666	1.79
Endosulfan I	121976	120599	121149	124662	124146	122506	1.48
4,4'-DDE	118655	117391	118747	123705	123468	120393	2.46
Dieldrin	126844	126952	128470	133780	132931	129795	2.56
Endrin	89930	97948	98538	105524	104655	99319	6.32
Endosulfan II	103841	98672	99045	106162	104660	102476	3.33
4,4'-DDD	85672	94475	95042	102159	101640	95798	6.99
Endrin aldehyde	55658	51831	51382	54320	51134	52865	3.80
Endosulfan sulfate	84587	81006	81484	88012	85553	84128	3.47
4,4'-DDT	71387	67084	72176	82683	81617	74989	9.11
Endrin ketone	104207	96075	97820	104640	103465	101241	3.94
Methoxychlor	33857	31791	33021	36869	36335	34375	6.31
alpha-Chlordane	120126	117713	118485	123005	122464	120359	1.95
gamma-Chlordane	125819	123824	125256	130227	130078	127041	2.31
Chlordane 500 ppb			4161				
Chlordane {2}			5273				
Chlordane {3}			14429				
Chlordane {4}			13300				
Chlordane {5}			4070				
Toxaphene 500 ppb			867				
Toxaphene {2}			1098				
Toxaphene {3}			1208				
Toxaphene {4}			2291				
Toxaphene {5}			5235				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/06/2010 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V7414.C V7413.C V7412.C V7411.C V7410.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.93	2.93	2.93	2.93	2.93	2.93	2.87	2.99
beta-BHC	3.35	3.35	3.35	3.35	3.35	3.35	3.29	3.41
gamma-BHC (Lindane	3.28	3.28	3.28	3.28	3.28	3.28	3.22	3.34
delta-BHC	3.67	3.67	3.67	3.67	3.67	3.67	3.61	3.73
Heptachlor	3.77	3.78	3.78	3.78	3.78	3.78	3.70	3.86
Aldrin	4.16	4.16	4.16	4.16	4.16	4.16	4.08	4.24
Heptachlor epoxide	4.86	4.86	4.86	4.86	4.86	4.86	4.78	4.94
Endosulfan I	5.38	5.38	5.38	5.38	5.38	5.38	5.30	5.46
4,4'-DDE	5.55	5.55	5.55	5.55	5.55	5.55	5.45	5.65
Dieldrin	5.76	5.76	5.76	5.76	5.76	5.76	5.66	5.86
Endrin	6.18	6.18	6.19	6.19	6.19	6.19	6.09	6.29
Endosulfan II	6.49	6.49	6.49	6.49	6.49	6.49	6.39	6.59
4,4'-DDD	6.38	6.38	6.38	6.38	6.38	6.38	6.28	6.48
Endrin aldehyde	6.94	6.94	6.94	6.94	6.94	6.94	6.82	7.06
Endosulfan sulfate	7.26	7.26	7.26	7.26	7.26	7.26	7.14	7.38
4,4'-DDT	6.83	6.83	6.83	6.83	6.83	6.83	6.71	6.95
Endrin ketone	7.75	7.76	7.76	7.76	7.76	7.76	7.64	7.88
Methoxychlor	7.57	7.57	7.57	7.57	7.57	7.57	7.45	7.69
alpha-Chlordane	5.31	5.31	5.31	5.31	5.31	5.31	5.23	5.39
gamma-Chlordane	5.11	5.11	5.11	5.11	5.11	5.11	5.03	5.19
Chlordane 500 ppb			3.61				3.53	3.69
Chlordane {2}			4.33				4.25	4.41
Chlordane {3}			5.11				5.03	5.19
Chlordane {4}			5.25				5.17	5.33
Chlordane {5}			5.31				5.23	5.39
Toxaphene 500 ppb			5.75				5.67	5.83
Toxaphene {2}			6.62				6.54	6.70
Toxaphene {3}			6.97				6.89	7.05
Toxaphene {4}			7.50				7.42	7.58
Toxaphene {5}			7.86				7.78	7.94

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/06/2010 **Instrument ID:** GC-V
GC Column (2nd): RTX-CLP2

Data File: V7414.C V7413.C V7412.C V7411.C V7410.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	514020	555623	566696	585356	591262	562591	5.45
beta-BHC	241503	245584	250847	246543	234798	243855	2.48
gamma-BHC (Lindane	458622	457859	457538	479423	485894	467867	2.93
delta-BHC	466077	435573	443047	471630	463764	456018	3.45
Heptachlor	452361	464671	475507	487249	481712	472300	2.95
Aldrin	477417	454336	459517	466219	470381	465574	1.94
Heptachlor epoxide	454180	414729	417046	419574	412326	423571	4.09
Endosulfan I	417844	400729	401041	405106	397438	404431	1.97
4,4'-DDE	364173	367505	376214	395898	391728	379104	3.75
Dieldrin	412190	409089	413487	428935	419544	416649	1.88
Endrin	332376	321273	320332	336776	330957	328343	2.20
Endosulfan II	356783	344525	339531	353137	345761	347947	1.99
4,4'-DDD	301233	289036	290275	305682	303373	297920	2.59
Endrin aldehyde	172908	161003	164486	169642	160365	165681	3.30
Endosulfan sulfate	266865	256365	252907	266090	257940	260033	2.37
4,4'-DDT	179589	176488	191726	221015	213011	196366	10.13
Endrin ketone	286441	274230	272631	287851	280873	280405	2.46
Methoxychlor	98276	96804	99569	110065	104979	101939	5.39
alpha-Chlordane	423968	390939	390134	400157	394861	400012	3.49
gamma-Chlordane	424433	412357	415491	427897	423273	420690	1.55
Chlordane 500 ppb			15497				
Chlordane {2}			17634				
Chlordane {3}			46211				
Chlordane {4}			35534				
Chlordane {5}			41369				
Toxaphene 500 ppb			3063				
Toxaphene {2}			6019				
Toxaphene {3}			7452				
Toxaphene {4}			8797				
Toxaphene {5}			6885				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 01/14/2010 **Instrument ID:** GC-V

Data File: V7474.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	3.23	3.17	3.29	165663	153236	7.50
beta-BHC	3.65	3.59	3.71	64774	59720	7.80
gamma-BHC (Lindan	3.57	3.51	3.63	140871	127695	9.35
delta-BHC	3.87	3.81	3.93	141629	129714	8.41
Heptachlor	4.12	4.04	4.20	137531	127717	7.14
Aldrin	4.50	4.42	4.58	140354	127419	9.22
Heptachlor epoxide	5.28	5.20	5.36	127666	115258	9.72
Endosulfan I	5.83	5.75	5.91	122506	110565	9.75
4,4'-DDE	5.73	5.63	5.83	120393	107517	10.70
Dieldrin	6.17	6.07	6.27	129795	115855	10.74
Endrin	6.51	6.41	6.61	99319	89507	9.88
Endosulfan II	6.82	6.72	6.92	102476	91446	10.76
4,4'-DDD	6.59	6.49	6.69	95798	86263	9.95
Endrin aldehyde	7.30	7.18	7.42	52865	45968	13.05
Endosulfan sulfate	7.73	7.61	7.85	84128	76747	8.77
4,4'-DDT	6.96	6.84	7.08	74989	68784	8.27
Endrin ketone	7.97	7.86	8.10	101241	98912	2.30
Methoxychlor	7.48	7.36	7.60	34375	29574	13.97
alpha-Chlordane	5.63	5.55	5.71	120359	108436	9.91
gamma-Chlordane	5.45	5.37	5.53	127041	114550	9.83
Chlordane 500 ppb	4.03	3.95	4.11	4161	3927	5.62
Chlordane {2}	4.66	4.58	4.74	5273	4944	6.24
Chlordane {3}	5.45	5.37	5.53	14429	13449	6.79
Chlordane {4}	5.63	5.55	5.71	13300	12854	3.36
Chlordane {5}	6.73	6.65	6.81	4070	3655	10.20
Toxaphene 500 ppb	6.13	6.05	6.21	867	830	4.22
Toxaphene {2}	6.55	6.47	6.63	1098	997	9.24
Toxaphene {3}	6.96	6.88	7.04	1208	1172	2.93
Toxaphene {4}	7.41	7.33	7.49	2291	2058	10.16
Toxaphene {5}	7.96	7.88	8.04	5235	4581	12.49

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 01/14/2010 **Instrument ID:** GC-V

Data File: V7474.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.93	2.87	2.99	562591	527893	6.17
beta-BHC	3.35	3.29	3.41	243855	239067	1.96
gamma-BHC (Lindan	3.28	3.22	3.34	467867	420770	10.07
delta-BHC	3.68	3.61	3.73	456018	414197	9.17
Heptachlor	3.78	3.70	3.86	472300	460385	2.52
Aldrin	4.16	4.08	4.24	465574	427837	8.11
Heptachlor epoxide	4.86	4.78	4.94	423571	386841	8.67
Endosulfan I	5.39	5.30	5.46	404431	370263	8.45
4,4'-DDE	5.56	5.45	5.65	379104	344343	9.17
Dieldrin	5.76	5.66	5.86	416649	385349	7.51
Endrin	6.19	6.09	6.29	328343	303649	7.52
Endosulfan II	6.50	6.39	6.59	347947	313989	9.76
4,4'-DDD	6.39	6.28	6.48	297920	267845	10.09
Endrin aldehyde	6.94	6.82	7.06	165681	142713	13.86
Endosulfan sulfate	7.26	7.14	7.38	260033	229515	11.74
4,4'-DDT	6.83	6.71	6.95	196366	172140	12.34
Endrin ketone	7.76	7.64	7.88	280405	266129	5.09
Methoxychlor	7.57	7.45	7.69	101939	96869	4.97
alpha-Chlordane	5.31	5.23	5.39	400012	364690	8.83
gamma-Chlordane	5.12	5.03	5.19	420690	385883	8.27
Chlordane 500 ppb	3.61	3.53	3.69	15497	14716	5.04
Chlordane {2}	4.32	4.25	4.41	17634	16559	6.10
Chlordane {3}	5.11	5.03	5.19	46211	44355	4.02
Chlordane {4}	5.25	5.17	5.33	35534	38496	8.33
Chlordane {5}	5.31	5.23	5.39	41369	40565	1.94
Toxaphene 500 ppb	5.75	5.67	5.83	3063	3067	0.13
Toxaphene {2}	6.62	6.54	6.70	6019	6354	5.56
Toxaphene {3}	6.97	6.89	7.05	7452	6997	6.10
Toxaphene {4}	7.50	7.42	7.58	8797	9006	2.38
Toxaphene {5}	7.85	7.78	7.94	6885	7345	6.68

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 01/14/2010 **Instrument ID:** GC-V

Data File: V7500.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	3.23	3.17	3.29	165663	151935	8.29
beta-BHC	3.65	3.59	3.71	64774	61075	5.71
gamma-BHC (Lindan	3.57	3.51	3.63	140871	123865	12.07
delta-BHC	3.87	3.81	3.93	141629	129526	8.55
Heptachlor	4.12	4.04	4.20	137531	118310	13.98
Aldrin	4.50	4.42	4.58	140354	126905	9.58
Heptachlor epoxide	5.28	5.20	5.36	127666	115555	9.49
Endosulfan I	5.83	5.75	5.91	122506	113538	7.32
4,4'-DDE	5.73	5.63	5.83	120393	110139	8.52
Dieldrin	6.17	6.07	6.27	129795	120627	7.06
Endrin	6.51	6.41	6.61	99319	90628	8.75
Endosulfan II	6.82	6.72	6.92	102476	97380	4.97
4,4'-DDD	6.59	6.49	6.69	95798	95731	0.07
Endrin aldehyde	7.30	7.18	7.42	52865	54056	2.25
Endosulfan sulfate	7.73	7.61	7.85	84128	86289	2.57
4,4'-DDT	6.96	6.84	7.08	74989	65704	12.38
Endrin ketone	7.97	7.86	8.10	101241	109948	8.60
Methoxychlor	7.48	7.36	7.60	34375	30281	11.91
alpha-Chlordane	5.63	5.55	5.71	120359	110967	7.80
gamma-Chlordane	5.45	5.37	5.53	127041	116915	7.97

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/14/2010

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	0112-BLK03	AQUEOUS	76		83		77		89	
MW-1	00239-001	AQUEOUS	61		96		59		89	
MW-2	00239-002	AQUEOUS	71		93		70		103	
MW11	00176-003	AQUEOUS	67		107		60		96	
MW9	00176-004	AQUEOUS	65		96		60		93	
MW8	00176-005	AQUEOUS	63		100		57		94	
MW10	00176-006	AQUEOUS	64		107		47		96	
Pest	PBA0112-MS03	AQUEOUS	67		108		65		110	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	23-172	13-170

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

AQUEOUS PESTICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 121953-003-MSD08

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Linda	100.0	0.0	72.1	72	30 - 148
Heptachlor	100.0	0.0	80.9	81	42 - 143
Aldrin	100.0	0.0	76.9	77	32 - 148
Dieldrin	100.0	0.0	67.2	67	26 - 139
Endrin	100.0	0.0	88.1	88	22 - 175
4,4'-DDT	100.0	0.0	108.7	109	23 - 174

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Linda	0.0	69.7	70	3	15	30 - 148
Heptachlor	0.0	77.4	77	5	14	42 - 143
Aldrin	0.0	73.5	74	4	14	32 - 148
Dieldrin	0.0	64.6	65	3	14	26 - 139
Endrin	0.0	83.5	84	5	13	22 - 175
4,4'-DDT	0.0	104.2	104	5	16	23 - 174

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __6__ outside limits

Spike Recovery: __0___ out of __12__ outside limits

AQUEOUS PESTICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBA0112-MS03

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Linda	100.0	0.0	95.4	95	70 - 130
Heptachlor	100.0	0.0	97.5	98	70 - 130
Aldrin	100.0	0.0	95.7	96	70 - 130
Dieldrin	100.0	0.0	94.2	94	70 - 130
Endrin	100.0	0.0	94.9	95	70 - 130
4,4'-DDT	100.0	0.0	89.7	90	70 - 130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

Spike Recovery: __0___ out of __6__ outside limits

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.70 **DCB 1** 8.82 **TCMX 2** 2.42 **DCB 2** 8.82

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	0112-BLK03	01/14/2010	10:10	2.70		8.82		2.42		8.82	
MW-1	00239-001	01/14/2010	10:23	2.70		8.82		2.42		8.82	
MW-2	00239-002	01/14/2010	10:35	2.70		8.82		2.42		8.82	
MW11	00176-003	01/14/2010	10:47	2.70		8.82		2.42		8.82	
MW9	00176-004	01/14/2010	10:59	2.70		8.82		2.42		8.82	
MW8	00176-005	01/14/2010	11:11	2.70		8.82		2.42		8.82	
MW10	00176-006	01/14/2010	11:24	2.70		8.82		2.42		8.82	
Pest	PBA0112-MS03	01/14/2010	11:36	2.70		8.82		2.42		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 01/14/2010

Data file: V7473.D Thu Jan 14 09:16:48 2010

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	7215315	Endrin (1)	8560083	2.37	3.71
DDD	174942	Endrin ketone	238283		
DDE	0	Endrin aldehyde	91400		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	18099809	Endrin (2)	29926676	3.62	2.86
DDD	679404	Endrin ketone	656192		
DDE	0	Endrin aldehyde	225431		

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7482.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 10:47
Operator : IB
Sample : MW11,00176-003,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 11:18:34 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds							
1) S TCMX		2.70	2.42	13320180	42061488	67.057	60.373m
Spiked Amount	100.000			Recovery	=	67.06%	60.37%
2) S DCB		8.82	8.82	5930353	12057488	106.609	96.441
Spiked Amount	100.000			Recovery	=	106.61%	96.44%
Target Compounds							
Sum Chlordane				0	0	N.D.	N.D.
Average Chlordane						0.000	0.000
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

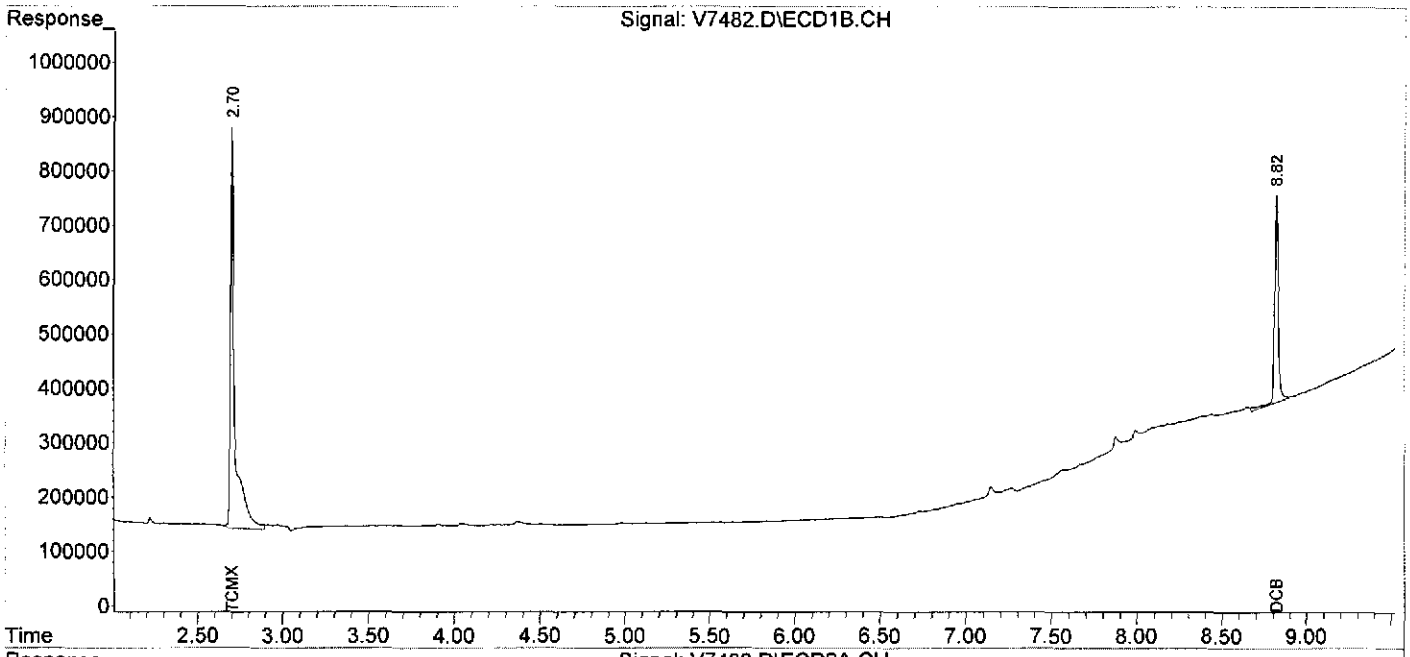
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

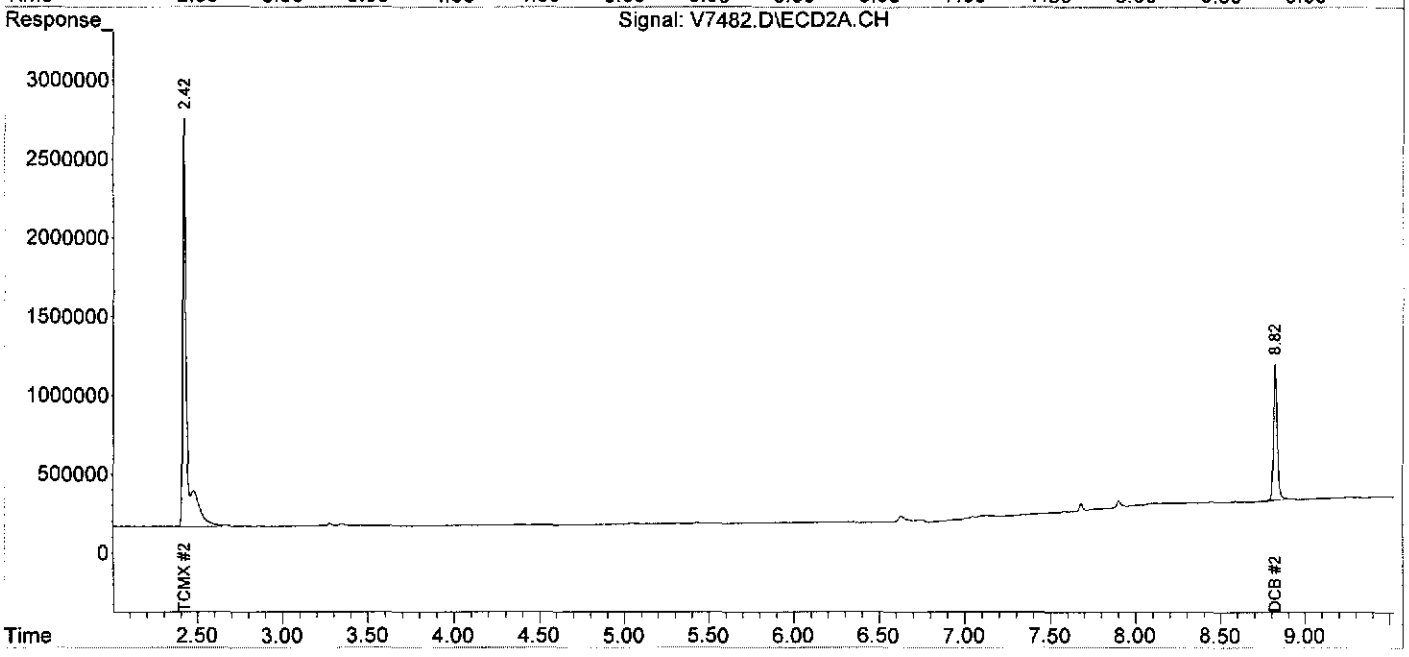
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7482.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 10:47
Operator : IB
Sample : MW11,00176-003,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 11:18:34 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7483.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 10:59
Operator : IB
Sample : MW9,00176-004,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 11:19:17 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.70	2.42	12813190	41954258	64.505m	60.219m
Spiked Amount 100.000			Recovery	=	64.50%	60.22%
2) S DCB	8.82	8.82	5327205	11631898	95.767m	93.037
Spiked Amount 100.000			Recovery	=	95.77%	93.04%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

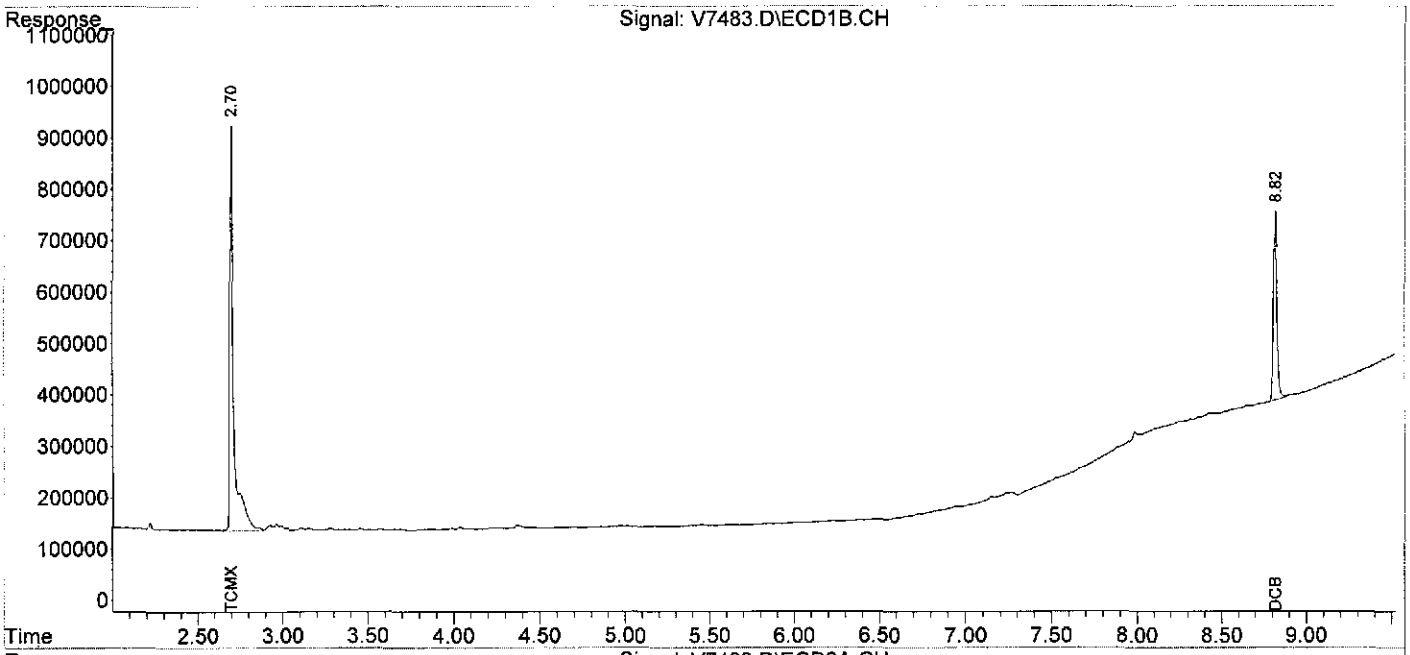
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

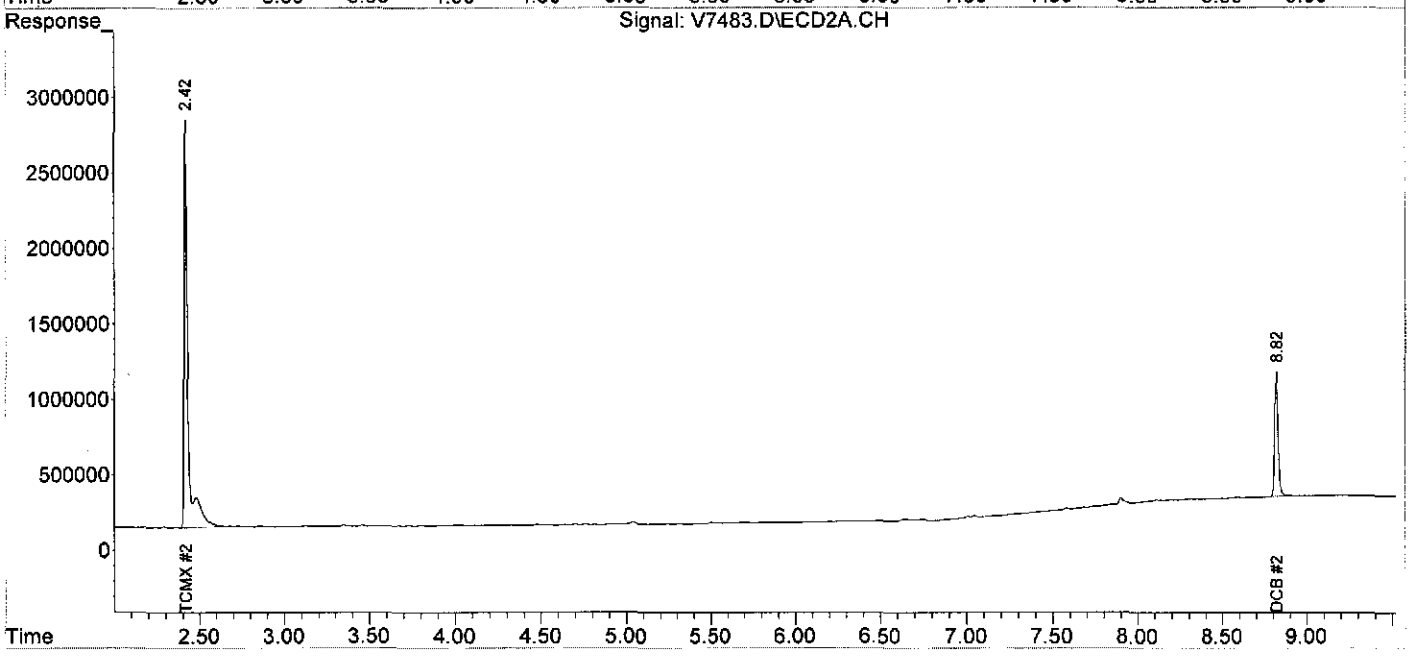
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7483.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 10:59
Operator : IB
Sample : MW9,00176-004,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 11:19:17 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-14-10\
Data File : V7484.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 11:11
Operator : IB
Sample : MW8,00176-005,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 11:24:40 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.70	2.42	12528402	39655726	63.071	56.920m
Spiked Amount 100.000			Recovery	=	63.07%	56.92%
2) S DCB	8.82	8.82	5570859	11807549	100.147	94.442
Spiked Amount 100.000			Recovery	=	100.15%	94.44%
Target Compounds						
4) T beta-BHC	3.66	3.35	209527	734344	3.235	3.011
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

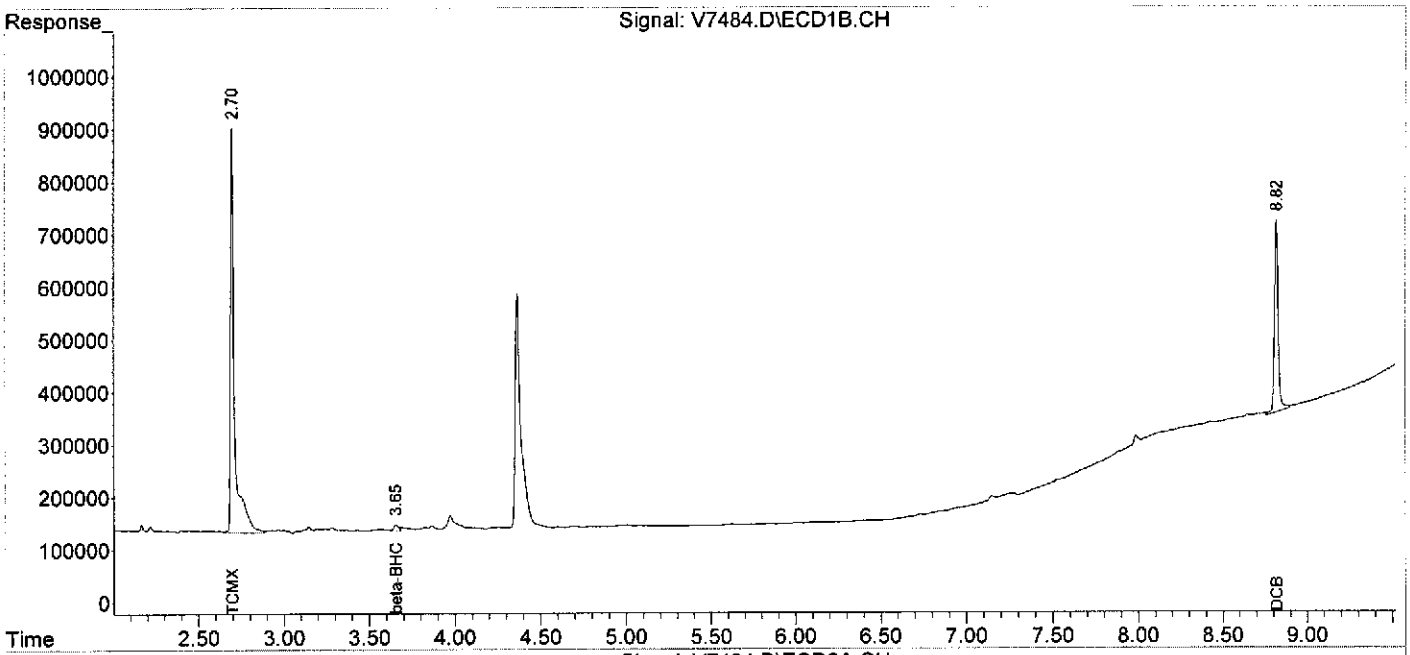
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

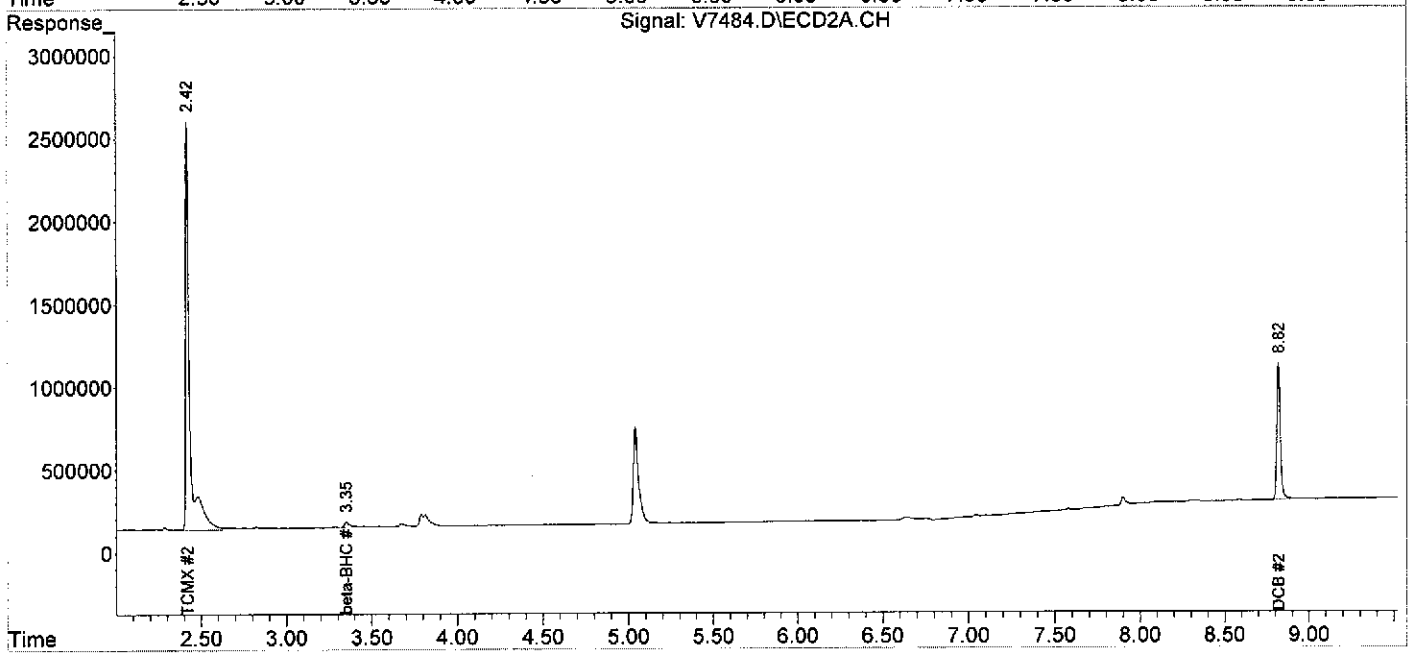
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-14-10\
Data File : V7484.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 11:11
Operator : IB
Sample : MW8,00176-005,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 11:24:40 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-14-10\
Data File : V7485.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 11:24
Operator : IB
Sample : MW10,00176-006,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 11:34:33 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds							
1) S TCMX		2.70	2.42	12633974	32532197	63.603m	46.695m#
Spiked Amount	100.000			Recovery	=	63.60%	46.70%
2) S DCB		8.82	8.82	5933369	12028680	106.664	96.210
Spiked Amount	100.000			Recovery	=	106.66%	96.21%
Target Compounds							
Sum Chlordane				0	0	N.D.	N.D.
Average Chlordane						0.000	0.000
Sum Toxaphene				0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

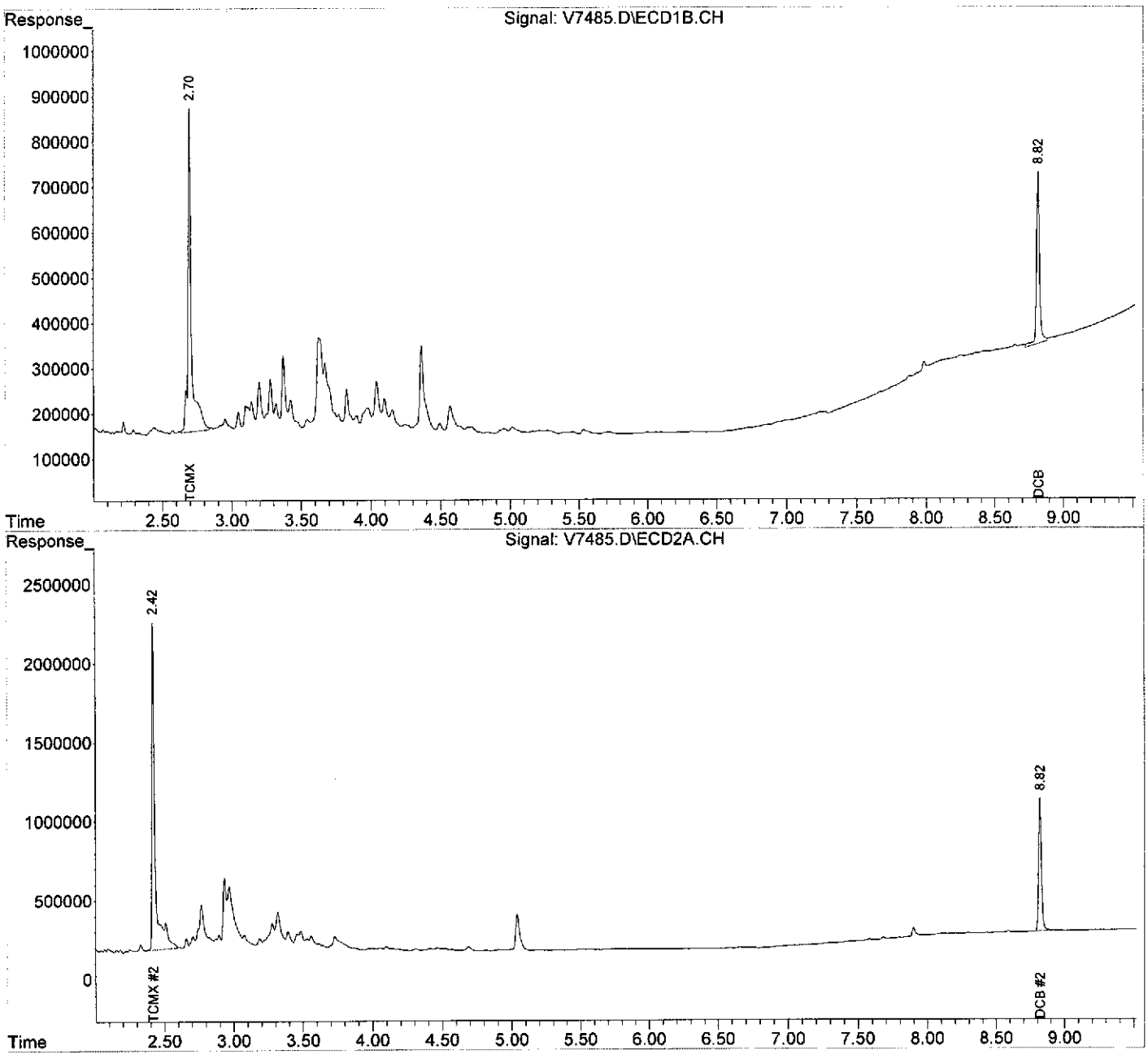
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-14-10\
Data File : V7485.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 11:24
Operator : IB
Sample : MW10,00176-006,A,1000ml,100,01/12/10,1
Misc : PENNJERSEY/PALMER,01/07/10,01/07/10,1
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 11:34:33 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7479.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 10:10
Operator : IB
Sample : Pest,0112-BLK03,A,1000ml,100,01/12/10,1
Misc : NA,NA,NA,1
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 10:21:23 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.70	2.42	15106281	53520815	76.049	76.821
Spiked Amount 100.000			Recovery	=	76.05%	76.82%
2) S DCB	8.82	8.82	4636665	11152129	83.353	89.199
Spiked Amount 100.000			Recovery	=	83.35%	89.20%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

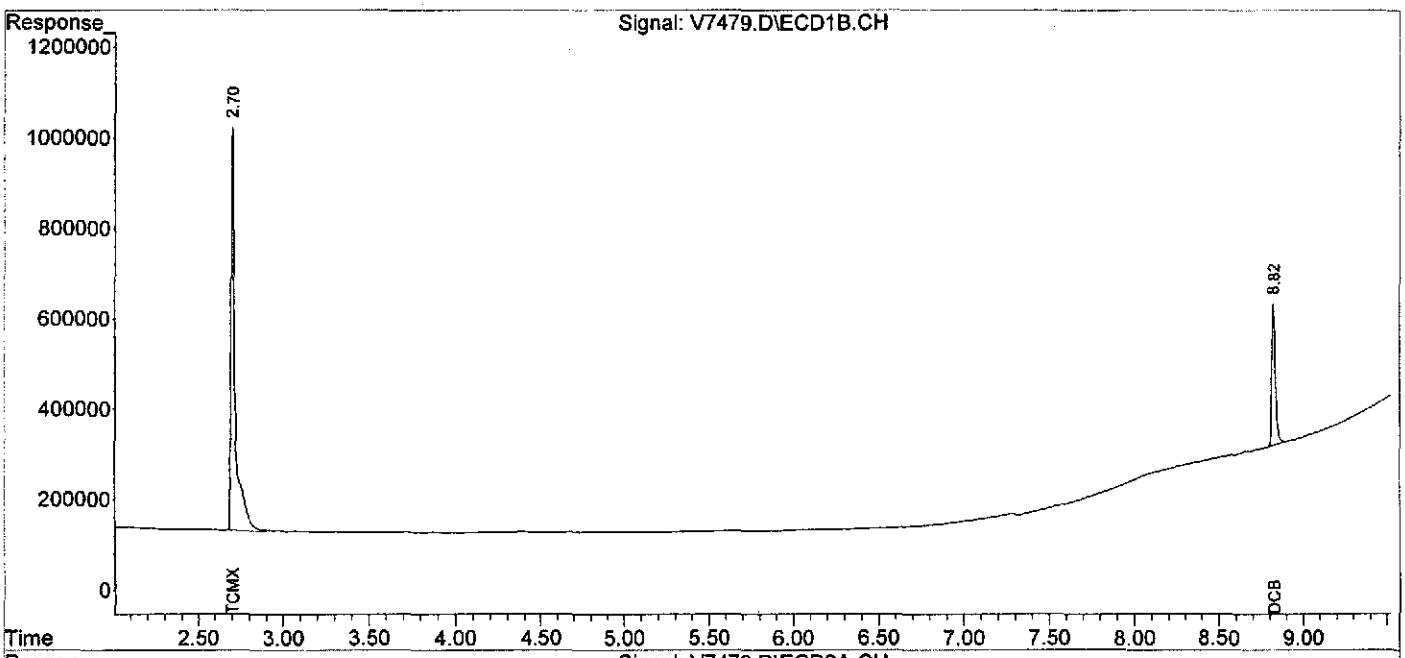
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

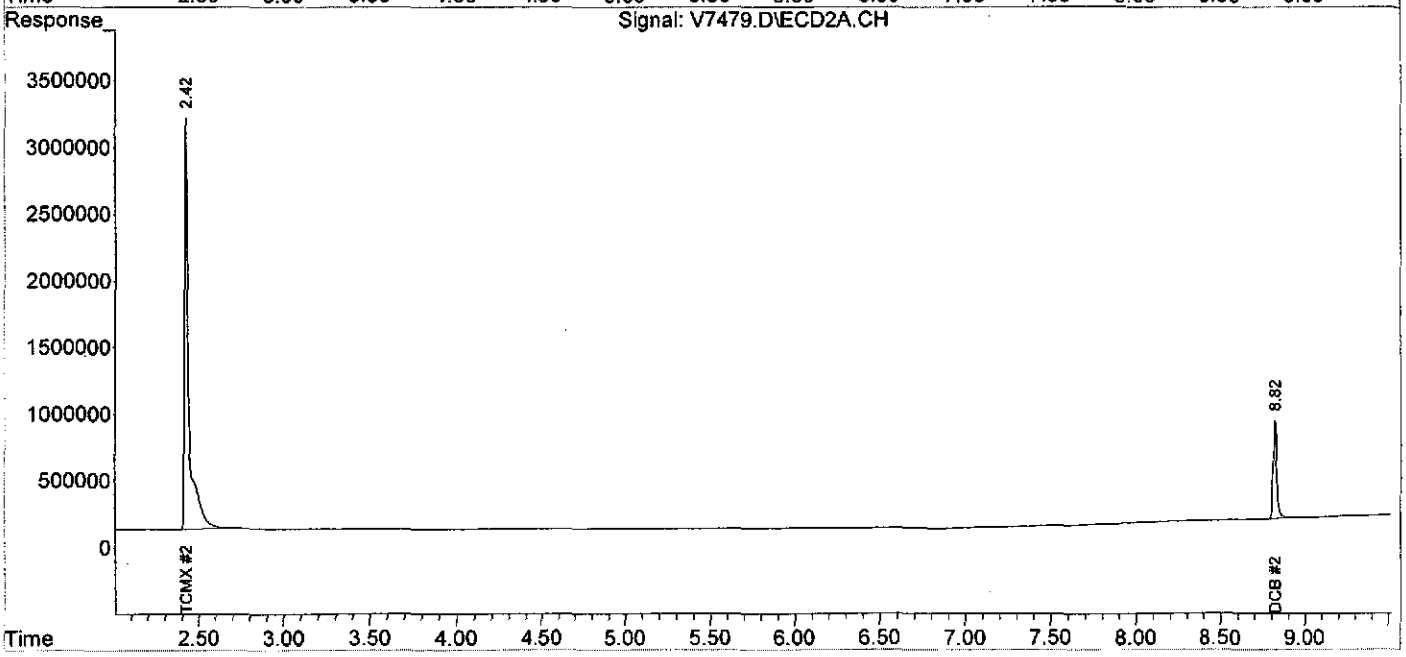
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7479.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 10:10
Operator : IB
Sample : Pest,0112-BLK03,A,1000ml,100,01/12/10,1
Misc : NA,NA,NA,1
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 10:21:23 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7474.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 9:04
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 09:15:25 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Wed Jan 13 09:25:15 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

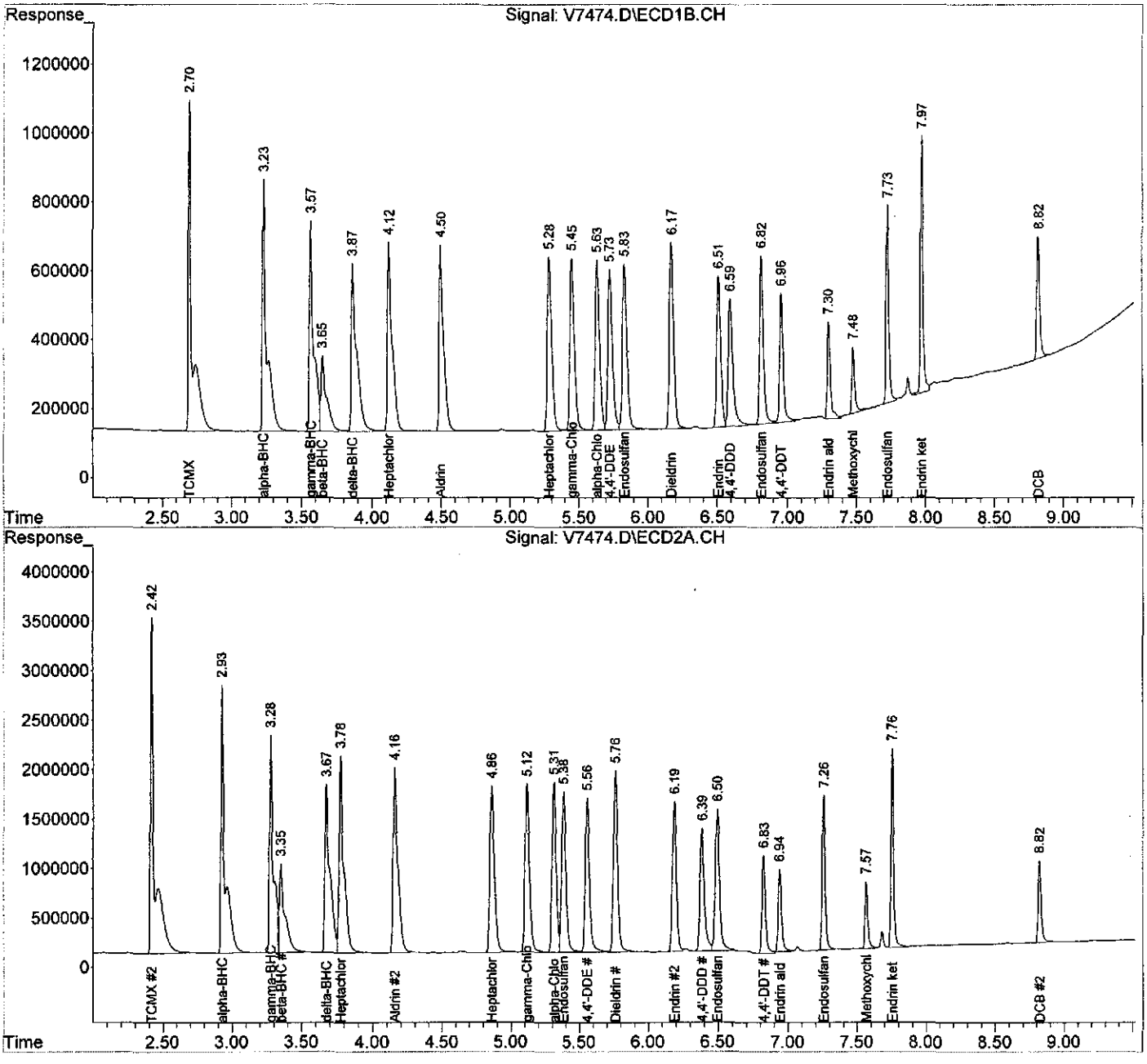
	Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds							
1) S	TCMX		2.70	2.42	18389688	66661424	92.579m	95.683m
Spiked Amount		100.000			Recovery	=	92.58%	95.68%
2) S	DCB		8.82	8.82	5308361	12564233	95.428	100.494
Spiked Amount		100.000			Recovery	=	95.43%	100.49%
	Target Compounds							
3) T	alpha-BHC		3.23	2.93	15323593	52789279	92.499m	93.832m
4) T	beta-BHC		3.65	3.35	5971974	23906688	92.197	98.037
5) T	gamma-BHC (Linda		3.57	3.28	12769546	42077046	90.647	89.934m
6) T	delta-BHC		3.87	3.68	12971375	41419733	91.587	90.829
7) T	Heptachlor		4.12	3.78	12771735	46038523	92.864	97.477
8) T	Aldrin		4.50	4.16	12741888	42783749	90.784	91.895
9) T	Heptachlor epoxi		5.28	4.86	11525837	38684053	90.281	91.328
10) T	Endosulfan I		5.83	5.39	11056476	37026349	90.252	91.552
11) T	4,4'-DDE		5.73	5.56	10751654	34434313	89.304	90.831
12) T	Dieldrin		6.17	5.76	11585530	38534878	89.260	92.488
13) T	Endrin		6.51	6.19	8950706	30364850	90.121	92.479
14) T	Endosulfan II		6.82	6.50	9144606	31398918	89.236	90.240
15) T	4,4'-DDD		6.59	6.39	8626284	26784501	90.047	89.905
16) T	Endrin aldehyde		7.30	6.94	4596825	14271308	86.954m	86.137
17) T	Endosulfan sulfa		7.73	7.26	7674697	22951513	91.226	88.264
18) T	4,4'-DDT		6.96	6.83	6878421	17214004	91.725	87.663m
19) T	Endrin ketone		7.97	7.76	9891204	26612911	97.699	94.909
20) T	Methoxychlor		7.48	7.57	2957377	9686882	86.034m	95.027
21) T	alpha-Chlordane		5.63	5.31	10843647	36468987	90.095	91.170
22) T	gamma-Chlordane		5.45	5.12	11455050	38588322	90.168	91.726
Sum	Chlordane				0	0	N.D.	N.D.
Average	Chlordane						0.000	0.000
Sum	Toxaphene				0	0	N.D.	N.D.
Average	Toxaphene						0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7474.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 9:04
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 09:15:25 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Wed Jan 13 09:25:15 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7475.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 9:16
Operator : IB
Sample : TOX_C_IAS_3504,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 09:30:31 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.70	2.42	18309000	65573637	92.172m	94.122m
Spiked Amount 100.000			Recovery	=	92.17%	94.12%
2) S DCB	8.82	8.82	5486267	13164402	98.626	105.294
Spiked Amount 100.000			Recovery	=	98.63%	105.29%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
28) L2 Toxaphene	6.13	5.75	415194	1533396	478.907	500.650
29) L2 Toxaphene {2}	6.55	6.62	498445	3177039	453.810	527.812m
30) L2 Toxaphene {3}	6.96	6.97	586045	3498629	485.327	469.519
31) L2 Toxaphene {4}	7.41	7.50	1029192	4502763	449.203	511.876
32) L2 Toxaphene {5}	7.96	7.85	2290376	3672494	437.526m	533.414
Sum Toxaphene			4819251	16384322	2304.773	2543.271
Average Toxaphene					460.955	508.654

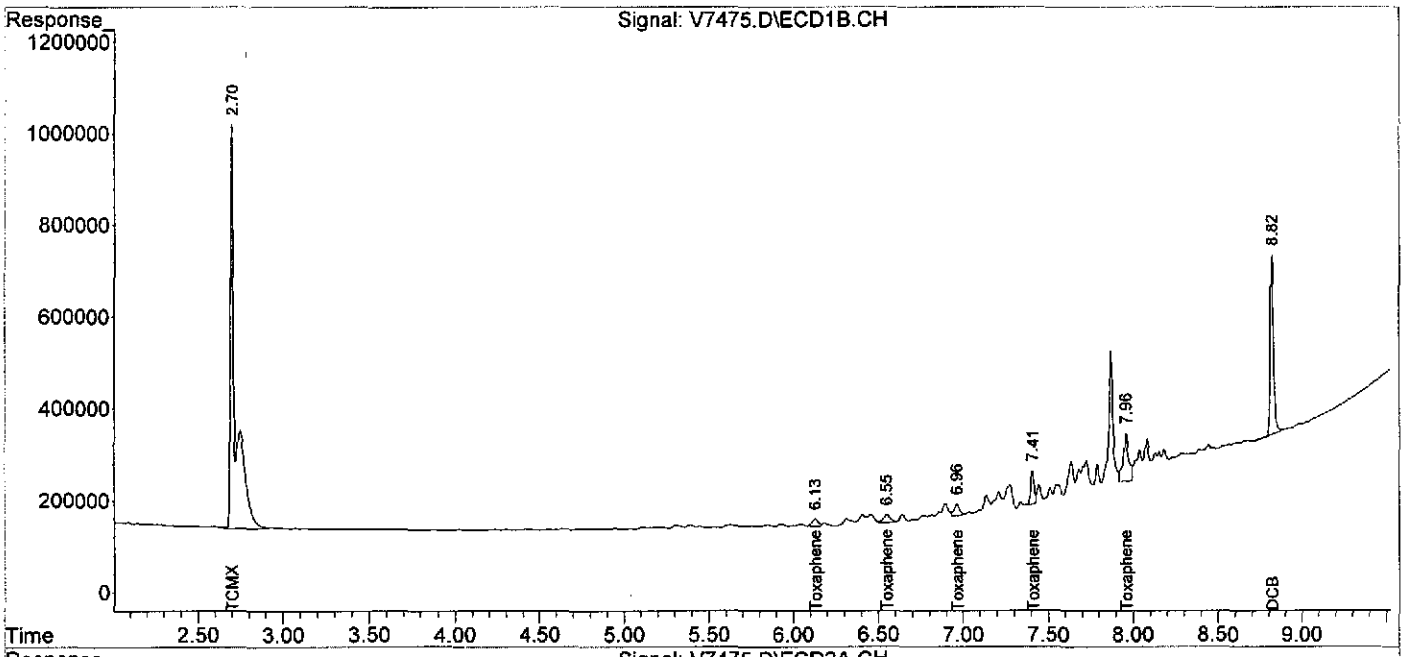
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

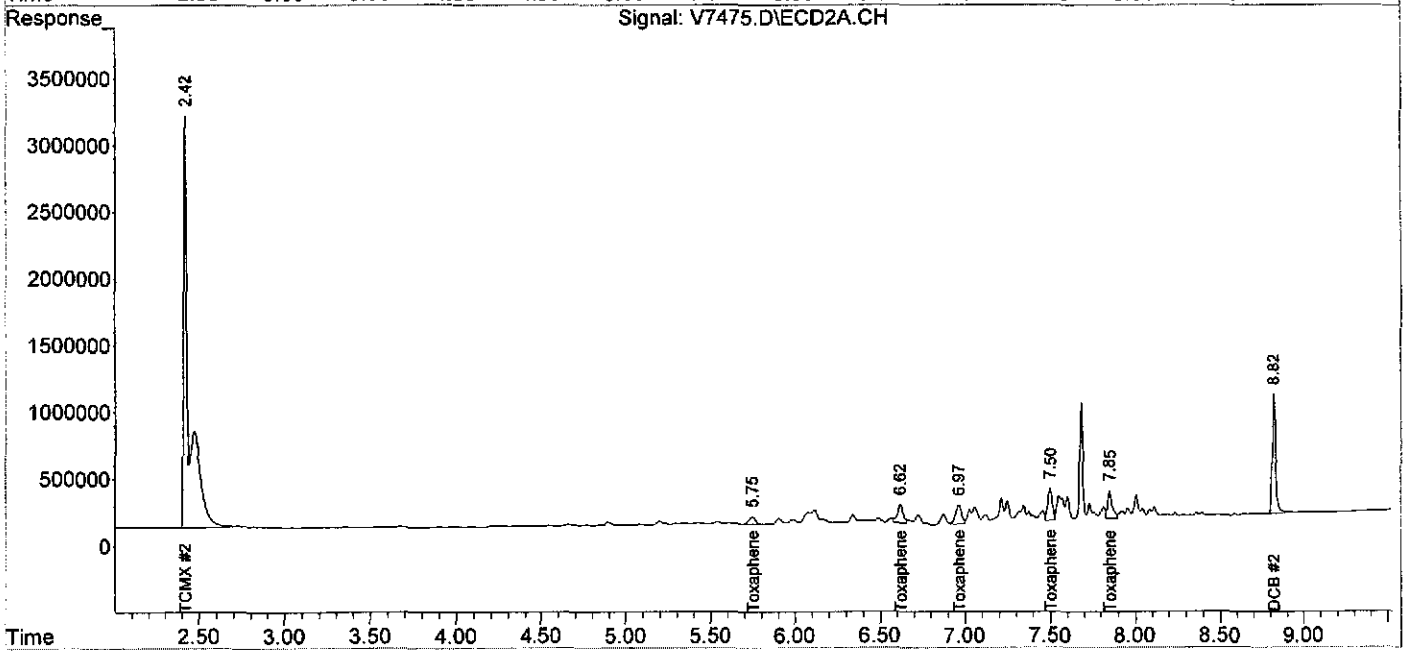
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7475.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 9:16
Operator : IB
Sample : TOX_C_IAS_3504,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 09:30:31 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7476.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 9:29
Operator : IB
Sample : CHLOR_C_IAS_3503,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 09:43:15 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.70	2.42	17733149	64669426	89.273m	92.824m
Spiked Amount 100.000			Recovery	=	89.27%	92.82%
2) S DCB	8.82	8.82	5234835	12322851	94.106	98.563
Spiked Amount 100.000			Recovery	=	94.11%	98.56%
Target Compounds						
23) L1 Chlordane	4.03	3.61	1963525	7357912	471.910	474.801
24) L1 Chlordane {2}	4.66	4.32	2472248	8279506	468.812	469.522
25) L1 Chlordane {3}	5.45	5.11	6724365	22177269	466.028	479.916
26) L1 Chlordane {4}	5.63	5.25	6426923	19247940	483.222m	541.669
27) L1 Chlordane {5}	6.73	5.31	1827554	20282363	448.980	490.278
Sum Chlordane			19414616	77344990	2338.951	2456.187
Average Chlordane					467.790	491.237
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

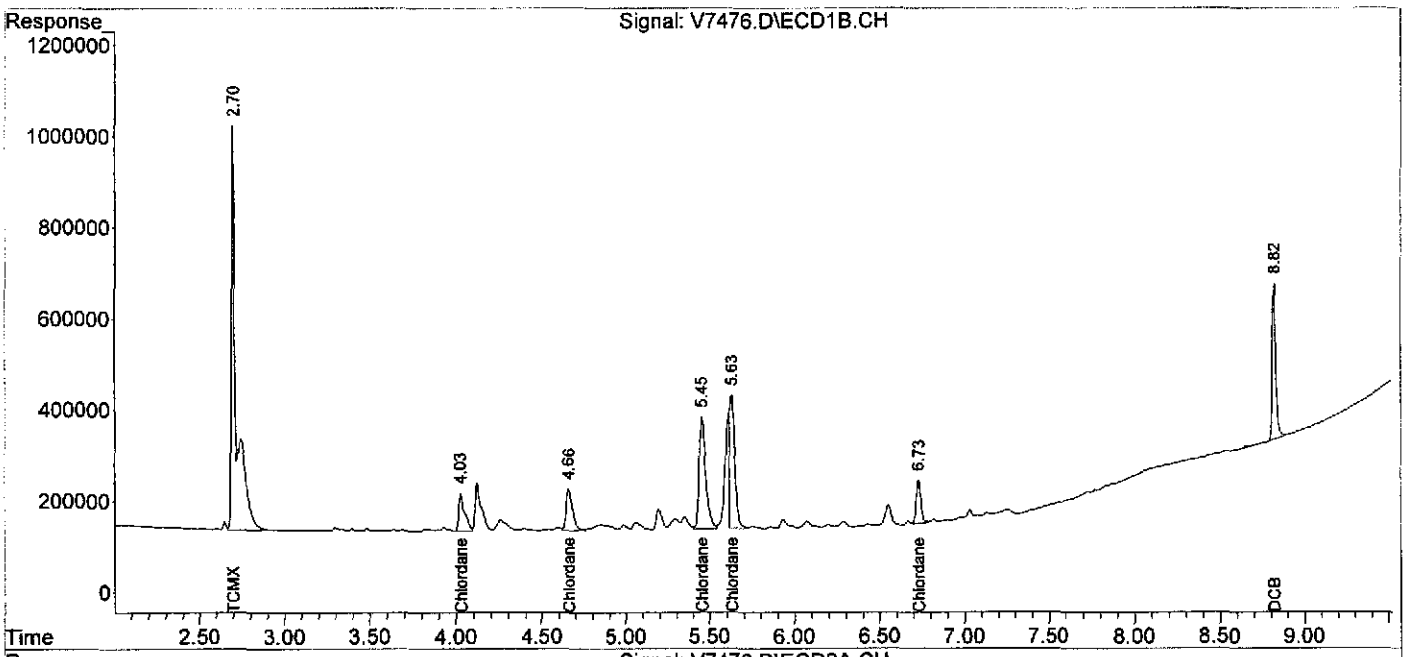
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

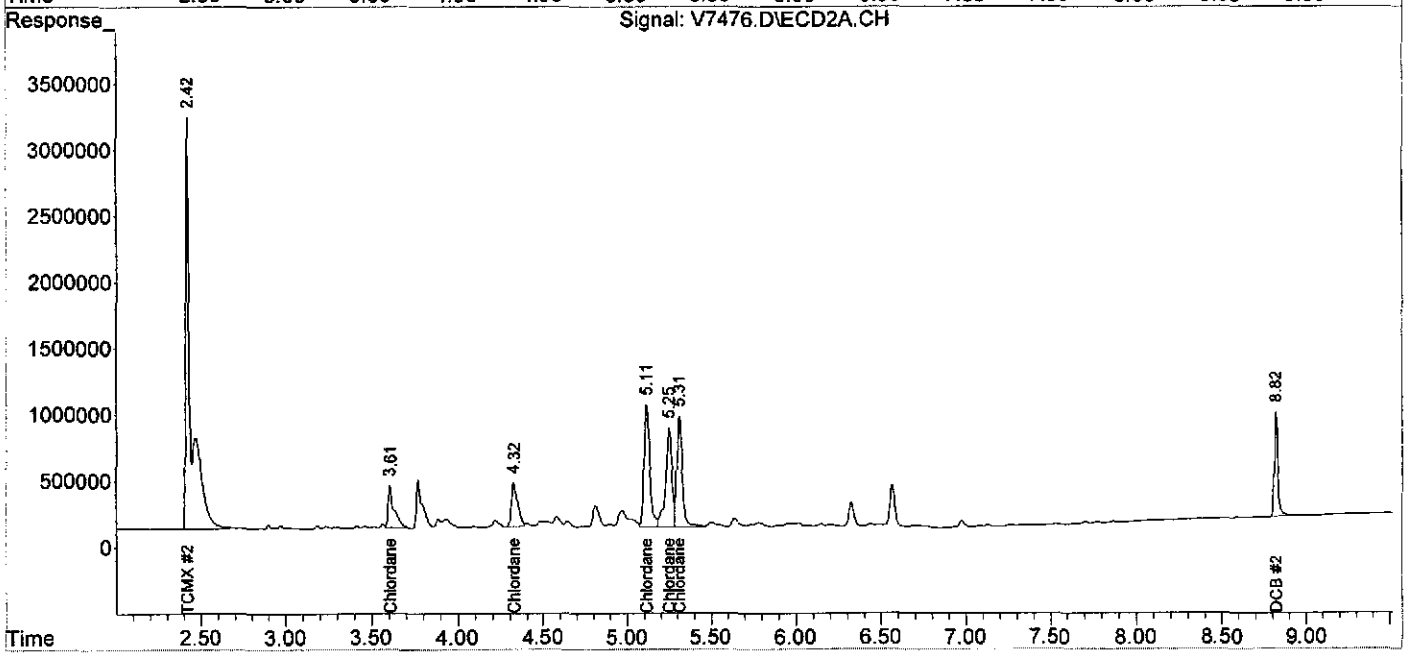
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-14-10\
Data File : V7476.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 9:29
Operator : IB
Sample : CHLOR_C_IAS_3503,0.5_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 09:43:15 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0314

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-14-10\
Data File : V7500.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 15:03
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 15:14:52 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	2.70	2.42	18296912	68218667	92.112m	97.918m
	Spiked Amount 100.000			Recovery	=	92.11%	97.92%
2) S	DCB	8.82	8.82	5974927	13755048	107.411	110.019
	Spiked Amount 100.000			Recovery	=	107.41%	110.02%
	Target Compounds						
3) T	alpha-BHC	3.23	2.93	15193538	55628535	91.713m	98.879m
4) T	beta-BHC	3.65	3.35	6107519	26266267	94.289	107.713
5) T	gamma-BHC (Linda	3.57	3.28	12386472	44520519	87.928m	95.156m
6) T	delta-BHC	3.87	3.67	12952561	43862540	91.454	96.186
7) T	Heptachlor	4.12	3.77	11831027	43429966	86.024	91.954
8) T	Aldrin	4.50	4.15	12690476	45072146	90.418	96.810
9) T	Heptachlor epoxi	5.28	4.86	11555528	41200859	90.514	97.270
10) T	Endosulfan I	5.83	5.38	11353780	40292752	92.679	99.628
11) T	4,4'-DDE	5.73	5.55	11013942	38197100	91.483	100.756
12) T	Dieldrin	6.17	5.76	12062701	42320849	92.936	101.574
13) T	Endrin	6.51	6.18	9062787	32740585	91.249	99.715
14) T	Endosulfan II	6.82	6.49	9738029	36267540	95.027	104.233
15) T	4,4'-DDD	6.59	6.38	9573084	31787582	99.930	106.698
16) T	Endrin aldehyde	7.30	6.94	5405591	17785050	102.253	107.345
17) T	Endosulfan sulfa	7.73	7.25	8628893	28078544	102.568	107.980
18) T	4,4'-DDT	6.96	6.82	6570433	20641574	87.618m	105.118
19) T	Endrin ketone	7.97	7.75	10994825	30517698	108.600	108.834
20) T	Methoxychlor	7.48	7.56	3028082	9705617	88.090m	95.210
21) T	alpha-Chlordane	5.63	5.31	11096663	39739899	92.197	99.347
22) T	gamma-Chlordane	5.45	5.11	11691530	42091275	92.030	100.053
	Sum Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000

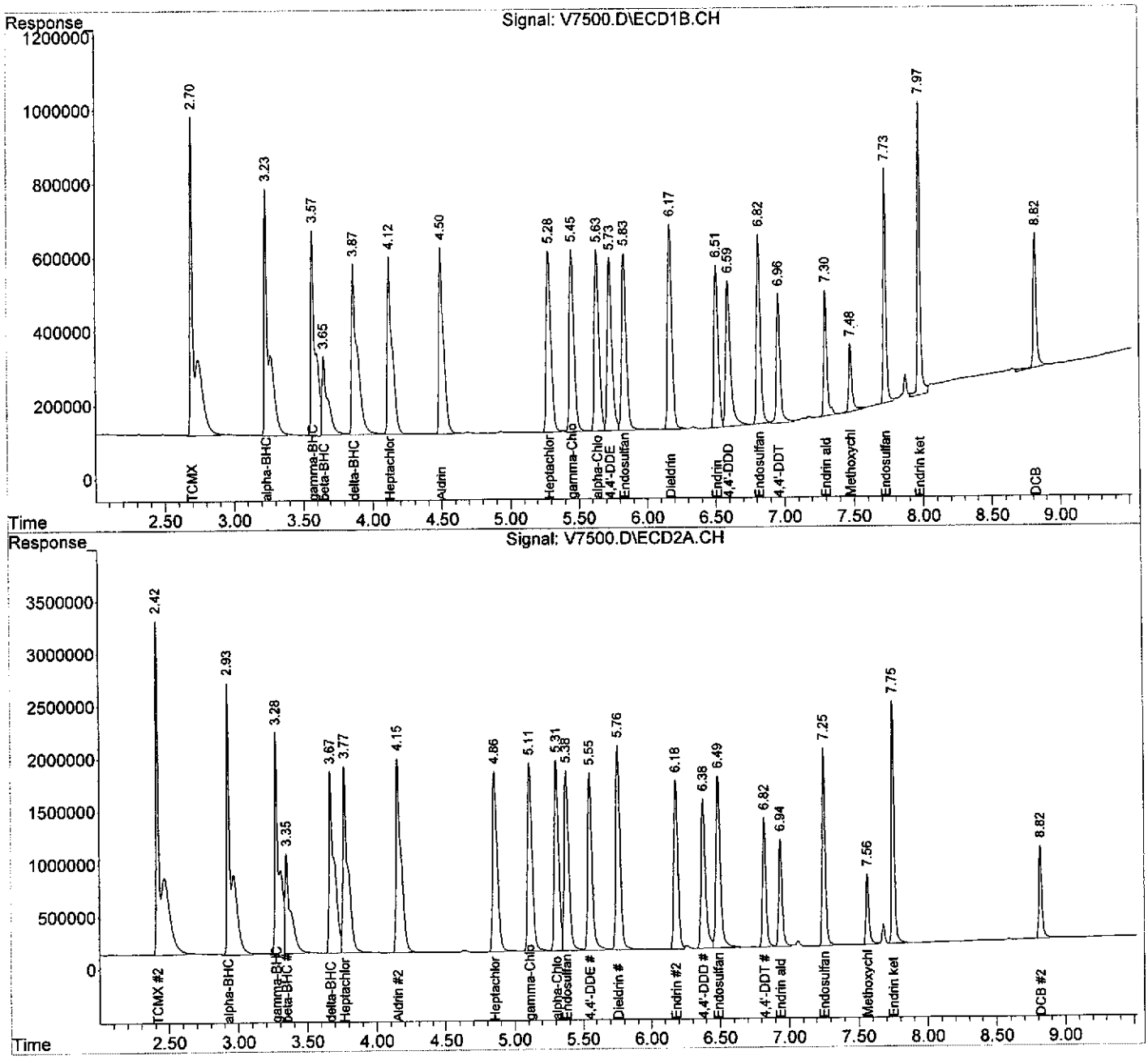
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\01-14-10\
Data File : V7500.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jan 2010 15:03
Operator : IB
Sample : PEST_C_IAS_3514,100_PPB
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jan 14 15:14:52 2010
Quant Method : C:\MSDCHEM\1\METHODS\VPST0106.M
Quant Title :
QLast Update : Thu Jan 14 09:15:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 011

Associated Lab Case for Blank 1: 00176, 00186, 00208, 00239

Matrix: Aqueous Unit: ppb (µg/L) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	40.0	ND
Antimony	4.00	ND
Arsenic	2.00	ND
Barium	40.0	ND
Beryllium	1.00	ND
Cadmium	1.00	ND
Calcium	200	ND
Chromium	8.00	ND
Cobalt	8.00	ND
Copper	8.00	ND
Iron	100	ND
Lead	2.00	ND
Magnesium	200	ND
Manganese	4.00	ND
Mercury	0.500	ND
Nickel	4.00	ND
Potassium	200	ND
Selenium	8.00	ND
Silver	2.00	ND
Sodium	400	ND
Thallium	1.00	ND
Vanadium	8.00	ND
Zinc	8.00	ND

Associated Sample for Blank 1:

00176-003~006; 00186-001~006; 00208-001~008
00239-001~002

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 011
Lab Case: 00176, 00239, 00208, 00186, 00155, 00186, 00170

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	10.0	ND	ND	ND	ND	ND	ND
Antimony	1.00	ND	ND	ND	ND	ND	ND
Arsenic	0.500	ND	ND	ND	ND	ND	ND
Barium	10.0	ND	ND	ND	ND	ND	ND
Beryllium	0.250	ND	ND	ND	ND	ND	ND
Cadmium	0.250	ND	ND	ND	ND	ND	ND
Calcium	50.0	ND	ND	ND	ND	ND	ND
Chromium	2.00	ND	ND	ND	ND	ND	ND
Cobalt	2.00	ND	ND	ND	ND	ND	ND
Copper	2.00	ND	ND	ND	ND	ND	ND
Iron	25.0	ND	ND	ND	ND	ND	ND
Lead	0.500	ND	ND	ND	ND	ND	ND
Magnesium	50.0	ND	ND	ND	ND	ND	ND
Manganese	1.00	ND	ND	ND	ND	ND	ND
Mercury	0.250	ND	ND	ND			
Nickel	1.00	ND	ND	ND	ND	ND	ND
Potassium	50.0	ND	ND	ND	ND	ND	ND
Selenium	2.00	ND	ND	ND	ND	ND	ND
Silver	0.500	ND	ND	ND	ND	ND	ND
Sodium	100	ND	ND	ND	ND	ND	ND
Thallium	0.250	ND	ND	ND	ND	ND	ND
Vanadium	2.00	ND	ND	ND	ND	ND	ND
Zinc	2.00	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 011
Lab Case: 00176, 00239, 00208, 00186, 00155, 00186, 00170

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	10.0	400	432	108	404	101	396	99.0	424	106
Antimony	1.00	120	129	108	126	105	131	109	127	106
Arsenic	0.500	20.0	20.0	100	21.3	107	20.6	103	19.8	99.0
Barium	10.0	400	410	103	404	101	417	104	403	101
Beryllium	0.250	10.0	10.2	102	10.1	101	10.7	107	10.2	102
Cadmium	0.250	10.0	10.2	102	10.4	104	10.7	107	10.5	105
Calcium	50.0	10000	10900	109	10200	102	10200	102	11000	110
Chromium	2.00	20.0	19.9	99.5	20.9	105	20.5	103	19.9	99.5
Cobalt	2.00	100	101	101	105	105	103	103	105	105
Copper	2.00	50.0	54.2	108	51.3	103	50.0	100	53.8	108
Iron	25.0	200	201	101	209	105	201	101	215	108
Lead	0.500	10.0	10.6	106	10.5	105	10.8	108	10.5	105
Magnesium	50.0	10000	10800	108	10200	102	10100	101	10800	108
Manganese	1.00	30.0	30.2	101	31.7	106	31.2	104	29.9	99.7
Mercury	0.250	5.00	5.08	102	5.17	103	5.19	104		
Nickel	1.00	80.0	86.8	109	81.0	101	80.5	101	84.8	106
Potassium	50.0	10000	10800	108	10200	102	10300	103	10800	108
Selenium	2.00	10.0	10.8	108	9.85	98.5	9.11	91.1	10.3	103
Silver	0.500	20.0	19.3	96.5	19.5	97.5	20.1	101	19.3	96.5
Sodium	100	10000	10600	106	10100	101	10100	101	11000	110
Thallium	0.250	20.0	20.1	101	19.9	99.5	20.4	102	19.9	99.5
Vanadium	2.00	100	104	104	109	109	108	108	104	104
Zinc	2.00	40.0	43.4	109	40.8	102	39.8	99.5	43.3	108

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 011
Lab Case: 00176, 00239, 00208, 00186, 00155, 00186, 00170

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R				
Aluminum	10.0	400	412	103	439	110				
Antimony	1.00	120	121	101	125	104				
Arsenic	0.500	20.0	20.1	101	21.5	108				
Barium	10.0	400	389	97.3	401	100				
Beryllium	0.250	10.0	10.0	100	10.6	106				
Cadmium	0.250	10.0	10.1	101	10.6	106				
Calcium	50.0	10000	10300	103	11000	110				
Chromium	2.00	20.0	20.3	102	21.4	107				
Cobalt	2.00	100	102	102	107	107				
Copper	2.00	50.0	54.9	110	52.4	105				
Iron	25.0	200	201	101	215	108				
Lead	0.500	10.0	10.2	102	10.5	105				
Magnesium	50.0	10000	10300	103	10900	109				
Manganese	1.00	30.0	31.2	104	30.0	100				
Nickel	1.00	80.0	87.2	109	83.3	104				
Potassium	50.0	10000	10200	102	10700	107				
Selenium	2.00	10.0	10.5	105	10.6	106				
Silver	0.500	20.0	18.5	92.5	19.3	96.5				
Sodium	100	10000	10400	104	10800	108				
Thallium	0.250	20.0	19.4	97.0	20.0	100				
Vanadium	2.00	100	106	106	101	101				
Zinc	2.00	40.0	40.2	101	42.3	106				

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 011
Lab Case: 00176, 00239, 00208, 00186, 00155, 00186, 00170

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	98900	97800	97.8	NA
Iron	100000	-	96300	94900	94.9	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2120	2150	108	NA
Titanium	2000	-	1960	1940	97.0	NA
Silver	-	20.0	-	19.3	96.5	80-120
Arsenic	-	20.0	-	21.0	105	80-120
Cadmium	-	20.0	-	20.1	101	80-120
Cobalt	-	20.0	-	20.7	104	80-120
Chromium	-	20.0	-	19.9	99.5	80-120
Copper	-	20.0	-	20.2	101	80-120
Manganese	-	20.0	-	21.6	108	80-120
Nickel	-	20.0	-	20.2	101	80-120
Zinc	-	20.0	-	23.5	118	80-120

%R = Percent Recovery

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 011
Lab Case: 00176, 00186, 00208, 00239, 00155, 00170

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	413	ND	103	400					75-125
Antimony	438	ND	110	400					75-125
Arsenic	423	ND	106	400	407	16.1	97.7	400	75-125
Barium	570	148	106	400					75-125
Beryllium	432	ND	108	400					75-125
Cadmium	420	ND	105	400					75-125
Calcium	42600	36300	78.8	8000					75-125
Chromium	411	ND	103	400					75-125
Cobalt	426	ND	107	400					75-125
Copper	422	ND	106	400					75-125
Iron	8710	ND	109	8000	8800	803	100.0	8000	75-125
Lead	437	ND	109	400	404	ND	101	400	75-125
Magnesium	17100	9280	97.8	8000					75-125
Manganese	1990	1710	NC	400					75-125
Mercury	9.80	ND	98.0	10.0					75-125
Nickel	424	ND	106	400					75-125
Potassium	11100	2610	106	8000					75-125
Selenium	432	ND	108	400					75-125
Silver	372	ND	93.0	400					75-125
Sodium	30000	23100	86.3	8000					75-125
Thallium	433	ND	108	400					75-125
Vanadium	429	ND	107	400					75-125
Zinc	553	152	100	400					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 00176-004
QC Sample 1 for following samples:
00176-003~006; 00186-001~006; 00208-001~008
00239-001~002

QC Sample 2 00155-001
QC Sample 2 for following samples:
00155-001; 00170-001~002; 00186-007~008

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 011
Lab Case: 00176, 00186, 00208, 00239, 00155, 00170

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	NA	ND	ND	NC				
Antimony	NA	ND	ND	NC				
Arsenic	NA	ND	ND	NC	20	16.1	16.5	2.45
Barium	20	148	151	2.01				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Calcium	20	36300	35600	1.95				
Chromium	NA	ND	ND	NC				
Cobalt	NA	ND	ND	NC				
Copper	NA	ND	ND	NC				
Iron	NA	ND	ND	NC	20	803	788	1.89
Lead	NA	ND	ND	NC	NA	ND	ND	NC
Magnesium	20	9280	9030	2.73				
Manganese	20	1710	1660	2.97				
Mercury	NA	ND	ND	NC				
Nickel	NA	ND	ND	NC				
Potassium	20	2610	2560	1.93				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	20	23100	22600	2.19				
Thallium	NA	ND	ND	NC				
Vanadium	NA	ND	ND	NC				
Zinc	20	152	148	2.67				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 00176-004
QC Sample 1 for following samples:
00176-003~006; 00186-001~006; 00208-001~008
00239-001~002

QC Sample 2 00155-001
QC Sample 2 for following samples:
00155-001; 00170-001~002; 00186-007~008

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 011
Lab Case: 00176, 00186, 00208, 00239, 00155, 00170

Matrix: Aqueous Unit: ppb (µg/L)

ANALYTE	BSW1			BSW2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	400	376	94.0			
Antimony	400	413	103			
Arsenic	400	393	98.3	400	397	99.3
Barium	400	400	100			
Beryllium	400	397	99.3			
Cadmium	400	388	97.0			
Calcium	8000	8140	102			
Chromium	400	384	96.0			
Cobalt	400	399	99.8			
Copper	400	396	99.0			
Iron	8000	8090	101	8000	8220	103
Lead	400	406	102	400	418	105
Magnesium	8000	7900	98.8			
Manganese	400	392	98.0			
Mercury	10.0	10.1	101			
Nickel	400	394	98.5			
Potassium	8000	8100	101			
Selenium	400	403	101			
Silver	400	381	95.3			
Sodium	8000	8100	101			
Thallium	400	398	99.5			
Vanadium	400	400	100			
Zinc	400	393	98.3			

(1) Control Limits % Recovery = 85-115%

BSW1

00176-003~006; 00186-001~006; 00208-001~008

00239-001~002

BSW2

00155-001; 00170-001~002; 00186-007~008

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 011
Lab Case: 00176, 00186, 00208, 00239

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SERIAL DILUTION SR	SERIAL DILUTION SDR	% Difference	POST SPIKE SPR	POST SPIKE SA	% Recovery
Aluminum	ND			451	400	113
Antimony	ND			435	400	109
Arsenic	ND			446	400	112
Barium	148			562	400	104.0
Beryllium	ND			425	400	106
Cadmium	ND			415	400	104
Calcium	36300	35700	1.67			
Chromium	ND			432	400	108
Cobalt	ND			446	400	112
Copper	ND			442	400	111
Iron	ND			9190	8000	115
Lead	ND			428	400	107
Magnesium	9280	9230	0.540			
Manganese	1710	1700	0.587			
Nickel	ND			442	400	111
Potassium	2610			11700	8000	114.0
Selenium	ND			440	400	110
Silver	ND			368	400	92.0
Sodium	23100	22600	2.19			
Thallium	ND			427	400	107
Vanadium	ND			454	400	114
Zinc	152			594	400	111.0

SR = Sample Result
SDR = Sample Dilution Result

SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 00176-004
QC Sample 1 for following samples:
00176-003~006; 00186-001~006; 00208-001~008
00239-001~002

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869
1/11/2010

Certified for NJDEP, NY(DOH)
NJ ID#14751
NY ID#11402

General Chemistry Quality Control

Matrix: Aqueous **Batch ID: AP013-0001**
Units: µg/L

Blank

Parameter	Method Blank	MDL	Analysis Date
Cyanide, Total	ND	20.0	01/08/10

Duplicate Recovery

Parameter	QC Sample	Result	Duplicate Result	RPD	RPD Limits
Cyanide, Total	00103-001S	248	248	0	20

Spike Recovery

Parameter	QC Sample	Result	Spike Added	Spike Result	%Spike Recovery	%Rec. Limits
Cyanide, Total	00103-001	ND	250	248	99.2	75 - 125

The above blank result applies to the follow samples:

E10-00020-001
E10-00103-001
E10-00103-001D
E10-00103-001S
E10-00103-001SD
E10-00106-001
E10-00174-001
E10-00175-001
E10-00176-003
E10-00176-004
E10-00176-005
E10-00176-006
E10-00112-001

++ = No Flash - Sample boiled at 100C
NA = Not Applicable
ND = Not Detected
NC = Non calculable RPD due to value less than the detection limit
No = Does Not Ignite
Yes = Sample Ignites

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Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER	
Company:	PEC-PA
Address:	2034 E. WELLINGTON Rd.
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	D. KATZ
Sampler:	M. BROGAN
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

SEE BELOW (under comments section for explanation)

Verbal/Fax 24 hr* 48 hr* 72 hr* 2 wk/Std 1 wk*

Hard Copy 3 wk/Std

Other *call for price

Results needed by: STD / STD

Rush TAT Charge **
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format

Results Only
(Reduced)
Regulatory - 15% Surcharge applies
Other (describe)

DISKETTE

(SRP .dbf format)
SRP .wk1 format
lab approved custom EDD
NO DISK/CD REQ'D

ANALYTICAL PARAMETERS

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TAL/TCL	VO+10	# BOTTLES & PRESERVATIVES HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
TRIP		1/7/10		AQ	4	1		✓	4						3	(1)
FIELD			9:30	AQ	4	2		✓	4						3	
MW11			9:55	GW	9	3	✓		4	1	1				3	
MW9			11:20	GW	9	4	✓		4	1	1				3	
MW8			12:20	GW	9	5	✓		4	1	1				3	
MW10			1:35	GW	9	6	✓		4	1	1				3	

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

MDL Req: Old GWQS - 11/05 GWQS - SCC - OTHER (SEE COMMENTS)

Signature/Company	Date	Time	Signature/Company
Relinquished by:	1/7/10	2:40	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2
QAM-025 (OQA-QAM025) - used for: all other fuel oils and unknown contamination

Lab Case # 00176

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

01/2007 rev

Ref No: G 393600196

PROJECT INFORMATION

E10-00176

Case No. E10-00176 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Dick Katz	**Received**	1/7/2010 14:40
EMail	pecinc@aol.com;nagorbm@yaho	☑ EMail EDDs	**Verbal Due** 1/25/2010
Phone	(215) 860-1231 **Fax** 1(215) 860-9988		**Report Due** 1/28/2010

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
00176-001	TRIP	n/a	1/7/2010	Aqueous	ug/L	4
00176-002	FIELD	n/a	1/7/2010@09:30	Aqueous	ug/L	4
00176-003	MW11	n/a	1/7/2010@09:55	Aqueous	ug/L	9
00176-004	MW9	n/a	1/7/2010@11:20	Aqueous	ug/L	9
00176-005	MW8	n/a	1/7/2010@12:20	Aqueous	ug/L	9
00176-006	MW10	n/a	1/7/2010@13:35	Aqueous	ug/L	9
00176-007	MW11-SIM	n/a	1/7/2010@09:55	Aqueous	ug/L	
00176-008	MW9-SIM	n/a	1/7/2010@11:20	Aqueous	ug/L	
00176-009	MW8-SIM	n/a	1/7/2010@12:20	Aqueous	ug/L	
00176-010	MW10-SIM	n/a	1/7/2010@13:35	Aqueous	ug/L	

Sample #	Tests	Status	QA Method
001	TCL VOA + 10	Complete	624
"	Volatiles Method 8011	Complete	8011
002	TCL VOA + 10	Complete	624
"	Volatiles Method 8011	Complete	8011
003	TCL VO+10	Complete	624
"	TCL BNA+20	Complete	625
"	PCB	Complete	8082
"	TCL Pesticides	Complete	8081A
"	Volatiles Method 8011	Complete	8011
"	TAL Metals	Complete	6020/7471A
"	Cyanide, Total	Complete	~~4500CN C E~~ EPA 335.4 fa 1/25/10
004	TCL VO+10	Complete	624
"	TCL BNA+20	Complete	625
"	PCB	Complete	8082
"	TCL Pesticides	Complete	8081A
"	Volatiles Method 8011	Complete	8011
"	TAL Metals	Complete	6020/7471A
"	Cyanide, Total	Complete	~~4500CN C E~~ EPA 335.4 fa 1/25/10
005	TCL VO+10	Complete	624
"	TCL BNA+20	Complete	625

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

PROJECT INFORMATION

E10-00176

Case No. E10-00176 **Project** PALMER

Sample #	Tests	Status	QA Method
"	PCB	Complete	8082
"	TCL Pesticides	Complete	8081A
"	Volatiles Method 8011	Complete	8011
"	TAL Metals	Complete	6020/7471A
"	Cyanide, Total	Complete	4500CN C E
006	TCL VO+10	Complete	624
"	TCL BNA+20	Complete	625
"	PCB	Complete	8082
"	TCL Pesticides	Complete	8081A
"	Volatiles Method 8011	Complete	8011
"	TAL Metals	Complete	6020/7471A
"	Cyanide, Total	Complete	4500CN C E
007	Special BN + SIMS	Run	8270C SIM
008	Special BN + SIMS	Run	8270C SIM
009	Special BN + SIMS	Run	8270C SIM
010	Special BN + SIMS	Run	8270C SIM

01/07/2010 15:22 by Ellen - NOTE 1

DO NOT INCLUDE EDB & DBCP IN TCL VO ANALYSIS.

01/21/2010 12:07 by mark - REV 1

REV 01 DUE 1/25/10

PLEASE RE-EXTRACT & ANALYZE SAMPLES #003 - 006 FOR BN-SIMS COMPOUNDS ONLY.

RERUNS ARE LOGGED IN AS SAMPLES #007 - 010

CLEINT IS AWARE SAMPLES ARE BEING EXTRACTED PAST HOLDING TIME
ORIGINAL FAX SENT 1/21/10

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **00176** CLIENT: PEC-PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [initials] DATE 00176

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KN DATE 1/7/10

Laboratory Custody Chronicle

IAL Case No.

E10-00176

Client PennJersey Environmental Consulting

Project PALMER

Received On 1/ 7/2010@14:40

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO+10	00176-003	Aqueous	n/a	n/a	1/11/10	Barbara
"	-004	"	n/a	n/a	1/11/10	Barbara
"	-005	"	n/a	n/a	1/11/10	Barbara
"	-006	"	n/a	n/a	1/11/10	Barbara
TCL VOA + 10	-001	Aqueous	n/a	n/a	1/11/10	Barbara
"	-002	"	n/a	n/a	1/11/10	Barbara

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Special BN + SIMS	-007	Aqueous	1/22/10	Kou-Liang	1/22/10	JC
"	-008	"	1/22/10	Kou-Liang	1/22/10	JC
"	-009	"	1/22/10	Kou-Liang	1/22/10	JC
"	-010	"	1/22/10	Kou-Liang	1/22/10	JC
TCL BNA+20	-003	Aqueous	1/ 8/10	Kou-Liang	1/13/10	JC
"	-004	"	1/ 8/10	Kou-Liang	1/13/10	JC
"	-005	"	1/ 8/10	Kou-Liang	1/13/10	JC
"	-006	"	1/ 8/10	Kou-Liang	1/13/10	JC

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
PCB	-003	Aqueous	1/12/10	Archimede	1/12/10	Sylvia
"	-004	"	1/12/10	Archimede	1/12/10	Sylvia
"	-005	"	1/12/10	Archimede	1/12/10	Sylvia
"	-006	"	1/12/10	Archimede	1/12/10	Sylvia
TCL Pesticides	-003	Aqueous	1/12/10	Archimede	1/14/10	Iwona
"	-004	"	1/12/10	Archimede	1/14/10	Iwona
"	-005	"	1/12/10	Archimede	1/14/10	Iwona
"	-006	"	1/12/10	Archimede	1/14/10	Iwona
Volatiles Method 8011	-001	Aqueous	n/a	n/a	n/a	Iwona
"	-002	"	n/a	n/a	n/a	Iwona
"	-003	"	n/a	n/a	n/a	Iwona
"	-004	"	n/a	n/a	n/a	Iwona
"	-005	"	n/a	n/a	n/a	Iwona
"	-006	"	n/a	n/a	n/a	Iwona

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TAL Metals	-003	Aqueous	1/11/10	Lisa	1/12/10	Wei
"	-004	"	1/11/10	Lisa	1/12/10	Wei
"	-005	"	1/11/10	Lisa	1/12/10	Wei
"	-006	"	1/11/10	Lisa	1/12/10	Wei

Department: Wet Chemistry			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Cyanide, Total	-003	Aqueous	n/a	n/a	1/ 8/10	Geeta
"	-004	"	n/a	n/a	1/ 8/10	Geeta
"	-005	"	n/a	n/a	1/ 8/10	Geeta
"	-006	"	n/a	n/a	1/ 8/10	Geeta

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E10-01419**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E10-01419

Client PennJersey Environmental Consulting

Project PALMER

Received On 2/16/2010@16:58

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
01419-001	TRIP	n/a	2/16/2010	Aqueous	2
01419-002	FIELD	n/a	2/16/2010@11:15	Aqueous	2
01419-003	TW1	n/a	2/16/2010@13:25	Aqueous	3
01419-004	TW2	n/a	2/16/2010@14:40	Aqueous	4
01419-005	TW3	n/a	2/16/2010@15:50	Aqueous	4

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received five (5) aqueous sample(s) from PennJersey Environmental Consulting (Project: PALMER) on February 16, 2010 for the analysis of:

(5) TCL VOA + 10 + TBA
(2) TCL BN + 15 + SIMS
(1) Metal - Lead

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Jacqueline A Beyl
Reviewed by

3/2/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E10-01419

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E10 - 0419

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	GC/MS Tuning Specifications: a. BFB Passed		✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4.	GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5.	GC/MS Calibration Requirements: a. Calibration Check Compounds		na
	b. System Performance Check Compounds		na
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
	If not met, were the calculations checked and the results qualified as "estimated"?		na
8.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		na
9.	Internal Standard Area/Retention Time Shift meet criteria		✓
10.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		na
11.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12.	Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

02/24/2010
Date

rev 01/10

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS SEMIVOLATILE ANALYSIS

Lab Case Number: E10 - 1419

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. DFTPP Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series.		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank: a. B/N Fraction b. Acid Fraction	✓	
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range) a. B/N Fraction b. Acid Fraction		✓
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) a. B/N Fraction b. Acid Fraction		✓
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		✓
11. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12. Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

2/22/10
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
METAL ANALYSIS

Lab Case Number: E10-01419

		No	Yes
1.	Calibration Summary Meet Criteria.		✓
2.	ICP Interference Check Sample Results Meets Criteria (if applicable)		✓
3.	Serial Dilution/Post Spike Summary Submitted (if applicable) / Meets Criteria		✓
4.	Internal Standards Meet Criteria (if applicable)		✓
5.	Laboratory Control Sample Summary Submitted (if applicable) / Meets Criteria		✓
6.	Blank Contamination: If yes, list compounds and concentrations in each blank:	✓	
7.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).		✓
8.	Extraction Holding Time Met. If not, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not, list number of days exceeded for each sample:		✓

Additional Comments:

Wei Cheng
Inorganic Manager

February 24, 2010
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.
SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E10-01419

Lab ID:	01419-001			01419-002			01419-003			01419-004		
Client ID:	TRIP			FIELD			TW1			TW2		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	2/16/10			2/16/10			2/16/10			2/16/10		
PARAMETER(Units)	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
Volatiles (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
(Including MTBE & TBA)												
Acetone	ND		5.00	ND		5.00	3.68	J	5.00	2.91	J	5.00
tert-Butyl alcohol (TBA)	ND		2.00	ND		2.00	ND		2.00	2.31		2.00
Methyl tert-butyl ether (MTBE)	ND		0.500	ND		0.500	ND		0.500	1.79		0.500
1,1-Dichloroethane	ND		0.500	ND		0.500	0.537		0.500	ND		0.500
2-Butanone (MEK)	ND		5.00	ND		5.00	2.34	J	5.00	ND		5.00
1,2-Dichloroethane (EDC)	ND		0.500	ND		0.500	0.299	J	0.500	ND		0.500
Benzene	ND		0.500	ND		0.500	3.05		0.500	ND		0.500
Toluene	ND		0.500	ND		0.500	7.24		0.500	ND		0.500
Ethylbenzene	ND		0.500	ND		0.500	0.678		0.500	ND		0.500
Total Xylenes	ND		1.00	ND		1.00	1.15		1.00	ND		1.00
Isopropylbenzene	ND		0.500	ND		0.500	33.1		0.500	ND		0.500
Cyclohexane	ND		1.00	ND		1.00	8.81		1.00	ND		1.00
TOTAL VO's:	ND			ND			60.9	J		7.01	J	
TOTAL TIC's:	ND			ND			1340			ND		
TOTAL VO's & TIC's:	ND			ND			1400	J		7.01	J	
Semivolatiles - BN (Units)										*(ug/L-ppb)*		
TOTAL BN'S:										ND		
TOTAL TIC's:	~		~	~		~	~		~	ND		
TOTAL BN'S & TIC's:	~		~	~		~	~		~	ND		
Metals (Units)							*(ug/L-ppb)*					
Lead	~		~	~		~	1.86	J	2.00	~		~

Lab ID:	01419-005		
Client ID:	TW3		
Matrix:	Aqueous		
Sampled Date	2/16/10		
PARAMETER(Units)	Conc	Q	RL
Volatiles (Units)	*(ug/L-ppb)*		
(Including MTBE & TBA)			
tert-Butyl alcohol (TBA)	ND		2.00
Benzene	0.354	J	0.500
Chlorobenzene	63.2		0.500
Ethylbenzene	0.576		0.500
Isopropylbenzene	0.487	J	0.500
1,4-Dichlorobenzene	5.38		0.500
1,2-Dichlorobenzene	1.07		0.500
TOTAL VO's:	71.1	J	
TOTAL TIC's:	141		
TOTAL VO's & TIC's:	212	J	
Semivolatiles - BN (Units)	*(ug/L-ppb)*		
Naphthalene	1.52		1.00
2-Methylnaphthalene	4.67		1.00
Acenaphthene	1.17		1.00
Fluorene	0.921	J	1.00
Phenanthrene	0.810	J	1.00
TOTAL BN'S:	9.09	J	
TOTAL TIC's:	100		
TOTAL BN'S & TIC's:	109	J	

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-001
Client ID: TRIP
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Data file: G0778.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.310
Chloromethane	ND		0.500	0.310
Vinyl chloride	ND		0.500	0.370
Bromomethane	ND		0.500	0.450
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		0.500	0.320
1,1-Dichloroethene	ND		0.500	0.240
Acetone	ND		5.00	2.63
Carbon disulfide	ND		0.500	0.300
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.55
trans-1,2-Dichloroethene	ND		0.500	0.290
Methyl tert-butyl ether (MTBE)	ND		0.500	0.170
1,1-Dichloroethane	ND		0.500	0.190
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	ND		5.00	1.82
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.170
1,1,1-Trichloroethane	ND		0.500	0.260
Carbon tetrachloride	ND		0.500	0.320
1,2-Dichloroethane (EDC)	ND		0.500	0.150
Benzene	ND		0.500	0.220
Trichloroethene	ND		0.500	0.200
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.150
cis-1,3-Dichloropropene	ND		0.500	0.160
4-Methyl-2-pentanone (MIBK)	ND		5.00	1.20

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-001
Client ID: TRIP
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Data file: G0778.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.230
trans-1,3-Dichloropropene	ND		0.500	0.170
1,1,2-Trichloroethane	ND		0.500	0.120
Tetrachloroethene	ND		0.500	0.290
2-Hexanone	ND		5.00	1.28
Dibromochloromethane	ND		0.500	0.120
1,2-Dibromoethane (EDB)	ND		0.500	0.290
Chlorobenzene	ND		0.500	0.190
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.720
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.150
Isopropylbenzene	ND		0.500	0.250
1,1,2,2-Tetrachloroethane	ND		0.500	0.450
1,3-Dichlorobenzene	ND		0.500	0.190
1,4-Dichlorobenzene	ND		0.500	0.180
1,2-Dichlorobenzene	ND		0.500	0.200
1,2-Dibromo-3-chloropropane	ND		1.00	0.940
1,2,4-Trichlorobenzene	ND		0.500	0.200
1,2,3-Trichlorobenzene	ND		0.500	0.120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500	0.280
Methyl acetate	ND		5.00	1.65
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.310

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-001
Client ID: TRIP
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Date File: G0778.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-002
Client ID: FIELD
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Data file: G0779.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.310
Chloromethane	ND		0.500	0.310
Vinyl chloride	ND		0.500	0.370
Bromomethane	ND		0.500	0.450
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		0.500	0.320
1,1-Dichloroethene	ND		0.500	0.240
Acetone	ND		5.00	2.63
Carbon disulfide	ND		0.500	0.300
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.55
trans-1,2-Dichloroethene	ND		0.500	0.290
Methyl tert-butyl ether (MTBE)	ND		0.500	0.170
1,1-Dichloroethane	ND		0.500	0.190
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	ND		5.00	1.82
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.170
1,1,1-Trichloroethane	ND		0.500	0.260
Carbon tetrachloride	ND		0.500	0.320
1,2-Dichloroethane (EDC)	ND		0.500	0.150
Benzene	ND		0.500	0.220
Trichloroethene	ND		0.500	0.200
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.150
cis-1,3-Dichloropropene	ND		0.500	0.160
4-Methyl-2-pentanone (MIBK)	ND		5.00	1.20

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-002
Client ID: FIELD
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Data file: G0779.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.230
trans-1,3-Dichloropropene	ND		0.500	0.170
1,1,2-Trichloroethane	ND		0.500	0.120
Tetrachloroethene	ND		0.500	0.290
2-Hexanone	ND		5.00	1.28
Dibromochloromethane	ND		0.500	0.120
1,2-Dibromoethane (EDB)	ND		0.500	0.290
Chlorobenzene	ND		0.500	0.190
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.720
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.150
Isopropylbenzene	ND		0.500	0.250
1,1,2,2-Tetrachloroethane	ND		0.500	0.450
1,3-Dichlorobenzene	ND		0.500	0.190
1,4-Dichlorobenzene	ND		0.500	0.180
1,2-Dichlorobenzene	ND		0.500	0.200
1,2-Dibromo-3-chloropropane	ND		1.00	0.940
1,2,4-Trichlorobenzene	ND		0.500	0.200
1,2,3-Trichlorobenzene	ND		0.500	0.120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500	0.280
Methyl acetate	ND		5.00	1.65
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.310

Total Target Compounds: 0

0012

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-002
Client ID: FIELD
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Date File: G0779.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-003
Client ID: TW1
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Data file: G0775.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.310
Chloromethane	ND		0.500	0.310
Vinyl chloride	ND		0.500	0.370
Bromomethane	ND		0.500	0.450
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		0.500	0.320
1,1-Dichloroethene	ND		0.500	0.240
Acetone	3.68	J	5.00	2.63
Carbon disulfide	ND		0.500	0.300
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.55
trans-1,2-Dichloroethene	ND		0.500	0.290
Methyl tert-butyl ether (MTBE)	ND		0.500	0.170
1,1-Dichloroethane	0.537		0.500	0.190
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	2.34	J	5.00	1.82
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.170
1,1,1-Trichloroethane	ND		0.500	0.260
Carbon tetrachloride	ND		0.500	0.320
1,2-Dichloroethane (EDC)	0.299	J	0.500	0.150
Benzene	3.05		0.500	0.220
Trichloroethene	ND		0.500	0.200
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.150
cis-1,3-Dichloropropene	ND		0.500	0.160
4-Methyl-2-pentanone (MIBK)	ND		5.00	1.20

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-003
Client ID: TW1
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Data file: G0775.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	7.24		0.500	0.230
trans-1,3-Dichloropropene	ND		0.500	0.170
1,1,2-Trichloroethane	ND		0.500	0.120
Tetrachloroethene	ND		0.500	0.290
2-Hexanone	ND		5.00	1.28
Dibromochloromethane	ND		0.500	0.120
1,2-Dibromoethane (EDB)	ND		0.500	0.290
Chlorobenzene	ND		0.500	0.190
Ethylbenzene	0.678		0.500	0.260
Total Xylenes	1.15		1.00	0.720
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.150
Isopropylbenzene	33.1		0.500	0.250
1,1,2,2-Tetrachloroethane	ND		0.500	0.450
1,3-Dichlorobenzene	ND		0.500	0.190
1,4-Dichlorobenzene	ND		0.500	0.180
1,2-Dichlorobenzene	ND		0.500	0.200
1,2-Dibromo-3-chloropropane	ND		1.00	0.940
1,2,4-Trichlorobenzene	ND		0.500	0.200
1,2,3-Trichlorobenzene	ND		0.500	0.120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500	0.280
Methyl acetate	ND		5.00	1.65
Cyclohexane	8.81		1.00	0.260
Methylcyclohexane	ND		0.500	0.310
Total Target Compounds:	60.9	J		

0015

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-003
Client ID: TW1
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Date File: G0775.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	178	13.06
	Unknown aromatic	87.1	13.31
	Substituted benzene	50.5	13.88
	Unknown aromatic	50.0	14.02
	Substituted benzene	40.5	14.36
	Substituted benzene	117	14.91
	Unknown aromatic	74.3	15.11
000091-20-3	Naphthalene	343	15.61
	Unknown aromatic	230	16.74
	Unknown aromatic	168	16.94

Total TICs = 1340

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-004
Client ID: TW2
Date Received: 02/16/2010
Date Analyzed: 02/23/2010
Data file: G0808.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.310
Chloromethane	ND		0.500	0.310
Vinyl chloride	ND		0.500	0.370
Bromomethane	ND		0.500	0.450
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		0.500	0.320
1,1-Dichloroethene	ND		0.500	0.240
Acetone	2.91	J	5.00	2.63
Carbon disulfide	ND		0.500	0.300
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	2.31		2.00	1.55
trans-1,2-Dichloroethene	ND		0.500	0.290
Methyl tert-butyl ether (MTBE)	1.79		0.500	0.170
1,1-Dichloroethane	ND		0.500	0.190
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	ND		5.00	1.82
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.170
1,1,1-Trichloroethane	ND		0.500	0.260
Carbon tetrachloride	ND		0.500	0.320
1,2-Dichloroethane (EDC)	ND		0.500	0.150
Benzene	ND		0.500	0.220
Trichloroethene	ND		0.500	0.200
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.150
cis-1,3-Dichloropropene	ND		0.500	0.160
4-Methyl-2-pentanone (MIBK)	ND		5.00	1.20

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-004
Client ID: TW2
Date Received: 02/16/2010
Date Analyzed: 02/23/2010
Data file: G0808.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.230
trans-1,3-Dichloropropene	ND		0.500	0.170
1,1,2-Trichloroethane	ND		0.500	0.120
Tetrachloroethene	ND		0.500	0.290
2-Hexanone	ND		5.00	1.28
Dibromochloromethane	ND		0.500	0.120
1,2-Dibromoethane (EDB)	ND		0.500	0.290
Chlorobenzene	ND		0.500	0.190
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.720
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.150
Isopropylbenzene	ND		0.500	0.250
1,1,2,2-Tetrachloroethane	ND		0.500	0.450
1,3-Dichlorobenzene	ND		0.500	0.190
1,4-Dichlorobenzene	ND		0.500	0.180
1,2-Dichlorobenzene	ND		0.500	0.200
1,2-Dibromo-3-chloropropane	ND		1.00	0.940
1,2,4-Trichlorobenzene	ND		0.500	0.200
1,2,3-Trichlorobenzene	ND		0.500	0.120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500	0.280
Methyl acetate	ND		5.00	1.65
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.310
Total Target Compounds:	7.01	J		

0018

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-004
Client ID: TW2
Date Received: 02/16/2010
Date Analyzed: 02/23/2010
Date File: G0808.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-005
Client ID: TW3
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Data file: G0777.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.310
Chloromethane	ND		0.500	0.310
Vinyl chloride	ND		0.500	0.370
Bromomethane	ND		0.500	0.450
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		0.500	0.320
1,1-Dichloroethene	ND		0.500	0.240
Acetone	ND		5.00	2.63
Carbon disulfide	ND		0.500	0.300
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.55
trans-1,2-Dichloroethene	ND		0.500	0.290
Methyl tert-butyl ether (MTBE)	ND		0.500	0.170
1,1-Dichloroethane	ND		0.500	0.190
cis-1,2-Dichloroethene	ND		0.500	0.190
2-Butanone (MEK)	ND		5.00	1.82
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.170
1,1,1-Trichloroethane	ND		0.500	0.260
Carbon tetrachloride	ND		0.500	0.320
1,2-Dichloroethane (EDC)	ND		0.500	0.150
Benzene	0.354	J	0.500	0.220
Trichloroethene	ND		0.500	0.200
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.150
cis-1,3-Dichloropropene	ND		0.500	0.160
4-Methyl-2-pentanone (MIBK)	ND		5.00	1.20

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-005
Client ID: TW3
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Data file: G0777.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.230
trans-1,3-Dichloropropene	ND		0.500	0.170
1,1,2-Trichloroethane	ND		0.500	0.120
Tetrachloroethene	ND		0.500	0.290
2-Hexanone	ND		5.00	1.28
Dibromochloromethane	ND		0.500	0.120
1,2-Dibromoethane (EDB)	ND		0.500	0.290
Chlorobenzene	63.2		0.500	0.190
Ethylbenzene	0.576		0.500	0.260
Total Xylenes	ND		1.00	0.720
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.150
Isopropylbenzene	0.487	J	0.500	0.250
1,1,2,2-Tetrachloroethane	ND		0.500	0.450
1,3-Dichlorobenzene	ND		0.500	0.190
1,4-Dichlorobenzene	5.38		0.500	0.180
1,2-Dichlorobenzene	1.07		0.500	0.200
1,2-Dibromo-3-chloropropane	ND		1.00	0.940
1,2,4-Trichlorobenzene	ND		0.500	0.200
1,2,3-Trichlorobenzene	ND		0.500	0.120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500	0.280
Methyl acetate	ND		5.00	1.65
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.310
Total Target Compounds:	71.1	J		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-005
Client ID: TW3
Date Received: 02/16/2010
Date Analyzed: 02/22/2010
Date File: G0777.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	10.1	13.31
	Unknown aromatic	10.4	14.02
	Unknown aromatic	8.70	14.73
	Unknown aromatic	21.8	14.92
	Unknown aromatic	8.80	15.44
	Unknown aromatic	10.6	16.18
	Unknown aromatic	22.7	16.74
	Unknown aromatic	23.3	16.94
	Unknown cyclic hydrocarbon	12.5	17.92
	Unknown aromatic	11.8	18.11

Total TICs = 141

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-004
Client ID: TW2
Date Received: 02/16/2010
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Data file: B2970.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.250
Bis(2-chloroethyl) ether	ND		1.00	0.110
Bis(2-chloroisopropyl) ether	ND		1.00	0.120
N-Nitrosodi-n-propylamine	ND		1.00	0.150
Acetophenone	ND		1.00	0.080
Hexachloroethane	ND		1.00	0.140
Nitrobenzene	ND		1.00	0.130
Isophorone	ND		1.00	0.310
Bis(2-chloroethoxy) methane	ND		1.00	0.110
Naphthalene	ND		1.00	0.092
4-Chloroaniline	ND		1.00	0.110
Hexachlorobutadiene	ND		1.00	0.260
Caprolactam	ND		1.00	0.270
2-Methylnaphthalene	ND		1.00	0.087
Hexachlorocyclopentadiene	ND		1.00	0.150
1,1'-Biphenyl	ND		1.00	0.090
2-Chloronaphthalene	ND		1.00	0.060
2-Nitroaniline	ND		1.00	0.170
Dimethyl phthalate	ND		1.00	0.110

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-004
Client ID: TW2
Date Received: 02/16/2010
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Data file: B2970.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.210
Acenaphthylene	ND		1.00	0.124
3-Nitroaniline	ND		1.00	0.160
Acenaphthene	ND		1.00	0.158
2,4-Dinitrotoluene	ND		1.00	0.220
Dibenzofuran	ND		1.00	0.090
Diethyl phthalate	ND		1.00	0.100
Fluorene	ND		1.00	0.132
4-Chlorophenyl phenyl ether	ND		1.00	0.110
4-Nitroaniline	ND		1.00	0.170
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.110
N-Nitrosodiphenylamine	ND		1.00	0.060
4-Bromophenyl phenyl ether	ND		1.00	0.210
Hexachlorobenzene *	ND		0.020	0.010
Atrazine	ND		1.00	0.240
Phenanthrene	ND		1.00	0.073
Anthracene	ND		1.00	0.075
Carbazole	ND		1.00	0.070
Di-n-butyl phthalate	ND		1.00	0.130
Fluoranthene	ND		1.00	0.133
Pyrene	ND		1.00	0.103
Butyl benzyl phthalate	ND		1.00	0.210
3,3'-Dichlorobenzidine	ND		1.00	0.270
Benzo[a]anthracene *	ND		0.100	0.050
Chrysene	ND		1.00	0.108
Bis(2-ethylhexyl) phthalate	ND		1.00	0.180
Di-n-octyl phthalate	ND		1.00	0.240
Benzo[b]fluoranthene *	ND		0.100	0.050
Benzo[k]fluoranthene *	ND		0.100	0.050
Benzo[a]pyrene *	ND		0.100	0.050
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.050
Dibenz[a,h]anthracene *	ND		0.100	0.050
Benzo[g,h,i]perylene	ND		1.00	0.134

Total Target Compounds: 0

* --- RL & MDL from SIM run

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-004
Client ID: TW2
Date Received: 02/16/2010
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Data file: B2970.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-005
Client ID: TW3
Date Received: 02/16/2010
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Data file: B2971.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.250
Bis(2-chloroethyl) ether	ND		1.00	0.110
Bis(2-chloroisopropyl) ether	ND		1.00	0.120
N-Nitrosodi-n-propylamine	ND		1.00	0.150
Acetophenone	ND		1.00	0.080
Hexachloroethane	ND		1.00	0.140
Nitrobenzene	ND		1.00	0.130
Isophorone	ND		1.00	0.310
Bis(2-chloroethoxy) methane	ND		1.00	0.110
Naphthalene	1.52		1.00	0.092
4-Chloroaniline	ND		1.00	0.110
Hexachlorobutadiene	ND		1.00	0.260
Caprolactam	ND		1.00	0.270
2-Methylnaphthalene	4.67		1.00	0.087
Hexachlorocyclopentadiene	ND		1.00	0.150
1,1'-Biphenyl	ND		1.00	0.090
2-Chloronaphthalene	ND		1.00	0.060
2-Nitroaniline	ND		1.00	0.170
Dimethyl phthalate	ND		1.00	0.110

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-005
Client ID: TW3
Date Received: 02/16/2010
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Data file: B2971.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.210
Acenaphthylene	ND		1.00	0.124
3-Nitroaniline	ND		1.00	0.160
Acenaphthene	1.17		1.00	0.158
2,4-Dinitrotoluene	ND		1.00	0.220
Dibenzofuran	ND		1.00	0.090
Diethyl phthalate	ND		1.00	0.100
Fluorene	0.921	J	1.00	0.132
4-Chlorophenyl phenyl ether	ND		1.00	0.110
4-Nitroaniline	ND		1.00	0.170
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.110
N-Nitrosodiphenylamine	ND		1.00	0.060
4-Bromophenyl phenyl ether	ND		1.00	0.210
Hexachlorobenzene *	ND		0.020	0.010
Atrazine	ND		1.00	0.240
Phenanthrene	0.810	J	1.00	0.073
Anthracene	ND		1.00	0.075
Carbazole	ND		1.00	0.070
Di-n-butyl phthalate	ND		1.00	0.130
Fluoranthene	ND		1.00	0.133
Pyrene	ND		1.00	0.103
Butyl benzyl phthalate	ND		1.00	0.210
3,3'-Dichlorobenzidine	ND		1.00	0.270
Benzo[a]anthracene *	ND		0.100	0.050
Chrysene	ND		1.00	0.108
Bis(2-ethylhexyl) phthalate	ND		1.00	0.180
Di-n-octyl phthalate	ND		1.00	0.240
Benzo[b]fluoranthene *	ND		0.100	0.050
Benzo[k]fluoranthene *	ND		0.100	0.050
Benzo[a]pyrene *	ND		0.100	0.050
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.050
Dibenz[a,h]anthracene *	ND		0.100	0.050
Benzo[g,h,i]perylene	ND		1.00	0.134
Total Target Compounds:	9.09	J	* --- RL & MDL from SIM run	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 01419-005
Client ID: TW3
Date Received: 02/16/2010
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Date File: B2971.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	20.4	1.86
	Unknown aromatic	4.20	2.54
	Substituted benzene	6.40	2.88
	Unknown aromatic	7.00	3.19
	Unknown aromatic	5.30	3.24
	Substituted naphthalene	17.1	3.35
	Unknown aromatic	4.40	3.53
	Substituted naphthalene	8.10	3.57
	Substituted naphthalene	13.2	3.62
	Substituted naphthalene	5.00	3.93
	Unknown alkane	4.40	4.17
	Unknown aromatic	4.50	4.26

Total TICs = 100

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Lead

Client/Project: PENNJERSEYPALMER

Batch #: 069
Date Received: 02/16/2010
Method: 6020

Lab ID	Client ID	Result	Q	DF	Matrix-Unit	RL	MDL	% Moist	Date Analyzed
01419-003	TW1	1.86	J	1	Aqueous-ug/L	2.00	0.500	100	2/23/10

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G0706.D

BFB Injection Date: 02/19/2010

Inst ID: MSD_G

BFB Injection Time: 10:11

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	17.8			
75	30.0 - 60.0% of mass 95	50.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	69.7			
175	5.0 - 9.0% of mass 174	5.4	(	7.8	)1
176	95.0 - 101.0% of mass 174	67.7	(	97.1	)1
177	5.0 - 9.0% of mass 176	4.8	(	7.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G0707.D	02/19/2010	10:44
1PPB_STD	1PPB_STD	G0708.D	02/19/2010	11:40
0.5PPB_STD	0.5PPB_STD	G0709.D	02/19/2010	12:11
100PPB_STD	100PPB_STD	G0710.D	02/19/2010	12:39
5PPB_STD	5PPB_STD	G0711.D	02/19/2010	13:07
METHOD_BLK	METHOD_BLK	G0713.D	02/19/2010	14:03
LFB_20PPB	LFB_20PPB	G0714.D	02/19/2010	14:31
1289-001MS	1289-001MS	G0715.D	02/19/2010	14:59
1289-001MSD	1289-001MSD	G0716.D	02/19/2010	15:27
EFFLUENT	01288-001	G0722.D	02/19/2010	18:15
SUMP/6.75	01289-001	G0723.D	02/19/2010	18:43
MW-1	01300-001	G0724.D	02/19/2010	19:11
MW-1	01301-003	G0725.D	02/19/2010	19:39
TRIP_BLANK	01301-001	G0726.D	02/19/2010	20:07
FIELD_BLANK	01301-002	G0727.D	02/19/2010	20:35
MW-1/6.38	01282-003	G0728.D	02/19/2010	21:03
TMP-A/6.79	01303-001	G0729.D	02/19/2010	21:30
TMP-B/8.18	01303-002	G0730.D	02/19/2010	21:58
TMP-C/6.35	01303-003	G0731.D	02/19/2010	22:26
TRIP_BLANK	01303-004	G0732.D	02/19/2010	22:54

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G0706.D

Inst ID: MSD_G

BFB Injection Date : 02/19/201

BFB Injection Time: 10:11

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	17.8			
75	30.0 - 60.0% of mass 95	50.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	69.7			
175	5.0 - 9.0% of mass 174	5.4	(	7.8	)1
176	95.0 - 101.0% of mass 174	67.7	(	97.1	)1
177	5.0 - 9.0% of mass 176	4.8	(	7.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
FB	01314-004	G0734.D	02/19/2010	23:50
MW-13DD	01314-005	G0735.D	02/20/2010	0:18
MW-13	01314-006	G0736.D	02/20/2010	0:46
MW-13D	01314-007	G0737.D	02/20/2010	1:14
MW-9	01332-003	G0738.D	02/20/2010	1:42
MW-14	01332-004	G0739.D	02/20/2010	2:10
MW-11	01332-005	G0740.D	02/20/2010	2:37
MW-3	01332-006	G0741.D	02/20/2010	3:05
MW-10	01332-007	G0742.D	02/20/2010	3:33
MW-2	01332-008	G0743.D	02/20/2010	4:01
MW-1	01332-009	G0744.D	02/20/2010	4:29
MW-12	01332-010	G0745.D	02/20/2010	4:57
MW-4	01332-011	G0746.D	02/20/2010	5:25
SB-1/TWP	01302-001	G0747.D	02/20/2010	5:52
MW2	01312-002	G0749.D	02/20/2010	6:47
MW3	01312-003	G0750.D	02/20/2010	7:15
MW1	01321-001	G0751.D	02/20/2010	7:43
MR-MW1	01338-001	G0752.D	02/20/2010	8:11
MR-MW2	01338-002	G0753.D	02/20/2010	8:38
TB	01332-001	G0754.D	02/20/2010	9:06
FB	01332-002	G0755.D	02/20/2010	9:33

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G0706.D

BFB Injection Date : 02/19/201

Inst ID: MSD_G

BFB Injection Time: 10:11

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	17.8			
75	30.0 - 60.0% of mass 95	50.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	69.7			
175	5.0 - 9.0% of mass 174	5.4	(	7.8	)1
176	95.0 - 101.0% of mass 174	67.7	(	97.1	)1
177	5.0 - 9.0% of mass 176	4.8	(	7.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-16DD	01314-001DIL	G0756.D	02/20/2010	10:10

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G0761.D BFB Injection Date: 02/22/2010

Inst ID: MSD_G BFB Injection Time: 8:13

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	17.4			
75	30.0 - 60.0% of mass 95	51.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.4			
173	Less than 2.0% of mass 174	0.6	(	0.8	)1
174	Great than 50.0% of mass 95	69.2			
175	5.0 - 9.0% of mass 174	5.5	(	8.0	)1
176	95.0 - 101.0% of mass 174	67.8	(	98.0	)1
177	5.0 - 9.0% of mass 176	4.7	(	6.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G0762.D	02/22/2010	8:41
METHOD_BLK	METHOD_BLK	G0763.D	02/22/2010	9:09
TP-1	01259-001	G0764.D	02/22/2010	9:37
LFB_20PPB	LFB_20PPB	G0765.D	02/22/2010	10:05
BLANK-MS	BLANK-MS	G0766.D	02/22/2010	10:33
BLANK-MSD	BLANK-MSD	G0767.D	02/22/2010	11:01
MW1	01312-001	G0768.D	02/22/2010	11:29
TP-1	01346-001	G0769.D	02/22/2010	11:57
TP-2	01346-002	G0770.D	02/22/2010	12:25
TP-4	01346-004	G0772.D	02/22/2010	13:21
TP-5	01346-005	G0773.D	02/22/2010	13:49
TW1	01419-003	G0775.D	02/22/2010	14:45
TW3	01419-005	G0777.D	02/22/2010	15:40
TRIP	01419-001	G0778.D	02/22/2010	16:08
FIELD	01419-002	G0779.D	02/22/2010	16:36
MW-1	01450-001	G0780.D	02/22/2010	17:04
MW-2	01450-002	G0781.D	02/22/2010	17:32
MW-3	01450-003	G0782.D	02/22/2010	18:00
MW-4	01450-004	G0783.D	02/22/2010	18:28
MW-6/4.06	01457-001	G0784.D	02/22/2010	18:55

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G0761.D

BFB Injection Date : 02/22/201

Inst ID: MSD_G

BFB Injection Time: 8:13

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	17.4			
75	30.0 - 60.0% of mass 95	51.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.4			
173	Less than 2.0% of mass 174	0.6	(	0.8	)1
174	Great than 50.0% of mass 95	69.2			
175	5.0 - 9.0% of mass 174	5.5	(	8.0	)1
176	95.0 - 101.0% of mass 174	67.8	(	98.0	)1
177	5.0 - 9.0% of mass 176	4.7	(	6.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-9/3.44	01457-004	G0785.D	02/22/2010	19:23
TRIP_BLANK	01457-005	G0786.D	02/22/2010	19:51
MW-7/4.07	01457-002	G0787.D	02/22/2010	20:19
MW-8/3.47	01457-003	G0788.D	02/22/2010	20:47
BLANK-MS	BLANK-MS	G0789.D	02/22/2010	21:15
BLANK-MSD	BLANK-MSD	G0790.D	02/22/2010	21:43
TP-1	01463-001	G0792.D	02/22/2010	22:38
TP-3	01463-003	G0793.D	02/22/2010	23:06
TP-2	01463-002	G0794.D	02/22/2010	23:34
BLANK-MS	BLANK-MS	G0795.D	02/23/2010	0:02
BLANK-MSD	BLANK-MSD	G0796.D	02/23/2010	0:30

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G0797.D

BFB Injection Date: 02/23/2010

Inst ID: MSD_G

BFB Injection Time: 8:36

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	16.6			
75	30.0 - 60.0% of mass 95	47.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	77.4			
175	5.0 - 9.0% of mass 174	5.7	(	7.4	)1
176	95.0 - 101.0% of mass 174	75.6	(	97.7	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.8	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G0798.D	02/23/2010	9:04
METHOD_BLK	METHOD_BLK	G0799.D	02/23/2010	9:40
MW-4	01332-11DIL	G0800.D	02/23/2010	10:08
LFB_20PPB	LFB_20PPB	G0802.D	02/23/2010	11:04
1344-001MS	1344-001MS	G0803.D	02/23/2010	11:32
1344-001MSD	1344-001MSD	G0804.D	02/23/2010	12:00
TP-3	01346-003	G0806.D	02/23/2010	12:56
5MW-1	01344-001	G0807.D	02/23/2010	13:25
TW2	01419-004	G0808.D	02/23/2010	13:53
CR-MW4	01476-004	G0812.D	02/23/2010	15:45
CR-MW3A	01476-003	G0813.D	02/23/2010	16:13
MW-1	01482-001	G0814.D	02/23/2010	16:41
MW-3	01482-003	G0816.D	02/23/2010	17:37
FIELD_BLANK	01482-005	G0819.D	02/23/2010	19:01
TRIP_BLANK	01482-006	G0820.D	02/23/2010	19:29
GRAB	01526-002	G0821.D	02/23/2010	19:58
CR-MW1	01476-001	G0822.D	02/23/2010	20:25
CR-MW2	01476-002	G0823.D	02/23/2010	20:53
MW-7/4.07	01457-2DIL	G0824.D	02/23/2010	21:21
MW-2	01482-002	G0815.D	02/23/2010	17:09

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G0797.D

BFB Injection Date : 02/23/201

Inst ID: MSD_G

BFB Injection Time: 8:36

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	16.6			
75	30.0 - 60.0% of mass 95	47.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	77.4			
175	5.0 - 9.0% of mass 174	5.7	(	7.4	)1
176	95.0 - 101.0% of mass 174	75.6	(	97.7	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.8	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-6	01482-004	G0817.D	02/23/2010	18:05

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G0763.D Instrument ID: MSD_G

Date Analyzed: 02/22/2010 Time Analyzed: 09:09

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TP-1	01259-001	02/22/2010	9:37
LFB_20PPB	LFB_20PPB	02/22/2010	10:05
BLANK-MS	BLANK-MS	02/22/2010	10:33
BLANK-MSD	BLANK-MSD	02/22/2010	11:01
MW1	01312-001	02/22/2010	11:29
TP-1	01346-001	02/22/2010	11:57
TP-2	01346-002	02/22/2010	12:25
TP-4	01346-004	02/22/2010	13:21
TP-5	01346-005	02/22/2010	13:49
TW1	01419-003	02/22/2010	14:45
TW3	01419-005	02/22/2010	15:40
TRIP	01419-001	02/22/2010	16:08
FIELD	01419-002	02/22/2010	16:36
MW-1	01450-001	02/22/2010	17:04
MW-2	01450-002	02/22/2010	17:32
MW-3	01450-003	02/22/2010	18:00
MW-4	01450-004	02/22/2010	18:28
MW-6/4.06	01457-001	02/22/2010	18:55
MW-9/3.44	01457-004	02/22/2010	19:23
TRIP_BLANK	01457-005	02/22/2010	19:51
MW-7/4.07	01457-002	02/22/2010	20:19
MW-8/3.47	01457-003	02/22/2010	20:47
BLANK-MS	BLANK-MS	02/22/2010	21:15
BLANK-MSD	BLANK-MSD	02/22/2010	21:43
TP-1	01463-001	02/22/2010	22:38
TP-3	01463-003	02/22/2010	23:06
TP-2	01463-002	02/22/2010	23:34
BLANK-MS	BLANK-MS	02/23/2010	0:02
BLANK-MSD	BLANK-MSD	02/23/2010	0:30

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 02/22/2010
Data file: G0763.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.310
Chloromethane	ND		0.500	0.310
Vinyl chloride	ND		0.500	0.370
Bromomethane	ND		0.500	0.450
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		0.500	0.320
Acrolein	ND		10.0	3.65
1,1-Dichloroethene	ND		0.500	0.240
Acetone	ND		5.00	2.63
Carbon disulfide	ND		0.500	0.300
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	1.94
tert-Butyl alcohol (TBA)	ND		2.00	1.55
trans-1,2-Dichloroethene	ND		0.500	0.290
Methyl tert-butyl ether (MTBE)	ND		0.500	0.170
1,1-Dichloroethane	ND		0.500	0.190
cis-1,2-Dichloroethene	ND		0.500	0.190
2,2-Dichloropropane	ND		0.500	0.380
2-Butanone (MEK)	ND		5.00	1.82
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.170
1,1,1-Trichloroethane	ND		0.500	0.260
Carbon tetrachloride	ND		0.500	0.320
1,1-Dichloropropene	ND		0.500	0.320
1,2-Dichloroethane (EDC)	ND		0.500	0.150
Benzene	ND		0.500	0.220
Trichloroethene	ND		0.500	0.200
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.150
2-Chloroethyl vinyl ether	ND		0.500	0.420
cis-1,3-Dichloropropene	ND		0.500	0.160
4-Methyl-2-pentanone (MIBK)	ND		5.00	1.20

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 02/22/2010
Data file: G0763.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.230
trans-1,3-Dichloropropene	ND		0.500	0.170
1,1,2-Trichloroethane	ND		0.500	0.120
Tetrachloroethene	ND		0.500	0.290
2-Hexanone	ND		5.00	1.28
Dibromochloromethane	ND		0.500	0.120
1,2-Dibromoethane (EDB)	ND		0.500	0.290
Chlorobenzene	ND		0.500	0.190
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.720
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.150
Isopropylbenzene	ND		0.500	0.250
1,1,2,2-Tetrachloroethane	ND		0.500	0.450
1,3-Dichlorobenzene	ND		0.500	0.190
1,4-Dichlorobenzene	ND		0.500	0.180
1,2-Dichlorobenzene	ND		0.500	0.200
1,2-Dibromo-3-chloropropane	ND		1.00	0.940
1,2,4-Trichlorobenzene	ND		0.500	0.200
1,2,3-Trichlorobenzene	ND		0.500	0.120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500	0.280
Methyl acetate	ND		5.00	1.65
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.310

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 02/22/2010
Date File: G0763.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G0799.D Instrument ID: MSD_G

Date Analyzed: 02/23/2010 Time Analyzed: 09:40

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-4	01332-11DIL	02/23/2010	10:08
LFB_20PPB	LFB_20PPB	02/23/2010	11:04
1344-001MS	1344-001MS	02/23/2010	11:32
1344-001MSD	1344-001MSD	02/23/2010	12:00
TP-3	01346-003	02/23/2010	12:56
5MW-1	01344-001	02/23/2010	13:25
TW2	01419-004	02/23/2010	13:53
CR-MW4	01476-004	02/23/2010	15:45
CR-MW3A	01476-003	02/23/2010	16:13
MW-1	01482-001	02/23/2010	16:41
MW-3	01482-003	02/23/2010	17:37
FIELD_BLANK	01482-005	02/23/2010	19:01
TRIP_BLANK	01482-006	02/23/2010	19:29
GRAB	01526-002	02/23/2010	19:58
CR-MW1	01476-001	02/23/2010	20:25
CR-MW2	01476-002	02/23/2010	20:53
MW-7/4.07	01457-2DIL	02/23/2010	21:21
MW-2	01482-002	02/23/2010	17:09
MW-6	01482-004	02/23/2010	18:05

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 02/23/2010
Data file: G0799.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.310
Chloromethane	ND		0.500	0.310
Vinyl chloride	ND		0.500	0.370
Bromomethane	ND		0.500	0.450
Chloroethane	ND		0.500	0.480
Trichlorofluoromethane	ND		0.500	0.320
Acrolein	ND		10.0	3.65
1,1-Dichloroethene	ND		0.500	0.240
Acetone	ND		5.00	2.63
Carbon disulfide	ND		0.500	0.300
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	1.94
tert-Butyl alcohol (TBA)	ND		2.00	1.55
trans-1,2-Dichloroethene	ND		0.500	0.290
Methyl tert-butyl ether (MTBE)	ND		0.500	0.170
1,1-Dichloroethane	ND		0.500	0.190
cis-1,2-Dichloroethene	ND		0.500	0.190
2,2-Dichloropropane	ND		0.500	0.380
2-Butanone (MEK)	ND		5.00	1.82
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.170
1,1,1-Trichloroethane	ND		0.500	0.260
Carbon tetrachloride	ND		0.500	0.320
1,1-Dichloropropene	ND		0.500	0.320
1,2-Dichloroethane (EDC)	ND		0.500	0.150
Benzene	ND		0.500	0.220
Trichloroethene	ND		0.500	0.200
1,2-Dichloropropane	ND		0.500	0.200
Bromodichloromethane	ND		0.500	0.150
2-Chloroethyl vinyl ether	ND		0.500	0.420
cis-1,3-Dichloropropene	ND		0.500	0.160
4-Methyl-2-pentanone (MIBK)	ND		5.00	1.20

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 02/23/2010
Data file: G0799.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.230
trans-1,3-Dichloropropene	ND		0.500	0.170
1,1,2-Trichloroethane	ND		0.500	0.120
Tetrachloroethene	ND		0.500	0.290
2-Hexanone	ND		5.00	1.28
Dibromochloromethane	ND		0.500	0.120
1,2-Dibromoethane (EDB)	ND		0.500	0.290
Chlorobenzene	ND		0.500	0.190
Ethylbenzene	ND		0.500	0.260
Total Xylenes	ND		1.00	0.720
Styrene	ND		0.500	0.200
Bromoform	ND		0.500	0.150
Isopropylbenzene	ND		0.500	0.250
1,1,2,2-Tetrachloroethane	ND		0.500	0.450
1,3-Dichlorobenzene	ND		0.500	0.190
1,4-Dichlorobenzene	ND		0.500	0.180
1,2-Dichlorobenzene	ND		0.500	0.200
1,2-Dibromo-3-chloropropane	ND		1.00	0.940
1,2,4-Trichlorobenzene	ND		0.500	0.200
1,2,3-Trichlorobenzene	ND		0.500	0.120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.500	0.280
Methyl acetate	ND		5.00	1.65
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.310

Total Target Compounds: 0

0043

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 02/23/2010
Date File: G0799.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Response Factor Report MSD_G

Method Path : C:\MSDCHEM\1\METHODS\
Method File : GA021910.M
Title : VOLATILE ORGANICS BY EPA METHOD 624
Last Update : Mon Feb 22 12:51:20 2010
Response Via : Initial Calibration

Calibration Files
0.5 =G0709.D 1 =G0708.D 5 =G0711.D
20 =G0707.D 100 =G0710.D

		Compound	0.5	1	5	20	100	Avg	%RSD
1)	I	Pentafluorobenzene	ISTD						
2)	T	Dichlorodifluoromet	0.303	0.357	0.287	0.285	0.268	0.300	11.30
3)	P	Chloromethane	0.354	0.374	0.269	0.268	0.235	0.300	20.14
4)	C	Vinyl chloride	0.348	0.396	0.279	0.276	0.251	0.310	19.39
5)	T	Bromomethane	0.194	0.229	0.151	0.153	0.143	0.174	21.15
6)	T	Chloroethane	0.135	0.197	0.141	0.143	0.130	0.149	18.31
7)	T	Trichlorofluorometh	0.278	0.497	0.446	0.474	0.490	0.437	20.79
8)	T	Acrolein	0.033	0.046	0.026	0.027	0.024	0.031	27.71
9)	MC	1,1-Dichloroethene	0.350	0.415	0.290	0.284	0.272	0.322	18.66
10)	T	Acetone			0.199	0.147	0.138	0.161	20.29
11)	T	Carbon disulfide	0.962	0.964	0.693	0.735	0.749	0.821	16.04
12)	T	Vinyl acetate	1.251	1.544	1.033	1.204	1.188	1.244	14.99
13)	T	Methylene chloride			0.513	0.489	0.452	0.485	6.33
14)	T	Acrylonitrile	0.347	0.370	0.206	0.217	0.210	0.270	30.09
15)	T	tert-Butyl alcohol		0.090	0.055	0.053	0.055	0.063	28.97
16)	T	trans-1,2-Dichloroe	0.653	0.724	0.456	0.464	0.438	0.547	24.10
17)	T	Methyl tert-butyl e	0.748	1.002	0.610	0.612	0.591	0.712	24.39
18)	P	1,1-Dichloroethane	1.020	1.171	0.717	0.744	0.729	0.876	23.65
19)	T	Diisopropyl ether (	1.234	1.597	1.158	1.342	1.328	1.332	12.47
20)	T	cis-1,2-Dichloroeth	0.533	0.625	0.412	0.469	0.471	0.502	16.13
21)	T	2,2-Dichloropropane	0.437	0.449	0.302	0.355	0.339	0.376	16.93
22)	T	2-Butanone (MEK)			0.259	0.297	0.298	0.285	7.90
23)	T	Bromochloromethane	0.360	0.411	0.246	0.256	0.254	0.305	24.77
25)	C	Chloroform	1.167	1.220	0.751	0.795	0.782	0.943	24.39
26)	T	1,1,1-Trichloroetha	0.732	0.821	0.553	0.590	0.599	0.659	17.16
27)	T	Carbon tetrachlorid	0.703	0.798	0.563	0.617	0.646	0.665	13.46
28)	T	1,1-Dichloropropene	0.767	0.811	0.563	0.612	0.614	0.673	16.13
29)	T	1,2-Dichloroethane	0.942	1.057	0.629	0.650	0.637	0.783	25.78
30)	S	1,2-Dichloroethane-	0.666	0.654	0.625	0.612	0.604	0.632	4.23
31)	I	1,4-Difluorobenzene	ISTD						
32)	M	Benzene	1.336	1.497	0.984	1.050	1.037	1.181	18.98
33)	M	Trichloroethene	0.310	0.353	0.245	0.260	0.273	0.288	15.10
34)	C	1,2-Dichloropropane	0.286	0.339	0.224	0.243	0.251	0.269	16.95
35)	T	Dibromomethane	0.202	0.251	0.160	0.173	0.178	0.193	18.63
37)	T	Bromodichloromethan	0.363	0.417	0.277	0.323	0.352	0.346	14.94
38)	T	2-Chloroethyl vinyl	0.104	0.098	0.100	0.155	0.180	0.127	29.55
39)	T	cis-1,3-Dichloropro	0.281	0.361	0.281	0.372	0.419	0.343	17.60
40)	T	4-Methyl-2-pentanon			0.203	0.276	0.318	0.265	21.93
41)	S	Toluene-d8	1.147	1.165	1.181	1.196	1.224	1.183	2.51
42)	MC	Toluene	0.794	0.880	0.596	0.653	0.666	0.718	16.16
43)	T	trans-1,3-Dichlorop	0.288	0.354	0.256	0.350	0.413	0.332	18.52
44)	T	1,1,2-Trichloroetha	0.246	0.282	0.181	0.203	0.211	0.224	17.67
45)	T	Tetrachloroethene	0.365	0.366	0.263	0.285	0.298	0.315	15.06
46)	T	1,3-Dichloropropane	0.423	0.535	0.365	0.426	0.444	0.439	14.04
47)	T	2-Hexanone			0.134	0.201	0.239	0.191	27.70
48)	T	Dibromochloromethan	0.256	0.324	0.210	0.264	0.311	0.273	16.81
49)	T	1,2-Dibromoethane (	0.271	0.343	0.228	0.263	0.287	0.278	15.15
50)	I	Chlorobenzene-d5	ISTD						
51)	MP	Chlorobenzene	1.021	1.114	0.696	0.724	0.715	0.854	23.18
52)	T	1,1,1,2-Tetrachloro	0.302	0.343	0.223	0.256	0.266	0.278	16.58
53)	C	Ethylbenzene	1.095	1.291	0.975	1.150	1.169	1.136	10.12

54)	T	m,p-Xylene	0.369	0.497	0.424	0.478	0.463	0.446	11.37
55)	T	o-Xylene	0.297	0.372	0.351	0.454	0.458	0.386	17.80
56)	T	Styrene	0.458	0.624	0.618	0.761	0.781	0.648	20.10
57)	P	Bromoform	0.164	0.192	0.127	0.160	0.194	0.167	16.64
58)	T	Isopropylbenzene	0.651	0.870	0.871	1.150	1.188	0.946	23.57
59)	S	Bromofluorobenzene	0.511	0.521	0.528	0.528	0.532	0.524	1.57
60)	P	1,1,2,2-Tetrachloro	0.429	0.537	0.309	0.342	0.332	0.390	24.16
61)	T	Bromobenzene	0.362	0.405	0.271	0.302	0.302	0.328	16.43
62)	T	1,2,3-Trichloroprop		0.395	0.221	0.255	0.246	0.279	28.18
63)	T	n-Propylbenzene	0.975	1.258	1.084	1.284	1.299	1.180	12.13
64)	T	2-Chlorotoluene	0.795	1.086	0.856	0.943	0.930	0.922	11.86
65)	T	1,3,5-Trimethylbenz	0.643	0.883	0.826	0.989	0.997	0.867	16.70
66)	T	4-Chlorotoluene	0.795	1.086	0.856	0.943	0.930	0.922	11.86
67)	T	tert-Butylbenzene	0.436	0.633	0.610	0.801	0.829	0.662	24.12
68)	T	1,2,4-Trimethylbenz	0.572	0.867	0.868	1.019	1.024	0.870	21.12
69)	T	sec-Butylbenzene	0.668	0.914	0.936	1.144	1.172	0.967	21.13
70)	T	1,3-Dichlorobenzene	0.592	0.767	0.548	0.583	0.584	0.615	14.10
71)	T	4-Isopropyltoluene		0.722	0.796	0.975	0.991	0.871	15.28
72)	T	1,4-Dichlorobenzene	0.602	0.767	0.572	0.606	0.604	0.630	12.34
73)	T	n-Butylbenzene	0.392	0.532	0.589	0.787	0.812	0.622	28.44
74)	T	1,2-Dichlorobenzene	0.594	0.764	0.564	0.591	0.571	0.617	13.51
75)	T	1,2-Dibromo-3-chlor		0.085	0.050	0.061	0.074	0.068	22.29
76)	T	1,2,4-Trichlorobenz	0.240	0.291	0.253	0.325	0.372	0.296	18.19
77)	T	Hexachlorobutadiene	0.121	0.143	0.118	0.122	0.122	0.125	8.20
78)	T	Naphthalene	0.488	0.636	0.739	1.098	1.118	0.816	34.47
79)	T	1,2,3-Trichlorobenz	0.245	0.338	0.303	0.340	0.360	0.317	14.24
80)	T	1,1,2-Trichloro-1,2	0.110	0.124	0.199	0.198	0.175	0.161	25.97
81)	T	Methyl acetate			0.318	0.311	0.294	0.308	4.05
82)	T	Cyclohexane		0.655	0.422	0.398	0.372	0.462	28.25
83)	T	Methylcyclohexane	0.353	0.408	0.266	0.369	0.322	0.344	15.43

(#) = Out of Range

GA021910.M Mon Feb 22 12:52:01 2010 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0762.D
Acq On : 22 Feb 2010 8:41
Operator : Sylvia
Sample : 20PPB_STD,20PPB_STD,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 23 12:44:08 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Feb 23 09:24:12 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	92	0.00
2	T	Dichlorodifluoromethane	0.300	0.387	-29.0	124	0.00
3	P	Chloromethane	0.300	0.346	-15.3	119	0.00
4	C	Vinyl chloride	0.310	0.366	-18.1	122	0.00
5	T	Bromomethane	0.174	0.198	-13.8	119	0.00
6	T	Chloroethane	0.149	0.184	-23.5	119	-0.01
7	T	Trichlorofluoromethane	0.437	0.564	-29.1	109	0.00
8	T	Acrolein	0.031	0.029	6.5	96	0.00
9	MC	1,1-Dichloroethene	0.322	0.334	-3.7	108	-0.03
10	T	Acetone	0.161	0.158	1.9	99	-0.01
11	T	Carbon disulfide	0.821	0.994	-21.1	124	-0.02
12	T	Vinyl acetate	1.244	1.278	-2.7	97	0.00
13	T	Methylene chloride	0.485	0.545	-12.4	102	0.00
14	T	Acrylonitrile	0.270	0.217	19.6	92	0.00
15	T	tert-Butyl alcohol (TBA)	0.063	0.046	27.0	81	-0.02
16	T	trans-1,2-Dichloroethene	0.547	0.508	7.1	101	0.00
17	T	Methyl tert-butyl ether (MT	0.712	0.644	9.6	97	0.00
18	P	1,1-Dichloroethane	0.876	0.820	6.4	101	0.00
19	T	Diisopropyl ether (DIPE)	1.332	1.522	-14.3	104	0.00
20	T	cis-1,2-Dichloroethene	0.502	0.511	-1.8	100	0.00
21	T	2,2-Dichloropropane	0.376	0.425	-13.0	110	0.00
22	T	2-Butanone (MEK)	0.285	0.251	11.9	78	0.00
23	T	Bromochloromethane	0.305	0.276	9.5	99	0.00
25	C	Chloroform	0.943	0.880	6.7	102	0.00
26	T	1,1,1-Trichloroethane	0.659	0.681	-3.3	106	0.00
27	T	Carbon tetrachloride	0.665	0.692	-4.1	103	0.00
28	T	1,1-Dichloropropene	0.673	0.680	-1.0	102	0.00
29	T	1,2-Dichloroethane (EDC)	0.783	0.716	8.6	101	0.00
30	S	1,2-Dichloroethane-d4	0.632	0.645	-2.1	97	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	95	0.00
32	M	Benzene	1.181	1.121	5.1	101	0.00
33	M	Trichloroethene	0.288	0.274	4.9	100	0.00
34	C	1,2-Dichloropropane	0.269	0.258	4.1	101	0.00
35	T	Dibromomethane	0.193	0.175	9.3	96	0.00
37	T	Bromodichloromethane	0.346	0.345	0.3	101	0.00
38	T	2-Chloroethyl vinyl ether	0.127	0.142	-11.8	87	0.00
39	T	cis-1,3-Dichloropropene	0.343	0.388	-13.1	99	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.265	0.242	8.7	83	0.00
41	S	Toluene-d8	1.183	1.228	-3.8	97	0.00
42	MC	Toluene	0.718	0.682	5.0	99	0.00
43	T	trans-1,3-Dichloropropene	0.332	0.358	-7.8	97	0.00
44	T	1,1,2-Trichloroethane	0.224	0.205	8.5	96	0.00
45	T	Tetrachloroethene	0.315	0.296	6.0	98	0.00
46	T	1,3-Dichloropropane	0.439	0.424	3.4	94	0.00
47	T	2-Hexanone	0.191	0.168	12.0	79	0.00

48	T	Dibromochloromethane	0.273	0.275	-0.7	99	0.00
49	T	1,2-Dibromoethane (EDB)	0.278	0.255	8.3	92	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	97	0.00
51	MP	Chlorobenzene	0.854	0.737	13.7	99	0.00
52	T	1,1,1,2-Tetrachloroethane	0.278	0.263	5.4	100	0.00
53	C	Ethylbenzene	1.136	1.178	-3.7	100	0.00
54	T	m,p-Xylene	0.446	0.482	-8.1	98	0.00
55	T	o-Xylene	0.386	0.462	-19.7	99	0.00
56	T	Styrene	0.648	0.777	-19.9	99	0.00
57	P	Bromoform	0.167	0.155	7.2	94	0.00
58	T	Isopropylbenzene	0.946	1.182	-24.9	100	0.00
59	S	Bromofluorobenzene	0.524	0.541	-3.2	100	0.00
60	P	1,1,2,2-Tetrachloroethane	0.390	0.321	17.7	91	0.00
61	T	Bromobenzene	0.328	0.305	7.0	98	0.00
62	T	1,2,3-Trichloropropane	0.279	0.228	18.3	87	0.00
63	T	n-Propylbenzene	1.180	1.333	-13.0	101	0.00
64	T	2-Chlorotoluene	0.922	0.971	-5.3	100	0.00
65	T	1,3,5-Trimethylbenzene	0.867	1.028	-18.6	101	0.00
66	T	4-Chlorotoluene	0.922	0.971	-5.3	100	0.00
67	T	tert-Butylbenzene	0.662	0.811	-22.5	99	0.00
68	T	1,2,4-Trimethylbenzene	0.870	1.053	-21.0	101	0.00
69	T	sec-Butylbenzene	0.967	1.189	-23.0	101	0.00
70	T	1,3-Dichlorobenzene	0.615	0.597	2.9	100	0.00
71	T	4-Isopropyltoluene	0.871	1.000	-14.8	100	0.00
72	T	1,4-Dichlorobenzene	0.630	0.617	2.1	99	0.00
73	T	n-Butylbenzene	0.622	0.830	-33.4	103	0.00
74	T	1,2-Dichlorobenzene	0.617	0.602	2.4	99	0.00
75	T	1,2-Dibromo-3-chloropropane	0.068	0.054	20.6	85	0.00
76	T	1,2,4-Trichlorobenzene	0.296	0.335	-13.2	100	0.00
77	T	Hexachlorobutadiene	0.125	0.132	-5.6	105	0.00
78	T	Naphthalene	0.816	1.011	-23.9	90	0.00
79	T	1,2,3-Trichlorobenzene	0.317	0.345	-8.8	98	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.161	0.206	-28.0	101	-0.02
81	T	Methyl acetate	0.308	0.266	13.6	83	0.00
82	T	Cyclohexane	0.462	0.425	8.0	104	0.00
83	T	Methylcyclohexane	0.344	0.320	7.0	84	0.00

(#) = Out of Range

GA021910.M Tue Feb 23 12:44:13 2010 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\02-23-10\
Data File : G0798.D
Acq On : 23 Feb 2010 9:04
Operator : Sylvia
Sample : 20PPB_STD,20PPB_STD,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 23 14:07:28 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 12:51:20 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	126	0.00
2	T	Dichlorodifluoromethane	0.300	0.327	-9.0	145	0.00
3	P	Chloromethane	0.300	0.261	13.0	123	0.00
4	C	Vinyl chloride	0.310	0.294	5.2	134	0.00
5	T	Bromomethane	0.174	0.156	10.3	129	0.00
6	T	Chloroethane	0.149	0.153	-2.7	136	0.00
7	T	Trichlorofluoromethane	0.437	0.445	-1.8	119	0.00
8	T	Acrolein	0.031	0.022	29.0	100	0.00
9	MC	1,1-Dichloroethene	0.322	0.282	12.4	126	-0.02
10	T	Acetone	0.161	0.142	11.8	122	-0.01
11	T	Carbon disulfide	0.821	0.751	8.5	129	-0.02
12	T	Vinyl acetate	1.244	1.122	9.8	118	0.00
13	T	Methylene chloride	0.485	0.466	3.9	120	0.00
14	T	Acrylonitrile	0.270	0.196	27.4	114	0.00
15	T	tert-Butyl alcohol (TBA)	0.063	0.052	17.5	125	-0.02
16	T	trans-1,2-Dichloroethene	0.547	0.447	18.3	122	0.00
17	T	Methyl tert-butyl ether (MT	0.712	0.584	18.0	121	0.00
18	P	1,1-Dichloroethane	0.876	0.723	17.5	123	0.00
19	T	Diisopropyl ether (DIPE)	1.332	1.343	-0.8	126	0.00
20	T	cis-1,2-Dichloroethene	0.502	0.481	4.2	130	0.00
21	T	2,2-Dichloropropane	0.376	0.371	1.3	132	0.00
22	T	2-Butanone (MEK)	0.285	0.278	2.5	118	0.00
23	T	Bromochloromethane	0.305	0.258	15.4	128	0.00
25	C	Chloroform	0.943	0.773	18.0	123	0.00
26	T	1,1,1-Trichloroethane	0.659	0.600	9.0	128	0.00
27	T	Carbon tetrachloride	0.665	0.597	10.2	122	0.00
28	T	1,1-Dichloropropene	0.673	0.613	8.9	127	0.00
29	T	1,2-Dichloroethane (EDC)	0.783	0.604	22.9	117	0.00
30	S	1,2-Dichloroethane-d4	0.632	0.545	13.8	113	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	125	0.00
32	M	Benzene	1.181	1.059	10.3	126	0.00
33	M	Trichloroethene	0.288	0.269	6.6	130	0.00
34	C	1,2-Dichloropropane	0.269	0.241	10.4	124	0.00
35	T	Dibromomethane	0.193	0.170	11.9	123	0.00
37	T	Bromodichloromethane	0.346	0.317	8.4	123	0.00
38	T	2-Chloroethyl vinyl ether	0.127	0.161	-26.8	131	0.00
39	T	cis-1,3-Dichloropropene	0.343	0.383	-11.7	129	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.265	0.272	-2.6	124	0.00
41	S	Toluene-d8	1.183	1.192	-0.8	125	0.00
42	MC	Toluene	0.718	0.666	7.2	128	0.00
43	T	trans-1,3-Dichloropropene	0.332	0.359	-8.1	129	0.00
44	T	1,1,2-Trichloroethane	0.224	0.205	8.5	127	0.00
45	T	Tetrachloroethene	0.315	0.304	3.5	134	0.00
46	T	1,3-Dichloropropane	0.439	0.424	3.4	125	0.00
47	T	2-Hexanone	0.191	0.195	-2.1	122	0.00

48	T	Dibromochloromethane	0.273	0.267	2.2	127	0.00
49	T	1,2-Dibromoethane (EDB)	0.278	0.267	4.0	127	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	131	0.00
51	MP	Chlorobenzene	0.854	0.713	16.5	129	0.00
52	T	1,1,1,2-Tetrachloroethane	0.278	0.248	10.8	126	0.00
53	C	Ethylbenzene	1.136	1.128	0.7	128	0.00
54	T	m,p-Xylene	0.446	0.470	-5.4	129	0.00
55	T	o-Xylene	0.386	0.454	-17.6	131	0.00
56	T	Styrene	0.648	0.755	-16.5	130	0.00
57	P	Bromoform	0.167	0.151	9.6	124	0.00
58	T	Isopropylbenzene	0.946	1.149	-21.5	131	0.00
59	S	Bromofluorobenzene	0.524	0.525	-0.2	130	0.00
60	P	1,1,2,2-Tetrachloroethane	0.390	0.315	19.2	121	0.00
61	T	Bromobenzene	0.328	0.302	7.9	131	0.00
62	T	1,2,3-Trichloropropane	0.279	0.234	16.1	120	0.00
63	T	n-Propylbenzene	1.180	1.251	-6.0	127	0.00
64	T	2-Chlorotoluene	0.922	0.897	2.7	124	0.00
65	T	1,3,5-Trimethylbenzene	0.867	0.962	-11.0	127	0.00
66	T	4-Chlorotoluene	0.922	0.897	2.7	124	0.00
67	T	tert-Butylbenzene	0.662	0.797	-20.4	130	0.00
68	T	1,2,4-Trimethylbenzene	0.870	0.979	-12.5	126	0.00
69	T	sec-Butylbenzene	0.967	1.125	-16.3	129	0.00
70	T	1,3-Dichlorobenzene	0.615	0.569	7.5	128	0.00
71	T	4-Isopropyltoluene	0.871	0.960	-10.2	129	0.00
72	T	1,4-Dichlorobenzene	0.630	0.590	6.3	127	0.00
73	T	n-Butylbenzene	0.622	0.761	-22.3	126	0.00
74	T	1,2-Dichlorobenzene	0.617	0.568	7.9	126	0.00
75	T	1,2-Dibromo-3-chloropropane	0.068	0.054	20.6	116	0.00
76	T	1,2,4-Trichlorobenzene	0.296	0.341	-15.2	137	0.00
77	T	Hexachlorobutadiene	0.125	0.122	2.4	131	0.00
78	T	Naphthalene	0.816	1.048	-28.4	125	0.00
79	T	1,2,3-Trichlorobenzene	0.317	0.333	-5.0	128	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.161	0.186	-15.5	123	0.00
81	T	Methyl acetate	0.308	0.262	14.9	110	0.00
82	T	Cyclohexane	0.462	0.392	15.2	129	0.00
83	T	Methylcyclohexane	0.344	0.290	15.7	103	0.00

(#) = Out of Range

GA021910.M Tue Feb 23 14:07:32 2010 RPT1

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 02/22/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	AQUEOUS	G0763.D	109	97	98
01259-001	AQUEOUS	G0764.D	111	97	102
LFB_20PPB	AQUEOUS	G0765.D	98	104	103
BLANK-MS	AQUEOUS	G0766.D	97	103	102
BLANK-MSD	AQUEOUS	G0767.D	92	102	101
01312-001	AQUEOUS	G0768.D	98	96	98
01346-001	AQUEOUS	G0769.D	99	97	97
01346-002	AQUEOUS	G0770.D	104	96	99
01346-004	AQUEOUS	G0772.D	100	98	102
01346-005	AQUEOUS	G0773.D	95	96	99
01419-003	AQUEOUS	G0775.D	93	99	98
01419-005	AQUEOUS	G0777.D	93	98	98
01419-001	AQUEOUS	G0778.D	91	97	97
01419-002	AQUEOUS	G0779.D	93	97	96
01450-001	AQUEOUS	G0780.D	93	98	99
01450-002	AQUEOUS	G0781.D	94	97	99
01450-003	AQUEOUS	G0782.D	94	95	99
01450-004	AQUEOUS	G0783.D	93	97	99
01457-001	AQUEOUS	G0784.D	93	97	99
01457-004	AQUEOUS	G0785.D	92	97	97
01457-005	AQUEOUS	G0786.D	94	97	97
01457-002	AQUEOUS	G0787.D	90	98	99
01457-003	AQUEOUS	G0788.D	92	98	98
BLANK-MS	AQUEOUS	G0789.D	90	101	100

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	62-158
SMC2 = Toluene-d8	30 ppb	69-123
SMC3 = Bromofluorobenzene	30 ppb	59-131

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 02/22/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLANK-MSD	AQUEOUS	G0790.D	88	100	100
01463-001	AQUEOUS	G0792.D	90	96	98
01463-003	AQUEOUS	G0793.D	91	96	99
01463-002	AQUEOUS	G0794.D	89	96	99
BLANK-MS	AQUEOUS	G0795.D	86	101	99
BLANK-MSD	AQUEOUS	G0796.D	89	101	99

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	62-158
SMC2 = Toluene-d8	30 ppb	69-123
SMC3 = Bromofluorobenzene	30 ppb	59-131

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 02/23/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	AQUEOUS	G0799.D	93	96	97
01332-11DIL	AQUEOUS	G0800.D	93	97	97
LFB_20PPB	AQUEOUS	G0802.D	92	101	101
1344-001MS	AQUEOUS	G0803.D	89	101	100
1344-001MSD	AQUEOUS	G0804.D	90	101	100
01346-003	AQUEOUS	G0806.D	93	96	96
01344-001	AQUEOUS	G0807.D	95	93	98
01419-004	AQUEOUS	G0808.D	98	97	98
01476-004	AQUEOUS	G0812.D	91	97	97
01476-003	AQUEOUS	G0813.D	93	97	100
01482-001	AQUEOUS	G0814.D	90	96	97
01482-003	AQUEOUS	G0816.D	92	97	96
01482-005	AQUEOUS	G0819.D	101	97	96
01482-006	AQUEOUS	G0820.D	100	97	98
01526-002	AQUEOUS	G0821.D	95	97	104
01476-001	AQUEOUS	G0822.D	100	97	99
01476-002	AQUEOUS	G0823.D	101	97	98
01457-2DIL	AQUEOUS	G0824.D	96	98	100
01482-002	AQUEOUS	G0815.D	88	96	95
01482-004	AQUEOUS	G0817.D	92	97	95

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	62-158
SMC2 = Toluene-d8	30 ppb	69-123
SMC3 = Bromofluorobenzene	30 ppb	59-131

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: BLANK-MSD
Client ID: BLANK-MSD
Date Received: NA
Date Analyzed: 02/23/2010
Data file: G0796.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
Chloromethane	20.0	0.0	15.3	77.0	0.0	15.9	80.0
Vinyl chloride	20.0	0.0	16.1	81.0	0.0	16.4	82.0
Bromomethane	20.0	0.0	16.3	82.0	0.0	19.2	96.0
Chloroethane	20.0	0.0	17.7	89.0	0.0	20.6	103.0
Trichlorofluoromethane	20.0	0.0	16.3	82.0	0.0	17.8	89.0
Acrolein	200.0	0.0	188.1	94.0	0.0	160.0	80.0
1,1-Dichloroethene	20.0	0.0	15.3	77.0	0.0	18.4	92.0
Methylene chloride	20.0	0.0	19.7	99.0	0.0	23.1	116.0
Acrylonitrile	200.0	0.0	133.9	67.0	0.0	168.0	84.0
trans-1,2-Dichloroethene	20.0	0.0	15.6	78.0	0.0	18.5	93.0
1,1-Dichloroethane	20.0	0.0	16.5	83.0	0.0	19.8	99.0
Chloroform	20.0	0.0	16.6	83.0	0.0	19.7	99.0
1,1,1-Trichloroethane	20.0	0.0	17.6	88.0	0.0	20.9	105.0
Carbon tetrachloride	20.0	0.0	16.3	82.0	0.0	19.6	98.0
1,2-Dichloroethane (EDC)	20.0	0.0	15.6	78.0	0.0	18.7	94.0
Benzene	20.0	0.0	17.8	89.0	0.0	21.0	105.0
Trichloroethene	20.0	0.0	18.0	90.0	0.0	21.3	107.0
1,2-Dichloropropane	20.0	0.0	18.4	92.0	0.0	21.7	109.0
Bromodichloromethane	20.0	0.0	18.0	90.0	0.0	21.9	110.0
2-Chloroethyl vinyl ether	20.0	0.0	0.0	0.0	0.0	0.0	0.0
cis-1,3-Dichloropropene	20.0	0.0	20.5	103.0	0.0	25.0	125.0
Toluene	20.0	0.0	18.6	93.0	0.0	21.7	109.0
trans-1,3-Dichloropropene	20.0	0.0	18.8	94.0	0.0	23.0	115.0
1,1,2-Trichloroethane	20.0	0.0	18.3	92.0	0.0	21.5	108.0
Tetrachloroethene	20.0	0.0	18.7	94.0	0.0	21.7	109.0
Dibromochloromethane	20.0	0.0	18.2	91.0	0.0	22.3	112.0
Chlorobenzene	20.0	0.0	16.6	83.0	0.0	19.4	97.0
Ethylbenzene	20.0	0.0	19.0	95.0	0.0	22.3	112.0
total-Xylenes	60.0	0.0	65.0	108.0	0.0	76.0	127.0
Bromoform	20.0	0.0	16.3	82.0	0.0	20.4	102.0
1,1,2,2-Tetrachloroethane	20.0	0.0	15.8	79.0	0.0	18.8	94.0
1,3-Dichlorobenzene	20.0	0.0	18.6	93.0	0.0	21.3	107.0
1,4-Dichlorobenzene	20.0	0.0	18.8	94.0	0.0	21.4	107.0
1,2-Dichlorobenzene	20.0	0.0	19.0	95.0	0.0	21.7	109.0

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G0707.D

Date Analyzed: 02/19/2010

Instrument ID: MSD_G

Time Analyzed: 10:44

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	413670	6.00	707049	6.82	743012	10.16
	UPPER LIMIT	827340	6.50	1414098	7.32	1486024	10.66
	LOWER LIMIT	206835	5.50	353524.5	6.32	371506	9.66
	LAB SAMPLE ID						
01	1PPB_STD	379003	6.00	679055	6.83	694456	10.16
02	0.5PPB_STD	376407	6.00	690439	6.82	709653	10.16
03	100PPB_STD	430382	6.00	722113	6.82	787801	10.16
04	5PPB_STD	416432	6.00	728899	6.82	756901	10.16
05	METHOD_BLK	342190	6.00	646175	6.82	665463	10.16
06	LFB_20PPB	409213	6.00	702949	6.82	746018	10.16
07	1289-001MS	409727	6.00	704182	6.82	745236	10.16
08	1289-001MSD	427509	6.00	725302	6.82	768319	10.16
09	01288-001	368174	6.00	682414	6.82	694821	10.16
10	01289-001	352325	6.00	667221	6.82	686181	10.16
11	01300-001	360697	6.00	689556	6.82	715377	10.16
12	01301-003	405383	6.00	736927	6.82	740980	10.16
13	01301-001	397128	6.00	729940	6.82	741306	10.16
14	01301-002	368806	6.00	687232	6.83	704675	10.16
15	01282-003	352970	6.00	668949	6.82	690606	10.16
16	01303-001	351859	6.00	668459	6.82	693768	10.16
17	01303-002	413543	6.00	748171	6.82	763521	10.16
18	01303-003	432331	6.00	780001	6.82	796957	10.16
19	01303-004	397544	6.00	735172	6.82	747178	10.16
20	01314-004	379300	6.00	705538	6.82	728146	10.16
21	01314-005	370225	6.00	683140	6.82	706136	10.16
22	01314-006	361936	6.00	660536	6.82	694453	10.16

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G0707.D Date Analyzed: 02/19/2010

Instrument ID: MSD_G Time Analyzed: 10:44

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	413670	6.00	707049	6.82	743012	10.16
	UPPER LIMIT	827340	6.50	1414098	7.32	1486024	10.66
	LOWER LIMIT	206835	5.50	353524.5	6.32	371506	9.66
	LAB SAMPLE ID						
23	01314-007	358759	6.00	649282	6.82	678533	10.16
24	01332-003	365386	6.00	657111	6.82	688437	10.16
25	01332-004	371631	6.00	676948	6.82	703801	10.16
26	01332-005	338424	6.00	623083	6.82	643377	10.16
27	01332-006	348215	6.00	654539	6.82	684963	10.16
28	01332-007	348813	6.00	631264	6.82	659647	10.16
29	01332-008	366085	6.00	661950	6.82	686977	10.16
30	01332-009	349297	6.00	648723	6.82	681272	10.16
31	01332-010	345354	6.00	647730	6.82	669439	10.16
32	01332-011	332463	6.00	627975	6.82	649788	10.16
33	01302-001	319183	6.00	629949	6.82	658679	10.16
34	01312-002	390053	6.00	728433	6.82	743221	10.16
35	01312-003	363093	6.00	690018	6.82	705021	10.16
36	01321-001	354061	6.00	677201	6.82	694158	10.16
37	01338-001	366089	6.00	693020	6.82	708685	10.16
38	01338-002	363469	6.00	673368	6.82	735884	10.16
39	01332-001	358651	6.00	686180	6.82	696717	10.16
40	01332-002	374464	6.00	706125	6.82	726596	10.16
41	01314-001DIL	356815	6.00	662943	6.82	691330	10.16
42							
43							
44							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G0762.D Date Analyzed: 02/22/2010

Instrument ID: MSD_G Time Analyzed: 8:41

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	379960	6.00	669235	6.82	722510	10.16
	UPPER LIMIT	759920	6.50	1338470	7.32	1445020	10.66
	LOWER LIMIT	189980	5.50	334617.5	6.32	361255	9.66
	LAB SAMPLE ID						
01	METHOD_BLK	360248	6.00	680561	6.82	712409	10.16
02	01259-001	340650	6.00	651884	6.82	703922	10.16
03	LFB_20PPB	420650	6.00	735861	6.82	814506	10.16
04	BLANK-MS	442290	6.00	764626	6.82	833466	10.16
05	BLANK-MSD	475772	6.00	815327	6.82	880924	10.16
06	01312-001	439453	6.00	794409	6.82	830637	10.16
07	01346-001	435262	6.00	788802	6.82	835071	10.16
08	01346-002	401248	6.00	742280	6.82	783629	10.16
09	01346-004	429408	6.00	785354	6.82	837481	10.16
10	01346-005	467969	6.00	833060	6.82	884329	10.16
11	01419-003	478703	6.00	846675	6.82	932345	10.16
12	01419-005	480362	6.00	846969	6.82	917682	10.16
13	01419-001	497752	6.00	875439	6.82	934409	10.16
14	01419-002	479518	6.00	849824	6.82	902132	10.16
15	01450-001	481421	6.00	853129	6.82	924218	10.16
16	01450-002	477919	6.00	853863	6.82	904796	10.16
17	01450-003	470582	6.00	837967	6.82	903034	10.16
18	01450-004	484903	6.00	855152	6.82	906217	10.16
19	01457-001	493019	6.00	875480	6.82	933090	10.16
20	01457-004	486390	6.00	861519	6.82	913670	10.16
21	01457-005	471490	6.00	836780	6.82	887529	10.16
22	01457-002	505414	6.00	891878	6.82	961186	10.16

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G0762.D Date Analyzed: 02/22/2010

Instrument ID: MSD_G Time Analyzed: 8:41

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	379960	6.00	669235	6.82	722510	10.16
	UPPER LIMIT	759920	6.50	1338470	7.32	1445020	10.66
	LOWER LIMIT	189980	5.50	334617.5	6.32	361255	9.66
	LAB SAMPLE ID						
23	01457-003	488008	6.00	862610	6.82	931111	10.16
24	BLANK-MS	508145	6.00	881753	6.82	958891	10.16
25	BLANK-MSD	516871	6.00	892498	6.82	958123	10.16
26	01463-001	503373	6.00	889460	6.82	947599	10.16
27	01463-003	494458	6.00	872362	6.82	930640	10.16
28	01463-002	509223	6.00	893004	6.82	940478	10.16
29	BLANK-MS	535954	6.00	914483	6.82	995233	10.16
30	BLANK-MSD	518374	6.00	894667	6.82	979708	10.16
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G0798.D Date Analyzed: 02/23/2010

Instrument ID: MSD_G Time Analyzed: 9:04

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	522867	6.00	886627	6.82	971643	10.16
	UPPER LIMIT	1045734	6.50	1773254	7.32	1943086	10.66
	LOWER LIMIT	261433.5	5.50	443313.5	6.32	485771.5	9.66
	LAB SAMPLE ID						
01	METHOD_BLK	467806	6.00	837423	6.82	885907	10.16
02	01332-11DIL	454567	6.00	802739	6.82	858263	10.16
03	LFB_20PPB	471840	6.00	822840	6.82	899603	10.16
04	1344-001MS	491710	6.00	834562	6.82	926656	10.16
05	1344-001MSD	475277	6.00	815017	6.83	893336	10.16
06	01346-003	460279	6.00	827785	6.82	886197	10.16
07	01344-001	451055	6.00	806451	6.82	827182	10.16
08	01419-004	414678	6.00	762827	6.82	826313	10.16
09	01476-004	471279	6.00	832404	6.82	901693	10.16
10	01476-003	458547	6.00	819185	6.82	886832	10.16
11	01482-001	479568	6.00	842791	6.82	914843	10.16
12	01482-003	469245	6.00	832689	6.82	908684	10.16
13	01482-005	399758	6.00	750047	6.82	804718	10.16
14	01482-006	396121	6.00	739763	6.82	790965	10.16
15	01526-002	420771	6.00	758107	6.82	809209	10.16
16	01476-001	406994	6.00	762061	6.82	818140	10.16
17	01476-002	405376	6.00	751979	6.82	811060	10.16
18	01457-2DIL	430033	6.00	797721	6.82	878969	10.16
19	01482-002	466679	6.00	835063	6.82	905622	10.16
20	01482-004	461285	6.00	815892	6.82	888681	10.16
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0778.D
Acq On : 22 Feb 2010 16:08
Operator : Sylvia
Sample : TRIP,01419-001,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 23 10:14:23 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 12:51:20 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	497752	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	875439	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	934409	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	287080	27.36	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 91.20%			
41) Toluene-d8	8.48	98	1004490	29.10	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 97.00%			
59) Bromofluorobenzene	11.56	95	475695	29.15	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 97.17%			

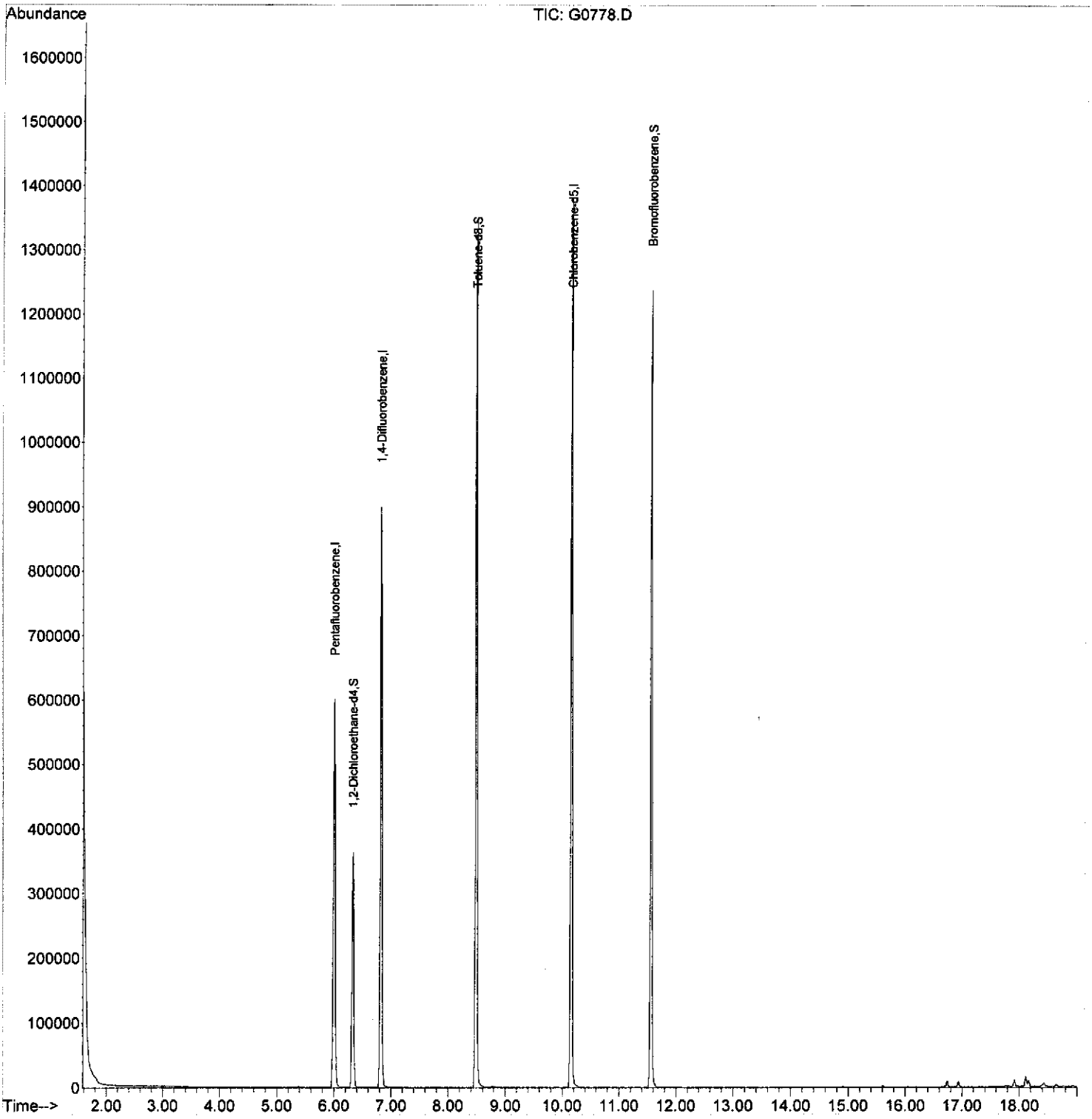
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0778.D
Acq On : 22 Feb 2010 16:08
Operator : Sylvia
Sample : TRIP,01419-001,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 23 10:14:23 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 12:51:20 2010
Response via : Initial Calibration



0061

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0778.D
Acq On : 22 Feb 2010 16:08
Operator : Sylvia
Sample : TRIP,01419-001,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA021910.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	835	846	867	rBV	600287	1351873	51.69%	11.774%
2	6.329	896	908	926	rBV	363726	794502	30.38%	6.920%
3	6.820	992	1002	1021	rBV	898398	1859978	71.11%	16.200%
4	8.484	1309	1320	1348	rBV	1345680	2600391	99.42%	22.649%
5	10.157	1629	1640	1675	rBV	1379103	2615529	100.00%	22.780%
6	11.559	1899	1908	1930	rBV	1236602	2226027	85.11%	19.388%
7	18.113	3153	3161	3167	rBV2	16145	33148	1.27%	0.289%

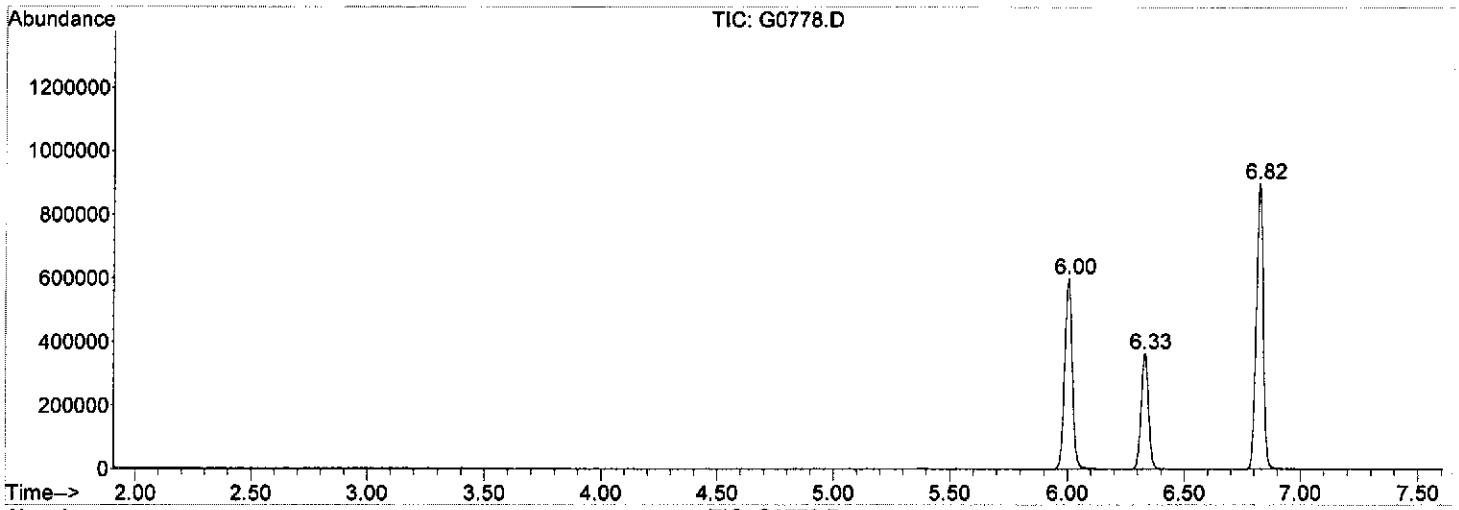
Sum of corrected areas: 11481448

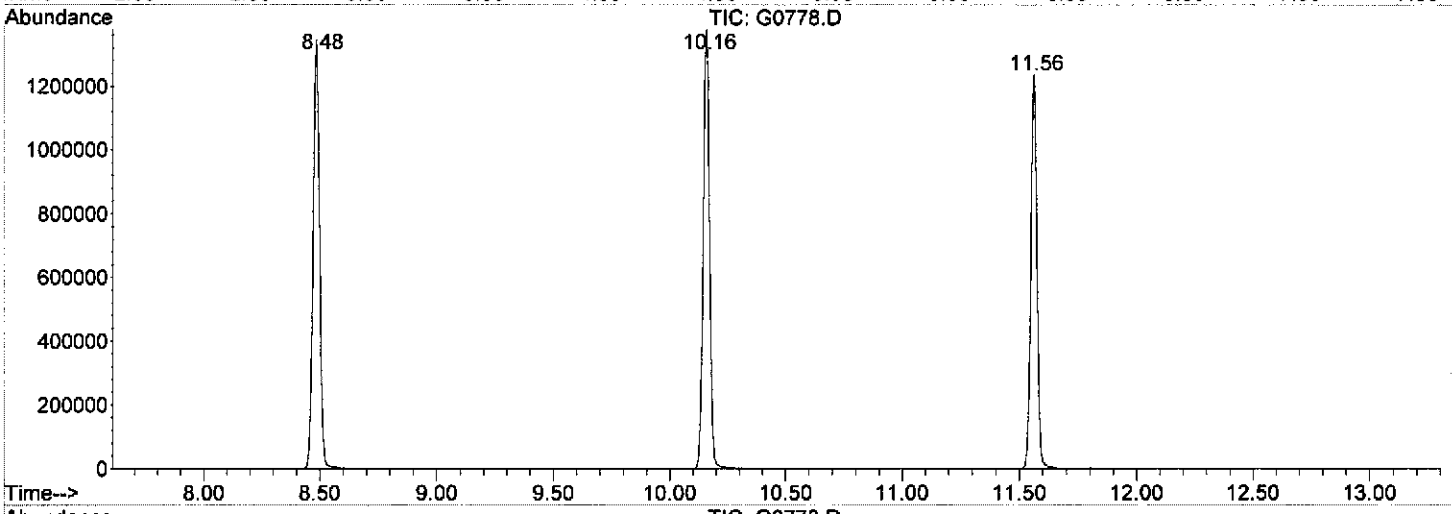
LSC Report - Integrated Chromatogram

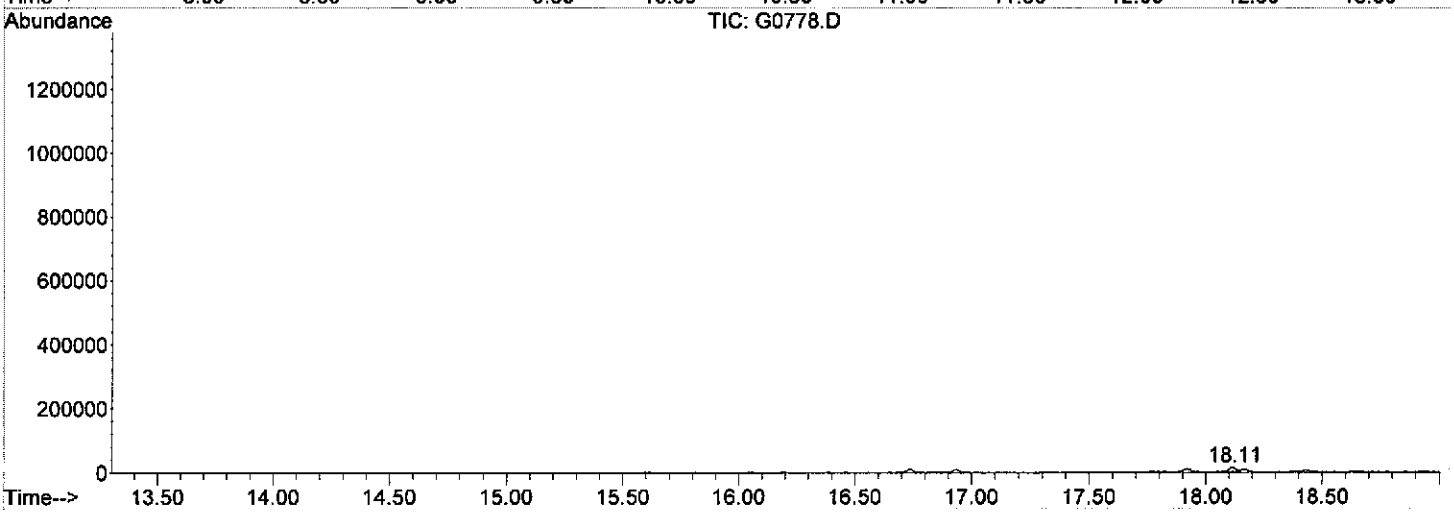
Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0778.D
Acq On : 22 Feb 2010 16:08
Operator : Sylvia
Sample : TRIP,01419-001,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0779.D
Acq On : 22 Feb 2010 16:36
Operator : Sylvia
Sample : FIELD,01419-002,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 23 10:16:54 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 12:51:20 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	479518	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	849824	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	902132	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	281671	27.86	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 92.87%			
41) Toluene-d8	8.48	98	972619	29.03	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 96.77%			
59) Bromofluorobenzene	11.56	95	454935	28.88	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 96.27%			

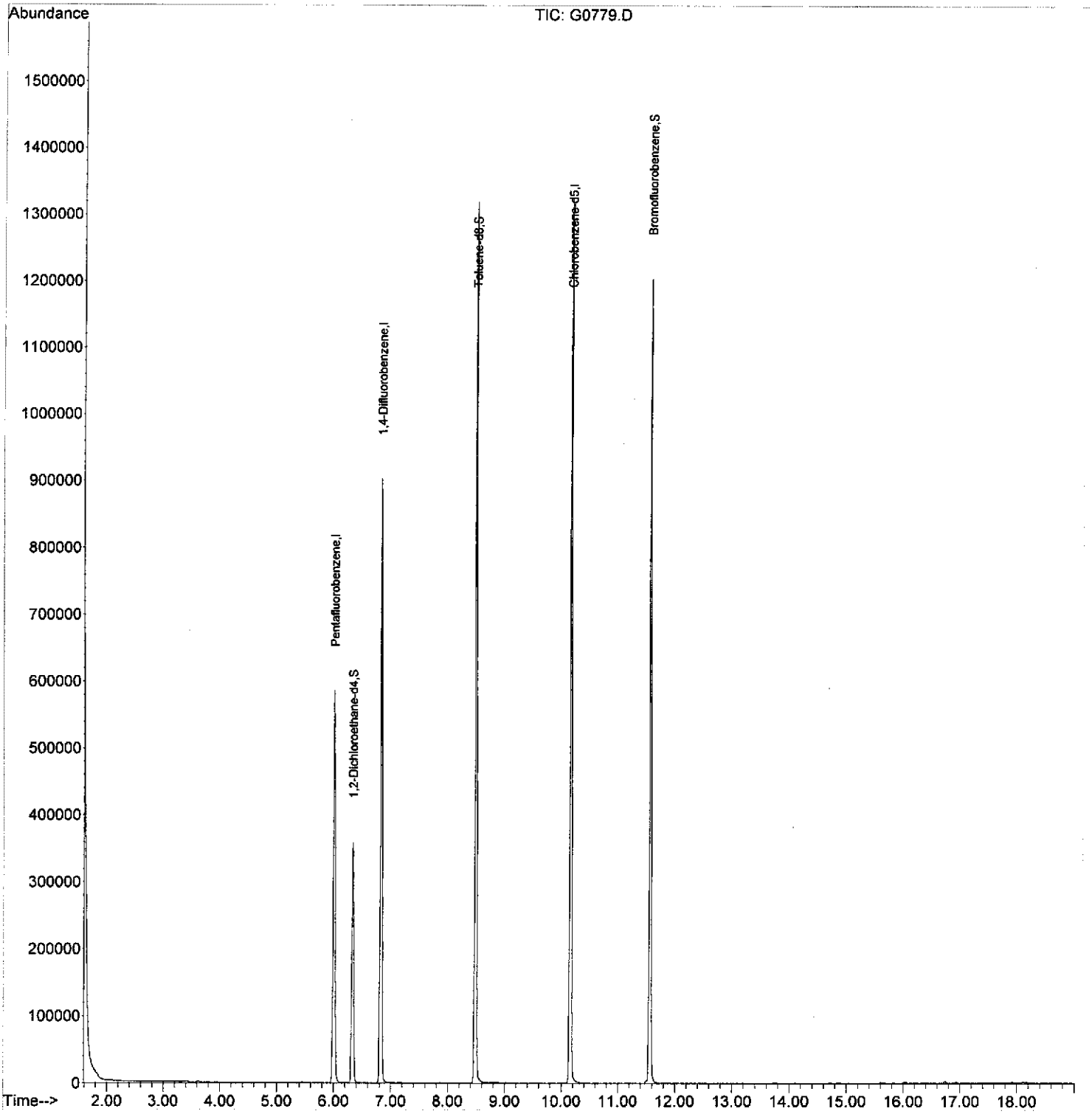
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0779.D
Acq On : 22 Feb 2010 16:36
Operator : Sylvia
Sample : FIELD,01419-002,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 23 10:16:54 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 12:51:20 2010
Response via : Initial Calibration



0065

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0779.D
Acq On : 22 Feb 2010 16:36
Operator : Sylvia
Sample : FIELD,01419-002,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA021910.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	834	846	866	rBV	585771	1313898	51.95%	11.835%
2	6.329	897	908	921	rBV	358334	778147	30.77%	7.009%
3	6.821	992	1002	1023	rBV	902162	1818870	71.92%	16.384%
4	8.484	1310	1320	1345	rBV	1319114	2523829	99.80%	22.734%
5	10.157	1626	1640	1669	rBV	1323112	2528952	100.00%	22.781%
6	11.559	1900	1908	1931	rVB	1202441	2137678	84.53%	19.256%

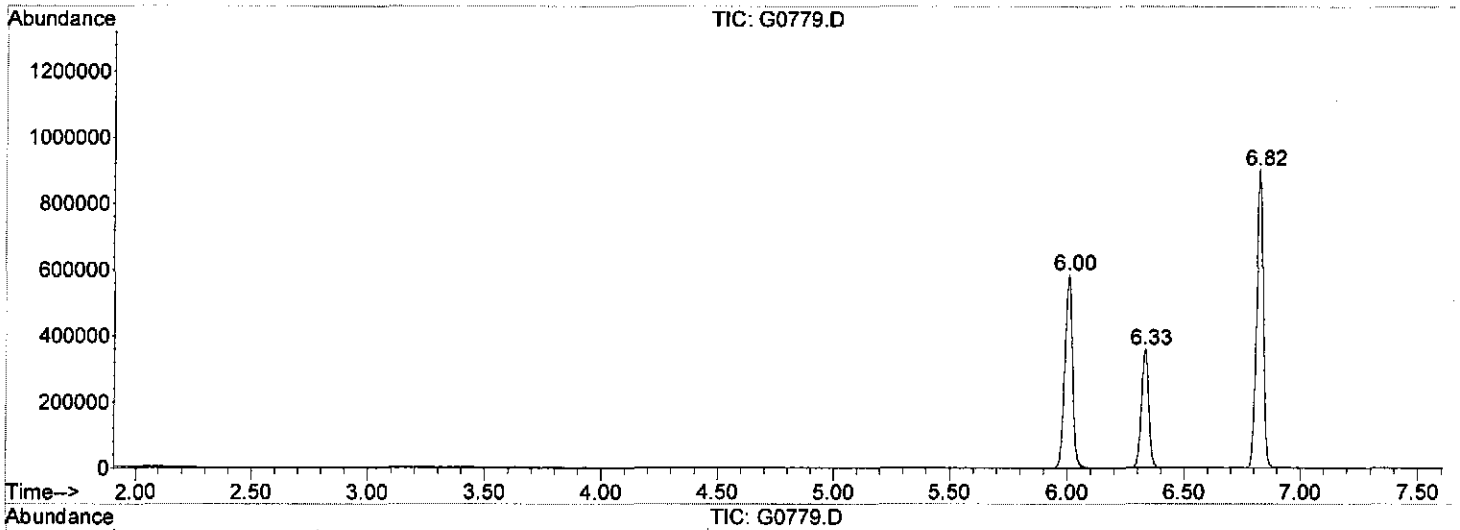
Sum of corrected areas: 11101374

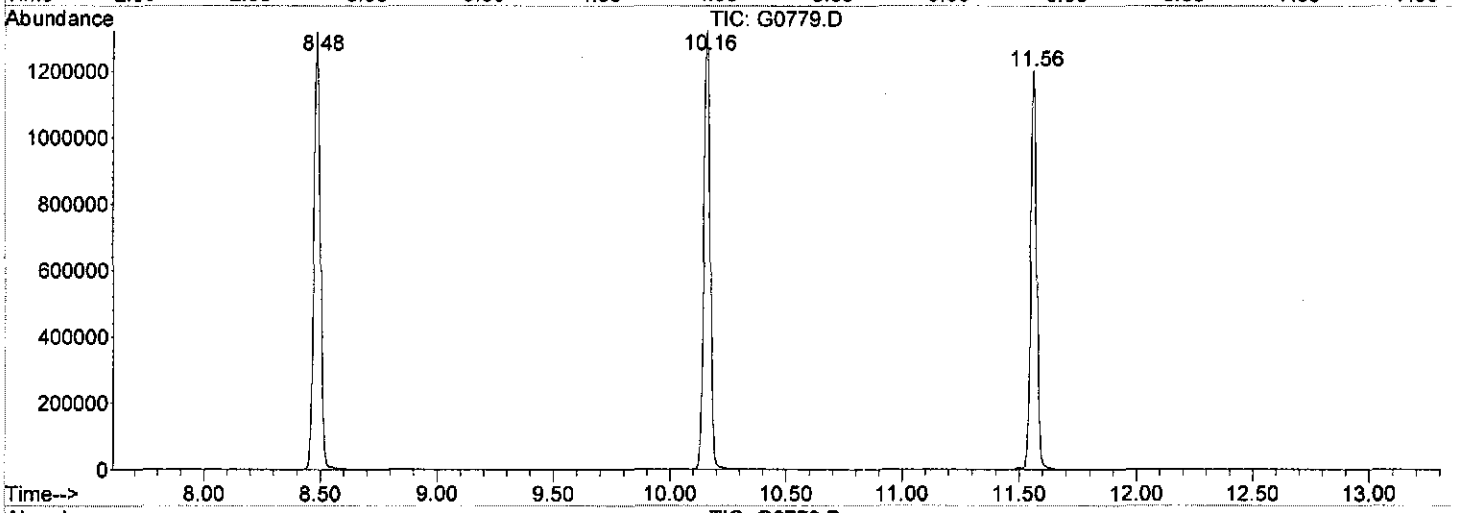
LSC Report - Integrated Chromatogram

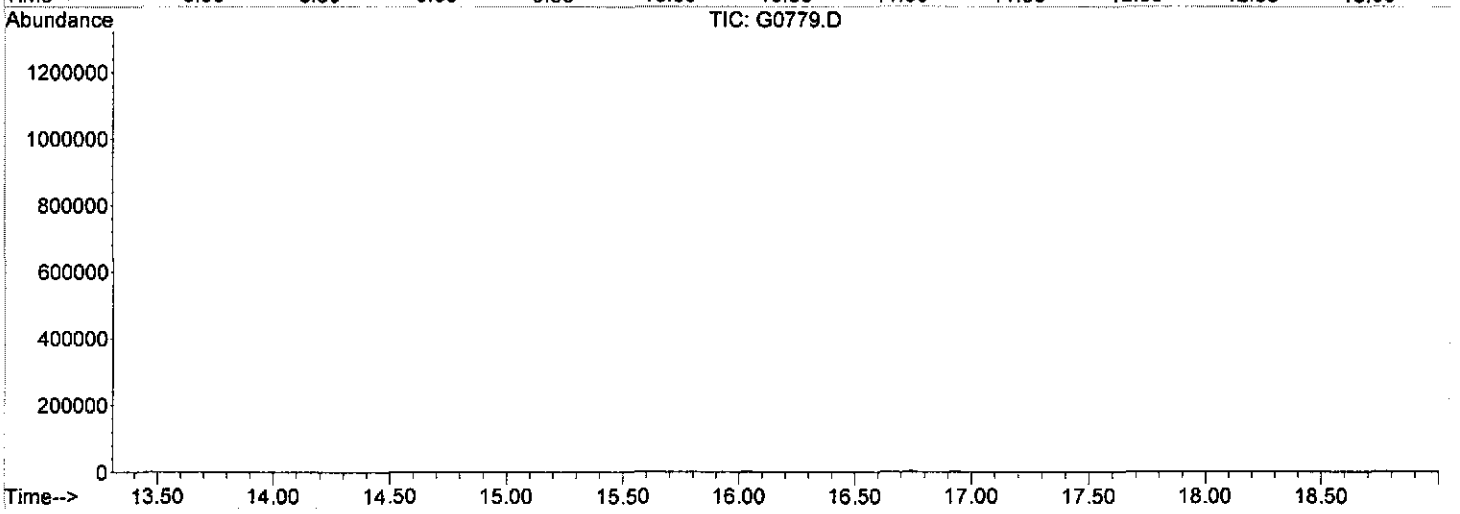
Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0779.D
Acq On : 22 Feb 2010 16:36
Operator : Sylvia
Sample : FIELD,01419-002,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







0067

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 23 09:59:41 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 12:51:20 2010
Response via : Initial Calibration

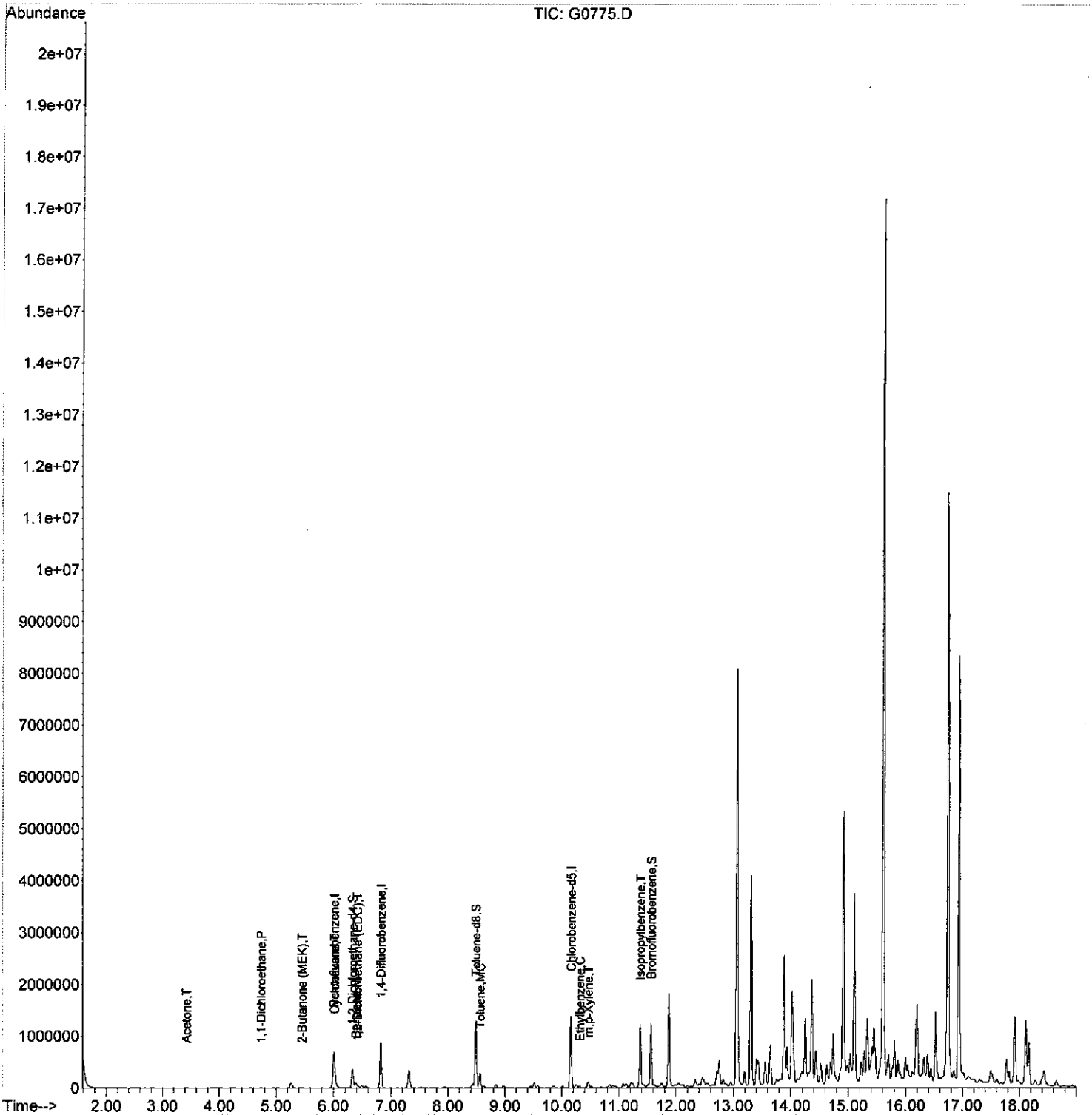
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.00	168	478703	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	846675	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	932345	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	281119	27.85	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 92.83%				
41) Toluene-d8	8.48	98	990631	29.68	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 98.93%				
59) Bromofluorobenzene	11.56	95	479179m	29.43	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 98.10%				
Target Compounds							Qvalue
10) Acetone	3.42	43	9476m	3.68	UG		
18) 1,1-Dichloroethane	4.73	63	7514m	0.54	UG		
22) 2-Butanone (MEK)	5.45	43	10641	2.34	UG	#	1
29) 1,2-Dichloroethane (EDC)	6.41	62	3732	0.30	UG	#	100
32) Benzene	6.39	78	101506	3.05	UG		100
42) Toluene	8.56	92	146693	7.24	UG		100
53) Ethylbenzene	10.32	91	23922	0.68	UG		98
54) m,p-Xylene	10.46	106	15932	1.15	UG		86
58) Isopropylbenzene	11.37	105	972885	33.09	UG		98
82) Cyclohexane	6.02	56	126434	8.81	UG	#	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 23 09:59:41 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 12:51:20 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA021910.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	833	846	871	rBV2	692963	1863317	6.20%	1.008%
2	6.329	899	908	915	rBV	350216	751529	2.50%	0.407%
3	6.821	992	1002	1021	rBV	874329	1810529	6.03%	0.980%
4	7.312	1081	1096	1108	rBV	336791	848294	2.82%	0.459%
5	8.484	1312	1320	1328	rVB	1269746	2487938	8.28%	1.347%
6	8.562	1328	1335	1342	rVB	269543	510629	1.70%	0.276%
7	10.158	1629	1640	1651	rBV	1389124	2625826	8.74%	1.421%
8	11.214	1832	1842	1857	rVB5	90640	328597	1.09%	0.178%
9	11.371	1857	1872	1880	rBV	1209640	2283997	7.60%	1.236%
10	11.559	1901	1908	1916	rVB	1189816	2095874	6.98%	1.134%
11	11.873	1959	1968	1984	rBV	1804678	3483376	11.60%	1.885%
12	12.333	2046	2056	2065	rBV5	127918	344753	1.15%	0.187%
13	12.454	2073	2079	2090	rBV4	141640	431664	1.44%	0.234%
14	12.715	2120	2129	2131	rBV	278747	514653	1.71%	0.279%
15	12.752	2131	2136	2144	rVV	484698	971695	3.23%	0.526%
16	12.820	2144	2149	2167	rVB2	131699	389671	1.30%	0.211%
17	13.060	2184	2195	2212	rBV	8038450	15567084	51.83%	8.425%
18	13.196	2212	2221	2232	rVB	260824	502194	1.67%	0.272%
19	13.306	2232	2242	2253	rBV	4048862	7625602	25.39%	4.127%
20	13.406	2253	2261	2264	rBV2	516536	1032758	3.44%	0.559%
21	13.432	2264	2266	2280	rVB	459715	700888	2.33%	0.379%
22	13.552	2281	2289	2298	rBV2	427387	873142	2.91%	0.473%
23	13.641	2298	2306	2320	rVB	770268	1497180	4.98%	0.810%
24	13.751	2320	2327	2335	rBV3	99593	317334	1.06%	0.172%
25	13.881	2344	2352	2358	rBV	2392995	4417958	14.71%	2.391%
26	13.934	2358	2362	2371	rVB	627257	1077849	3.59%	0.583%
27	14.023	2371	2379	2391	rVB2	1759759	4376119	14.57%	2.368%
28	14.190	2402	2411	2415	rBV4	161940	390290	1.30%	0.211%
29	14.248	2415	2422	2429	rVB3	1115496	2189469	7.29%	1.185%
30	14.363	2435	2444	2451	rVB	1902085	3542132	11.79%	1.917%
31	14.431	2451	2457	2467	rVB2	601477	1282546	4.27%	0.694%
32	14.520	2467	2474	2484	rVB3	391800	836944	2.79%	0.453%
33	14.624	2484	2494	2501	rBV2	379648	831884	2.77%	0.450%
34	14.687	2501	2506	2510	rBV2	316826	489679	1.63%	0.265%
35	14.734	2510	2515	2532	rVB	913466	1777248	5.92%	0.962%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA021910.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

36	14.870	2532	2541	2542	rBV3	255310	455808	1.52%	0.247%
37	14.912	2542	2549	2558	rVV2	5138191	10255811	34.14%	5.551%
38	14.985	2558	2563	2567	rVV4	251700	561876	1.87%	0.304%
39	15.032	2567	2572	2579	rVV2	474414	1025850	3.42%	0.555%
40	15.105	2579	2586	2599	rVB	3623413	6507235	21.66%	3.522%
41	15.220	2599	2608	2613	rBV2	381338	769350	2.56%	0.416%
42	15.278	2613	2619	2623	rVV	542748	977578	3.25%	0.529%
43	15.330	2623	2629	2636	rVV4	1159106	2466472	8.21%	1.335%
44	15.414	2636	2645	2647	rVV2	611288	1388820	4.62%	0.752%
45	15.445	2647	2651	2663	rVB3	986656	2397076	7.98%	1.297%
46	15.607	2674	2682	2691	rVB	16943475	30037607	100.00%	16.257%
47	15.702	2691	2700	2707	rVB2	463832	1139394	3.79%	0.617%
48	15.770	2707	2713	2714	rBV3	226425	303641	1.01%	0.164%
49	15.801	2714	2719	2726	rVB2	694720	1286220	4.28%	0.696%
50	15.864	2726	2731	2736	rBV3	318074	546273	1.82%	0.296%
51	16.000	2749	2757	2760	rBV2	404293	736561	2.45%	0.399%
52	16.036	2760	2764	2774	rVB7	241953	412576	1.37%	0.223%
53	16.198	2785	2795	2806	rVB2	1397158	3460377	11.52%	1.873%
54	16.319	2813	2818	2825	rVV	338940	527871	1.76%	0.286%
55	16.382	2825	2830	2837	rVB	455572	737473	2.46%	0.399%
56	16.439	2837	2841	2850	rVB3	233529	417482	1.39%	0.226%
57	16.528	2850	2858	2871	rBV2	1311535	2457513	8.18%	1.330%
58	16.737	2883	2898	2914	rBV	11295661	20085509	66.87%	10.871%
59	16.936	2928	2936	2963	rVB	8173052	14743710	49.08%	7.980%
60	17.501	3034	3044	3058	rVB5	229298	700697	2.33%	0.379%
61	17.773	3086	3096	3101	rBV	471293	945648	3.15%	0.512%
62	17.820	3101	3105	3115	rVB	217543	349266	1.16%	0.189%
63	17.919	3115	3124	3133	rBV	1259059	2558604	8.52%	1.385%
64	18.113	3149	3161	3166	rBV	1227469	2654191	8.84%	1.437%
65	18.165	3166	3171	3183	rVB	816395	1701351	5.66%	0.921%
66	18.432	3206	3222	3255	rVB	289261	1086456	3.62%	0.588%

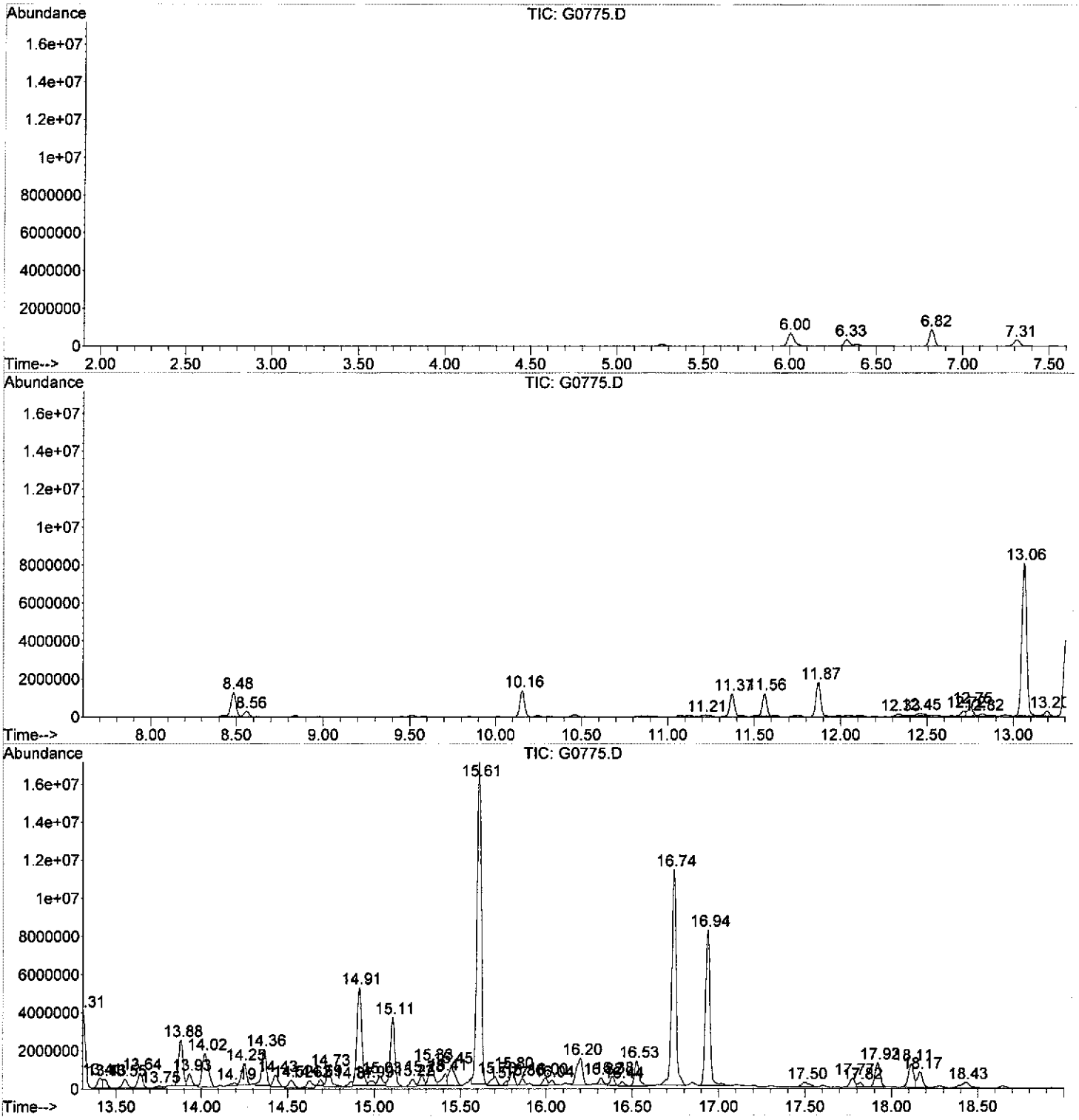
Sum of corrected areas: 184764938

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



0072

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

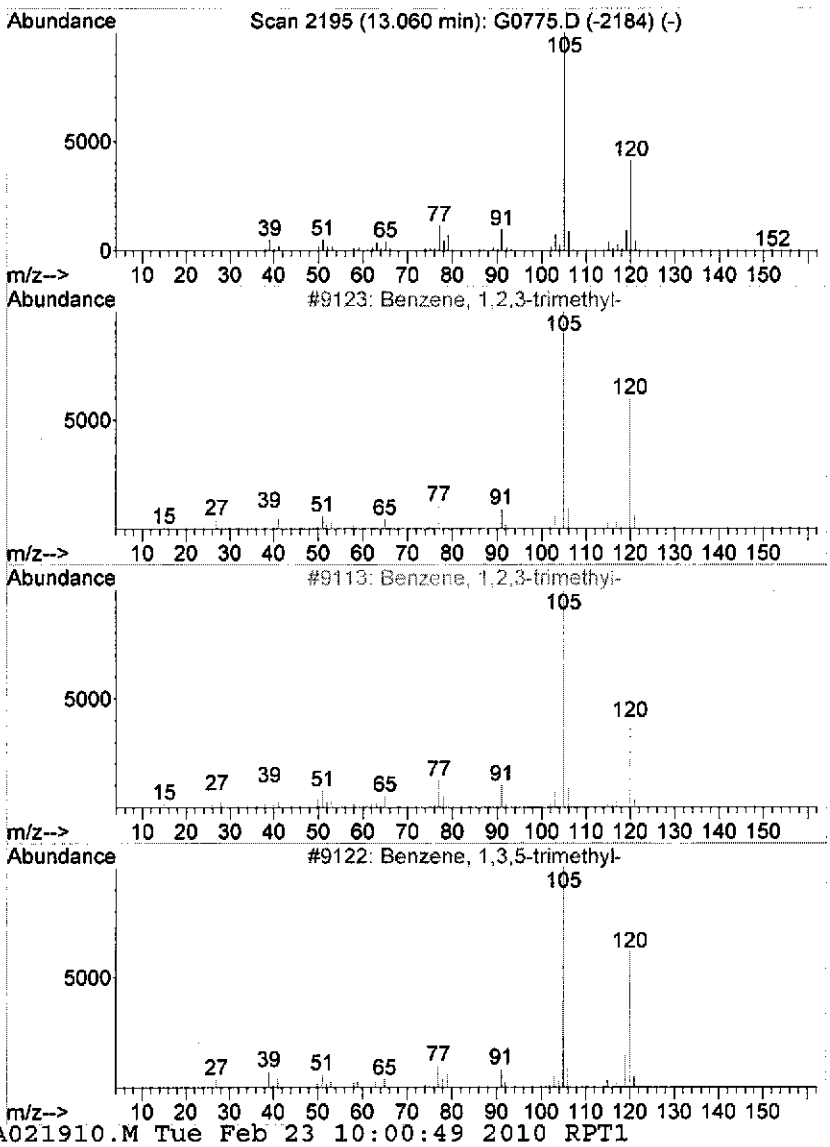
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

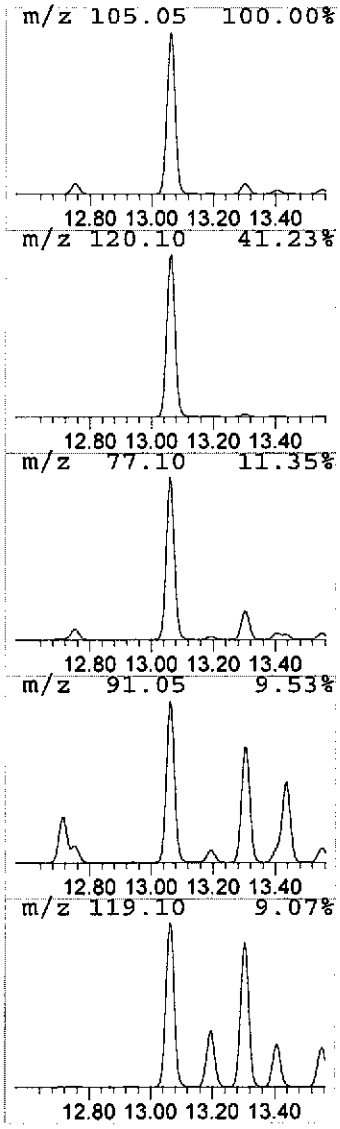
****

Peak Number 1 Substituted benzene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.06	177.85 UG	15567100	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	93
4	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	91
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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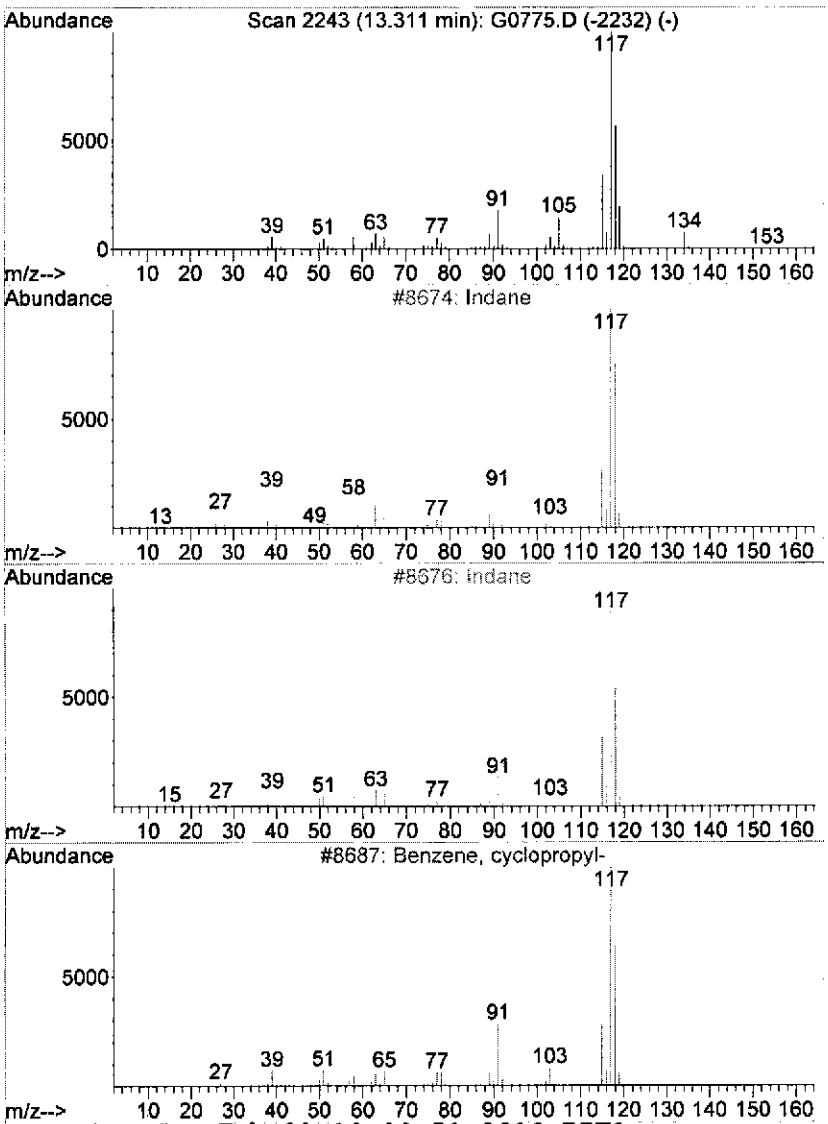
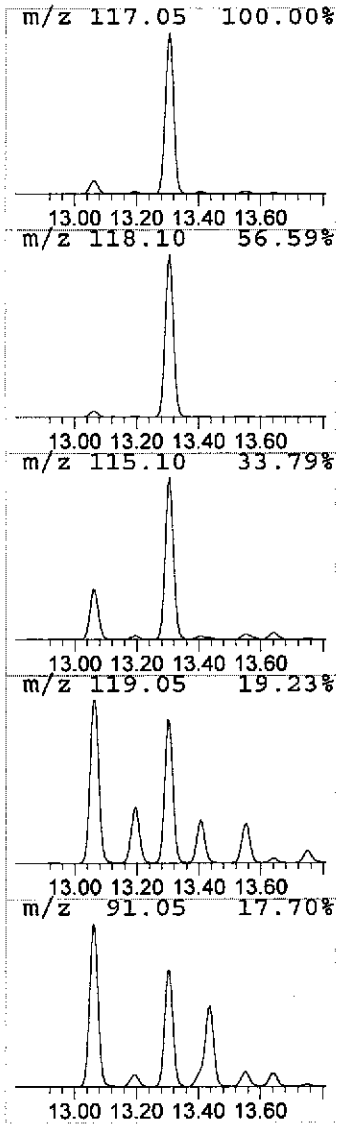
Peak Number 2 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.31	87.12 UG	7625600	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	76
2	Indane	118	C9H10	000496-11-7	70
3	Benzene, cyclopropyl-	118	C9H10	000873-49-4	70
4	Indane	118	C9H10	000496-11-7	68
5	Benzene, cyclopropyl-	118	C9H10	000873-49-4	62





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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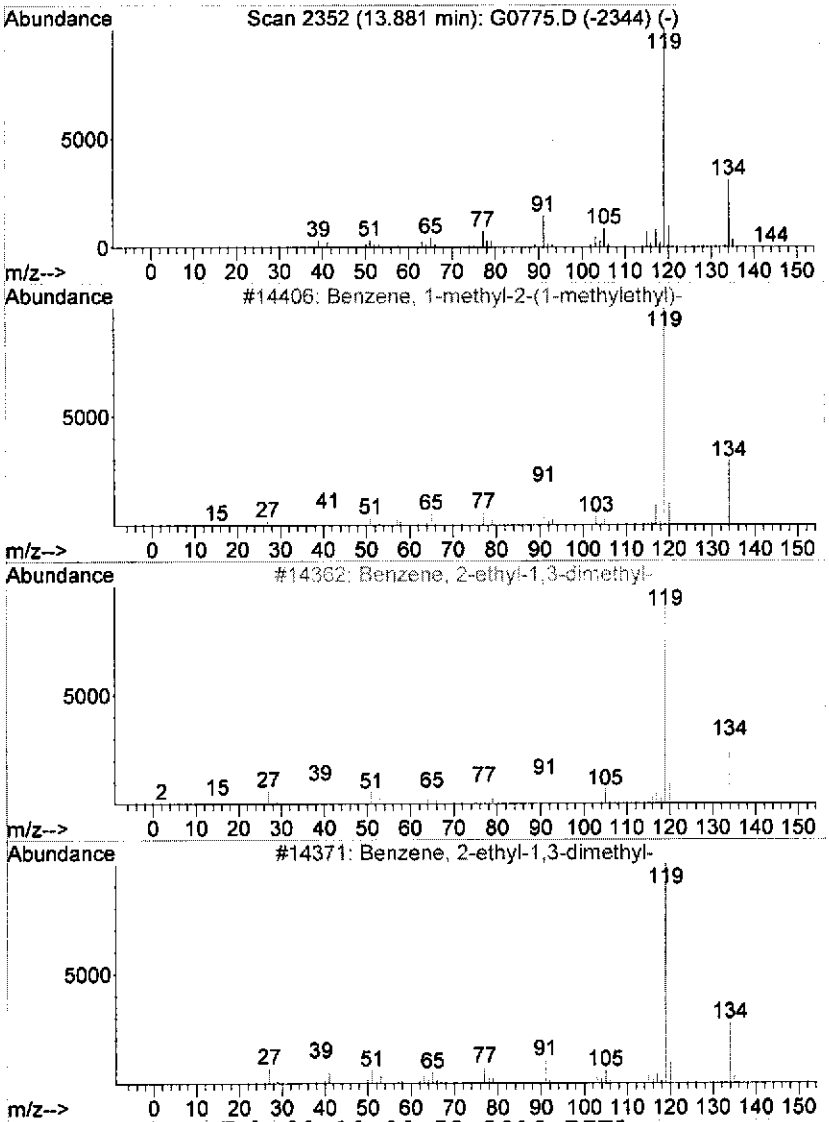
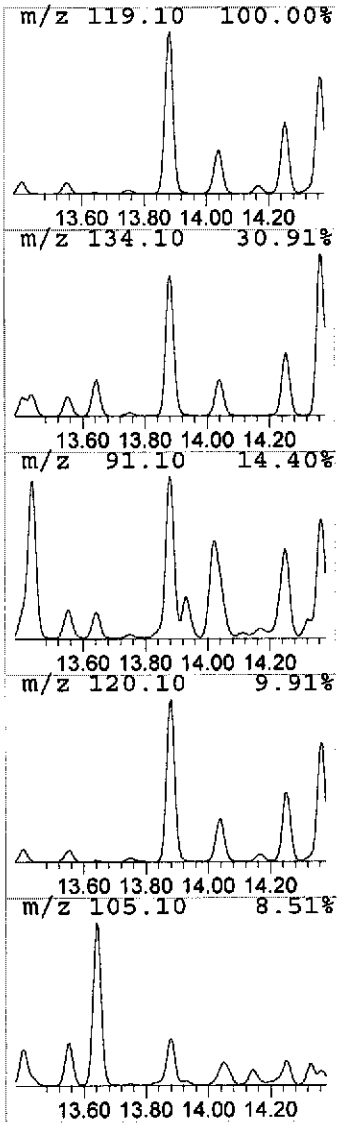
Peak Number 3 Substituted benzene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.88	50.48 UG	4417960	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	97
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	95
3	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	95
4	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	95
5	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

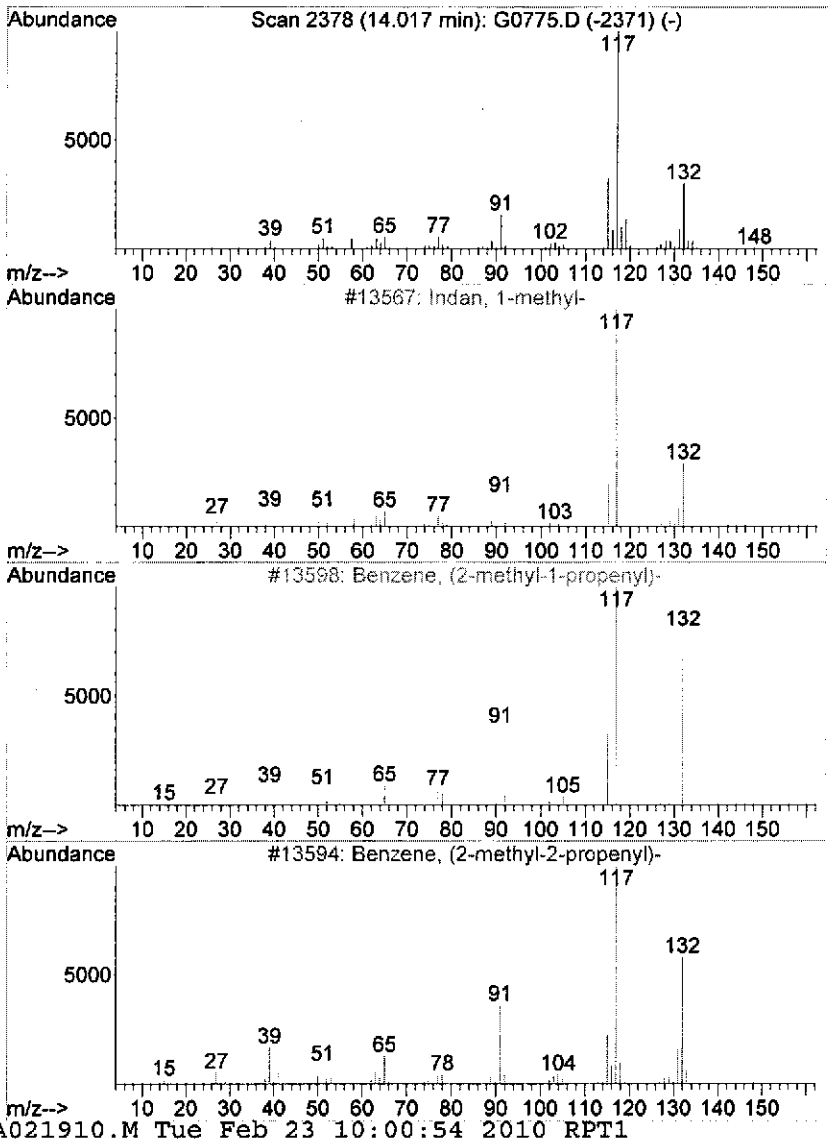
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

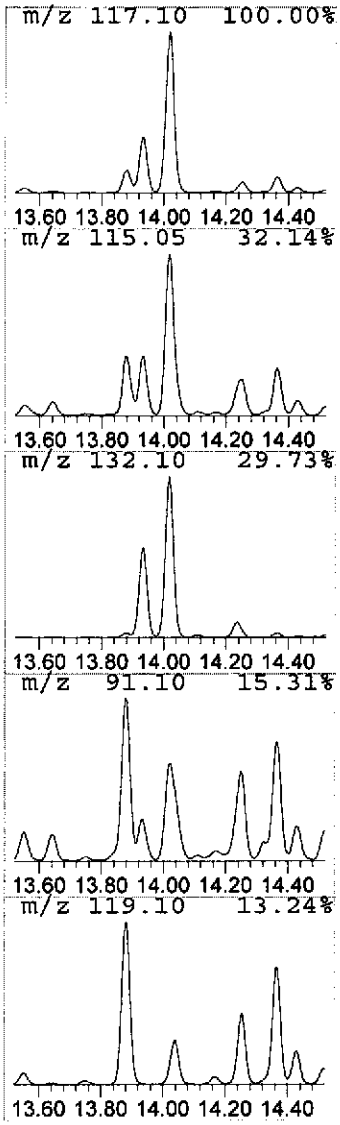
****

Peak Number 4 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	50.00 UG	4376120	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	94
2	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	87
3	Benzene, (2-methyl-2-propenyl)-	132	C10H12	003290-53-7	83
4	1-Phenyl-1-butene	132	C10H12	000824-90-8	81
5	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	81





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

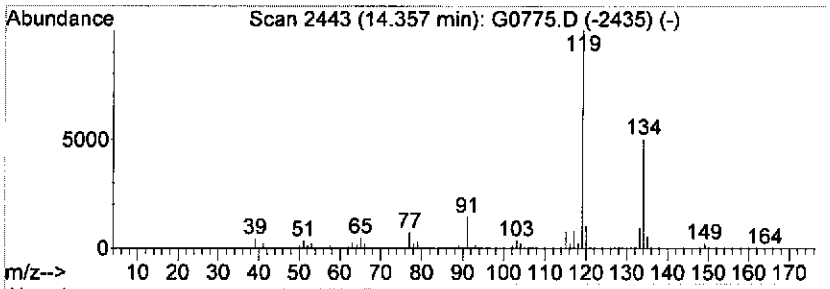
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

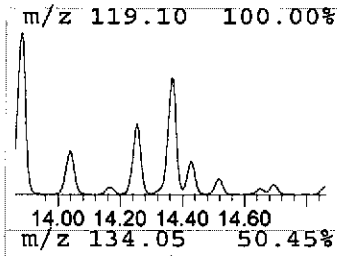
****

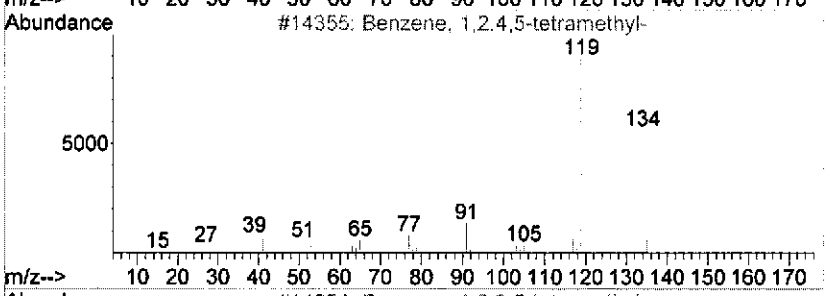
Peak Number 5 Substituted benzene Concentration Rank 10

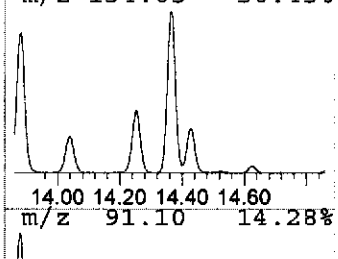
R.T.	EstConc	Area	Relative to ISTD	R.T.
14.36	40.47 UG	3542130	Chlorobenzene-d5	10.16

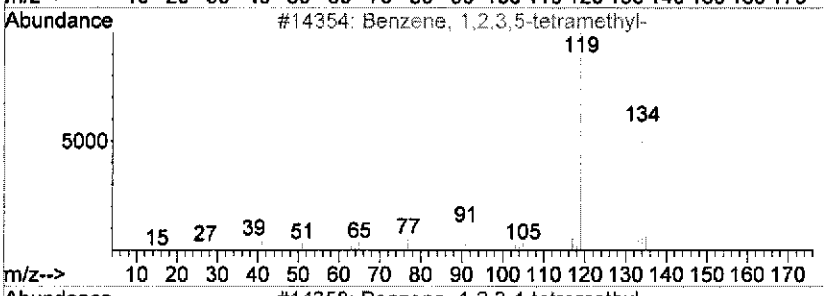
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	95
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	95
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94
4	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
5	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	94

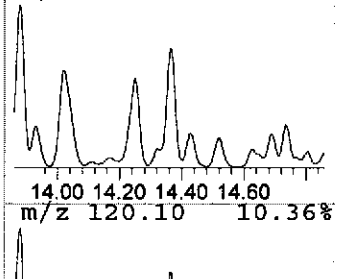


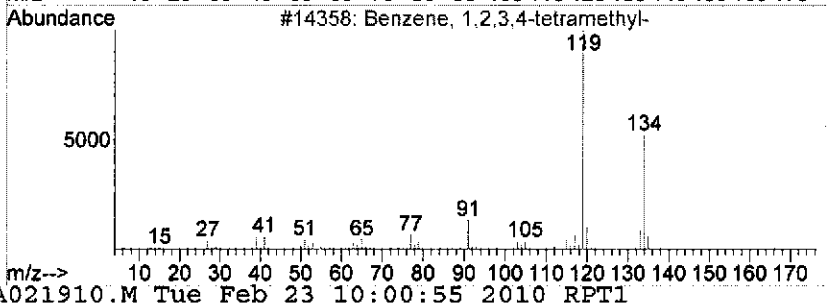


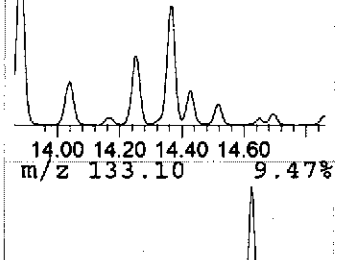


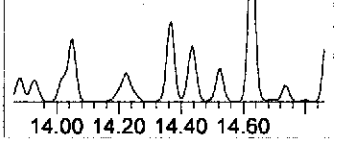












Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

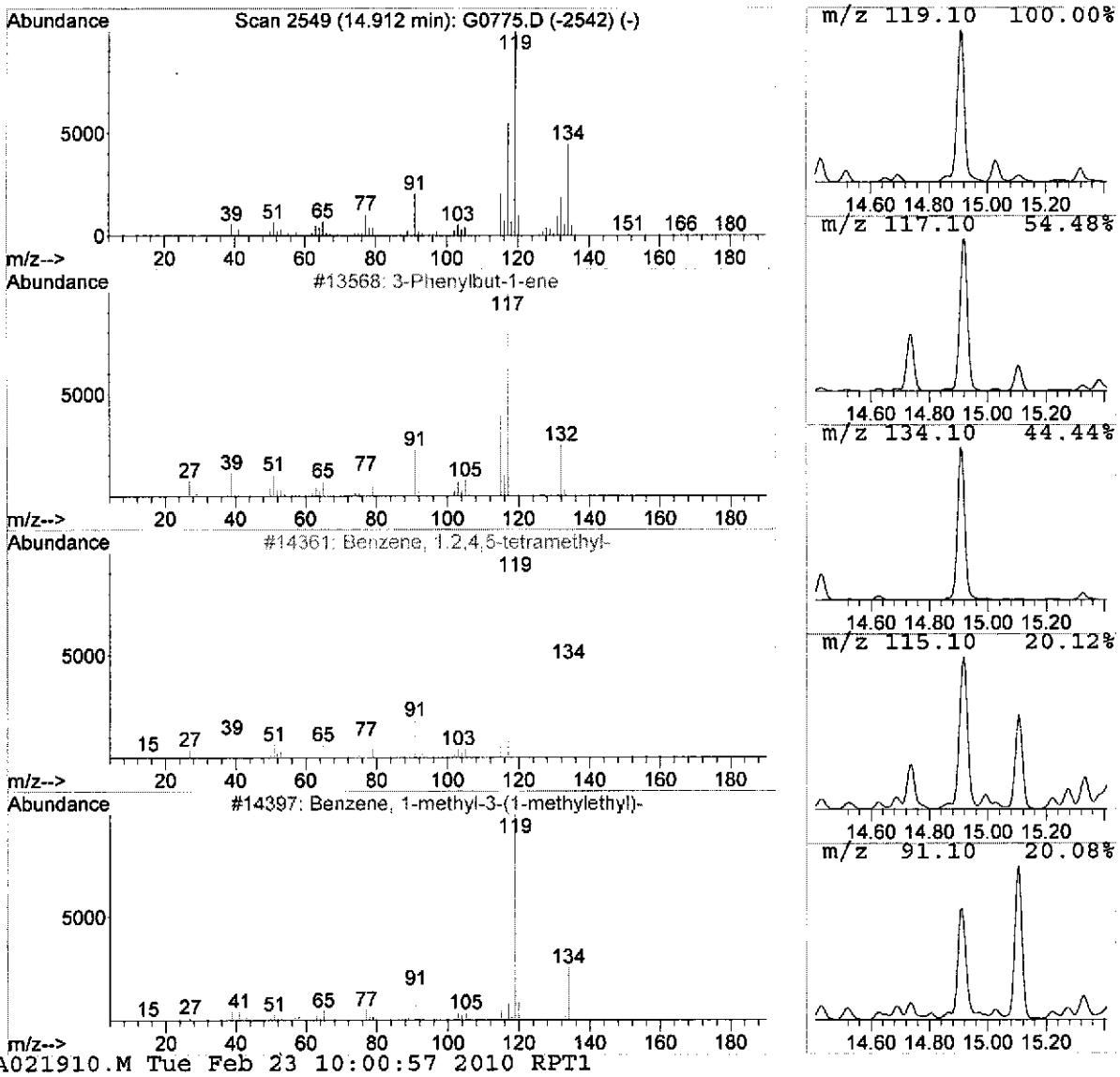
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 6 Substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.91	117.17 UG	10255800	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Phenylbut-1-ene	132	C10H12	000934-10-1	74
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	64
3	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	64
4	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	64
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	58



0078

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

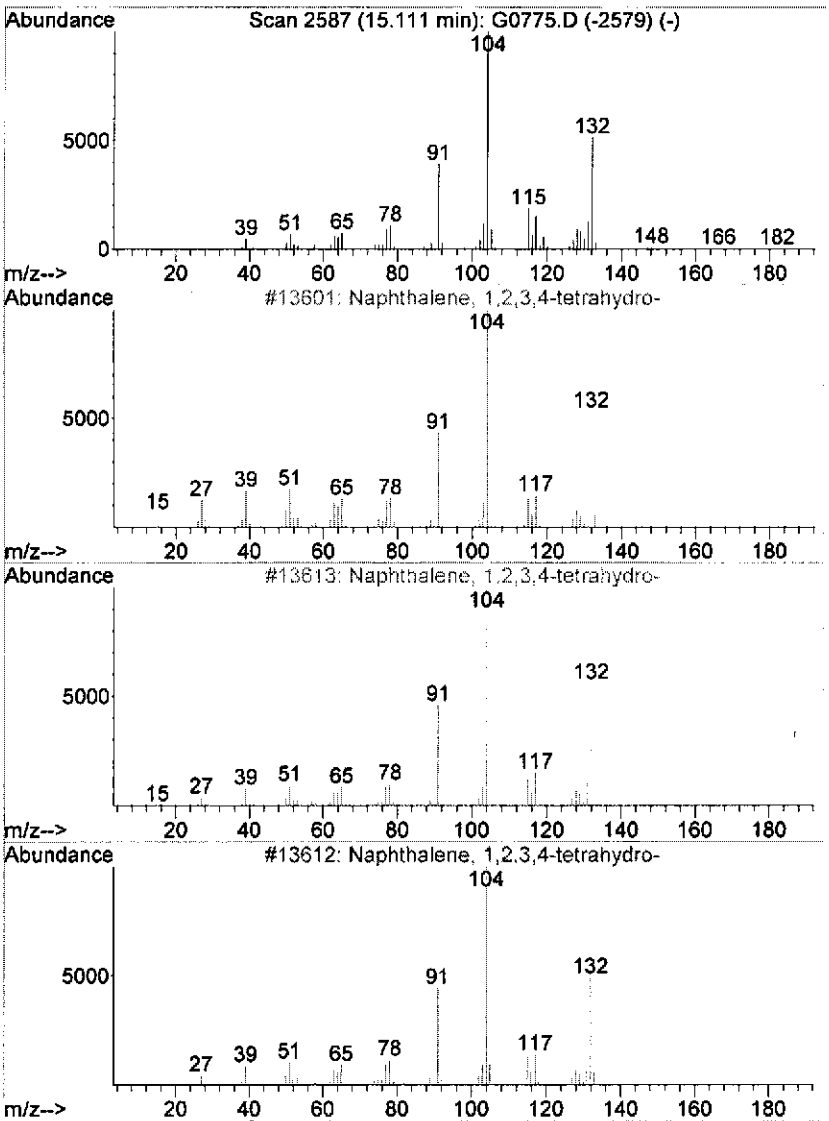
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

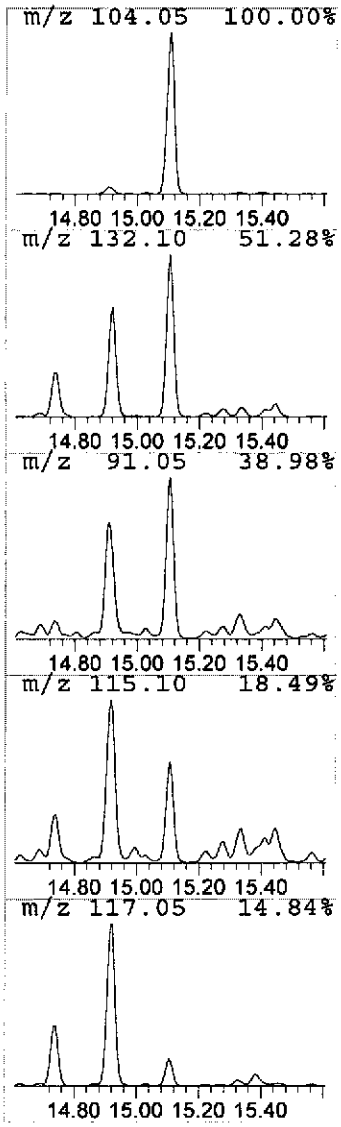
****

Peak Number 7 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.11	74.35 UG	6507240	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	91
2	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	91
3	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	91
4	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	64
5	Acetic acid, trichloro-, 2-pheny...	266	C10H9Cl3O2	071965-07-6	43





0079

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

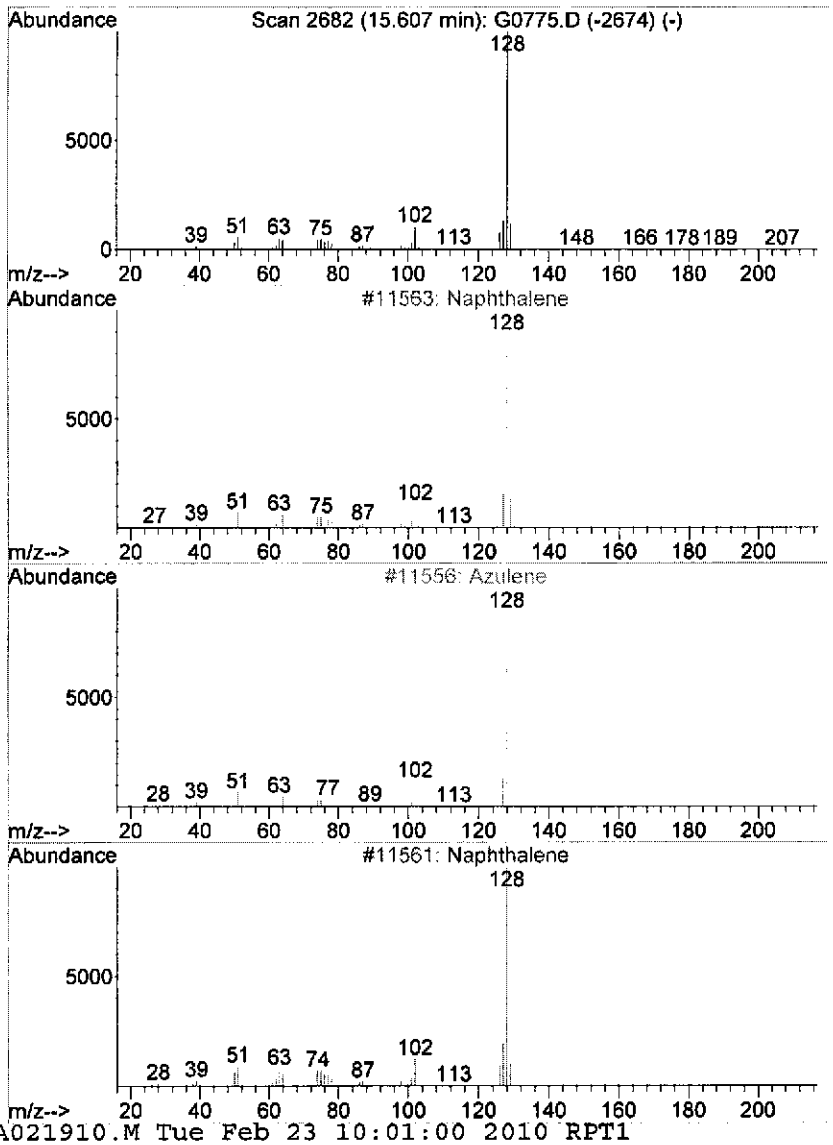
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

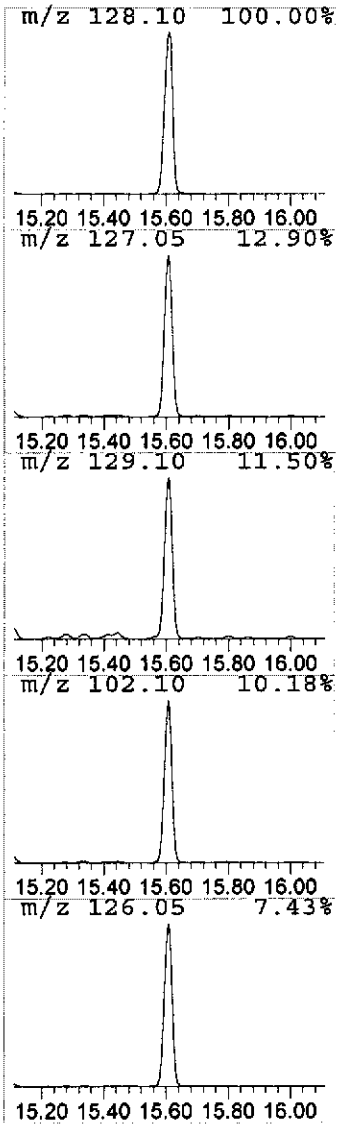
****

Peak Number 8 Naphthalene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.61	343.18 UG	30037600	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	97
2	Azulene	128	C10H8	000275-51-4	95
3	Naphthalene	128	C10H8	000091-20-3	94
4	Azulene	128	C10H8	000275-51-4	94
5	Azulene	128	C10H8	000275-51-4	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

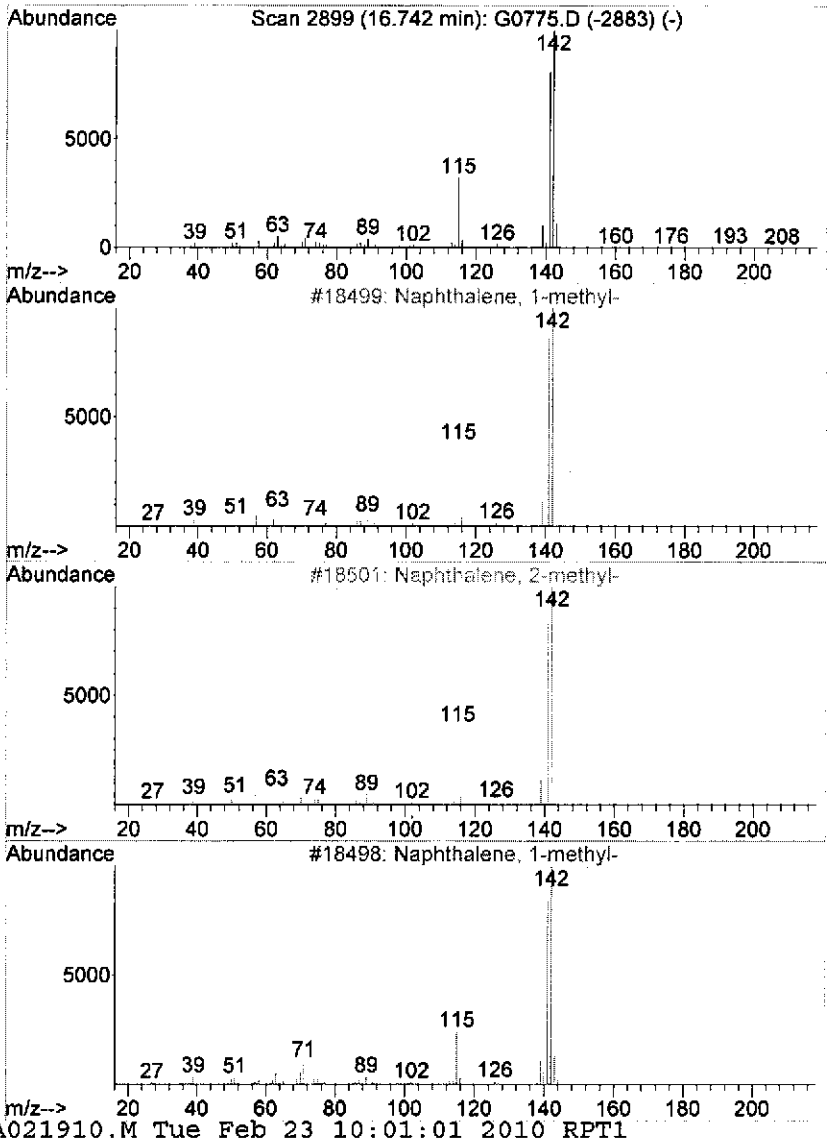
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

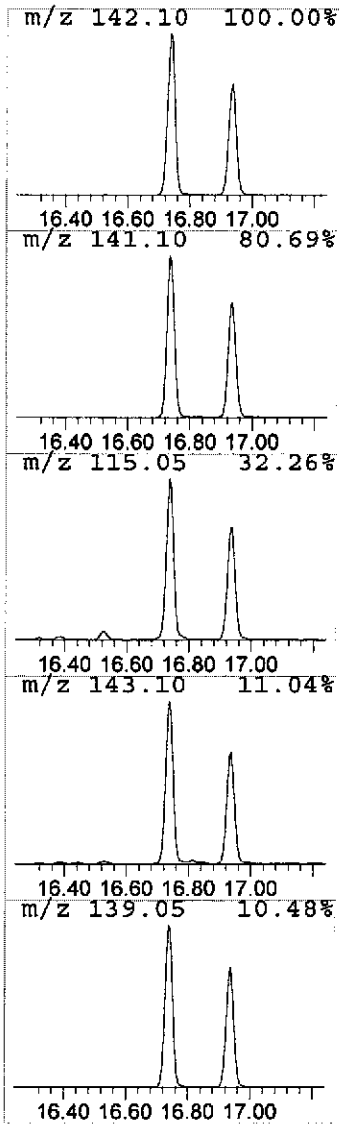
****

Peak Number 9 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.74	229.48 UG	20085500	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	91
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0775.D
Acq On : 22 Feb 2010 14:45
Operator : Sylvia
Sample : TW1,01419-003,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

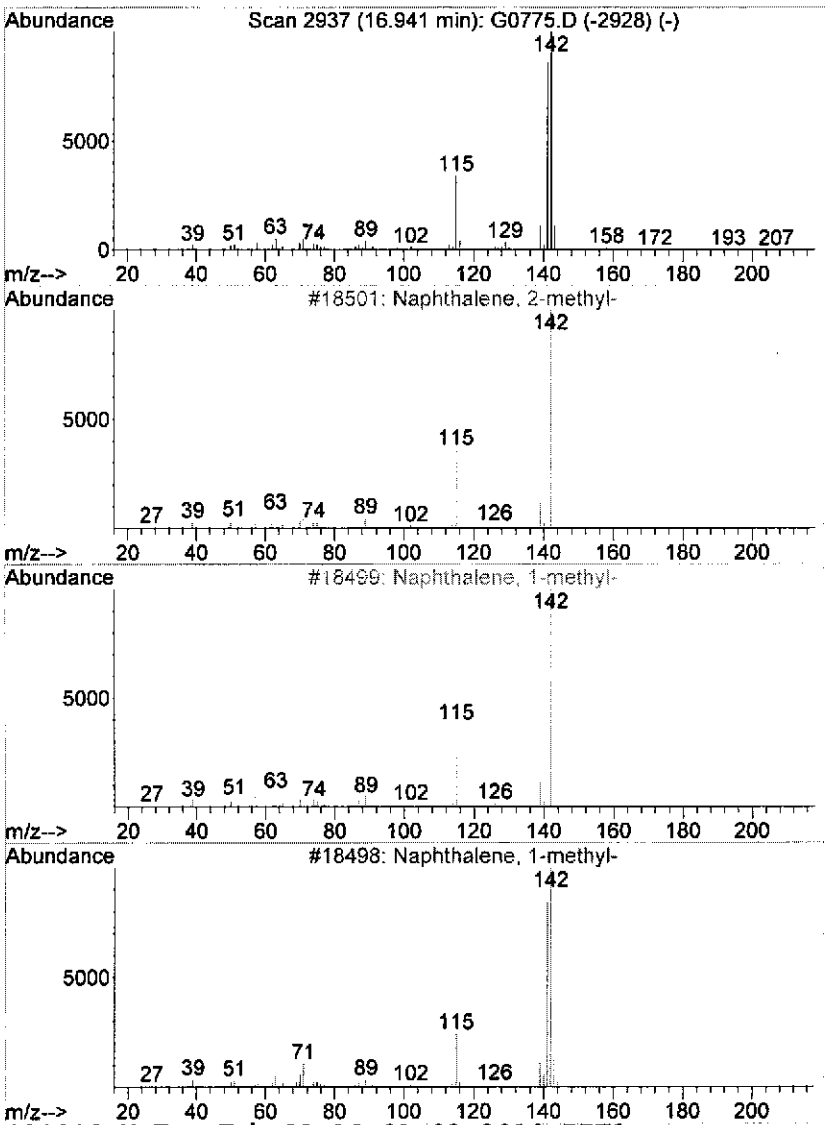
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

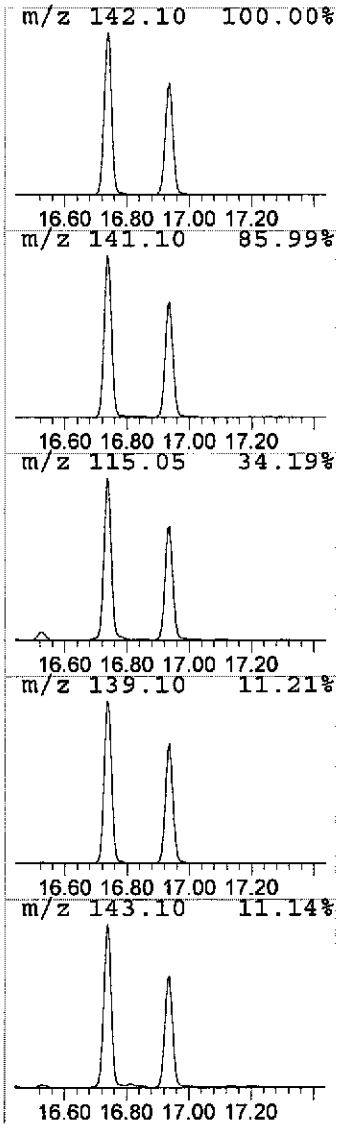
****

Peak Number 10 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.94	168.45 UG	14743700	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
5	Benzocycloheptatriene	142	C11H10	000264-09-5	91





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-23-10\
Data File : G0808.D
Acq On : 23 Feb 2010 13:53
Operator : Sylvia
Sample : TW2,01419-004,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 23 15:55:42 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Feb 23 09:24:12 2010
Response via : Initial Calibration

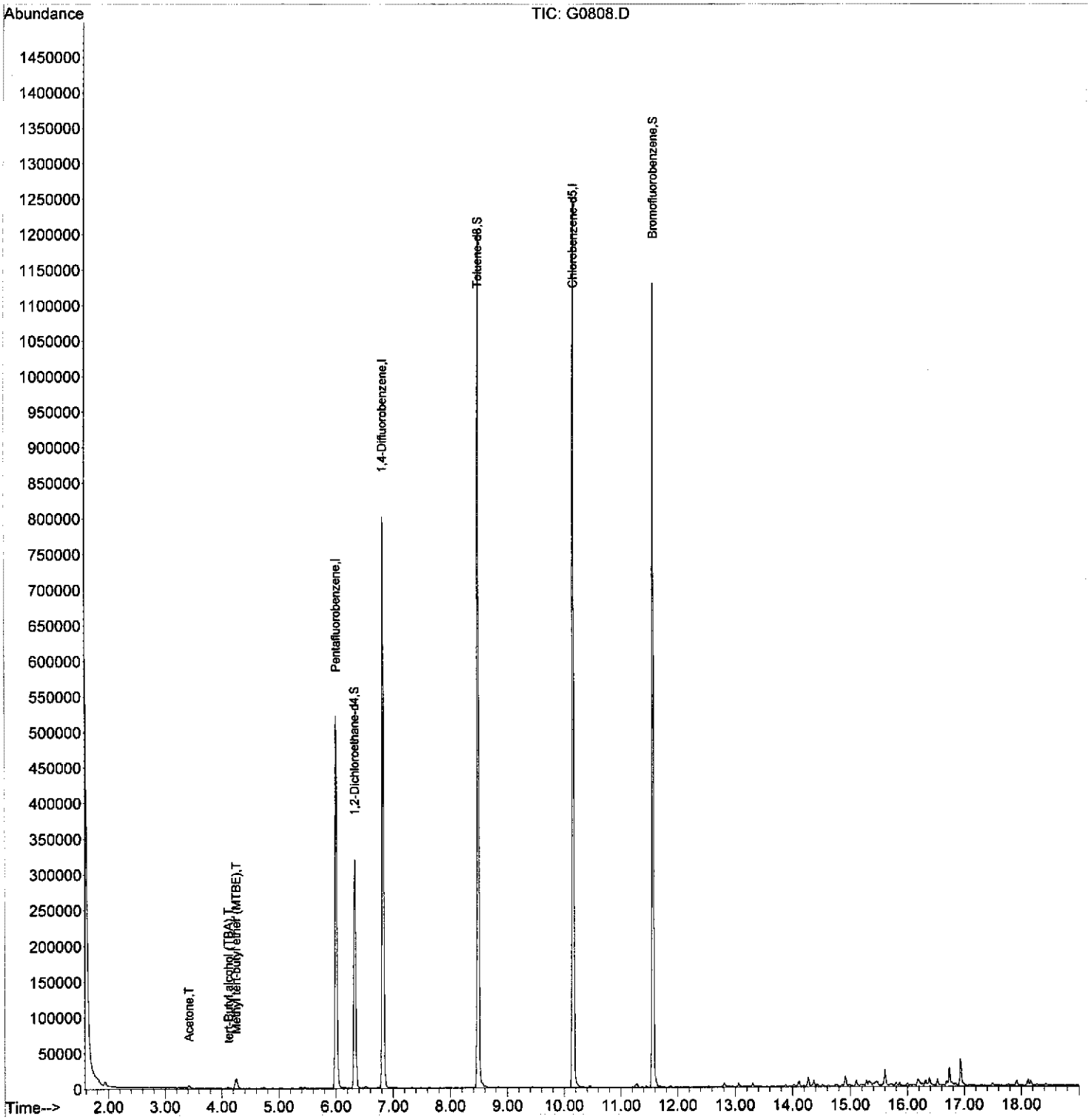
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	414678	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	762827	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	825313	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	257788	29.49	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 98.30%			
41) Toluene-d8	8.48	98	874182	29.07	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 96.90%			
59) Bromofluorobenzene	11.56	95	424316	29.44	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 98.13%			
Target Compounds						Qvalue
10) Acetone	3.42	43	6479m	2.91	UG	
15) tert-Butyl alcohol (TBA)	4.11	59	2008m	2.31	UG	
17) Methyl tert-butyl ether (M	4.25	73	17658	1.79	UG	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-23-10\
Data File : G0808.D
Acq On : 23 Feb 2010 13:53
Operator : Sylvia
Sample : TW2,01419-004,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 23 15:55:42 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Feb 23 09:24:12 2010
Response via : Initial Calibration



0084

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-23-10\
Data File : G0808.D
Acq On : 23 Feb 2010 13:53
Operator : Sylvia
Sample : TW2,01419-004,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA021910.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.252	499	511	523	rVB2	13785	39907	1.72%	0.387%
2	6.004	834	846	862	rBV	521767	1149798	49.55%	11.154%
3	6.329	898	908	930	rBV	319365	702986	30.29%	6.820%
4	6.820	992	1002	1023	rBV	801339	1633926	70.41%	15.850%
5	8.484	1310	1320	1333	rBV	1205285	2270562	97.84%	22.026%
6	10.157	1630	1640	1666	rBV	1248970	2320705	100.00%	22.513%
7	11.559	1899	1908	1929	rBV	1130797	1996125	86.01%	19.364%
8	14.268	2415	2426	2434	rBV5	12578	24458	1.05%	0.237%
9	14.912	2543	2549	2559	rBV5	12733	24534	1.06%	0.238%
10	15.602	2676	2681	2690	rVB2	21535	39534	1.70%	0.384%
11	16.737	2893	2898	2903	rBV	21449	30422	1.31%	0.295%
12	16.936	2928	2936	2950	rBV4	36753	75446	3.25%	0.732%

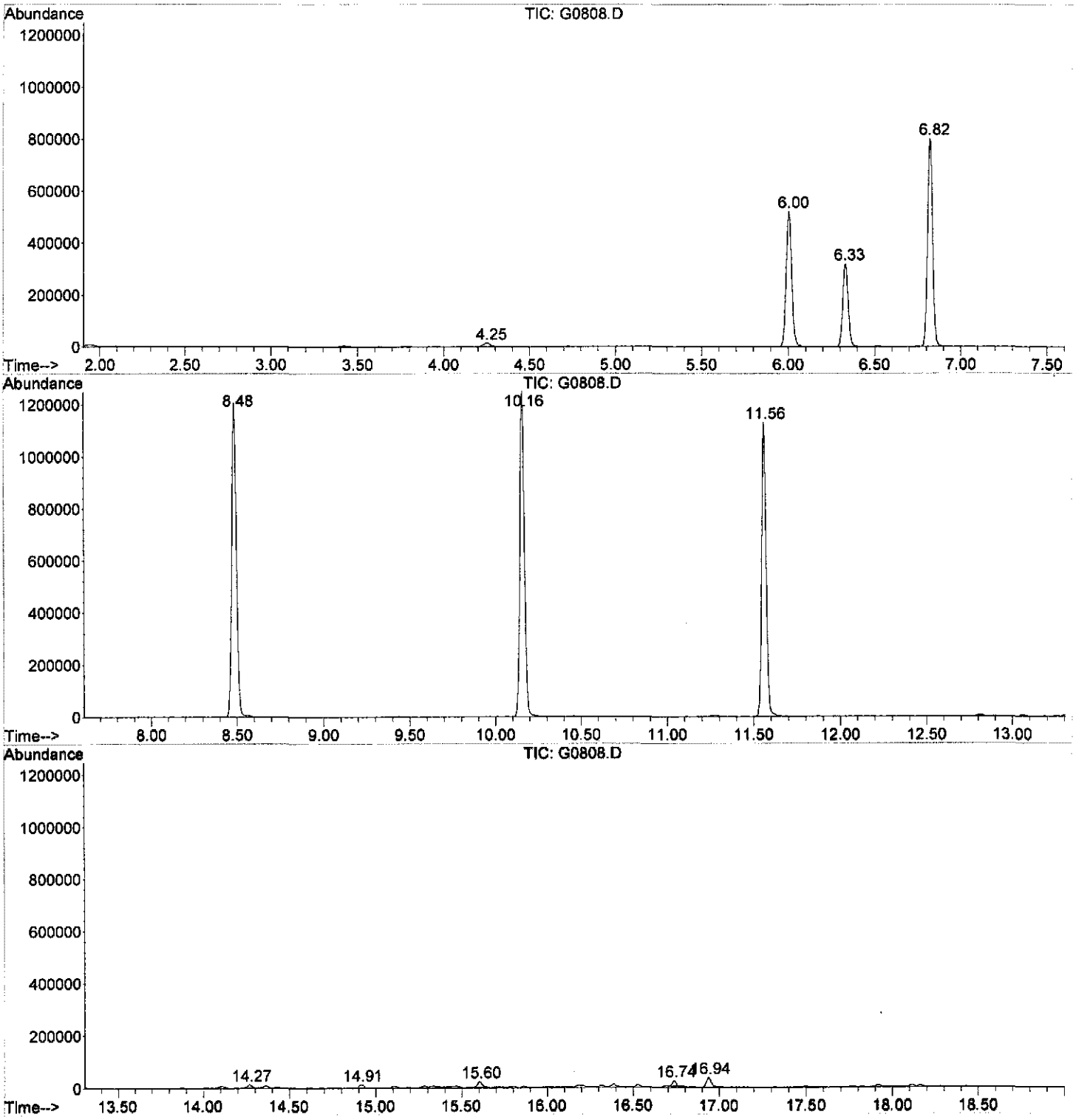
Sum of corrected areas: 10308403

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\02-23-10\
Data File : G0808.D
Acq On : 23 Feb 2010 13:53
Operator : Sylvia
Sample : TW2,01419-004,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



0086

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 23 10:11:50 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 12:51:20 2010
Response via : Initial Calibration

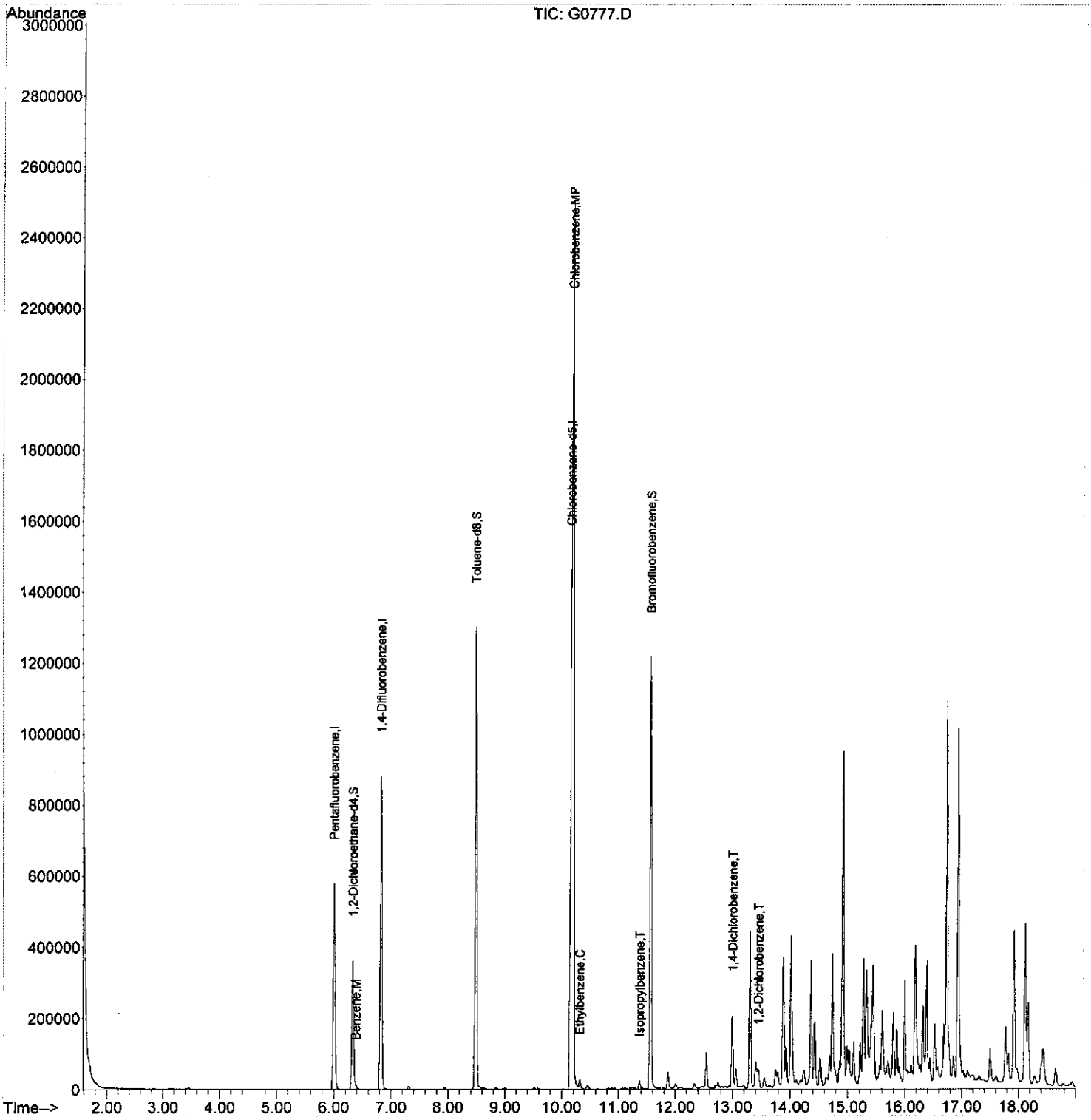
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.00	168	480362	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	846969	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	917682	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	283839	28.03	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 93.43%				
41) Toluene-d8	8.48	98	977059	29.26	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 97.53%				
59) Bromofluorobenzene	11.56	95	471525	29.42	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 98.07%				
Target Compounds							Qvalue
32) Benzene	6.39	78	11804	0.35	UG		100
51) Chlorobenzene	10.19	112	1650730	63.19	UG	#	65
53) Ethylbenzene	10.31	91	20020	0.58	UG	#	97
58) Isopropylbenzene	11.37	105	14097	0.49	UG		99
72) 1,4-Dichlorobenzene	13.00	146	103756	5.38	UG		99
74) 1,2-Dichlorobenzene	13.45	146	20138	1.07	UG		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 23 10:11:50 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 12:51:20 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA021910.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.999	835	845	865	rBV	577145	1317743	27.46%	3.378%
2	6.329	898	908	931	rBV	360591	807824	16.84%	2.071%
3	6.821	992	1002	1018	rBV	878372	1812167	37.77%	4.645%
4	8.484	1310	1320	1342	rBV	1298599	2523442	52.59%	6.469%
5	10.157	1630	1640	1642	rBV	1462280	2478418	51.65%	6.353%
6	10.189	1642	1646	1665	rVV	2506667	4798206	100.00%	12.300%
7	10.314	1665	1670	1686	rVV2	28239	61943	1.29%	0.159%
8	11.559	1899	1908	1929	rBV	1213237	2226318	46.40%	5.707%
9	11.873	1959	1968	1976	rBV	47796	94962	1.98%	0.243%
10	12.542	2088	2096	2110	rVB	99373	191185	3.98%	0.490%
11	12.997	2175	2183	2190	rBV	198431	359996	7.50%	0.923%
12	13.060	2190	2195	2210	rVB2	53215	100726	2.10%	0.258%
13	13.306	2231	2242	2253	rBV	439514	830050	17.30%	2.128%
14	13.405	2253	2261	2266	rVV2	73468	171409	3.57%	0.439%
15	13.442	2266	2268	2280	rVB	53127	107159	2.23%	0.275%
16	13.552	2280	2289	2300	rBV2	28625	68283	1.42%	0.175%
17	13.751	2316	2327	2331	rBV2	49508	108199	2.25%	0.277%
18	13.787	2331	2334	2343	rVV	40775	72067	1.50%	0.185%
19	13.881	2343	2352	2357	rVV	359059	644630	13.43%	1.652%
20	13.934	2357	2362	2370	rVV	108042	218568	4.56%	0.560%
21	14.017	2370	2378	2391	rVV2	414870	855965	17.84%	2.194%
22	14.242	2414	2421	2430	rVB3	39307	94544	1.97%	0.242%
23	14.363	2430	2444	2451	rBV	348180	649817	13.54%	1.666%
24	14.431	2451	2457	2467	rVB	178525	335353	6.99%	0.860%
25	14.519	2467	2474	2486	rVB3	76998	176362	3.68%	0.452%
26	14.624	2486	2494	2501	rBV3	23074	65251	1.36%	0.167%
27	14.687	2501	2506	2510	rVV2	70310	113435	2.36%	0.291%
28	14.734	2510	2515	2533	rVB	361926	718424	14.97%	1.842%
29	14.865	2533	2540	2543	rBV2	62192	117562	2.45%	0.301%
30	14.917	2543	2550	2560	rVV2	922522	1802344	37.56%	4.620%
31	14.995	2560	2565	2568	rVV	92356	148349	3.09%	0.380%
32	15.027	2568	2571	2580	rVV	80543	134041	2.79%	0.344%
33	15.105	2580	2586	2600	rVB2	116786	236987	4.94%	0.608%
34	15.220	2600	2608	2613	rBV2	114259	213523	4.45%	0.547%
35	15.278	2613	2619	2624	rVV2	331248	602085	12.55%	1.543%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA021910.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

36	15.330	2624	2629	2640	rVV5	298692	715110	14.90%	1.833%
37	15.409	2640	2644	2646	rVV	144643	221503	4.62%	0.568%
38	15.440	2646	2650	2664	rVB2	321010	728863	15.19%	1.868%
39	15.560	2664	2673	2676	rBV2	40837	72424	1.51%	0.186%
40	15.602	2676	2681	2692	rVB2	179928	359114	7.48%	0.921%
41	15.701	2695	2700	2709	rVB6	47721	114515	2.39%	0.294%
42	15.801	2709	2719	2725	rBV2	181723	345426	7.20%	0.885%
43	15.858	2725	2730	2736	rVV	128762	210076	4.38%	0.539%
44	15.905	2736	2739	2749	rVB4	39792	69395	1.45%	0.178%
45	16.000	2749	2757	2769	rBV	284923	522642	10.89%	1.340%
46	16.183	2785	2792	2806	rVV3	362729	871695	18.17%	2.235%
47	16.319	2813	2818	2826	rVV	195563	359729	7.50%	0.922%
48	16.387	2826	2831	2837	rVV	321470	519651	10.83%	1.332%
49	16.439	2837	2841	2850	rVB3	63241	118838	2.48%	0.305%
50	16.528	2850	2858	2865	rBV2	159587	321845	6.71%	0.825%
51	16.580	2865	2868	2877	rVB4	30057	52544	1.10%	0.135%
52	16.690	2877	2889	2892	rBV3	149999	287183	5.99%	0.736%
53	16.737	2892	2898	2914	rVV	1061097	1872611	39.03%	4.800%
54	16.852	2914	2920	2928	rVV3	63124	121051	2.52%	0.310%
55	16.936	2928	2936	2950	rVV	985896	1926721	40.16%	4.939%
56	17.025	2950	2953	2961	rVV4	25576	48770	1.02%	0.125%
57	17.098	2961	2967	2978	rVV4	24724	76987	1.60%	0.197%
58	17.203	2978	2987	2993	rVB4	15184	52559	1.10%	0.135%
59	17.501	3035	3044	3055	rBV	94851	209327	4.36%	0.537%
60	17.773	3084	3096	3101	rBV	155223	334404	6.97%	0.857%
61	17.820	3101	3105	3113	rVV	82217	163743	3.41%	0.420%
62	17.919	3113	3124	3150	rVV	428308	1034585	21.56%	2.652%
63	18.113	3150	3161	3167	rVV	447153	972340	20.26%	2.493%
64	18.165	3167	3171	3183	rVB2	226341	465486	9.70%	1.193%
65	18.280	3186	3193	3201	rBV5	21590	53421	1.11%	0.137%
66	18.432	3207	3222	3244	rVB3	102118	401060	8.36%	1.028%
67	18.646	3254	3263	3281	rVB2	51510	128436	2.68%	0.329%

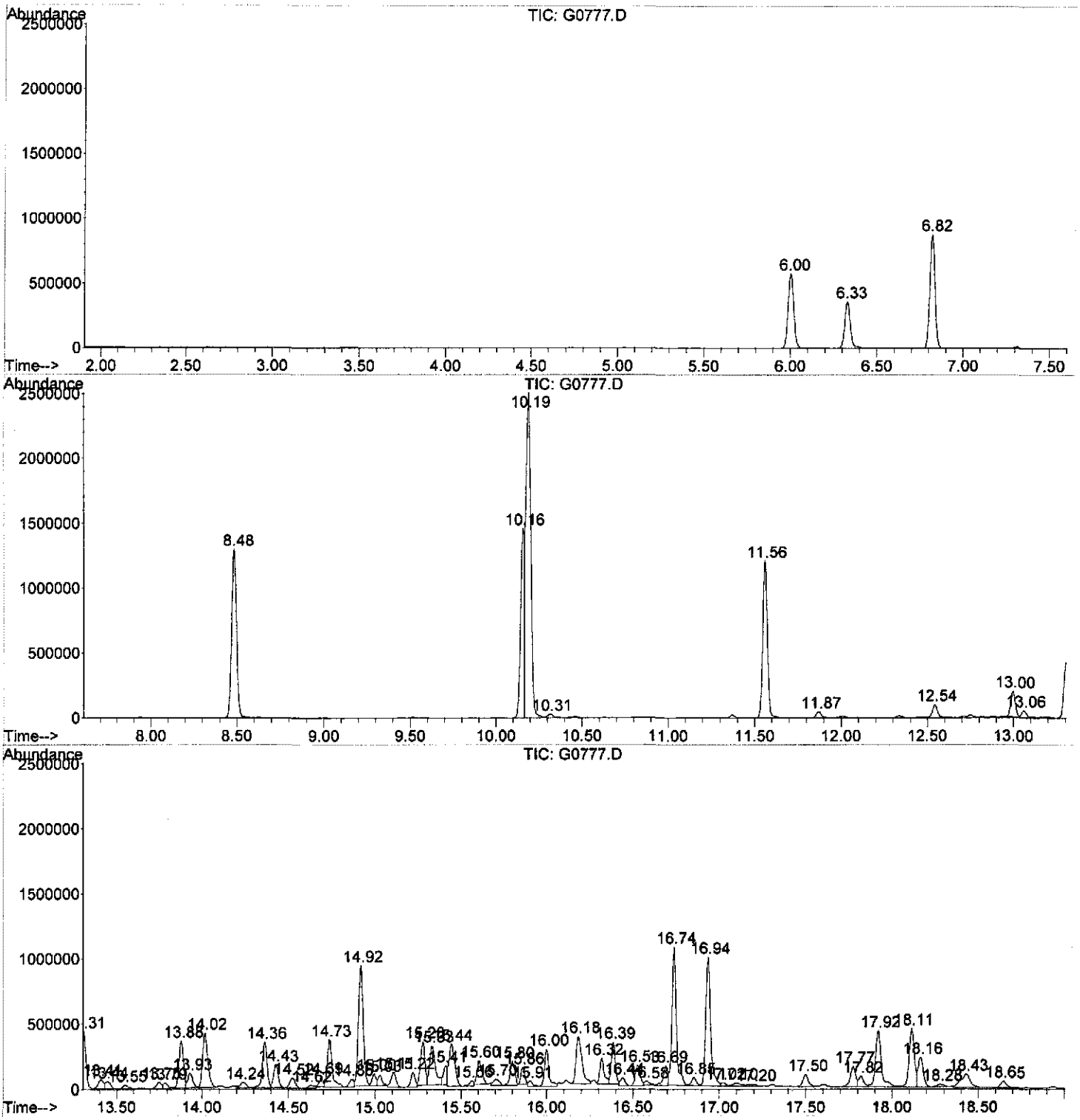
Sum of corrected areas: 39009391

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



0091

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

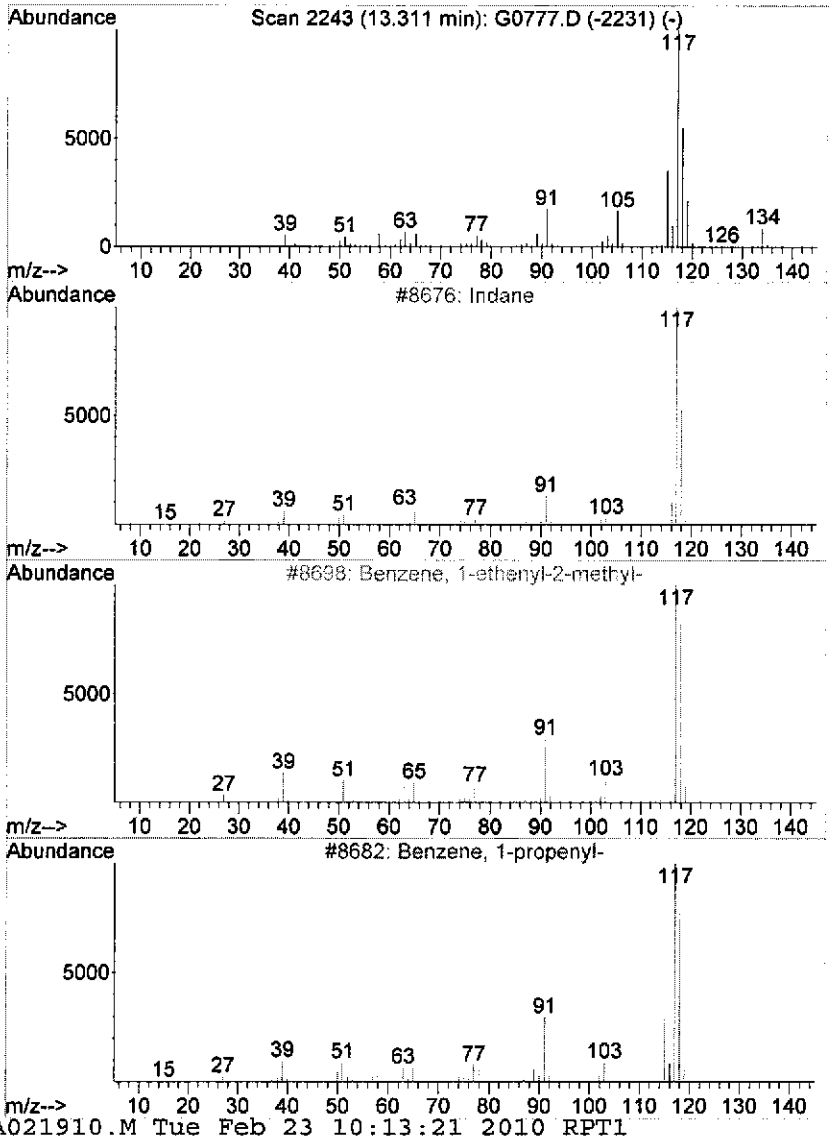
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

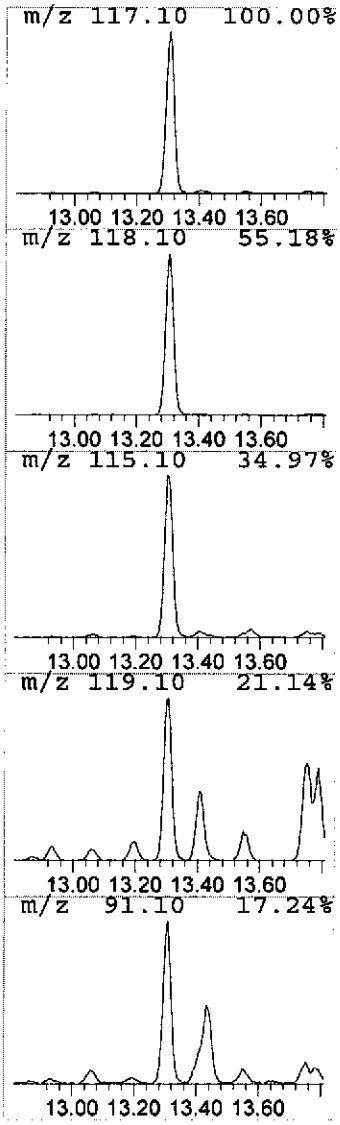
****

Peak Number 1 Unknown aromatic Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.31	10.05 UG	830050	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	92
2	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	86
3	Benzene, 1-propenyl-	118	C9H10	000637-50-3	70
4	Benzene, cyclopropyl-	118	C9H10	000873-49-4	70
5	Indane	118	C9H10	000496-11-7	70





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

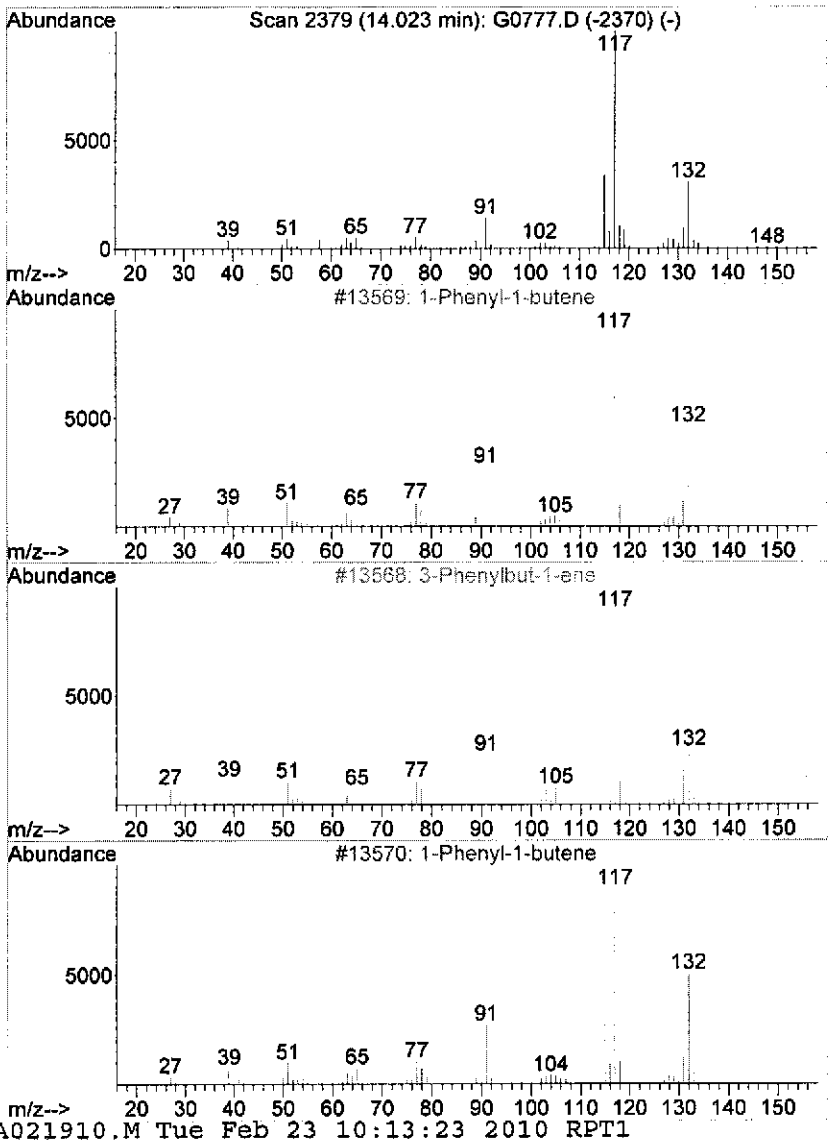
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

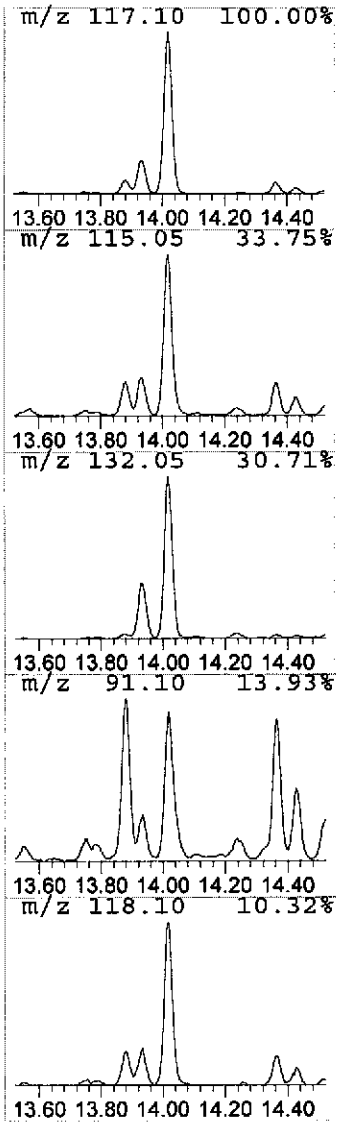
****

Peak Number 2 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	10.36 UG	855965	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Phenyl-1-butene	132	C10H12	000824-90-8	90
2	3-Phenylbut-1-ene	132	C10H12	000934-10-1	87
3	1-Phenyl-1-butene	132	C10H12	000824-90-8	87
4	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	87
5	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

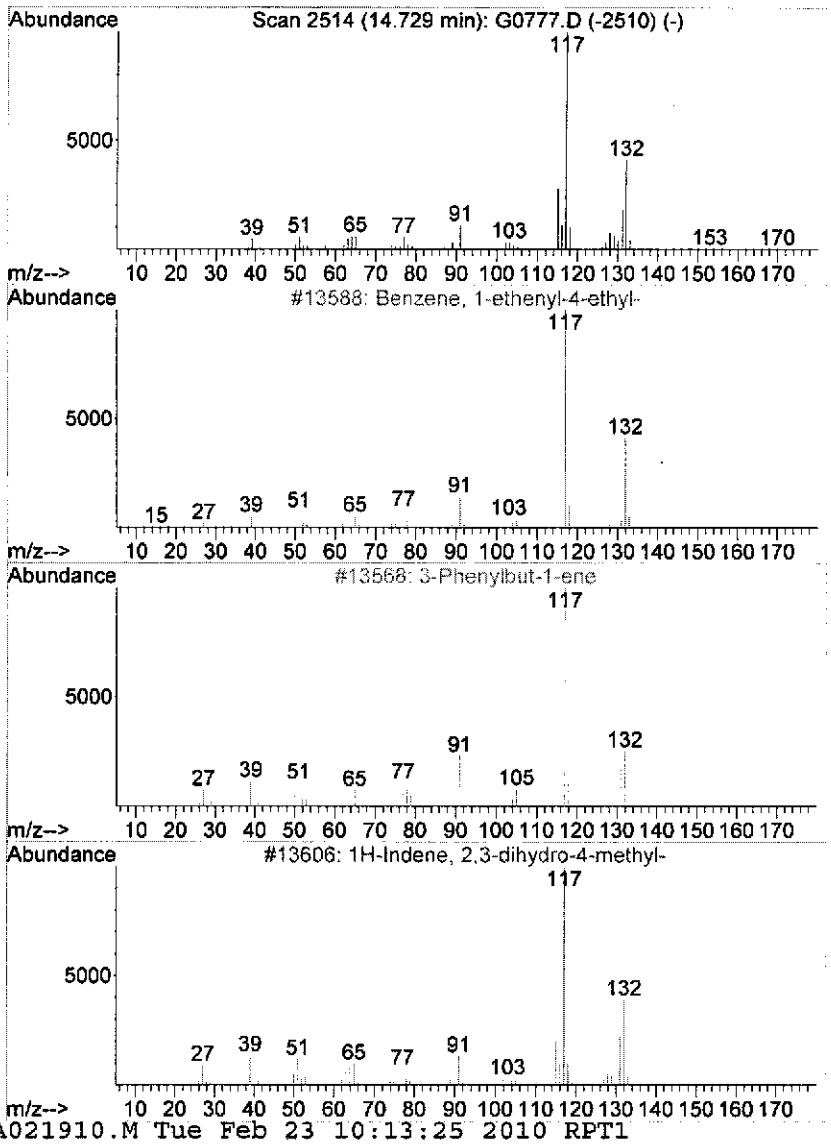
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

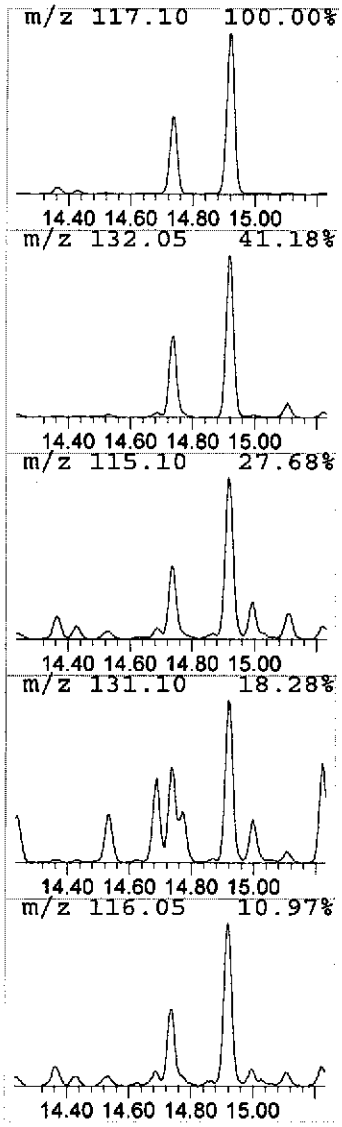
****

Peak Number 3 Unknown aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.73	8.70 UG	718424	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	94
2	3-Phenylbut-1-ene	132	C10H12	000934-10-1	90
3	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	90
4	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	90
5	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000767-99-7	87





0094

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

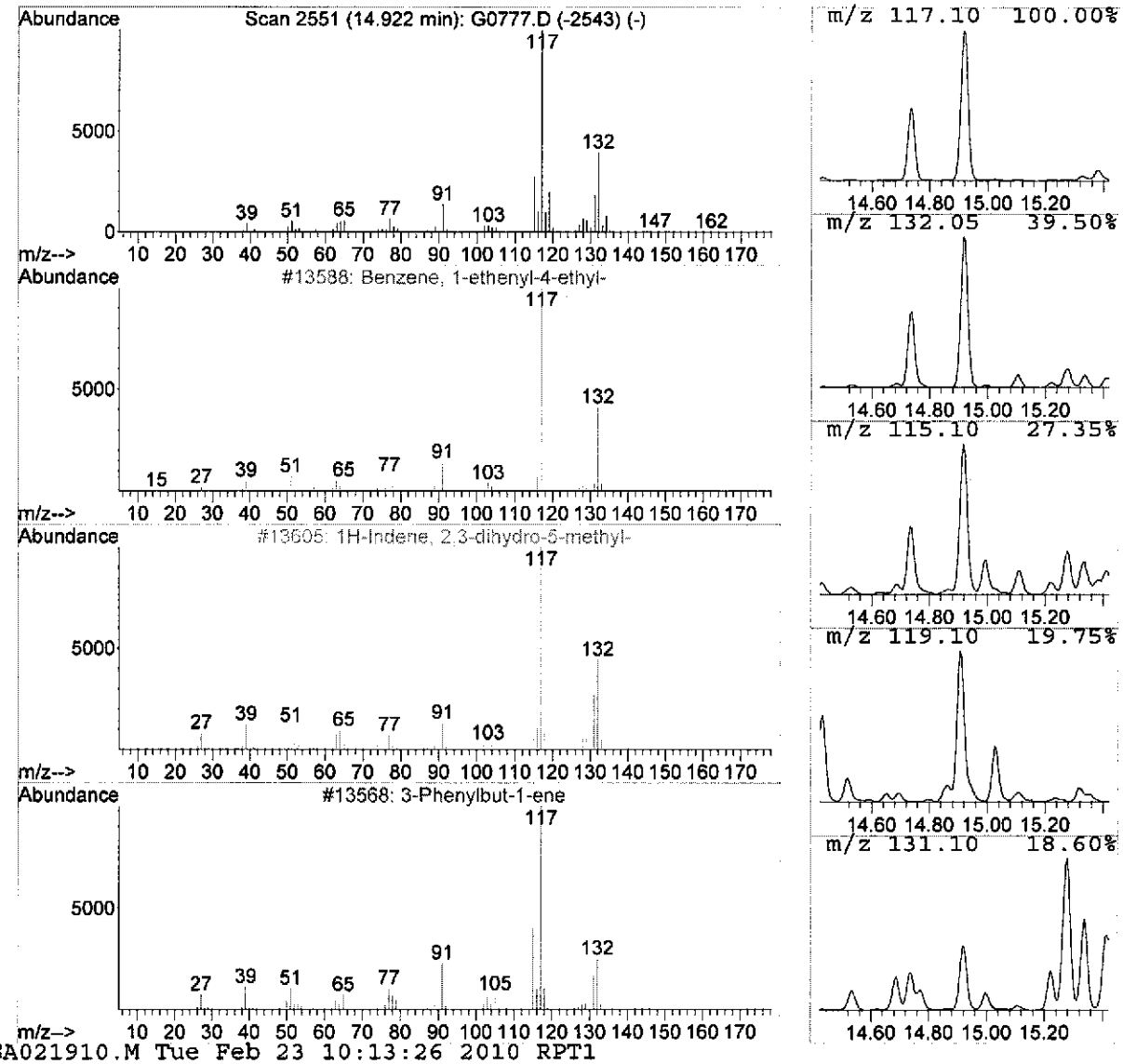
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 4 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.92	21.82 UG	1802340	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	94
2	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	90
3	3-Phenylbut-1-ene	132	C10H12	000934-10-1	87
4	1H-Indene, 2,3-dihydro-2-methyl-	132	C10H12	000824-63-5	83
5	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	83



0095

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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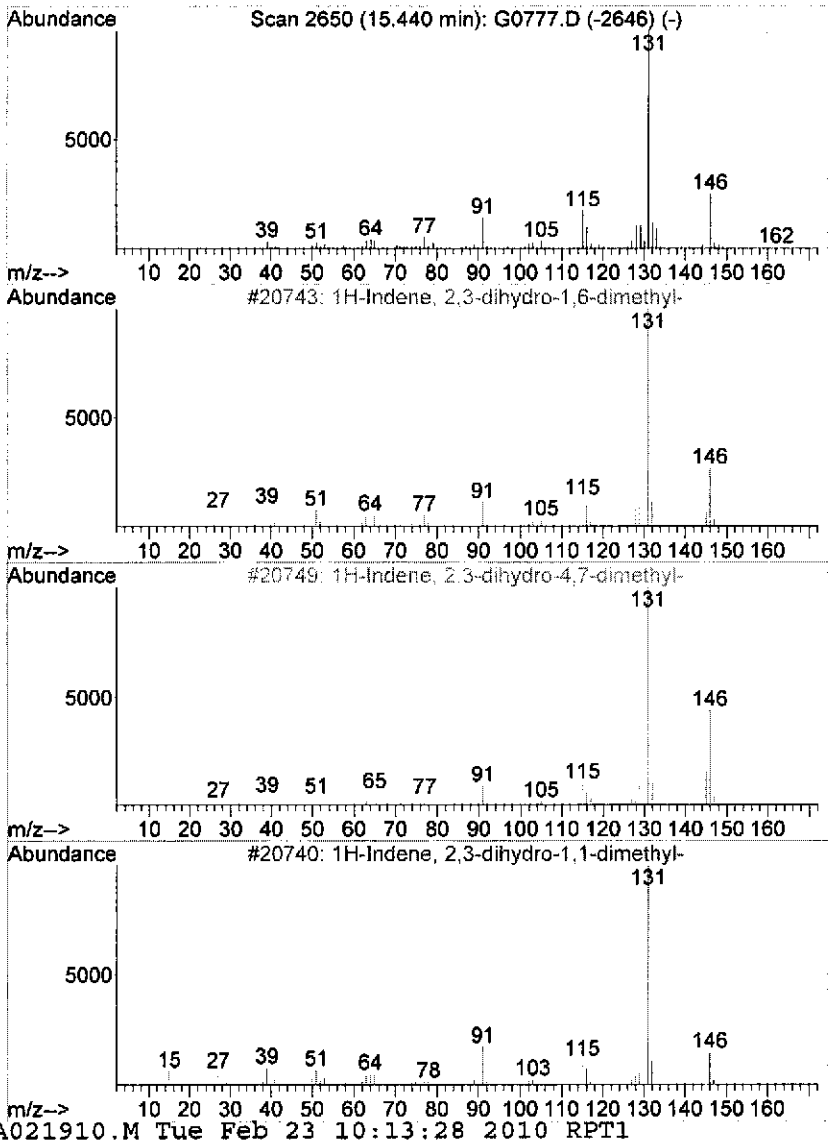
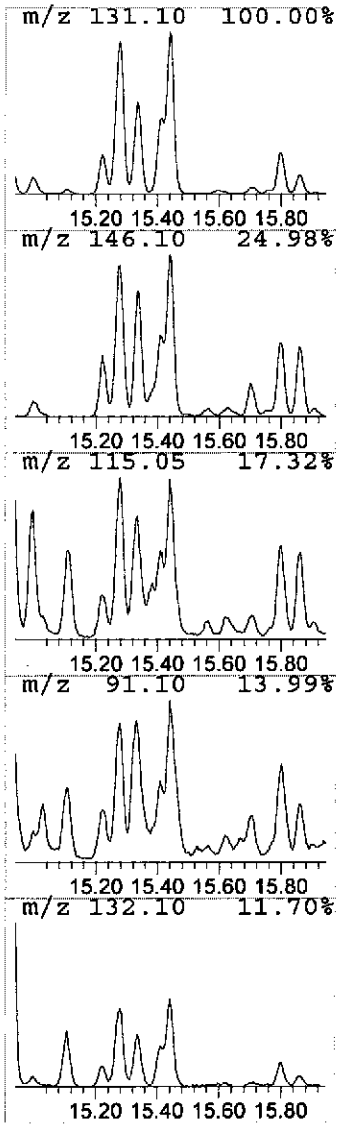
Peak Number 5 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.44	8.82 UG	728863	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	97
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	91
3	1H-Indene, 2,3-dihydro-1,1-dimet...	146	C11H14	004912-92-9	91
4	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	90
5	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	90





0096

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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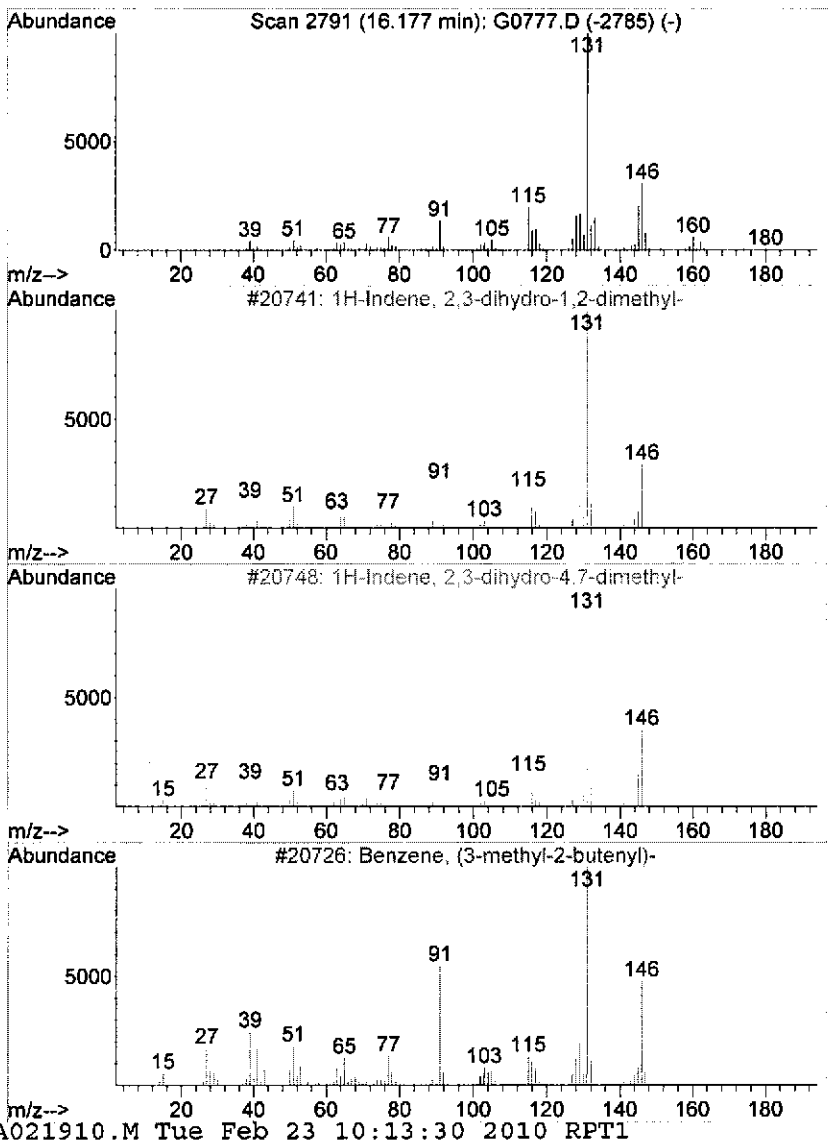
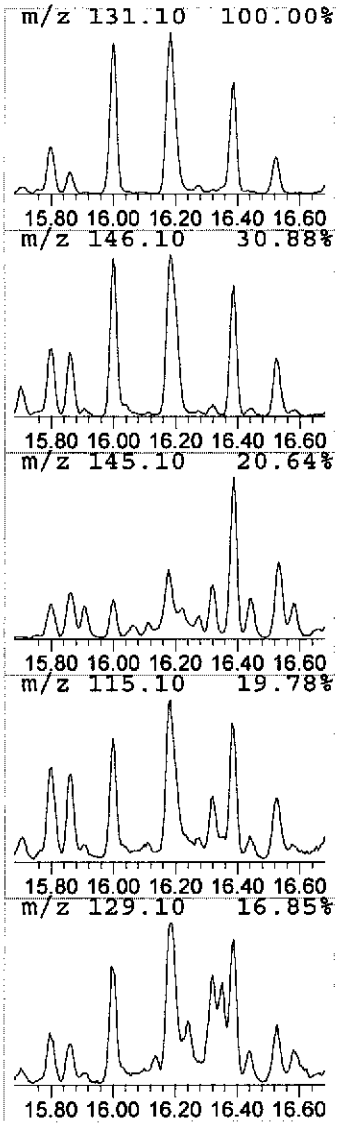
Peak Number 6 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.18	10.55 UG	871695	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	93
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	93
3	Benzene, (3-methyl-2-butenyl)-	146	C11H14	004489-84-3	91
4	Benzene, 1-methyl-3-(1-methyl-2-...	146	C11H14	052161-57-6	87
5	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	87





0097

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

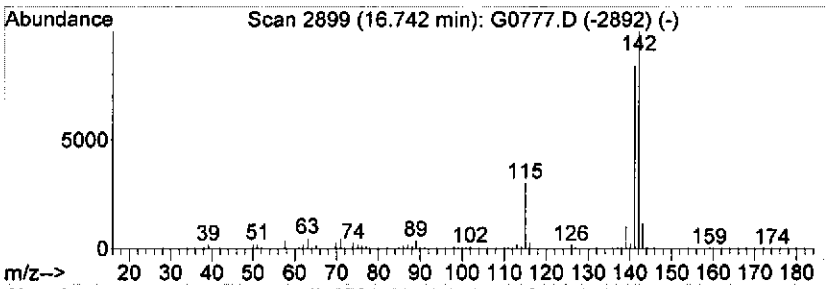
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

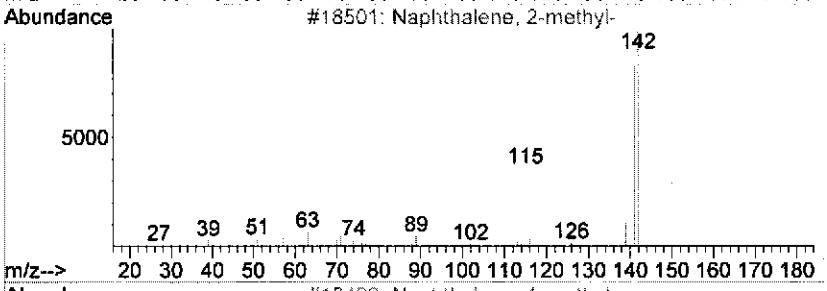
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

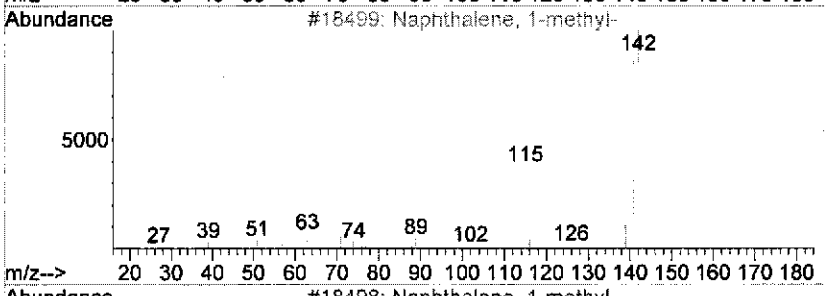
****
Peak Number 7 Unknown aromatic Concentration Rank 2

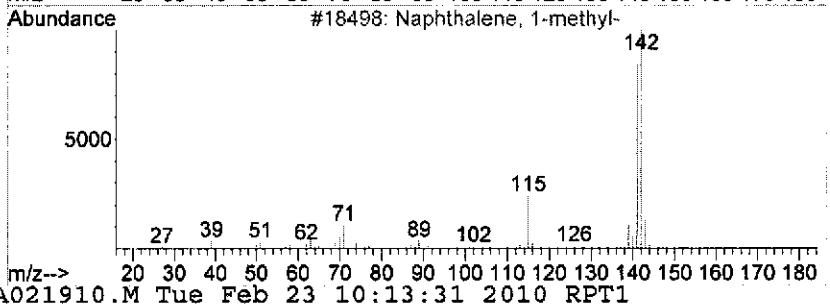
R.T.	EstConc	Area	Relative to ISTD	R.T.
16.74	22.67 UG	1872610	Chlorobenzene-d5	10.16

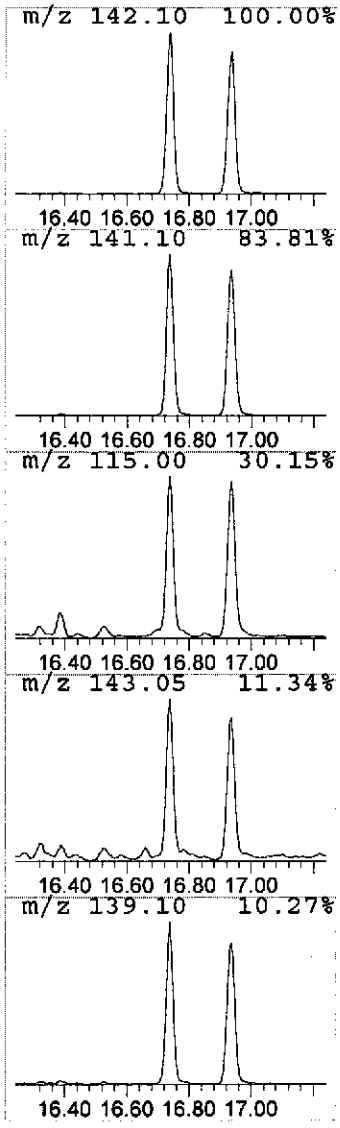
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	91
5	Benzocycloheptatriene	142	C11H10	000264-09-5	91











Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

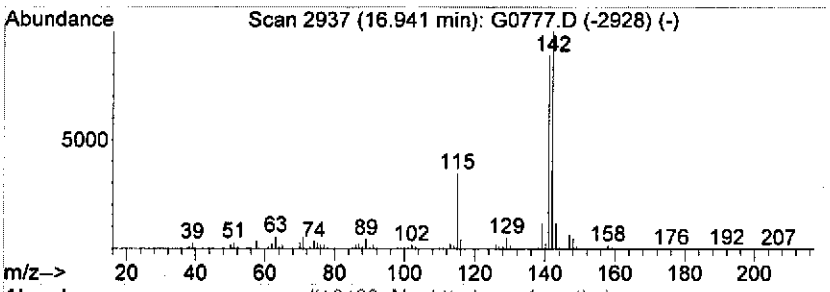
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

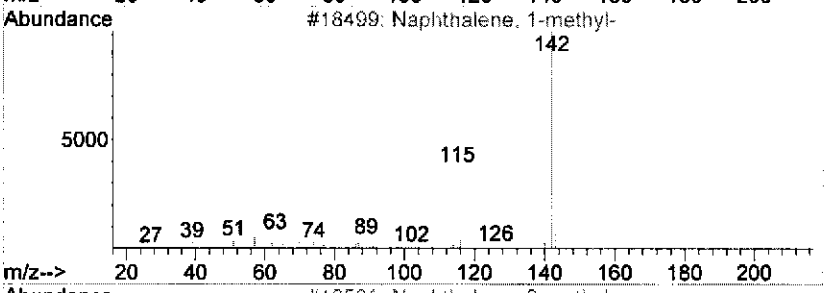
****

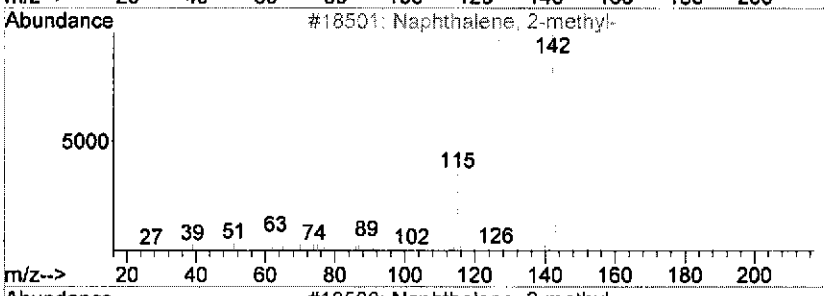
Peak Number 8 Unknown aromatic Concentration Rank 1

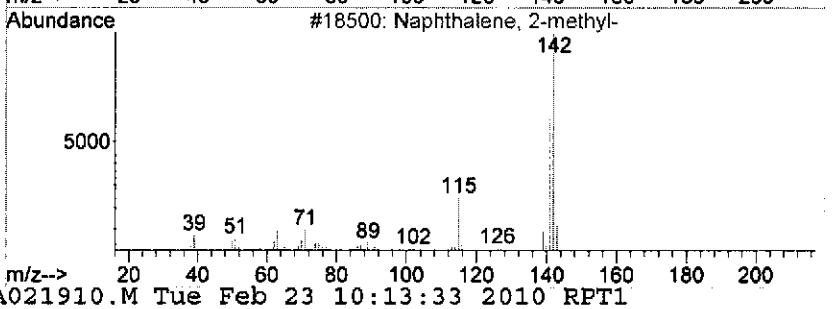
R.T.	EstConc	Area	Relative to ISTD	R.T.
16.94	23.32 UG	1926720	Chlorobenzene-d5	10.16

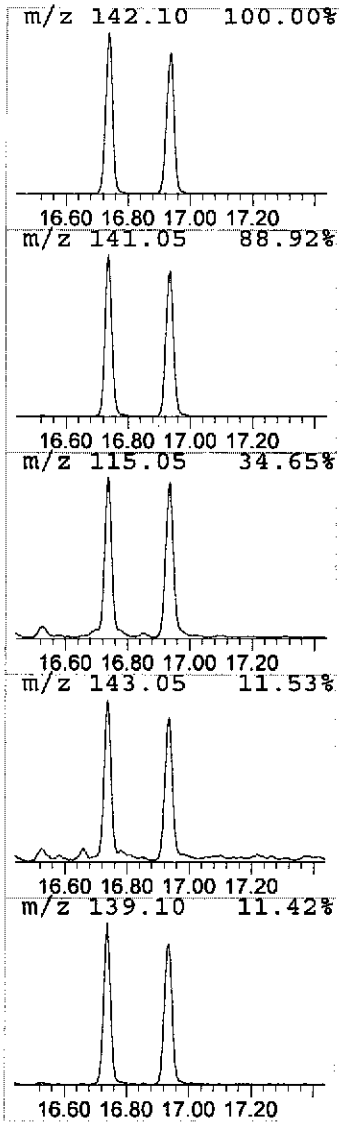
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
3	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
5	Benzocycloheptatriene	142	C11H10	000264-09-5	91











Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

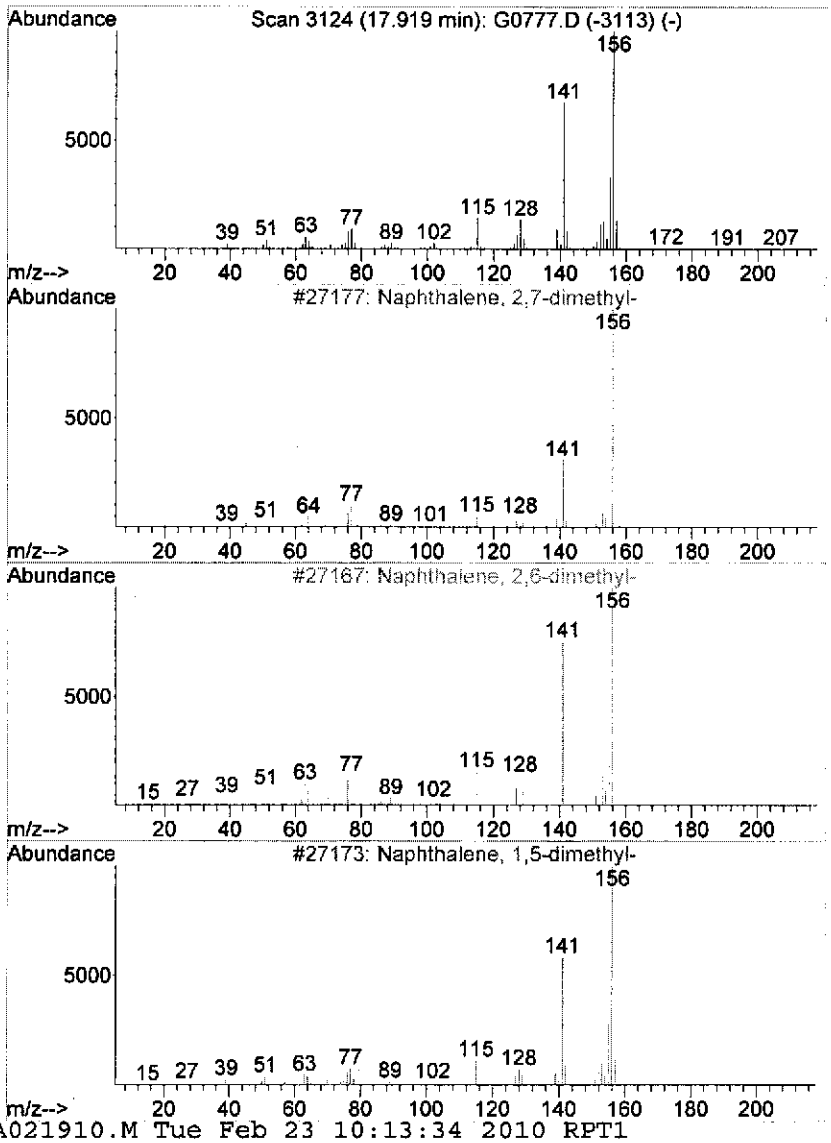
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

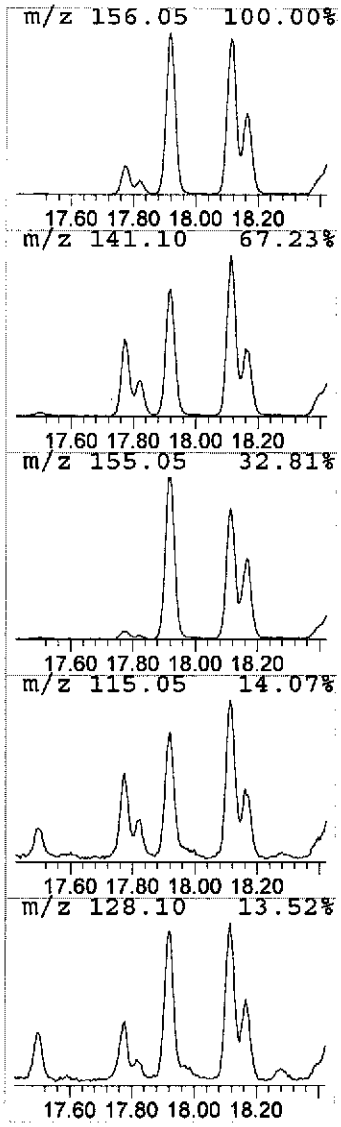
****

Peak Number 9 Unknown cyclic hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.92	12.52 UG	1034590	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
2	Naphthalene, 2,6-dimethyl-	156	C12H12	000581-42-0	97
3	Naphthalene, 1,5-dimethyl-	156	C12H12	000571-61-9	97
4	Naphthalene, 1,2-dimethyl-	156	C12H12	000573-98-8	96
5	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	96





Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0777.D
Acq On : 22 Feb 2010 15:40
Operator : Sylvia
Sample : TW3,01419-005,A,5mL,100
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

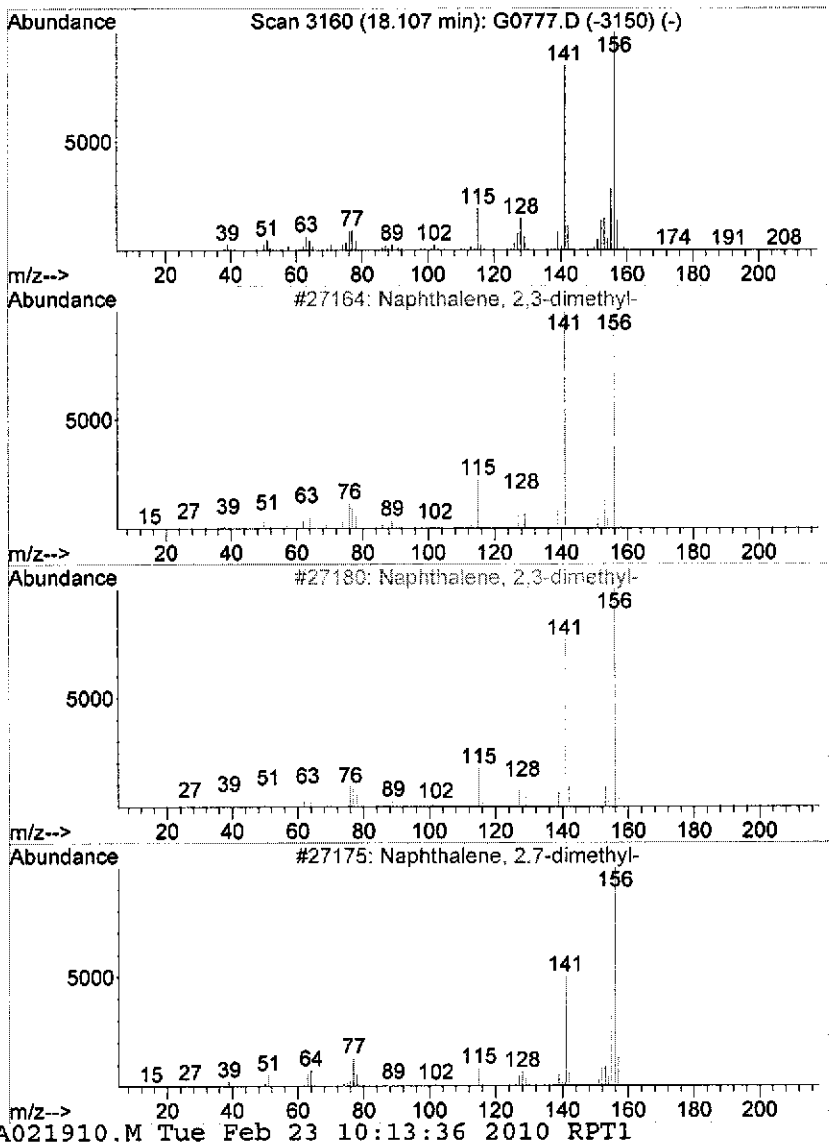
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

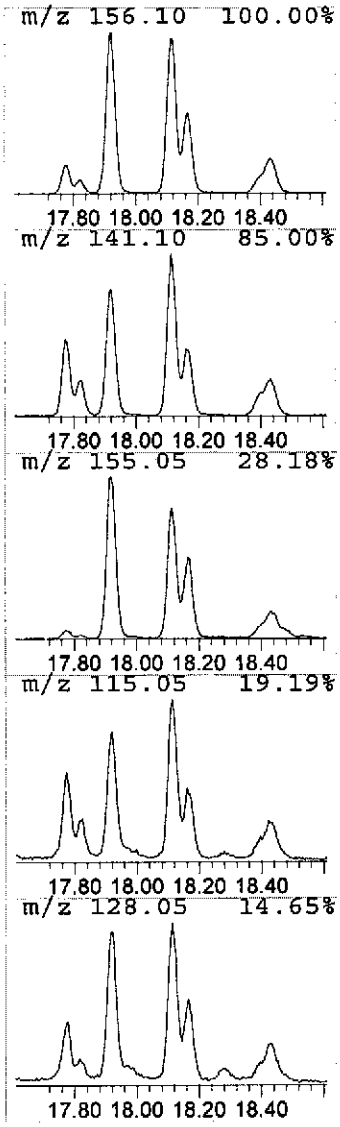
****

Peak Number 10 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.11	11.77 UG	972340	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	98
2	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	97
3	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
4	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	97
5	Naphthalene, 1,4-dimethyl-	156	C12H12	000571-58-4	97





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0763.D
Acq On : 22 Feb 2010 9:09
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 12:46:50 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 08:50:59 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	360248	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	680561	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	712409	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	248267	32.69	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 108.97%			
41) Toluene-d8	8.48	98	778466	29.01	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 96.70%			
59) Bromofluorobenzene	11.56	95	365341	29.37	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 97.90%			

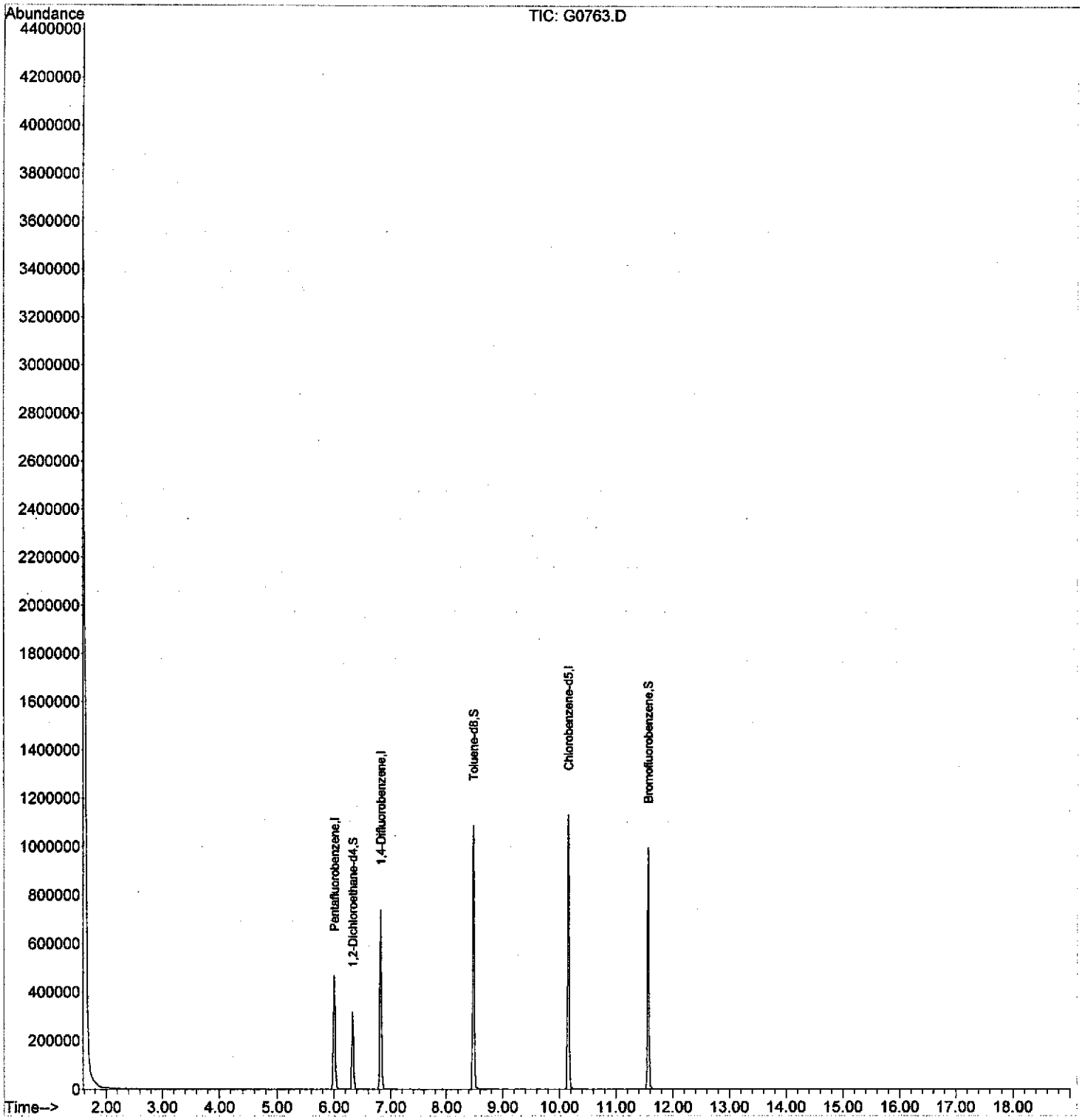
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0763.D
Acq On : 22 Feb 2010 9:09
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 12:46:50 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Feb 22 08:50:59 2010
Response via : Initial Calibration



0103

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0763.D
Acq On : 22 Feb 2010 9:09
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA021910.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

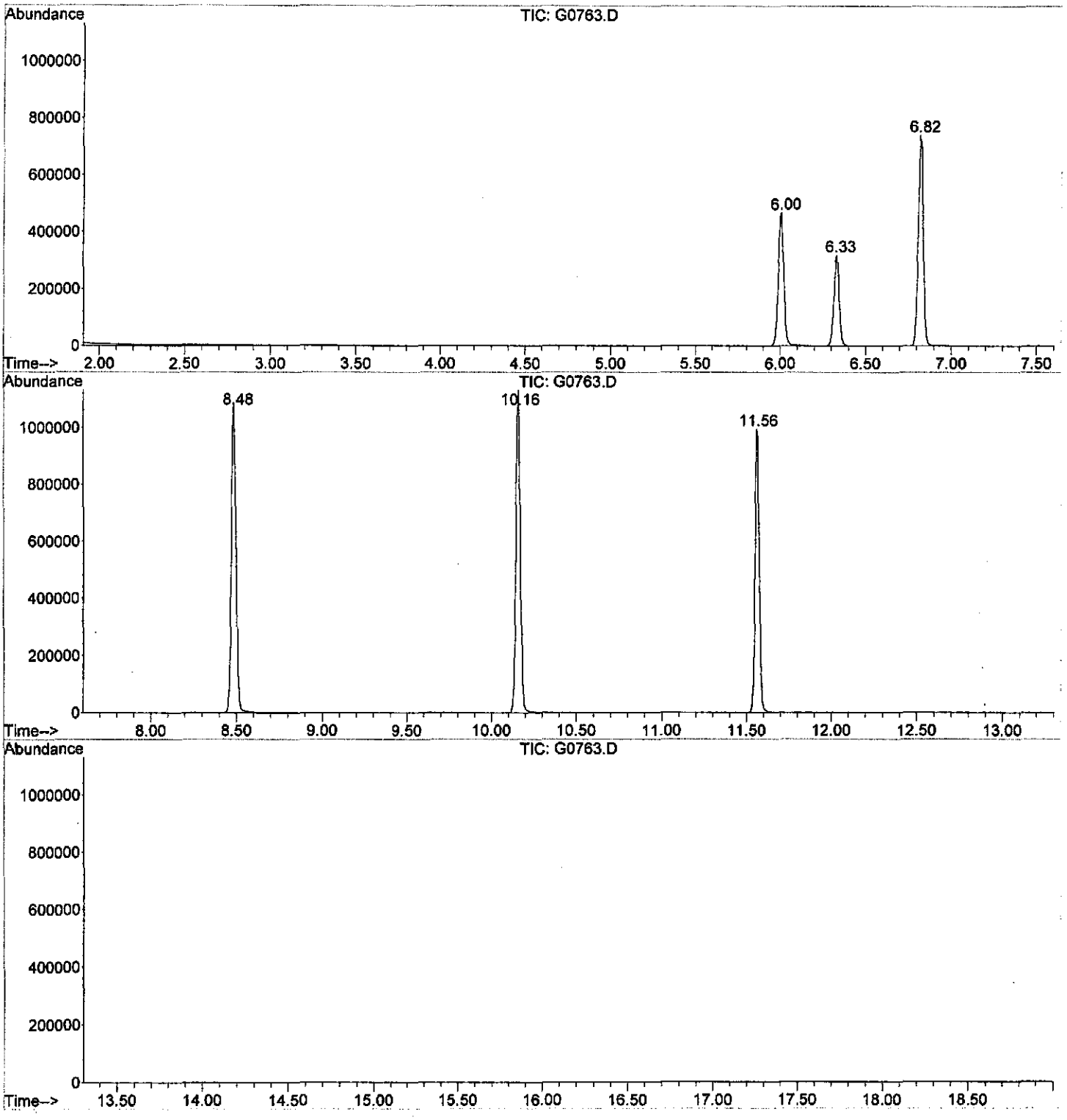
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	835	846	872	rBV	466782	1034286	50.02%	11.402%
2	6.329	898	908	922	rBV	317499	669171	32.37%	7.377%
3	6.820	991	1002	1021	rBV	739936	1498541	72.48%	16.521%
4	8.484	1310	1320	1343	rBV	1088538	2060778	99.67%	22.719%
5	10.157	1631	1640	1669	rBV	1130900	2067553	100.00%	22.794%
6	11.559	1898	1908	1930	rBV	994728	1740427	84.18%	19.187%

Sum of corrected areas: 9070756

Data Path : C:\MSDChem\1\DATA\02-22-10\
Data File : G0763.D
Acq On : 22 Feb 2010 9:09
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-23-10\
Data File : G0799.D
Acq On : 23 Feb 2010 9:40
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 23 14:08:57 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Feb 23 09:24:12 2010
Response via : Initial Calibration

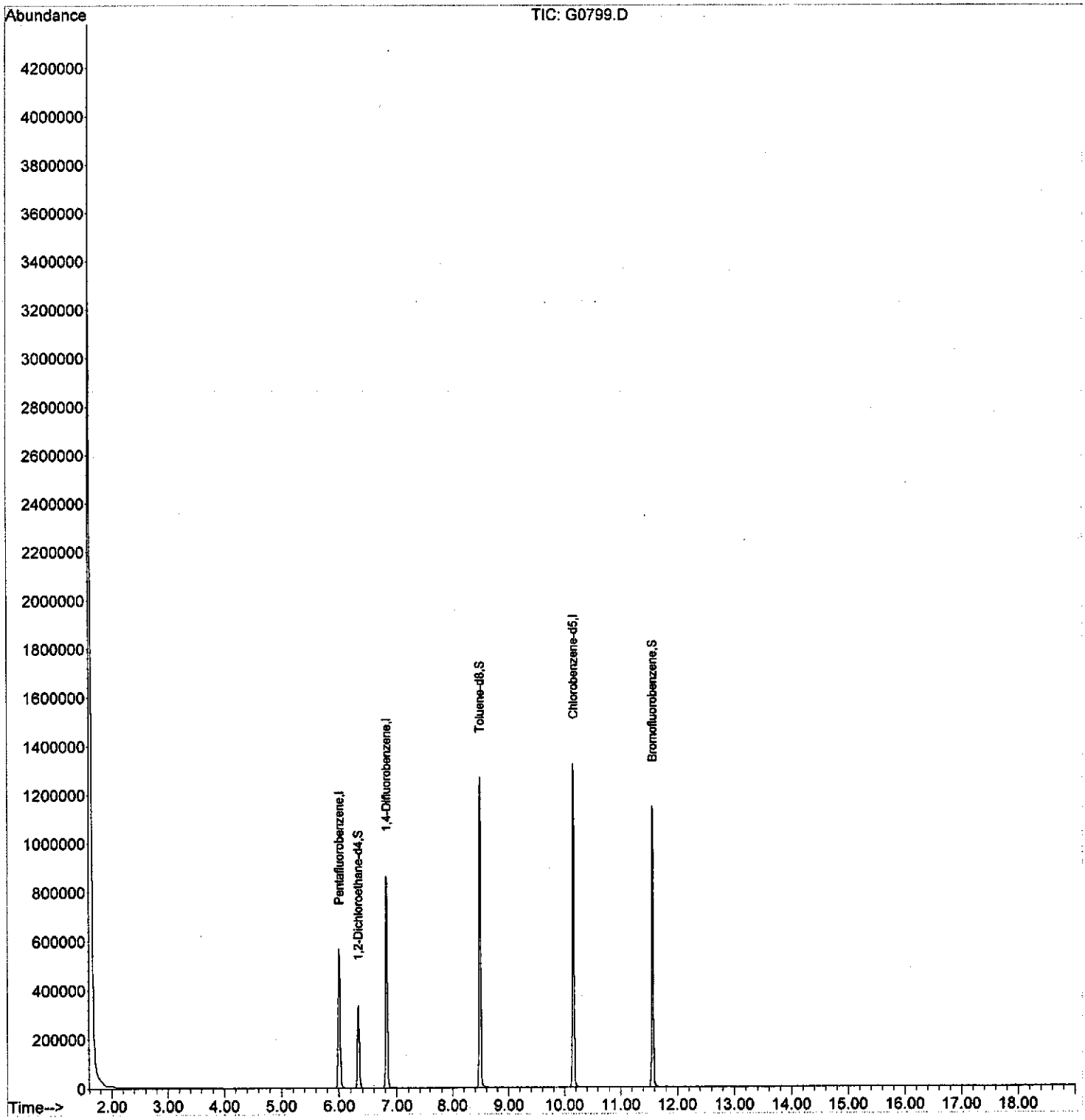
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	467806	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	837423	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	885907	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	274774	27.86	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 92.87%			
41) Toluene-d8	8.48	98	949504	28.76	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.87%			
59) Bromofluorobenzene	11.56	95	451237	29.17	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 97.23%			

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\02-23-10\
Data File : G0799.D
Acq On : 23 Feb 2010 9:40
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 23 14:08:57 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Feb 23 09:24:12 2010
Response via : Initial Calibration



0107

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-23-10\
Data File : G0799.D
Acq On : 23 Feb 2010 9:40
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA021910.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.004	831	846	862	rBV	566559	1280544	51.44%	11.766%
2	6.329	898	908	925	rBV	337351	750405	30.14%	6.895%
3	6.820	991	1002	1022	rBV	863945	1785894	71.74%	16.409%
4	8.484	1308	1320	1347	rBV	1271338	2467405	99.12%	22.671%
5	10.157	1629	1640	1668	rBV	1325702	2489427	100.00%	22.874%
6	11.559	1897	1908	1926	rBV	1147799	2109701	84.75%	19.385%

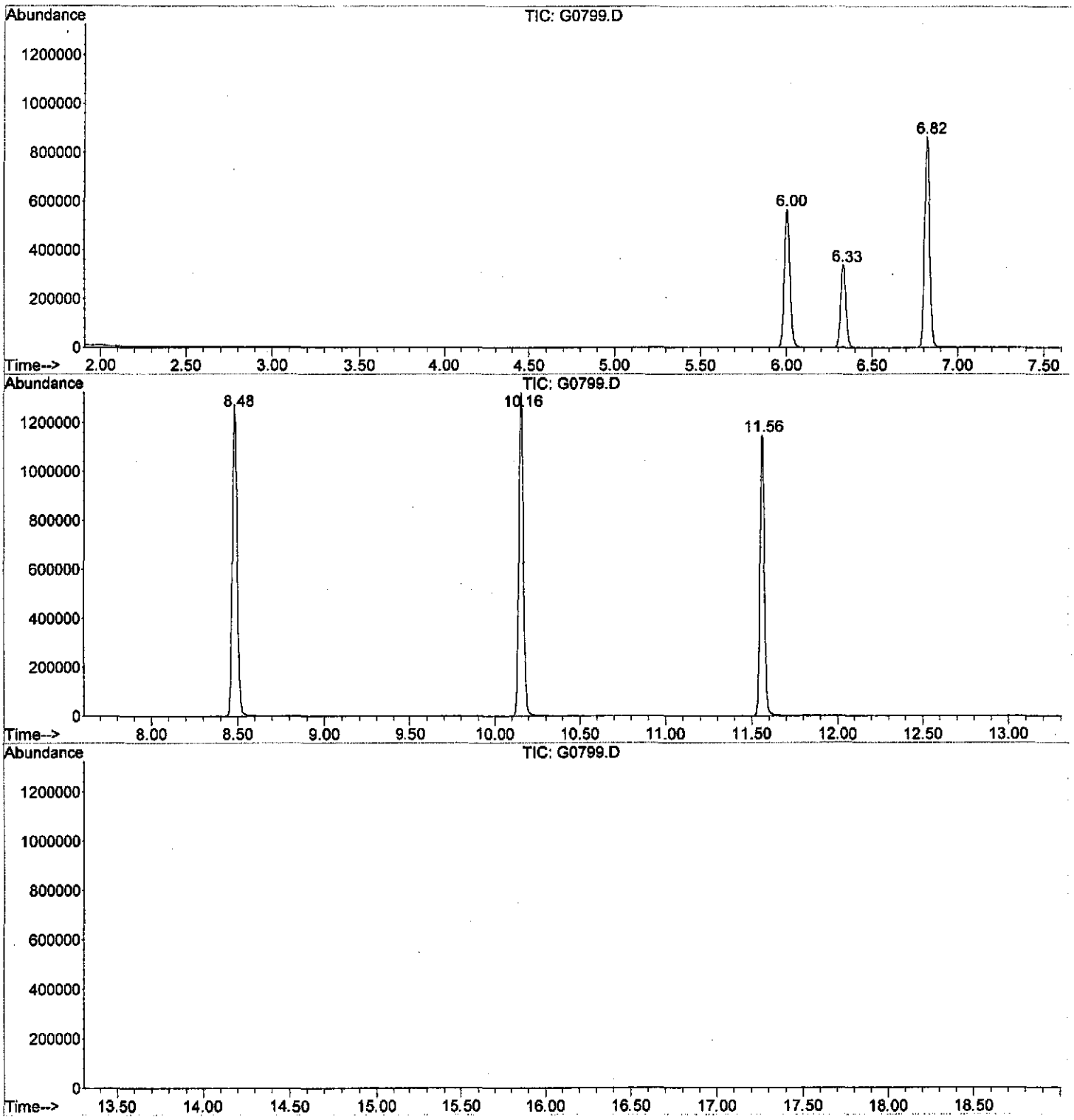
Sum of corrected areas: 10883376

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\02-23-10\
Data File : G0799.D
Acq On : 23 Feb 2010 9:40
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA021910.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



0109

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B2195.D DFTPP Injection Date : 01/26/2010

Inst ID: MSDB DFTPP Injection Time: 11:17

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	32.5			
68	Less than 2.0% of mass 69	0.0	(	0.1	)1
69	Mass 69 relative abundance	35.4			
70	Less than 2.0% of mass 69	0.4	(	1.0	)1
127	40.0 - 60.0% of mass 198	47.9			
197	Less than 1.0% of mass 198	0.2			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.8			
275	10.0 - 30.0% of mass 198	24.3			
365	Greater than 1.0% of mass 198	2.6			
441	Present, but less than mass 443	11.72	(	72.8	)3
442	40.0 - 100.0% of mass 198	79.7			
443	17.0 - 23.0% of mass 442	16.1	(	20.2	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN002-10	1ng-BNA	B2196.D	01/26/2010	11:27
ABN004-10	10ng-BNA	B2197.D	01/26/2010	11:42
ABN005-10	20ng-BNA	B2198.D	01/26/2010	11:58
ABN006-10	40ng-BNA	B2199.D	01/26/2010	12:14
ABN007-10	80ng-BNA	B2200.D	01/26/2010	12:29
ABN008-10	120ng-BNA	B2201.D	01/26/2010	12:45
ABN014-10	120ng-OLMO4	B2202.D	01/26/2010	13:01
ABN013-10	80ng-OLMO4	B2203.D	01/26/2010	13:16
ABN012-10	40ng-OLMO4	B2204.D	01/26/2010	13:32
ABN011-10	20ng-OLMO4	B2205.D	01/26/2010	13:48
ABN010-10	10ng-OLMO4	B2206.D	01/26/2010	14:03
ABN009-10	1ng-OLMO4	B2207.D	01/26/2010	14:19

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B2292.D

DFTPP Injection Date : 01/27/2010

Inst ID: MSDB

DFTPP Injection Time: 12:30

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	42.3			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	47.9			
70	Less than 2.0% of mass 69	0.1	(	0.3	)1
127	40.0 - 60.0% of mass 198	53.8			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.1			
275	10.0 - 30.0% of mass 198	19.7			
365	Greater than 1.0% of mass 198	1.8			
441	Present, but less than mass 443	5.87	(	72.5	)3
442	40.0 - 100.0% of mass 198	40.3			
443	17.0 - 23.0% of mass 442	8.1	(	20.1	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN015-10	0.1ng-SIM	B2293.D	01/27/2010	13:13
ABN016-10	0.2ng-SIM	B2294.D	01/27/2010	13:27
ABN017-10	0.5ng-SIM	B2295.D	01/27/2010	13:41
ABN018-10	1ng-SIM	B2296.D	01/27/2010	13:56
ABN019-10	2ng-SIM	B2297.D	01/27/2010	14:10

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B2931.D DFTPP Injection Date : 02/19/2010

Inst ID: MSDB DFTPP Injection Time: 9:25

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	38.7			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	40.6			
70	Less than 2.0% of mass 69	0.4	(	1.0	)1
127	40.0 - 60.0% of mass 198	54.3			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.5			
275	10.0 - 30.0% of mass 198	22.5			
365	Greater than 1.0% of mass 198	2.1			
441	Present, but less than mass 443	7.12	(	66.1	)3
442	40.0 - 100.0% of mass 198	55.2			
443	17.0 - 23.0% of mass 442	10.8	(	19.5	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN020-10	40ng-BNA	B2932.D	02/19/2010	9:34
ABN021-10	40ng_OLMO4	B2933.D	02/19/2010	9:50
.	Method_Blank	B2957.D	02/19/2010	16:06
.	LCS	B2958.D	02/19/2010	16:22
19HMW-01	01348-001	B2959.D	02/19/2010	16:38
19HMW-02	01348-002	B2960.D	02/19/2010	16:53
REP021110	01348-003	B2961.D	02/19/2010	17:09
.	Method_Blank	B2962.D	02/19/2010	17:25
.	LCS	B2963.D	02/19/2010	17:40
.	MS(01411-001)	B2964.D	02/19/2010	17:56
.	MSD(01411-001)	B2965.D	02/19/2010	18:12
MW-1-021610/	01411-001	B2966.D	02/19/2010	18:28
FIELD	01411-003	B2967.D	02/19/2010	18:43
MW-1	01427-001	B2968.D	02/19/2010	18:59
REC-TP1	01438-021	B2969.D	02/19/2010	19:14
TW2	01419-004	B2970.D	02/19/2010	19:30
TW3	01419-005	B2971.D	02/19/2010	19:46
26MW-1	01443-001	B2972.D	02/19/2010	20:01
B-1-GW/11.5	01445-001	B2973.D	02/19/2010	20:17
B-2-GW/6	01446-002	B2974.D	02/19/2010	20:33
MW-6/4.06	01457-001	B2975.D	02/19/2010	20:48
MW-7/4.07	01457-002	B2976.D	02/19/2010	21:04
MW-8/3.47	01457-003	B2977.D	02/19/2010	21:19

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B2931.D

DFTPP Injection Date : 02/19/2010

Inst ID: MSDB

DFTPP Injection Time: 9:25

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	38.7			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	40.6			
70	Less than 2.0% of mass 69	0.4	(	1.0	)1
127	40.0 - 60.0% of mass 198	54.3			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.5			
275	10.0 - 30.0% of mass 198	22.5			
365	Greater than 1.0% of mass 198	2.1			
441	Present, but less than mass 443	7.12	(	66.1	)3
442	40.0 - 100.0% of mass 198	55.2			
443	17.0 - 23.0% of mass 442	10.8	(	19.5	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
.	ABN022-10	B2934.D	02/19/2010	10:25
.	Method_Blank	B2935.D	02/19/2010	10:51
19HMW-01	01348-001	B2936.D	02/19/2010	11:05
19HMW-02	01348-002	B2937.D	02/19/2010	11:19
REP021110	01348-003	B2938.D	02/19/2010	11:34
.	Method_Blank	B2939.D	02/19/2010	11:48
MW-1-021610/	01411-001	B2940.D	02/19/2010	12:02
FIELD	01411-003	B2941.D	02/19/2010	12:17
MW-1	01427-001	B2942.D	02/19/2010	12:31
REC-TP1	01438-021	B2943.D	02/19/2010	12:45
TW2	01419-004	B2944.D	02/19/2010	13:00
TW3	01419-005	B2945.D	02/19/2010	13:14
26MW-1	01443-001	B2946.D	02/19/2010	13:28
B-1-GW/11.5	01445-001	B2947.D	02/19/2010	13:42
B-2-GW/6	01446-002	B2948.D	02/19/2010	13:57
MW-6/4.06	01457-001	B2949.D	02/19/2010	14:11
MW-7/4.07	01457-002	B2950.D	02/19/2010	14:25
MW-8/3.47	01457-003	B2951.D	02/19/2010	14:40
MW-9/3.44	01457-004	B2952.D	02/19/2010	14:54
MW-1	01450-001	B2953.D	02/19/2010	15:08
MW-2	01450-002	B2954.D	02/19/2010	15:23
MW-3	01450-003	B2955.D	02/19/2010	15:37
MW-4	01450-004	B2956.D	02/19/2010	15:51

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B2939.D

Instrument ID: MSDB

Date Extracted: 02/18/10

Matrix: AQUEOUS

Date Analyzed: 02/19/2010

Time Analyzed: 11:48

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-1-021610/	01411-001	02/19/2010	12:02
FIELD	01411-003	02/19/2010	12:17
MW-1	01427-001	02/19/2010	12:31
REC-TP1	01438-021	02/19/2010	12:45
TW2	01419-004	02/19/2010	13:00
TW3	01419-005	02/19/2010	13:14
26MW-1	01443-001	02/19/2010	13:28
B-1-GW/11.5	01445-001	02/19/2010	13:42
B-2-GW/6	01446-002	02/19/2010	13:57
MW-6/4.06	01457-001	02/19/2010	14:11
MW-7/4.07	01457-002	02/19/2010	14:25
MW-8/3.47	01457-003	02/19/2010	14:40
MW-9/3.44	01457-004	02/19/2010	14:54
MW-1	01450-001	02/19/2010	15:08
MW-2	01450-002	02/19/2010	15:23
MW-3	01450-003	02/19/2010	15:37
MW-4	01450-004	02/19/2010	15:51

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B2962.D 3/3/10 13

Instrument ID: MSDB

Date Extracted: 02/18/10

Matrix: AQUEOUS

Date Analyzed: 02/19/2010

Time Analyzed: 17:25

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	02/19/2010	17:40
.	MS(01411-001)	02/19/2010	17:56
.	MSD(01411-001)	02/19/2010	18:12
MW-1-021610/	01411-001	02/19/2010	18:28
FIELD	01411-003	02/19/2010	18:43
MW-1	01427-001	02/19/2010	18:59
REC-TP1	01438-021	02/19/2010	19:14
TW2	01419-004	02/19/2010	19:30
TW3	01419-005	02/19/2010	19:46
26MW-1	01443-001	02/19/2010	20:01
B-1-GW/11.5	01445-001	02/19/2010	20:17
B-2-GW/6	01446-002	02/19/2010	20:33
MW-6/4.06	01457-001	02/19/2010	20:48
MW-7/4.07	01457-002	02/19/2010	21:04
MW-8/3.47	01457-003	02/19/2010	21:19
MW-9/3.44	01457-004	02/22/2010	15:01
MW-1	01450-001	02/22/2010	15:17
MW-2	01450-002	02/22/2010	15:32
MW-3	01450-003	02/22/2010	15:48
MW-4	01450-004	02/22/2010	16:04
FIELD_BLANK_	01439-001	02/22/2010	16:20
SB-6-GW1	01439-007	02/22/2010	16:35
FB	01451-008	02/22/2010	16:51

FORM IV SV

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Data file: B2962.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.120
Pyridine	ND		1.00	0.160
Benzaldehyde	ND		1.00	0.250
Phenol	ND		1.00	0.080
Aniline	ND		1.00	0.090
Bis(2-chloroethyl) ether	ND		1.00	0.110
2-Chlorophenol	ND		1.00	0.110
1,3-Dichlorobenzene	ND		1.00	0.150
1,4-Dichlorobenzene	ND		1.00	0.180
Benzyl alcohol	ND		1.00	0.110
1,2-Dichlorobenzene	ND		1.00	0.050
2-Methylphenol	ND		1.00	0.120
Bis(2-chloroisopropyl) ether	ND		1.00	0.120
4-Methylphenol	ND		1.00	0.110
N-Nitrosodi-n-propylamine	ND		1.00	0.150
Acetophenone	ND		1.00	0.080
3-Methylphenol	ND		1.00	0.110
Hexachloroethane	ND		1.00	0.140
Nitrobenzene	ND		1.00	0.130
Isophorone	ND		1.00	0.310
2-Nitrophenol	ND		1.00	0.210
2,4-Dimethylphenol	ND		1.00	0.180
Bis(2-chloroethoxy) methane	ND		1.00	0.110
Benzoic acid	ND		1.00	0.230
2,4-Dimethylaniline	ND		1.00	0.140
2,4-Dichlorophenol	ND		1.00	0.080
1,2,4-Trichlorobenzene	ND		1.00	0.170
Naphthalene	ND		1.00	0.092
4-Chloroaniline	ND		1.00	0.110
4-Aminotoluene	ND		2.00	0.140
Hexachlorobutadiene	ND		1.00	0.260
Caprolactam	ND		1.00	0.270
2-Aminotoluene	ND		2.00	0.140
4-Chloro-3-methylphenol	ND		1.00	0.090
2-Methylnaphthalene	ND		1.00	0.087
Hexachlorocyclopentadiene	ND		1.00	0.150
2,4,6-Trichlorophenol	ND		1.00	0.170
2,4,5-Trichlorophenol	ND		1.00	0.180
1,1'-Biphenyl	ND		1.00	0.090
2-Chloronaphthalene	ND		1.00	0.060
2-Nitroaniline	ND		1.00	0.170
Dimethyl phthalate	ND		1.00	0.110

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Data file: B2962.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.210
Acenaphthylene	ND		1.00	0.124
3-Nitroaniline	ND		1.00	0.160
Acenaphthene	ND		1.00	0.158
2,4-Dinitrophenol	ND		1.00	0.910
4-Nitrophenol	ND		1.00	0.390
2,4-Dinitrotoluene	ND		1.00	0.220
Dibenzofuran	ND		1.00	0.090
Diethyl phthalate	ND		1.00	0.100
Fluorene	ND		1.00	0.132
4-Chlorophenyl phenyl ether	ND		1.00	0.110
4-Nitroaniline	ND		1.00	0.170
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.110
4,6-Dinitro-2-methylphenol	ND		1.00	0.210
N-Nitrosodiphenylamine	ND		1.00	0.060
1,2-Diphenylhydrazine	ND		1.00	0.090
4-Bromophenyl phenyl ether	ND		1.00	0.210
Hexachlorobenzene *	ND		0.020	0.010
Atrazine	ND		1.00	0.240
Pentachlorophenol	ND		0.100	0.050
Phenanthrene	ND		1.00	0.073
Anthracene	ND		1.00	0.075
Carbazole	ND		1.00	0.070
Di-n-butyl phthalate	ND		1.00	0.130
Fluoranthene	ND		1.00	0.133
Benzidine	ND		1.00	0.240
Pyrene	ND		1.00	0.103
3,3'-Dimethylbenzidine	ND		3.00	0.240
Butyl benzyl phthalate	ND		1.00	0.210
3,3'-Dichlorobenzidine	ND		1.00	0.270
Benzo[a]anthracene *	ND		0.100	0.050
Chrysene	ND		1.00	0.108
Bis(2-ethylhexyl) phthalate	ND		1.00	0.180
Di-n-octyl phthalate	ND		1.00	0.240
Benzo[b]fluoranthene *	ND		0.100	0.050
Benzo[k]fluoranthene *	ND		0.100	0.050
Benzo[a]pyrene *	ND		0.100	0.050
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.050
Dibenz[a,h]anthracene *	ND		0.100	0.050
Benzo[g,h,i]perylene	ND		1.00	0.134

Total Target Compounds: 0

* --- RL & MDL from SIM run

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Data file: B2962.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BW0310.M
Title : BNA CALIBRATION METHOD
Last Update : Wed Jan 27 15:03:48 2010
Response Via : Initial Calibration

Calibration Files
1 =B2196.D 10 =B2197.D 20 =B2198.D
40 =B2199.D 80 =B2200.D 120 =B2201.D

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD							
2)	T	N-Nitrosodimethyl	0.656	0.653	0.668	0.646	0.584	0.604	0.635	5.26
3)	T	Pyridine	0.680	0.687	0.704	0.622	0.626	0.648	0.661	5.13
4)	S	2-Fluorophenol	1.303	1.274	1.158	1.217	1.187	1.188	1.221	4.61
5)	T	Benzaldehyde	1.091	0.936	0.918	0.918	0.914	0.870	0.941	8.14
6)	S	Phenol-d5	1.528	1.669	1.547	1.625	1.541	1.620	1.588	3.60
7)	MC	Phenol	1.647	1.355	1.441	1.374	1.406	1.670	1.482	9.44
8)	T	Aniline	0.607	0.580	0.606	0.588	0.603	0.614	0.599	2.17
9)	T	Bis(2-chloroethyl	0.847	0.776	0.777	0.774	0.730	0.788	0.782	4.82
10)	M	2-Chlorophenol	1.352	1.223	1.297	1.268	1.360	1.337	1.306	4.13
11)	T	1,3-Dichlorobenze	1.430	1.331	1.414	1.337	1.409	1.458	1.397	3.67
12)	MC	1,4-Dichlorobenze	1.561	1.468	1.505	1.501	1.409	1.408	1.475	4.04
13)	T	Benzyl alcohol	0.832	0.815	0.881	0.820	0.910	0.912	0.862	5.21
14)	T	1,2-Dichlorobenze	1.499	1.374	1.447	1.401	1.339	1.403	1.410	3.99
15)	T	2-Methylphenol	1.124	1.112	1.167	1.126	1.149	1.220	1.150	3.45
16)	T	Bis(2-chloroisopr	1.259	1.163	1.212	1.166	1.186	1.169	1.193	3.13
17)	T	4-Methylphenol	1.226	1.082	1.167	1.222	1.208	1.337	1.207	6.89
18)	MP	N-Nitrosodi-n-pro	0.804	0.735	0.790	0.803	0.756	0.724	0.769	4.57
19)	T	Acetophenone	1.643	1.540	1.617	1.670	1.733	1.828	1.672	5.93
20)	T	3-Methylphenol	1.232	1.085	1.175	1.226	1.208	1.336	1.210	6.77
21)	T	Hexachloroethane	0.502	0.443	0.474	0.459	0.480	0.487	0.474	4.42
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	ISTD							
24)	S	Nitrobenzene-d5	0.290	0.281	0.301	0.302	0.313	0.327	0.302	5.39
25)	T	Nitrobenzene	0.328	0.269	0.276	0.293	0.289	0.275	0.288	7.42
26)	T	Isophorone	0.600	0.545	0.579	0.545	0.591	0.598	0.576	4.37
27)	TC	2-Nitrophenol	0.188	0.180	0.187	0.181	0.202	0.196	0.189	4.49
28)	T	2,4-Dimethylpheno	0.340	0.296	0.309	0.284	0.303	0.306	0.306	6.07
29)	T	Bis(2-chloroethox	0.384	0.341	0.353	0.346	0.373	0.346	0.357	4.85
30)	T	Benzoic acid	0.161	0.174	0.193	0.211	0.219	0.223	0.197	12.87
31)	T	2,4-Dimethylanili	0.460	0.411	0.432	0.393	0.439	0.430	0.428	5.38
32)	TC	2,4-Dichloropheno	0.305	0.281	0.292	0.293	0.312	0.293	0.296	3.74
33)	M	1,2,4-Trichlorobe	0.349	0.311	0.327	0.311	0.326	0.326	0.325	4.28
34)	T	Naphthalene	1.172	0.973	1.038	0.980	0.830	0.867	0.977	12.57
35)	T	4-Chloroaniline	0.570	0.516	0.555	0.506	0.584	0.525	0.543	5.79
36)	T	4-Aminotoluene	0.650	0.578	0.588	0.573	0.620	0.539	0.591	6.59
37)	TC	Hexachlorobutadie	0.207	0.186	0.193	0.190	0.199	0.188	0.194	4.03
38)	T	Caprolactam	0.100	0.098	0.103	0.109	0.134	0.131	0.113	14.02
39)	T	2-Aminotoluene	0.650	0.578	0.588	0.573	0.620	0.539	0.591	6.59
40)	MC	4-Chloro-3-methyl	0.260	0.238	0.256	0.260	0.296	0.300	0.268	9.19
41)	T	2-Methylnaphthale	0.687	0.620	0.667	0.638	0.715	0.630	0.660	5.62
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	ISTD							
44)	TP	Hexachlorocyclope	0.226	0.243	0.262	0.251	0.272	0.263	0.253	6.57
45)	TC	2,4,6-Trichloroph	0.350	0.339	0.344	0.347	0.334	0.351	0.344	1.89
46)	T	2,4,5-Trichloroph	0.362	0.355	0.365	0.354	0.366	0.385	0.365	3.09
47)	S	2-Fluorobiphenyl	1.204	1.272	1.291	1.283	1.202	1.168	1.237	4.18
48)	T	1,1'-Biphenyl	1.452	1.349	1.409	1.281	1.193	0.999	1.281	12.94
49)	T	2-Chloronaphthale	1.132	0.991	1.070	0.955	0.963	0.961	1.012	7.18
50)	T	2-Nitroaniline	0.206	0.197	0.213	0.213	0.232	0.236	0.216	6.98
51)	T	Dimethyl phthalat	1.271	1.140	1.154	1.172	1.208	1.102	1.175	5.02

52)	T	2,6-Dinitrotoluen	0.220	0.246	0.262	0.270	0.281	0.281	0.260	9.07
53)	T	Acenaphthylene	1.761	1.643	1.685	1.675	1.465	1.317	1.591	10.47
54)	T	3-Nitroaniline	0.251	0.248	0.255	0.260	0.305	0.299	0.270	9.36
55)	MC	Acenaphthene	1.161	1.006	1.012	1.026	0.960	0.954	1.020	7.36
56)	TP	2,4-Dinitrophenol	0.137	0.139	0.112	0.121	0.110	0.109	0.121	11.07
57)	MP	4-Nitrophenol	0.195	0.146	0.128	0.143	0.161	0.163	0.156	14.82
58)	M	2,4-Dinitrotoluen	0.307	0.312	0.317	0.338	0.393	0.406	0.345	12.48
59)	T	Dibenzofuran	1.624	1.455	1.518	1.456	1.385	1.305	1.457	7.51
60)	T	Diethyl phthalate	1.224	1.102	1.096	1.139	1.281	1.043	1.147	7.75
61)	T	Fluorene	1.351	1.189	1.210	1.195	1.251	1.209	1.234	4.95
62)	T	4-Chlorophenyl ph	0.693	0.623	0.651	0.635	0.665	0.666	0.655	3.80
63)	T	4-Nitroaniline	0.225	0.226	0.248	0.271	0.294	0.241	0.251	10.87
64)		1,2,4,5-Tetrachlo	0.628	0.574	0.599	0.555	0.518	0.526	0.567	7.46
65)	T	3,5-Dimethylpheno							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.098	0.130	0.108	0.108	0.127	0.138	0.118	13.30
68)	TC	N-Nitrosodiphenyl	0.591	0.550	0.551	0.542	0.493	0.474	0.533	8.02
69)	T	1,2-Diphenylhydra	0.583	0.551	0.566	0.518	0.461	0.514	0.532	8.32
70)	S	2,4,6-Tribromophe	0.195	0.197	0.192	0.183	0.181	0.187	0.189	3.41
71)	T	4-Bromophenyl phe	0.288	0.259	0.258	0.243	0.228	0.234	0.252	8.63
72)	T	Hexachlorobenzene	0.334	0.300	0.302	0.291	0.286	0.287	0.300	6.05
73)	T	Atrazine	0.212	0.217	0.212	0.210	0.229	0.217	0.216	3.30
74)	MC	Pentachlorophenol	0.155	0.148	0.148	0.164	0.173	0.183	0.162	8.61
75)	T	Phenanthrene	1.173	1.005	0.991	0.979	0.931	0.812	0.982	11.93
76)	T	Anthracene	1.161	1.051	1.064	1.076	0.901	0.801	1.009	13.10
77)	T	Carbazole	0.960	0.894	0.904	0.959	0.840	0.752	0.885	8.95
78)	T	Di-n-butyl phthal	1.207	1.176	1.154	1.193	0.969	0.873	1.096	12.76
79)	TC	Fluoranthene	1.116	1.022	1.039	1.104	1.064	0.936	1.047	6.24
80)	T	Benzidine	0.432	0.375	0.464	0.493	0.511	0.583	0.476	14.93
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.368	1.302	1.303	1.247	1.045	0.925	1.198	14.50
84)	S	Terphenyl-d14	1.279	1.259	1.220	1.175	1.010	0.987	1.155	10.96
85)	T	3,3'-Dimethylbenz	0.504	0.691	0.748	0.764	0.725	0.663	0.683	13.88
86)	T	Butyl benzyl phth	0.622	0.553	0.538	0.535	0.496	0.477	0.537	9.41
87)	T	3,3'-Dichlorobenz	0.393	0.410	0.393	0.408	0.382	0.401	0.398	2.67
88)	T	Benzo[a]anthracen	1.192	0.852	0.877	0.905	0.876	0.894	0.932	13.76
89)	T	Chrysene	0.946	0.810	0.865	0.902	0.839	0.820	0.864	6.04
90)	T	Bis(2-ethylhexyl)	0.697	0.667	0.682	0.673	0.656	0.600	0.662	5.06
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.406	1.128	1.077	1.090	1.133	1.049	1.147	11.40
94)	T	Benzo[b]fluoranth	0.850	0.995	0.881	0.965	0.935	1.146	0.962	10.88
95)	T	Benzo[k]fluoranth	0.891	0.789	0.873	0.883	0.933	0.794	0.860	6.68
96)	TC	Benzo[a]pyrene	0.773	0.729	0.758	0.782	0.792	0.835	0.778	4.56
97)	T	Indeno[1,2,3-cd]p	1.030	0.916	0.977	1.067	1.059	1.133	1.030	7.34
98)	T	Dibenz[a,h]anthra	1.074	0.748	0.799	0.867	0.898	0.940	0.888	12.89
99)	T	Benzo[g,h,i]peryl	0.756	0.732	0.798	0.862	0.869	0.919	0.823	8.80
100)	T	3,3'-Dimethoxyben							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

BW0310.M Tue Feb 09 11:40:58 2010 MSD_B

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BSIM0310.M
Title : BNA CALIBRATION METHOD
Last Update : Thu Jan 28 10:37:58 2010
Response Via : Initial Calibration

Calibration Files
0.1 =B2293.D 0.2 =B2294.D 0.5 =B2295.D
1 =B2296.D 2 =B2297.D

		Compound	0.1	0.2	0.5	1	2	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
23)	I	Naphthalene-d8	----------ISTD----------						
43)	I	Acenaphthene-d10	----------ISTD----------						
66)	I	Phenanthrene-d10	----------ISTD----------						
72)	T	Hexachlorobenzene	0.107	0.084	0.078	0.077	0.083	0.086	14.43
74)	MC	Pentachlorophenol	0.012	0.012	0.013	0.013	0.014	0.013	8.52
82)	I	Chrysene-d12	----------ISTD----------						
88)	T	Benzo[a]anthracene	0.288	0.248	0.310	0.212	0.253	0.262	14.54
92)	I	Perylene-d12	----------ISTD----------						
94)	T	Benzo[b]fluoranthen	0.267	0.212	0.262	0.240	0.241	0.244	8.87
95)	T	Benzo[k]fluoranthen	0.377	0.355	0.477	0.402	0.403	0.403	11.41
96)	TC	Benzo[a]pyrene	0.209	0.174	0.237	0.232	0.233	0.217	12.19
97)	T	Indeno[1,2,3-cd]pyr	0.183	0.184	0.255	0.219	0.210	0.210	14.03
98)	T	Dibenz[a,h]anthrace	0.118	0.121	0.153	0.150	0.155	0.139	13.17

(#) = Out of Range

BSIM0310.M Thu Jan 28 10:38:13 2010 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2932.D
Acq On : 19 Feb 2010 9:34
Operator : JC
Sample : .,ABN020-10,40ng-BNA,
Misc : NA,NA,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Feb 19 09:48:23 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 27 15:03:48 2010
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00
2	T	N-Nitrosodimethylamine	0.635	0.632	0.5	106	-0.01
3	T	Pyridine	0.661	0.722	-9.2	126	-0.01
4	S	2-Fluorophenol	1.221	1.167	4.4	104	-0.01
5	T	Benzaldehyde	0.941	0.797	15.3	103	-0.02
6	S	Phenol-d5	1.588	1.448	8.8	97	-0.01
7	MC	Phenol	1.482	1.562	-5.4	124	0.00
8	T	Aniline	0.599	0.587	2.0	108	-0.01
9	T	Bis(2-chloroethyl) ether	0.782	0.770	1.5	108	-0.01
10	M	2-Chlorophenol	1.306	1.308	-0.2	112	0.00
11	T	1,3-Dichlorobenzene	1.397	1.321	5.4	107	-0.01
12	MC	1,4-Dichlorobenzene	1.475	1.495	-1.4	108	-0.01
13	T	Benzyl alcohol	0.862	0.798	7.4	106	-0.01
14	T	1,2-Dichlorobenzene	1.410	1.404	0.4	109	-0.01
15	T	2-Methylphenol	1.150	1.109	3.6	107	-0.01
16	T	Bis(2-chloroisopropyl) ethe	1.193	1.190	0.3	111	-0.01
17	T	4-Methylphenol	1.207	1.196	0.9	106	-0.01
18	MP	N-Nitrosodi-n-propylamine	0.769	0.784	-2.0	106	-0.01
19	T	Acetophenone	1.672	1.682	-0.6	109	-0.01
20	T	3-Methylphenol	1.210	1.195	1.2	106	-0.01
21	T	Hexachloroethane	0.474	0.469	1.1	111	-0.01
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	103	-0.01
24	S	Nitrobenzene-d5	0.302	0.342	-13.2	117	-0.01
25	T	Nitrobenzene	0.288	0.299	-3.8	105	-0.01
26	T	Isophorone	0.576	0.545	5.4	103	-0.01
27	TC	2-Nitrophenol	0.189	0.185	2.1	105	-0.01
28	T	2,4-Dimethylphenol	0.306	0.324	-5.9	118	0.00
29	T	Bis(2-chloroethoxy) methane	0.357	0.336	5.9	100	-0.01
30	T	Benzoic acid	0.197	0.170	13.7	83	-0.01
31	T	2,4-Dimethylaniline	0.428	0.390	8.9	103	0.00
32	TC	2,4-Dichlorophenol	0.296	0.297	-0.3	105	-0.01
33	M	1,2,4-Trichlorobenzene	0.325	0.310	4.6	103	0.00
34	T	Naphthalene	0.977	1.048	-7.3	110	0.00
35	T	4-Chloroaniline	0.543	0.527	2.9	108	0.00
36	T	4-Aminotoluene	0.591	0.582	1.5	105	-0.01
37	TC	Hexachlorobutadiene	0.194	0.189	2.6	103	0.00
38	T	Caprolactam	0.113	0.103	8.8	98	0.00
39	T	2-Aminotoluene	0.591	0.582	1.5	105	-0.01
40	MC	4-Chloro-3-methylphenol	0.268	0.263	1.9	105	0.00
41	T	2-Methylnaphthalene	0.660	0.624	5.5	101	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	106	0.02
44	TP	Hexachlorocyclopentadiene	0.253	0.273	-7.9	115	0.00
45	TC	2,4,6-Trichlorophenol	0.344	0.332	3.5	102	0.00
46	T	2,4,5-Trichlorophenol	0.365	0.327	10.4	98	0.00

47	S	2-Fluorobiphenyl	1.237	1.395	-12.8	115	0.00
48	T	1,1'-Biphenyl	1.281	1.386	-8.2	115	0.01
49	T	2-Chloronaphthalene	1.012	0.955	5.6	106	0.01
50	T	2-Nitroaniline	0.216	0.207	4.2	103	0.02
51	T	Dimethyl phthalate	1.175	1.063	9.5	96	0.02
52	T	2,6-Dinitrotoluene	0.260	0.231	11.2	91	0.02
53	T	Acenaphthylene	1.591	1.607	-1.0	102	0.02
54	T	3-Nitroaniline	0.270	0.248	8.1	101	0.02
55	MC	Acenaphthene	1.020	0.945	7.4	98	0.02
56	TP	2,4-Dinitrophenol	0.121	0.109	9.9	96	0.03
57	MP	4-Nitrophenol	0.156	0.129	17.3	96	0.03
58	M	2,4-Dinitrotoluene	0.345	0.304	11.9	95	0.03
59	T	Dibenzofuran	1.457	1.390	4.6	101	0.03
60	T	Diethyl phthalate	1.147	0.992	13.5	92	0.03
61	T	Fluorene	1.234	1.116	9.6	99	0.03
62	T	4-Chlorophenyl phenyl ether	0.655	0.544	16.9	91	0.03
63	T	4-Nitroaniline	0.251	0.213	15.1	83	0.04
64		1,2,4,5-Tetrachlorobenzene	0.567	0.538	5.1	103	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	86	0.05
67	T	4,6-Dinitro-2-methylphenol	0.118	0.101	14.4	80	0.04
68	TC	N-Nitrosodiphenylamine	0.533	0.543	-1.9	86	0.04
69	T	1,2-Diphenylhydrazine	0.532	0.597	-12.2	99	0.04
70	S	2,4,6-Tribromophenol	0.189	0.168	11.1	79	0.04
71	T	4-Bromophenyl phenyl ether	0.252	0.252	0.0	89	0.04
72	T	Hexachlorobenzene	0.300	0.293	2.3	87	0.04
73	T	Atrazine	0.216	0.228	-5.6	93	0.05
74	MC	Pentachlorophenol	0.162	0.147	9.3	77	0.06
75	T	Phenanthrene	0.982	1.043	-6.2	92	0.05
76	T	Anthracene	1.009	1.063	-5.4	85	0.05
77	T	Carbazole	0.885	0.861	2.7	77	0.06
78	T	Di-n-butyl phthalate	1.096	1.071	2.3	77	0.07
79	TC	Fluoranthene	1.047	1.024	2.2	80	0.09
80	T	Benzidine	0.476	0.407	14.5	82	0.03
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	87	0.09
83	M	Pyrene	1.198	0.551	19.3	67	0.05
84	S	Terphenyl-d14	1.155	1.014	12.2	75	0.11
85	T	3,3'-Dimethylbenzidine	0.683	0.551	19.3	67	0.05
86	T	Butyl benzyl phthalate	0.537	0.442	17.7	72	0.13
87	T	3,3'-Dichlorobenzidine	0.398	0.334	16.1	71	0.09
88	T	Benzo[a]anthracene	0.932	0.895	4.0	86	0.09
89	T	Chrysene	0.864	0.905	-4.7	87	0.09
90	T	Bis(2-ethylhexyl) phthalate	0.662	0.544	17.8	71	0.09
91		2-Aminoaniline	0.000	0.000	0.0	92	0.05
92	I	Perylene-d12	1.000	1.000	0.0	94	0.10
93	TC	Di-n-octyl phthalate	1.147	0.938	18.2	81	0.10
94	T	Benzo[b]fluoranthene	0.962	0.816	15.2	80	0.10
95	T	Benzo[k]fluoranthene	0.860	1.030	-19.8	110	0.10
96	TC	Benzo[a]pyrene	0.778	0.803	-3.2	97	0.10
97	T	Indeno[1,2,3-cd]pyrene	1.030	1.114	-8.2	98	0.13
98	T	Dibenz[a,h]anthracene	0.888	0.897	-1.0	98	0.13
99	T	Benzo[g,h,i]perylene	0.823	0.934	-13.5	102	0.13
100	T	3,3'-Dimethoxybenzidine					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

BW0310.M Fri Feb 19 10:01:46 2010 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2934.D
Acq On : 19 Feb 2010 10:25
Operator : JC
Sample : .,ABN022-10,0.5ng-SIM
Misc : NA,NA,NA,1
ALS Vial : 99 Sample Multiplier: 1

Quant Time: Feb 22 10:21:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jan 28 09:10:05 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	91	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	111	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	100	0.04
66	I	Phenanthrene-d10	1.000	1.000	0.0	79	0.10
72	T	Hexachlorobenzene	0.086	0.080	7.0	81	0.06
74	MC	Pentachlorophenol	0.013	0.013	0.0	80	0.07
82	I	Chrysene-d12	1.000	1.000	0.0	71	0.14
88	T	Benzo[a]anthracene	0.262	0.296	-13.0	67	0.11
92	I	Perylene-d12	1.000	1.000	0.0	54	0.12
94	T	Benzo[b]fluoranthene	0.244	0.268	-9.8	56	0.11
95	T	Benzo[k]fluoranthene	0.403	0.475	-17.9	54	0.10
96	TC	Benzo[a]pyrene	0.217	0.220	-1.4	51	0.10
97	T	Indeno[1,2,3-cd]pyrene	0.210	0.241	-14.8	51	0.11
98	T	Dibenz[a,h]anthracene	0.139	0.164	-18.0	59	0.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0

BSIM0310.M Mon Feb 22 10:22:28 2010 MSD_B

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 02/19/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
40ng_OLMO4		B2933.D	N/A	N/A	N/A	N/A	N/A	N/A
Method_Blank	AQUEOUS	B2957.D	79	71	80	90	71	74
LCS	AQUEOUS	B2958.D	88	83	94	101	86	79
01348-001	AQUEOUS	B2959.D	N/A	N/A	55	67	N/A	57
01348-002	AQUEOUS	B2960.D	N/A	N/A	59	73	N/A	60
01348-003	AQUEOUS	B2961.D	N/A	N/A	55	64	N/A	57
Method_Blank	AQUEOUS	B2962.D	86	78	67	79	75	63
LCS	AQUEOUS	B2963.D	96	88	83	89	89	68
MS(01411-001)	AQUEOUS	B2964.D	22	14	59	58	69	50
MSD(01411-001)	AQUEOUS	B2965.D	26	16	67	72	79	58
01411-001	AQUEOUS	B2966.D	N/A	N/A	65	70	N/A	77
01411-003	AQUEOUS	B2967.D	N/A	N/A	58	63	N/A	62
01427-001	AQUEOUS	B2968.D	N/A	N/A	53	58	N/A	63
01438-021	AQUEOUS	B2969.D	N/A	N/A	50	71	N/A	65
01419-004	AQUEOUS	B2970.D	N/A	N/A	33	35	N/A	41
01419-005	AQUEOUS	B2971.D	N/A	N/A	49	54	N/A	62
01443-001	AQUEOUS	B2972.D	N/A	N/A	64	67	N/A	65
01445-001	AQUEOUS	B2973.D	N/A	N/A	58	70	N/A	74
01446-002	AQUEOUS	B2974.D	N/A	N/A	85	101	N/A	93
01457-001	AQUEOUS	B2975.D	N/A	N/A	76	96	N/A	72
01457-002	AQUEOUS	B2976.D	N/A	N/A	80	70	N/A	60
01457-003	AQUEOUS	B2977.D	N/A	N/A	49	62	N/A	64

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

AQUEOUS SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: MSD(01411 Batch No.: BW0219

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	40.0	0.0	26.7	67	35 - 116
2-Chlorophenol	40.0	0.0	24.9	62	37 - 112
1,4-Dichlorobenzene	40.0	0.0	29.9	75	29 - 109
N-Nitrosodi-n-propylamine	40.0	0.0	30.9	77	38 - 119
1,2,4-Trichlorobenzene	40.0	0.0	31.9	80	33 - 100
4-Chloro-3-methylphenol	40.0	0.0	27.2	68	42 - 118
Acenaphthene	40.0	0.0	32.6	82	20 - 132
4-Nitrophenol	40.0	0.0	25.9	65	31 - 123
2,4-Dinitrotoluene	40.0	0.0	35.4	89	24 - 130
Pentachlorophenol	40.0	0.0	32.4	81	29 - 123
Pyrene	40.0	0.0	32.4	81	31 - 133

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	0.0	30.1	75	11	14	35 - 116
2-Chlorophenol	0.0	26.8	67	8	13	37 - 112
1,4-Dichlorobenzene	0.0	32.6	82	9	14	29 - 109
N-Nitrosodi-n-propylamine	0.0	35.4	89	14	14	38 - 119
1,2,4-Trichlorobenzene	0.0	36.5	91	13	13	33 - 100
4-Chloro-3-methylphenol	0.0	32.2	81	17	22	42 - 118
Acenaphthene	0.0	37.5	94	14	18	20 - 132
4-Nitrophenol	0.0	31.9	80	21	26	31 - 123
2,4-Dinitrotoluene	0.0	40.2	101	13	19	24 - 130
Pentachlorophenol	0.0	37.0	93	14	19	29 - 123
Pyrene	0.0	37.1	93	14	17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: MSD(01411-001)
Client ID: .
Date Received: NA
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Data file: B2965.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
N-Nitrosodimethylamine	40.0	0.0	29.5	74	0.0	34.9	87
Benzaldehyde	40.0	0.0	19.2	48	0.0	22.3	56
Phenol	40.0	0.0	26.7	67	0.0	30.1	75
Aniline	40.0	0.0	24.8	62	0.0	28.2	71
Bis(2-chloroethyl) ether	40.0	0.0	27.9	70	0.0	32.0	80
2-Chlorophenol	40.0	0.0	24.9	62	0.0	26.8	67
1,3-Dichlorobenzene	40.0	0.0	32.2	81	0.0	37.3	93
1,4-Dichlorobenzene	40.0	0.0	29.9	75	0.0	32.6	82
Benzyl alcohol	40.0	0.0	30.6	77	0.0	35.2	88
1,2-Dichlorobenzene	40.0	0.0	28.8	72	0.0	34.1	85
2-Methylphenol	40.0	0.0	30.6	77	0.0	35.3	88
Bis(2-chloroisopropyl) ether	40.0	0.0	29.8	75	0.0	34.5	86
4-Methylphenol	40.0	0.0	32.0	80	0.0	37.7	94
N-Nitrosodi-n-propylamine	40.0	0.0	30.9	77	0.0	35.4	89
Acetophenone	40.0	0.0	29.9	75	0.0	34.2	86
3-Methylphenol	40.0	0.0	32.0	80	0.0	37.7	94
Hexachloroethane	40.0	0.0	31.8	80	0.0	36.6	92
Nitrobenzene	40.0	0.0	29.6	74	0.0	33.8	85
Isophorone	40.0	0.0	28.7	72	0.0	33.9	85
2-Nitrophenol	40.0	0.0	24.4	61	0.0	29.3	73
2,4-Dimethylphenol	40.0	0.0	25.7	64	0.0	30.2	76
Bis(2-chloroethoxy) methane	40.0	0.0	33.1	83	0.0	37.7	94
Benzoic acid	40.0	0.0	35.4	89	0.0	42.3	106
2,4-Dimethylaniline	40.0	0.0	23.7	59	0.0	27.6	69
2,4-Dichlorophenol	40.0	0.0	25.3	63	0.0	30.3	76
1,2,4-Trichlorobenzene	40.0	0.0	31.9	80	0.0	36.5	91
Naphthalene	40.0	0.0	32.5	81	0.0	37.9	95
4-Chloroaniline	40.0	0.0	29.1	73	0.0	33.8	85
Hexachlorobutadiene	40.0	0.0	30.8	77	0.0	36.1	90
Caprolactam	40.0	0.0	29.6	74	0.0	33.5	84
4-Chloro-3-methylphenol	40.0	0.0	27.2	68	0.0	32.2	81
2-Methylnaphthalene	40.0	0.0	34.1	85	0.0	38.6	97
Hexachlorocyclopentadiene	40.0	0.0	35.7	89	0.0	44.9	112
2,4,6-Trichlorophenol	40.0	0.0	28.4	71	0.0	33.2	83
2,4,5-Trichlorophenol	40.0	0.0	34.6	87	0.0	41.3	103
1,1'-Biphenyl	40.0	0.0	31.1	78	0.0	38.9	97
2-Chloronaphthalene	40.0	0.0	33.7	84	0.0	40.7	102
2-Nitroaniline	40.0	0.0	37.4	94	0.0	44.0	110
Dimethyl phthalate	40.0	0.0	34.3	86	0.0	40.9	102

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: MSD(01411-001)
Client ID: .
Date Received: NA
Date Extracted: 02/18/2010
Date Analyzed: 02/19/2010
Data file: B2965.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
2,6-Dinitrotoluene	40.0	0.0	41.2	103	0.0	46.0	115
Acenaphthylene	40.0	0.0	32.7	82	0.0	39.1	98
3-Nitroaniline	40.0	0.0	34.9	87	0.0	39.1	98
Acenaphthene	40.0	0.0	32.6	82	0.0	37.5	94
2,4-Dinitrophenol	40.0	0.0	26.4	66	0.0	32.6	82
4-Nitrophenol	40.0	0.0	25.9	65	0.0	31.9	80
2,4-Dinitrotoluene	40.0	0.0	35.4	89	0.0	40.2	101
Dibenzofuran	40.0	0.0	33.6	84	0.0	39.7	99
Diethyl phthalate	40.0	0.0	32.5	81	0.0	38.3	96
Fluorene	40.0	0.0	32.1	80	0.0	38.3	96
4-Chlorophenyl phenyl ether	40.0	0.0	31.7	79	0.0	37.7	94
4-Nitroaniline	40.0	0.0	33.1	83	0.0	39.9	100
4,6-Dinitro-2-methylphenol	40.0	0.0	28.1	70	0.0	33.5	84
N-Nitrosodiphenylamine	40.0	1.4	37.5	90	1.4	43.3	105
1,2-Diphenylhydrazine	40.0	0.0	37.1	93	0.0	42.8	107
4-Bromophenyl phenyl ether	40.0	0.0	35.9	90	0.0	41.4	104
Hexachlorobenzene	40.0	0.0	36.7	92	0.0	41.6	104
Atrazine	40.0	0.0	5.4	14	0.0	6.0	15
Pentachlorophenol	40.0	0.0	32.4	81	0.0	37.0	93
Phenanthrene	40.0	0.0	36.6	92	0.0	41.5	104
Anthracene	40.0	0.0	36.5	91	0.0	42.2	106
Carbazole	40.0	0.0	35.4	89	0.0	40.6	102
Di-n-butyl phthalate	40.0	0.0	35.1	88	0.0	39.9	100
Fluoranthene	40.0	0.0	33.3	83	0.0	38.1	95
Benzidine	40.0	0.0	1.3	3	0.0	2.2	6
Pyrene	40.0	0.0	32.4	81	0.0	37.1	93
3,3'-Dimethylbenzidine	40.0	0.0	2.2	6	0.0	3.1	8
Butyl benzyl phthalate	40.0	0.0	29.7	74	0.0	34.0	85
3,3'-Dichlorobenzidine	40.0	0.0	24.8	62	0.0	29.5	74
Benzo[a]anthracene	40.0	0.0	34.6	87	0.0	40.1	100
Chrysene	40.0	0.0	33.8	85	0.0	39.4	99
Bis(2-ethylhexyl) phthalate	40.0	0.0	29.8	75	0.0	34.2	86
Di-n-octyl phthalate	40.0	0.0	25.5	64	0.0	28.8	72
Benzo[b]fluoranthene	40.0	0.0	32.9	82	0.0	36.8	92
Benzo[k]fluoranthene	40.0	0.0	35.8	90	0.0	41.9	105
Benzo[a]pyrene	40.0	0.0	39.3	98	0.0	45.3	113
Indeno[1,2,3-cd]pyrene	40.0	0.0	36.0	90	0.0	42.2	106
Dibenz[a,h]anthracene	40.0	0.0	35.3	88	0.0	41.1	103
Benzo[g,h,i]perylene	40.0	0.0	38.6	97	0.0	44.6	112

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2199.D

Date Analyzed: 01/26/2010

Instrument ID: MSDB

Time Analyzed: 12:14

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	573881		2.46		2310684		3.01		1489080		3.81	
	UPPER LIMIT	1147762		2.96		4621368		3.51		2978160		4.31	
	LOWER LIMIT	286941		1.96		1155342		2.51		744540		3.31	
	LAB SAMPLE ID												
01	1ng-BNA	1146408		2.46		4518169		3.01		2839340		3.83	
02	10ng-BNA	894611		2.46		3494458		3.01		2130821		3.81	
03	20ng-BNA	634849		2.46		2541332		3.01		1589554		3.80	
04	80ng-BNA	556181		2.46		2253876		3.01		1642817		3.81	
05	120ng-BNA	525125		2.46		2214243		3.01		1585060		3.81	
06	120ng-OLMO4	381743		2.46		1511532		3.00		989284		3.82	
07	80ng-OLMO4	619861		2.46		2443369		3.01		1573187		3.82	
08	40ng-OLMO4	896306		2.46		3412644		3.01		2018272		3.81	
09	20ng-OLMO4	1012151		2.46		3756613		3.00		2333302		3.81	
10	10ng-OLMO4	791822		2.46		3029716		3.00		1929538		3.81	
11	1ng-OLMO4	1109526		2.46		4327974		3.01		1986369		3.81	
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2199.D

Date Analyzed: 01/26/2010

Instrument ID: MSDB

Time Analyzed: 12:14

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	2619286		4.55		2280237		6.30		1999952		7.64	
	UPPER LIMIT	5238572		5.05		4560474		6.80		3999904		8.14	
	LOWER LIMIT	1309643		4.05		1140119		5.80		999976		7.14	
	LAB SAMPLE ID												
01	1ng-BNA	4738743		4.60		3452419		6.36		2072796		7.70	
02	10ng-BNA	3426722		4.56		2621856		6.31		1857950		7.65	
03	20ng-BNA	2603103		4.55		2044717		6.29		1642281		7.63	
04	80ng-BNA	3382086		4.56		3253825		6.31		2833832		7.65	
05	120ng-BNA	3119915		4.56		3127413		6.32		2948354		7.66	
06	120ng-OLMO4	1813600		4.57		1745217		6.33		1541399		7.67	
07	80ng-OLMO4	2720951		4.57		2167563		6.32		1779723		7.66	
08	40ng-OLMO4	3438561		4.56		2566042		6.31		2019904		7.64	
09	20ng-OLMO4	3829746		4.55		2868181		6.30		2388466		7.64	
10	10ng-OLMO4	3138601		4.55		2321768		6.30		1909566		7.64	
11	1ng-OLMO4	4338161		4.55		3135898		6.29		2670382		7.66	
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2295.D

Date Analyzed: 01/27/2010

Instrument ID: MSDB

Time Analyzed: 13:41

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	11075		2.24		30908		2.79		18829		3.59	
	UPPER LIMIT	22150		2.74		61816		3.29		37658		4.09	
	LOWER LIMIT	5538		1.74		15454		2.29		9415		3.09	
	LAB SAMPLE ID												
01	0.1ng-SIM	10370		2.25		29041		2.79		17177		3.62	
02	0.2ng-SIM	9792		2.24		26643		2.79		15987		3.60	
03	1ng-SIM	10667		2.24		30418		2.79		18338		3.60	
04	2ng-SIM	11173		2.25		32013		2.79		19476		3.59	
05													
06													
07													
08													
09													
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18													
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20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2295.D Date Analyzed: 01/27/2010

Instrument ID: MSDB Time Analyzed: 13:41

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	200591		4.33		345029		6.12		620806		7.51	
	UPPER LIMIT	401182		4.83		690058		6.62		1241612		8.01	
	LOWER LIMIT	100296		3.83		172515		5.62		310403		7.01	
	LAB SAMPLE ID												
01	0.1ng-SIM	191515		4.40		500280		6.20		557976		7.59	
02	0.2ng-SIM	178702		4.35		317674		6.13		532102		7.52	
03	1ng-SIM	200498		4.35		482508		6.15		601756		7.51	
04	2ng-SIM	210940		4.34		366292		6.13		654370		7.51	
05													
06													
07													
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09													
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18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2932.D

Date Analyzed: 02/19/2010

Instrument ID: MSDB

Time Analyzed: 9:34

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	623296		2.45		2385325		3.00		1578764		3.82	
	UPPER LIMIT	1246592		2.95		4770650		3.50		3157528		4.32	
	LOWER LIMIT	311648		1.95		1192663		2.50		789382		3.32	
	LAB SAMPLE ID												
01	40ng_OLMO4	680377		2.45		2592281		2.99		1563120		3.81	
02	Method_Blank	750169		2.45		2974000		2.99		1750286		3.79	
03	LCS	588090		2.45		2307434		2.99		1366318		3.79	
04	01348-001	634492		2.45		2578020		2.99		1552884		3.80	
05	01348-002	611699		2.45		2467568		2.99		1473987		3.80	
06	01348-003	624020		2.45		2445446		2.99		1475112		3.80	
07	Method_Blank	684553		2.45		2703265		2.99		1623666		3.80	
08	LCS	536888		2.45		2098841		2.99		1304325		3.81	
09	MS(01411-001)	674242		2.45		2678081		3.00		1715581		3.81	
10	MSD(01411-001)	560285		2.45		2233063		3.00		1395075		3.81	
11	01411-001	622641		2.45		2413303		2.99		1475274		3.80	
12	01411-003	647404		2.45		2495302		2.99		1459062		3.80	
13	01427-001	758218		2.45		2991323		2.99		1781927		3.79	
14	01438-021	722335		2.45		2917692		2.99		1643766		3.79	
15	01419-004	693190		2.45		2773566		2.99		1613045		3.79	
16	01419-005	696576		2.45		2855899		2.99		1705036		3.79	
17	01443-001	526654		2.45		2499759		2.99		1534870		3.79	
18	01445-001	613977		2.45		2618723		2.99		1407174		3.79	
19	01446-002	554056		2.45		2553381		2.99		1532696		3.79	
20	01457-001	560266		2.45		2703421		2.99		1677529		3.80	
21	01457-002	612749		2.45		2806660		2.99		1745240		3.79	
22	01457-003	554419		2.45		2499492		2.99		1425309		3.79	

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2932.D

Date Analyzed: 02/19/2010

Instrument ID: MSDB

Time Analyzed: 9:34

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	2251066	4.60	1988206	6.39	1885768	7.74
	UPPER LIMIT	4502132	5.10	3976412	6.89	3771536	8.24
	LOWER LIMIT	1125533	4.10	994103	5.89	942884	7.24
	LAB SAMPLE ID						
01	40ng_OLMO4	2592113	4.56	2105749	6.32	1888892	7.68
02	Method_Blank	2852283	4.53	2368906	6.29	2378214	7.64
03	LCS	2217820	4.53	1943889	6.30	1953754	7.64
04	01348-001	2504817	4.55	2135766	6.31	2218294	7.65
05	01348-002	2450386	4.55	2153637	6.31	2182933	7.65
06	01348-003	2380611	4.56	2033189	6.32	2034981	7.67
07	Method_Blank	2537511	4.55	2113841	6.31	2116563	7.67
08	LCS	2099912	4.57	1872275	6.34	1893806	7.70
09	MS(01411-001)	2626114	4.56	2359279	6.33	2394246	7.67
10	MSD(01411-001)	2190221	4.57	1939231	6.34	2026285	7.68
11	01411-001	2391899	4.56	2080653	6.32	2057549	7.67
12	01411-003	2438712	4.55	2035250	6.30	2038074	7.67
13	01427-001	2749003	4.52	2176433	6.28	2129771	7.64
14	01438-021	2655496	4.53	2089079	6.29	2075858	7.64
15	01419-004	2607123	4.52	2101439	6.28	2058809	7.63
16	01419-005	2725982	4.52	2274867	6.28	2243514	7.63
17	01443-001	2563782	4.52	1995318	6.28	1882941	7.63
18	01445-001	2323841	4.52	1593162	6.28	1374580	7.63
19	01446-002	2354021	4.52	1657105	6.28	1661526	7.64
20	01457-001	2478270	4.53	1730704	6.28	1863548	7.64
21	01457-002	2389897	4.52	1807782	6.28	1584181	7.63
22	01457-003	2117155	4.52	1648725	6.28	1553362	7.63

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2934.D

Date Analyzed: 02/19/2010

Instrument ID: MSDB

Time Analyzed: 10:25

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	10096	2.24	34368	2.79	18804	3.62
	UPPER LIMIT	20192	2.74	68736	3.29	37608	4.12
	LOWER LIMIT	5048	1.74	17184	2.29	9402	3.12
	LAB SAMPLE ID						
01	Method_Blank	8180	2.24	22110	2.79	12648	3.63
02	01348-001	7740	2.24	23862	2.78	13648	3.59
03	01348-002	7659	2.24	24266	2.78	14316	3.59
04	01348-003	8766	2.24	28362	2.78	16003	3.58
05	Method_Blank	7698	2.24	21659	2.78	13544	3.58
06	01411-001	7169	2.24	22494	2.78	21285	3.58
07	01411-003	6776	2.24	21308	2.78	10535	3.58
08	01427-001	7542	2.24	23361	2.78	11975	3.58
09	01438-021	7240	2.24	19884	2.78	11539	3.58
10	01419-004	7427	2.24	23682	2.78	13488	3.58
11	01419-005	6865	2.24	21265	2.78	19068	3.58
12	01443-001	7225	2.24	25853	2.78	14759	3.58
13	01445-001	7140	2.24	22554	2.78	14046	3.58
14	01446-002	8019	2.24	43872	2.79	22424	3.59
15	01457-001	18746	2.24	20944	2.78	14261	3.63
16	01457-002	18975	2.25	21693	2.81	28184	3.63
17	01457-003	9995	2.24	30951	2.79	17819	3.58
18	01457-004	10881	2.24	32962	2.78	20203	3.57
19	01450-001	10117	2.24	28525	2.78	18892	3.58
20	01450-002	10404	2.24	31672	2.78	19934	3.58
21	01450-003	10561	2.24	20600	2.79	15150	3.59
22	01450-004	10678	2.24	32457	2.78	19946	3.58

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B2934.D

Date Analyzed: 02/19/2010

Instrument ID: MSDB

Time Analyzed: 10:25

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	158340		4.40		243778		6.23		338215		7.59	
	UPPER LIMIT	316680		4.90		487556		6.73		676430		8.09	
	LOWER LIMIT	79170		3.90		121889		5.73		169108		7.09	
	LAB SAMPLE ID												
01	Method_Blank	86067		4.43		327948		6.25		301313		7.66	
02	01348-001	124229		4.35		380391		6.15		458531		7.52	
03	01348-002	115738		4.34		171948		6.13		452857		7.51	
04	01348-003	124249		4.33		172628		6.12		380594		7.49	
05	Method_Blank	99131		4.32		159237		6.11		310206		7.51	
06	01411-001	95340		4.32		135880		6.10		233528		7.48	
07	01411-003	79453		4.32		131758		6.11		173301		7.50	
08	01427-001	98038		4.32		124565		6.10		203401		7.50	
09	01438-021	89497		4.32		124440		6.12		211857		7.49	
10	01419-004	122035		4.32		140189		6.10		237061		7.48	
11	01419-005	100674		4.32		130498		6.12		308228		7.47	
12	01443-001	115499		4.31		147795		6.09		265633		7.48	
13	01445-001	85550		4.31		130687		6.10		182779		7.49	
14	01446-002	155987		4.32		157084		6.10		267959		7.48	
15	01457-001	134734		4.40		226140		6.14		383193		7.48	
16	01457-002	112604		4.44		582175*		6.17		638907		7.48	
17	01457-003	166621		4.32		351787		6.11		615394		7.46	
18	01457-004	181647		4.30		344185		6.08		641625		7.47	
19	01450-001	166551		4.30		327963		6.08		577086		7.47	
20	01450-002	182768		4.31		323286		6.09		572502		7.48	
21	01450-003	137702		4.33		336066		6.10		630800		7.47	
22	01450-004	180658		4.31		302686		6.10		532990		7.48	

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2970.D
Acq On : 19 Feb 2010 19:30
Operator : JC
Sample : TW2,01419-004,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Feb 22 13:15:28 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 27 15:03:48 2010
Response via : Initial Calibration

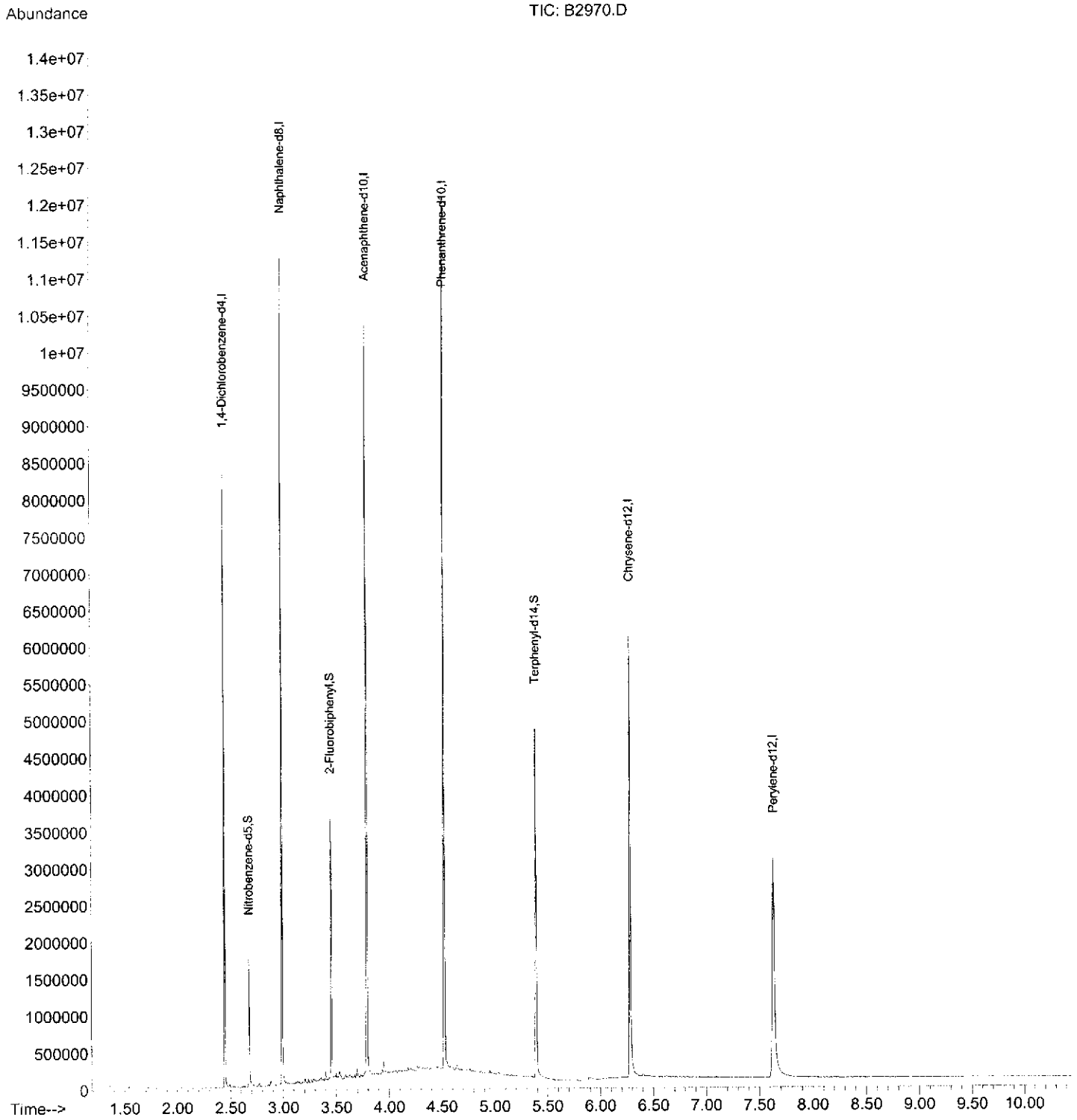
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.45	152	693190	40.00	UG	-0.02
23) Naphthalene-d8	2.99	136	2773566	40.00	UG	-0.02
43) Acenaphthene-d10	3.79	164	1613045	40.00	UG	-0.02
66) Phenanthrene-d10	4.52	188	2607123	40.00	UG	-0.03
82) Chrysene-d12	6.28	240	2101439	40.00	UG	-0.02
92) Perylene-d12	7.63	264	2058809	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	1.91	112	254	0.01	UG	-0.03
Spiked Amount 100.000	Range 10 - 100		Recovery =	0.01%#		
6) Phenol-d5	2.29	99	175	0.01	UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery =	0.01%#		
24) Nitrobenzene-d5	2.68	82	343085	16.36	UG	-0.02
Spiked Amount 50.000	Range 27 - 102		Recovery =	32.72%		
47) 2-Fluorobiphenyl	3.46	172	882190	17.69	UG	-0.02
Spiked Amount 50.000	Range 26 - 101		Recovery =	35.38%		
70) 2,4,6-Tribromophenol	4.18	330	79	0.01	UG	-0.02
Spiked Amount 100.000	Range 22 - 115		Recovery =	0.01%#		
84) Terphenyl-d14	5.39	244	1247181	20.55	UG	-0.03
Spiked Amount 50.000	Range 23 - 124		Recovery =	41.10%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2970.D
Acq On : 19 Feb 2010 19:30
Operator : JC
Sample : TW2,01419-004,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Feb 22 13:15:28 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 27 15:03:48 2010
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2970.D
Acq On : 19 Feb 2010 19:30
Operator : JC
Sample : TW2,01419-004,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

No Library Search Compounds Detected

****

BW0310.M Mon Feb 22 13:15:35 2010 MSD_B

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2944.D
Acq On : 19 Feb 2010 13:00
Operator : JC
Sample : TW2,01419-004,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 22 09:23:10 2010
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jan 28 09:10:05 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.24	152	7427m	1.00	UG	0.00
23) Naphthalene-d8	2.78	136	23682m	1.00	UG	0.00
43) Acenaphthene-d10	3.58	164	13488m	1.00	UG	0.00
66) Phenanthrene-d10	4.32	188	122035m	1.00	UG	0.01
82) Chrysene-d12	6.10	240	140189m	1.00	UG	0.01
92) Perylene-d12	7.48	264	237061m	1.00	UG	0.01

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
24) Nitrobenzene-d5	0.00	82	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
47) 2-Fluorobiphenyl	0.00	172	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 1.000	Range 40 - 140		Recovery = 0.00%#			
84) Terphenyl-d14	0.00	244	0	0.00	UG	
Spiked Amount 0.500	Range 40 - 140		Recovery = 0.00%#			

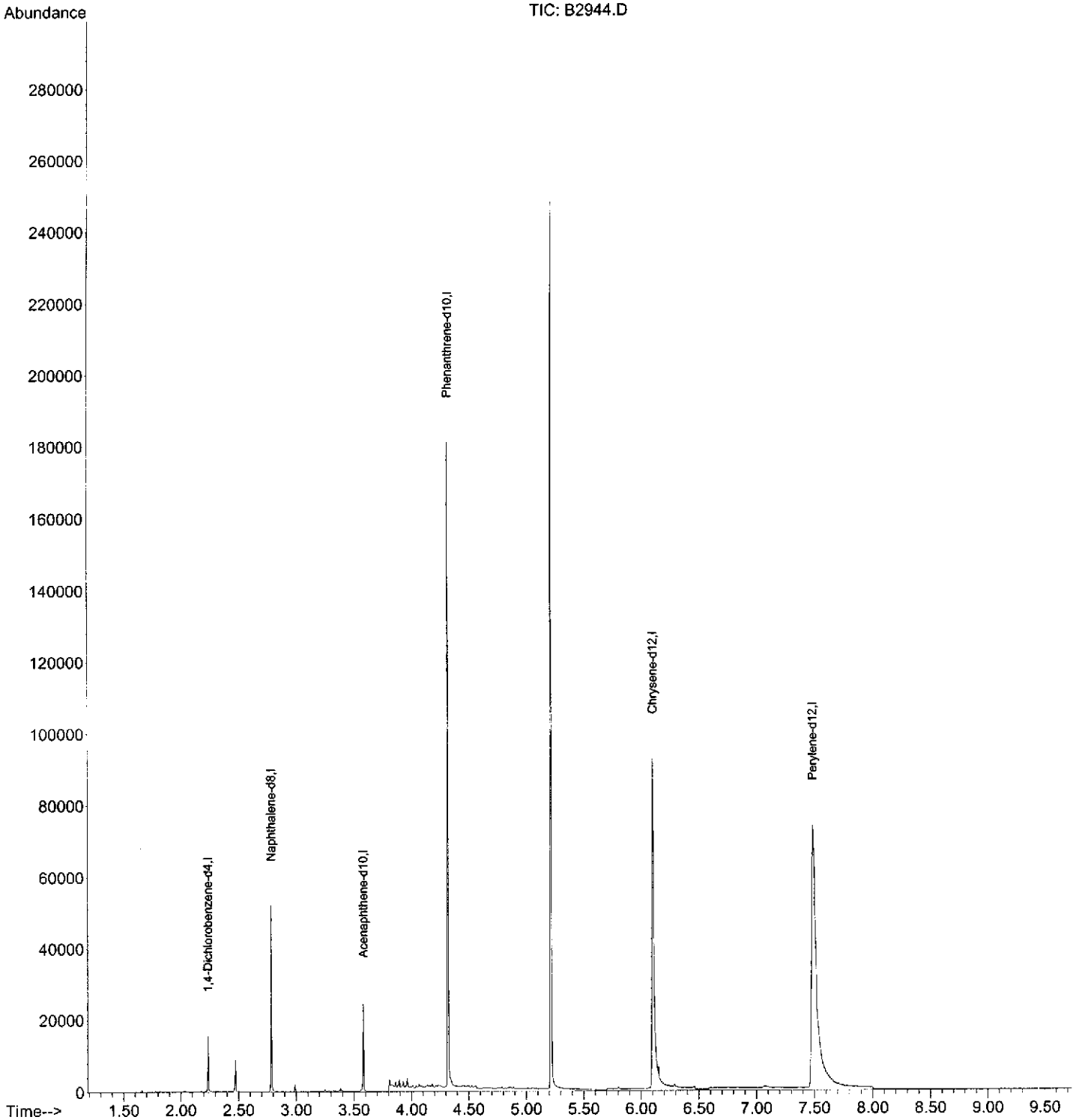
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2944.D
Acq On : 19 Feb 2010 13:00
Operator : JC
Sample : TW2,01419-004,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 22 09:23:10 2010
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jan 28 09:10:05 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Feb 22 13:20:23 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 27 15:03:48 2010
Response via : Initial Calibration

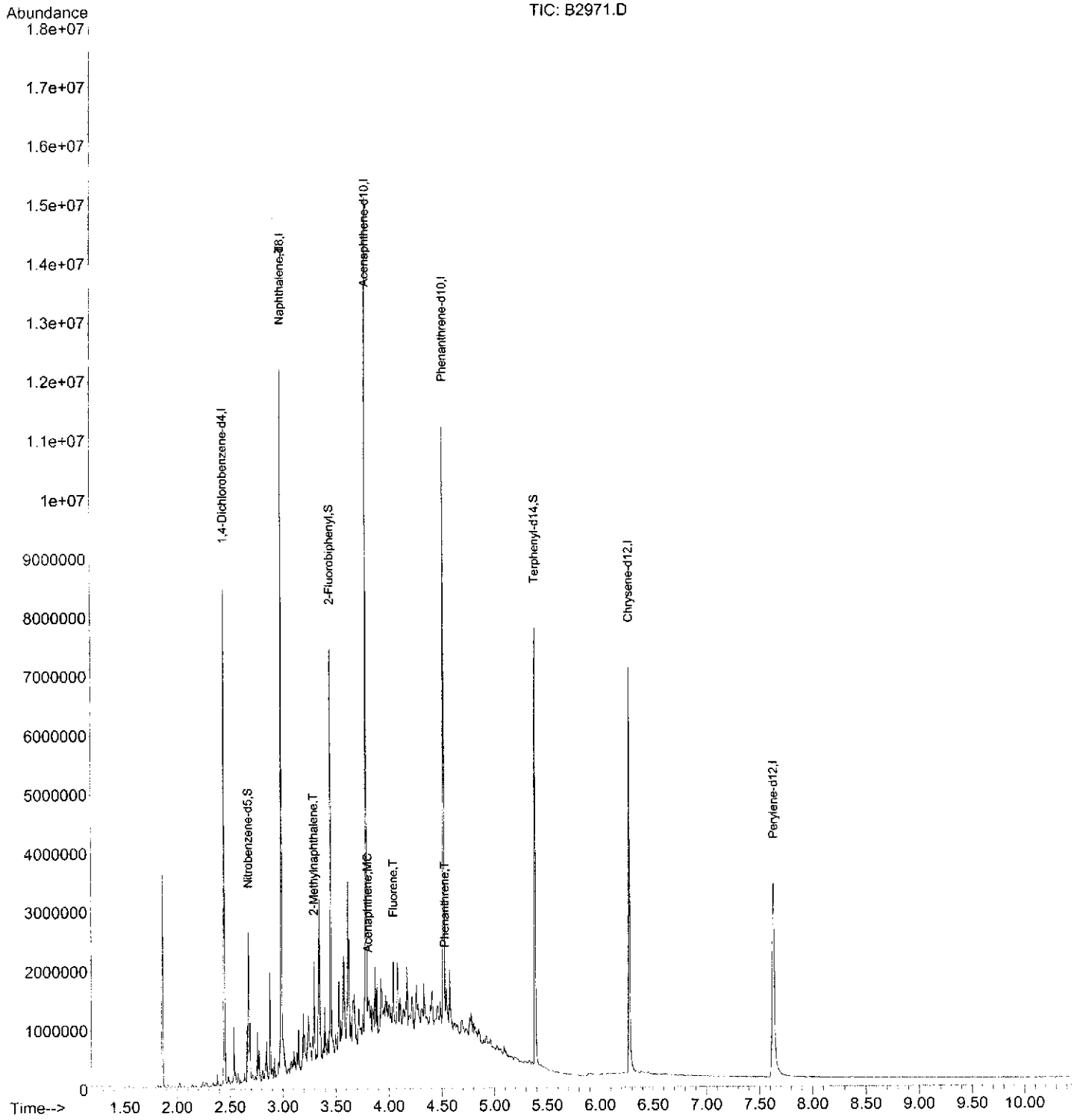
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.45	152	696576	40.00	UG	-0.02
23) Naphthalene-d8	2.99	136	2855899	40.00	UG	-0.02
43) Acenaphthene-d10	3.79	164	1705036	40.00	UG	-0.02
66) Phenanthrene-d10	4.52	188	2725982	40.00	UG	-0.03
82) Chrysene-d12	6.28	240	2274867	40.00	UG	-0.03
92) Perylene-d12	7.63	264	2243514	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 10 - 100		Recovery = 0.00%#			
6) Phenol-d5	2.28	99	937	0.03	UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 0.03%#			
24) Nitrobenzene-d5	2.68	82	530918	24.59	UG	-0.02
Spiked Amount 50.000	Range 27 - 102		Recovery = 49.18%			
47) 2-Fluorobiphenyl	3.45	172	1435129	27.22	UG	-0.02
Spiked Amount 50.000	Range 26 - 101		Recovery = 54.44%			
70) 2,4,6-Tribromophenol	4.17	330	271	0.02	UG	-0.02
Spiked Amount 100.000	Range 22 - 115		Recovery = 0.02%#			
84) Terphenyl-d14	5.39	244	2038575	31.03	UG	-0.03
Spiked Amount 50.000	Range 23 - 124		Recovery = 62.06%			
Target Compounds						Qvalue
34) Naphthalene	3.00	128	105921	1.52	UG	# 67
41) 2-Methylnaphthalene	3.30	142	219879	4.67	UG	99
55) Acenaphthene	3.80	153	50818	1.17	UG	# 82
61) Fluorene	4.04	166	48439	0.92	UG	# 78
75) Phenanthrene	4.53	178	54224	0.81	UG	# 73

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Feb 22 13:20:23 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 27 15:03:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BW0310.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.864	125	128	130	rBV	3614002	2014525	28.86%	2.680%
2	2.446	235	237	241	rVB	8413900	3951260	56.61%	5.256%
3	2.537	251	254	255	rBV	958397	410735	5.88%	0.546%
4	2.574	259	261	264	rVB2	207931	161683	2.32%	0.215%
5	2.676	276	280	285	rBV3	2543279	2499454	35.81%	3.325%
6	2.761	294	296	298	rBV	826521	419186	6.01%	0.558%
7	2.777	298	299	302	rVB	585619	245289	3.51%	0.326%
8	2.804	302	304	308	rBV4	199333	190025	2.72%	0.253%
9	2.847	308	312	313	rBV4	644512	447870	6.42%	0.596%
10	2.879	316	318	320	rBV	1771381	868346	12.44%	1.155%
11	2.900	320	322	324	rVB3	194899	154846	2.22%	0.206%
12	2.921	324	326	328	rBV	360236	183406	2.63%	0.244%
13	2.964	332	334	335	rBV2	251426	194116	2.78%	0.258%
14	2.975	335	336	337	rBV	487792	305079	4.37%	0.406%
15	2.991	337	339	341	rVB	11394545	5457933	78.19%	7.260%
16	3.076	353	355	357	rBV2	222676	222663	3.19%	0.296%
17	3.135	364	366	368	rBV2	307741	223578	3.20%	0.297%
18	3.151	368	369	372	rVB	693212	306749	4.39%	0.408%
19	3.194	372	377	380	rBV2	972455	951190	13.63%	1.265%
20	3.242	383	386	388	rBV4	767320	727945	10.43%	0.968%
21	3.285	392	394	395	rBV	422376	290872	4.17%	0.387%
22	3.295	395	396	399	rVB	1683660	767800	11.00%	1.021%
23	3.349	401	406	410	rVB4	2712230	2336008	33.47%	3.108%
24	3.386	410	413	414	rBV3	200991	154964	2.22%	0.206%
25	3.397	414	415	419	rVB3	811155	449389	6.44%	0.598%
26	3.424	419	420	422	rBV2	290135	158791	2.27%	0.211%
27	3.440	422	423	424	rBV	446375	252173	3.61%	0.335%
28	3.450	424	425	428	rVB	6590161	3558299	50.98%	4.733%
29	3.498	432	434	438	rBV5	323186	267653	3.83%	0.356%
30	3.530	438	440	442	rBV	1171871	749269	10.73%	0.997%
31	3.573	444	448	452	rBV3	1405426	1380929	19.78%	1.837%
32	3.616	452	456	460	rBV	2669219	2265202	32.45%	3.013%
33	3.643	460	461	463	rVB2	339555	166639	2.39%	0.222%
34	3.664	463	465	466	rBV	704700	633675	9.08%	0.843%
35	3.717	473	475	478	rBV3	609071	563033	8.07%	0.749%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 Area counts
Start Thrs: 0.001 Max Peaks: 7
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\BW0310.M
Title : BNA CALIBRATION METHOD

36	3.755	480	482	483	rBV	358322	190720	2.73%	0.254%
37	3.787	483	488	490	rBV	14143896	6865713	98.36%	9.133%
38	3.835	495	497	498	rVB2	450166	247306	3.54%	0.329%
39	3.851	498	500	502	rBV3	388803	356039	5.10%	0.474%
40	3.872	502	504	505	rBV	1018295	476155	6.82%	0.633%
41	3.888	505	507	509	rVB	881059	477351	6.84%	0.635%
42	3.926	512	514	518	rBV2	844102	864555	12.39%	1.150%
43	3.968	521	522	524	rBV	372144	228417	3.27%	0.304%
44	4.043	533	536	540	rVB	1049305	614244	8.80%	0.817%
45	4.081	541	543	546	rVB2	1004367	715165	10.25%	0.951%
46	4.107	546	548	551	rVB3	452236	360165	5.16%	0.479%
47	4.139	551	554	557	rBV5	274401	318611	4.56%	0.424%
48	4.171	557	560	562	rVB3	1021855	763646	10.94%	1.016%
49	4.193	562	564	566	rBV2	193582	206302	2.96%	0.274%
50	4.220	567	569	573	rVB3	565512	516060	7.39%	0.686%
51	4.262	573	577	579	rBV2	762394	794594	11.38%	1.057%
52	4.316	584	587	589	rBV3	245399	302025	4.33%	0.402%
53	4.332	589	590	594	rVB2	609165	377583	5.41%	0.502%
54	4.390	599	601	602	rVV	346074	215224	3.08%	0.286%
55	4.412	602	605	607	rVB3	592219	504159	7.22%	0.671%
56	4.460	612	614	617	rVV3	396421	457717	6.56%	0.609%
57	4.487	617	619	621	rVV2	473379	324617	4.65%	0.432%
58	4.519	621	625	628	rVV	10221733	6980049	100.00%	9.285%
59	4.545	628	630	634	rVV3	695738	657452	9.42%	0.875%
60	4.577	634	636	641	rVB	1035035	780615	11.18%	1.038%
61	4.690	654	657	662	rBV5	231579	340598	4.88%	0.453%
62	4.764	669	671	673	rBV2	315505	298815	4.28%	0.398%
63	4.850	685	687	692	rVB2	264555	305803	4.38%	0.407%
64	5.389	784	788	795	rVB	7415726	5074032	72.69%	6.750%
65	6.276	950	954	972	rBV	6888777	5378712	77.06%	7.155%
66	7.633	1201	1208	1223	rBV	3291578	5250159	75.22%	6.984%

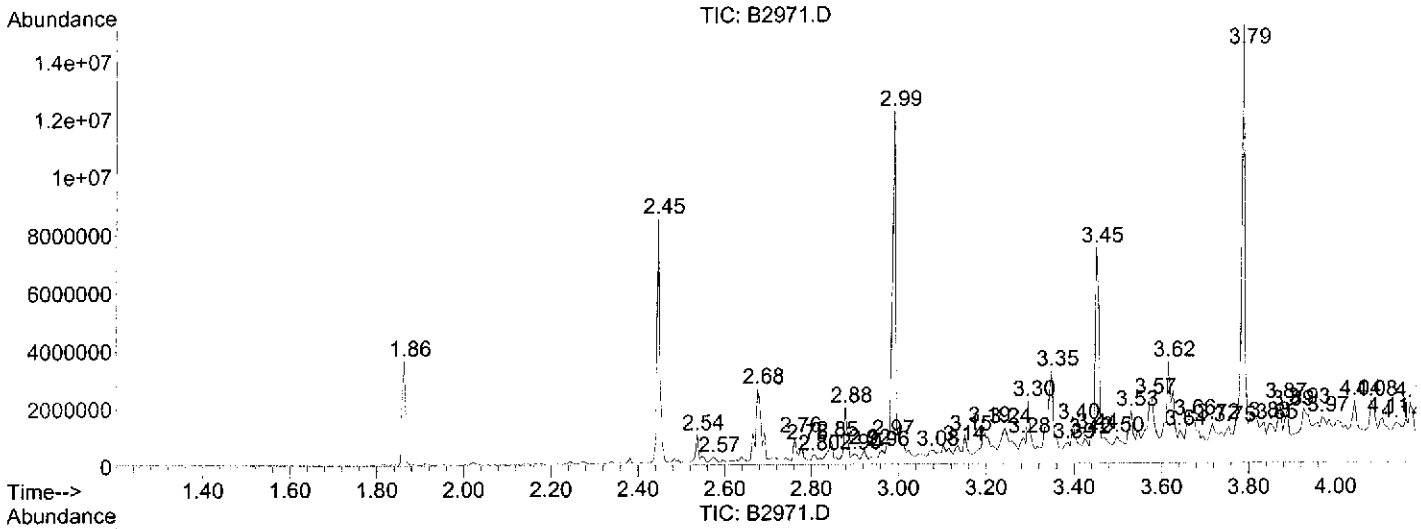
Sum of corrected areas: 75173177

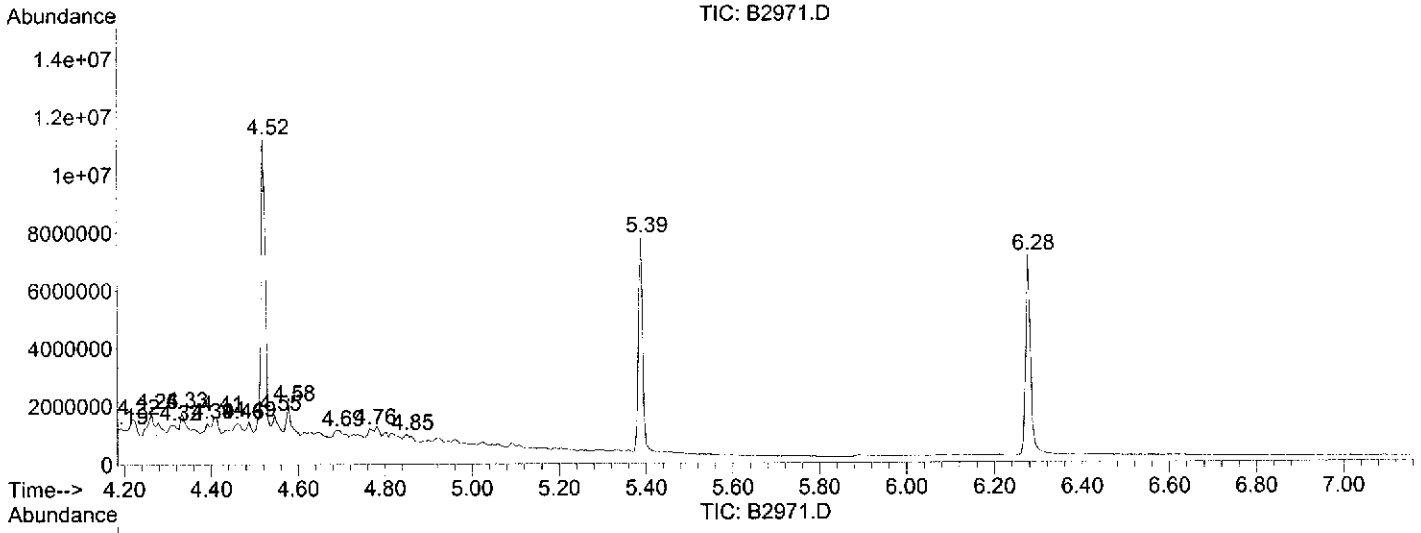
LSC Report - Integrated Chromatogram

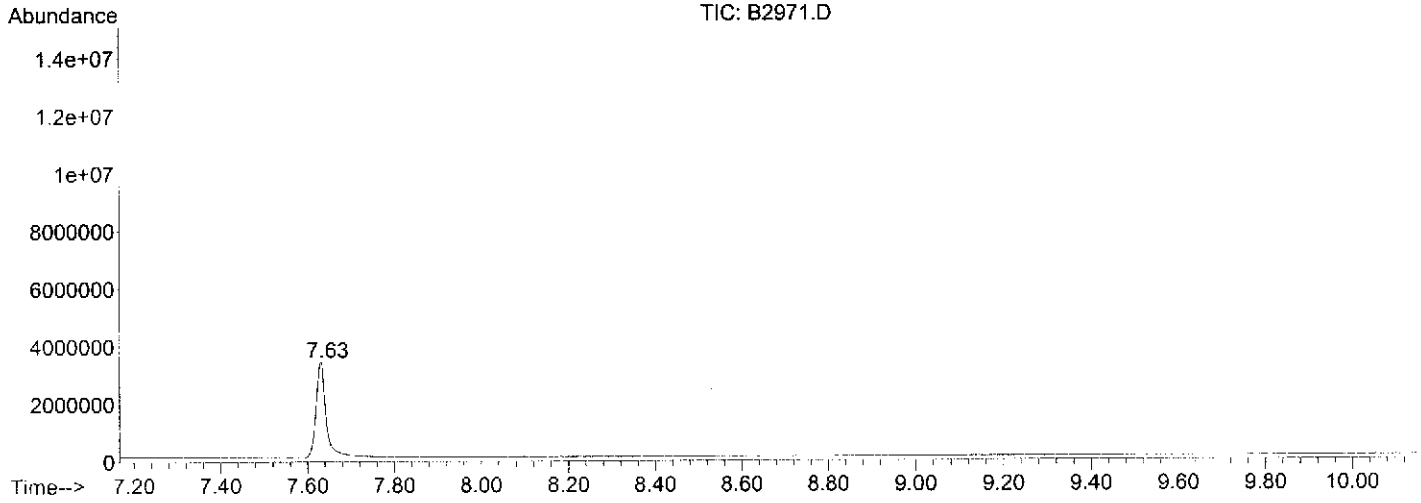
Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

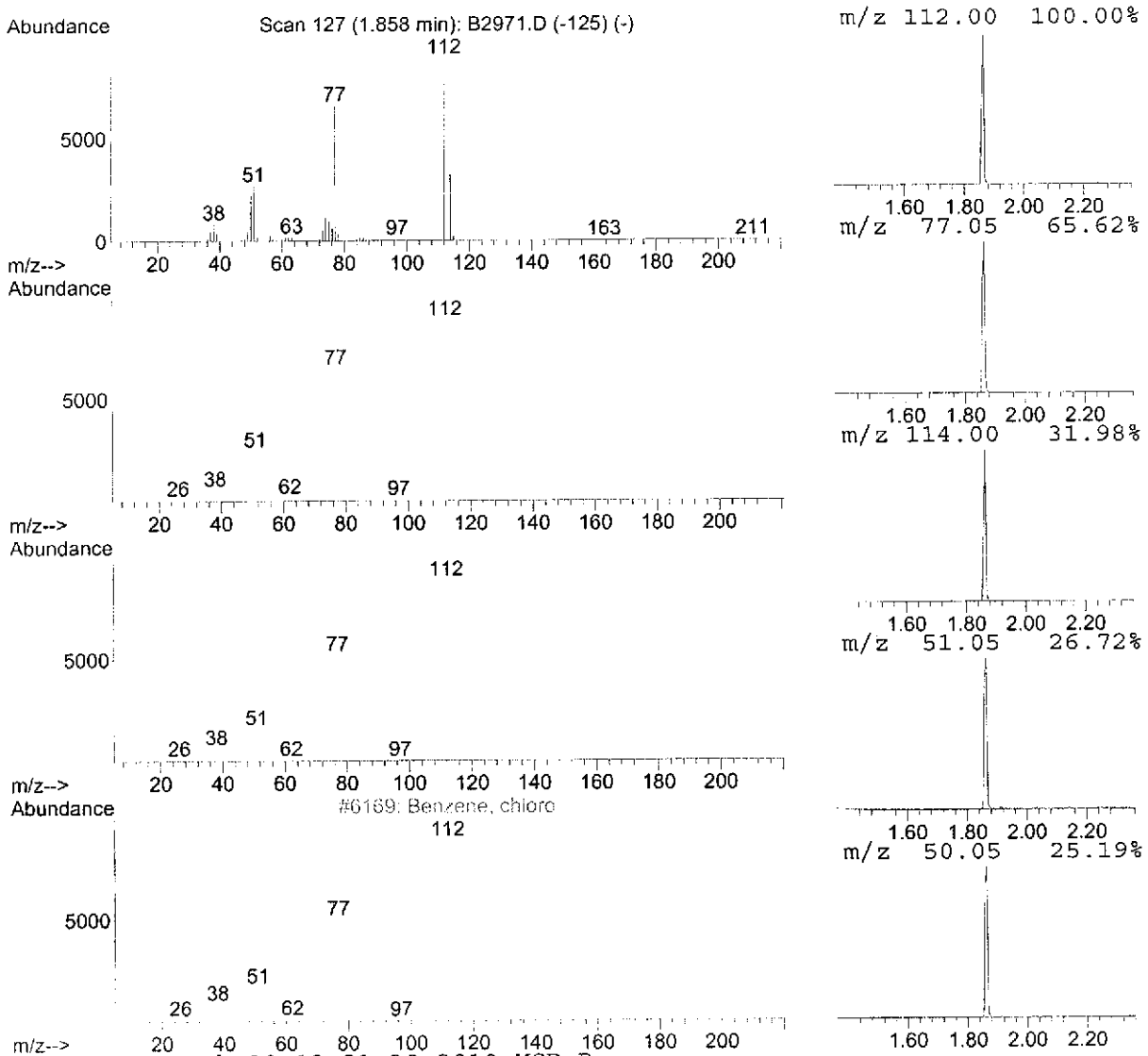
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 1 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.86	20.39 UG	2014530	1,4-Dichlorobenzene-d4	2.45

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, chloro-	112	C6H5Cl	000108-90-7	96
2	Benzene, chloro-	112	C6H5Cl	000108-90-7	95
3	Benzene, chloro-	112	C6H5Cl	000108-90-7	94
4	Benzene, chloro-	112	C6H5Cl	000108-90-7	91
5	Phenol, 4-fluoro-	112	C6H5FO	000371-41-5	23



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

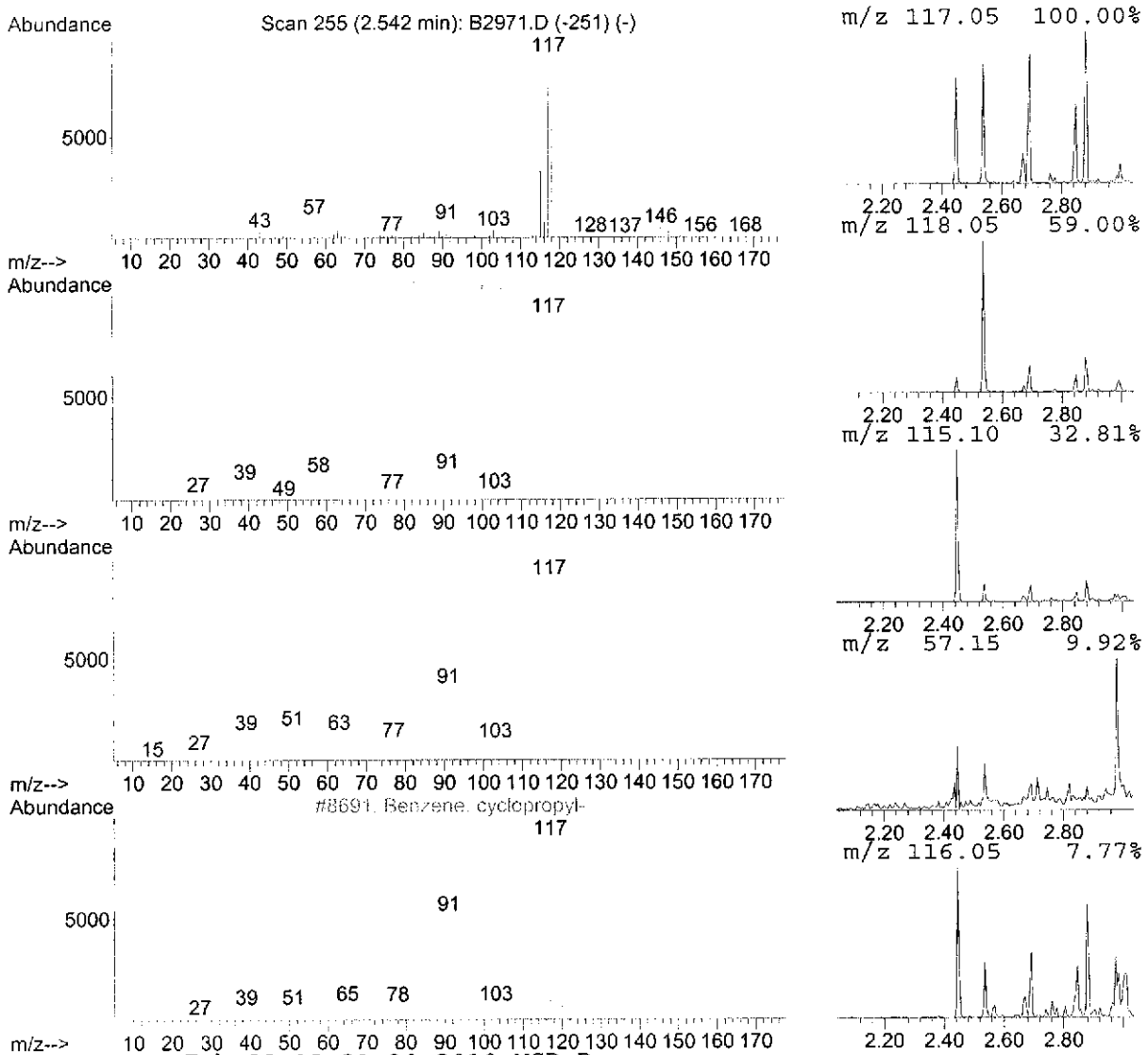
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 2 Unknown aromatic Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.54	4.16 UG	410735	1,4-Dichlorobenzene-d4	2.45

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	90
2	cis-.beta.-Methylstyrene	118	C9H10	000766-90-5	68
3	Benzene, cyclopropyl-	118	C9H10	000873-49-4	64
4	Benzene, cyclopropyl-	118	C9H10	000873-49-4	64
5	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	59



Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

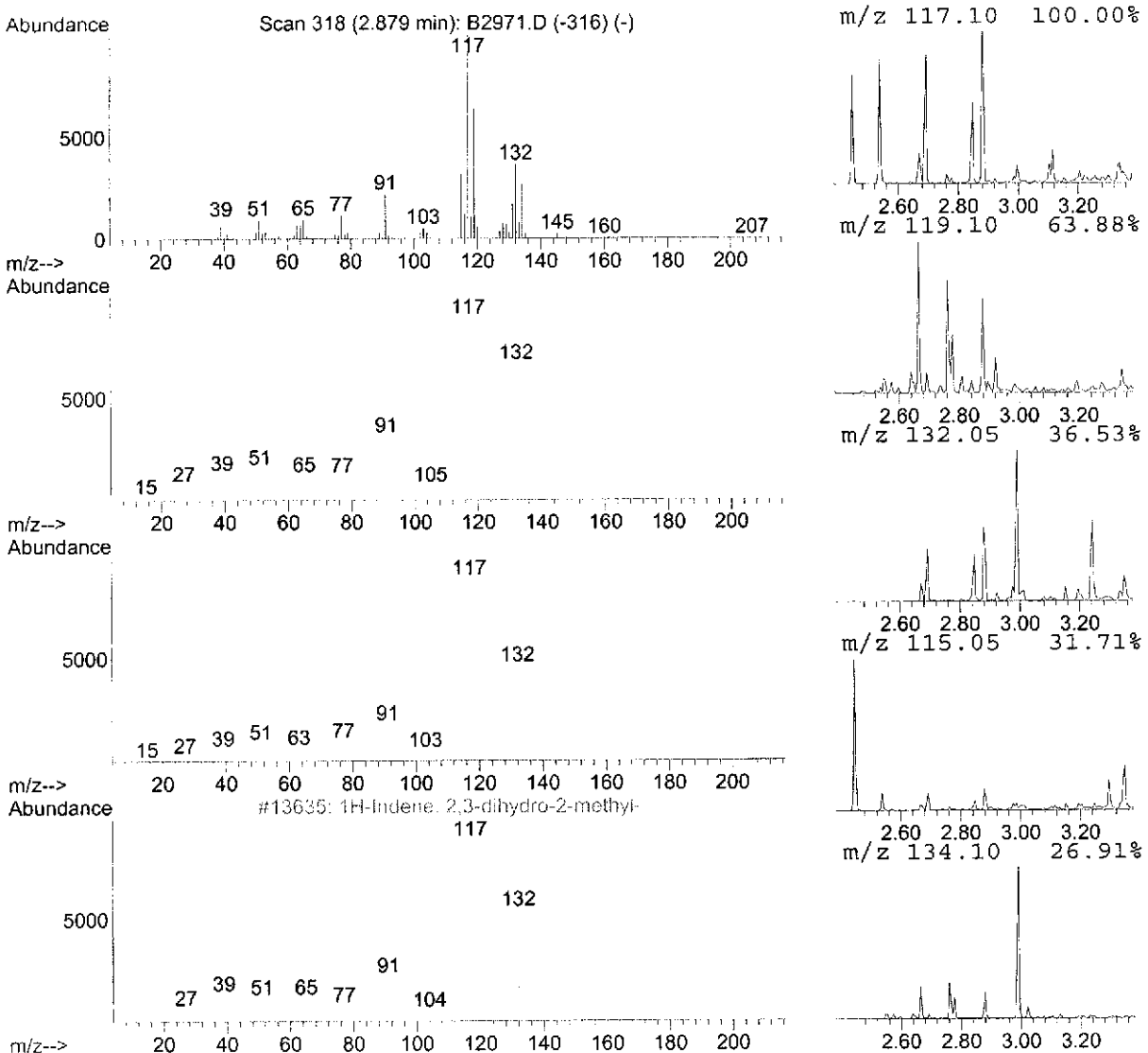
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 3 Substituted benzene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.88	6.36 UG	868346	Naphthalene-d8	2.99

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethenyl-1,4-dimethyl-	132	C10H12	002039-89-6	95
2	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	70
3	1H-Indene, 2,3-dihydro-2-methyl-	132	C10H12	000824-63-5	70
4	1-Phenyl-1-butene	132	C10H12	000824-90-8	70
5	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	70



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

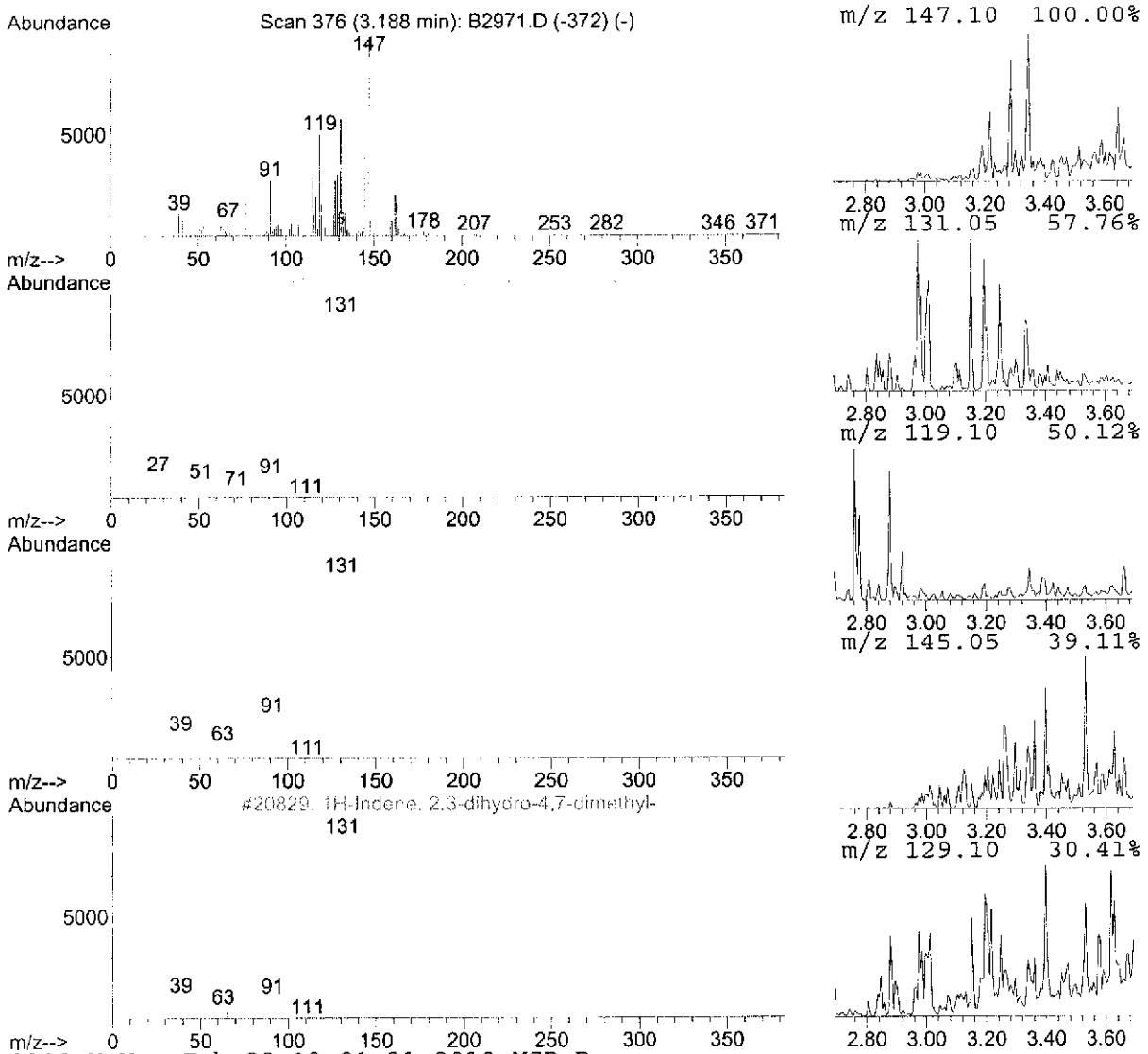
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 4 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.19	6.97 UG	951190	Naphthalene-d8	2.99

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	95
2	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	76
3	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	76
4	1H-Indene, 2,3-dihydro-5,6-dimet...	146	C11H14	001075-22-5	70
5	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	70



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

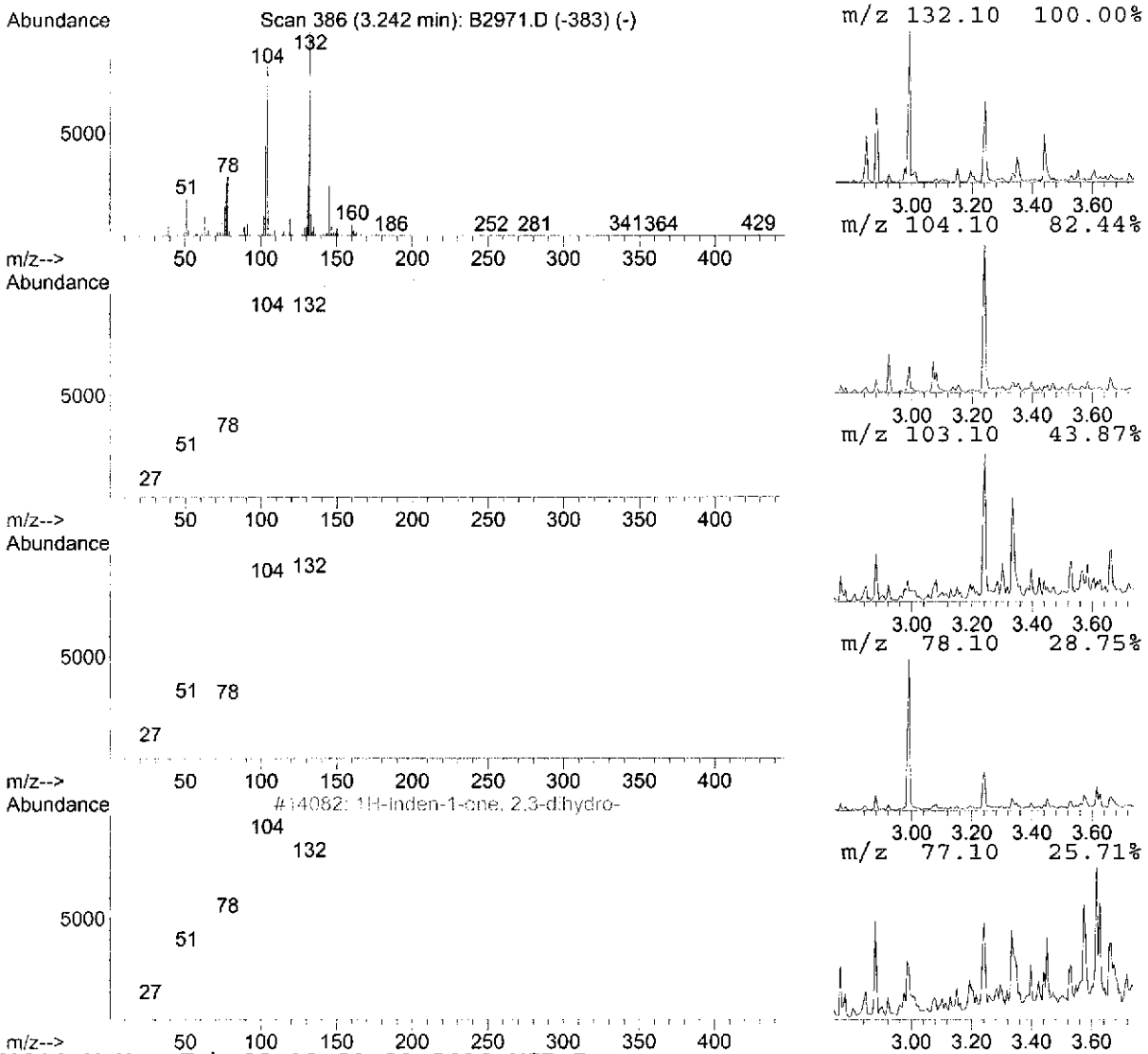
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 5 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.24	5.33 UG	727945	Naphthalene-d8	2.99

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Inden-1-one, 2,3-dihydro-	132	C9H8O	000083-33-0	98
2	1H-Inden-1-one, 2,3-dihydro-	132	C9H8O	000083-33-0	93
3	1H-Inden-1-one, 2,3-dihydro-	132	C9H8O	000083-33-0	91
4	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	64
5	Isoquinoline, 1,2,3,4-tetrahydro-	133	C9H11N	000091-21-4	59



Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

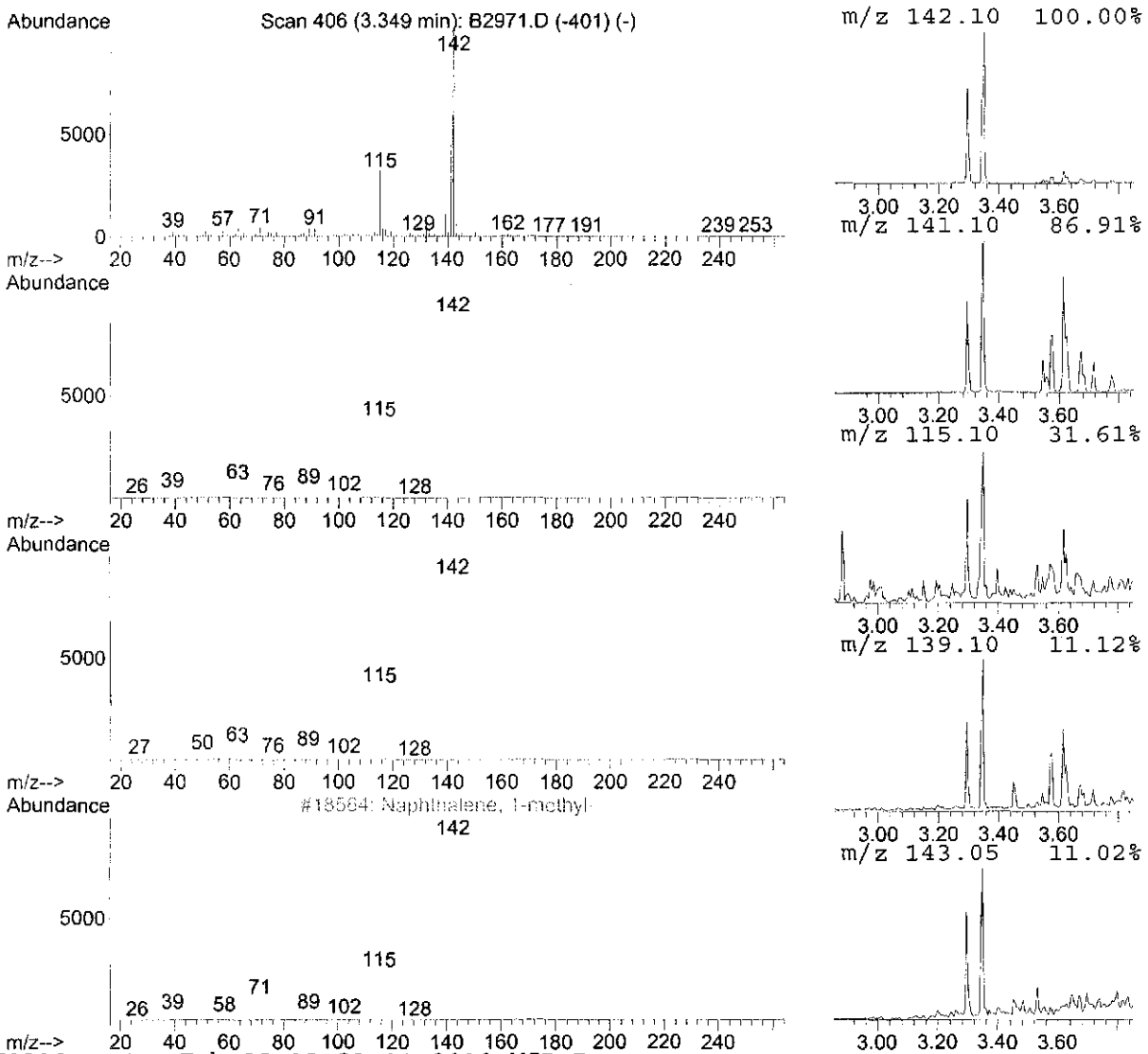
Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****
Peak Number 6 Substituted naphthalene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.35	17.12 UG	2336010	Naphthalene-d8	2.99

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	95
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
5	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	91



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

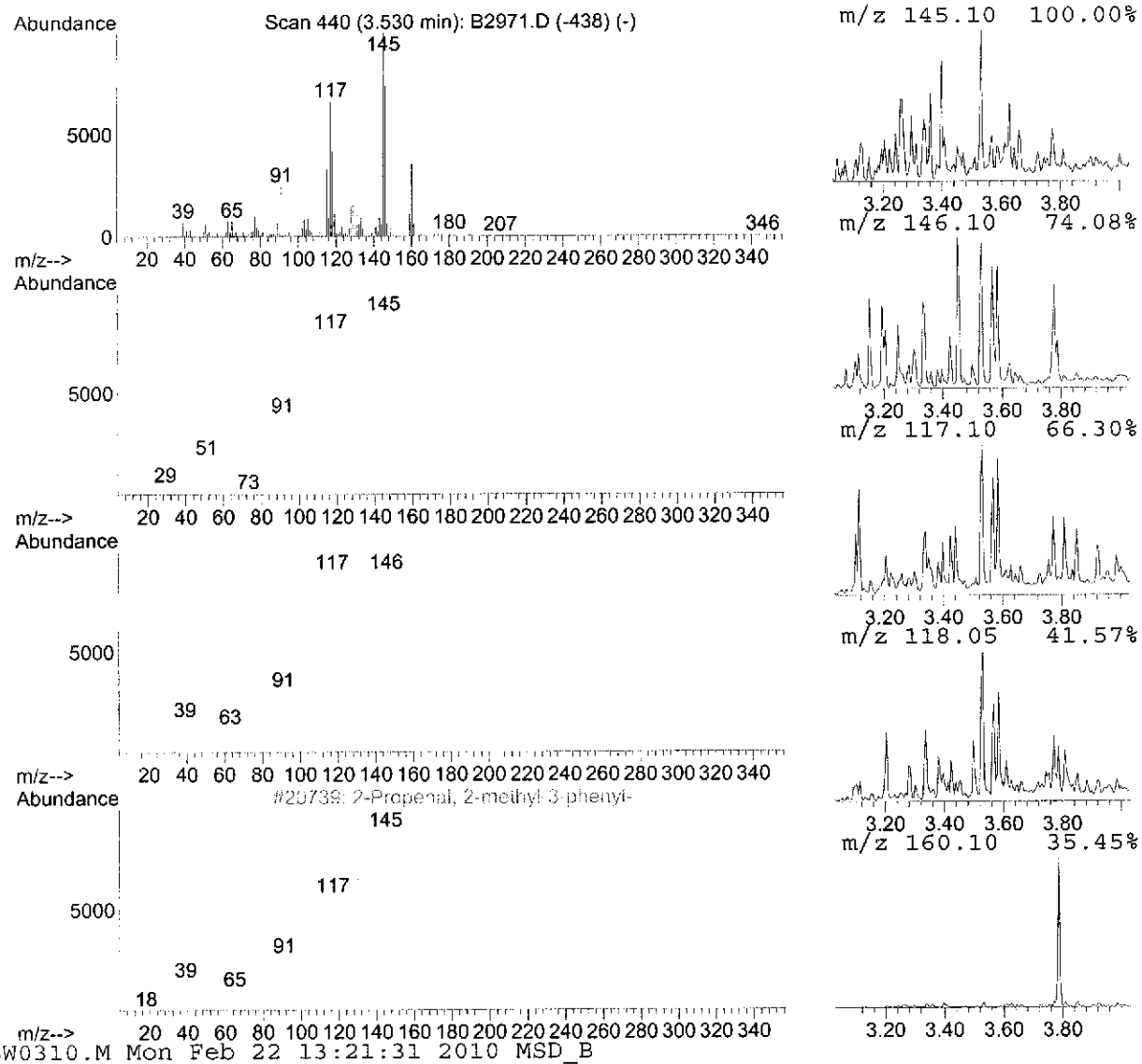
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 7 Unknown aromatic Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.53	4.37 UG	749269	Acenaphthene-d10	3.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Propenal, 2-methyl-3-phenyl-	146	C10H10O	000101-39-3	62
2	7-Methylindan-1-one	146	C10H10O	039627-61-7	60
3	2-Propenal, 2-methyl-3-phenyl-	146	C10H10O	000101-39-3	58
4	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	001076-61-5	55
5	Benzene, 1-(2-butenyl)-2,3-dimet...	160	C12H16	054340-85-1	46



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

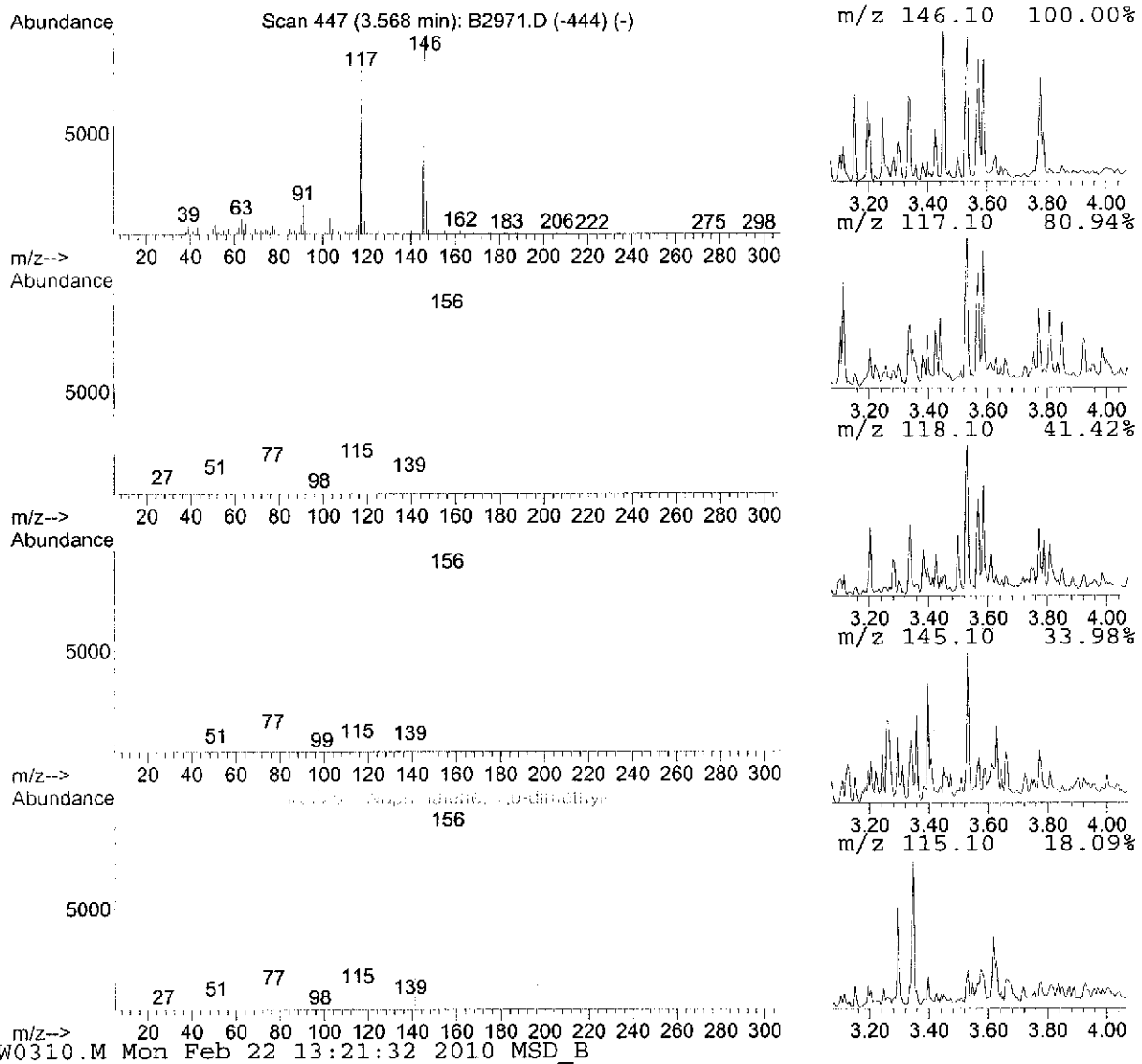
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 8 Substituted naphthalene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.57	8.05 UG	1380930	Acenaphthene-d10	3.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,6-dimethyl-	156	C12H12	000581-42-0	98
2	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
3	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	97
4	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
5	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	97



Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

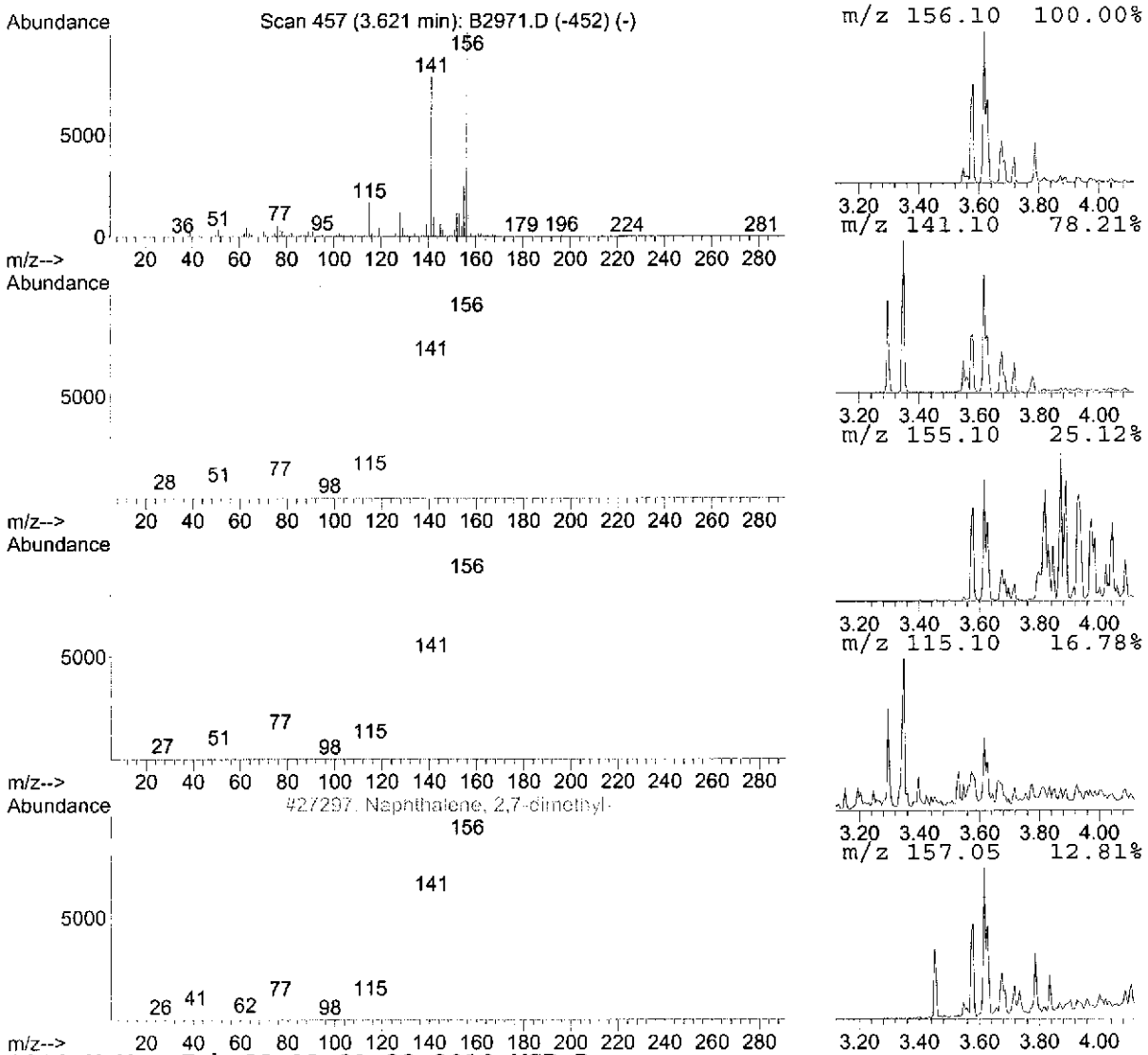
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 9 Substituted naphthalene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.62	13.20 UG	2265200	Acenaphthene-d10	3.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	97
2	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
3	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
4	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	97
5	Naphthalene, 1,3-dimethyl-	156	C12H12	000575-41-7	97



Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

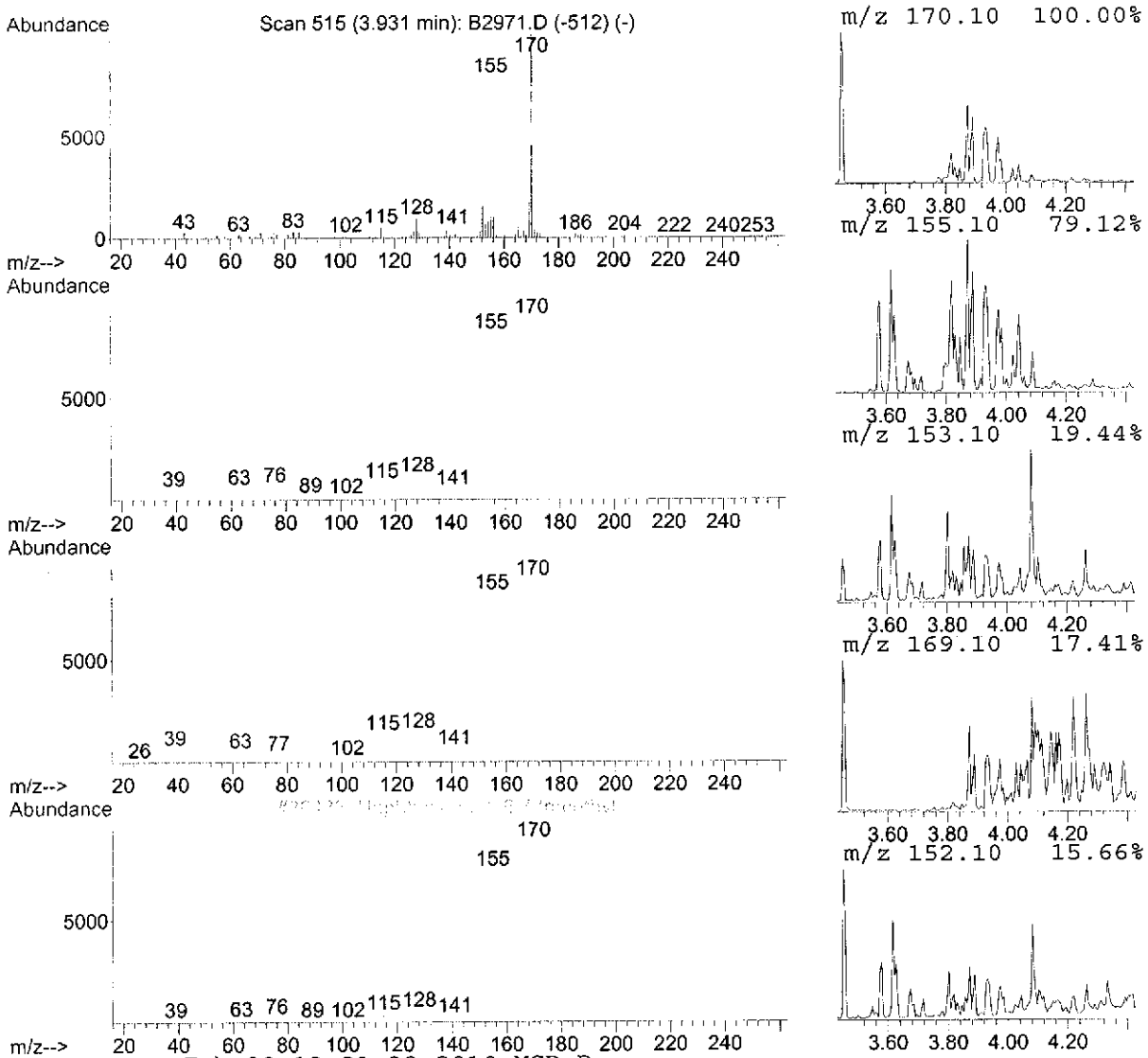
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 10 Substituted naphthalene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.93	5.04 UG	864555	Acenaphthene-d10	3.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	97
2	Azulene, 4,6,8-trimethyl-	170	C13H14	000941-81-1	96
3	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	96
4	Naphthalene, 1,6,7-trimethyl-	170	C13H14	002245-38-7	96
5	Naphthalene, 2,3,6-trimethyl-	170	C13H14	000829-26-5	96



Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

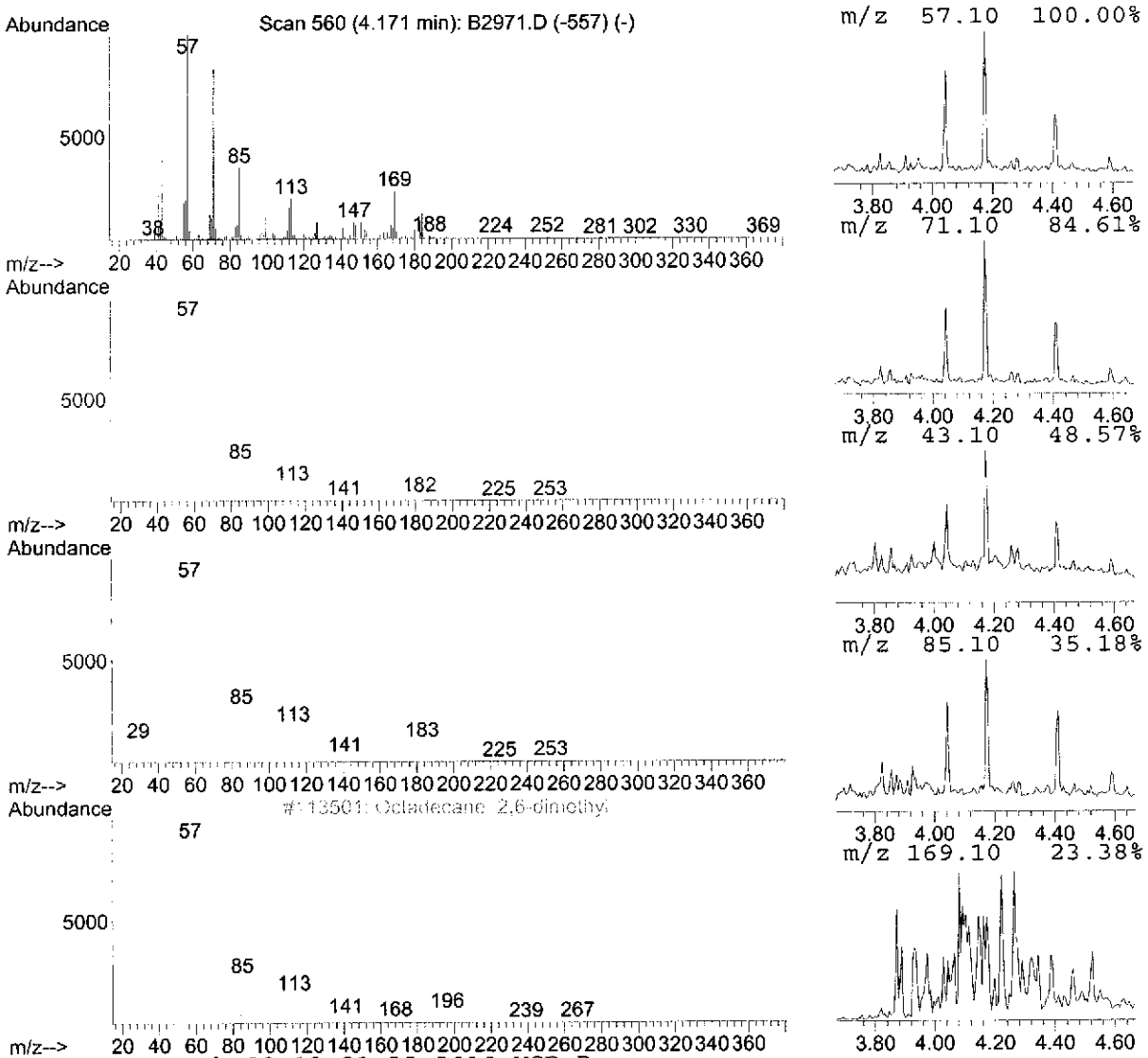
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 11 Unknown alkane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.17	4.38 UG	763646	Phenanthrene-d10	4.52

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecane, 2,6-dimethyl-	268	C19H40	054105-67-8	95
2	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40	001921-70-6	90
3	Octadecane, 2,6-dimethyl-	282	C20H42	075163-97-2	72
4	Sulfurous acid, 2-ethylhexyl oct...	446	C26H54O3S	1000309-20-1	64
5	Tridecane, 5-propyl-	226	C16H34	055045-11-9	62



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2971.D
Acq On : 19 Feb 2010 19:46
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

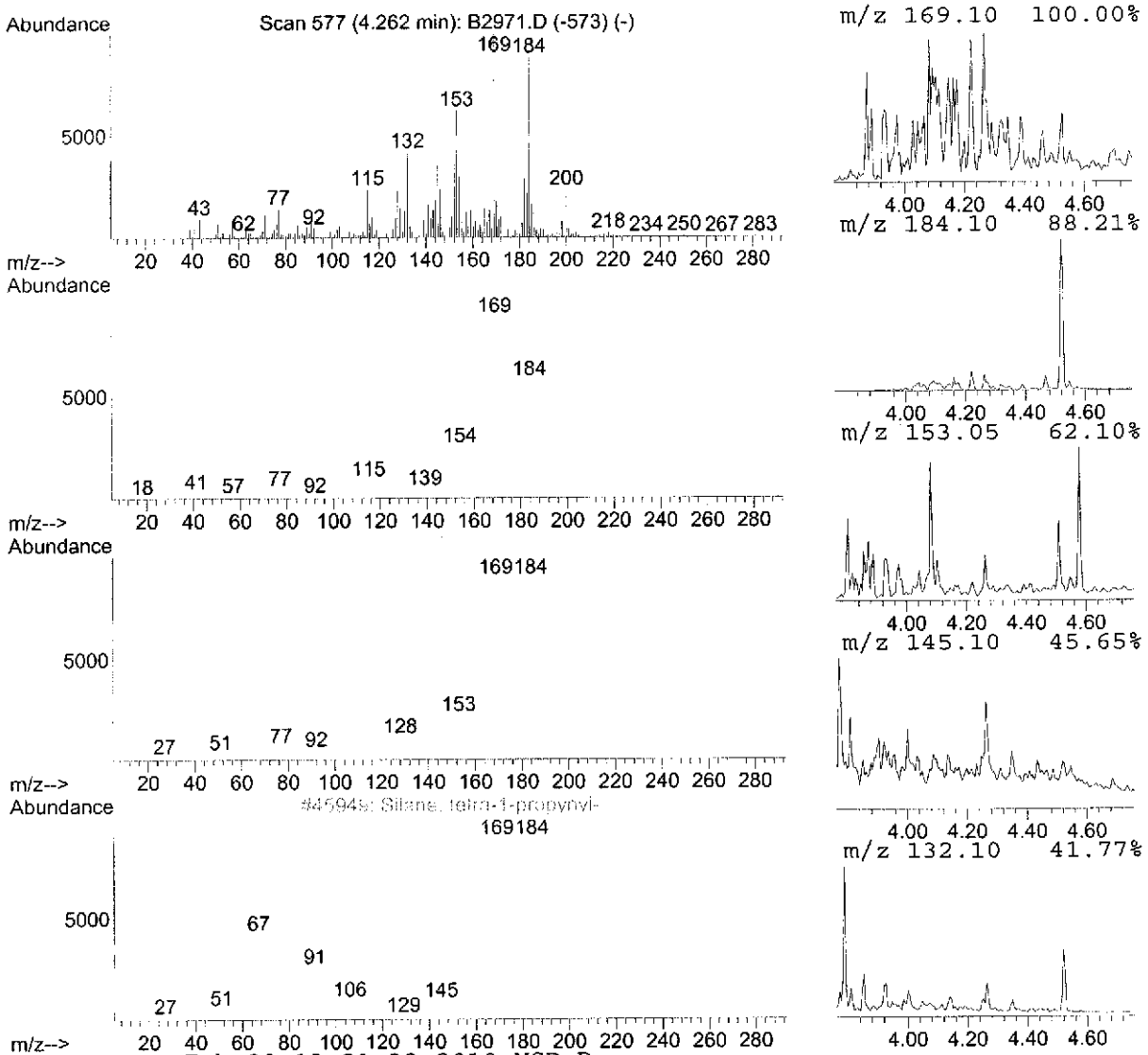
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

****

Peak Number 12 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.26	4.55 UG	794594	Phenanthrene-d10	4.52

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-7-(1-methy...	184	C14H16	000490-65-3	62
2	Azulene, 7-ethyl-1,4-dimethyl-	184	C14H16	000529-05-5	55
3	Silane, tetra-1-propynyl-	184	C12H12Si	020143-21-9	50
4	Bicyclo[3.3.0]octa-2,6-diene-2,7...	184	C12H12N2	1000142-21-8	46
5	Cyclopentene, 1,2-dimethyl-4-met...	184	C14H16	1000152-22-4	46



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2945.D
Acq On : 19 Feb 2010 13:14
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 22 06:11:10 2010
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jan 28 09:10:05 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.24	152	6865m	1.00	UG	0.00
23) Naphthalene-d8	2.78	136	21265	1.00	UG	0.00
43) Acenaphthene-d10	3.58	164	19068	1.00	UG	0.00
66) Phenanthrene-d10	4.32	188	100674	1.00	UG	0.00
82) Chrysene-d12	6.12	240	130498m	1.00	UG	0.03
92) Perylene-d12	7.47	264	308228	1.00	UG	0.00

System Monitoring Compounds						
4) 2-Fluorophenol		0.00	112	0d	0.00	UG
Spiked Amount	1.000	Range 40 - 140		Recovery =	0.00%#	
6) Phenol-d5		0.00	99	0	0.00	UG
Spiked Amount	1.000	Range 40 - 140		Recovery =	0.00%#	
24) Nitrobenzene-d5		0.00	82	0	0.00	UG
Spiked Amount	0.500	Range 40 - 140		Recovery =	0.00%#	
47) 2-Fluorobiphenyl		0.00	172	0	0.00	UG
Spiked Amount	0.500	Range 40 - 140		Recovery =	0.00%#	
70) 2,4,6-Tribromophenol		0.00	330	0	0.00	UG
Spiked Amount	1.000	Range 40 - 140		Recovery =	0.00%#	
84) Terphenyl-d14		0.00	244	0	0.00	UG
Spiked Amount	0.500	Range 40 - 140		Recovery =	0.00%#	

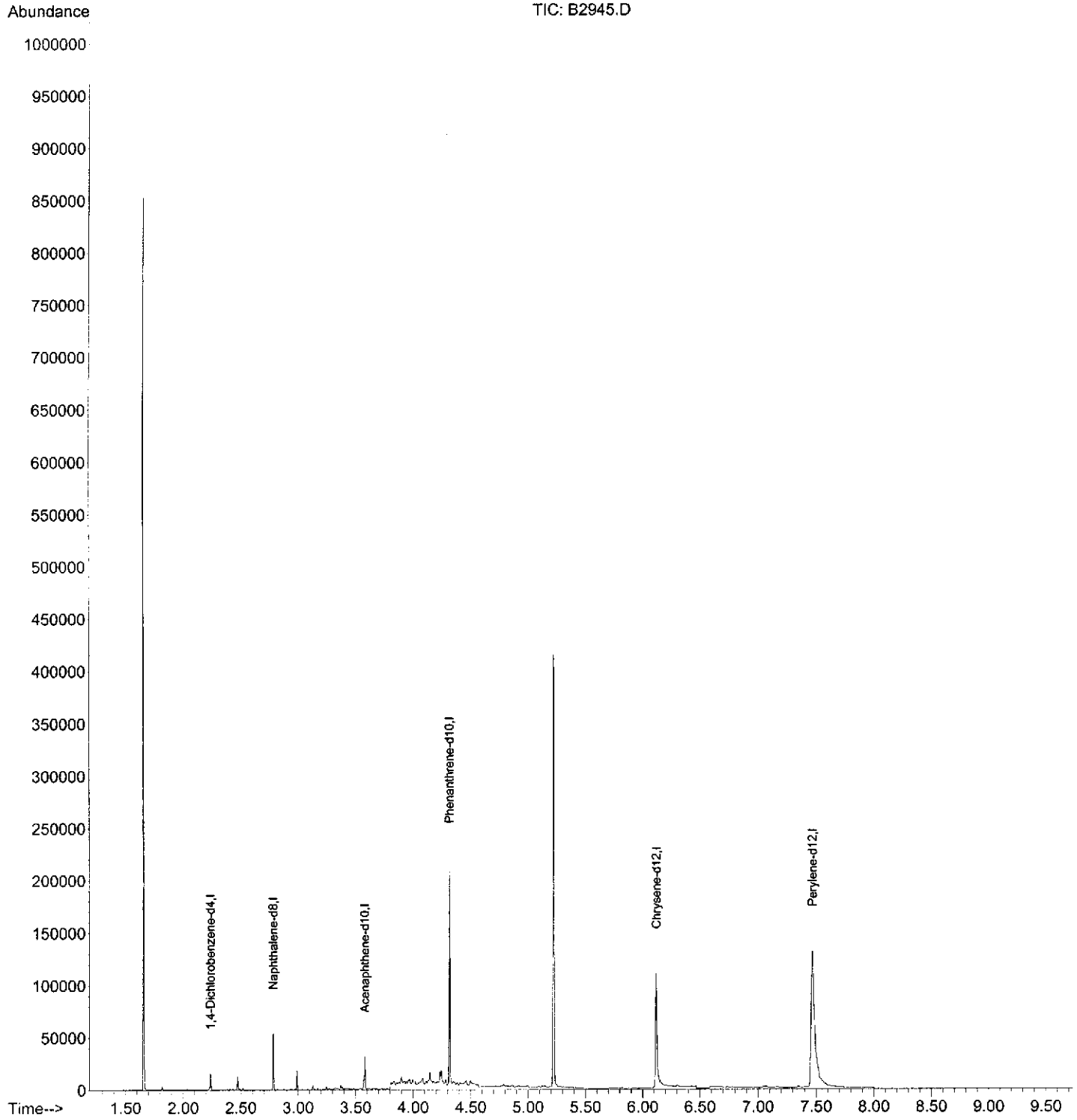
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2945.D
Acq On : 19 Feb 2010 13:14
Operator : JC
Sample : TW3,01419-005,A,1000ml,100,02/18/10
Misc : PENNJERSEY/PALMER,02/16/10,02/16/10,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 22 06:11:10 2010
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jan 28 09:10:05 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2962.D
Acq On : 19 Feb 2010 17:25
Operator : JC
Sample : .,Method_Blank,A,1000ml,100,02/18/10
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 22 13:04:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 27 15:03:48 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.45	152	684553	40.00	UG	-0.02
23) Naphthalene-d8	2.99	136	2703265	40.00	UG	-0.02
43) Acenaphthene-d10	3.80	164	1623666	40.00	UG	0.00
66) Phenanthrene-d10	4.55	188	2537511	40.00	UG	0.00
82) Chrysene-d12	6.31	240	2113841	40.00	UG	0.01
92) Perylene-d12	7.67	264	2116563	40.00	UG	0.03
System Monitoring Compounds						
4) 2-Fluorophenol	1.93	112	1803856	86.32	UG	-0.01
Spiked Amount 100.000	Range 10 - 100		Recovery = 86.32%			
6) Phenol-d5	2.27	99	2121765	78.05	UG	-0.02
Spiked Amount 100.000	Range 10 - 102		Recovery = 78.05%			
24) Nitrobenzene-d5	2.68	82	686763m	33.61	UG	-0.02
Spiked Amount 50.000	Range 27 - 102		Recovery = 67.22%			
47) 2-Fluorobiphenyl	3.46	172	1993131	39.70	UG	-0.01
Spiked Amount 50.000	Range 26 - 101		Recovery = 79.40%			
70) 2,4,6-Tribromophenol	4.19	330	896717	74.70	UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 74.70%			
84) Terphenyl-d14	5.43	244	1911400	31.31	UG	0.02
Spiked Amount 50.000	Range 23 - 124		Recovery = 62.62%			

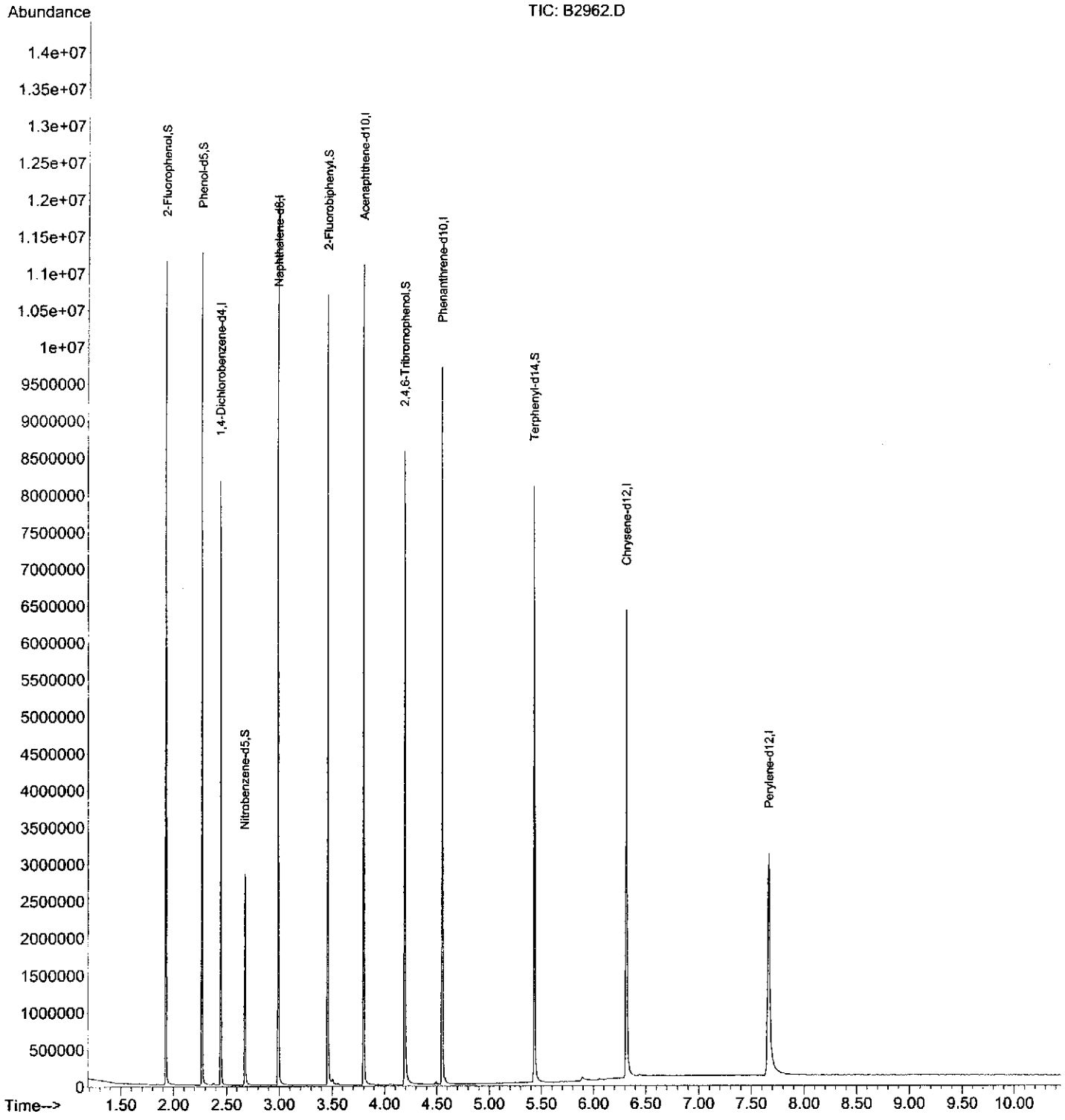
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2962.D
Acq On : 19 Feb 2010 17:25
Operator : JC
Sample : .,Method_Blank,A,1000ml,100,02/18/10
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 22 13:04:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Jan 27 15:03:48 2010
Response via : Initial Calibration



0162

Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2962.D
Acq On : 19 Feb 2010 17:25
Operator : JC
Sample : .,Method_Blank,A,1000ml,100,02/18/10
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW0310.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: Lscint.p

No Library Search Compounds Detected

****

BW0310.M Mon Feb 22 11:16:16 2010 MSD_B

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2935.D
Acq On : 19 Feb 2010 10:51
Operator : JC
Sample : .,Method_Blank,A,1000ml,100,02/18/10
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 19 11:19:26 2010
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jan 28 09:10:05 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.24	152	8180m	1.00	UG	0.00
23) Naphthalene-d8	2.79	136	22110	1.00	UG	0.00
43) Acenaphthene-d10	3.63	164	12648	1.00	UG	0.05
66) Phenanthrene-d10	4.43	188	86067	1.00	UG	0.12
82) Chrysene-d12	6.25	240	327948	1.00	UG	0.17
92) Perylene-d12	7.66	264	301313	1.00	UG	0.19

System Monitoring Compounds						
4) 2-Fluorophenol		0.00	112	0d	0.00	UG
Spiked Amount	1.000	Range 40 - 140		Recovery =	0.00%#	
6) Phenol-d5		0.00	99	0d	0.00	UG
Spiked Amount	1.000	Range 40 - 140		Recovery =	0.00%#	
24) Nitrobenzene-d5		0.00	82	0	0.00	UG
Spiked Amount	0.500	Range 40 - 140		Recovery =	0.00%#	
47) 2-Fluorobiphenyl		0.00	172	0	0.00	UG
Spiked Amount	0.500	Range 40 - 140		Recovery =	0.00%#	
70) 2,4,6-Tribromophenol		0.00	330	0	0.00	UG
Spiked Amount	1.000	Range 40 - 140		Recovery =	0.00%#	
84) Terphenyl-d14		0.00	244	0	0.00	UG
Spiked Amount	0.500	Range 40 - 140		Recovery =	0.00%#	

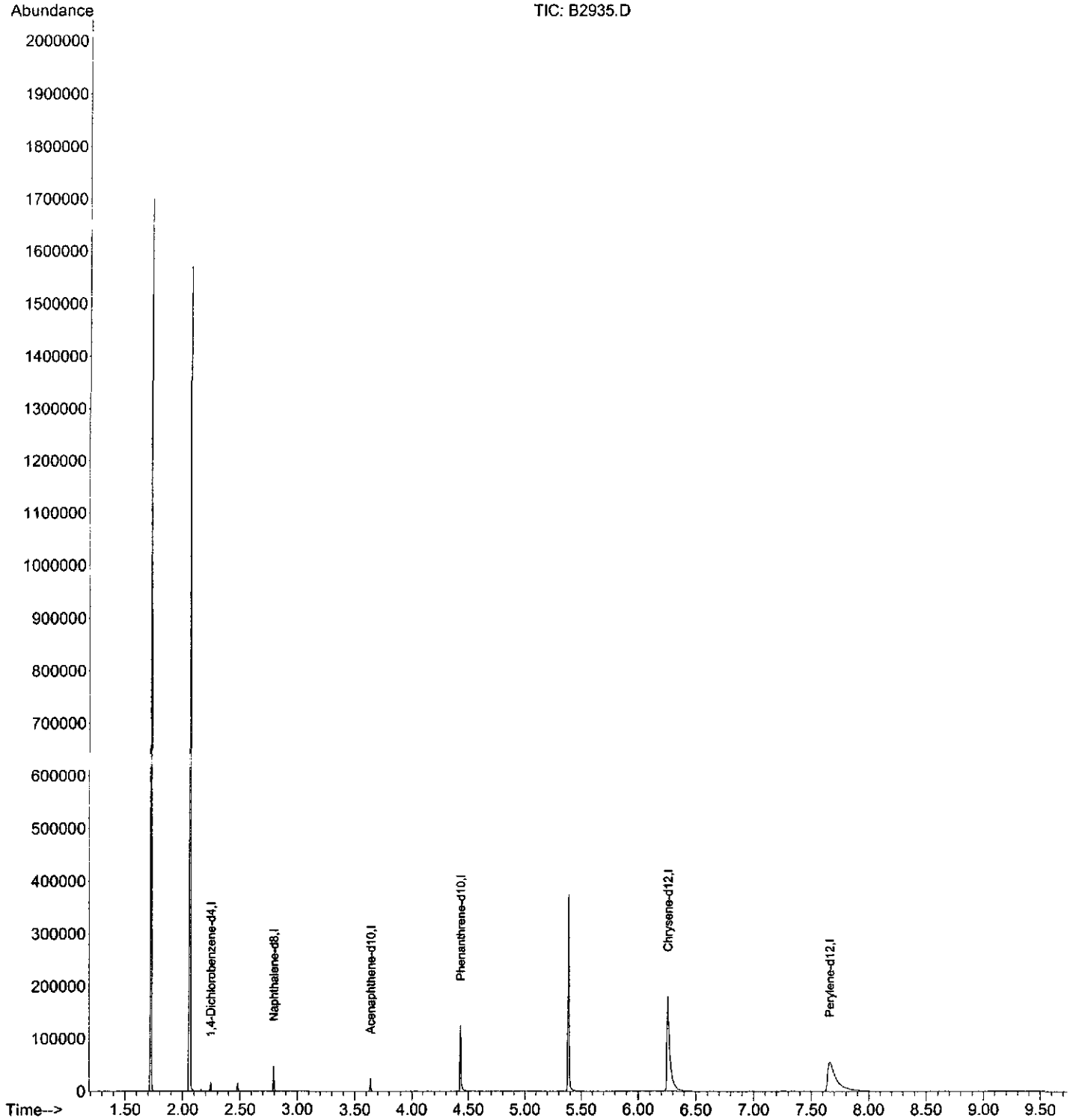
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : B2935.D
Acq On : 19 Feb 2010 10:51
Operator : JC
Sample : .,Method_Blank,A,1000ml,100,02/18/10
Misc : NA,NA,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 19 11:19:26 2010
Quant Method : C:\MSDCHEM\1\METHODS\BSIM0310.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jan 28 09:10:05 2010
Response via : Initial Calibration



METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 069

Associated Lab Case for Blank 1: 01419, 01444, 01450, 01457, 01470, 01526, 01550

Matrix: Aqueous Unit: ppb (µg/L) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	20.0	ND
Antimony	1.00	ND
Arsenic	1.00	ND
Barium	10.0	ND
Beryllium	1.00	ND
Cadmium	0.500	ND
Calcium	100	ND
Chromium	2.00	ND
Cobalt	2.00	ND
Copper	2.00	ND
Iron	50.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	2.00	ND
Mercury	0.300	ND
Nickel	1.00	ND
Potassium	50.0	ND
Selenium	4.00	ND
Silver	0.500	ND
Sodium	100	ND
Thallium	0.500	ND
Vanadium	2.00	ND
Zinc	4.00	ND

Associated Sample for Blank 1:

01419-003; 01444-001~004,006,008~009; 01450-001~004
01457-001~004; 01470-023; 01526-001; 01550-002

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 069
Lab Case: 01470, 01550, 01526, 01419, 01444, 01450, 01457

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	5.00	ND	ND	ND	ND	ND	ND
Antimony	0.250	ND	ND	ND	ND	ND	ND
Arsenic	0.250	ND	ND	ND	ND	ND	ND
Barium	2.50	ND	ND	ND	ND	ND	ND
Beryllium	0.250	ND	ND	ND	ND	ND	ND
Cadmium	0.125	ND	ND	ND	ND	ND	ND
Calcium	25.0	ND	ND	ND	ND	ND	ND
Chromium	0.500	ND	ND	ND	ND	ND	ND
Cobalt	0.500	ND	ND	ND	ND	ND	ND
Copper	0.500	ND	ND	ND	ND	ND	ND
Iron	12.5	ND	ND	ND	ND	ND	ND
Lead	0.125	ND	ND	ND	ND	ND	ND
Magnesium	12.5	ND	ND	ND	ND	ND	ND
Manganese	0.500	ND	ND	ND	ND	ND	ND
Mercury	0.150	ND	ND	ND	ND		
Nickel	0.250	ND	ND	ND	ND	ND	ND
Potassium	12.5	ND	ND	ND	ND	ND	ND
Selenium	1.00	ND	ND	ND	ND	ND	ND
Silver	0.125	ND	ND	ND	ND	ND	ND
Sodium	25.0	ND	ND	ND	ND	ND	ND
Thallium	0.125	ND	ND	ND	ND	ND	ND
Vanadium	0.500	ND	ND	ND	ND	ND	ND
Zinc	1.00	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 069
Lab Case: 01470, 01550, 01526, 01419, 01444, 01450, 01457

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	400	390	97.5	376	94.0	389	97.3	397	99.3
Antimony	0.250	120	123	103	119	99.2	121	101	120	100
Arsenic	0.250	20.0	19.9	99.5	18.9	94.5	19.2	96.0	20.0	100
Barium	2.50	400	392	98.0	386	96.5	383	95.8	385	96.3
Beryllium	0.250	10.0	9.94	99.4	9.62	96.2	9.66	96.6	9.59	95.9
Cadmium	0.125	10.0	10.1	101	9.92	99.2	10.1	101	10.3	103
Calcium	25.0	10000	9980	99.8	9680	96.8	9930	99.3	10100	101
Chromium	0.500	20.0	19.6	98.0	18.9	94.5	19.2	96.0	19.6	98.0
Cobalt	0.500	100	99.1	99.1	95.7	95.7	97.8	97.8	98.5	98.5
Copper	0.500	50.0	47.3	94.6	45.2	90.4	46.3	92.6	47.4	94.8
Iron	12.5	200	198	99.0	190	95.0	195	97.5	197	98.5
Lead	0.125	10.0	10.2	102	9.98	99.8	9.98	99.8	10.1	101
Magnesium	12.5	10000	9640	96.4	9290	92.9	9700	97.0	9920	99.2
Manganese	0.500	30.0	29.8	99.3	28.6	95.3	29.4	98.0	30.1	100
Mercury	0.150	5.00	4.84	96.8	4.91	98.2	4.97	99.4	4.89	97.8
Nickel	0.250	80.0	76.5	95.6	74.6	93.3	75.5	94.4	76.3	95.4
Potassium	12.5	10000	9830	98.3	9620	96.2	9700	97.0	9950	99.5
Selenium	1.00	10.0	9.88	98.8	9.46	94.6	9.30	93.0	10.3	103
Silver	0.125	20.0	19.2	96.0	19.1	95.5	19.1	95.5	19.3	96.5
Sodium	25.0	10000	9780	97.8	9520	95.2	9880	98.8	10000	100
Thallium	0.125	20.0	19.3	96.5	19.0	95.0	19.0	95.0	19.3	96.5
Vanadium	0.500	100	103	103	99.0	99.0	101	101	102	102
Zinc	1.00	40.0	38.3	95.8	37.1	92.8	38.1	95.3	38.8	97.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 069
Lab Case: 01470, 01550, 01526, 01419, 01444, 01450, 01457

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	FOUND	% R	FOUND	% R
Aluminum	5.00	400	379	94.8	362	90.5				
Antimony	0.250	120	121	101	124	103				
Arsenic	0.250	20.0	18.6	93.0	18.1	90.5				
Barium	2.50	400	388	97.0	403	101				
Beryllium	0.250	10.0	9.39	93.9	9.94	99.4				
Cadmium	0.125	10.0	10.1	101	10.4	104				
Calcium	25.0	10000	9720	97.2	9350	93.5				
Chromium	0.500	20.0	18.4	92.0	18.8	94.0				
Cobalt	0.500	100	93.5	93.5	91.0	91.0				
Copper	0.500	50.0	46.8	93.6	45.8	91.6				
Iron	12.5	200	187	93.5	181	90.5				
Lead	0.125	10.0	10.1	101	10.2	102				
Magnesium	12.5	10000	9430	94.3	9030	90.3				
Manganese	0.500	30.0	28.3	94.3	27.5	91.7				
Nickel	0.250	80.0	72.2	90.3	74.0	92.5				
Potassium	12.5	10000	9420	94.2	9180	91.8				
Selenium	1.00	10.0	9.17	91.7	9.61	96.1				
Silver	0.125	20.0	19.0	95.0	19.6	98.0				
Sodium	25.0	10000	9410	94.1	9240	92.4				
Thallium	0.125	20.0	19.0	95.0	19.5	97.5				
Vanadium	0.500	100	97.2	97.2	94.9	94.9				
Zinc	1.00	40.0	36.5	91.3	37.3	93.3				

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 069
Lab Case: 01470, 01550, 01526, 01419, 01444, 01450, 01457

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	101000	102000	102	NA
Iron	100000	-	96000	97300	97.3	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2160	2150	108	NA
Titanium	2000	-	2060	2060	103	NA
Silver	-	20.0	-	19.0	95.0	80-120
Arsenic	-	20.0	-	21.5	108	80-120
Cadmium	-	20.0	-	20.7	104	80-120
Cobalt	-	20.0	-	21.4	107	80-120
Chromium	-	20.0	-	20.5	103	80-120
Copper	-	20.0	-	20.5	103	80-120
Manganese	-	20.0	-	22.1	111	80-120
Nickel	-	20.0	-	20.8	104	80-120
Zinc	-	20.0	-	23.4	117	80-120

%R = Percent Recovery

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 069
Lab Case: 01419, 01444, 01450, 01457, 01470, 01526, 01550

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	376	ND	94.0	400					75-125
Antimony	407	ND	102	400					75-125
Arsenic	388	ND	97.0	400					75-125
Barium	506	121	96.3	400					75-125
Beryllium	379	ND	94.8	400					75-125
Cadmium	378	ND	94.5	400					75-125
Calcium	141000	128000	NC	8000					75-125
Chromium	371	ND	92.8	400					75-125
Cobalt	382	ND	95.5	400					75-125
Copper	373	ND	93.3	400					75-125
Iron	7480	ND	93.5	8000					75-125
Lead	394	ND	98.5	400					75-125
Magnesium	24300	15900	105	8000					75-125
Manganese	378	ND	94.5	400					75-125
Mercury	10.0	ND	100	10.0					75-125
Nickel	378	ND	94.5	400					75-125
Potassium	12900	5160	96.8	8000					75-125
Selenium	386	ND	96.5	400					75-125
Silver	328	ND	82.0	400					75-125
Sodium	154000	141000	NC	8000					75-125
Thallium	397	ND	99.3	400					75-125
Vanadium	392	ND	98.0	400					75-125
Zinc	411	31.5	94.9	400					75-125

SSR = Spike Sample Result
SR = Sample Result
SA = Spike Added
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 01470-023
QC Sample 1 for following samples:
01419-003; 01444-001~004,006,008~009; 01450-001~004
01457-001~004; 01470-023; 01526-001; 01550-002

QC Sample 2 _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 069
Lab Case: 01419, 01444, 01450, 01457, 01470, 01526, 01550

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	NA	ND	ND	NC				
Antimony	NA	ND	ND	NC				
Arsenic	NA	ND	ND	NC				
Barium	20	121	121	0				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Calcium	20	128000	132000	3.08				
Chromium	NA	ND	ND	NC				
Cobalt	NA	ND	ND	NC				
Copper	NA	ND	ND	NC				
Iron	NA	ND	ND	NC				
Lead	NA	ND	ND	NC				
Magnesium	20	15900	16300	2.48				
Manganese	NA	ND	ND	NC				
Mercury	NA	ND	ND	NC				
Nickel	NA	ND	ND	NC				
Potassium	20	5160	5280	2.30				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	20	141000	143000	1.41				
Thallium	NA	ND	ND	NC				
Vanadium	NA	ND	ND	NC				
Zinc	20	31.5	30.1	4.55				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 01470-023
QC Sample 1 for following samples:
01419-003; 01444-001~004,006,008~009; 01450-001~004
01457-001~004; 01470-023; 01526-001; 01550-002

QC Sample 2 _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 069
Lab Case: 01419, 01444, 01450, 01457, 01470, 01526, 01550

Matrix: Aqueous Unit: ppb (µg/L)

ANALYTE	BSW1			BSW2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	400	390	97.5			
Antimony	400	439	110			
Arsenic	400	397	99.3			
Barium	400	424	106			
Beryllium	400	406	102			
Cadmium	400	416	104			
Calcium	8000	7820	97.8			
Chromium	400	386	96.5			
Cobalt	400	401	100			
Copper	400	389	97.3			
Iron	8000	7840	98.0			
Lead	400	425	106			
Magnesium	8000	7730	96.6			
Manganese	400	391	97.8			
Mercury	10.0	10.0	100			
Nickel	400	398	99.5			
Potassium	8000	7940	99.3			
Selenium	400	395	98.8			
Silver	400	367	91.8			
Sodium	8000	7970	99.6			
Thallium	400	413	103			
Vanadium	400	404	101			
Zinc	400	393	98.3			

(1) Control Limits % Recovery = 85-115%

BSW1	BSW2
01419-003; 01444-001~004,006,008~009; 01450-001~004	
01457-001~004; 01470-023; 01526-001; 01550-002	

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 069
Lab Case: 01419, 01444, 01450, 01457, 01470, 01526, 01550

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SERIAL DILUTION SR	SERIAL DILUTION SDR	% Difference	POST SPIKE SPR	POST SPIKE SA	% Recovery
Aluminum	ND			388	400	97.0
Antimony	ND			407	400	102
Arsenic	ND			395	400	98.8
Barium	121			503	400	95.5
Beryllium	ND			387	400	96.8
Cadmium	ND			381	400	95.3
Calcium	128000	132000	3.08			
Chromium	ND			380	400	95.0
Cobalt	ND			389	400	97.3
Copper	ND			377	400	94.3
Iron	ND			7590	8000	94.9
Lead	ND			397	400	99.3
Magnesium	15900	16300	2.48			
Manganese	ND			389	400	97.3
Nickel	ND			385	400	96.3
Potassium	5160	5360	3.80			
Selenium	ND			376	400	94.0
Silver	ND			330	400	82.5
Sodium	141000	149000	5.52			
Thallium	ND			399	400	99.8
Vanadium	ND			404	400	101
Zinc	31.5			418	400	96.6

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 01470-023
QC Sample 1 for following samples:
01419-003; 01444-001~004,006,008~009; 01450-001~004
01457-001~004; 01470-023; 01526-001; 01550-002

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC-PA
Address:	2034 E. WELLINGTON RD NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
EMAIL Address:	PECINC@aol.com
Project Manager:	M. BROGAN
Sampler:	M. BROGAN
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote #:	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE
DRO (3-5 day TAT) QAM025 (5 day TAT min.)
DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax 24 hr* 48 hr* 2 wk/Std 72 hr* 1 wk* — Results needed by: STD
Hard Copy 3 wk/Std — Other *call for price — STD

Rush TAT Charge **: 24 hr - 100%.... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only; Reduced; Regulatory - 15% Surcharge applies; Other (describe)

EDD's: SRP. dbf format; lab approved custom EDD; NO EDD/CD REQ'D

Cooler Temp 4 °C

Sample Matrix: DW - Drinking Water AQ - Aqueous WW - Waste Water OI - Oil LIQ - Liquid (Specify) OT - Other (Specify) S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	VO+10, MTBE TBA	BN+15 SIMS	LEAD							HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
TRIP		2/16/09		AQ	2	1	✓									2							
FIELD		↓	11:15	AQ	2	2	✓									2							
TW1		↓	1:25	GW	3	3	✓		✓							2		1					
TW2		↓	2:40	GW	4	4	✓	✓								2						2	
TW3		↓	3:50	GW	4	5	✓	✓								2						2	

BOTTLES & PRESERVATIVES

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: [signature]	2/16/09	3:55	Received by: X Ryan Zajac/EMC	2/16/09	3:55
Relinquished by: X Ryan Zajac/EMC	2/16/09	1658	Received by: [signature]	2/16/10	1658
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 01419

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

0175

10/2009 rev

PROJECT INFORMATION

E10-01419

Case No. E10-01419 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Mike Brogan	**Received**	2/16/2010 16:58
EMail	pecinc@aol.com;nagorbm@yaho	☑ EMail EDDs	**Verbal Due** 3/2/2010
Phone	(973) 664-1199 **Fax** 1(973)664-1127		**Report Due** 3/9/2010

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Mike Brogan

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Mike Brogan

Report Format **Reduced**

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
01419-001	TRIP	n/a	2/16/2010	Aqueous	ug/L	2
01419-002	FIELD	n/a	2/16/2010@11:15	Aqueous	ug/L	2
01419-003	TW1	n/a	2/16/2010@13:25	Aqueous	ug/L	3
01419-004	TW2	n/a	2/16/2010@14:40	Aqueous	ug/L	4
01419-005	TW3	n/a	2/16/2010@15:50	Aqueous	ug/L	4

Sample #	Tests	Status	QA Method
001	TCL VOA + 10 + TBA	Run	624
002	TCL VOA + 10 + TBA	Run	624
003	TCL VOA + 10 + TBA	Run	624
"	Lead - Pb	Run	6020
004	TCL VOA + 10 + TBA	Run	624
"	TCL BN + 15 + SIMS	Run	8270C SIM
005	TCL VOA + 10 + TBA	Run	624
"	TCL BN + 15 + SIMS	Run	8270C SIM

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **01419** CLIENT: PEC-PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

- ✓ Bottles Intact
- ✓ no-Missing Bottles
- ✓ no-Extra Bottles
- ✓ Sufficient Sample Volume
- ✓ no-headspace/bubbles in VOs
- ✓ Labels intact/correct
- ✓ pH Check (exclude VOs)[1]
- ✓ Correct bottles/preservative
- ✓ Sufficient Holding/Prep Time[1]
- [ ] Sample to be Subcontracted
- ✓ **Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 2/16/10

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE 2/17/10

Laboratory Custody Chronicle

IAL Case No.

E10-01419

Client PennJersey Environmental Consulting

Project PALMER

Received On 2/16/2010@16:58

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VOA + 10 + TBA	01419-001	Aqueous	n/a	n/a	2/22/10	Barbara
"	-002	"	n/a	n/a	2/22/10	Barbara
"	-003	"	n/a	n/a	2/22/10	Barbara
"	-004	"	n/a	n/a	2/23/10	Barbara
"	-005	"	n/a	n/a	2/22/10	Barbara

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL BN + 15 + SIMS	-004	Aqueous	2/18/10	Kou-Liang	2/19/10	JC
"	-005	"	2/18/10	Kou-Liang	2/19/10	JC

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Lead - Pb	-003	Aqueous	2/22/10	Lisa	2/23/10	Wei

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E10-01500**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E10-01500

Client PennJersey Environmental Consulting

Project PALMER

Received On 2/18/2010@15:55

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
01500-001	TP10	6.5/7	2/17/2010@11:00	Soil	1
01500-002	T2-2DEL	6.5/7	2/17/2010@12:15	Soil	1
01500-003	T2-4DEL	7.5/8	2/17/2010@13:30	Soil	1
01500-004	T1-2DEL	5/5.5	2/17/2010@15:00	Soil	1
01500-005	L8-D1	2/2.5	2/18/2010@10:00	Soil	1
01500-006	L8-D2	2/2.5	2/18/2010@10:10	Soil	1
01500-007	L8-D3	2/2.5	2/18/2010@10:20	Soil	1
01500-008	L8-D4	2/2.5	2/18/2010@10:30	Soil	1
01500-009	L5-D1	2.92/3.42	2/18/2010@11:10	Soil	1
01500-010	L5-D2	2.92/3.42	2/18/2010@13:20	Soil	1
01500-011	L5-D3	2.92/3.42	2/18/2010@13:30	Soil	1
01500-012	L5-D4	2.92/3.42	2/18/2010@11:15	Soil	1
01500-013	L4-D1	3.17/3.67	2/18/2010@11:45	Soil	1
01500-014	L4-D2	3.17/3.67	2/18/2010@11:55	Soil	1
01500-015	L4-D3	3.17/3.67	2/18/2010@11:00	Soil	1
01500-016	L4-D4	3.17/3.67	2/18/2010@12:05	Soil	1

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received sixteen (16) soil sample(s) from PennJersey Environmental Consulting (Project: PALMER) on February 18, 2010 for the analysis of:

(15) TPH-DRO-72 HR
(1) TPH-QAM025

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Regina Shadis
Reviewed by

02/25/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E10-01500

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - Miscellaneous
Including Hydrocarbons, Metabolic Acids, and Gas Screens

Lab Case Number: E09 - 01500

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids.		
5.	Surrogate Recoveries meet criteria (if applicable) If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓
	A. Hydrocarbons:		
	B. Gas Screens:		
	C. Metabolic Acids:		

Comments:

TPH- QAM025

Organic Manager

04/23/2010
Date

rev 01/09

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - Miscellaneous
Including Hydrocarbons, Metabolic Acids, and Gas Screens

Lab Case Number: E10 - 01500

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. Standards Summary submitted.		✓
3. Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
5. Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
6. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
7. Retention Time Shift Meet Criteria (if applicable).		✓
8. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		
9. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓
A. Hydrocarbons:		
B. Gas Screens:		
C. Metabolic Acids:		

Comments:
TPH - DRO

Organic Manager

02-22-10
Date

rev 01/10

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E10-01500

	Lab ID:	01500-001			01500-002			01500-003			01500-004		
	Client ID:	TP10			T2-2DEL			T2-4DEL			T1-2DEL		
	Depth:	6.5/7			6.5/7			7.5/8			5/5.5		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	2/17/10			2/17/10			2/17/10			2/17/10		
PARAMETER(Units)		Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
Hydrocarbons (Units)					*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO		~		~	ND		92.0	1160		87.3	ND		92.1
Hydrocarbons (Units)		*(mg/Kg-ppm)*											
Total TPHC		28400		1020	~		~	~		~	~		~

	Lab ID:	01500-005			01500-006			01500-007			01500-008		
	Client ID:	L8-D1			L8-D2			L8-D3			L8-D4		
	Depth:	2/2.5			2/2.5			2/2.5			2/2.5		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	2/18/10			2/18/10			2/18/10			2/18/10		
PARAMETER(Units)		Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO		8430		412	6660		406	419		76.3	ND		84.0

	Lab ID:	01500-009			01500-010			01500-011			01500-012		
	Client ID:	L5-D1			L5-D2			L5-D3			L5-D4		
	Depth:	2.92/3.42			2.92/3.42			2.92/3.42			2.92/3.42		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	2/18/10			2/18/10			2/18/10			2/18/10		
PARAMETER(Units)		Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO		15700		860	1110		91.8	15200		937	22600		941

	Lab ID:	01500-013			01500-014			01500-015			01500-016		
	Client ID:	L4-D1			L4-D2			L4-D3			L4-D4		
	Depth:	3.17/3.67			3.17/3.67			3.17/3.67			3.17/3.67		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	2/18/10			2/18/10			2/18/10			2/18/10		
PARAMETER(Units)		Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO		ND		83.3	43600		2460	13600		451	688		87.7

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: PENNJERSEY/PALMER

Lab ID: 01500-001
Client ID: TP10/6.5
Date Received: 02/18/2010
Date Extracted: 02/19/2010
Date Analyzed: 02/22/2010
Data file: Z8715.D

GC Column: DB-5
Sample wt/vol: 10.14g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 10
% Moisture: 53.8

Compound	Concentration	Q	RL	MDL
Total TPHC	28400		1020	128

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-002	GC Column:	DB-5
Client ID:	T2-2DEL	Sample wt/vol:	10.09g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	1
Date Analyzed:	02/22/2010	%Moisture:	19.2
Data File:	Q9035.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		92.0	73.6

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-003	GC Column:	DB-5
Client ID:	T2-4DEL	Sample wt/vol:	10.49g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	1
Date Analyzed:	02/22/2010	%Moisture:	18.1
Data File:	Q9036.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	1,160		87.3	69.8

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-004	GC Column:	DB-5
Client ID:	T1-2DEL	Sample wt/vol:	10.14g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	1
Date Analyzed:	02/22/2010	%Moisture:	19.7
Data File:	Q9037.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		92.1	73.7

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-005	GC Column:	DB-5
Client ID:	L8-D1	Sample wt/vol:	10.01g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	5
Date Analyzed:	02/22/2010	%Moisture:	9.10
Data File:	Q9038.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	8,430		412	330

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-006	GC Column:	DB-5
Client ID:	L8-D2	Sample wt/vol:	10.43g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	5
Date Analyzed:	02/22/2010	%Moisture:	11.4
Data File:	Q9039.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	6,660		406	325

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-007	GC Column:	DB-5
Client ID:	L8-D3	Sample wt/vol:	10.15g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	1
Date Analyzed:	02/19/2010	%Moisture:	3.10
Data File:	Q8932.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	419		76.3	61.0

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-008	GC Column:	DB-5
Client ID:	L8-D4	Sample wt/vol:	10.79g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	1
Date Analyzed:	02/22/2010	%Moisture:	17.3
Data File:	Q9040.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		84.0	67.2

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-009	GC Column:	DB-5
Client ID:	L5-D1	Sample wt/vol:	10.58g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	10
Date Analyzed:	02/22/2010	%Moisture:	17.6
Data File:	Q9041.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	15,700		860	688

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-010	GC Column:	DB-5
Client ID:	L5-D2	Sample wt/vol:	10.34g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	1
Date Analyzed:	02/22/2010	%Moisture:	21.0
Data File:	Q9042.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	1,110		91.8	73.5

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-011	GC Column:	DB-5
Client ID:	L5-D3	Sample wt/vol:	10.13g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	10
Date Analyzed:	02/22/2010	%Moisture:	21.0
Data File:	Q9043.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	15,200		937	750

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-012	GC Column:	DB-5
Client ID:	L5-D4	Sample wt/vol:	10.31g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	10
Date Analyzed:	02/22/2010	%Moisture:	22.7
Data File:	Q9044.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	22,600		941	753

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-013	GC Column:	DB-5
Client ID:	L4-D1	Sample wt/vol:	10.49g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	1
Date Analyzed:	02/22/2010	%Moisture:	14.2
Data File:	Q9045.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		83.3	66.7

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-014	GC Column:	DB-5
Client ID:	L4-D2	Sample wt/vol:	10.25g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	20
Date Analyzed:	02/22/2010	%Moisture:	40.5
Data File:	Q9046.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	43,600		2460	1970

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-015	GC Column:	DB-5
Client ID:	L4-D3	Sample wt/vol:	10.31g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	5
Date Analyzed:	02/22/2010	%Moisture:	19.3
Data File:	Q9047.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	13,600		451	361

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	01500-016	GC Column:	DB-5
Client ID:	L4-D4	Sample wt/vol:	10.48g
Date Received:	02/18/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	1
Date Analyzed:	02/22/2010	%Moisture:	18.4
Data File:	Q9048.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	688		87.7	70.2

NJ-QAM-25 METHOD BLANK SUMMARY

Lab File ID: Z8609.D

Instrument ID: GC-Z

Date Extracted: 02/18/2010

Matrix: SOIL

Date Analyzed: 02/18/2010

Time Analyzed: 11:41

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
QAM	QBS0218-MS02	02/18/2010	11:57
WO-1/6.5	01451-001	02/18/2010	12:12
WO-2/6.5	01451-002	02/18/2010	12:27
WO-3/6.5	01451-003	02/18/2010	12:58
WO-4/6.5	01451-004	02/18/2010	13:13
WO-5/8-8	01451-005	02/18/2010	13:44
WO-6/8-8	01451-006	02/18/2010	14:00
PR-1/2.5	01451-007	02/18/2010	14:15
QAM	01451-007-MS02	02/18/2010	14:31
QAM	01451-007-MSD02	02/18/2010	14:46

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: NA

Lab ID: 0218-BLK02
Client ID: QAM
Date Received: NA
Date Extracted: 02/18/2010
Date Analyzed: 02/18/2010
Data file: Z8609.D

GC Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	RL	MDL
Total TPHC	ND		16.0	2.00

0024

NJ-QAM-25 METHOD BLANK SUMMARY

Lab File ID: Z8688.D

Instrument ID: GC-Z

Date Extracted: 02/19/2010

Matrix: SOIL

Date Analyzed: 02/19/2010

Time Analyzed: 17:29

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SYEX-21/	01484-021	02/19/2010	18:00
SYEX-21/	01484-022	02/19/2010	18:15
SYEX-22/	01484-023	02/19/2010	18:31
SYEX-22/	01484-024	02/19/2010	18:46
SYEX-22/	01484-025	02/19/2010	19:02
SY16-09-	01484-026	02/19/2010	19:17
SY16-09-	01484-027	02/19/2010	19:32
SY16-09-	01484-028	02/19/2010	19:48
QAM	QBS0219-MS04	02/19/2010	20:03
TP10/6.5	01500-001	02/22/2010	17:48

INTEGRATED ANALYTICAL LABORATORIES

TPH-QAM025

Client/Project: NA

Lab ID: 0219-BLK04
Client ID: QAM
Date Received: NA
Date Extracted: 02/19/2010
Date Analyzed: 02/19/2010
Data file: Z8688.D

GC Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	RL	MDL
Total TPHC	ND		16.0	2.00

QAM-025 INITIAL CALIBRATION SUMMARY

Date Analyzed: 01/27/2010 **Instrument ID:** GC-Z
GC Column : DB-5

Data File: Z8292.D Z8291.D Z8290.D Z8289.D Z8288.D

Compound	RT OF STANDARDS 2000	5000	20000	50000	100000	MEAN RT	RT WINDOW FROM	TO
n-Octane (C8)	0.76	0.76	0.76	0.76	0.76	0.76	0.69	0.83
n-Decane (C10)	1.68	1.68	1.68	1.68	1.68	1.68	1.61	1.75
n-Dodecane (C12)	2.31	2.31	2.31	2.31	2.31	2.31	2.24	2.38
n-Tetradecane (C14)	2.79	2.79	2.79	2.79	2.79	2.79	2.72	2.86
n-Hexadecane (C16)	3.20	3.20	3.20	3.20	3.20	3.20	3.13	3.27
n-Heptadecane (C17)	3.39	3.39	3.39	3.39	3.39	3.39	3.32	3.46
Pristane	3.40	3.40	3.40	3.40	3.40	3.40	3.33	3.47
n-Octadecane (C18)	3.57	3.57	3.57	3.57	3.57	3.57	3.50	3.64
Phytane	3.59	3.59	3.58	3.59	3.59	3.59	3.52	3.66
n-Eicosane (C20)	3.90	3.90	3.90	3.90	3.90	3.90	3.83	3.97
n-Dotriacontane (C32)	5.60	5.59	5.59	5.59	5.59	5.59	5.52	5.66
n-Tetracontane (C40)	7.22	7.21	7.21	7.21	7.21	7.21	7.14	7.28
TPH-QAM025	4.00	4.00	4.00	4.00	4.00	4.00	3.93	4.07

Compound	CALIBRATION FACTORS 2000	5000	20000	50000	100000	MEAN	%RSD
n-Octane (C8)	341	322	321	312	293	318	5.46
n-Decane (C10)	368	338	333	324	303	333	7.08
n-Dodecane (C12)	300	319	328	320	302	314	3.89
n-Tetradecane (C14)	324	326	332	324	304	322	3.25
n-Hexadecane (C16)	331	325	335	326	307	325	3.33
n-Heptadecane (C17)	261	289	308	332	338	305	10.47
Pristane	421	363	345	343	305	355	11.88
n-Octadecane (C18)	270	292	319	325	316	304	7.61
Phytane	392	359	341	325	302	344	9.99
n-Eicosane (C20)	326	328	334	326	308	324	3.04
n-Dotriacontane (C32)	367	317	319	308	293	321	8.73
n-Tetracontane (C40)	240	236	297	273	267	263	9.62
TPH-QAM025	328	318	326	320	303	319	3.09

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 02/19/2010 **Instrument ID:** GC-Z

Data File: Z8678.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Octane (C8)	0.75	0.68	0.82	318	285	10.23
n-Decane (C10)	1.66	1.59	1.73	333	321	3.63
n-Dodecane (C12)	2.29	2.22	2.36	314	318	1.25
n-Tetradecane (C14)	2.77	2.70	2.84	322	322	0.20
n-Hexadecane (C16)	3.19	3.12	3.26	325	324	0.20
n-Heptadecane (C17)	3.37	3.30	3.44	305	289	5.34
Pristane	3.38	3.31	3.45	355	343	3.41
n-Octadecane (C18)	3.55	3.48	3.62	304	344	12.89
Phytane	3.57	3.50	3.64	344	335	2.49
n-Eicosane (C20)	3.88	3.81	3.95	324	333	2.60
n-Dotriacontane (C32)	5.57	5.50	5.64	321	318	1.04
n-Tetracontane (C40)	7.14	7.07	7.21	263	282	7.27
TPH-QAM025	4.00	3.93	4.07	319	318	0.37
				Average %RSD		4.64

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 02/19/2010 **Instrument ID:** GC-Z

Data File: Z8699.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Octane (C8)	0.75	0.68	0.82	318	277	13.00
n-Decane (C10)	1.66	1.59	1.73	333	306	8.02
n-Dodecane (C12)	2.29	2.22	2.36	314	305	2.95
n-Tetradecane (C14)	2.78	2.71	2.85	322	310	3.79
n-Hexadecane (C16)	3.19	3.12	3.26	325	312	4.02
n-Heptadecane (C17)	3.37	3.30	3.44	305	306	0.08
Pristane	3.38	3.31	3.45	355	335	5.84
n-Octadecane (C18)	3.55	3.48	3.62	304	314	3.21
Phytane	3.57	3.50	3.64	344	327	5.04
n-Eicosane (C20)	3.88	3.81	3.95	324	319	1.61
n-Dotriacontane (C32)	5.57	5.50	5.64	321	323	0.53
n-Tetracontane (C40)	7.15	7.08	7.22	263	289	10.06
TPH-QAM025	4.00	3.93	4.07	319	310	2.81
				Average %RSD		5.11

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 02/22/2010 **Instrument ID:** GC-Z

Data File: Z8710.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Octane (C8)	0.75	0.68	0.82	318	323	1.66
n-Decane (C10)	1.66	1.59	1.73	333	331	0.59
n-Dodecane (C12)	2.29	2.22	2.36	314	331	5.39
n-Tetradecane (C14)	2.77	2.70	2.84	322	335	4.07
n-Hexadecane (C16)	3.19	3.12	3.26	325	335	3.15
n-Heptadecane (C17)	3.37	3.30	3.44	305	349	14.27
Pristane	3.38	3.31	3.45	355	340	4.35
n-Octadecane (C18)	3.55	3.48	3.62	304	334	9.86
Phytane	3.57	3.50	3.64	344	335	2.51
n-Eicosane (C20)	3.88	3.81	3.95	324	345	6.32
n-Dotriacontane (C32)	5.57	5.50	5.64	321	359	11.99
n-Tetracontane (C40)	7.15	7.08	7.22	263	305	16.13
TPH-QAM025	4.00	3.93	4.07	319	335	5.08
				Average %RSD		5.42

QAM-025 CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 02/22/2010 **Instrument ID:** GC-Z

Data File: Z8717.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Octane (C8)	0.75	0.68	0.82	318	331	4.24
n-Decane (C10)	1.66	1.59	1.73	333	338	1.37
n-Dodecane (C12)	2.29	2.22	2.36	314	339	7.86
n-Tetradecane (C14)	2.77	2.70	2.84	322	343	6.74
n-Hexadecane (C16)	3.19	3.12	3.26	325	344	5.81
n-Heptadecane (C17)	3.37	3.30	3.44	305	345	12.90
Pristane	3.38	3.31	3.45	355	361	1.58
n-Octadecane (C18)	3.55	3.48	3.62	304	342	12.38
Phytane	3.57	3.50	3.64	344	351	2.14
n-Eicosane (C20)	3.88	3.81	3.95	324	355	9.46
n-Dotriacontane (C32)	5.57	5.50	5.64	321	373	16.40
n-Tetracontane (C40)	7.15	7.08	7.22	263	315	19.78
TPH-QAM025	4.00	3.93	4.07	319	345	8.06
				Average %RSD		6.61

NJ-QAM-25 SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 02/19/2010

Client ID	Lab Sample ID	Matrix	CHB % rec	#	OTP % rec	#
QAM	0219-BLK04	SOIL	82		86	
SYEX-21/	01484-021	SOIL	79		82	
SYEX-21/	01484-022	SOIL	77		81	
SYEX-22/	01484-023	SOIL	81		84	
SYEX-22/	01484-024	SOIL	78		84	
SYEX-22/	01484-025	SOIL	78		80	
SY16-09-	01484-026	SOIL	79		80	
SY16-09-	01484-027	SOIL	80		82	
SY16-09-	01484-028	SOIL	78		81	
QAM	QBS0219-MS04	SOIL	80		83	
TP10/6.5	01500-001	SOIL	93		88	

Surrogate QC Limits	Soil	Aqueous
CHB = Chlorobenzene	15-158	15-158
OTP = o-Terphenyl	15-159	15-159

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL NJ-QAM-25 MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 01451-007-MSD02

Compound	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC #	QC LIMITS REC.
TPH-QAM025	240.0	0.0	321.6	134	41 - 148

Compound	SAMPLE CONC. (mg/Kg)	MSD CONC. (mg/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
TPH-QAM025	0.0	326.1	136	1	18	41 - 148

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __1__ outside limits

Spike Recovery: __0___ out of __2__ outside limits

SOIL NJ-QAM-25 BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: QBS0219-MS04

Compound	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC #	QC LIMITS REC.
TPH-QAM025	240.0	0.0	269.4	112	70 - 130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

Spike Recovery: __0___ out of __1__ outside limits

NJ-QAM-25 RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Z **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

CHB 0.97 **OTP** 3.76

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	CHB RT	#	OTP RT	#
QAM	0219-BLK04	02/19/2010	17:29	0.97		3.76	
SYEX-21/	01484-021	02/19/2010	18:00	0.97		3.76	
SYEX-21/	01484-022	02/19/2010	18:15	0.97		3.76	
SYEX-22/	01484-023	02/19/2010	18:31	0.97		3.76	
SYEX-22/	01484-024	02/19/2010	18:46	0.97		3.76	
SYEX-22/	01484-025	02/19/2010	19:02	0.97		3.76	
SY16-09-	01484-026	02/19/2010	19:17	0.97		3.76	
SY16-09-	01484-027	02/19/2010	19:32	0.97		3.76	
SY16-09-	01484-028	02/19/2010	19:48	0.97		3.76	
QAM	QBS0219-MS04	02/19/2010	20:03	0.97		3.76	
TP10/6.5	01500-001	02/22/2010	17:48	0.96		3.76	

Surrogate QC Limits

CHB = Chlorobenzene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

\# Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-22-10\
Data File : Z8715.D
Signal(s) : FID1A.CH
Acq On : 22 Feb 2010 17:48
Operator : LIZ
Sample : TP10/6.5,01500-001,S,10.14g,53.8,02/19/10,20
Misc : PENNJERSEY/PALMER,02/17/10,02/18/10,10
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 23 08:51:03 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Mon Feb 22 16:04:16 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	0.96	573274	1.858	ng	
Spiked Amount 20.000		Recovery =	9.29%		
15) S o-Terphenyl	3.76	834963	1.754	ng	m
Spiked Amount 20.000		Recovery =	8.77%		
Target Compounds					
14) H Total TPHC	4.00	212584368	666.283	ng	

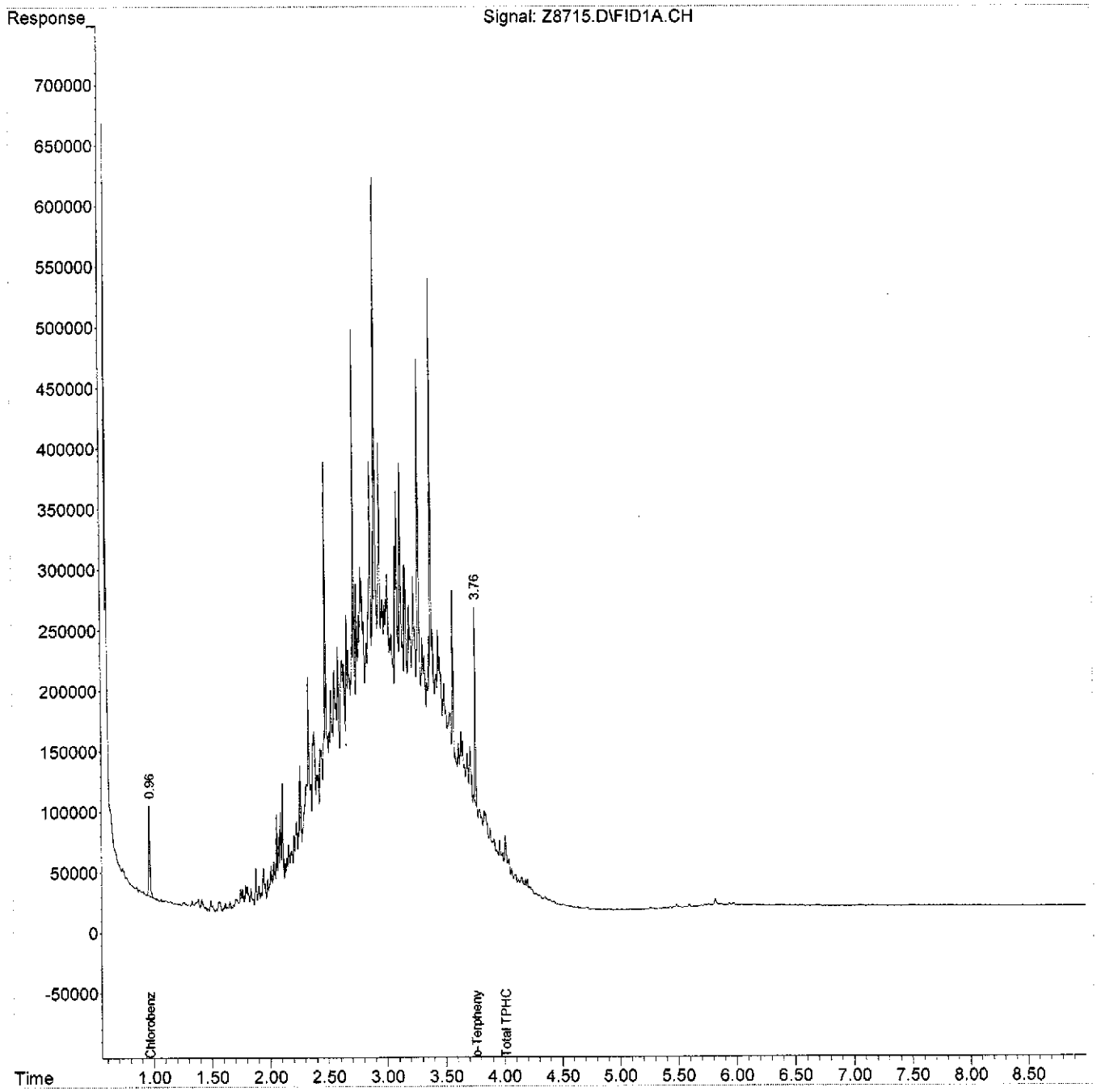
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-22-10\
Data File : Z8715.D
Signal(s) : FID1A.CH
Acq On : 22 Feb 2010 17:48
Operator : LIZ
Sample : TP10/6.5,01500-001,S,10.14g,53.8,02/19/10,20
Misc : PENNJERSEY/PALMER,02/17/10,02/18/10,10
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 23 08:51:03 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Mon Feb 22 16:04:16 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-19-10\
Data File : Z8688.D
Signal(s) : FID1A.CH
Acq On : 19 Feb 2010 17:29
Operator : LIZ
Sample : QAM,0219-BLK04,S,30.00g,0,02/19/10,20
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 22 09:23:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Fri Feb 19 14:45:57 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	0.97	5082075	16.471	ng	m
Spiked Amount 20.000		Recovery =	82.36%		
15) S o-Terphenyl	3.76	8181548	17.186	ng	
Spiked Amount 20.000		Recovery =	85.93%		
Target Compounds					

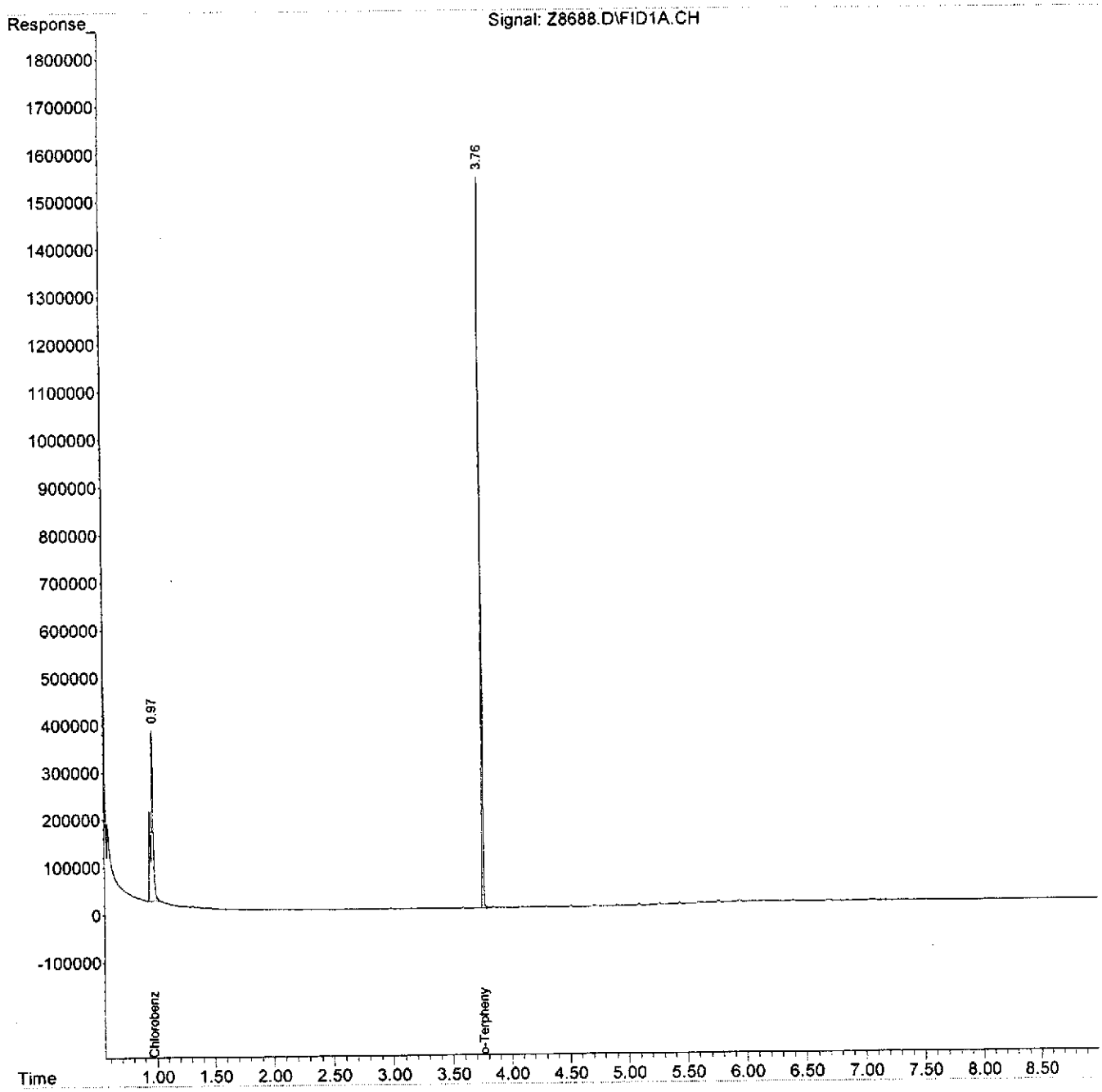
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-19-10\
Data File : Z8688.D
Signal(s) : FID1A.CH
Acq On : 19 Feb 2010 17:29
Operator : LIZ
Sample : QAM,0219-BLK04,S,30.00g,0,02/19/10,20
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 22 09:23:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Fri Feb 19 14:45:57 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-19-10\
Data File : Z8678.D
Signal(s) : FID1A.CH
Acq On : 19 Feb 2010 14:15
Operator : LIZ
Sample : VER_C_IAS_3610,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 19 14:47:40 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Fri Feb 19 14:45:57 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	0.96	5517170	17.881	ng	
Spiked Amount 20.000		Recovery =	89.41%		
15) S o-Terphenyl	3.76	9453446	19.858	ng	
Spiked Amount 20.000		Recovery =	99.29%		
Target Compounds					
2) T n-Octane (C8)	0.75	5707719	17.953	ng	m
3) T n-Decane (C10)	1.66	6418247	19.273	ng	
4) T n-Dodecane (C12)	2.29	6358319	20.249	ng	
5) T n-Tetradecane (C14)	2.77	6447996	20.041	ng	
6) T n-Hexadecane (C16)	3.19	6487025	19.960	ng	
7) T n-Heptadecane (17)	3.37	5781225	18.932	ng	m
8) T Pristane	3.38	6865095	19.319	ng	m
9) T n-Octadecane (C18)	3.55	6874232	22.578	ng	m
10) T Phytane	3.57	6707051	19.502	ng	m
11) T n-Eicosane (C20)	3.88	6654354	20.519	ng	
12) T n-Dotriacontane (C32)	5.57	6350898	19.793	ng	m
13) T n-Tetracontane (40)	7.14	5632958	21.453	ng	
14) H Total TPHC	4.00	106603841	334.118	ng	

(f)=RT Delta > 1/2 Window

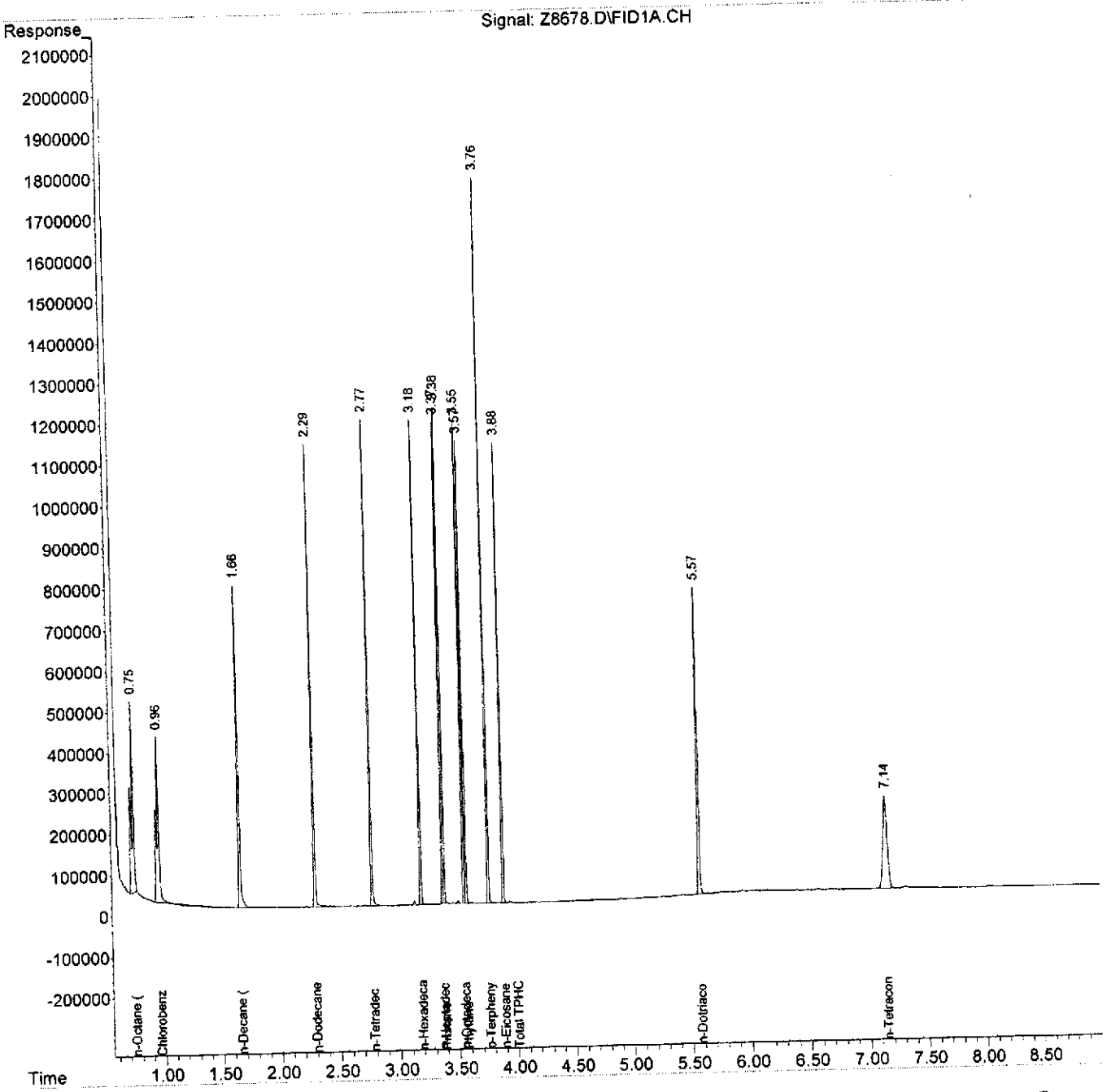
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-19-10\
Data File : Z8678.D
Signal(s) : FID1A.CH
Acq On : 19 Feb 2010 14:15
Operator : LIZ
Sample : VER_C_IAS_3610,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 19 14:47:40 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Fri Feb 19 14:45:57 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : Z8699.D
Signal(s) : FID1A.CH
Acq On : 19 Feb 2010 20:34
Operator : LIZ
Sample : VER_C_IAS_3610,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 22 09:24:35 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Fri Feb 19 14:45:57 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S Chlorobenzene	0.96	5989173	19.411	ng	
	Spiked Amount 20.000		Recovery =	97.06%		
15)	S o-Terphenyl	3.76	9766463	20.515	ng	
	Spiked Amount 20.000		Recovery =	102.57%		
	Target Compounds					
2)	T n-Octane (C8)	0.75	5531990	17.401	ng	
3)	T n-Decane (C10)	1.66	6125858	18.395	ng	
4)	T n-Dodecane (C12)	2.29	6094840	19.410	ng	
5)	T n-Tetradecane (C14)	2.78	6191129	19.242	ng	
6)	T n-Hexadecane (C16)	3.19	6238579	19.196	ng	
7)	T n-Heptadecane (17)	3.37	6111918	20.015	ng	m
8)	T Pristane	3.38	6691899	18.832	ng	m
9)	T n-Octadecane (C18)	3.55	6284501	20.641	ng	m
10)	T Phytane	3.57	6531805	18.993	ng	m
11)	T n-Eicosane (C20)	3.88	6381335	19.677	ng	
12)	T n-Dotriacontane (C32)	5.57	6451675	20.107	ng	
13)	T n-Tetracontane (40)	7.15	5779425	22.011	ng	
14)	H Total TPHC	4.00	94213964	295.286	ng	

(f)=RT Delta > 1/2 Window

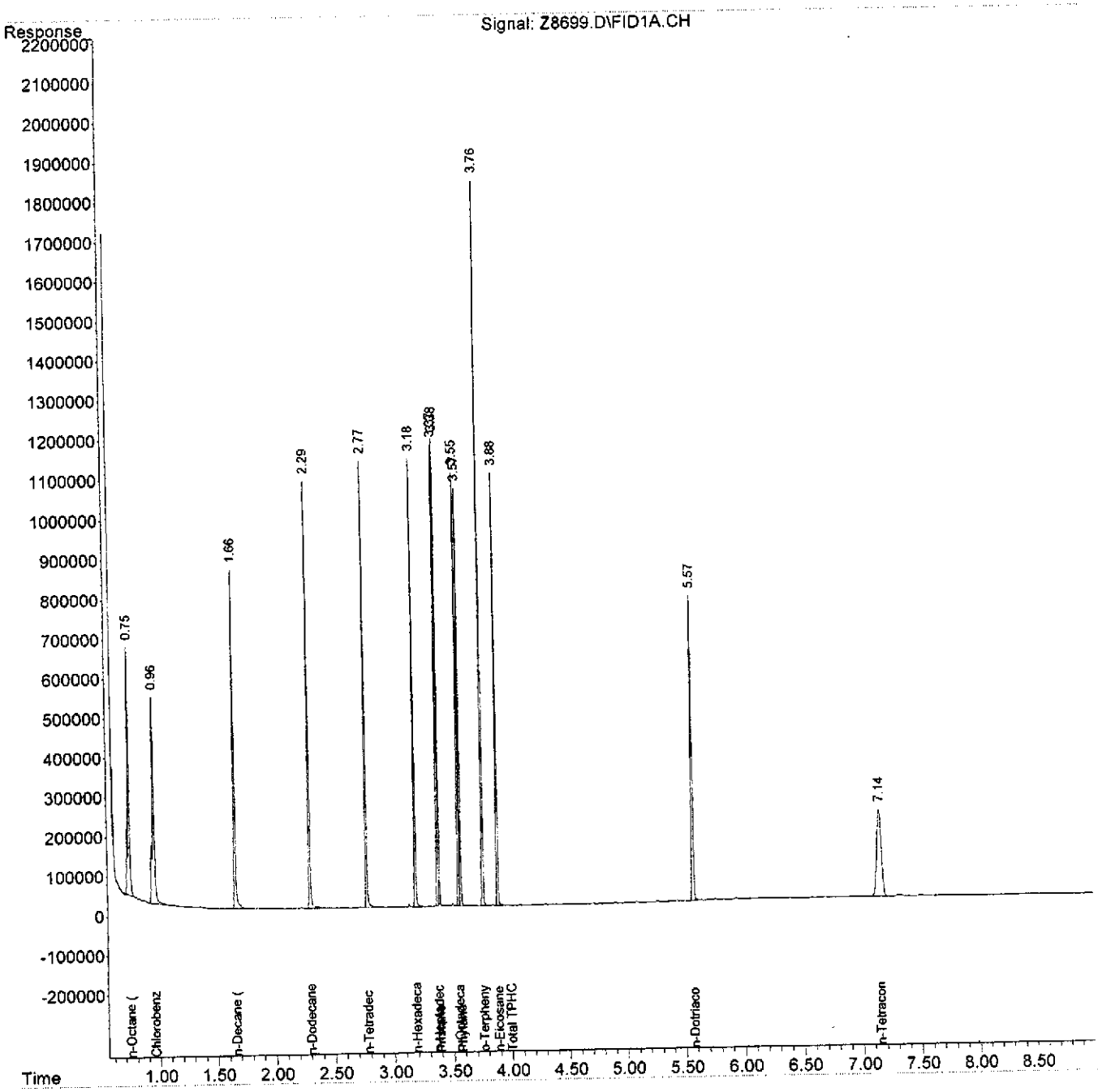
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\02-19-10\
Data File : Z8699.D
Signal(s) : FID1A.CH
Acq On : 19 Feb 2010 20:34
Operator : LIZ
Sample : VER_C_IAS_3610,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 22 09:24:35 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Fri Feb 19 14:45:57 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-22-10\
Data File : Z8710.D
Signal(s) : FID1A.CH
Acq On : 22 Feb 2010 15:54
Operator : LIZ
Sample : VER_C_IAS_3610,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 22 16:05:46 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Mon Feb 22 16:04:16 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	0.96	5956200	19.304	ng	
Spiked Amount 20.000		Recovery =	96.52%		
15) S o-Terphenyl	3.76	9265042	19.462	ng	
Spiked Amount 20.000		Recovery =	97.31%		
Target Compounds					
2) T n-Octane (C8)	0.75	6463649	20.331	ng	
3) T n-Decane (C10)	1.66	6620805	19.881	ng	
4) T n-Dodecane (C12)	2.29	6618779	21.079	ng	
5) T n-Tetradecane (C14)	2.77	6696774	20.814	ng	
6) T n-Hexadecane (C16)	3.19	6704560	20.629	ng	
7) T n-Heptadecane (17)	3.37	6978552	22.853	ng	m
8) T Pristane	3.38	6797909	19.130	ng	m
9) T n-Octadecane (C18)	3.55	6689813	21.972	ng	m
10) T Phytane	3.57	6705728	19.499	ng	m
11) T n-Eicosane (C20)	3.88	6895839	21.264	ng	
12) T n-Dotriacontane (C32)	5.57	7187161	22.399	ng	m
13) T n-Tetracontane (40)	7.15	6098222	23.225	ng	m
14) H Total TPHC	4.00	103892786	325.621	ng	

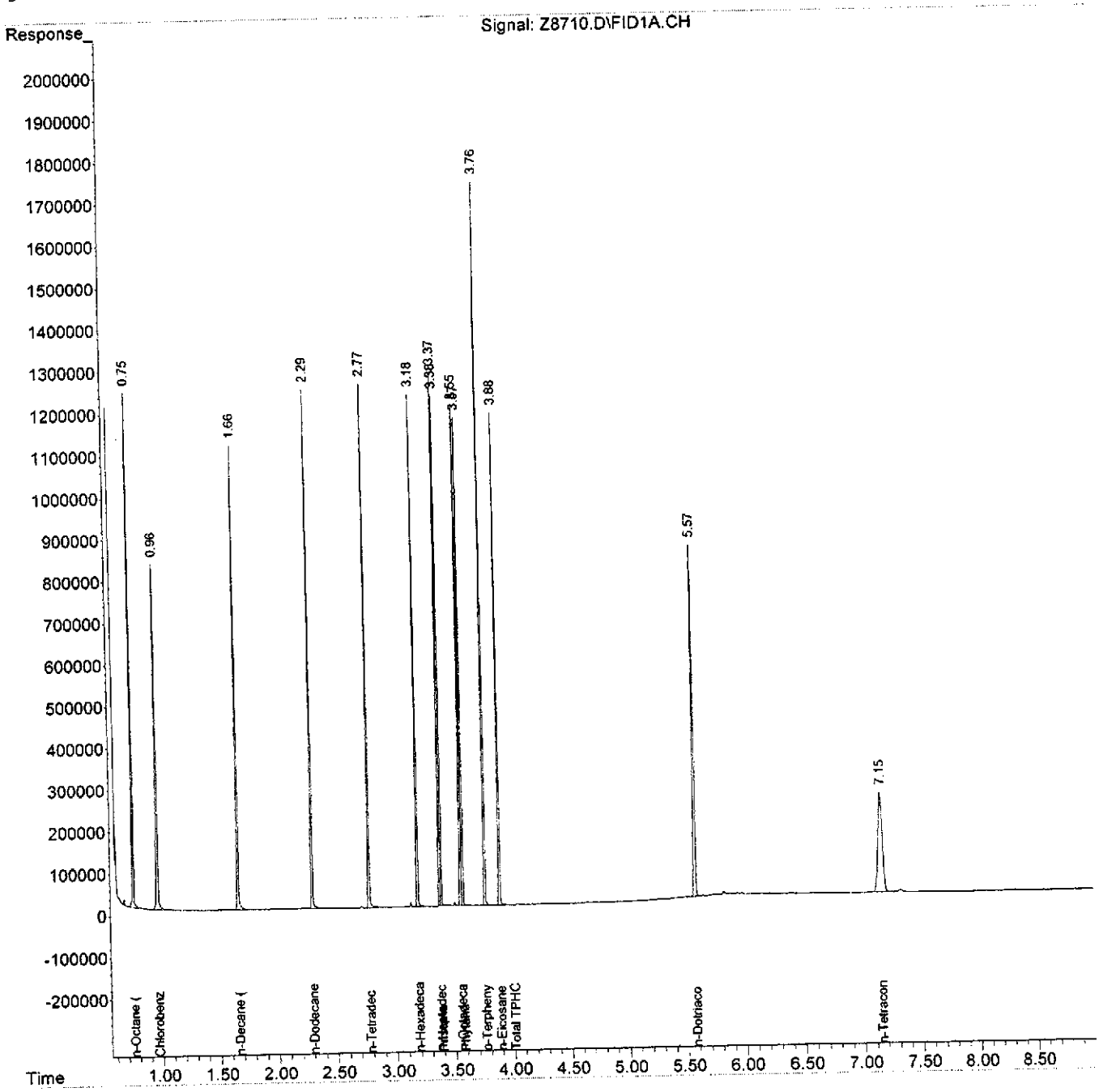
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-22-10\
Data File : Z8710.D
Signal(s) : FID1A.CH
Acq On : 22 Feb 2010 15:54
Operator : LIZ
Sample : VER_C_IAS_3610,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 22 16:05:46 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Mon Feb 22 16:04:16 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-22-10\
Data File : Z8717.D
Signal(s) : FID1A.CH
Acq On : 22 Feb 2010 18:34
Operator : LIZ
Sample : VER_C_IAS_3610,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 23 08:57:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Mon Feb 22 16:04:16 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	Chlorobenzene	0.96	6086826	19.728	ng	
Spiked Amount	20.000		Recovery =	98.64%		
15) S	o-Terphenyl	3.76	9522566	20.003	ng	
Spiked Amount	20.000		Recovery =	100.02%		
	Target Compounds					
2) T	n-Octane (C8)	0.75	6627911	20.848	ng	
3) T	n-Decane (C10)	1.66	6751559	20.274	ng	
4) T	n-Dodecane (C12)	2.29	6773589	21.572	ng	
5) T	n-Tetradecane (C14)	2.77	6868705	21.348	ng	
6) T	n-Hexadecane (C16)	3.19	6877578	21.162	ng	
7) T	n-Heptadecane (17)	3.37	6894946	22.580	ng	m
8) T	Pristane	3.38	7219146	20.315	ng	m
9) T	n-Octadecane (C18)	3.55	6843121	22.476	ng	m
10) T	Phytane	3.57	7025687	20.429	ng	m
11) T	n-Eicosane (C20)	3.88	7099322	21.891	ng	
12) T	n-Dotriacontane (C32)	5.57	7469669	23.279	ng	
13) T	n-Tetracontane (40)	7.15	6290289	23.957	ng	m
14) H	Total TPHC	4.00	98760254	309.535	ng	

(f)=RT Delta > 1/2 Window

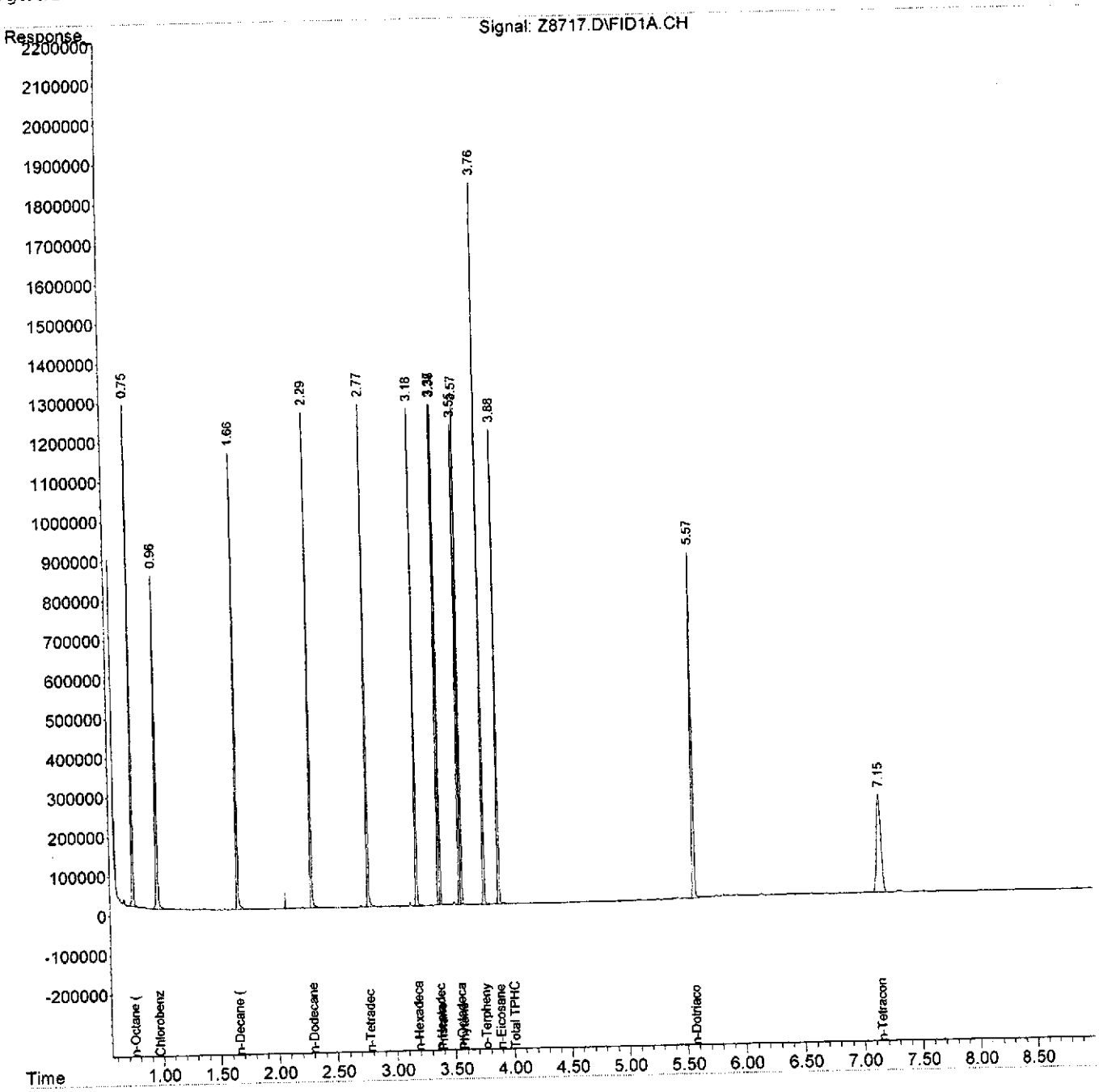
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-22-10\
Data File : Z8717.D
Signal(s) : FID1A.CH
Acq On : 22 Feb 2010 18:34
Operator : LIZ
Sample : VER_C_IAS_3610,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 23 08:57:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Mon Feb 22 16:04:16 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-19-10\
Data File : Z8677.D
Signal(s) : FID1A.CH
Acq On : 19 Feb 2010 14:00
Operator : LIZ
Sample : QAM-025_C_IAS_3613,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 19 14:46:47 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Fri Feb 19 14:45:57 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	0.96	6101622	19.775	ng	
Spiked Amount 20.000		Recovery = 98.87%			
15) S o-Terphenyl	3.76	10203591	21.434	ng	
Spiked Amount 20.000		Recovery = 107.17%			
Target Compounds					
2) T n-Octane (C8)	0.74	7402874	23.285	ng	
3) T n-Decane (C10)	1.66	7816358	23.472	ng	
4) T n-Dodecane (C12)	2.29	7797054	24.831	ng	
5) T n-Tetradecane (C14)	2.77	7916380	24.605	ng	
6) T n-Hexadecane (C16)	3.18	8034230	24.721	ng	
7) T n-Heptadecane (17)	3.37	7232313	23.684	ng	m
8) T Pristane	3.38	7898456	22.227	ng	m
9) T n-Octadecane (C18)	3.55	7443384	24.447	ng	m
10) T Phytane	3.57	8061731	23.442	ng	m
11) T n-Eicosane (C20)	3.88	8063680	24.865	ng	
12) T n-Dotriacontane (C32)	5.57	7867257	24.519	ng	
13) T n-Tetracontane (40)	7.15	5283786	20.123	ng	
14) H Total TPHC	4.00	118118908	370.209	ng	

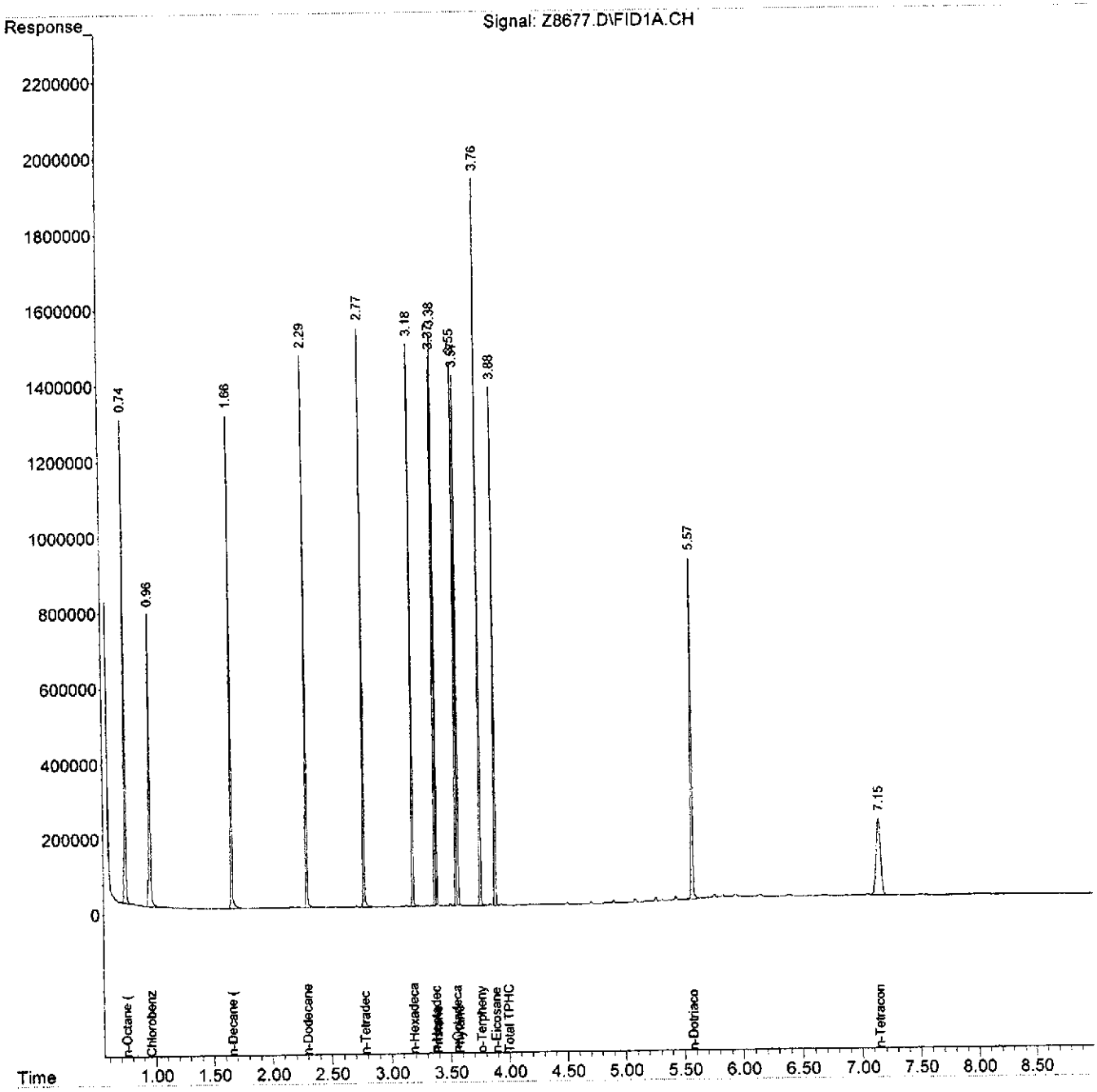
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-19-10\
Data File : Z8677.D
Signal(s) : FID1A.CH
Acq On : 19 Feb 2010 14:00
Operator : LIZ
Sample : QAM-025_C_IAS_3613,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 19 14:46:47 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Fri Feb 19 14:45:57 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-22-10\
Data File : Z8709.D
Signal(s) : FID1A.CH
Acq On : 22 Feb 2010 15:07
Operator : LIZ
Sample : QAM-025_C_IAS_3613,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 22 16:05:01 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Mon Feb 22 16:04:16 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S Chlorobenzene	0.96	5792213	18.773	ng	
Spiked Amount 20.000		Recovery =	93.86%		
15) S o-Terphenyl	3.76	9510026	19.977	ng	
Spiked Amount 20.000		Recovery =	99.89%		
Target Compounds					
2) T n-Octane (C8)	0.75	6827010	21.474	ng	
3) T n-Decane (C10)	1.66	7198653	21.617	ng	
4) T n-Dodecane (C12)	2.29	7176829	22.856	ng	
5) T n-Tetradecane (C14)	2.77	7306661	22.710	ng	
6) T n-Hexadecane (C16)	3.19	7444254	22.905	ng	
7) T n-Heptadecane (17)	3.37	7394041	24.214	ng	m
8) T Pristane	3.38	6903728	19.428	ng	m
9) T n-Octadecane (C18)	3.55	7295567	23.962	ng	m
10) T Phytane	3.57	7604458	22.112	ng	m
11) T n-Eicosane (C20)	3.88	7527183	23.211	ng	
12) T n-Dotriacontane (C32)	5.57	7388740	23.027	ng	m
13) T n-Tetracontane (40)	7.14	4598195	17.512	ng	
14) H Total TPHC	4.00	116139172	364.004	ng	

(f)=RT Delta > 1/2 Window

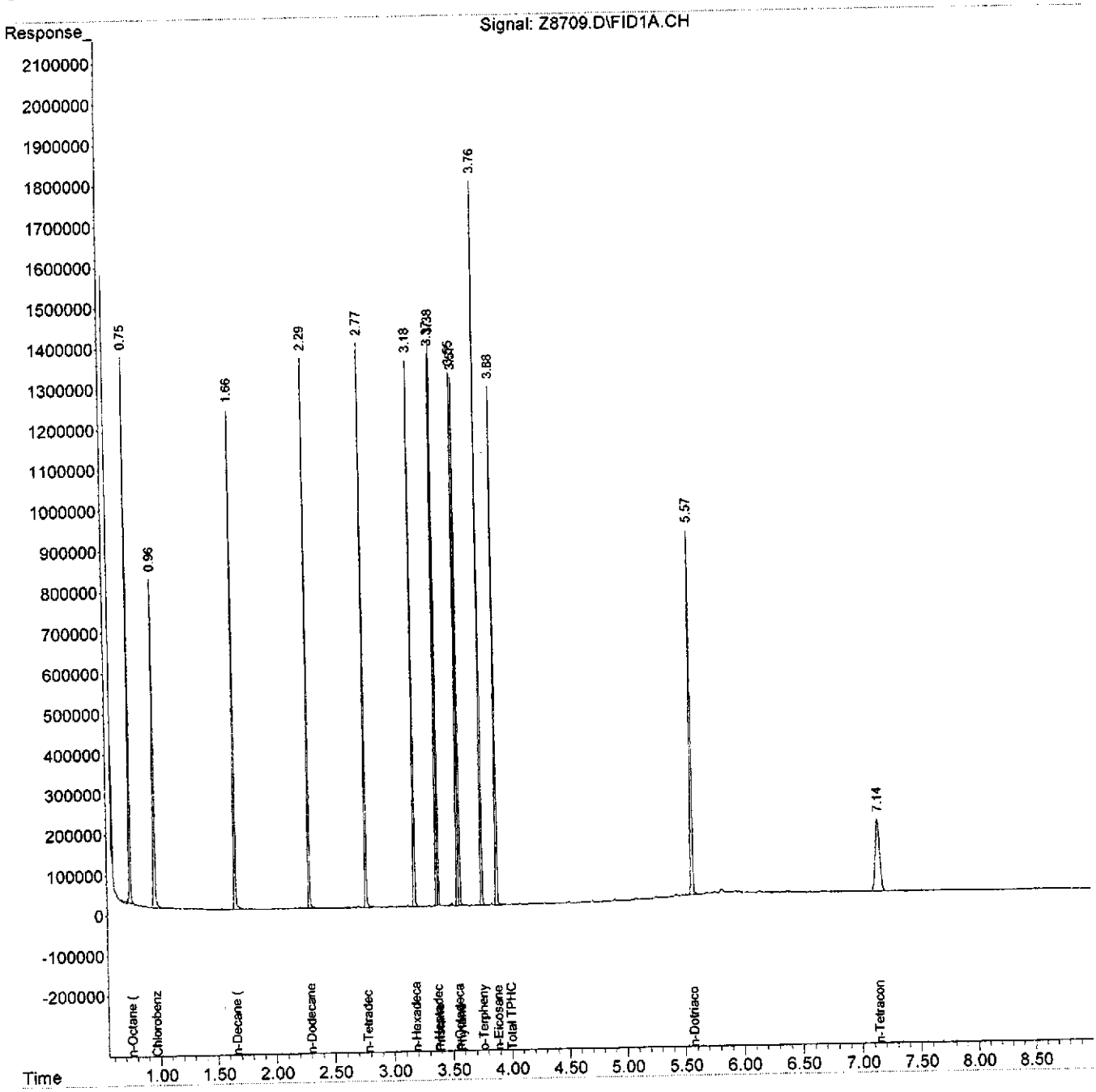
(m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\02-22-10\
Data File : Z8709.D
Signal(s) : FID1A.CH
Acq On : 22 Feb 2010 15:07
Operator : LIZ
Sample : QAM-025_C_IAS_3613,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Feb 22 16:05:01 2010
Quant Method : C:\MSDCHEM\1\METHODS\ZQAM0127.M
Quant Title :
QLast Update : Mon Feb 22 16:04:16 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



TPH METHOD BLANK SUMMARY

Lab File ID: Q8926.D

Date Extracted: 02/19/2010

Date Analyzed: 02/19/2010

Instrument ID: GC-Q

Matrix: SOIL

Time Analyzed: 20:44

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
L8-D3/2-	01500-007	02/19/2010	21:46
PE-1/15	01503-001	02/19/2010	23:29
PE-2/14.	01503-002	02/19/2010	23:39
PE-4/14.	01503-004	02/20/2010	0:00
PE-5/15	01503-005	02/20/2010	0:10
DRO	01500-016-MS01	02/20/2010	0:20
DRO	01500-016-MSD01	02/20/2010	0:31
DRO	DBS0219-MS01	02/20/2010	0:41
T2-2DEL/	01500-002	02/22/2010	14:25
T2-4DEL/	01500-003	02/22/2010	14:35
T1-2DEL/	01500-004	02/22/2010	14:46
L8-D1/2-	01500-005	02/22/2010	14:56
L8-D2/2-	01500-006	02/22/2010	15:06
L8-D4/2-	01500-008	02/22/2010	15:16
L5-D1/2.	01500-009	02/22/2010	15:27
L5-D2/2.	01500-010	02/22/2010	15:37
L5-D3/2.	01500-011	02/22/2010	15:47
L5-D4/2.	01500-012	02/22/2010	15:58
L4-D1/3.	01500-013	02/22/2010	16:08
L4-D2/3.	01500-014	02/22/2010	16:18
L4-D3/3.	01500-015	02/22/2010	16:29
L4-D4/3.	01500-016	02/22/2010	16:39
PE-3/13.	01503-003	02/22/2010	16:49

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Lab ID:	0219-BLK01	GC Column:	RTX-5
Client ID:	DRO	Sample wt/vol:	10.0g
Date Received:	NA	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	02/19/2010	Dilution Factor:	1
Date Analyzed:	02/19/2010	% Moisture:	0
Data File:	Q8926.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		75.0	60.0

TPH INITIAL CALIBRATION SUMMARY

Date Analyzed: 02/18/2010 Instrument ID: GC-Q

Date File: Q8769.D Q8768.D Q8767.D Q8766.D Q8765.D GC Column: RTX-5

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	50 PPM	500 PPM	1000 PPM	2000 PPM	4000 PPM	RT	FROM	TO
TPH-DRO	2.50	2.50	2.50	2.50	2.50	2.50	2.43	2.57

	CALIBRATION FACTORS					MEAN	
COMPOUND	50 PPM	500 PPM	1000 PPM	2000 PPM	4000 PPM	RF	%RSD
TPH-DRO	41.2	36.0	39.2	37.9	38.7	38.6	4.91

TPH CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 02/19/2010 20:24

Date File: Q8925.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		38.6	39.9	3.37

Date Analyzed: 02/20/2010 0:51

Date File: Q8950.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		38.6	36.5	5.44

Date Analyzed: 02/22/2010 14:15

Date File: Q9034.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		38.6	37.7	2.33

Date Analyzed: 02/22/2010 16:59

Date File: Q9050.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		38.6	39.2	1.55

TPH SURROGATE RECOVERY AND RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Q

Column: RTX-5

Surrogate RT from initial calibration:

DBC 4.91

Client ID	Lab Sample ID	Matrix	Date Analyzed	Time Analyzed	DBC % rec	DBC RT	#
DRO	0219-BLK01	SOIL	02/19/2010	20:44	118	4.91	
L8-D3/2-	01500-007	SOIL	02/19/2010	21:46	115	4.91	
PE-1/15	01503-001	SOIL	02/19/2010	23:29	128	4.91	
PE-2/14.	01503-002	SOIL	02/19/2010	23:39	130	4.91	
PE-4/14.	01503-004	SOIL	02/20/2010	0:00	128	4.91	
PE-5/15	01503-005	SOIL	02/20/2010	0:10	126	4.91	
DRO	01500-016-MS01	SOIL	02/20/2010	0:20	130	4.91	
DRO	01500-016-MSD01	SOIL	02/20/2010	0:31	129	4.91	
DRO	DBS0219-MS01	SOIL	02/20/2010	0:41	118	4.91	
T2-2DEL/	01500-002	SOIL	02/22/2010	14:25	130	4.97	
T2-4DEL/	01500-003	SOIL	02/22/2010	14:35	113	4.91	
T1-2DEL/	01500-004	SOIL	02/22/2010	14:46	129	4.91	
L8-D1/2-	01500-005	SOIL	02/22/2010	14:56	115	4.91	
L8-D2/2-	01500-006	SOIL	02/22/2010	15:06	107	4.91	
L8-D4/2-	01500-008	SOIL	02/22/2010	15:16	117	4.91	
L5-D1/2.	01500-009	SOIL	02/22/2010	15:27	126	4.91	
L5-D2/2.	01500-010	SOIL	02/22/2010	15:37	130	4.91	
L5-D3/2.	01500-011	SOIL	02/22/2010	15:47	124	4.91	
L5-D4/2.	01500-012	SOIL	02/22/2010	15:58	130	4.91	
L4-D1/3.	01500-013	SOIL	02/22/2010	16:08	112	4.91	
L4-D2/3.	01500-014	SOIL	02/22/2010	16:18	127	4.91	
L4-D3/3.	01500-015	SOIL	02/22/2010	16:29	129	4.91	
L4-D4/3.	01500-016	SOIL	02/22/2010	16:39	125	4.91	
PE-3/13.	01503-003	SOIL	02/22/2010	16:49	127	4.91	

Surrogate QC Limits	Recovery	RT
DBC = Dibutylchlorendate	70 - 130	± 0.080 Minutes

Column to be used to flag recovery values
* = Values outside of QC Limits
D = Surrogate diluted out
M = Matrix interference

SOIL - TPH MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix Spike Lab Sample ID 01500-016-MSD01

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC #	QC LIMITS REC
TPH-DRO	1000	392	1480	109	26 - 158

COMPOUND	SAMPLE CONC. (mg/Kg)	MSD CONC. (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
TPH-DRO	392	1500	110	1.54	30	26 - 158

Column to be used to flag recovery and RPD values with an asterisk

* = Values outside of QC Limits

NC = Non calculable

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

SOIL - TPH BLANK SPIKE RECOVERY

Blank Spike Lab Sample ID: DBS0219-MS01

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	BS CONC. (mg/Kg)	BS % REC	#	QC LIMITS REC
TPH-DRO	1000	0	1070	107		70 - 130

Column to be used to flag recovery values with an asterisk

* = Values outside of QC Limits

Spike Recovery: 0 out of 1 outside limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9035.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 2:25 pm
Operator : TB
Sample : T2-2DEL/,01500-002,S,10.09g,19.2,02/19/10,15
Misc : PENNJERSEY/PALMER,02/17/10,02/18/10,1
ALS Vial : 30 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 14:37:17 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.971f	28109124	129.638 ng m
Spiked Amount 100.000		Recovery = 129.64%	
Target Compounds			

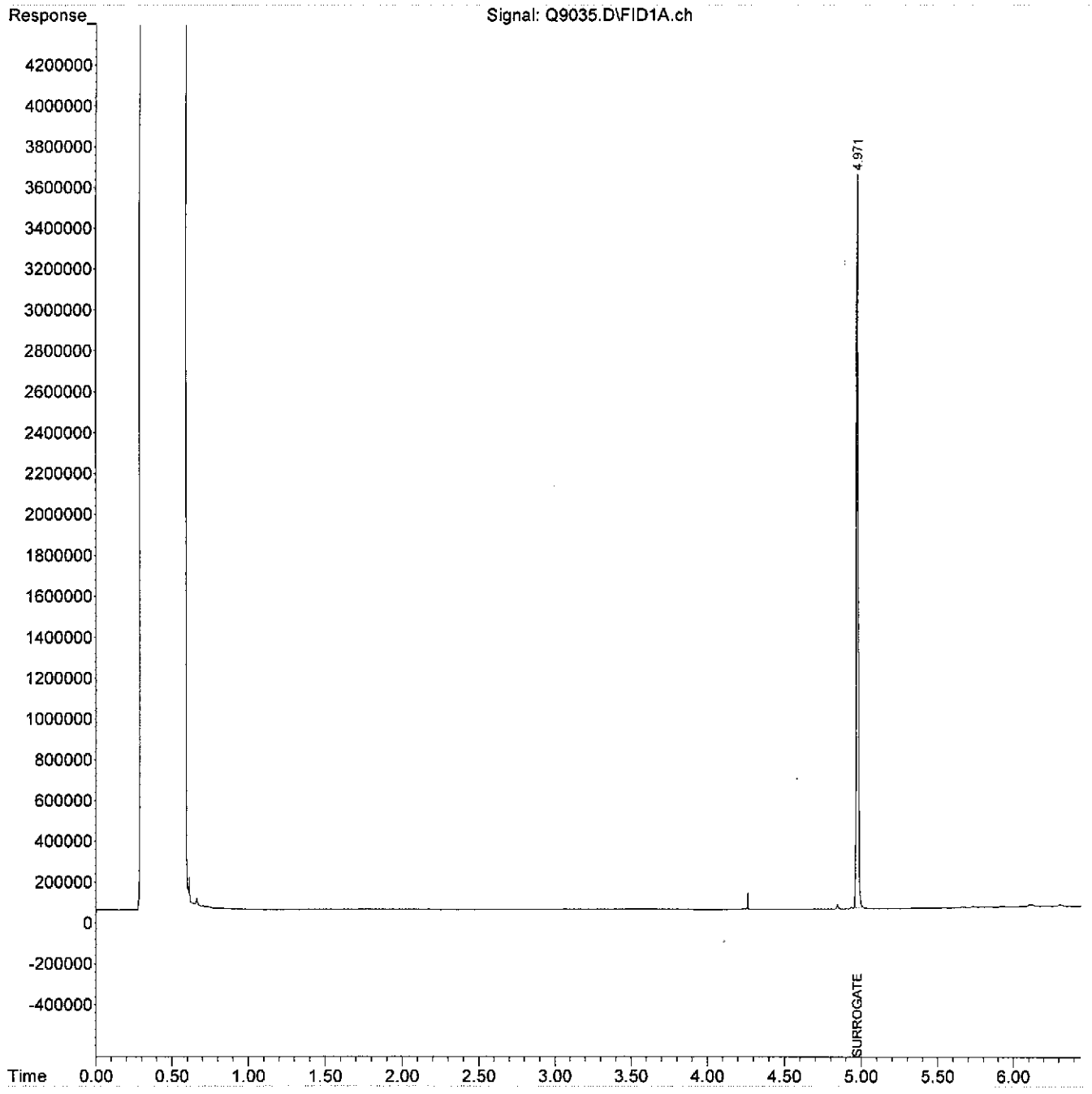
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9035.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 2:25 pm
Operator : TB
Sample : T2-2DEL/,01500-002,S,10.09g,19.2,02/19/10,15
Misc : PENNJERSEY/PALMER,02/17/10,02/18/10,1
ALS Vial : 30 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 14:37:17 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9036.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 2:35 pm
Operator : TB
Sample : T2-4DEL/,01500-003,S,10.49g,18.1,02/19/10,15
Misc : PENNJERSEY/PALMER,02/17/10,02/18/10,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 14:42:32 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.910	24418657	112.617 ng m
Spiked Amount 100.000		Recovery = 112.62%	
Target Compounds			
3) H TPH-DRO	2.500	256330730	664.347 ng

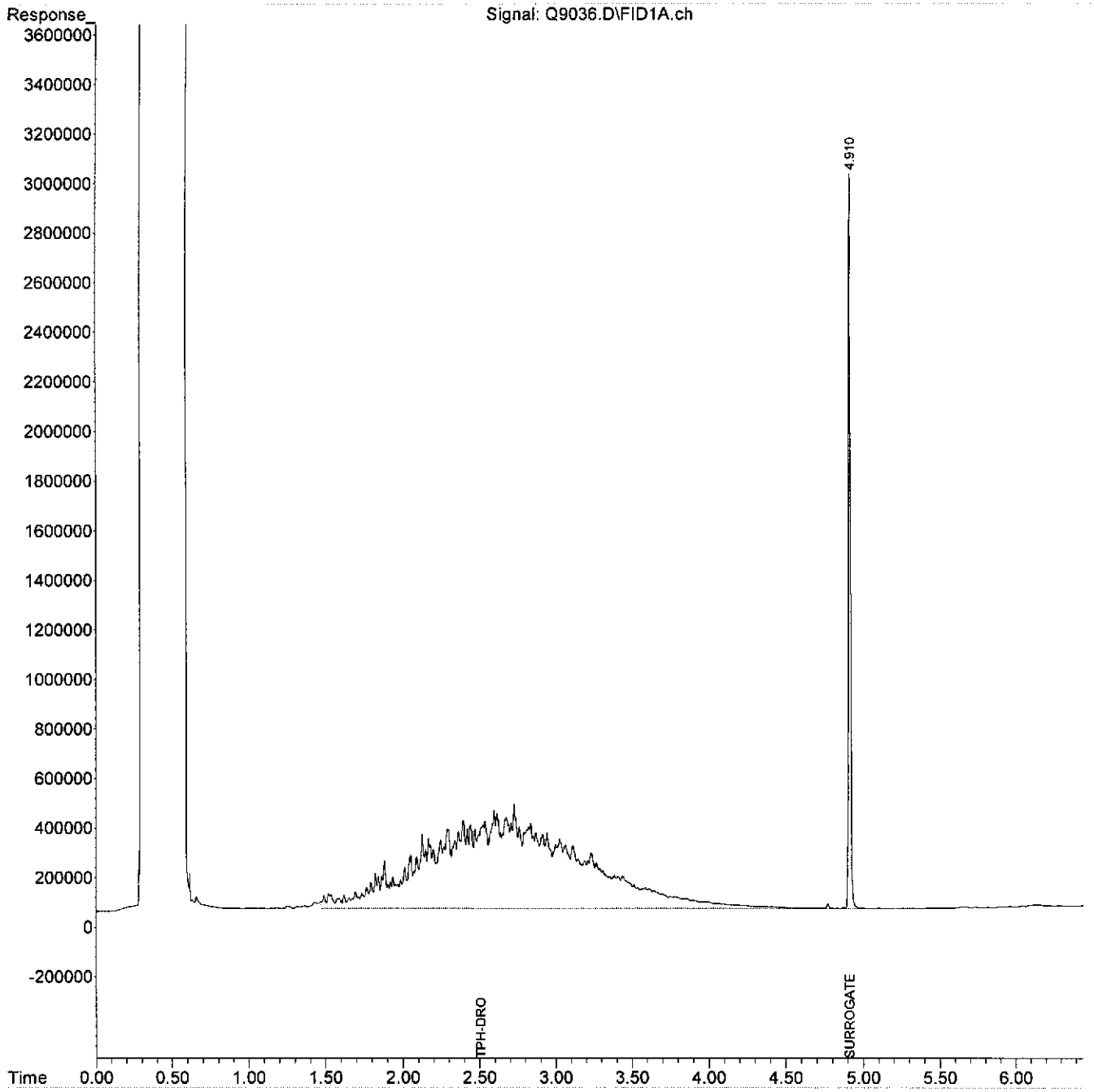
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9036.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 2:35 pm
Operator : TB
Sample : T2-4DEL/,01500-003,S,10.49g,18.1,02/19/10,15
Misc : PENNJERSEY/PALMER,02/17/10,02/18/10,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 14:42:32 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9037.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 2:46 pm
Operator : TB
Sample : T1-2DEL/,01500-004,S,10.14g,19.7,02/19/10,15
Misc : PENNJERSEY/PALMER,02/17/10,02/18/10,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 14:52:56 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.911	27867365	128.523 ng
Spiked Amount 100.000		Recovery = 128.52%	
Target Compounds			

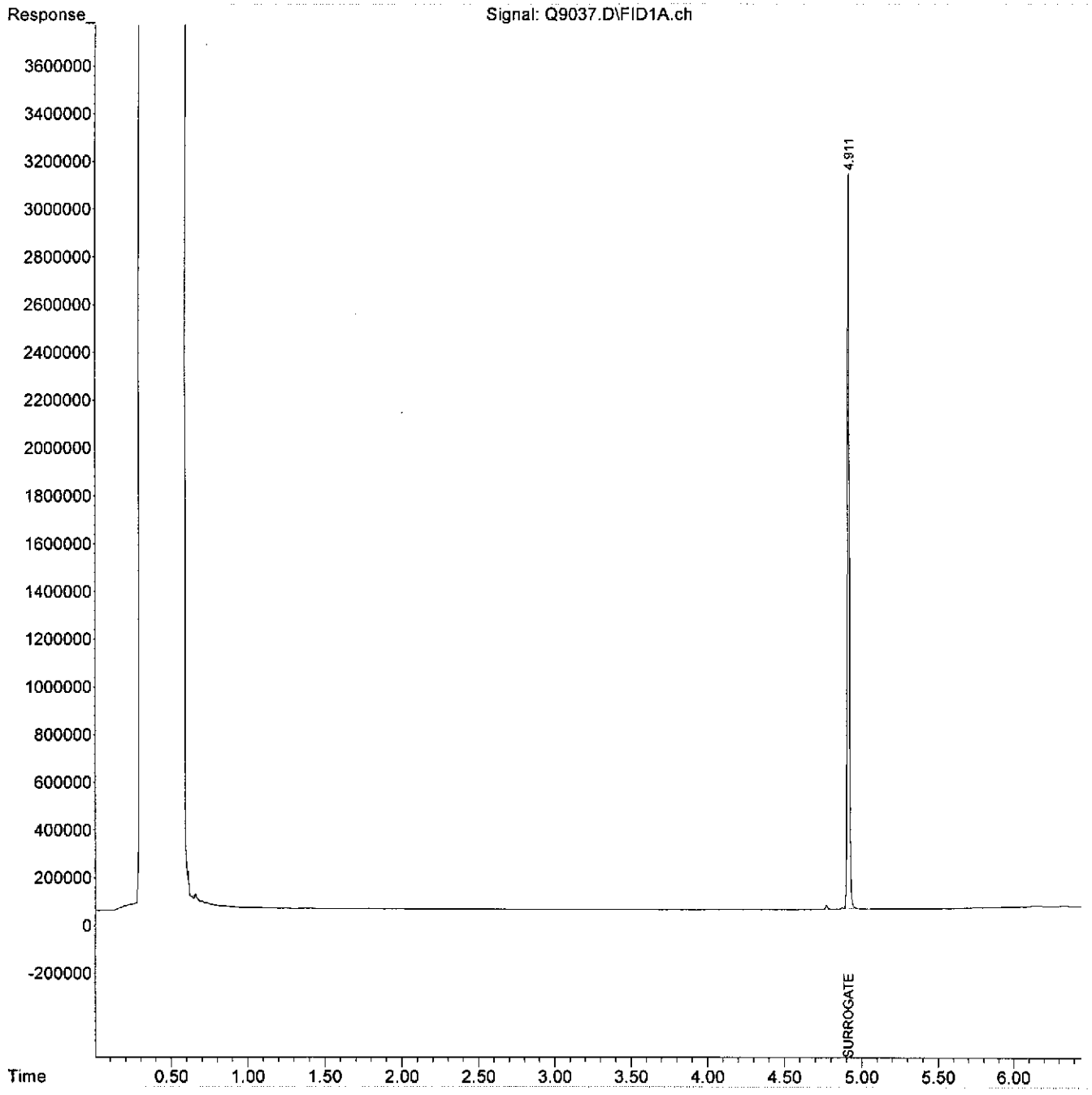
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9037.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 2:46 pm
Operator : TB
Sample : T1-2DEL/,01500-004,S,10.14g,19.7,02/19/10,15
Misc : PENNJERSEY/PALMER,02/17/10,02/18/10,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 14:52:56 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9038.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 2:56 pm
Operator : TB
Sample : L8-D1/2-,01500-005,S,10.01g,9.10,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,5
ALS Vial : 33 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:12:14 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.909	4992062	23.023	ng	m
Spiked Amount 100.000		Recovery = 23.02%			
Target Compounds					
3) H TPH-DRO	2.500	394398014	1022.184	ng	

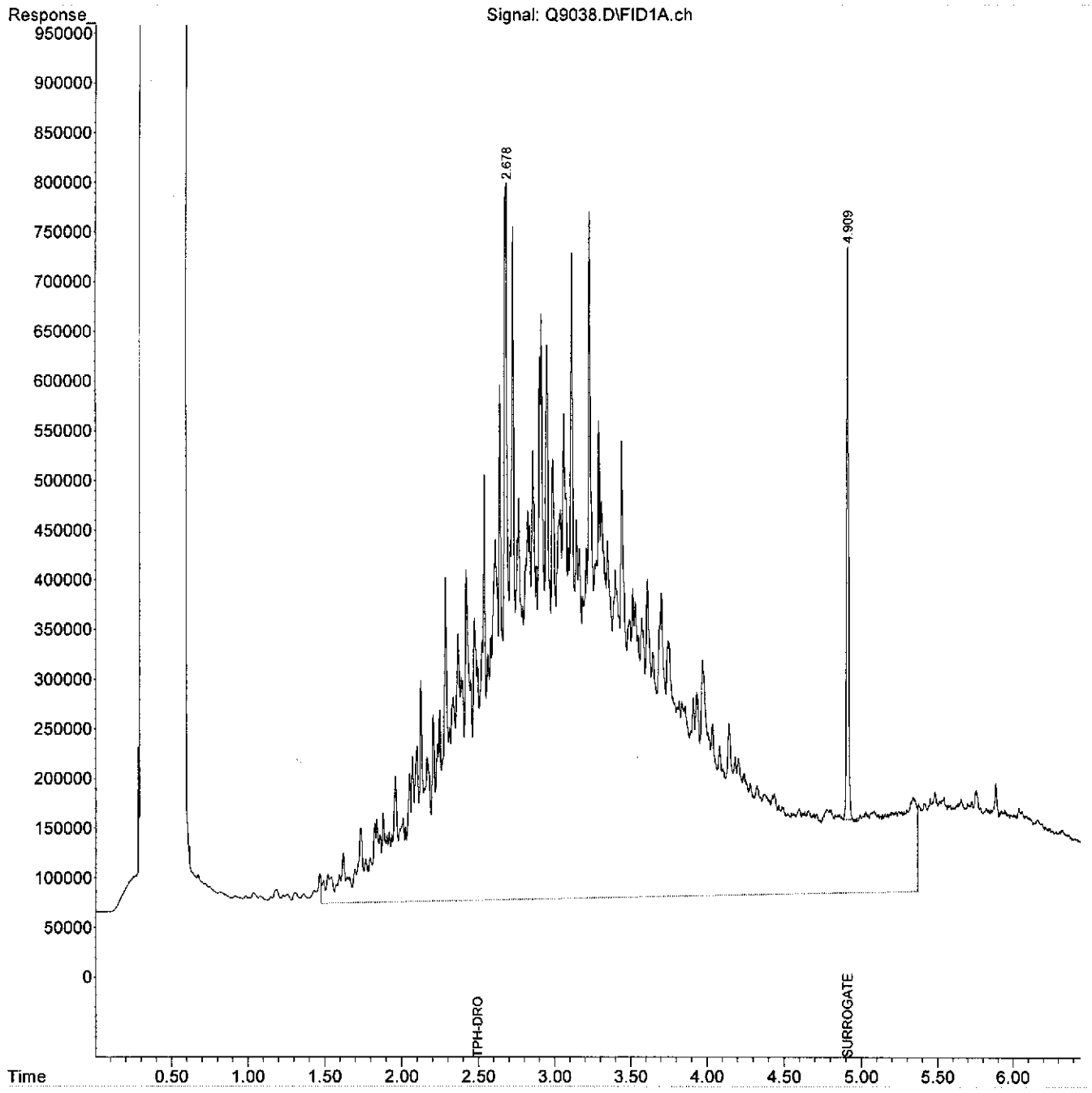
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9038.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 2:56 pm
Operator : TB
Sample : L8-D1/2-,01500-005,S,10.01g,9.10,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,5
ALS Vial : 33 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:12:14 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9039.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:06 pm
Operator : TB
Sample : L8-D2/2-,01500-006,S,10.43g,11.4,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,5
ALS Vial : 34 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:27:32 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.908	4644859	21.422 ng m
Spiked Amount 100.000		Recovery =	21.42%
Target Compounds			
3) H TPH-DRO	2.500	316645439	820.668 ng

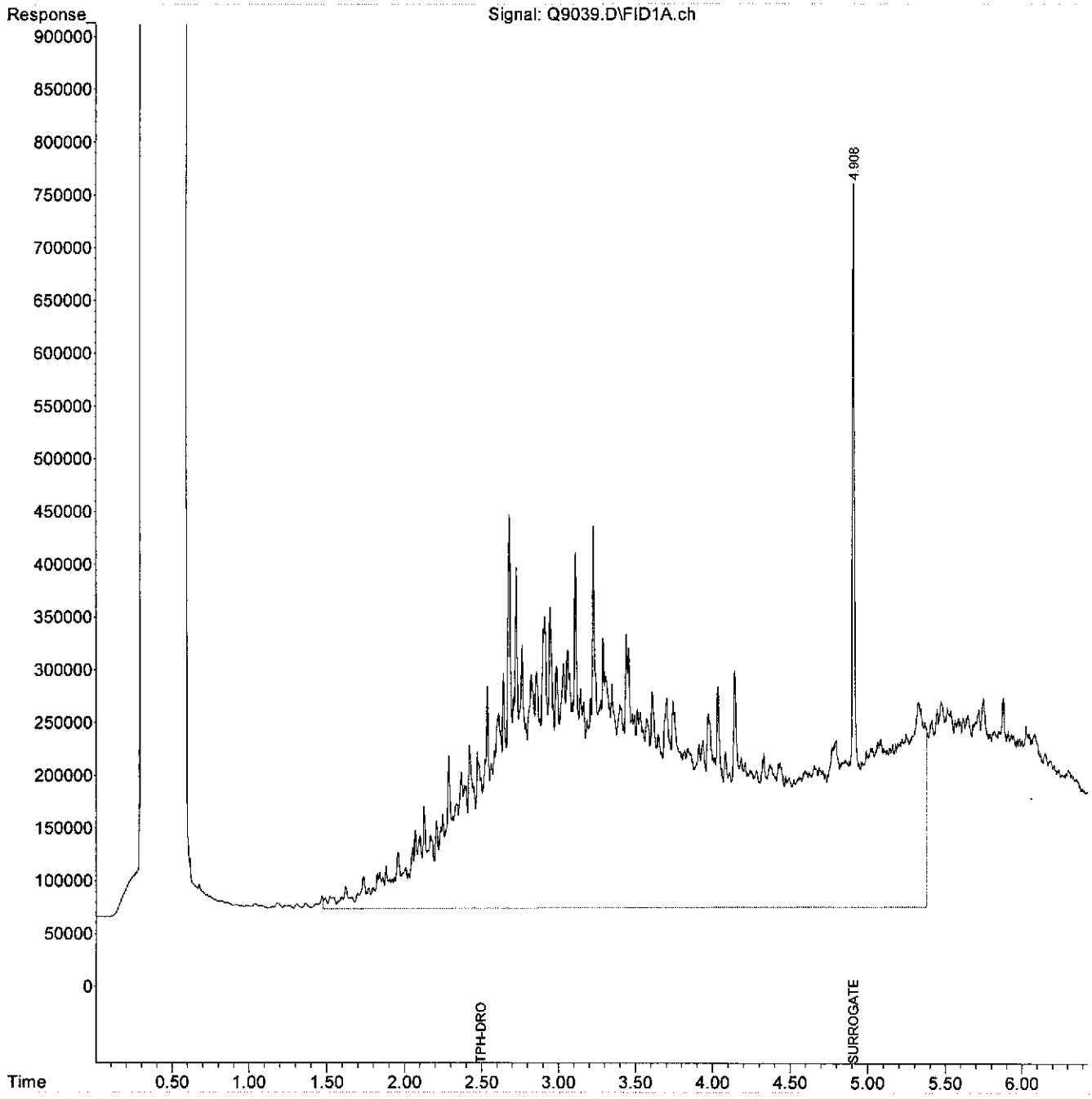
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9039.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:06 pm
Operator : TB
Sample : L8-D2/2-,01500-006,S,10.43g,11.4,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,5
ALS Vial : 34 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:27:32 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-19-10\
Data File : Q8932.D
Signal(s) : FID1A.ch
Acq On : 19 Feb 10 9:46 pm
Operator : TB
Sample : L8-D3/2-,01500-007,S,10.15g,3.10,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 09:39:04 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 09:14:36 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.908	24912613	114.895 ng m
Spiked Amount 100.000		Recovery = 114.90%	
Target Compounds			
3) H TPH-DRO	2.500	105949762	274.596 ng

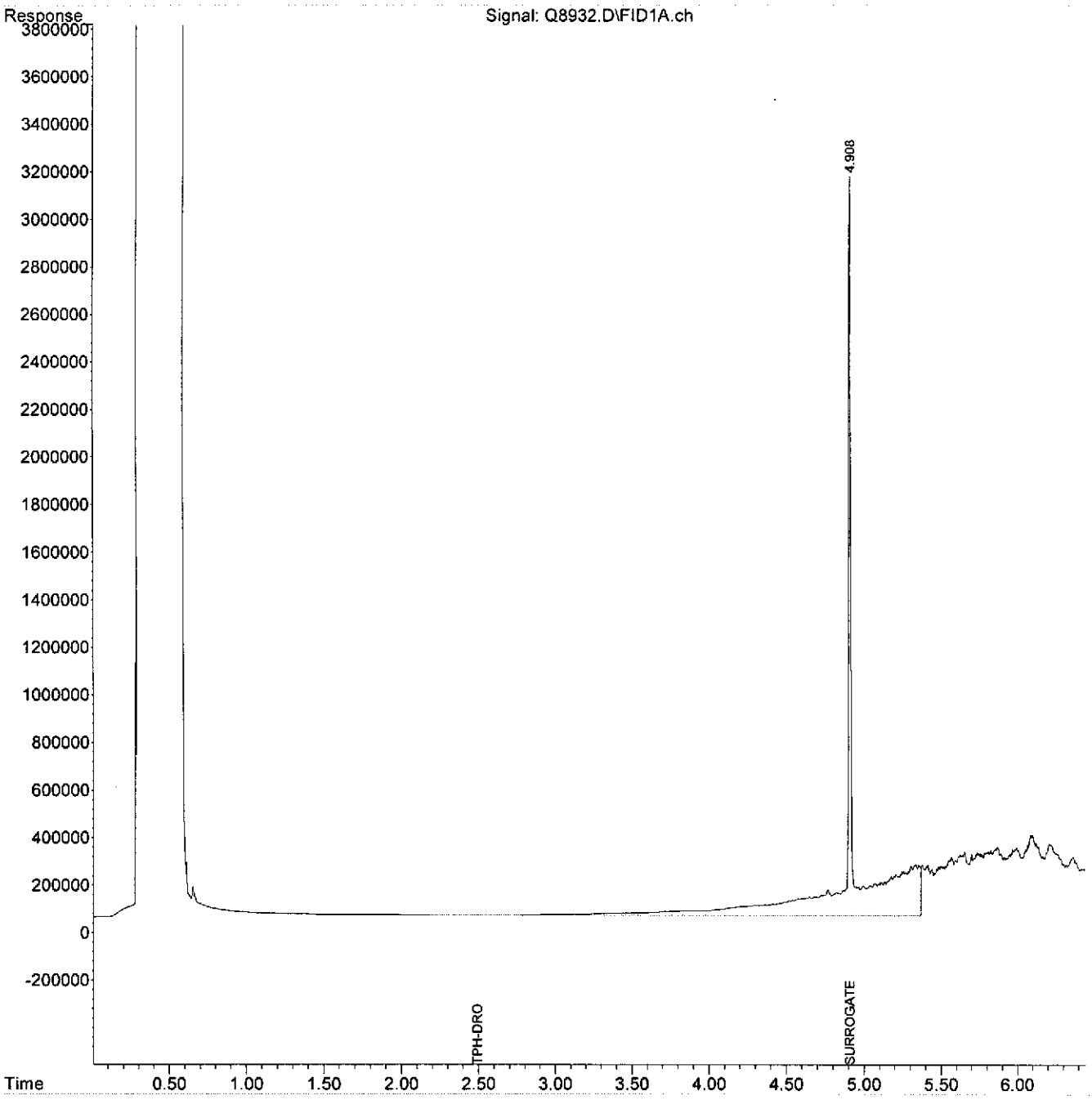
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-19-10\
Data File : Q8932.D
Signal(s) : FID1A.ch
Acq On : 19 Feb 10 9:46 pm
Operator : TB
Sample : L8-D3/2-,01500-007,S,10.15g,3.10,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 09:39:04 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 09:14:36 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9040.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:16 pm
Operator : TB
Sample : L8-D4/2-,01500-008,S,10.79g,17.3,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:27:41 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.910	25383602	117.068 ng
Spiked Amount 100.000		Recovery = 117.07%	
Target Compounds			

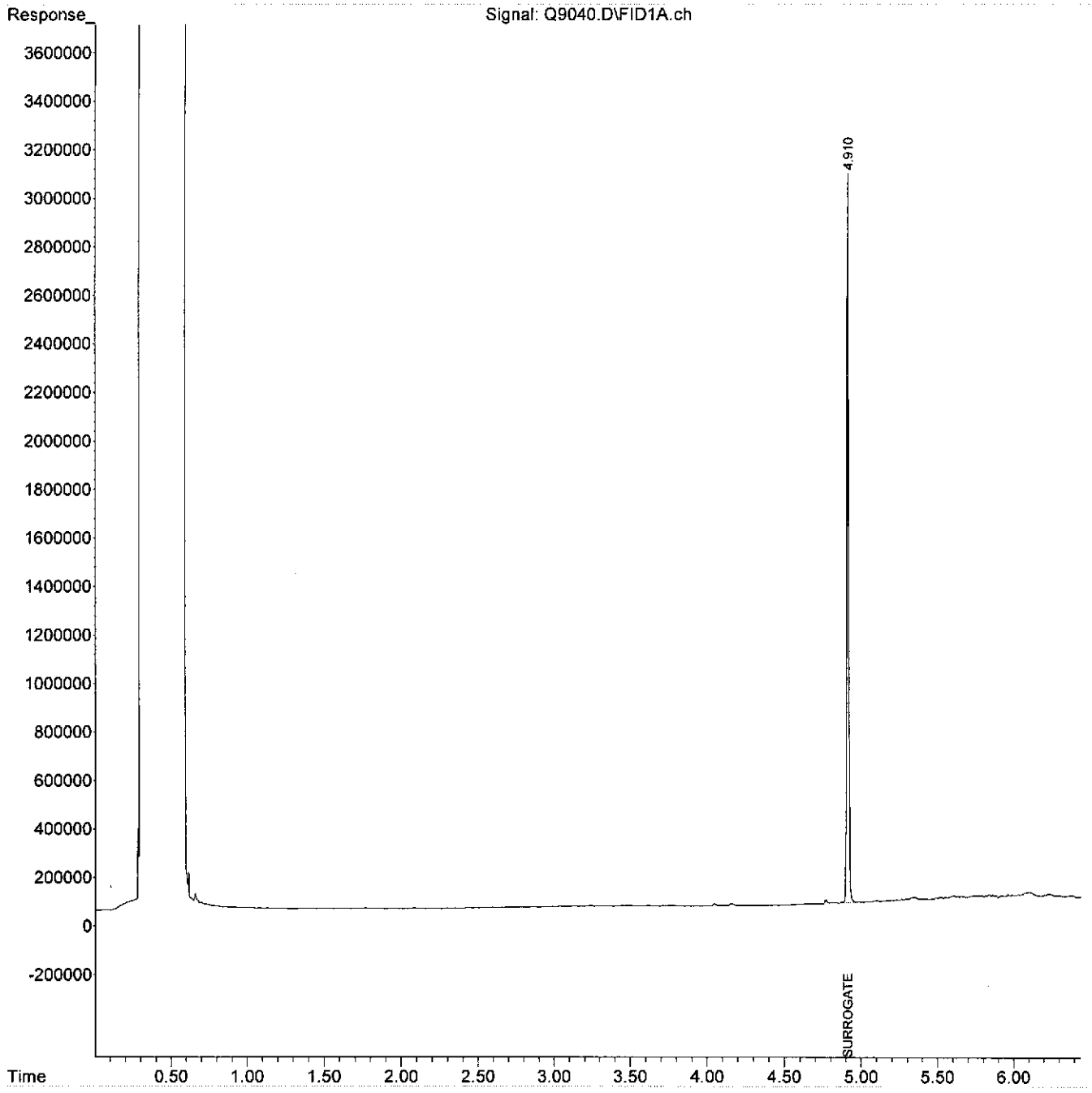
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9040.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:16 pm
Operator : TB
Sample : L8-D4/2-,01500-008,S,10.79g,17.3,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:27:41 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9041.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:27 pm
Operator : TB
Sample : L5-D1/2.,01500-009,S,10.58g,17.6,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,10
ALS Vial : 36 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:34:49 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.908	2732424	12.602 ng m
Spiked Amount 100.000		Recovery =	12.60%
Target Compounds			
3) H TPH-DRO	2.500	352673723	914.045 ng

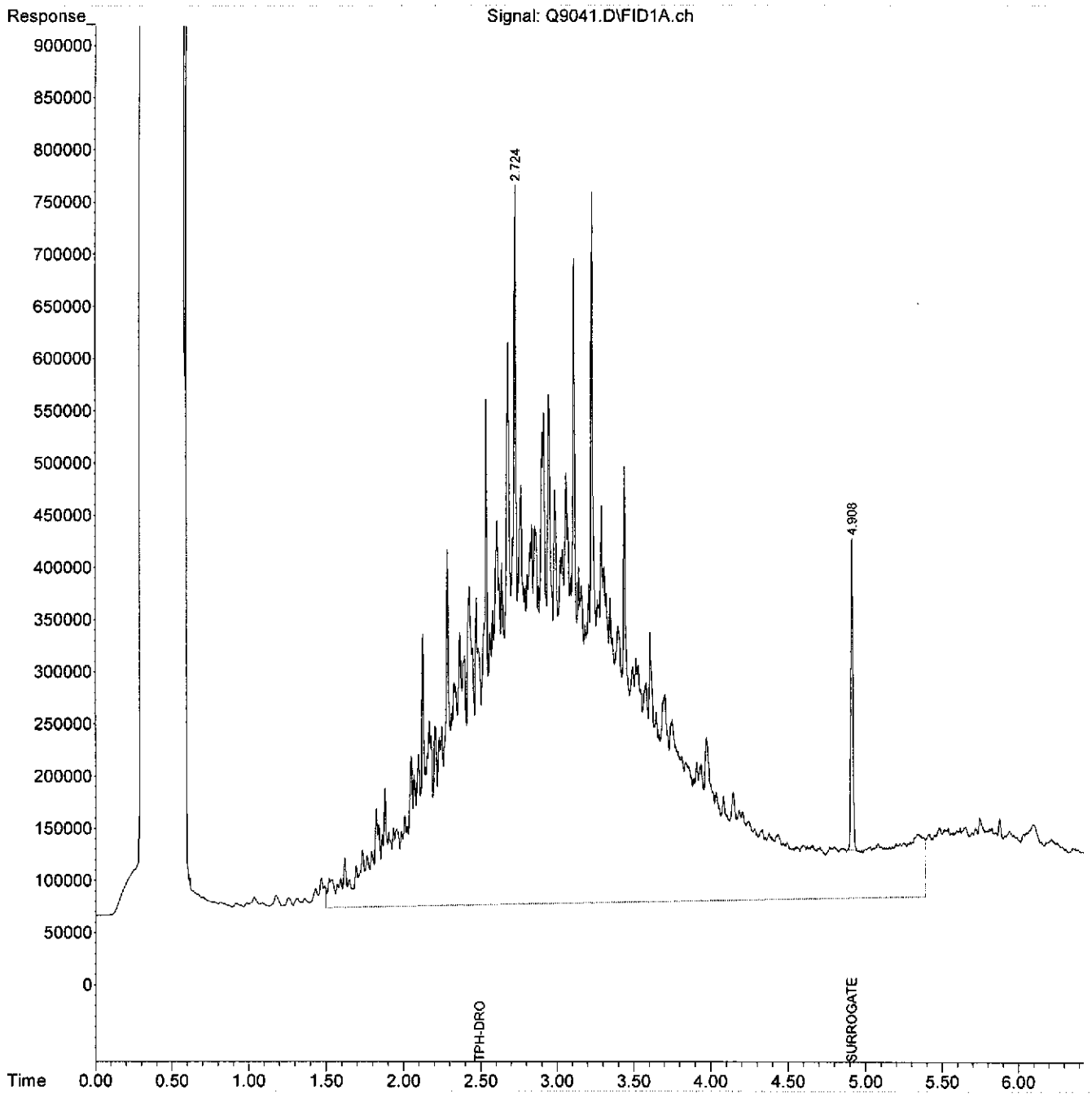
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9041.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:27 pm
Operator : TB
Sample : L5-D1/2.,01500-009,S,10.58g,17.6,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,10
ALS Vial : 36 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:34:49 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9042.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:37 pm
Operator : TB
Sample : L5-D2/2.,01500-010,S,10.34g,21.0,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: autointl.e
Quant Time: Feb 22 15:54:52 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.908	28225298	130.173 ng m
Spiked Amount 100.000		Recovery = 130.17%	
Target Compounds			
3) H TPH-DRO	2.500	232791669	603.339 ng

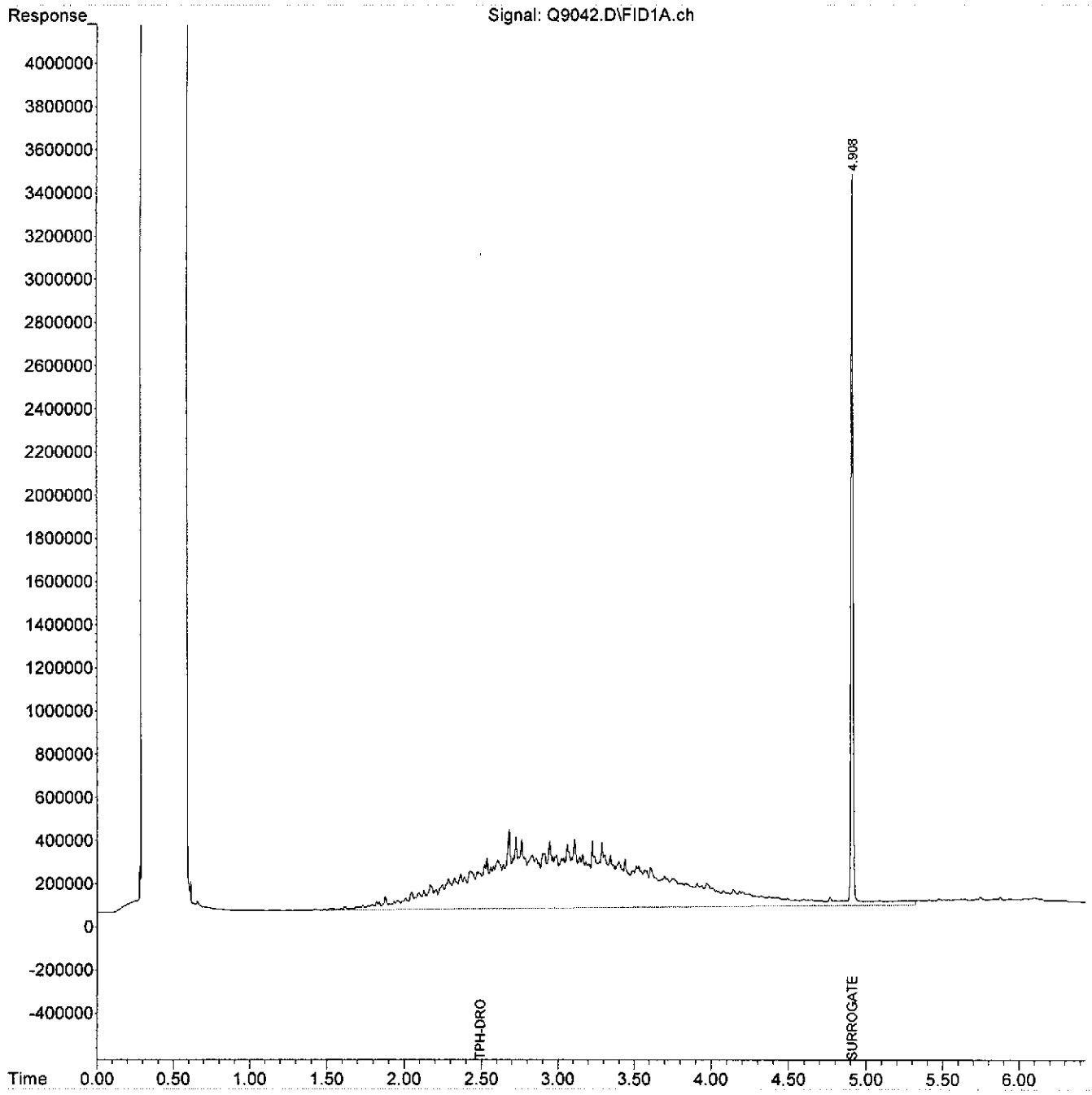
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9042.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:37 pm
Operator : TB
Sample : L5-D2/2.,01500-010,S,10.34g,21.0,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:54:52 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9043.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:47 pm
Operator : TB
Sample : L5-D3/2.,01500-011,S,10.13g,21.0,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,10
ALS Vial : 38 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:55:20 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.908	2679976	12.360 ng m
Spiked Amount 100.000		Recovery =	12.36%
Target Compounds			
3) H TPH-DRO	2.500	312859763	810.856 ng

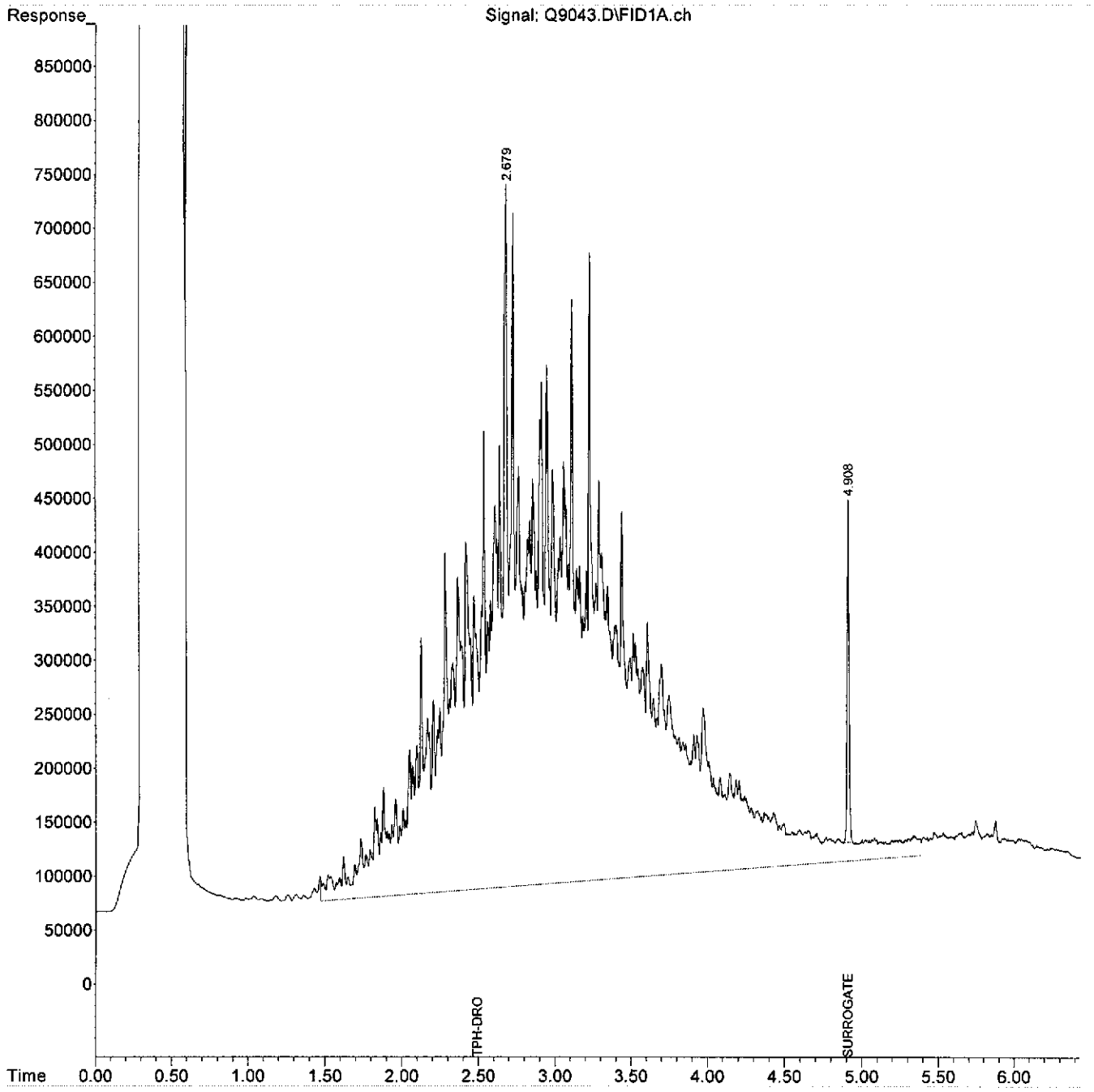
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9043.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:47 pm
Operator : TB
Sample : L5-D3/2.,01500-011,S,10.13g,21.0,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,10
ALS Vial : 38 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 15:55:20 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9044.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:58 pm
Operator : TB
Sample : L5-D4/2.,01500-012,S,10.31g,22.7,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,10
ALS Vial : 39 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 16:10:15 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.909	2818126	12.997 ng m
Spiked Amount 100.000		Recovery =	13.00%
Target Compounds			
3) H TPH-DRO	2.500	464317678	1203.399 ng

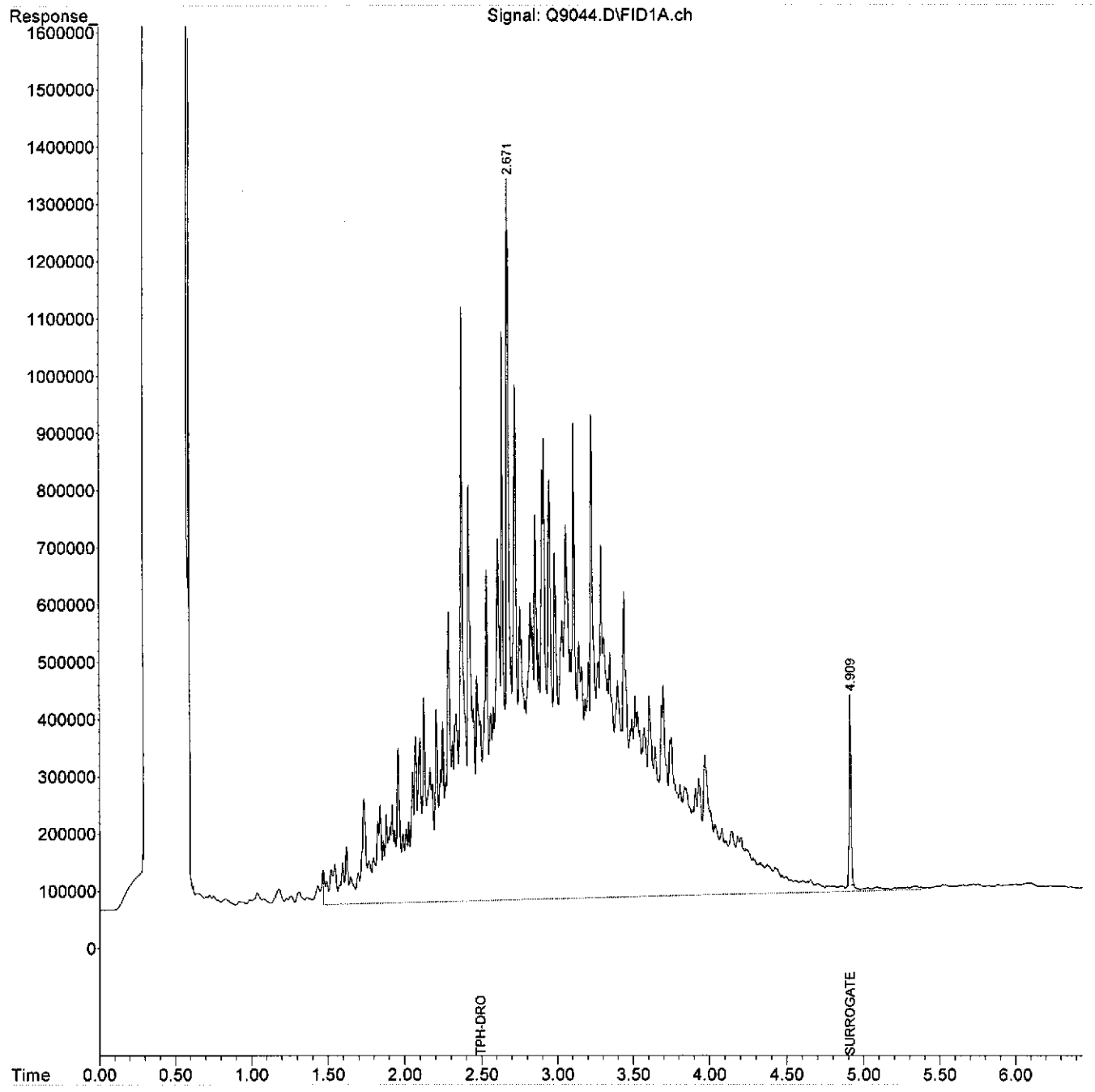
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9044.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 3:58 pm
Operator : TB
Sample : L5-D4/2.,01500-012,S,10.31g,22.7,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,10
ALS Vial : 39 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 16:10:15 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9045.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 4:08 pm
Operator : TB
Sample : L4-D1/3.,01500-013,S,10.49g,14.2,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,1
ALS Vial : 40 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 16:15:17 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.912	24329212	112.205	ng	m
Spiked Amount 100.000		Recovery = 112.21%			
Target Compounds					

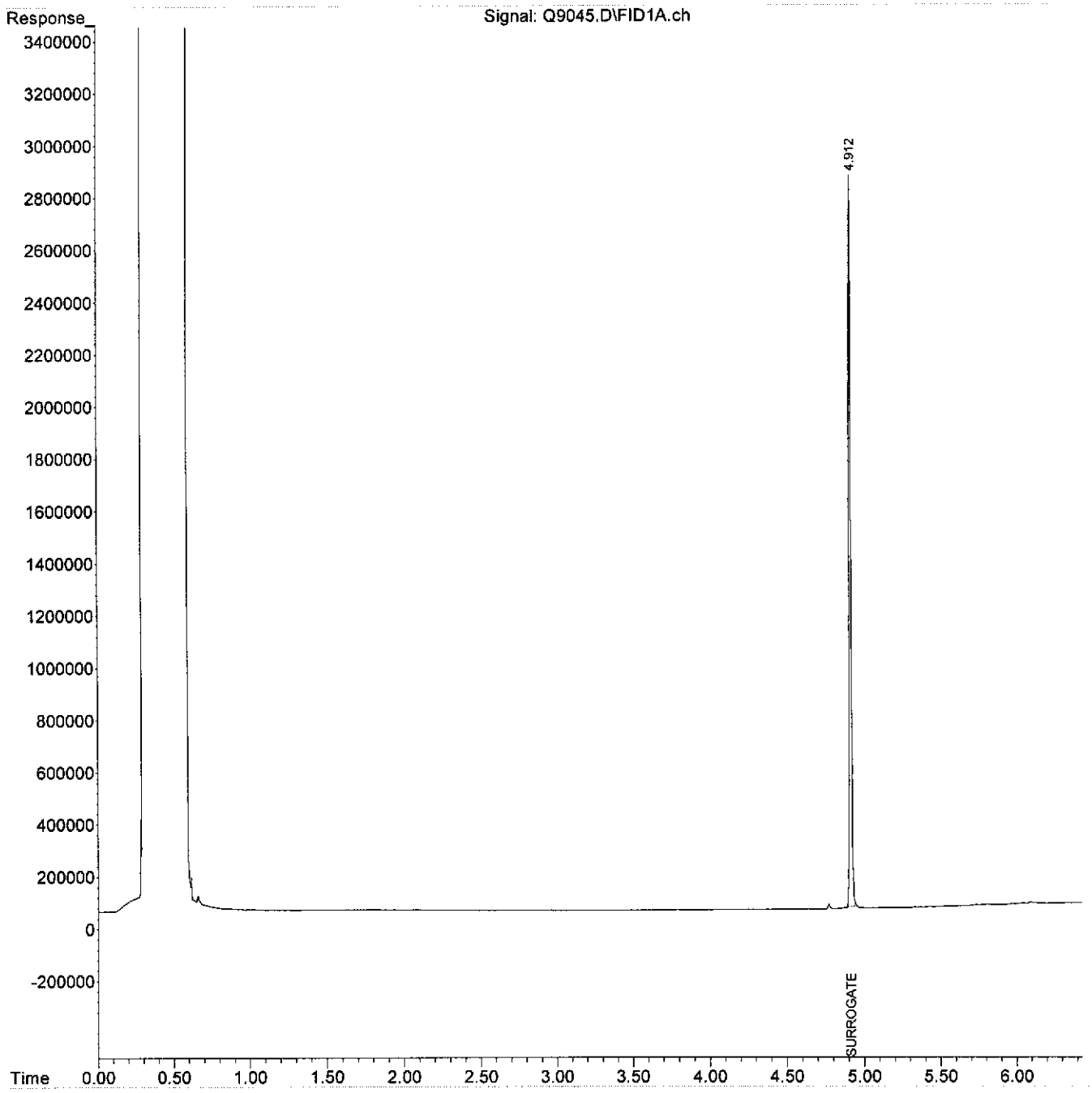
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9045.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 4:08 pm
Operator : TB
Sample : L4-D1/3.,01500-013,S,10.49g,14.2,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,1
ALS Vial : 40 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 16:15:17 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9046.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 4:18 pm
Operator : TB
Sample : L4-D2/3.,01500-014,S,10.25g,40.5,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,20
ALS Vial : 41 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 16:25:40 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.908	1378662	6.358 ng m
Spiked Amount 100.000		Recovery =	6.36%
Target Compounds			
3) H TPH-DRO	2.500	342196117	886.889 ng

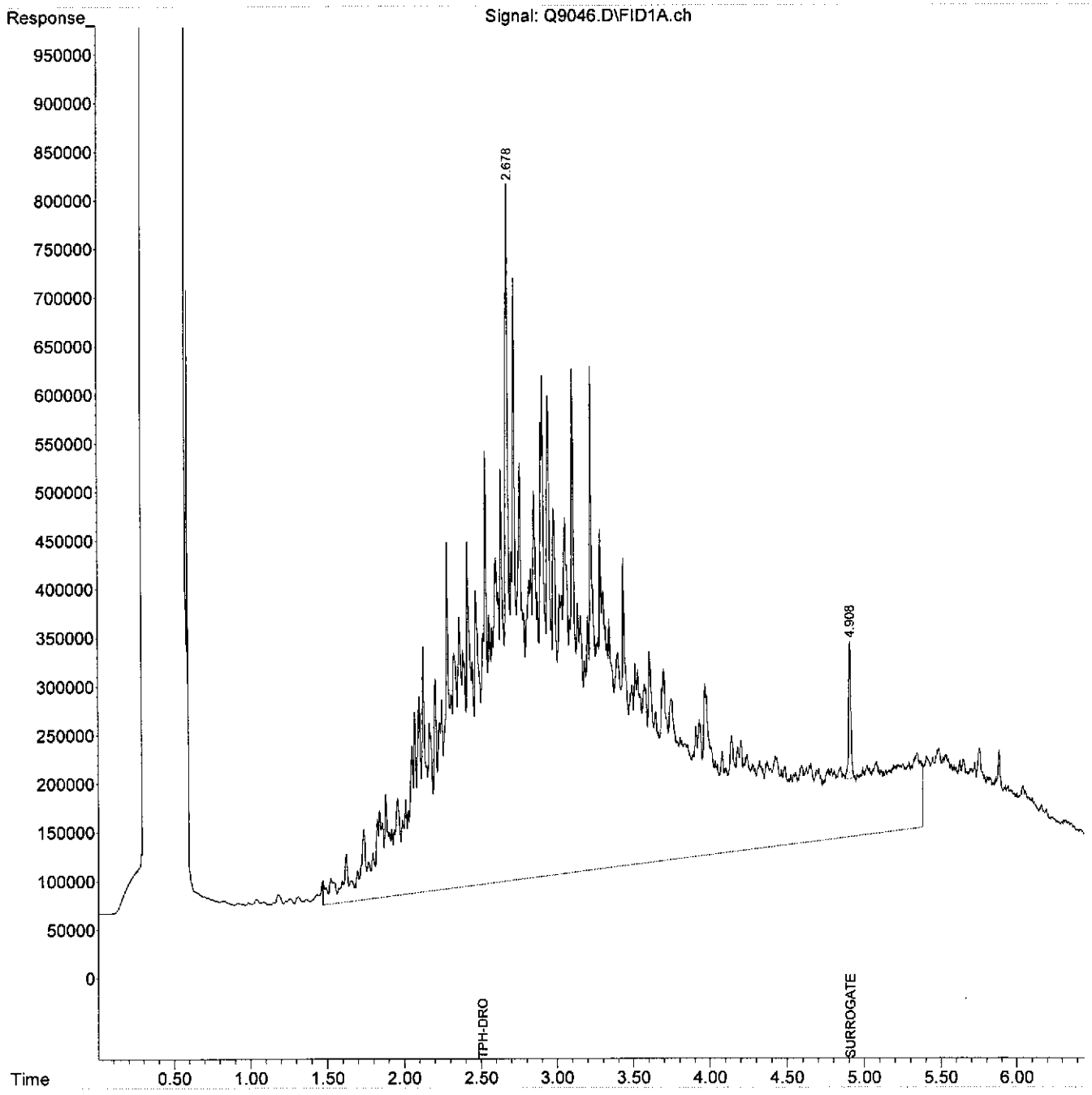
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9046.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 4:18 pm
Operator : TB
Sample : L4-D2/3.,01500-014,S,10.25g,40.5,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,20
ALS Vial : 41 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 16:25:40 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9047.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 4:29 pm
Operator : TB
Sample : L4-D3/3.,01500-015,S,10.31g,19.3,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,5
ALS Vial : 42 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 16:46:30 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.908	5599139	25.823	ng	m
Spiked Amount 100.000		Recovery = 25.82%			
Target Compounds					
3) H TPH-DRO	2.500	582808668	1510.498	ng	

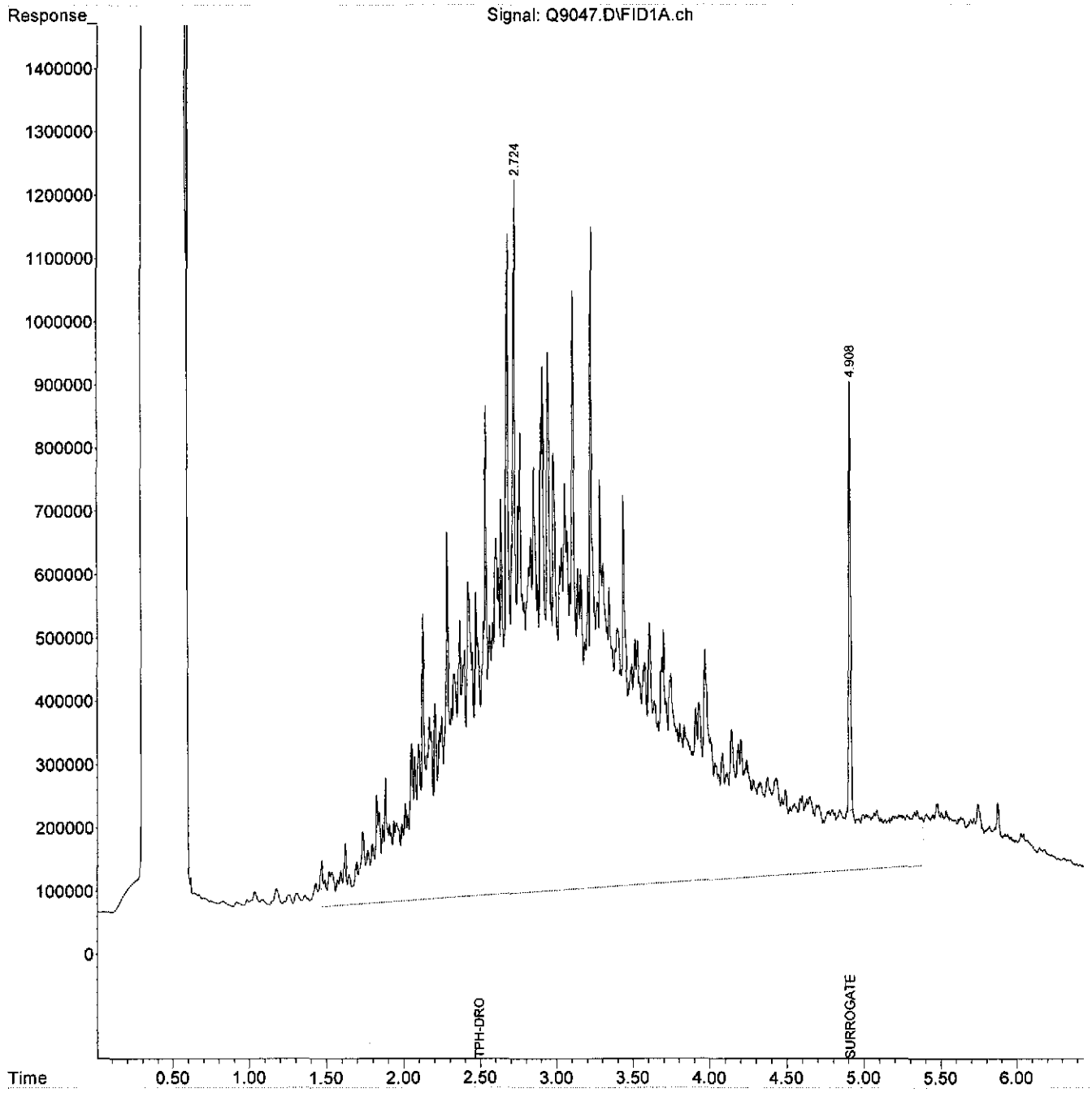
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9047.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 4:29 pm
Operator : TB
Sample : L4-D3/3.,01500-015,S,10.31g,19.3,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,5
ALS Vial : 42 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 16:46:30 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9048.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 4:39 pm
Operator : TB
Sample : L4-D4/3.,01500-016,S,10.48g,18.4,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,1
ALS Vial : 43 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 16:46:43 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.910	27054556	124.774 ng
Spiked Amount 100.000		Recovery =	124.77%
Target Compounds			
3) H TPH-DRO	2.500	151385212	392.354 ng

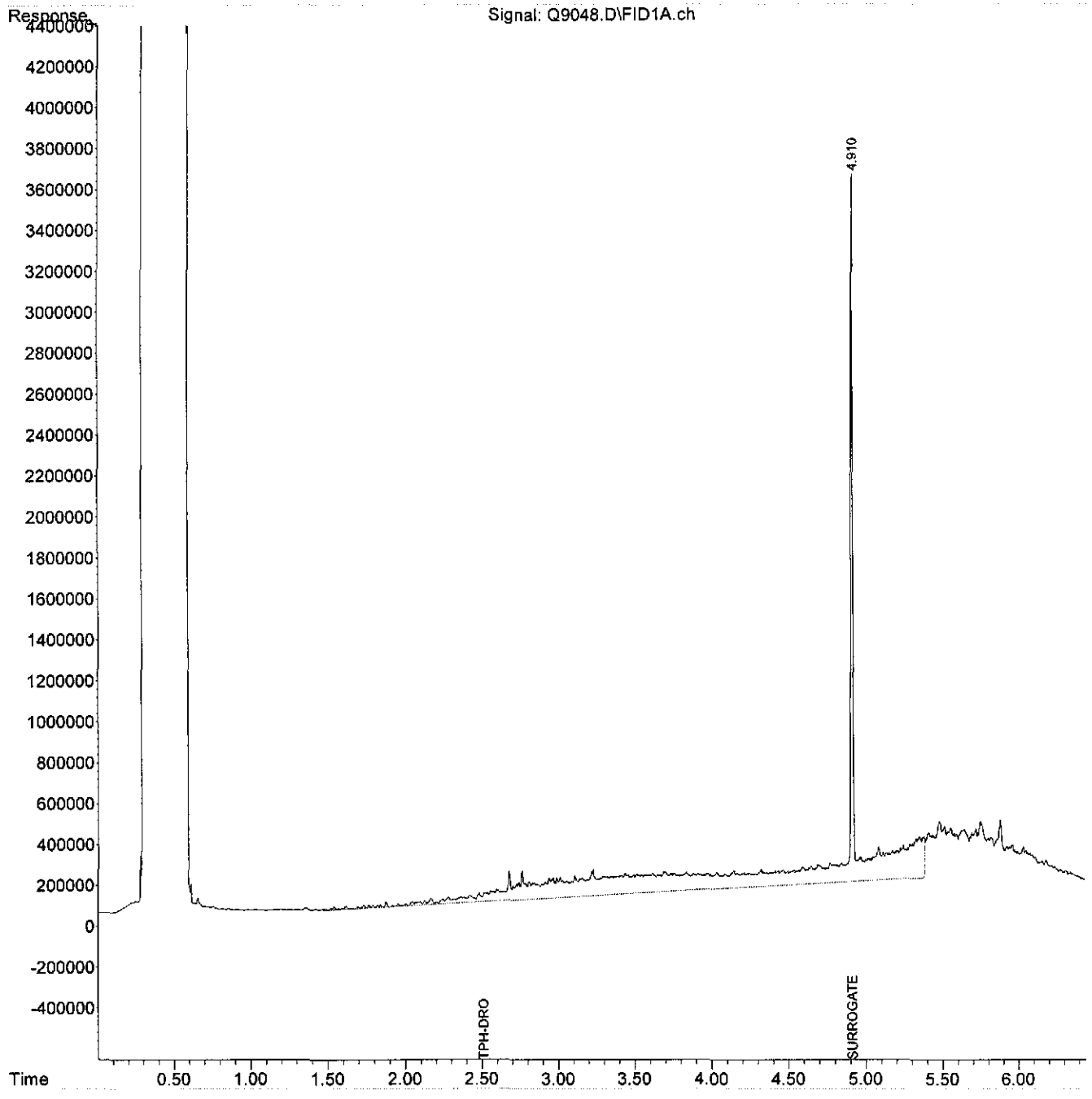
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9048.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 4:39 pm
Operator : TB
Sample : L4-D4/3.,01500-016,S,10.48g,18.4,02/19/10,15
Misc : PENNJERSEY/PALMER,02/18/10,02/18/10,1
ALS Vial : 43 Sample Multiplier: 1

Integration File: autointl.e
Quant Time: Feb 22 16:46:43 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Data Path : C:\msdchem\1\DATA\02-19-10\
Data File : Q8926.D
Signal(s) : FID1A.ch
Acq On : 19 Feb 10 8:44 pm
Operator : TB
Sample : DRO,0219-BLK01,S,10.0g,0,02/19/10,15
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 09:36:02 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 09:14:36 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.909	25522600	117.709	ng	m
Spiked Amount 100.000		Recovery = 117.71%			
Target Compounds					

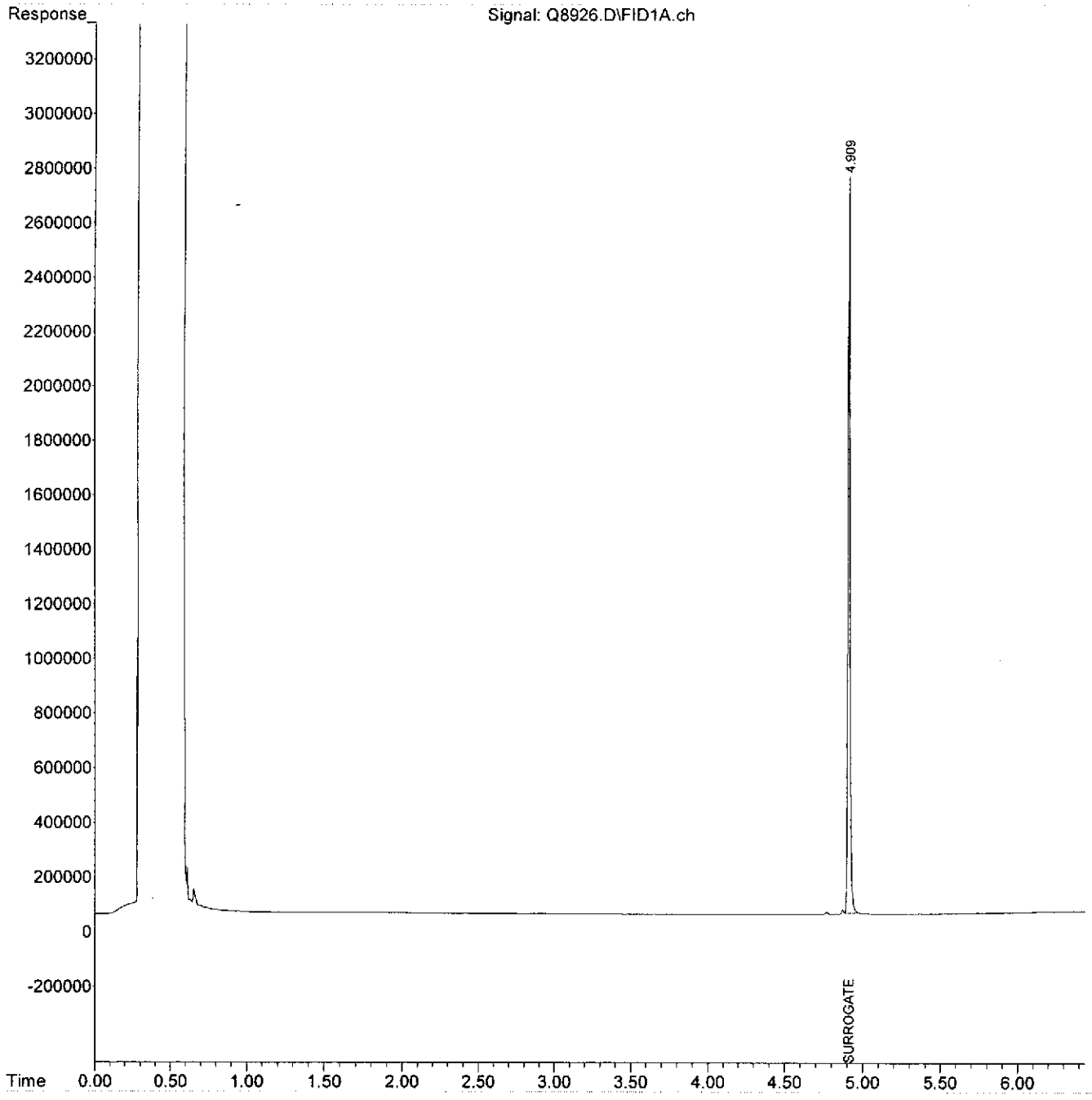
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-19-10\
Data File : Q8926.D
Signal(s) : FID1A.ch
Acq On : 19 Feb 10 8:44 pm
Operator : TB
Sample : DRO,0219-BLK01,S,10.0g,0,02/19/10,15
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 09:36:02 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 09:14:36 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Data Path : C:\msdchem\1\DATA\02-19-10\
Data File : Q8925.D
Signal(s) : FID1A.ch
Acq On : 19 Feb 10 8:24 pm
Operator : TB
Sample : DRO/GRO_IAS_3542,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 09:35:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 09:14:36 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.908	17393134	80.216	ng	m
Spiked Amount 100.000		Recovery = 80.22%			
Target Compounds					
3) H TPH-DRO	2.500	399190444	1034.605	ng	

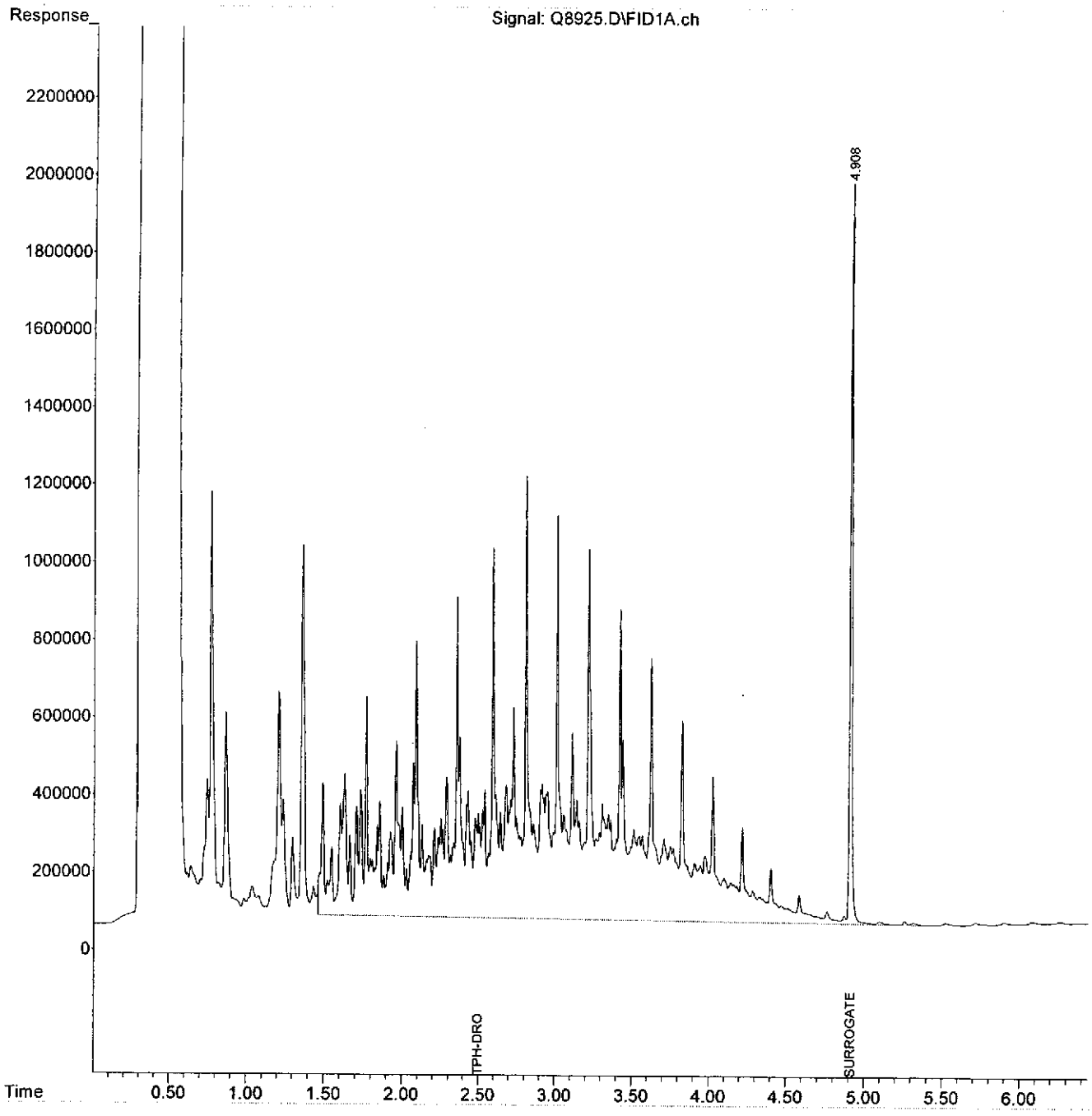
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-19-10\
Data File : Q8925.D
Signal(s) : FID1A.ch
Acq On : 19 Feb 10 8:24 pm
Operator : TB
Sample : DRO/GRO_IAS_3542,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 09:35:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 09:14:36 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9034.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 2:15 pm
Operator : TB
Sample : DRO/GRO_IAS_3542,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 14:24:40 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.910	17268744	79.642 ng m
Spiked Amount 100.000		Recovery =	79.64%
Target Compounds			
3) H TPH-DRO	2.500	377075280	977.287 ng

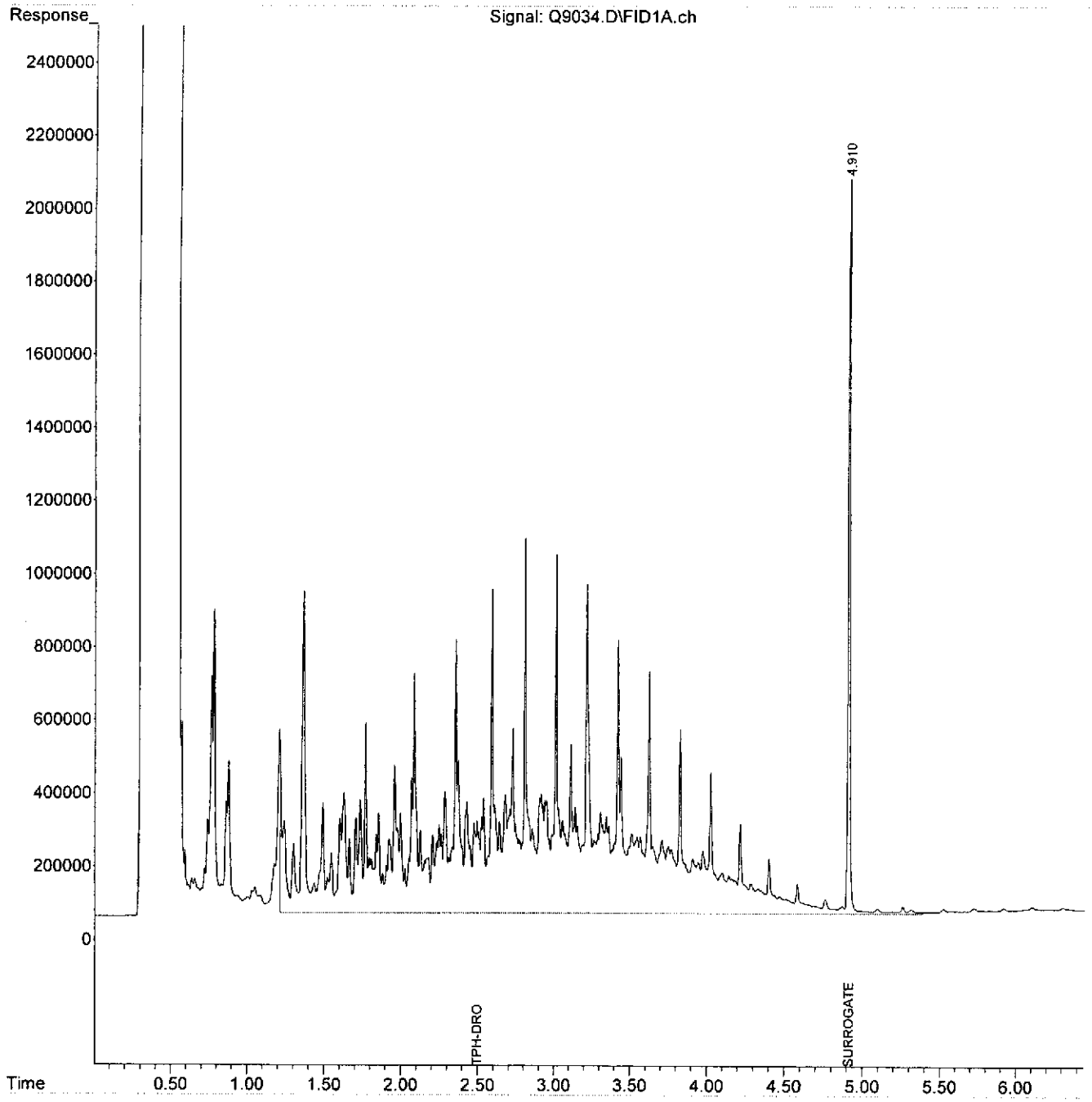
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9034.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 2:15 pm
Operator : TB
Sample : DRO/GRO_IAS_3542,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 14:24:40 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Data Path : C:\msdchem\1\DATA\02-19-10\
Data File : Q8950.D
Signal(s) : FID1A.ch
Acq On : 20 Feb 10 12:51 am
Operator : TB
Sample : DRO/GRO_IAS_3542,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 09:44:02 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 09:14:36 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.908	17340881	79.975	ng	m
Spiked Amount 100.000		Recovery = 79.97%			
Target Compounds					
3) H TPH-DRO	2.500	364551241	944.828	ng	

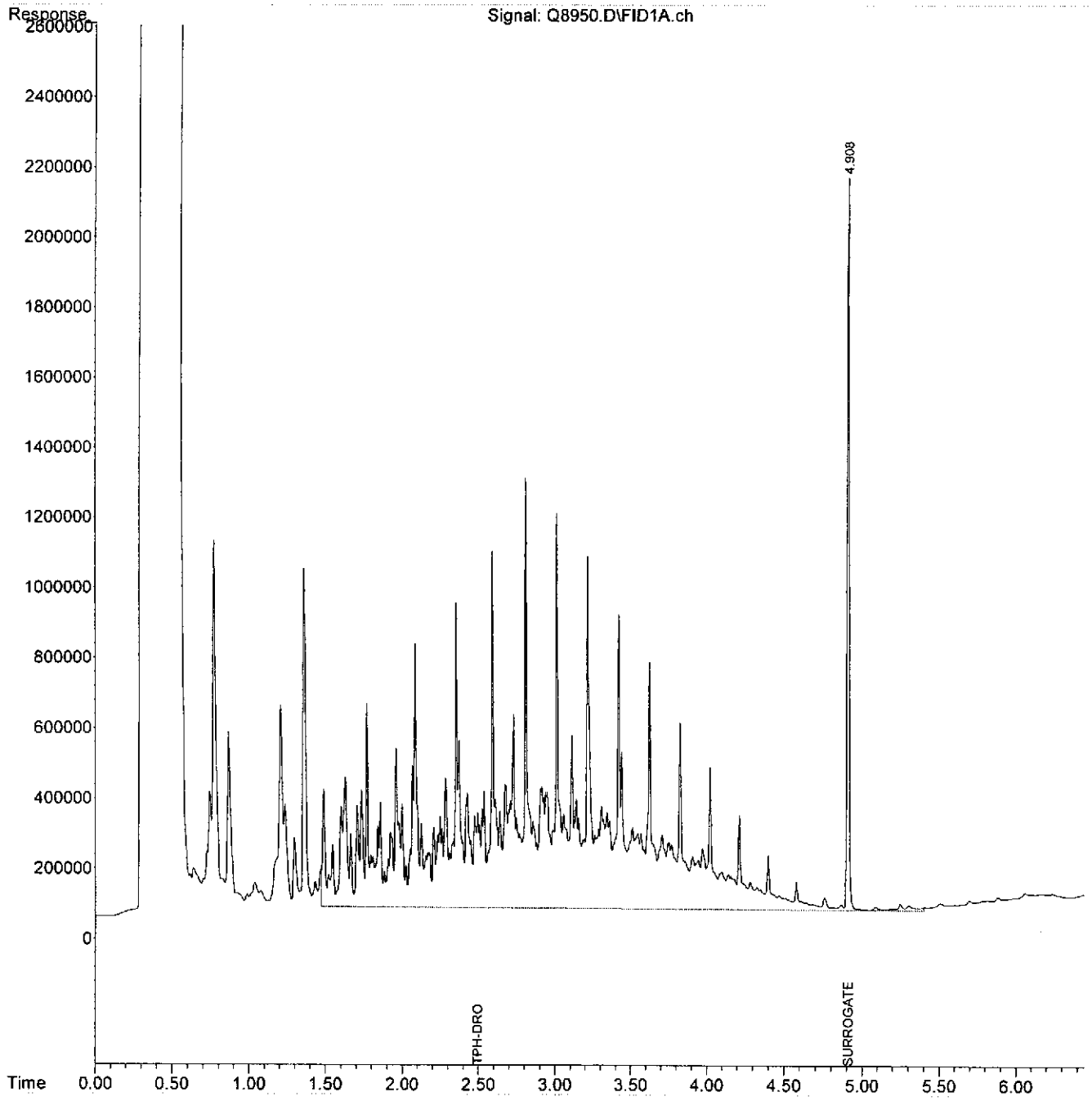
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-19-10\
Data File : Q8950.D
Signal(s) : FID1A.ch
Acq On : 20 Feb 10 12:51 am
Operator : TB
Sample : DRO/GRO_IAS_3542,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 09:44:02 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 09:14:36 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9050.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 4:59 pm
Operator : TB
Sample : DRO/GRO_IAS_3542,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 17:07:15 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

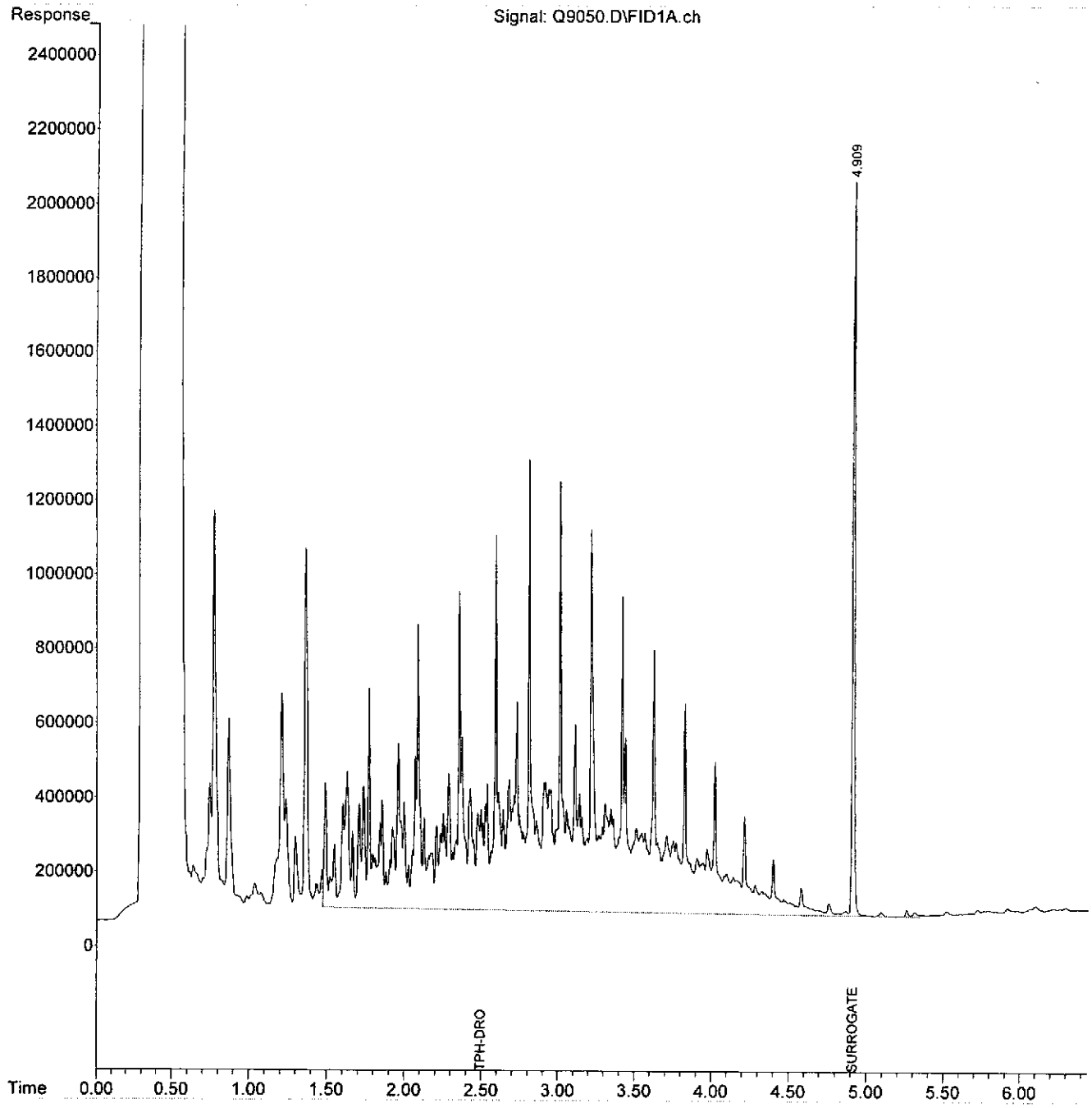
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.909	17903513	82.570 ng m
Spiked Amount 100.000		Recovery =	82.57%
Target Compounds			
3) H TPH-DRO	2.500	391609644	1014.957 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9050.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 4:59 pm
Operator : TB
Sample : DRO/GRO_IAS_3542,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 17:07:15 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-19-10\
Data File : Q8924.D
Signal(s) : FID1A.ch
Acq On : 19 Feb 10 8:13 pm
Operator : TB
Sample : DRO/GRO_RT_IAS_3628,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 09:14:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 09:14:36 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

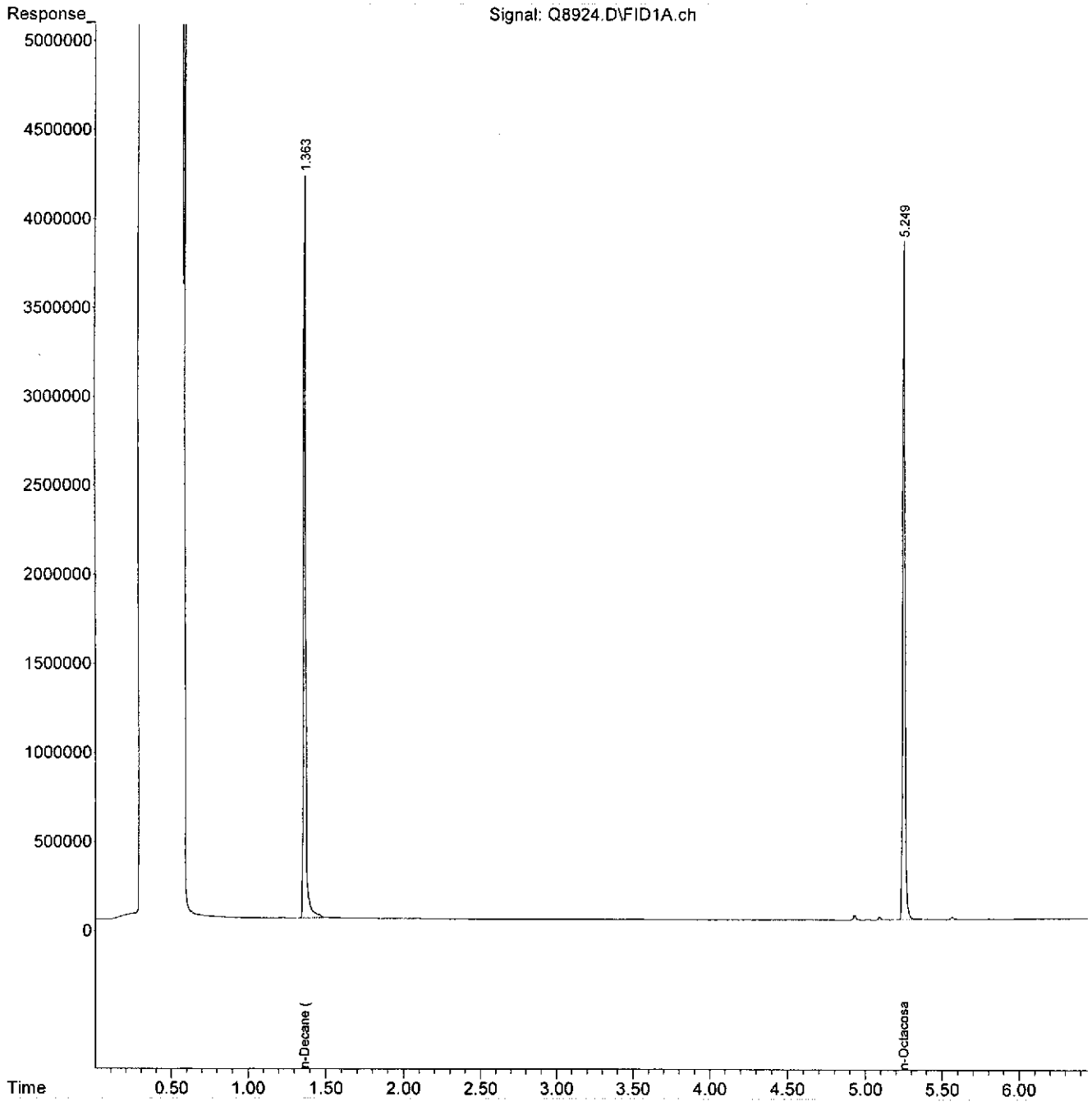
	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
Target Compounds				
5) T	n-Decane (C10)	1.363	40761253	207.901 ng
6) T	n-Octacosane (C28)	5.250	38207038	204.952 ng

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\1\DATA\02-19-10\
Data File : Q8924.D
Signal(s) : FID1A.ch
Acq On : 19 Feb 10 8:13 pm
Operator : TB
Sample : DRO/GRO_RT_IAS_3628,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 09:14:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 09:14:36 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9005.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 9:14 am
Operator : TB
Sample : DRO/GRO_RT_IAS_3628,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 10:22:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
5) T n-Decane (C10)	1.364	38925488	198.538 ng
6) T n-Octacosane (C28)	5.268	37533188	201.338 ng

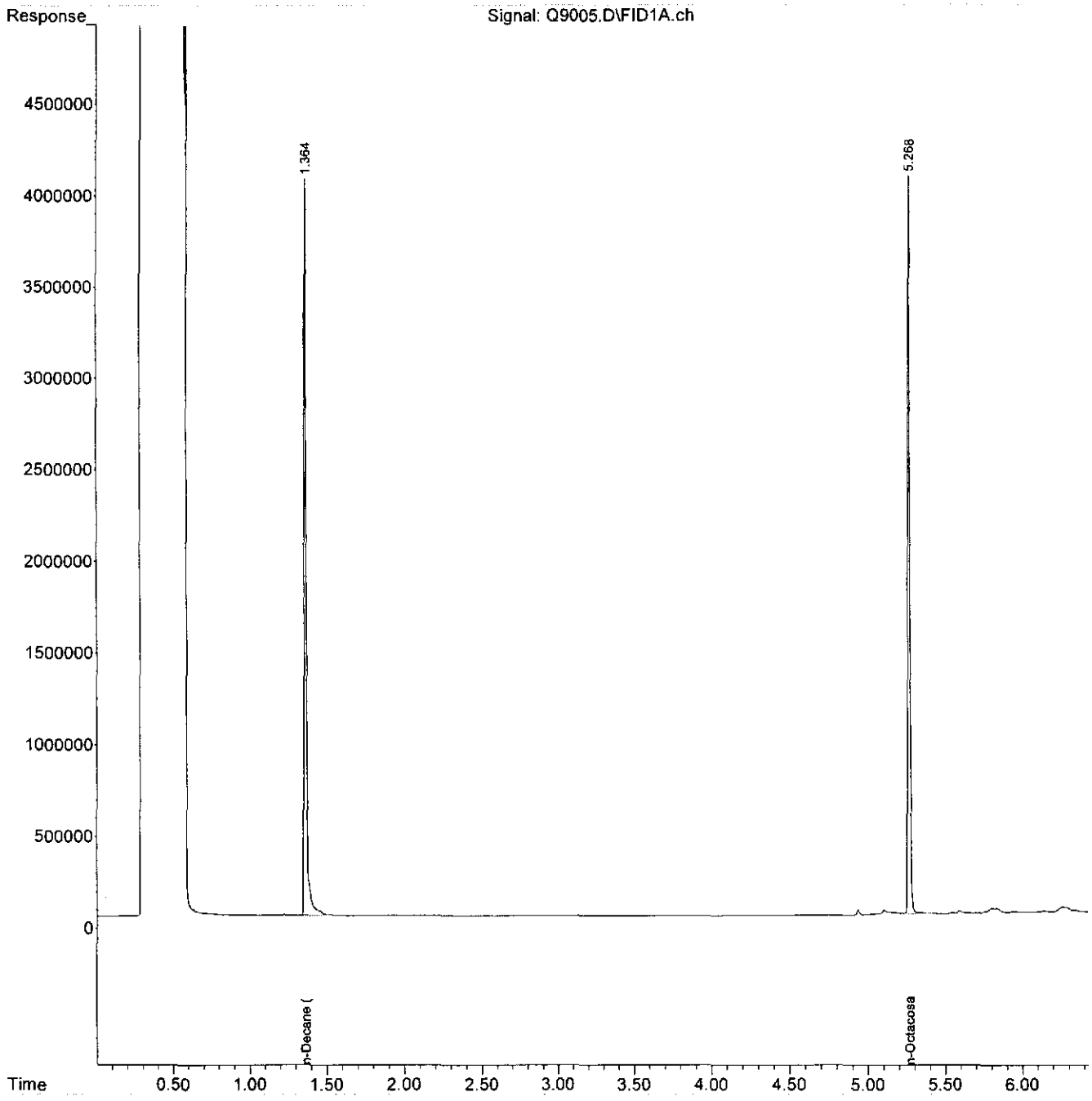
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\02-22-10\
Data File : Q9005.D
Signal(s) : FID1A.ch
Acq On : 22 Feb 10 9:14 am
Operator : TB
Sample : DRO/GRO_RT_IAS_3628,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 22 10:22:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0218.M
Quant Title :
QLast Update : Mon Feb 22 10:21:50 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC/PA
Address:	2034 E. Wellington Rd.
	Newtown NJ
Telephone #:	215 860 1231
Fax #:	215 860 9988
EMAIL Address:	pecinc@aol.com
Project Manager:	M. Brogan
Sampler:	M. Brogan
Project Name:	Palmer
Project Location (State):	NJ
Bottle Order #:	
Quote #:	

REPORTING INFO	
REPORT TO:	PEC/PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC/PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) — QAM025 (5 day TAT min.)

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax — 2 wk/Std
24 hr* 48 hr* 72 hr* 1 wk*

Hard Copy — 3 wk/Std
Other *call for price

Results needed by: STD / STD

Rush TAT Charge **
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

EDD's
RP. dbf format
lab approved custom EDD
NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	ANALYTICAL PARAMETERS: QAM 25	DRO	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
TP10	6.5-7'	2/17/10	11:00	S	1	01	✓								1	
T2-2 DEL	6.5-7'	↓	12:15	S	1	2		✓							1	
T2-4 DEL	7.5-8'		1:30	S	1	3		✓							1	
T1-2 DEL	5-5.5'	↓	3:00	S	1	4		✓							1	
L8-D1	2-2.5'	2/18/10	10:00	S	1	5		✓							1	
L8-D2	↓	↓	10:10	S	1	6		✓							1	
L8-D3			10:20	S	1	7		✓							1	
L8-D4	↓		10:30	S	1	8		✓							1	
L5-D1	2.92-3.42		11:10	S	1	9		✓							1	
L5-D2	2.92-3.42	↓	1:20	S	1	10		✓							1	

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by:	2/18/10	2:45	Received by:	2/18/10	2:45
Relinquished by:	2/18/10	3:55	Received by: Gail Lucas	2/18/10	3:55
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 01500

PAGE: 1 of 2

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10/2009 rev

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC-PA
Address:	2034 E. WELLINGTON RD
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
EMAIL Address:	PECINC@aol.com
Project Manager:	M. BROGAN
Sampler:	M. BROGAN
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote #:	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- ~~MUST CHOOSE~~
DRO (3-5 day TAT) QAM025 (5 day TAT min.)
DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax 24 hr* 48 hr* **2 wk/Std** 72 hr* 1 wk*
Hard Copy Other *call for price **3 wk/Std**
Results needed by: STD / STD

Rush TAT Charge **
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

EDD's
SRP. dbf format
lab approved custom EDD
NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

ANALYTICAL PARAMETERS

BOTTLES & PRESERVATIVES

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	DRO	HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
L5-D3	2.92-3.42	2/18/10	1:30	S	1	11	✓							1	
L5-D4	2.92-3.42		11:15	S	1	12	✓							1	
L4-D1	3.17-3.67		11:45	S	1	13	✓							1	
L4-D2	↓		11:55	S	1	14	✓							1	
L4-D3	3.17-3.67		11:00	S	1	15	✓							1	
L4-D4	↓	↓	12:05	S	1	16	✓							1	

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by:	2/18/10	2:45	Received by:	2/18/10	2:45
Relinquished by:	2/18/10	355	Received by:	2/18/10	355
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 01900

PAGE: 2 of 2

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PROJECT INFORMATION

** RUSH **

Case No. E10-01500 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Mike Brogan	**Received**	2/18/2010 15:55
EMail	pecinc@aol.com;nagorbm@yaho	☑ EMail EDDs	**Verbal Due** 2/25/2010
Phone	(973) 664-1199 **Fax** 1(973)664-1127		**Report Due** 3/11/2010

Report To

2034 E. Wellington Rd.

Newtown, PA 18940

Attn: Mike Brogan

Bill To

2034 E. Wellington Rd.

Newtown, PA 18940

Attn: Mike Brogan

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
01500-001	TP10	6.5 / 7	2/17/2010@11:00	Soil	mg/Kg	1
01500-002	T2-2DEL	6.5 / 7	2/17/2010@12:15	Soil	mg/Kg	1
01500-003	T2-4DEL	7.5 / 8	2/17/2010@13:30	Soil	mg/Kg	1
01500-004	T1-2DEL	5 / 5.5	2/17/2010@15:00	Soil	mg/Kg	1
01500-005	L8-D1	2 / 2.5	2/18/2010@10:00	Soil	mg/Kg	1
01500-006	L8-D2	2 / 2.5	2/18/2010@10:10	Soil	mg/Kg	1
01500-007	L8-D3	2 / 2.5	2/18/2010@10:20	Soil	mg/Kg	1
01500-008	L8-D4	2 / 2.5	2/18/2010@10:30	Soil	mg/Kg	1
01500-009	L5-D1	2.92 / 3.42	2/18/2010@11:10	Soil	mg/Kg	1
01500-010	L5-D2	2.92 / 3.42	2/18/2010@13:20	Soil	mg/Kg	1
01500-011	L5-D3	2.92 / 3.42	2/18/2010@13:30	Soil	mg/Kg	1
01500-012	L5-D4	2.92 / 3.42	2/18/2010@11:15	Soil	mg/Kg	1
01500-013	L4-D1	3.17 / 3.67	2/18/2010@11:45	Soil	mg/Kg	1
01500-014	L4-D2	3.17 / 3.67	2/18/2010@11:55	Soil	mg/Kg	1
01500-015	L4-D3	3.17 / 3.67	2/18/2010@11:00	Soil	mg/Kg	1
01500-016	L4-D4	3.17 / 3.67	2/18/2010@12:05	Soil	mg/Kg	1

Sample #	Tests	Status	QA Method
001	TPH-QAM025	In Process	QAM-025
002	TPH-DRO-72 HR	In Process	8015B M
003	TPH-DRO-72 HR	In Process	8015B M
004	TPH-DRO-72 HR	In Process	8015B M
005	TPH-DRO-72 HR	In Process	8015B M
006	TPH-DRO-72 HR	In Process	8015B M
007	TPH-DRO-72 HR	In Process	8015B M
008	TPH-DRO-72 HR	In Process	8015B M
009	TPH-DRO-72 HR	In Process	8015B M
010	TPH-DRO-72 HR	In Process	8015B M
011	TPH-DRO-72 HR	In Process	8015B M
012	TPH-DRO-72 HR	In Process	8015B M
013	TPH-DRO-72 HR	In Process	8015B M

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PROJECT INFORMATION

** RUSH **

Case No. E10-01500 **Project** PALMER

Sample #	Tests	Status	QA Method
014	TPH-DRO-72 HR	In Process	8015B M
015	TPH-DRO-72 HR	In Process	8015B M
016	TPH-DRO-72 HR	In Process	8015B M

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SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **01500** CLIENT: PEC-PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL ED DATE 2/18/10

CORRECTIVE ACTION REQUIRED: **YES** (SEE BELOW) **NO**

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES Date/ Time: NO

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL DATE 2/19/10

Laboratory Custody Chronicle

IAL Case No.

E10-01500

Client PennJersey Environmental Consulting

Project PALMER

Received On 2/18/2010@15:55

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TPH-DRO-72 HR	01500-002	Soil	2/19/10	Archimede	n/a	Tracy
"	-003	"	2/19/10	Archimede	n/a	Tracy
"	-004	"	2/19/10	Archimede	n/a	Tracy
"	-005	"	2/19/10	Archimede	n/a	Tracy
"	-006	"	2/19/10	Archimede	n/a	Tracy
"	-007	"	2/19/10	Archimede	n/a	Tracy
"	-008	"	2/19/10	Archimede	n/a	Tracy
"	-009	"	2/19/10	Archimede	n/a	Tracy
"	-010	"	2/19/10	Archimede	n/a	Tracy
"	-011	"	2/19/10	Archimede	n/a	Tracy
"	-012	"	2/19/10	Archimede	n/a	Tracy
"	-013	"	2/19/10	Archimede	n/a	Tracy
"	-014	"	2/19/10	Archimede	n/a	Tracy
"	-015	"	2/19/10	Archimede	n/a	Tracy
"	-016	"	2/19/10	Archimede	n/a	Tracy
TPH-QAM025	-001	Soil	2/19/10	Archimede	n/a	Margaret

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IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E10-04018**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E10-04018

Client PennJersey Environmental Consulting

Project PALMER

Received On 4/30/2010@09:00

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
04018-001	Z1	4.83/5.33	4/29/2010@11:10	Soil	1
04018-002	Z2	4.83/5.33	4/29/2010@11:20	Soil	1
04018-003	Z3	4.83/5.33	4/29/2010@11:30	Soil	1
04018-004	Z4	4.5/5	4/29/2010@10:30	Soil	1
04018-005	Z5	4.5/5	4/29/2010@10:40	Soil	1
04018-006	Z6	4.5/5	4/29/2010@10:50	Soil	1
04018-007	Z7	4.83/5.33	4/29/2010@12:00	Soil	1
04018-008	Z8	4.83/5.33	4/29/2010@11:50	Soil	1
04018-009	Z9	4.83/5.33	4/29/2010@12:10	Soil	1
04018-010	Z10	4.83/5.33	4/29/2010@11:40	Soil	1
04018-011	Z11	4.83/5.33	4/29/2010@12:20	Soil	1
04018-012	Z12	4.83/5.33	4/29/2010@11:00	Soil	1
04018-013	P4-D5	3.17/3.67	4/29/2010@12:30	Soil	1
04018-014	P4-D6	3.17/3.67	4/29/2010@13:15	Soil	1

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received fourteen (14) soil sample(s) from PennJersey Environmental Consulting (Project: PALMER) on April 30, 2010 for the analysis of:

(3) PAH
(14) TPH-DRO-72 HR

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

AJ Jenno
Reviewed by

5/18/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E10-04018

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS SEMIVOLATILE ANALYSIS

Lab Case Number: E10 - 0408

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. DFTPP Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series.		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
a. B/N Fraction		
b. Acid Fraction		
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
a. B/N Fraction		
b. Acid Fraction		
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
a. B/N Fraction		
b. Acid Fraction		
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
11. Analysis Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
12. Sample Dilution Performed		✓

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other
		✓	

13. Comments:

Organics Manager

5-7-10
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - Miscellaneous
Including Hydrocarbons, Metabolic Acids, and Gas Screens

Lab Case Number: E10 - 4018

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
	A. Hydrocarbons: _____		
	B. Gas Screens: _____		
	C. Metabolic Acids: _____		
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
	A. Hydrocarbons: _____		
	B. Gas Screens: _____		
	C. Metabolic Acids: _____		
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
	A. Hydrocarbons: _____		
	B. Gas Screens: _____		
	C. Metabolic Acids: _____		
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
	A. Hydrocarbons: _____		
	B. Gas Screens: _____		
	C. Metabolic Acids: _____		
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓
	A. Hydrocarbons: _____		
	B. Gas Screens: _____		
	C. Metabolic Acids: _____		

Comments:

_____

_____

_____ 5-4-10

Organic Manager Date

rev 01/10

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E10-04018

Lab ID:	04018-001			04018-002			04018-003			04018-004		
Client ID:	Z1			Z2			Z3			Z4		
Depth:	4.83/5.33			4.83/5.33			4.83/5.33			4.5/5		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	4/29/10			4/29/10			4/29/10			4/29/10		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)							*(mg/Kg-ppm)*					
Naphthalene	~		~	~		~	ND		0.023	~		~
Acenaphthylene	~		~	~		~	ND		0.030	~		~
Acenaphthene	~		~	~		~	ND		0.026	~		~
Fluorene	~		~	~		~	ND		0.025	~		~
Phenanthrene	~		~	~		~	ND		0.023	~		~
Anthracene	~		~	~		~	ND		0.041	~		~
Fluoranthene	~		~	~		~	ND		0.023	~		~
Pyrene	~		~	~		~	ND		0.025	~		~
Benzo[a]anthracene	~		~	~		~	ND		0.031	~		~
Chrysene	~		~	~		~	ND		0.044	~		~
Benzo[b]fluoranthene	~		~	~		~	ND		0.026	~		~
Benzo[k]fluoranthene	~		~	~		~	ND		0.031	~		~
Benzo[a]pyrene	~		~	~		~	ND		0.033	~		~
Indeno[1,2,3-cd]pyrene	~		~	~		~	ND		0.023	~		~
Dibenz[a,h]anthracene	~		~	~		~	ND		0.025	~		~
Benzo[g,h,i]perylene	~		~	~		~	ND		0.028	~		~
Hydrocarbons (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO	ND		69.8	182		70.9	3820		70.1	ND		70.2

Lab ID:	04018-005			04018-006			04018-007			04018-008		
Client ID:	Z5			Z6			Z7			Z8		
Depth:	4.5/5			4.5/5			4.83/5.33			4.83/5.33		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	4/29/10			4/29/10			4/29/10			4/29/10		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Hydrocarbons (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO	ND		109	ND		114	ND		72.8	ND		71.1

Lab ID:	04018-009			04018-010			04018-011			04018-012		
Client ID:	Z9			Z10			Z11			Z12		
Depth:	4.83/5.33			4.83/5.33			4.83/5.33			4.83/5.33		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	4/29/10			4/29/10			4/29/10			4/29/10		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Hydrocarbons (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TPH-DRO	ND		76.2	ND		105	ND		118	ND		97.5

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E10-04018

	Lab ID:	04018-013		04018-014	
	Client ID:	P4-D5		P4-D6	
	Depth:	3.17/3.67		3.17/3.67	
	Matrix:	Soil		Soil	
	Sampled Date	4/29/10		4/29/10	
PARAMETER(Units)		Conc	Q MDL	Conc	Q MDL
Semivolatiles - PAH (Units)		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
Naphthalene		ND	0.049	0.219	0.045
Acenaphthylene		ND	0.063	0.099	0.057
Acenaphthene		ND	0.056	0.304	0.051
Fluorene		ND	0.053	0.419	0.048
Phenanthrene		0.219	0.049	0.994	0.045
Anthracene		0.181	0.086	0.302	0.078
Fluoranthene		1.11	0.049	1.09	0.045
Pyrene		1.87	0.053	1.98	0.048
Benzo[a]anthracene		0.873	0.066	0.803	0.060
Chrysene		1.06	0.093	1.10	0.084
Benzo[b]fluoranthene		1.35	0.056	1.08	0.051
Benzo[k]fluoranthene		1.17	0.066	0.955	0.060
Benzo[a]pyrene		1.73	0.069	1.05	0.063
Indeno[1,2,3-cd]pyrene		1.02	0.050	0.470	0.045
Dibenz[a,h]anthracene		0.413	0.053	0.195	0.048
Benzo[g,h,i]perylene		1.46	0.059	0.587	0.054
Hydrocarbons (Units)		*(mg/Kg-ppm)*		*(mg/Kg-ppm)*	
TPH-DRO		4450	74.4	6410	67.3

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 04018-003
Client ID: Z3/4.83-5.33
Date Received: 04/30/2010
Date Extracted: 05/06/2010
Date Analyzed: 05/06/2010
Data file: C1274.D

GC/MS Column: DB-5
Sample wt/vol: 15.20g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 15.6

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.078	0.023
Acenaphthylene	ND		0.078	0.030
Acenaphthene	ND		0.078	0.026
Fluorene	ND		0.078	0.025
Phenanthrene	ND		0.078	0.023
Anthracene	ND		0.078	0.041
Fluoranthene	ND		0.078	0.023
Pyrene	ND		0.078	0.025
Benzo[a]anthracene	ND		0.078	0.031
Chrysene	ND		0.078	0.044
Benzo[b]fluoranthene	ND		0.078	0.026
Benzo[k]fluoranthene	ND		0.078	0.031
Benzo[a]pyrene	ND		0.078	0.033
Indeno[1,2,3-cd]pyrene	ND		0.078	0.023
Dibenz[a,h]anthracene	ND		0.078	0.025
Benzo[g,h,i]perylene	ND		0.078	0.028

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 04018-013
Client ID: P4-D5/3.17-3
Date Received: 04/30/2010
Date Extracted: 05/06/2010
Date Analyzed: 05/06/2010
Data file: C1275.D

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 20.1

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.166	0.049
Acenaphthylene	ND		0.166	0.063
Acenaphthene	ND		0.166	0.056
Fluorene	ND		0.166	0.053
Phenanthrene	0.219		0.166	0.049
Anthracene	0.181		0.166	0.086
Fluoranthene	1.11		0.166	0.049
Pyrene	1.87		0.166	0.053
Benzo[a]anthracene	0.873		0.166	0.066
Chrysene	1.06		0.166	0.093
Benzo[b]fluoranthene	1.35		0.166	0.056
Benzo[k]fluoranthene	1.17		0.166	0.066
Benzo[a]pyrene	1.73		0.166	0.069
Indeno[1,2,3-cd]pyrene	1.02		0.166	0.050
Dibenz[a,h]anthracene	0.413		0.166	0.053
Benzo[g,h,i]perylene	1.46		0.166	0.059

Total Target Compounds: 12.5

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 04018-014
Client ID: P4-D6/3.17-3
Date Received: 04/30/2010
Date Extracted: 05/06/2010
Date Analyzed: 05/06/2010
Data file: C1276.D

GC/MS Column: DB-5
Sample wt/vol: 15.09g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 12.1

Compound	Concentration	Q	RL	MDL
Naphthalene	0.219		0.151	0.045
Acenaphthylene	0.099	J	0.151	0.057
Acenaphthene	0.304		0.151	0.051
Fluorene	0.419		0.151	0.048
Phenanthrene	0.994		0.151	0.045
Anthracene	0.302		0.151	0.078
Fluoranthene	1.09		0.151	0.045
Pyrene	1.98		0.151	0.048
Benzo[a]anthracene	0.803		0.151	0.060
Chrysene	1.10		0.151	0.084
Benzo[b]fluoranthene	1.08		0.151	0.051
Benzo[k]fluoranthene	0.955		0.151	0.060
Benzo[a]pyrene	1.05		0.151	0.063
Indeno[1,2,3-cd]pyrene	0.470		0.151	0.045
Dibenz[a,h]anthracene	0.195		0.151	0.048
Benzo[g,h,i]perylene	0.587		0.151	0.054
Total Target Compounds:	11.6	J		

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-001	GC Column:	DB-5
Client ID:	Z1	Sample wt/vol:	10.09g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/03/2010	%Moisture:	14.8
Data File:	Q3945.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		87.2	69.8

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-002	GC Column:	DB-5
Client ID:	Z2	Sample wt/vol:	10.28g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/03/2010	%Moisture:	17.7
Data File:	Q3946.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	182		88.6	70.9

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-003	GC Column:	DB-5
Client ID:	Z3	Sample wt/vol:	10.14g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/03/2010	%Moisture:	15.6
Data File:	Q3947.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	3,820		87.6	70.1

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-004	GC Column:	DB-5
Client ID:	Z4	Sample wt/vol:	10.0g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/03/2010	%Moisture:	14.5
Data File:	Q3948.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		87.7	70.2

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-005	GC Column:	DB-5
Client ID:	Z5	Sample wt/vol:	10.24g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/04/2010	%Moisture:	46.1
Data File:	Q4044.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		136	109

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-006	GC Column:	DB-5
Client ID:	Z6	Sample wt/vol:	10.30g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/04/2010	%Moisture:	49.1
Data File:	Q4045.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		143	114

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-007	GC Column:	DB-5
Client ID:	Z7	Sample wt/vol:	10.03g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/03/2010	%Moisture:	17.8
Data File:	Q3951.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		91.0	72.8

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-008	GC Column:	DB-5
Client ID:	Z8	Sample wt/vol:	10.05g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/03/2010	%Moisture:	16.0
Data File:	Q3952.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		88.8	71.1

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-009	GC Column:	DB-5
Client ID:	Z9	Sample wt/vol:	10.04g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/03/2010	%Moisture:	21.6
Data File:	Q3953.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		95.3	76.2

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-010	GC Column:	DB-5
Client ID:	Z10	Sample wt/vol:	10.02g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/04/2010	%Moisture:	43.2
Data File:	Q4046.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		132	105

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-011	GC Column:	DB-5
Client ID:	Z11	Sample wt/vol:	10.03g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/04/2010	%Moisture:	49.5
Data File:	Q4047.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		148	118

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-012	GC Column:	DB-5
Client ID:	Z12	Sample wt/vol:	10.07g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/04/2010	%Moisture:	38.9
Data File:	Q4048.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		122	97.5

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-013	GC Column:	DB-5
Client ID:	P4-D5	Sample wt/vol:	10.10g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/03/2010	%Moisture:	20.1
Data File:	Q3957.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	4,450		92.9	74.4

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Client/Project: PENNJERSEY/PALMER

Lab ID:	04018-014	GC Column:	DB-5
Client ID:	P4-D6	Sample wt/vol:	10.15g
Date Received:	04/30/2010	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/03/2010	%Moisture:	12.1
Data File:	Q3958.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	6,410		84.1	67.3

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0483.D

DFTPP Injection Date : 04/13/2010

Inst ID: MSDC

DFTPP Injection Time: 14:21

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	41.3			
68	Less than 2.0% of mass 69	0.6	(	1.6	)1
69	Mass 69 relative abundance	37.5			
70	Less than 2.0% of mass 69	0.3	(	0.9	)1
127	40.0 - 60.0% of mass 198	49.6			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.8			
275	10.0 - 30.0% of mass 198	29.9			
365	Greater than 1.0% of mass 198	3.7			
441	Present, but less than mass 443	9.63	(	68.3	)3
442	40.0 - 100.0% of mass 198	64.7			
443	17.0 - 23.0% of mass 442	14.1	(	21.8	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN051.10	40ngBNA_FOR_0	C0484.D	04/13/2010	14:30
ABN048.10	1ngBNA_FOR_04	C0485.D	04/13/2010	14:46
ABN049.10	10ngBNA_FOR_0	C0486.D	04/13/2010	15:02
ABN050.10	20ngBNA_FOR_0	C0487.D	04/13/2010	15:18
ABN052.10	80ngBNA_FOR_0	C0488.D	04/13/2010	15:34
ABN053.10	120ngBNA_FOR_	C0489.D	04/13/2010	15:50
ABN054.10	40ngBNAchk_FOI	C0490.D	04/13/2010	16:06
ABN027.10	10ngOLMO4_FOI	C0492.D	04/13/2010	16:38
ABN028.10	20ngOLMO4_FOI	C0493.D	04/13/2010	16:54
ABN026.10	1ngOLMO4_FOR_	C0494.D	04/13/2010	17:10
ABN029.10	40ngOLMO4_FOI	C0495.D	04/13/2010	17:26
ABN030.10	80ngOLMO4_FOI	C0496.D	04/13/2010	17:42
ABN031.10	120ngOLMO4_FC	C0497.D	04/13/2010	17:58
ABN032.10	40ngOLMO4chk_I	C0498.D	04/13/2010	18:14

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0776.D DFTPP Injection Date : 04/23/2010

Inst ID: MSDC DFTPP Injection Time: 11:22

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	47.8			
68	Less than 2.0% of mass 69	0.7	(	1.8	)1
69	Mass 69 relative abundance	41.5			
70	Less than 2.0% of mass 69	0.4	(	0.9	)1
127	40.0 - 60.0% of mass 198	53.7			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.9			
275	10.0 - 30.0% of mass 198	28.3			
365	Greater than 1.0% of mass 198	4.7			
441	Present, but less than mass 443	15.39	(	73.6	)3
442	40.0 - 100.0% of mass 198	99.6			
443	17.0 - 23.0% of mass 442	20.9	(	21.0	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN054.10	40ngBNAchk_FOI	C0777.D	04/23/2010	11:42
ABN032.10	40ngOLMO4chk_I	C0778.D	04/23/2010	12:10
B5-6-1/9.5-1	03590-001	C0779.D	04/23/2010	12:26
B5-6-2/11-11	03590-002	C0780.D	04/23/2010	12:42
1B	03605-003	C0781.D	04/23/2010	12:58
1A	03605-004	C0782.D	04/23/2010	13:14
4B	03605-005	C0783.D	04/23/2010	13:30
4A	03605-006	C0784.D	04/23/2010	13:46
PE-1	03484-001	C0785.D	04/23/2010	14:03
.	Method_Blank	C0786.D	04/23/2010	14:19
.	LCS	C0787.D	04/23/2010	14:35
PES-20/6.5-7	03684-001	C0788.D	04/23/2010	14:55
.	Method_Blank	C0789.D	04/23/2010	15:11
.	LCS	C0790.D	04/23/2010	15:27
.	MS03758-006)	C0791.D	04/23/2010	16:17
.	MSD03758-006)	C0792.D	04/23/2010	16:33
D5/0-0.5	03758-001	C0793.D	04/23/2010	16:49
D6/0-0.5	03758-002	C0794.D	04/23/2010	17:05
D7/0-0.5	03758-003	C0795.D	04/23/2010	17:21
D8/0-0.5	03758-004	C0796.D	04/23/2010	17:37
D9/0-0.5	03758-005	C0797.D	04/23/2010	17:54
D10/0-0.5	03758-006	C0798.D	04/23/2010	18:10
DUP-1/0-0.5	03758-007	C0799.D	04/23/2010	18:26

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0776.D DFTPP Injection Date : 04/23/2010

Inst ID: MSDC DFTPP Injection Time: 11:22

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	47.8			
68	Less than 2.0% of mass 69	0.7	(	1.8	)1
69	Mass 69 relative abundance	41.5			
70	Less than 2.0% of mass 69	0.4	(	0.9	)1
127	40.0 - 60.0% of mass 198	53.7			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.9			
275	10.0 - 30.0% of mass 198	28.3			
365	Greater than 1.0% of mass 198	4.7			
441	Present, but less than mass 443	0.00	(	73.6	)3
442	40.0 - 100.0% of mass 198	99.6			
443	17.0 - 23.0% of mass 442	20.9	(	21.0	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
.	Method_Blank	C0800.D	04/23/2010	18:42
.	LCS	C0801.D	04/23/2010	18:58
.	MS(03683-002)	C0802.D	04/23/2010	19:14
.	MSD(03683-002)	C0803.D	04/23/2010	19:30
TP1/3.5-4	03691-001	C0804.D	04/23/2010	19:47
TP3/3.5-4	03691-002	C0805.D	04/23/2010	20:03
TP4/4-4.5	03691-003	C0806.D	04/23/2010	20:19
TP5/4-4.5	03691-004	C0807.D	04/23/2010	20:35
TP6/3.5-4	03691-005	C0808.D	04/23/2010	20:51
TP7/3.5-4	03691-006	C0809.D	04/23/2010	21:07
B1/5.5-6	03691-007	C0810.D	04/23/2010	21:23
B2/4-4.5	03691-008	C0811.D	04/23/2010	21:39
B4/3.5-4	03691-009	C0812.D	04/23/2010	21:55
PEB-21/7-7.5	03690-021	C0813.D	04/23/2010	22:11
PEB-22/7-7.5	03690-022	C0814.D	04/23/2010	20:27
PEB-23/7-7.5	03690-023	C0815.D	04/23/2010	22:43
S8	03530-002	C0816.D	04/23/2010	22:59
SIDEWALL_#1_	03683-002	C0817.D	04/23/2010	23:15
SIDEWALL_#2_	03683-004	C0818.D	04/23/2010	23:31

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C1251.D

DFTPP Injection Date : 05/06/2010

Inst ID: MSDC

DFTPP Injection Time: 09:43

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	31.3			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	36.7			
70	Less than 2.0% of mass 69	0.3	(	0.7	)1
127	40.0 - 60.0% of mass 198	50.0			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.8			
275	10.0 - 30.0% of mass 198	24.3			
365	Greater than 1.0% of mass 198	2.3			
441	Present, but less than mass 443	8.76	(	65.9	)3
442	40.0 - 100.0% of mass 198	63.6			
443	17.0 - 23.0% of mass 442	13.3	(	20.9	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN051.10	40ngBNA_FOR_0	C1252.D	05/06/2010	10:01
ABN048.10	1ngBNA_FOR_05	C1253.D	05/06/2010	10:19
ABN049.10	10ngBNA_FOR_0	C1254.D	05/06/2010	10:34
ABN050.10	20ngBNA_FOR_0	C1255.D	05/06/2010	10:50
ABN052.10	80ngBNA_FOR_0	C1256.D	05/06/2010	11:06
ABN053.10	120ngBNA_FOR_	C1257.D	05/06/2010	11:21
ABN026.10	1ngOLMO4_FOR_	C1258.D	05/06/2010	11:37
ABN027.10	10ngOLMO4_FOF	C1259.D	05/06/2010	11:53
ABN028.10	20ngOLMO4_FOF	C1260.D	05/06/2010	12:08
ABN029.10	40ngOLMO4_FOF	C1261.D	05/06/2010	12:24
ABN030.10	80ngOLMO4_FOF	C1262.D	05/06/2010	12:39
ABN031.10	120ngOLMO4_FC	C1263.D	05/06/2010	12:55

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C1264.D DFTPP Injection Date : 05/06/2010

Inst ID: MSDC DFTPP Injection Time: 13:24

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	46.2			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	53.9			
70	Less than 2.0% of mass 69	0.5	(	0.9	)1
127	40.0 - 60.0% of mass 198	59.4			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.8			
275	10.0 - 30.0% of mass 198	20.0			
365	Greater than 1.0% of mass 198	1.8			
441	Present, but less than mass 443	12.11	(	67.4	)3
442	40.0 - 100.0% of mass 198	88.5			
443	17.0 - 23.0% of mass 442	18.0	(	20.3	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN054.10	40ngBNAchk_FOI	C1265.D	05/06/2010	13:34
ABN032.10	40ngOLMO4chk_I	C1266.D	05/06/2010	13:49
SIDEWALL_2_2	04140-004	C1267.D	05/06/2010	14:05
SIDEWALL_3_3	04140-006	C1268.D	05/06/2010	14:21
SIDEWALL_4_4	04140-008	C1269.D	05/06/2010	14:37
BOTTOM_5_5A/	04140-010	C1270.D	05/06/2010	14:52
WASTE_CLASS	04110-001	C1271.D	05/06/2010	15:08
.	Method_Blank	C1272.D	05/06/2010	15:24
.	LCS	C1273.D	05/06/2010	15:40
Z3/4.83-5.33	04018-003	C1274.D	05/06/2010	15:55
P4-D5/3.17-3	04018-013	C1275.D	05/06/2010	16:11
P4-D6/3.17-3	04018-014	C1276.D	05/06/2010	16:27
PE-2	03895-002	C1277.D	05/06/2010	16:43
L8-D2_DUP/2-	04230-001	C1278.D	05/06/2010	16:59

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C0789.D

Instrument ID: MSDC

Date Extracted: 04/23/10

Matrix: SOIL

Date Analyzed: 04/23/2010

Time Analyzed: 15:11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	04/23/2010	15:27
.	MS03758-006)	04/23/2010	16:17
.	MSD03758-006)	04/23/2010	16:33
D5/0-0.5	03758-001	04/23/2010	16:49
D6/0-0.5	03758-002	04/23/2010	17:05
D7/0-0.5	03758-003	04/23/2010	17:21
D8/0-0.5	03758-004	04/23/2010	17:37
D9/0-0.5	03758-005	04/23/2010	17:54
D10/0-0.5	03758-006	04/23/2010	18:10
DUP-1/0-0.5	03758-007	04/23/2010	18:26

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 04/23/2010
Date Analyzed: 04/23/2010
Data file: C0789.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.033
Pyridine	ND		0.033	0.020
Benzaldehyde	ND		0.033	0.018
Phenol	ND		0.033	0.026
Aniline	ND		0.033	0.022
Bis(2-chloroethyl) ether	ND		0.033	0.019
2-Chlorophenol	ND		0.033	0.028
1,3-Dichlorobenzene	ND		0.033	0.016
1,4-Dichlorobenzene	ND		0.033	0.022
Benzyl alcohol	ND		0.033	0.019
1,2-Dichlorobenzene	ND		0.033	0.010
2-Methylphenol	ND		0.033	0.011
Bis(2-chloroisopropyl) ether	ND		0.033	0.013
4-Methylphenol	ND		0.033	0.011
N-Nitrosodi-n-propylamine	ND		0.033	0.012
Acetophenone	ND		0.033	0.016
Hexachloroethane	ND		0.033	0.010
Nitrobenzene	ND		0.033	0.021
Isophorone	ND		0.033	0.015
2-Nitrophenol	ND		0.033	0.019
2,4-Dimethylphenol	ND		0.033	0.019
Bis(2-chloroethoxy) methane	ND		0.033	0.031
Benzoic acid	ND		0.033	0.022
2,4-Dichlorophenol	ND		0.033	0.011
1,2,4-Trichlorobenzene	ND		0.033	0.027
Naphthalene	ND		0.033	0.00997
4-Chloroaniline	ND		0.033	0.022
Hexachlorobutadiene	ND		0.033	0.019
Caprolactam	ND		0.033	0.027
4-Chloro-3-methylphenol	ND		0.033	0.023
2-Methylnaphthalene	ND		0.033	0.011
Hexachlorocyclopentadiene	ND		0.033	0.019
2,4,6-Trichlorophenol	ND		0.033	0.014
2,4,5-Trichlorophenol	ND		0.033	0.015
1,1'-Biphenyl	ND		0.033	0.015
2-Chloronaphthalene	ND		0.033	0.015
2-Nitroaniline	ND		0.033	0.013
Dimethyl phthalate	ND		0.033	0.021

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 04/23/2010
Date Analyzed: 04/23/2010
Data file: C0789.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.010
Acenaphthylene	ND		0.033	0.013
3-Nitroaniline	ND		0.033	0.023
Acenaphthene	ND		0.033	0.011
2,4-Dinitrophenol	ND		0.033	0.019
4-Nitrophenol	ND		0.033	0.026
2,4-Dinitrotoluene	ND		0.033	0.031
Dibenzofuran	ND		0.033	0.014
Diethyl phthalate	ND		0.033	0.010
Fluorene	ND		0.033	0.011
4-Chlorophenyl phenyl ether	ND		0.033	0.026
4-Nitroaniline	ND		0.033	0.018
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.015
4,6-Dinitro-2-methylphenol	ND		0.033	0.022
N-Nitrosodiphenylamine	ND		0.033	0.018
1,2-Diphenylhydrazine	ND		0.033	0.00967
4-Bromophenyl phenyl ether	ND		0.033	0.013
Hexachlorobenzene	ND		0.033	0.00967
Atrazine	ND		0.033	0.011
Pentachlorophenol	ND		0.033	0.010
Phenanthrene	ND		0.033	0.00997
Anthracene	ND		0.033	0.017
Carbazole	ND		0.033	0.019
Di-n-butyl phthalate	ND		0.033	0.012
Fluoranthene	ND		0.033	0.00997
Benzidine	ND		0.033	0.023
Pyrene	ND		0.033	0.011
3,3'-Dimethylbenzidine	ND		0.033	0.025
Butyl benzyl phthalate	ND		0.033	0.024
3,3'-Dichlorobenzidine	ND		0.033	0.014
Benzo[a]anthracene	ND		0.033	0.013
Chrysene	ND		0.033	0.019
Bis(2-ethylhexyl) phthalate	ND		0.033	0.022
Di-n-octyl phthalate	ND		0.033	0.033
Benzo[b]fluoranthene	ND		0.033	0.011
Benzo[k]fluoranthene	ND		0.033	0.013
Benzo[a]pyrene	ND		0.033	0.014
Indeno[1,2,3-cd]pyrene	ND		0.033	0.010
Dibenz[a,h]anthracene	ND		0.033	0.011
Benzo[g,h,i]perylene	ND		0.033	0.012

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 04/23/2010
Date Analyzed: 04/23/2010
Data file: C0789.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C1272.D Instrument ID: MSDC

Date Extracted: 05/06/10 Matrix: SOIL

Date Analyzed: 05/06/2010 Time Analyzed: 15:24

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	05/06/2010	15:40
Z3/4.83-5.33	04018-003	05/06/2010	15:55
P4-D5/3.17-3	04018-013	05/06/2010	16:11
P4-D6/3.17-3	04018-014	05/06/2010	16:27
PE-2	03895-002	05/06/2010	16:43
L8-D2_DUP/2-	04230-001	05/06/2010	16:59

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 05/06/2010
Date Analyzed: 05/06/2010
Data file: C1272.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.033
Pyridine	ND		0.033	0.020
Benzaldehyde	ND		0.033	0.018
Phenol	ND		0.033	0.026
Aniline	ND		0.033	0.022
Bis(2-chloroethyl) ether	ND		0.033	0.019
2-Chlorophenol	ND		0.033	0.028
1,3-Dichlorobenzene	ND		0.033	0.016
1,4-Dichlorobenzene	ND		0.033	0.022
Benzyl alcohol	ND		0.033	0.019
1,2-Dichlorobenzene	ND		0.033	0.010
2-Methylphenol	ND		0.033	0.011
Bis(2-chloroisopropyl) ether	ND		0.033	0.013
4-Methylphenol	ND		0.033	0.011
N-Nitrosodi-n-propylamine	ND		0.033	0.012
Acetophenone	ND		0.033	0.016
Hexachloroethane	ND		0.033	0.010
Nitrobenzene	ND		0.033	0.021
Isophorone	ND		0.033	0.015
2-Nitrophenol	ND		0.033	0.019
2,4-Dimethylphenol	ND		0.033	0.019
Bis(2-chloroethoxy) methane	ND		0.033	0.031
Benzoic acid	ND		0.033	0.022
2,4-Dichlorophenol	ND		0.033	0.011
1,2,4-Trichlorobenzene	ND		0.033	0.027
Naphthalene	ND		0.033	0.00997
4-Chloroaniline	ND		0.033	0.022
Hexachlorobutadiene	ND		0.033	0.019
Caprolactam	ND		0.033	0.027
4-Chloro-3-methylphenol	ND		0.033	0.023
2-Methylnaphthalene	ND		0.033	0.011
Hexachlorocyclopentadiene	ND		0.033	0.019
2,4,6-Trichlorophenol	ND		0.033	0.014
2,4,5-Trichlorophenol	ND		0.033	0.015
1,1'-Biphenyl	ND		0.033	0.015
2-Chloronaphthalene	ND		0.033	0.015
2-Nitroaniline	ND		0.033	0.013
Dimethyl phthalate	ND		0.033	0.021

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 05/06/2010
Date Analyzed: 05/06/2010
Data file: C1272.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.010
Acenaphthylene	ND		0.033	0.013
3-Nitroaniline	ND		0.033	0.023
Acenaphthene	ND		0.033	0.011
2,4-Dinitrophenol	ND		0.033	0.019
4-Nitrophenol	ND		0.033	0.026
2,4-Dinitrotoluene	ND		0.033	0.031
Dibenzofuran	ND		0.033	0.014
Diethyl phthalate	ND		0.033	0.010
Fluorene	ND		0.033	0.011
4-Chlorophenyl phenyl ether	ND		0.033	0.026
4-Nitroaniline	ND		0.033	0.018
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.015
4,6-Dinitro-2-methylphenol	ND		0.033	0.022
N-Nitrosodiphenylamine	ND		0.033	0.018
1,2-Diphenylhydrazine	ND		0.033	0.00967
4-Bromophenyl phenyl ether	ND		0.033	0.013
Hexachlorobenzene	ND		0.033	0.00967
Atrazine	ND		0.033	0.011
Pentachlorophenol	ND		0.033	0.010
Phenanthrene	ND		0.033	0.00997
Anthracene	ND		0.033	0.017
Carbazole	ND		0.033	0.019
Di-n-butyl phthalate	ND		0.033	0.012
Fluoranthene	ND		0.033	0.00997
Benzidine	ND		0.033	0.023
Pyrene	ND		0.033	0.011
3,3'-Dimethylbenzidine	ND		0.033	0.025
Butyl benzyl phthalate	ND		0.033	0.024
3,3'-Dichlorobenzidine	ND		0.033	0.014
Benzo[a]anthracene	ND		0.033	0.013
Chrysene	ND		0.033	0.019
Bis(2-ethylhexyl) phthalate	ND		0.033	0.022
Di-n-octyl phthalate	ND		0.033	0.033
Benzo[b]fluoranthene	ND		0.033	0.011
Benzo[k]fluoranthene	ND		0.033	0.013
Benzo[a]pyrene	ND		0.033	0.014
Indeno[1,2,3-cd]pyrene	ND		0.033	0.010
Dibenz[a,h]anthracene	ND		0.033	0.011
Benzo[g,h,i]perylene	ND		0.033	0.012

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 05/06/2010
Date Analyzed: 05/06/2010
Data file: C1272.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS0810.M
Title : BNA CALIBRATION METHOD
Last Update : Wed Apr 14 12:05:26 2010
Response Via : Initial Calibration

Calibration Files
1 =C0485.D 10 =C0486.D 20 =C0487.D
40 =C0484.D 80 =C0488.D 120 =C0489.D

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.926	0.875	0.910	0.750	0.766	0.785	0.835	9.26
3)	T	Pyridine	0.848	1.114	1.155	0.968	1.067	1.119	1.045	11.14
4)	S	2-Fluorophenol	1.221	1.260	1.286	1.290	1.260	1.310	1.271	2.45
5)	T	Benzaldehyde	0.938	0.941	0.966	0.664	0.907	1.008	0.904	13.53
6)	S	Phenol-d5	1.770	1.857	1.901	1.830	1.735	1.860	1.825	3.39
7)	MC	Phenol	1.983	1.726	1.650	1.477	1.615	1.795	1.707	10.10
8)	T	Aniline	1.013	0.823	0.786	0.734	0.743	0.779	0.813	12.66
9)	T	Bis(2-chloroethyl	1.040	1.144	1.101	1.042	1.022	1.095	1.074	4.34
10)	M	2-Chlorophenol	1.627	1.351	1.340	1.224	1.198	1.320	1.343	11.36
11)	T	1,3-Dichlorobenze	1.672	1.404	1.406	1.309	1.272	1.363	1.404	10.06
12)	MC	1,4-Dichlorobenze	1.672	1.442	1.438	1.475	1.451	1.539	1.503	6.03
13)	T	Benzyl alcohol	0.843	0.826	0.849	0.843	0.811	0.939	0.852	5.29
14)	T	1,2-Dichlorobenze	1.658	1.396	1.377	1.365	1.436	1.466	1.449	7.53
15)	T	2-Methylphenol	0.843	0.826	0.850	0.843	0.811	0.939	0.852	5.29
16)	T	Bis(2-chloroisopr	2.125	2.038	2.008	1.886	1.751	1.880	1.948	6.90
17)	T	4-Methylphenol	1.287	1.221	1.328	1.292	1.131	1.393	1.275	7.09
18)	MP	N-Nitrosodi-n-pro	0.971	0.984	1.071	1.098	0.924	1.130	1.030	7.89
19)	T	Acetophenone	1.908	1.824	1.827	1.702	1.677	1.863	1.800	5.08
20)	T	3-Methylphenol	1.287	1.221	1.328	1.290	1.131	1.389	1.274	7.01
21)	T	Hexachloroethane	0.549	0.540	0.531	0.509	0.496	0.518	0.524	3.77
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.379	0.379	0.410	0.415	0.435	0.464	0.414	7.99
25)	T	Nitrobenzene	0.382	0.344	0.351	0.370	0.328	0.368	0.357	5.50
26)	T	Isophorone	0.857	0.639	0.696	0.689	0.629	0.651	0.693	12.17
27)	TC	2-Nitrophenol	0.192	0.165	0.177	0.178	0.168	0.172	0.175	5.50
28)	T	2,4-Dimethylpheno	0.340	0.308	0.323	0.301	0.330	0.314	0.319	4.59
29)	T	Bis(2-chloroethox	0.413	0.372	0.384	0.390	0.380	0.369	0.385	4.11
30)	T	Benzoic acid	0.181	0.144	0.159	0.175	0.167	0.167	0.165	7.82
31)	T	2,4-Dimethylanili	0.422	0.369	0.380	0.356	0.363	0.382	0.379	6.25
32)	TC	2,4-Dichloropheno	0.271	0.251	0.260	0.278	0.251	0.263	0.262	4.10
33)	M	1,2,4-Trichlorobe	0.373	0.281	0.293	0.278	0.271	0.294	0.298	12.66
34)	T	Naphthalene	1.256	0.955	1.013	1.032	1.021	1.103	1.063	9.93
35)	T	4-Chloroaniline	0.426	0.515	0.525	0.532	0.503	0.560	0.510	8.90
36)	T	4-Aminotoluene	1.398	1.124	1.169	1.055	1.179	1.233	1.193	9.80
37)	TC	Hexachlorobutadie	0.211	0.155	0.156	0.160	0.158	0.162	0.167	13.07
38)	T	Caprolactam	0.162	0.155	0.175	0.169	0.147	0.161	0.162	6.18
39)	T	2-Aminotoluene	1.398	1.124	1.169	1.055	1.179	1.233	1.193	9.80
40)	MC	4-Chloro-3-methyl	0.284	0.265	0.286	0.275	0.262	0.274	0.274	3.51
41)	T	2-Methylnaphthale	0.768	0.600	0.643	0.627	0.605	0.683	0.654	9.67
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.129	0.127	0.126	0.148	0.168	0.149	0.141	11.79
45)	TC	2,4,6-Trichloroph	0.341	0.281	0.303	0.288	0.310	0.359	0.314	9.75
46)	T	2,4,5-Trichloroph	0.357	0.330	0.323	0.344	0.349	0.359	0.344	4.21
47)	S	2-Fluorobiphenyl	1.296	1.207	1.269	1.227	1.263	1.281	1.257	2.69
48)	T	1,1'-Biphenyl	1.539	1.243	1.205	1.179	1.248	1.257	1.278	10.24
49)	T	2-Chloronaphthale	1.159	0.948	0.943	0.904	0.970	0.964	0.981	9.17
50)	T	2-Nitroaniline	0.341	0.310	0.328	0.330	0.314	0.333	0.326	3.61
51)	T	Dimethyl phthalat	1.348	1.125	1.149	1.066	1.148	1.136	1.162	8.26

52)	T	2,6-Dinitrotoluen	0.230	0.233	0.236	0.254	0.243	0.274	0.245	6.70
53)	T	Acenaphthylene	1.844	1.545	1.597	1.595	1.631	1.605	1.636	6.44
54)	T	3-Nitroaniline	0.349	0.330	0.337	0.338	0.349	0.353	0.342	2.57
55)	MC	Acenaphthene	1.213	1.012	1.021	0.972	1.024	1.153	1.066	8.87
56)	TP	2,4-Dinitrophenol	0.101	0.076	0.086	0.112	0.113	0.097	0.098	14.98
57)	MP	4-Nitrophenol	0.168	0.192	0.225	0.243	0.223	0.233	0.214	13.27
58)	M	2,4-Dinitrotoluen	0.292	0.325	0.341	0.344	0.342	0.329	0.329	5.98
59)	T	Dibenzofuran	1.824	1.424	1.442	1.383	1.350	1.459	1.481	11.69
60)	T	Diethyl phthalate	1.260	1.120	1.119	1.123	1.041	1.227	1.148	7.03
61)	T	Fluorene	1.334	1.172	1.184	1.151	1.129	1.291	1.210	6.84
62)	T	4-Chlorophenyl ph	0.711	0.571	0.575	0.547	0.560	0.668	0.605	11.14
63)	T	4-Nitroaniline	0.257	0.274	0.295	0.293	0.280	0.283	0.280	5.00
64)		1,2,4,5-Tetrachlo	0.599	0.484	0.494	0.481	0.530	0.603	0.532	10.60
65)	T	3,5-Dimethylpheno							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.073	0.076	0.086	0.090	0.108	0.092	0.088	14.33
68)	TC	N-Nitrosodiphenyl	0.550	0.467	0.476	0.516	0.513	0.598	0.520	9.31
69)	T	1,2-Diphenylhydra	0.786	0.709	0.721	0.743	0.728	0.797	0.747	4.85
70)	S	2,4,6-Tribromophe	0.157	0.168	0.162	0.178	0.179	0.178	0.170	5.53
71)	T	4-Bromophenyl phe	0.253	0.191	0.189	0.211	0.216	0.244	0.217	12.24
72)	T	Hexachlorobenzene	0.322	0.233	0.237	0.255	0.256	0.287	0.265	12.84
73)	T	Atrazine	0.176	0.178	0.177	0.130	0.169	0.183	0.169	11.63
74)	MC	Pentachlorophenol	0.101	0.106	0.108	0.134	0.130	0.143	0.120	14.62
75)	T	Phenanthrene	1.163	0.960	0.938	0.987	0.924	1.070	1.007	9.17
76)	T	Anthracene	1.132	0.941	0.969	0.985	1.003	1.056	1.014	6.82
77)	T	Carbazole	1.039	0.901	0.902	0.907	0.866	0.922	0.923	6.47
78)	T	Di-n-butyl phthal	1.098	1.031	1.058	1.127	1.099	1.196	1.101	5.22
79)	TC	Fluoranthene	1.126	0.987	1.016	1.019	0.979	1.027	1.026	5.14
80)	T	Benzidine	0.465	0.420	0.511	0.371	0.539	0.523	0.472	13.94
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.059	0.943	0.917	1.174	1.221	1.209	1.087	12.41
84)	S	Terphenyl-d14	0.846	0.839	0.814	1.021	1.046	0.934	0.917	10.86
85)	T	3,3'-Dimethylbenz	0.462	0.433	0.490	0.439	0.612	0.550	0.498	14.12
86)	T	Butyl benzyl phth	0.431	0.398	0.394	0.478	0.499	0.480	0.447	10.09
87)	T	3,3'-Dichlorobenz	0.349	0.319	0.328	0.331	0.295	0.296	0.320	6.65
88)	T	Benzo[a]anthracen	1.012	0.832	0.827	0.867	0.880	0.892	0.885	7.61
89)	T	Chrysene	1.018	0.797	0.814	0.831	0.815	0.855	0.855	9.61
90)	T	Bis(2-ethylhexyl)	0.575	0.518	0.535	0.666	0.691	0.702	0.615	13.29
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.075	1.116	1.062	1.196	1.166	1.262	1.146	6.69
94)	T	Benzo[b]fluoranth	1.031	0.993	1.070	1.075	0.950	1.031	1.025	4.64
95)	T	Benzo[k]fluoranth	1.193	1.015	0.971	0.908	1.005	1.024	1.019	9.30
96)	TC	Benzo[a]pyrene	0.823	0.810	0.795	0.828	0.823	0.859	0.823	2.60
97)	T	Indeno[1,2,3-cd]p	0.942	0.859	0.871	1.144	1.181	1.124	1.020	14.28
98)	T	Dibenz[a,h]anthra	0.941	0.808	0.808	0.969	0.985	1.044	0.926	10.51
99)	T	Benzo[g,h,i]peryl	0.931	0.748	0.746	0.907	0.961	1.005	0.883	12.46
100)	T	Hydroquinone							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

CS0810.M Wed Apr 14 12:05:32 2010 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\04-23-10\
Data File : C0777.D
Acq On : 23 Apr 2010 11:42
Operator : EDM
Sample : ABN054.10,40ngBNAchk_FOR_04/23/10
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Apr 23 13:16:22 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS0810.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Apr 14 12:05:26 2010
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	74	0.00
2	T	N-Nitrosodimethylamine	0.835	0.796	4.7	78	0.00
3	T	Pyridine	1.045	1.048	-0.3	80	0.00
4	S	2-Fluorophenol	1.271	1.327	-4.4	76	0.00
5	T	Benzaldehyde	0.904	1.063	-17.6	174	0.00
6	S	Phenol-d5	1.825	1.741	4.6	70	-0.01
7	MC	Phenol	1.707	1.582	7.3	79	-0.01
8	T	Aniline	0.813	0.785	3.4	79	0.00
9	T	Bis(2-chloroethyl) ether	1.074	1.078	-0.4	76	0.00
10	M	2-Chlorophenol	1.343	1.240	7.7	75	-0.01
11	T	1,3-Dichlorobenzene	1.404	1.336	4.8	75	-0.01
12	MC	1,4-Dichlorobenzene	1.503	1.478	1.7	74	0.00
13	T	Benzyl alcohol	0.852	0.785	7.9	69	-0.01
14	T	1,2-Dichlorobenzene	1.449	1.431	1.2	77	0.00
15	T	2-Methylphenol	0.852	0.785	7.9	69	-0.01
16	T	Bis(2-chloroisopropyl) ethe	1.948	1.936	0.6	76	0.00
17	T	4-Methylphenol	1.275	1.227	3.8	70	-0.01
18	MP	N-Nitrosodi-n-propylamine	1.030	0.986	4.3	66	-0.01
19	T	Acetophenone	1.800	1.678	6.8	73	-0.01
20	T	3-Methylphenol	1.274	1.228	3.6	70	-0.01
21	T	Hexachloroethane	0.524	0.543	-3.6	79	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	73	0.00
24	S	Nitrobenzene-d5	0.414	0.412	0.5	72	0.00
25	T	Nitrobenzene	0.357	0.372	-4.2	73	-0.01
26	T	Isophorone	0.693	0.683	1.4	72	0.00
27	TC	2-Nitrophenol	0.175	0.173	1.1	71	0.00
28	T	2,4-Dimethylphenol	0.319	0.313	1.9	76	0.00
29	T	Bis(2-chloroethoxy) methane	0.385	0.383	0.5	72	0.00
30	T	Benzoic acid	0.165	0.168	-1.8	70	-0.02
31	T	2,4-Dimethylaniline	0.379	0.404	-6.6	83	-0.01
32	TC	2,4-Dichlorophenol	0.262	0.263	-0.4	69	-0.01
33	M	1,2,4-Trichlorobenzene	0.298	0.288	3.4	75	0.00
34	T	Naphthalene	1.063	1.029	3.2	73	0.00
35	T	4-Chloroaniline	0.510	0.524	-2.7	72	0.00
36	T	4-Aminotoluene	1.193	1.240	-3.9	86	0.00
37	TC	Hexachlorobutadiene	0.167	0.167	0.0	76	0.00
38	T	Caprolactam	0.162	0.150	7.4	64	-0.02
39	T	2-Aminotoluene	1.193	1.240	-3.9	86	0.00
40	MC	4-Chloro-3-methylphenol	0.274	0.270	1.5	72	0.00
41	T	2-Methylnaphthalene	0.654	0.613	6.3	71	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	68	0.00
44	TP	Hexachlorocyclopentadiene	0.141	0.116	17.7	53	0.00
45	TC	2,4,6-Trichlorophenol	0.314	0.330	-5.1	77	0.00
46	T	2,4,5-Trichlorophenol	0.344	0.330	4.1	65	0.00

47	S	2-Fluorobiphenyl	1.257	1.334	-6.1	74	0.00
48	T	1,1'-Biphenyl	1.278	1.224	4.2	70	0.00
49	T	2-Chloronaphthalene	0.981	0.941	4.1	70	0.00
50	T	2-Nitroaniline	0.326	0.311	4.6	64	0.00
51	T	Dimethyl phthalate	1.162	1.090	6.2	69	0.00
52	T	2,6-Dinitrotoluene	0.245	0.238	2.9	64	0.00
53	T	Acenaphthylene	1.636	1.604	2.0	68	0.00
54	T	3-Nitroaniline	0.342	0.331	3.2	66	0.00
55	MC	Acenaphthene	1.066	1.012	5.1	70	0.00
56	TP	2,4-Dinitrophenol	0.098	0.096	2.0	58	0.00
57	MP	4-Nitrophenol	0.214	0.197	7.9	55	0.00
58	M	2,4-Dinitrotoluene	0.329	0.325	1.2	64	0.00
59	T	Dibenzofuran	1.481	1.402	5.3	69	0.00
60	T	Diethyl phthalate	1.148	1.077	6.2	65	0.00
61	T	Fluorene	1.210	1.116	7.8	66	0.00
62	T	4-Chlorophenyl phenyl ether	0.605	0.543	10.2	67	0.00
63	T	4-Nitroaniline	0.280	0.272	2.9	63	0.00
64		1,2,4,5-Tetrachlorobenzene	0.532	0.505	5.1	71	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	66	0.02
67	T	4,6-Dinitro-2-methylphenol	0.088	0.092	-4.5	67	0.00
68	TC	N-Nitrosodiphenylamine	0.520	0.520	0.0	66	0.00
69	T	1,2-Diphenylhydrazine	0.747	0.778	-4.1	69	0.00
70	S	2,4,6-Tribromophenol	0.170	0.148	12.9	55	0.01
71	T	4-Bromophenyl phenyl ether	0.217	0.207	4.6	64	0.01
72	T	Hexachlorobenzene	0.265	0.239	9.8	61	0.01
73	T	Atrazine	0.169	0.183	-8.3	93	0.00
74	MC	Pentachlorophenol	0.120	0.104	13.3	51	0.02
75	T	Phenanthrene	1.007	0.931	7.5	62	0.01
76	T	Anthracene	1.014	0.996	1.8	66	0.02
77	T	Carbazole	0.923	0.893	3.3	65	0.03
78	T	Di-n-butyl phthalate	1.101	1.092	0.8	64	0.03
79	TC	Fluoranthene	1.026	0.964	6.0	62	0.03
80	T	Benzidine	0.472	0.530	-12.3	136	0.03
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	73	0.03
83	M	Pyrene	1.087	1.039	4.4	65	0.03
84	S	Terphenyl-d14	0.917	0.870	5.1	62	0.04
85	T	3,3'-Dimethylbenzidine	0.498	0.502	-0.8	131	0.03
86	T	Butyl benzyl phthalate	0.447	0.450	-0.7	69	0.04
87	T	3,3'-Dichlorobenzidine	0.320	0.319	0.3	70	0.03
88	T	Benzo[a]anthracene	0.885	0.862	2.6	73	0.03
89	T	Chrysene	0.855	0.854	0.1	75	0.03
90	T	Bis(2-ethylhexyl) phthalate	0.615	0.620	-0.8	68	0.03
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	78	0.03
93	TC	Di-n-octyl phthalate	1.146	1.142	0.3	75	0.02
94	T	Benzo[b]fluoranthene	1.025	0.949	7.4	69	0.02
95	T	Benzo[k]fluoranthene	1.019	1.010	0.9	87	0.01
96	TC	Benzo[a]pyrene	0.823	0.806	2.1	76	0.02
97	T	Indeno[1,2,3-cd]pyrene	1.020	1.091	-7.0	74	0.00
98	T	Dibenz[a,h]anthracene	0.926	0.924	0.2	74	0.00
99	T	Benzo[g,h,i]perylene	0.883	0.840	4.9	72	0.00
100	T	Hydroquinone					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS0810.M Fri Apr 23 13:16:41 2010 RPT1

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS1010.M
Title : BNA CALIBRATION METHOD
Last Update : Thu May 06 13:19:41 2010
Response Via : Initial Calibration

Calibration Files
1 =C1253.D 10 =C1254.D 20 =C1255.D
40 =C1252.D 80 =C1256.D 120 =C1257.D

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.591	0.523	0.497	0.570	0.511	0.523	0.536	6.81
3)	T	Pyridine	0.679	0.596	0.568	0.567	0.575	0.578	0.594	7.24
4)	S	2-Fluorophenol	1.131	1.146	1.142	1.161	1.145	1.164	1.148	1.08
5)	T	Benzaldehyde	0.731	0.879	0.813	0.719	0.791	0.661	0.766	10.17
6)	S	Phenol-d5	1.221	1.293	1.395	1.414	1.303	1.355	1.330	5.40
7)	MC	Phenol	1.483	1.300	1.155	1.229	1.192	1.115	1.246	10.64
8)	T	Aniline	0.645	0.494	0.504	0.509	0.481	0.463	0.516	12.65
9)	T	Bis(2-chloroethyl	0.812	0.644	0.648	0.694	0.599	0.609	0.668	11.70
10)	M	2-Chlorophenol	1.412	1.170	1.169	1.191	1.075	1.167	1.197	9.41
11)	T	1,3-Dichlorobenze	1.566	1.304	1.276	1.328	1.303	1.318	1.349	7.99
12)	MC	1,4-Dichlorobenze	1.848	1.466	1.411	1.402	1.282	1.293	1.450	14.32
13)	T	Benzyl alcohol	0.782	0.651	0.659	0.757	0.640	0.714	0.700	8.53
14)	T	1,2-Dichlorobenze	1.554	1.466	1.303	1.346	1.319	1.318	1.384	7.39
15)	T	2-Methylphenol	1.111	0.969	0.950	1.012	0.944	0.933	0.987	6.76
16)	T	Bis(2-chloroisopr	1.237	0.973	0.963	0.989	0.904	0.833	0.983	13.91
17)	T	4-Methylphenol	1.264	1.039	0.990	1.043	1.038	1.013	1.064	9.39
18)	MP	N-Nitrosodi-n-pro	0.785	0.679	0.646	0.706	0.654	0.647	0.686	7.81
19)	T	Acetophenone	1.664	1.416	1.336	1.494	1.325	1.305	1.423	9.64
20)	T	3-Methylphenol	1.264	1.038	0.990	1.039	1.035	1.013	1.063	9.44
21)	T	Hexachloroethane	0.498	0.445	0.432	0.454	0.431	0.437	0.450	5.60
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.308	0.300	0.307	0.290	0.314	0.326	0.307	4.03
25)	T	Nitrobenzene	0.283	0.285	0.260	0.281	0.249	0.268	0.271	5.30
26)	T	Isophorone	0.665	0.492	0.536	0.526	0.485	0.474	0.530	13.32
27)	TC	2-Nitrophenol	0.171	0.165	0.170	0.179	0.176	0.164	0.171	3.46
28)	T	2,4-Dimethylpheno	0.330	0.270	0.299	0.290	0.284	0.260	0.289	8.46
29)	T	Bis(2-chloroethox	0.403	0.324	0.320	0.341	0.300	0.295	0.330	11.84
30)	T	Benzoic acid	0.109	0.118	0.149	0.159	0.142	0.144	0.137	14.07
31)	T	2,4-Dimethylanili	0.453	0.340	0.361	0.374	0.348	0.338	0.369	11.74
32)	TC	2,4-Dichloropheno	0.341	0.282	0.283	0.315	0.259	0.286	0.294	9.85
33)	M	1,2,4-Trichlorobe	0.422	0.327	0.339	0.336	0.328	0.311	0.344	11.48
34)	T	Naphthalene	1.192	0.912	1.034	1.029	0.842	0.926	0.989	12.51
35)	T	4-Chloroaniline	0.628	0.470	0.517	0.525	0.482	0.475	0.516	11.46
36)	T	4-Aminotoluene	1.286	1.036	1.082	1.082	0.944	0.910	1.057	12.58
37)	TC	Hexachlorobutadie	0.261	0.202	0.213	0.214	0.196	0.193	0.213	11.67
38)	T	Caprolactam	0.096	0.084	0.091	0.093	0.087	0.084	0.089	5.31
39)	T	2-Aminotoluene	1.286	1.036	1.082	1.082	0.944	0.910	1.057	12.58
40)	MC	4-Chloro-3-methyl	0.309	0.225	0.257	0.252	0.235	0.231	0.251	12.25
41)	T	2-Methylnaphthale	0.764	0.593	0.643	0.699	0.566	0.548	0.636	13.16
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.271	0.293	0.329	0.384	0.353	0.367	0.333	13.19
45)	TC	2,4,6-Trichloroph	0.389	0.315	0.348	0.353	0.345	0.336	0.348	6.98
46)	T	2,4,5-Trichloroph	0.408	0.361	0.362	0.405	0.371	0.361	0.378	5.97
47)	S	2-Fluorobiphenyl	1.251	1.330	1.270	1.184	1.280	1.243	1.260	3.81
48)	T	1,1'-Biphenyl	1.613	1.229	1.289	1.365	1.226	1.135	1.309	12.77
49)	T	2-Chloronaphthale	1.190	1.021	0.983	1.011	0.926	0.974	1.017	8.94
50)	T	2-Nitroaniline	0.230	0.194	0.194	0.226	0.193	0.181	0.203	9.96
51)	T	Dimethyl phthalat	1.342	1.124	1.104	1.162	1.083	1.065	1.146	8.86

52)	T	2,6-Dinitrotoluen	0.250	0.229	0.237	0.280	0.235	0.238	0.245	7.55
53)	T	Acenaphthylene	1.885	1.570	1.587	1.702	1.494	1.567	1.634	8.57
54)	T	3-Nitroaniline	0.337	0.296	0.316	0.361	0.299	0.326	0.322	7.58
55)	MC	Acenaphthene	1.203	0.969	0.963	0.961	0.978	0.862	0.989	11.42
56)	TP	2,4-Dinitrophenol	0.097	0.091	0.088	0.122	0.118	0.106	0.104	13.62
57)	MP	4-Nitrophenol	0.278	0.230	0.230	0.260	0.245	0.227	0.245	8.43
58)	M	2,4-Dinitrotoluen	0.303	0.289	0.315	0.340	0.309	0.362	0.320	8.38
59)	T	Dibenzofuran	1.694	1.413	1.421	1.486	1.350	1.316	1.447	9.33
60)	T	Diethyl phthalate	1.227	1.018	1.039	1.064	0.992	0.973	1.052	8.69
61)	T	Fluorene	1.428	1.156	1.168	1.209	1.155	1.076	1.198	10.06
62)	T	4-Chlorophenyl ph	0.745	0.611	0.629	0.657	0.624	0.631	0.649	7.61
63)	T	4-Nitroaniline	0.294	0.258	0.264	0.283	0.279	0.284	0.277	4.92
64)		1,2,4,5-Tetrachlo	0.743	0.617	0.603	0.645	0.577	0.612	0.633	9.21
65)	T	3,5-Dimethylpheno							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.080	0.074	0.080	0.099	0.106	0.100	0.090	14.99
68)	TC	N-Nitrosodiphenyl	0.592	0.473	0.482	0.502	0.464	0.481	0.499	9.48
69)	T	1,2-Diphenylhydra	0.549	0.478	0.476	0.509	0.486	0.536	0.506	6.13
70)	S	2,4,6-Tribromophe	0.179	0.184	0.191	0.192	0.195	0.210	0.192	5.49
71)	T	4-Bromophenyl phe	0.280	0.236	0.233	0.240	0.238	0.252	0.247	7.17
72)	T	Hexachlorobenzene	0.342	0.280	0.283	0.295	0.298	0.301	0.300	7.45
73)	T	Atrazine	0.232	0.180	0.186	0.200	0.170	0.177	0.191	11.90
74)	MC	Pentachlorophenol	0.139	0.127	0.144	0.165	0.164	0.178	0.153	12.60
75)	T	Phenanthrene	1.174	0.935	0.937	0.975	0.887	0.921	0.971	10.64
76)	T	Anthracene	1.165	0.958	0.975	0.975	0.990	1.034	1.016	7.59
77)	T	Carbazole	1.009	0.863	0.876	0.925	0.893	0.848	0.902	6.49
78)	T	Di-n-butyl phthal	1.147	0.938	0.969	1.027	0.969	1.027	1.013	7.37
79)	TC	Fluoranthene	1.232	1.002	1.050	1.081	1.009	1.068	1.074	7.80
80)	T	Benzidine	0.486	0.657	0.597	0.593	0.589	0.572	0.582	9.52
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.089	0.856	0.876	0.915	0.864	0.846	0.908	10.14
84)	S	Terphenyl-d14	0.795	0.780	0.798	0.763	0.790	0.765	0.782	1.91
85)	T	3,3'-Dimethylbenz	0.475	0.574	0.515	0.523	0.540	0.494	0.520	6.69
86)	T	Butyl benzyl phth	0.360	0.320	0.334	0.352	0.322	0.322	0.335	5.14
87)	T	3,3'-Dichlorobenz	0.287	0.390	0.336	0.381	0.390	0.431	0.369	13.66
88)	T	Benzo[a]anthracen	1.105	0.842	0.850	0.905	0.831	0.852	0.898	11.68
89)	T	Chrysene	1.036	0.823	0.812	0.840	0.789	0.788	0.848	11.13
90)	T	Bis(2-ethylhexyl)	0.578	0.485	0.499	0.539	0.498	0.503	0.517	6.77
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	0.969	0.888	0.938	0.928	0.902	0.886	0.919	3.52
94)	T	Benzo[b]fluoranth	1.050	1.062	0.987	0.982	0.936	1.103	1.020	6.08
95)	T	Benzo[k]fluoranth	1.036	0.843	0.949	0.940	0.990	0.873	0.938	7.64
96)	TC	Benzo[a]pyrene	0.846	0.807	0.794	0.798	0.811	0.833	0.815	2.55
97)	T	Indeno[1,2,3-cd]p	0.999	0.952	0.924	0.977	1.058	1.052	0.993	5.40
98)	T	Dibenz[a,h]anthra	0.806	0.792	0.776	0.826	0.879	0.884	0.827	5.47
99)	T	Benzo[g,h,i]peryl	0.850	0.753	0.758	0.815	0.865	0.888	0.822	6.88
100)	T	Hydroquinone							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

CS1010.M Thu May 06 13:19:54 2010 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1265.D
Acq On : 6 May 2010 13:34
Operator : EDM
Sample : ABN054.10,40ngBNAchk_FOR_05/06/10
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: May 06 13:46:03 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
2	T	N-Nitrosodimethylamine	0.536	0.569	-6.2	102	0.00
3	T	Pyridine	0.594	0.559	5.9	101	0.00
4	S	2-Fluorophenol	1.148	1.169	-1.8	103	0.00
5	T	Benzaldehyde	0.766	0.622	18.8	108	0.00
6	S	Phenol-d5	1.330	1.418	-6.6	103	0.00
7	MC	Phenol	1.246	1.222	1.9	102	0.00
8	T	Aniline	0.516	0.495	4.1	100	0.00
9	T	Bis(2-chloroethyl) ether	0.668	0.691	-3.4	102	0.00
10	M	2-Chlorophenol	1.197	1.156	3.4	100	0.00
11	T	1,3-Dichlorobenzene	1.349	1.316	2.4	102	0.00
12	MC	1,4-Dichlorobenzene	1.450	1.387	4.3	101	0.00
13	T	Benzyl alcohol	0.700	0.761	-8.7	103	0.00
14	T	1,2-Dichlorobenzene	1.384	1.349	2.5	103	0.00
15	T	2-Methylphenol	0.987	0.999	-1.2	101	0.00
16	T	Bis(2-chloroisopropyl) ethe	0.983	0.973	1.0	101	0.00
17	T	4-Methylphenol	1.064	1.025	3.7	101	0.00
18	MP	N-Nitrosodi-n-propylamine	0.686	0.679	1.0	99	0.00
19	T	Acetophenone	1.423	1.473	-3.5	101	0.00
20	T	3-Methylphenol	1.063	1.026	3.5	101	0.00
21	T	Hexachloroethane	0.450	0.445	1.1	101	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	101	0.00
24	S	Nitrobenzene-d5	0.307	0.284	7.5	99	0.00
25	T	Nitrobenzene	0.271	0.280	-3.3	101	0.00
26	T	Isophorone	0.530	0.522	1.5	101	0.00
27	TC	2-Nitrophenol	0.171	0.175	-2.3	99	0.00
28	T	2,4-Dimethylphenol	0.289	0.284	1.7	99	0.00
29	T	Bis(2-chloroethoxy) methane	0.330	0.341	-3.3	101	0.00
30	T	Benzoic acid	0.137	0.161	-17.5	102	-0.01
31	T	2,4-Dimethylaniline	0.369	0.368	0.3	100	0.00
32	TC	2,4-Dichlorophenol	0.294	0.314	-6.8	101	0.00
33	M	1,2,4-Trichlorobenzene	0.344	0.352	-2.3	106	0.00
34	T	Naphthalene	0.989	1.016	-2.7	100	0.00
35	T	4-Chloroaniline	0.516	0.521	-1.0	100	0.00
36	T	4-Aminotoluene	1.057	1.078	-2.0	101	0.00
37	TC	Hexachlorobutadiene	0.213	0.212	0.5	100	0.00
38	T	Caprolactam	0.089	0.090	-1.1	98	-0.02
39	T	2-Aminotoluene	1.057	1.078	-2.0	101	0.00
40	MC	4-Chloro-3-methylphenol	0.251	0.264	-5.2	106	0.00
41	T	2-Methylnaphthalene	0.636	0.659	-3.6	95	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	100	0.00
44	TP	Hexachlorocyclopentadiene	0.333	0.348	-4.5	90	0.00
45	TC	2,4,6-Trichlorophenol	0.348	0.361	-3.7	102	0.00

46	I	2,4,5-Trichlorophenol	0.378	0.396	-5.3	98	0.00
47	S	2-Fluorobiphenyl	1.260	1.222	3.0	103	0.00
48	T	1,1'-Biphenyl	1.309	1.304	0.4	95	0.00
49	T	2-Chloronaphthalene	1.017	1.067	-4.9	105	0.00
50	T	2-Nitroaniline	0.203	0.193	4.9	85	0.00
51	T	Dimethyl phthalate	1.146	1.148	-0.2	99	0.00
52	T	2,6-Dinitrotoluene	0.245	0.252	-2.9	90	0.00
53	T	Acenaphthylene	1.634	1.618	1.0	95	0.00
54	T	3-Nitroaniline	0.322	0.321	0.3	89	0.00
55	MC	Acenaphthene	0.989	1.011	-2.2	105	0.00
56	TP	2,4-Dinitrophenol	0.104	0.103	1.0	84	0.00
57	MP	4-Nitrophenol	0.245	0.254	-3.7	97	0.00
58	M	2,4-Dinitrotoluene	0.320	0.331	-3.4	97	0.00
59	T	Dibenzofuran	1.447	1.515	-4.7	102	0.00
60	T	Diethyl phthalate	1.052	1.098	-4.4	103	0.00
61	T	Fluorene	1.198	1.256	-4.8	104	0.00
62	T	4-Chlorophenyl phenyl ether	0.649	0.672	-3.5	102	0.00
63	T	4-Nitroaniline	0.277	0.295	-6.5	104	0.00
64		1,2,4,5-Tetrachlorobenzene	0.633	0.667	-5.4	103	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00
67	T	4,6-Dinitro-2-methylphenol	0.090	0.091	-1.1	92	-0.01
68	TC	N-Nitrosodiphenylamine	0.499	0.489	2.0	98	0.00
69	T	1,2-Diphenylhydrazine	0.506	0.534	-5.5	105	0.00
70	S	2,4,6-Tribromophenol	0.192	0.205	-6.8	107	0.00
71	T	4-Bromophenyl phenyl ether	0.247	0.249	-0.8	104	0.00
72	T	Hexachlorobenzene	0.300	0.297	1.0	101	-0.01
73	T	Atrazine	0.191	0.198	-3.7	100	0.00
74	MC	Pentachlorophenol	0.153	0.164	-7.2	100	-0.01
75	T	Phenanthrene	0.971	0.975	-0.4	100	0.00
76	T	Anthracene	1.016	0.985	3.1	101	-0.01
77	T	Carbazole	0.902	0.897	0.6	97	-0.01
78	T	Di-n-butyl phthalate	1.013	1.014	-0.1	99	0.00
79	TC	Fluoranthene	1.074	1.080	-0.6	100	0.00
80	T	Benzidine	0.582	0.477	18.0	100	0.00
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	96	0.00
83	M	Pyrene	0.908	0.960	-5.7	100	0.00
84	S	Terphenyl-d14	0.782	0.773	1.2	97	0.00
85	T	3,3'-Dimethylbenzidine	0.520	0.426	18.1	103	0.00
86	T	Butyl benzyl phthalate	0.335	0.350	-4.5	95	0.00
87	T	3,3'-Dichlorobenzidine	0.369	0.345	6.5	87	0.00
88	T	Benzo[a]anthracene	0.898	0.905	-0.8	95	0.00
89	T	Chrysene	0.848	0.855	-0.8	97	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.517	0.538	-4.1	95	0.00
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	93	0.00
93	TC	Di-n-octyl phthalate	0.919	0.928	-1.0	93	0.00
94	T	Benzo[b]fluoranthene	1.020	1.044	-2.4	99	0.00
95	T	Benzo[k]fluoranthene	0.938	0.914	2.6	91	0.00
96	TC	Benzo[a]pyrene	0.815	0.801	1.7	94	0.00
97	T	Indeno[1,2,3-cd]pyrene	0.993	0.993	0.0	95	-0.01
98	T	Dibenz[a,h]anthracene	0.827	0.832	-0.6	94	-0.01
99	T	Benzo[g,h,i]perylene	0.822	0.815	0.9	93	-0.01
100	T	Hydroquinone					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS1010.M Thu May 06 13:59:23 2010 RPT1

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 04/23/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
Method_Blank	SOIL	C0789.D	74	80	74	76	56	70
LCS	SOIL	C0790.D	84	90	104	98	70	82
MS03758-006)	SOIL	C0791.D	58	64	51	58	67	76
MSD03758-006)	SOIL	C0792.D	N/A	66	49	57	66	74
03758-001	SOIL	C0793.D	N/A	N/A	47	55	N/A	54
03758-002	SOIL	C0794.D	N/A	N/A	41	48	N/A	64
03758-003	SOIL	C0795.D	N/A	N/A	36	43	N/A	58
03758-004	SOIL	C0796.D	N/A	N/A	42	50	N/A	61
03758-005	SOIL	C0797.D	N/A	N/A	45	54	N/A	50
03758-006	SOIL	C0798.D	N/A	N/A	33	41	N/A	49
03758-007	SOIL	C0799.D	N/A	N/A	41	51	N/A	58

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 04/23/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
Method_Blank	SOIL	C0800.D	81	77	87	96	67	95
LCS	SOIL	C0801.D	74	72	85	96	65	81
MS(03683-002)	SOIL	C0802.D	67	72	48	56	78	62
MSD(03683-002)	SOIL	C0803.D	68	72	48	57	77	62
03691-001	SOIL	C0804.D	75	72	38	50	77	49
03691-002	SOIL	C0805.D	74	74	50	64	84	58
03691-003	SOIL	C0806.D	72	77	49	64	85	62
03691-004	SOIL	C0807.D	67	70	46	61	82	57
03691-005	SOIL	C0808.D	64	65	45	57	71	52
03691-006	SOIL	C0809.D	67	70	46	58	74	49
03691-007	SOIL	C0810.D	58	58	42	54	65	51
03691-008	SOIL	C0811.D	59	62	53	65	70	63
03691-009	SOIL	C0812.D	65	65	56	66	69	63
03690-021	SOIL	C0813.D	62	61	42	51	65	49
03690-022	SOIL	C0814.D	62	62	40	56	74	50
03690-023	SOIL	C0815.D	70	74	46	60	87	54
03530-002	SOIL	C0816.D	N/A	N/A	47	60	N/A	53
03683-002	SOIL	C0817.D	N/A	N/A	34	53	N/A	53
03683-004	SOIL	C0818.D	N/A	N/A	48	60	N/A	56

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 05/06/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
Method_Blank	SOIL	C1272.D	54	68	65	76	60	78
LCS	SOIL	C1273.D	60	67	78	77	68	83
04018-003	SOIL	C1274.D	N/A	N/A	70	77	N/A	88
04018-013	SOIL	C1275.D	N/A	N/A	52	64	N/A	62
04018-014	SOIL	C1276.D	N/A	N/A	44	54	N/A	52
03895-002	SOIL	C1277.D	N/A	N/A	62	76	N/A	81
04230-001	SOIL	C1278.D	N/A	N/A	62	79	N/A	86

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SOIL SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 03758-006 Batch No.: c042310s

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	100.0	0.0	70.1	70	35 - 116
2-Chlorophenol	100.0	0.0	64.9	65	37 - 112
1,4-Dichlorobenzene	50.0	0.0	28.0	56	29 - 102
N-Nitrosodi-n-propylamine	50.0	0.0	34.0	68	38 - 119
1,2,4-Trichlorobenzene	50.0	0.0	30.8	62	33 - 100
4-Chloro-3-methylphenol	100.0	0.0	84.2	84	42 - 118
Acenaphthene	50.0	0.0	38.8	78	20 - 132
4-Nitrophenol	100.0	0.0	80.4	80	31 - 123
2,4-Dinitrotoluene	50.0	0.0	36.5	73	24 - 130
Pentachlorophenol	100.0	0.0	90.7	91	29 - 113
Pyrene	50.0	2.5	58.3	112	31 - 133

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	0.0	75.2	75	7	14	35 - 116
2-Chlorophenol	0.0	65.9	66	2	13	37 - 112
1,4-Dichlorobenzene	0.0	28.7	57	2	14	29 - 102
N-Nitrosodi-n-propylamine	0.0	34.7	69	1	14	38 - 119
1,2,4-Trichlorobenzene	0.0	30.7	61	2	12	33 - 100
4-Chloro-3-methylphenol	0.0	84.1	84	0	13	42 - 118
Acenaphthene	0.0	38.7	77	1	22	20 - 132
4-Nitrophenol	0.0	78.1	78	3	18	31 - 123
2,4-Dinitrotoluene	0.0	34.1	68	7	26	24 - 130
Pentachlorophenol	0.0	89.9	90	1	19	29 - 113
Pyrene	2.5	55.0	105	6	17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0484.D

Date Analyzed: 04/13/2010

Instrument ID: MSDC

Time Analyzed: 14:30

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	116820	2.43	475072	2.97	321494	3.77
	UPPER LIMIT	233640	2.93	950144	3.47	642988	4.27
	LOWER LIMIT	58410	1.93	237536	2.47	160747	3.27
	LAB SAMPLE ID						
01	1ngBNA_FOR_04/13/	87561	2.43	345184	2.97	218310	3.76
02	10ngBNA_FOR_04/1	87228	2.43	378196	2.97	241380	3.76
03	20ngBNA_FOR_04/1	67613	2.43	288575	2.97	195584	3.76
04	80ngBNA_FOR_04/1	104896	2.43	414541	2.97	249701	3.76
05	120ngBNA_FOR_04/	87343	2.43	358135	2.97	224500	3.76
06	40ngBNAchk_FOR_0	92269	2.43	383475	2.97	240058	3.75
07	10ngOLMO4_FOR_0	81321	2.43	327783	2.97	202495	3.75
08	20ngOLMO4_FOR_0	95904	2.43	383354	2.97	234316	3.75
09	1ngOLMO4_FOR_04	86254	2.43	340698	2.97	210091	3.75
10	40ngOLMO4_FOR_0	76906	2.43	314137	2.97	200283	3.75
11	80ngOLMO4_FOR_0	92710	2.43	366603	2.97	229705	3.75
12	120ngOLMO4_FOR_	101430	2.43	409094	2.97	260235	3.75
13	40ngOLMO4chk_FOR	97256	2.43	410098	2.97	275202	3.75
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0484.D

Date Analyzed: 04/13/2010

Instrument ID: MSDC

Time Analyzed: 14:30

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	541912		4.52		464819		6.25		340571		7.54	
	UPPER LIMIT	1083824		5.02		929638		6.75		681142		8.04	
	LOWER LIMIT	270956		4.02		232410		5.75		170286		7.04	
	LAB SAMPLE ID												
01	1ngBNA_FOR_04/13	393119		4.50		430963		6.22		323879		7.51	
02	10ngBNA_FOR_04/1	447574		4.49		489043		6.21		335079		7.50	
03	20ngBNA_FOR_04/1	366534		4.50		411575		6.22		309598		7.51	
04	80ngBNA_FOR_04/1	411473		4.49		315220		6.21		239129		7.50	
05	120ngBNA_FOR_04/	377576		4.49		327744		6.21		239579		7.50	
06	40ngBNAchk_FOR_0	419331		4.47		428813		6.19		292093		7.49	
07	10ngOLMO4_FOR_0	338939		4.47		360544		6.19		235119		7.47	
08	20ngOLMO4_FOR_0	401170		4.47		413502		6.19		251376		7.48	
09	1ngOLMO4_FOR_04	357093		4.47		353207		6.19		267562		7.49	
10	40ngOLMO4_FOR_0	381057		4.47		421849		6.19		234960		7.47	
11	80ngOLMO4_FOR_0	390645		4.46		376321		6.17		211651		7.47	
12	120ngOLMO4_FOR_	446340		4.46		396644		6.17		239106		7.47	
13	40ngOLMO4chk_FOR	495426		4.46		493289		6.17		261080		7.47	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

0051

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0777.D

Date Analyzed: 04/23/2010

Instrument ID: MSDC

Time Analyzed: 11:42

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	86318		2.43		345899		2.97		217480		3.77	
	UPPER LIMIT	172636		2.93		691798		3.47		434960		4.27	
	LOWER LIMIT	43159		1.93		172950		2.47		108740		3.27	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	126645		2.43		516342		2.97		306327		3.76	
02	03590-001	110384		2.43		471382		2.97		252863		3.77	
03	03590-002	122781		2.43		518964		2.97		277108		3.76	
04	03605-003	144572		2.43		568821		2.97		318297		3.76	
05	03605-004	129562		2.43		502822		2.97		275236		3.76	
06	03605-005	128660		2.43		503703		2.97		279537		3.75	
07	03605-006	121559		2.43		480782		2.97		266748		3.75	
08	03484-001	125718		2.43		535925		2.97		305283		3.75	
09	Method_Blank	119496		2.43		469507		2.97		258355		3.75	
10	LCS	114712		2.43		463541		2.97		245861		3.75	
11	03684-001	99738		2.43		393753		2.97		221079		3.76	
12	Method_Blank	85452		2.43		348089		2.97		189968		3.75	
13	LCS	94633		2.43		384345		2.97		201202		3.74	
14	MS03758-006)	103845		2.42		403926		2.96		238647		3.74	
15	MSD03758-006)	69404		2.42		286944		2.96		171705		3.74	
16	03758-001	87161		2.43		378092		2.96		219819		3.74	
17	03758-002	101985		2.43		431941		2.96		249210		3.74	
18	03758-003	79708		2.43		331791		2.97		190181		3.74	
19	03758-004	106371		2.43		426244		2.96		250002		3.74	
20	03758-005	84996		2.43		345034		2.96		197443		3.74	
21	03758-006	106488		2.43		444299		2.96		251153		3.73	
22	03758-007	105750		2.43		443613		2.96		253548		3.73	

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0777.D

Date Analyzed: 04/23/2010

Instrument ID: MSDC

Time Analyzed: 11:42

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	356034	4.51	339390	6.24	265903	7.52
	UPPER LIMIT	712068	5.01	678780	6.74	531806	8.02
	LOWER LIMIT	178017	4.01	169695	5.74	132952	7.02
	LAB SAMPLE ID						
01	40ngOLMO4chk_FOF	514710	4.51	532800	6.24	418358	7.52
02	03590-001	341235	4.52	317767	6.25	245280	7.57
03	03590-002	393964	4.49	373342	6.22	283236	7.52
04	03605-003	448508	4.50	418356	6.23	321515	7.54
05	03605-004	386752	4.50	355824	6.23	261413	7.53
06	03605-005	396626	4.47	362318	6.20	279411	7.50
07	03605-006	375400	4.47	356856	6.19	274009	7.49
08	03484-001	412632	4.47	367722	6.19	278941	7.50
09	Method_Blank	353826	4.46	308605	6.19	239283	7.49
10	LCS	347840	4.46	317998	6.18	256066	7.47
11	03684-001	319172	4.49	296992	6.21	276032	7.51
12	Method_Blank	261674	4.47	232331	6.20	213885	7.49
13	LCS	281868	4.46	261276	6.17	213393	7.48
14	MS03758-006)	356518	4.46	239869	6.18	224775	7.46
15	MSD03758-006)	267103	4.46	195136	6.18	181498	7.47
16	03758-001	308481	4.46	233901	6.18	263409	7.46
17	03758-002	371925	4.45	288595	6.17	288902	7.46
18	03758-003	270998	4.45	211526	6.17	210119	7.45
19	03758-004	348615	4.45	258874	6.17	251032	7.44
20	03758-005	277248	4.44	243472	6.16	247764	7.44
21	03758-006	347854	4.44	289665	6.15	283208	7.45
22	03758-007	372816	4.44	294700	6.16	288794	7.44

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0777.D

Date Analyzed: 04/23/2010

Instrument ID: MSDC

Time Analyzed: 11:42

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	86318		2.43		345899		2.97		217480		3.77	
	UPPER LIMIT	172636		2.93		691798		3.47		434960		4.27	
	LOWER LIMIT	43159		1.93		172950		2.47		108740		3.27	
	LAB SAMPLE ID												
01	Method_Blank	98437		2.42		402170		2.97		239696		3.73	
02	LCS	116153		2.42		468754		2.96		264847		3.73	
03	MS(03683-002)	124930		2.42		497741		2.96		299551		3.73	
04	MSD(03683-002)	134197		2.42		531875		2.96		316013		3.73	
05	03691-001	119350		2.42		487301		2.96		284107		3.74	
06	03691-002	153171		2.42		595729		2.96		329558		3.74	
07	03691-003	123514		2.42		504730		2.96		294359		3.74	
08	03691-004	126231		2.42		492078		2.96		276061		3.74	
09	03691-005	128767		2.42		507020		2.96		285504		3.74	
10	03691-006	155629		2.42		685179		2.96		367490		3.74	
11	03691-007	126997		2.42		500811		2.96		290945		3.74	
12	03691-008	117635		2.42		458772		2.96		267316		3.74	
13	03691-009	113979		2.42		434856		2.96		253675		3.74	
14	03690-021	113580		2.42		437214		2.96		253389		3.74	
15	03690-022	135077		2.42		518861		2.96		292301		3.74	
16	03690-023	128059		2.42		494225		2.96		282365		3.73	
17	03530-002	112854		2.42		494431		2.96		314665		3.74	
18	03683-002	106022		2.43		446954		2.96		254590		3.73	
19	03683-004	114141		2.43		457468		2.96		251996		3.74	
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0777.D

Date Analyzed: 04/23/2010

Instrument ID: MSDC

Time Analyzed: 11:42

	50UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	356034		4.51		339390		6.24		265903		7.52	
	UPPER LIMIT	712068		5.01		678780		6.74		531806		8.02	
	LOWER LIMIT	178017		4.01		169695		5.74		132952		7.02	
	LAB SAMPLE ID												
01	Method_Blank	362355		4.44		306133		6.15		295063		7.44	
02	LCS	384233		4.43		316654		6.15		311721		7.44	
03	MS(03683-002)	432908		4.43		329690		6.15		324896		7.43	
04	MSD(03683-002)	462517		4.44		365342		6.16		356098		7.44	
05	03691-001	398537		4.44		324398		6.15		336011		7.45	
06	03691-002	446965		4.46		438998		6.17		472418		7.48	
07	03691-003	394666		4.46		344455		6.18		370561		7.46	
08	03691-004	394936		4.45		368037		6.17		406857		7.45	
09	03691-005	372939		4.45		345661		6.17		358425		7.45	
10	03691-006	445696		4.44		399857		6.15		423011		7.45	
11	03691-007	391872		4.44		358246		6.16		372640		7.44	
12	03691-008	371939		4.44		353234		6.16		362225		7.44	
13	03691-009	363088		4.45		339030		6.16		358629		7.46	
14	03690-021	354753		4.44		342354		6.16		348883		7.45	
15	03690-022	401789		4.46		396971		6.18		410347		7.47	
16	03690-023	374494		4.43		372300		6.15		389924		7.44	
17	03530-002	383763		4.45		360302		6.16		375264		7.45	
18	03683-002	364197		4.44		346148		6.15		360758		7.44	
19	03683-004	344888		4.44		336964		6.16		356937		7.45	
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1252.D

Date Analyzed: 05/06/2010

Instrument ID: MSDC

Time Analyzed: 10:01

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	188877		2.10		668520		2.63		435065		3.40	
	UPPER LIMIT	377754		2.60		1337040		3.13		870130		3.90	
	LOWER LIMIT	94439		1.60		334260		2.13		217533		2.90	
	LAB SAMPLE ID												
01	1ngBNA_FOR_05/06	204158		2.10		720337		2.63		473781		3.40	
02	10ngBNA_FOR_05/0	180716		2.10		669276		2.63		429173		3.40	
03	20ngBNA_FOR_05/0	197183		2.10		695745		2.63		466842		3.40	
04	80ngBNA_FOR_05/0	183252		2.10		673895		2.64		441422		3.41	
05	120ngBNA_FOR_05/	170409		2.10		623646		2.64		401712		3.40	
06	1ngOLMO4_FOR_05	172391		2.10		623124		2.63		391248		3.39	
07	10ngOLMO4_FOR_0	176729		2.10		653553		2.63		409668		3.40	
08	20ngOLMO4_FOR_0	179673		2.10		654659		2.63		425549		3.39	
09	40ngOLMO4_FOR_0	218684		2.10		800070		2.63		488970		3.39	
10	80ngOLMO4_FOR_0	175235		2.10		632390		2.63		398700		3.40	
11	120ngOLMO4_FOR_	190326		2.10		686549		2.63		440446		3.40	
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1252.D Date Analyzed: 05/06/2010

Instrument ID: MSDC Time Analyzed: 10:01

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	780803		4.10		918913		5.61		729615		6.69	
	UPPER LIMIT	1561606		4.60		1837826		6.11		1459230		7.19	
	LOWER LIMIT	390402		3.60		459457		5.11		364808		6.19	
	LAB SAMPLE ID												
01	1ngBNA_FOR_05/06	847830		4.11		1035595		5.62		787944		6.71	
02	10ngBNA_FOR_05/0	768481		4.10		924213		5.59		704505		6.68	
03	20ngBNA_FOR_05/0	845233		4.10		1015537		5.62		738386		6.70	
04	80ngBNA_FOR_05/0	773785		4.12		909063		5.64		682690		6.71	
05	120ngBNA_FOR_05/	677583		4.10		839897		5.60		658306		6.69	
06	1ngOLMO4_FOR_05	682559		4.08		830566		5.55		694157		6.66	
07	10ngOLMO4_FOR_0	742162		4.10		964385		5.60		701366		6.69	
08	20ngOLMO4_FOR_0	774464		4.08		949655		5.55		672502		6.65	
09	40ngOLMO4_FOR_0	926716		4.09		1127207		5.57		699564		6.67	
10	80ngOLMO4_FOR_0	724447		4.10		862075		5.60		627160		6.69	
11	120ngOLMO4_FOR_	764742		4.09		917150		5.59		709272		6.68	
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1265.D

Date Analyzed: 05/06/2010

Instrument ID: MSDC

Time Analyzed: 13:34

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	193728		2.10		677399		2.63		433741		3.40	
	UPPER LIMIT	387456		2.60		1354798		3.13		867482		3.90	
	LOWER LIMIT	96864		1.60		338700		2.13		216871		2.90	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	235106		2.10		822374		2.63		523586		3.40	
02	04140-004	217817		2.10		833286		2.63		552924		3.40	
03	04140-006	228516		2.10		846514		2.63		562902		3.39	
04	04140-008	213386		2.10		840493		2.63		523959		3.40	
05	04140-010	197945		2.10		744993		2.63		513432		3.40	
06	04110-001	207675		2.10		731484		2.63		491287		3.40	
07	Method_Blank	194601		2.10		762985		2.63		488252		3.39	
08	LCS	184475		2.10		659336		2.63		451032		3.39	
09	04018-003	140077		2.10		526252		2.63		331121		3.40	
10	04018-013	179457		2.10		644098		2.63		393626		3.39	
11	04018-014	159272		2.10		562626		2.63		354490		3.40	
12	03895-002	153336		2.10		542300		2.63		329243		3.39	
13	04230-001	138443		2.10		513970		2.63		319924		3.39	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1265.D

Date Analyzed: 05/06/2010

Instrument ID: MSDC

Time Analyzed: 13:34

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	783477		4.11		877610		5.64		679488		6.71	
	UPPER LIMIT	1566954		4.61		1755220		6.14		1358976		7.21	
	LOWER LIMIT	391739		3.61		438805		5.14		339744		6.21	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	969984		4.11		1163855		5.63		714906		6.70	
02	04140-004	977367		4.09		1051778		5.58		768094		6.68	
03	04140-006	980855		4.07		1120343		5.54		849578		6.65	
04	04140-008	938982		4.10		1045587		5.61		796178		6.69	
05	04140-010	890738		4.09		983472		5.59		757178		6.68	
06	04110-001	855937		4.09		894165		5.56		737588		6.67	
07	Method_Blank	902215		4.08		1063175		5.55		829232		6.67	
08	LCS	804315		4.07		913887		5.55		617714		6.66	
09	04018-003	566706		4.08		568430		5.54		504393		6.65	
10	04018-013	596803		4.07		681554		5.54		630804		6.68	
11	04018-014	545571		4.11		697941		5.63		621475		6.73	
12	03895-002	555029		4.06		590612		5.51		563978		6.63	
13	04230-001	523088		4.06		548736		5.51		521550		6.63	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1274.D
Acq On : 6 May 2010 15:55
Operator : EDM
Sample : Z3/4.83-5.33,04018-003,S,15.20g,15.6,05/06/10
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: May 06 16:08:09 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.10	152	140077	40.00	UG	0.00
23) Naphthalene-d8	2.63	136	526252	40.00	UG	0.00
43) Acenaphthene-d10	3.40	164	331121	40.00	UG	-0.01
66) Phenanthrene-d10	4.08	188	566706	40.00	UG	-0.04
82) Chrysene-d12	5.54	240	568430m	40.00	UG	-0.10
92) Perylene-d12	6.65	264	504393	40.00	UG	-0.06
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 108		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.33	82	142225	35.16	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 70.32%			
47) 2-Fluorobiphenyl	3.09	172	402168	38.57	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 77.14%			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery = 0.00%#			
84) Terphenyl-d14	4.89	244	488707	43.98	UG	-0.07
Spiked Amount 50.000	Range 32 - 135		Recovery = 87.96%			

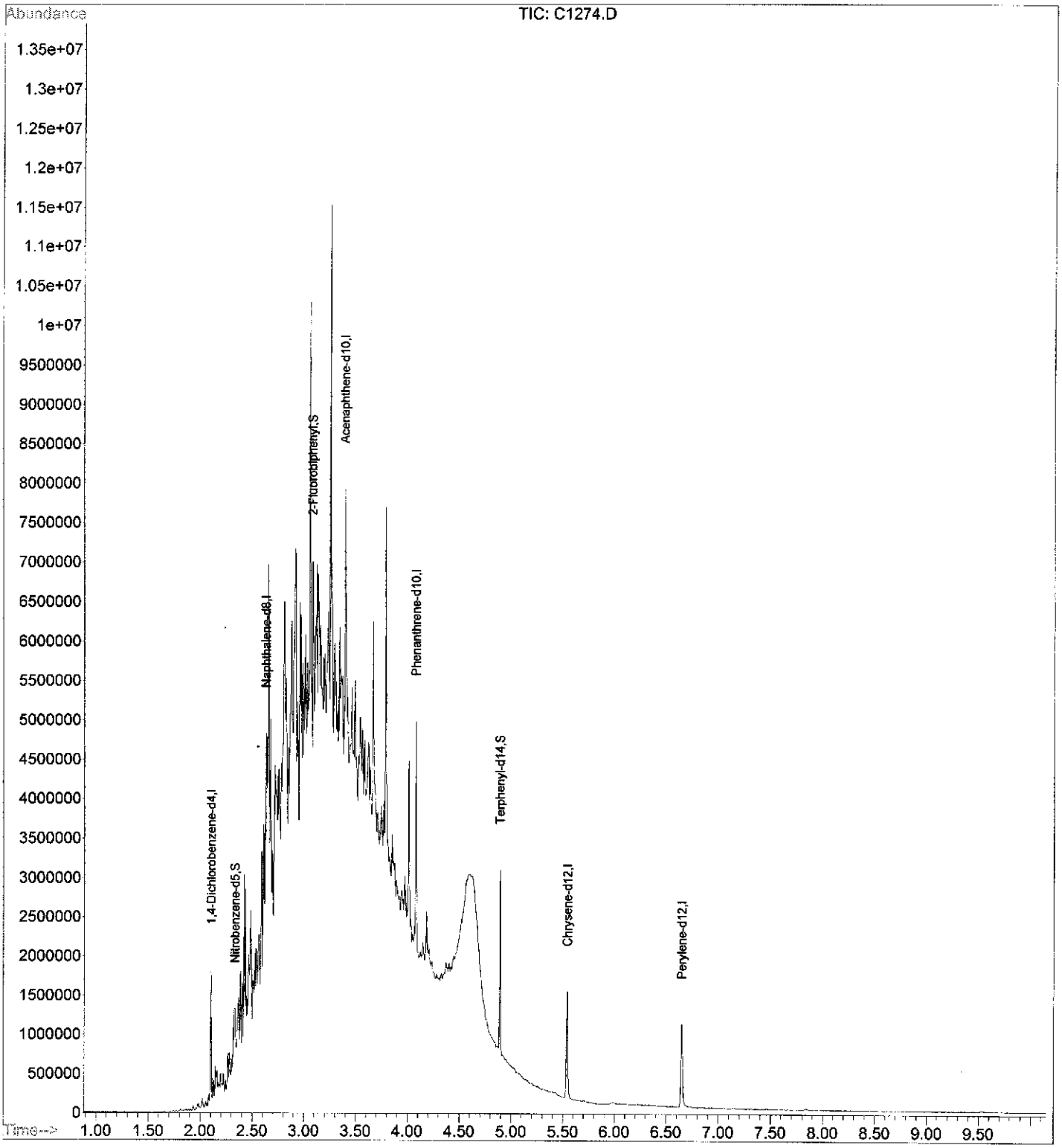
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1274.D
Acq On : 6 May 2010 15:55
Operator : EDM
Sample : Z3/4.83-5.33,04018-003,S,15.20g,15.6,05/06/10
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: May 06 16:08:09 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1275.D
Acq On : 6 May 2010 16:11
Operator : EDM
Sample : P4-D5/3.17-3,04018-013,S,15.12g,20.1,05/06/10
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,2
ALS Vial : 29 Sample Multiplier: 1

Quant Time: May 06 16:23:34 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration

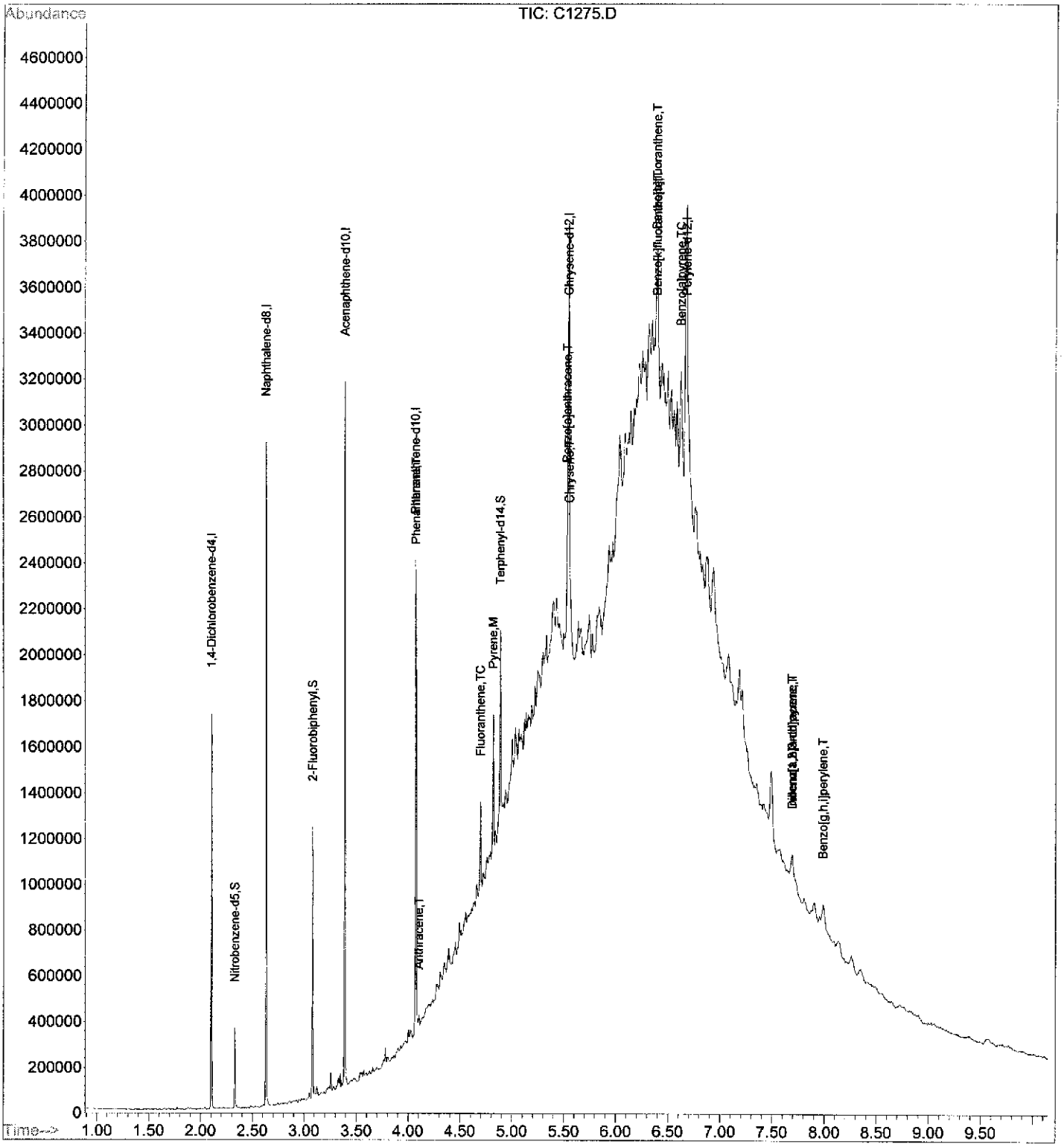
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.10	152	179457	40.00	UG	0.00
23) Naphthalene-d8	2.63	136	644098	40.00	UG	0.00
43) Acenaphthene-d10	3.39	164	393626	40.00	UG	-0.02
66) Phenanthrene-d10	4.07	188	596803	40.00	UG	-0.05
82) Chrysene-d12	5.54	240	681554	40.00	UG	-0.10
92) Perylene-d12	6.68	264	630804	40.00	UG	-0.04
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 108		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.33	82	63121	12.75	UG	-0.01
Spiked Amount 50.000	Range 26 - 104		Recovery =	25.50%#		
47) 2-Fluorobiphenyl	3.08	172	195687	15.79	UG	-0.01
Spiked Amount 50.000	Range 32 - 128		Recovery =	31.58%#		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery =	0.00%#		
84) Terphenyl-d14	4.89	244	209397	15.72	UG	-0.07
Spiked Amount 50.000	Range 32 - 135		Recovery =	31.44%#		
Target Compounds						Qvalue
75) Phenanthrene	4.08	178	19157	1.32	UG	# 91
76) Anthracene	4.10	178	16557	1.09	UG	97
79) Fluoranthene	4.69	202	107009	6.68	UG	96
83) Pyrene	4.82	202	174817	11.31	UG	# 89
88) Benzo[a]anthracene	5.53	228	80628	5.27	UG	# 89
89) Chrysene	5.56	228	92456	6.40	UG	98
94) Benzo[b]fluoranthene	6.38	252	131104m	8.15	UG	
95) Benzo[k]fluoranthene	6.39	252	104430m	7.06	UG	
96) Benzo[a]pyrene	6.63	252	134347m	10.45	UG	
97) Indeno[1,2,3-cd]pyrene	7.69	276	96391	6.15	UG	# 60
98) Dibenz[a,h]anthracene	7.69	278	32498	2.49	UG	# 58
99) Benzo[g,h,i]perylene	7.99	276	114284	8.82	UG	# 59

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1275.D
Acq On : 6 May 2010 16:11
Operator : EDM
Sample : P4-D5/3.17-3,04018-013,S,15.12g,20.1,05/06/10
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,2
ALS Vial : 29 Sample Multiplier: 1

Quant Time: May 06 16:23:34 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1276.D
Acq On : 6 May 2010 16:27
Operator : EDM
Sample : P4-D6/3.17-3,04018-014,S,15.09g,12.1,05/06/10
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,2
ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 07 09:38:51 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration

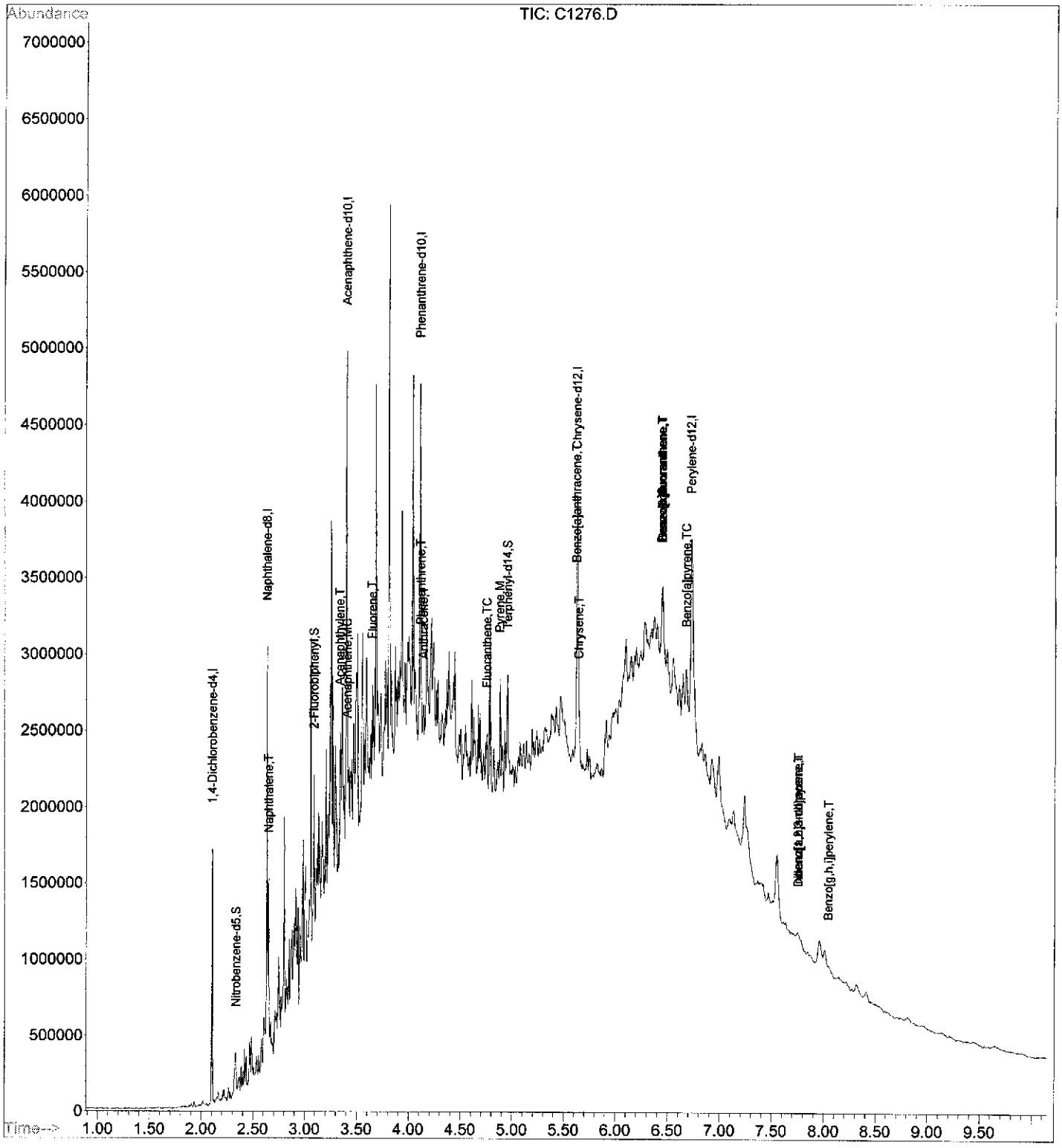
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.10	152	159272	40.00	UG	0.00
23) Naphthalene-d8	2.63	136	562626	40.00	UG	0.00
43) Acenaphthene-d10	3.40	164	354490	40.00	UG	0.00
66) Phenanthrene-d10	4.11	188	545571	40.00	UG	-0.01
82) Chrysene-d12	5.63	240	697941	40.00	UG	-0.01
92) Perylene-d12	6.73	264	621475	40.00	UG	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 108		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.33	82	46694	10.80	UG	-0.01
Spiked Amount 50.000	Range 26 - 104		Recovery =	21.60%#		
47) 2-Fluorobiphenyl	3.09	172	153300	13.73	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery =	27.46%#		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery =	0.00%#		
84) Terphenyl-d14	4.95	244	180588	13.24	UG	-0.01
Spiked Amount 50.000	Range 32 - 135		Recovery =	26.48%#		
Target Compounds						Qvalue
34) Naphthalene	2.64	128	20170	1.45	UG	# 55
53) Acenaphthylene	3.33	152	9511	0.66	UG	# 28
55) Acenaphthene	3.41	153	17665	2.01	UG	# 56
61) Fluorene	3.65	166	29485	2.78	UG	# 59
75) Phenanthrene	4.12	178	87343	6.59	UG	96
76) Anthracene	4.14	178	27769	2.00	UG	# 7
79) Fluoranthene	4.75	202	105678	7.22	UG	# 95
83) Pyrene	4.88	202	207480	13.10	UG	# 86
88) Benzo[a]anthracene	5.61	228	83427	5.33	UG	# 76
89) Chrysene	5.65	228	107966	7.30	UG	# 88
94) Benzo[b]fluoranthene	6.44	252	113811m	7.18	UG	
95) Benzo[k]fluoranthene	6.44	252	92338m	6.33	UG	
96) Benzo[a]pyrene	6.68	252	88126	6.96	UG	# 92
97) Indeno[1,2,3-cd]pyrene	7.74	276	48131	3.12	UG	# 70
98) Dibenz[a,h]anthracene	7.75	278	16581	1.29	UG	# 73
99) Benzo[g,h,i]perylene	8.05	276	49737	3.90	UG	# 66

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1276.D
Acq On : 6 May 2010 16:27
Operator : EDM
Sample : P4-D6/3.17-3,04018-014,S,15.09g,12.1,05/06/10
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,2
ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 07 09:38:51 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration



0065

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-23-10\
Data File : C0789.D
Acq On : 23 Apr 2010 15:11
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,04/23/10
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 23 15:23:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS0810.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Apr 14 12:05:26 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.43	152	85452	40.00	UG	0.00
23) Naphthalene-d8	2.97	136	348089	40.00	UG	0.00
43) Acenaphthene-d10	3.75	164	189968	40.00	UG	-0.02
66) Phenanthrene-d10	4.47	188	261674	40.00	UG	-0.02
82) Chrysene-d12	6.20	240	232331	40.00	UG	-0.01
92) Perylene-d12	7.49	264	213885	40.00	UG	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	1.92	112	200859m	73.96	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 73.96%			
6) Phenol-d5	2.26	99	310184	79.54	UG	-0.01
Spiked Amount 100.000	Range 34 - 107		Recovery = 79.54%			
24) Nitrobenzene-d5	2.66	82	132863	36.91	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 73.82%			
47) 2-Fluorobiphenyl	3.42	172	226219	37.89	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 75.78%			
70) 2,4,6-Tribromophenol	4.13	330	62092	55.79	UG	-0.02
Spiked Amount 100.000	Range 32 - 126		Recovery = 55.79%			
84) Terphenyl-d14	5.32	244	186732	35.07	UG	-0.02
Spiked Amount 50.000	Range 32 - 135		Recovery = 70.14%			

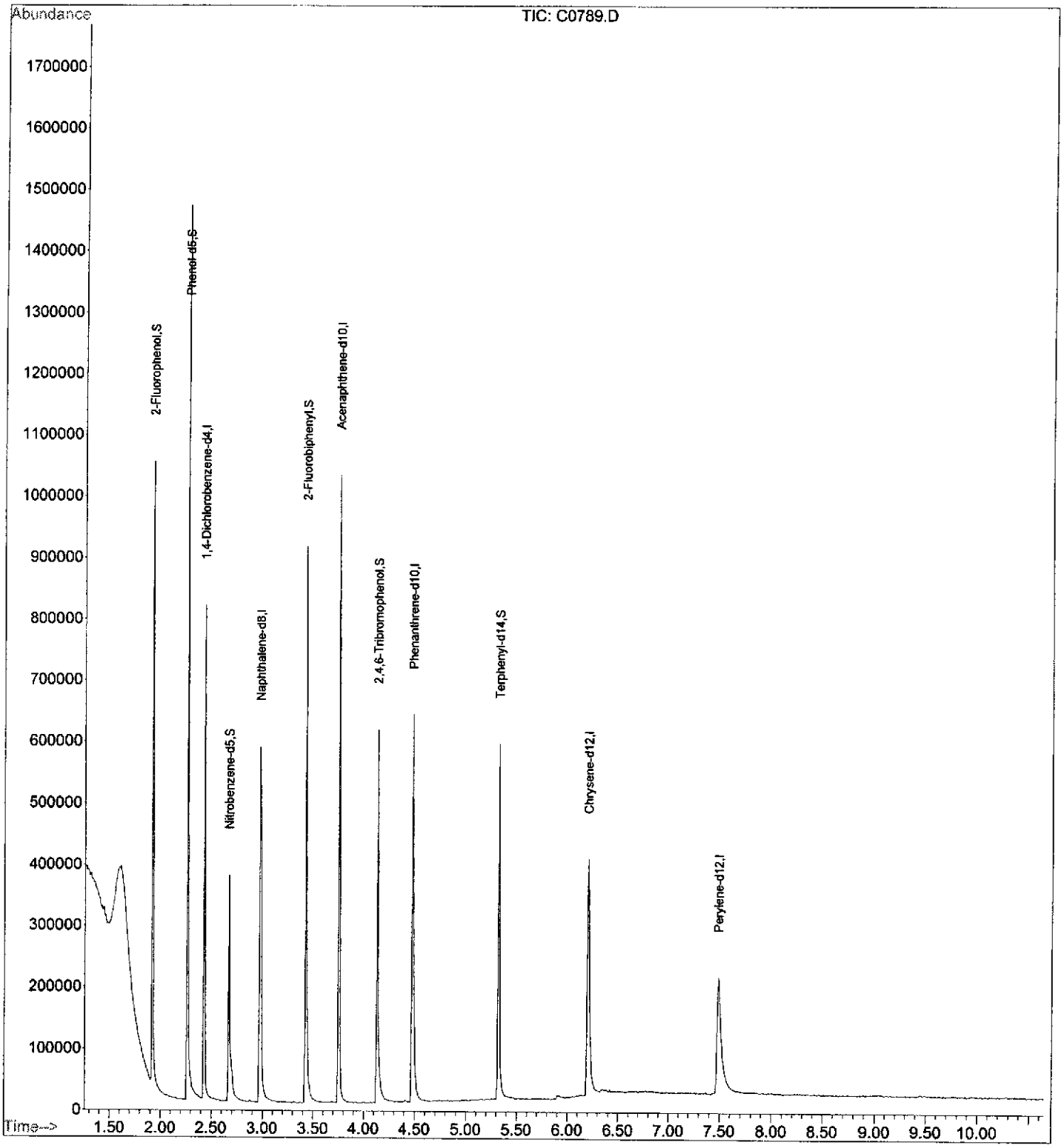
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-23-10\
Data File : C0789.D
Acq On : 23 Apr 2010 15:11
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,04/23/10
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 23 15:23:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS0810.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Apr 14 12:05:26 2010
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\04-23-10\
Data File : C0789.D
Acq On : 23 Apr 2010 15:11
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,04/23/10
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS0810.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS0810.M Fri Apr 23 15:23:43 2010 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1272.D
Acq On : 6 May 2010 15:24
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,05/06/10
Misc : NA,NA,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 06 15:35:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.10	152	194601	40.00	UG	0.00
23) Naphthalene-d8	2.63	136	762985	40.00	UG	0.00
43) Acenaphthene-d10	3.39	164	488252	40.00	UG	-0.02
66) Phenanthrene-d10	4.08	188	902215	40.00	UG	-0.04
82) Chrysene-d12	5.55	240	1063175	40.00	UG	-0.09
92) Perylene-d12	6.67	264	829232	40.00	UG	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	1.59	112	300958	53.88	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 53.88%			
6) Phenol-d5	1.94	99	441424	68.22	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 68.22%			
24) Nitrobenzene-d5	2.33	82	189713m	32.35	UG	-0.01
Spiked Amount 50.000	Range 26 - 104		Recovery = 64.70%			
47) 2-Fluorobiphenyl	3.08	172	583725	37.96	UG	-0.01
Spiked Amount 50.000	Range 32 - 128		Recovery = 75.92%			
70) 2,4,6-Tribromophenol	3.75	330	258136	59.64	UG	-0.03
Spiked Amount 100.000	Range 32 - 126		Recovery = 59.64%			
84) Terphenyl-d14	4.90	244	810291	38.99	UG	-0.06
Spiked Amount 50.000	Range 32 - 135		Recovery = 77.98%			

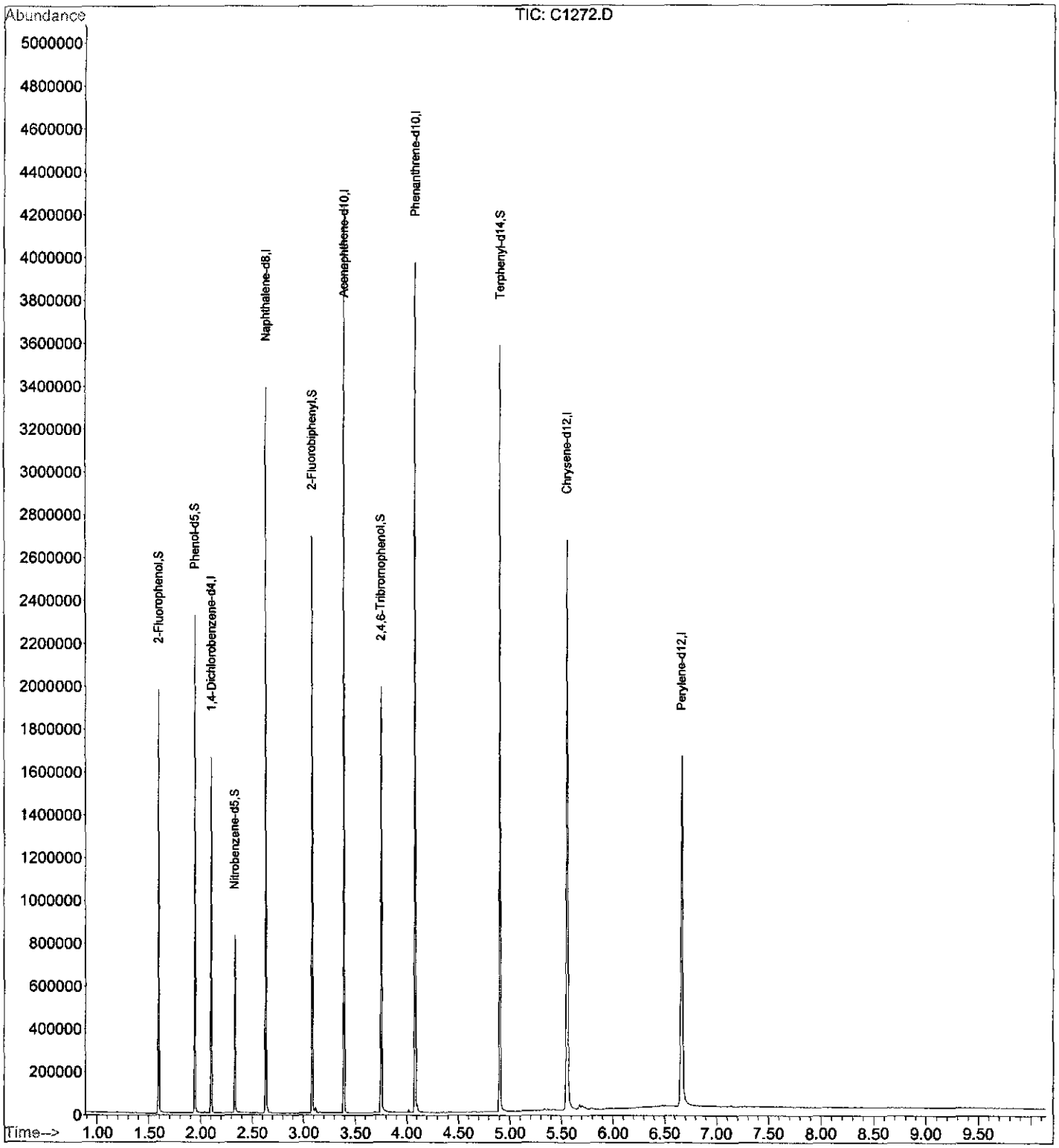
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1272.D
Acq On : 6 May 2010 15:24
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,05/06/10
Misc : NA,NA,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 06 15:35:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1272.D
Acq On : 6 May 2010 15:24
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,05/06/10
Misc : NA,NA,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS1010.M Thu May 06 15:35:32 2010 RPT1

TPH METHOD BLANK SUMMARY

Lab File ID: Q3938.D

Instrument ID: GC-Q

Date Extracted: 04/30/2010

Matrix: SOIL

Date Analyzed: 05/03/2010

Time Analyzed: 19:14

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
B1/10-10	04016-001	05/03/2010	19:24
B2/10-10	04016-002	05/03/2010	19:35
B3/10-10	04016-003	05/03/2010	19:45
B4/10-10	04016-004	05/03/2010	19:56
B5/10-10	04016-005	05/03/2010	20:06
P1/1.5-2	04016-006	05/03/2010	20:16
Z1/4.83-	04018-001	05/03/2010	20:27
Z2/4.83-	04018-002	05/03/2010	20:37
Z3/4.83-	04018-003	05/03/2010	20:48
Z4/4.5-5	04018-004	05/03/2010	20:58
Z7/4.83-	04018-007	05/03/2010	21:30
Z8/4.83-	04018-008	05/03/2010	21:40
Z9/4.83-	04018-009	05/03/2010	21:50
P4-D5/3.	04018-013	05/03/2010	22:32
P4-D6/3.	04018-014	05/03/2010	22:42
DRO	04016-001-MS07	05/03/2010	22:53
DRO	04016-001-MSD07	05/03/2010	23:03
DRO	DBS0430-MS07	05/03/2010	23:14
Z5/4.5-5	04018-005	05/04/2010	13:36
Z6/4.5-5	04018-006	05/04/2010	13:46
Z10/4.83	04018-010	05/04/2010	13:57
Z11/4.83	04018-011	05/04/2010	14:07
Z12/4.83	04018-012	05/04/2010	14:17

INTEGRATED ANALYTICAL LABORATORIES

TPH-DRO

Lab ID:	0430-BLK07	GC Column:	RTX-5
Client ID:	DRO	Sample wt/vol:	10.0g
Date Received:	NA	Matrix-Units:	Soil-mg/Kg (ppm)
Date Extracted:	04/30/2010	Dilution Factor:	1
Date Analyzed:	05/03/2010	% Moisture:	0
Data File:	Q3938.D		

Compound	Concentration	Q	RL	MDL
TPH-DRO	ND		75.0	60.0

TPH INITIAL CALIBRATION SUMMARY

Date Analyzed: 04/16/2010 Instrument ID: GC-Q

Date File: Q2505.D Q2504.D Q2503.D Q2502.D Q2501.D GC Column: RTX-5

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	40 PPM	500 PPM	1000 PPM	2000 PPM	4000 PPM	RT	FROM	TO
TPH-DRO	2.50	2.50	2.50	2.50	2.50	2.50	2.43	2.57

	CALIBRATION FACTORS					MEAN	
COMPOUND	40 PPM	500 PPM	1000 PPM	2000 PPM	4000 PPM	RF	%RSD
TPH-DRO	43.8	40.7	39.9	45.4	39.3	41.8	6.33

TPH CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 05/03/2010 19:04

Date File: Q3937.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		41.8	40.1	4.07

Date Analyzed: 05/03/2010 23:24

Date File: Q3962.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		41.8	36.0	13.9

Date Analyzed: 05/04/2010 13:26

Date File: Q4043.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		41.8	40.9	2.15

Date Analyzed: 05/04/2010 15:30

Date File: Q4053.D

COMPOUND	RT WINDOW				Avg CF	CC CF	%D
	RT	FROM	TO				
TPH-DRO	2.50	2.43	2.57		41.8	39.9	4.55

TPH SURROGATE RECOVERY AND RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Q

Column: RTX-5

Surrogate RT from initial calibration:
DBC 4.89

Client ID	Lab Sample ID	Matrix	Date Analyzed	Time Analyzed	DBC % rec	DBC RT	#
DRO	0430-BLK07	SOIL	05/03/2010	19:14	94	4.89	
B1/10-10	04016-001	SOIL	05/03/2010	19:24	111	4.89	
B2/10-10	04016-002	SOIL	05/03/2010	19:35	113	4.89	
B3/10-10	04016-003	SOIL	05/03/2010	19:45	113	4.89	
B4/10-10	04016-004	SOIL	05/03/2010	19:56	112	4.89	
B5/10-10	04016-005	SOIL	05/03/2010	20:06	120	4.89	
P1/1.5-2	04016-006	SOIL	05/03/2010	20:16	116	4.89	
Z1/4.83-	04018-001	SOIL	05/03/2010	20:27	114	4.89	
Z2/4.83-	04018-002	SOIL	05/03/2010	20:37	119	4.89	
Z3/4.83-	04018-003	SOIL	05/03/2010	20:48	119	4.89	
Z4/4.5-5	04018-004	SOIL	05/03/2010	20:58	115	4.89	
Z7/4.83-	04018-007	SOIL	05/03/2010	21:30	120	4.89	
Z8/4.83-	04018-008	SOIL	05/03/2010	21:40	114	4.89	
Z9/4.83-	04018-009	SOIL	05/03/2010	21:50	121	4.89	
P4-D5/3.	04018-013	SOIL	05/03/2010	22:32	124	4.90	
P4-D6/3.	04018-014	SOIL	05/03/2010	22:42	115	4.90	
DRO	04016-001-MS07	SOIL	05/03/2010	22:53	119	4.89	
DRO	04016-001-MSD07	SOIL	05/03/2010	23:03	121	4.89	
DRO	DBS0430-MS07	SOIL	05/03/2010	23:14	94	4.89	
Z5/4.5-5	04018-005	SOIL	05/04/2010	13:36	119	4.89	
Z6/4.5-5	04018-006	SOIL	05/04/2010	13:46	123	4.90	
Z10/4.83	04018-010	SOIL	05/04/2010	13:57	118	4.89	
Z11/4.83	04018-011	SOIL	05/04/2010	14:07	122	4.89	
Z12/4.83	04018-012	SOIL	05/04/2010	14:17	113	4.89	

Surrogate QC Limits	Recovery	RT
DBC = Dibutylchlorendate	70 - 130	± 0.080 Minutes

Column to be used to flag recovery values
* = Values outside of QC Limits
D = Surrogate diluted out
M = Matrix interference

SOIL - TPH MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix Spike Lab Sample ID 04016-001-MSD07

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % REC	#	QC LIMITS REC
TPH-DRO	1000	0	1080	108		26 - 158

COMPOUND	SAMPLE CONC. (mg/Kg)	MSD CONC. (mg/Kg)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC
TPH-DRO	0	1160	116		6.85		30	26 - 158

Column to be used to flag recovery and RPD values with an asterisk

* = Values outside of QC Limits

NC = Non calculable

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

SOIL - TPH BLANK SPIKE RECOVERY

Blank Spike Lab Sample ID: DBS0430-MS07

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	BS CONC. (mg/Kg)	BS % REC	#	QC LIMITS REC
TPH-DRO	1000	0	1030	103		70 - 130

Column to be used to flag recovery values with an asterisk

* = Values outside of QC Limits

Spike Recovery: 0 out of 1 outside limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3945.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 8:27 pm
Operator : LIZ
Sample : Z1/4.83-,04018-001,S,10.09g,14.8,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:19:38 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.893	25306527	114.110	ng	m
Spiked Amount 100.000		Recovery = 114.11%			
Target Compounds					

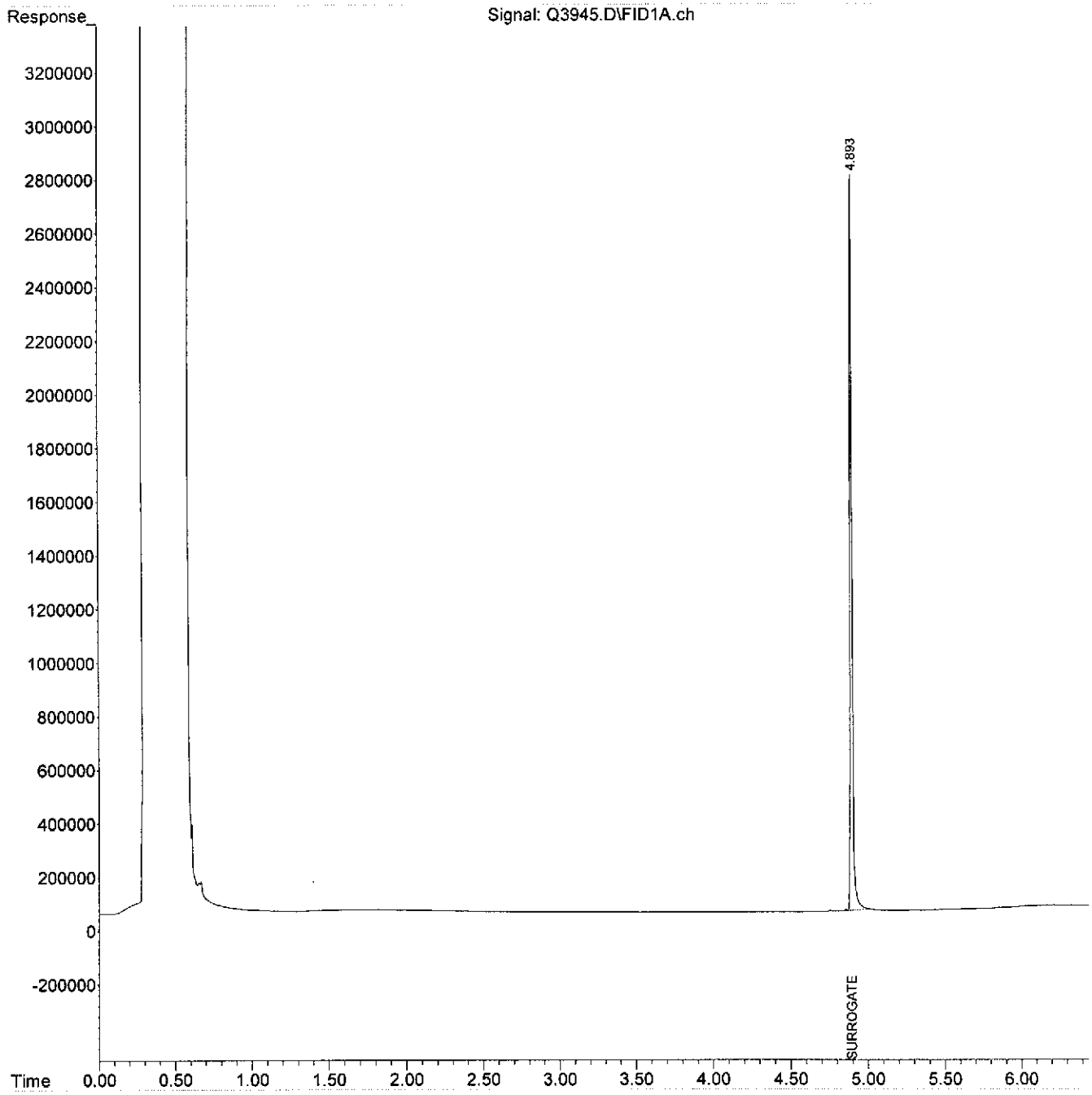
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3945.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 8:27 pm
Operator : LIZ
Sample : Z1/4.83-,04018-001,S,10.09g,14.8,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:19:38 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3946.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 8:37 pm
Operator : LIZ
Sample : Z2/4.83-,04018-002,S,10.28g,17.7,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:19:49 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.895	26298893	118.585 ng m
Spiked Amount 100.000		Recovery = 118.58%	
Target Compounds			
3) H TPH-DRO	2.500	42172463	102.901 ng

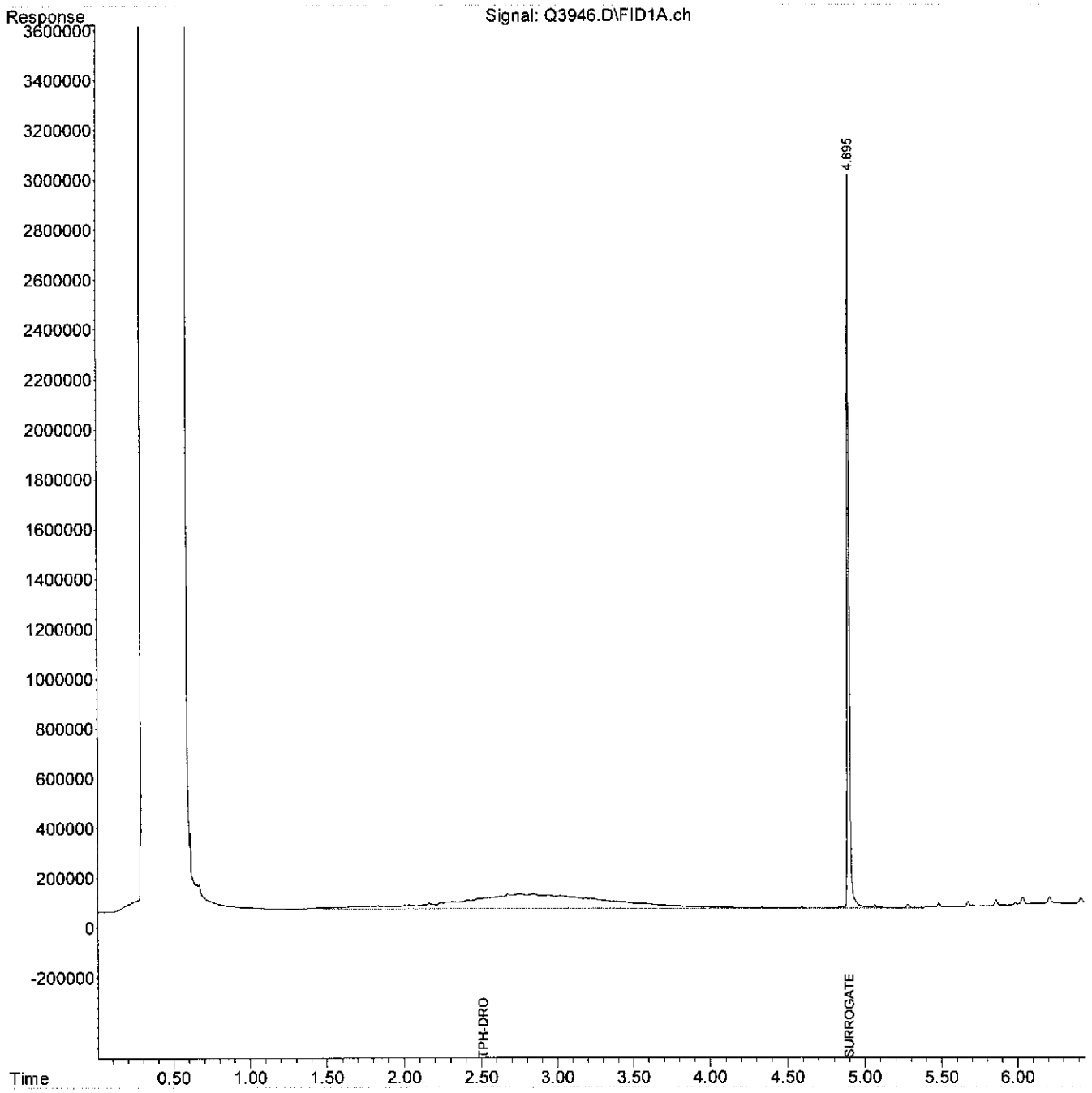
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3946.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 8:37 pm
Operator : LIZ
Sample : Z2/4.83-,04018-002,S,10.28g,17.7,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:19:49 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3947.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 8:48 pm
Operator : LIZ
Sample : Z3/4.83-,04018-003,S,10.14g,15.6,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:19:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.895	26409494	119.084	ng	m
Spiked Amount 100.000		Recovery = 119.08%			
Target Compounds					
3) H TPH-DRO	2.500	892850357	2178.568	ng	

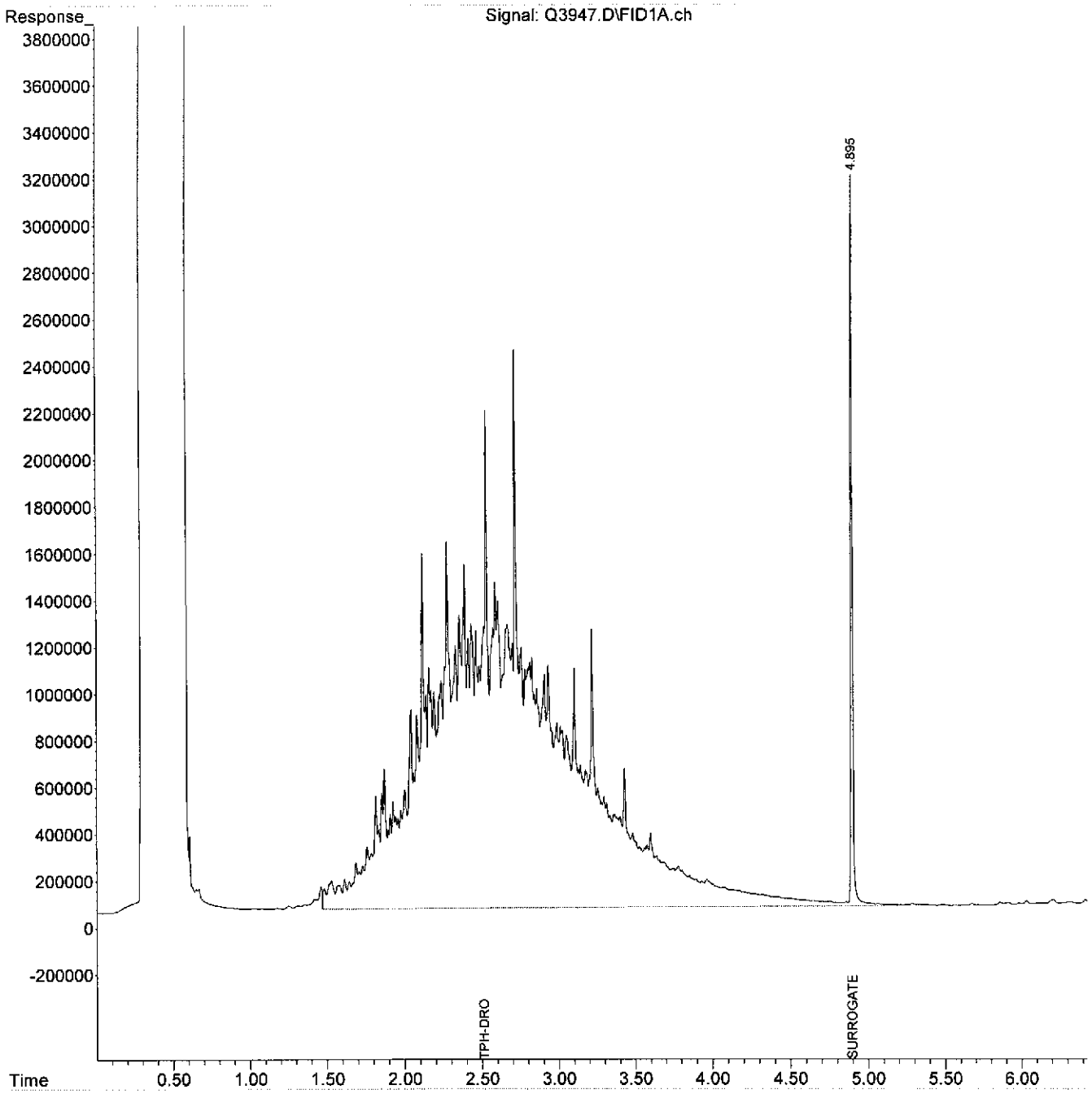
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3947.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 8:48 pm
Operator : LIZ
Sample : Z3/4.83-,04018-003,S,10.14g,15.6,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:19:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3948.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 8:58 pm
Operator : LIZ
Sample : Z4/4.5-5,04018-004,S,10.0g,14.5,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:20:09 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.894	25564176	115.272	ng	m
Spiked Amount 100.000		Recovery = 115.27%			
Target Compounds					

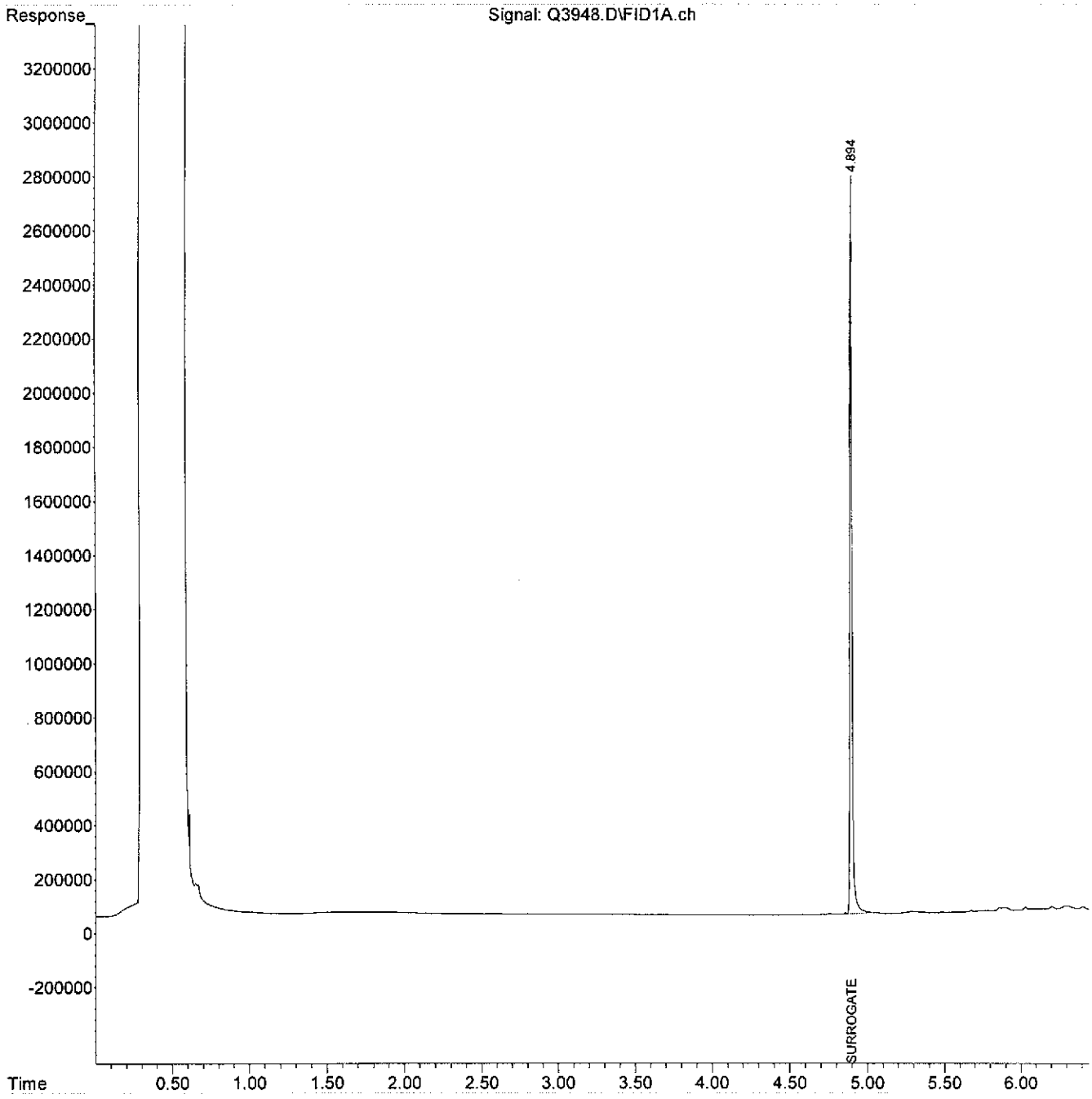
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3948.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 8:58 pm
Operator : LIZ
Sample : Z4/4.5-5,04018-004,S,10.0g,14.5,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:20:09 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4044.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 1:36 pm
Operator : LIZ
Sample : Z5/4.5-5,04018-005,S,10.24g,46.1,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 29 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 13:43:08 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.895	26330730	118.729	ng	m
Spiked Amount 100.000		Recovery = 118.73%			
Target Compounds					

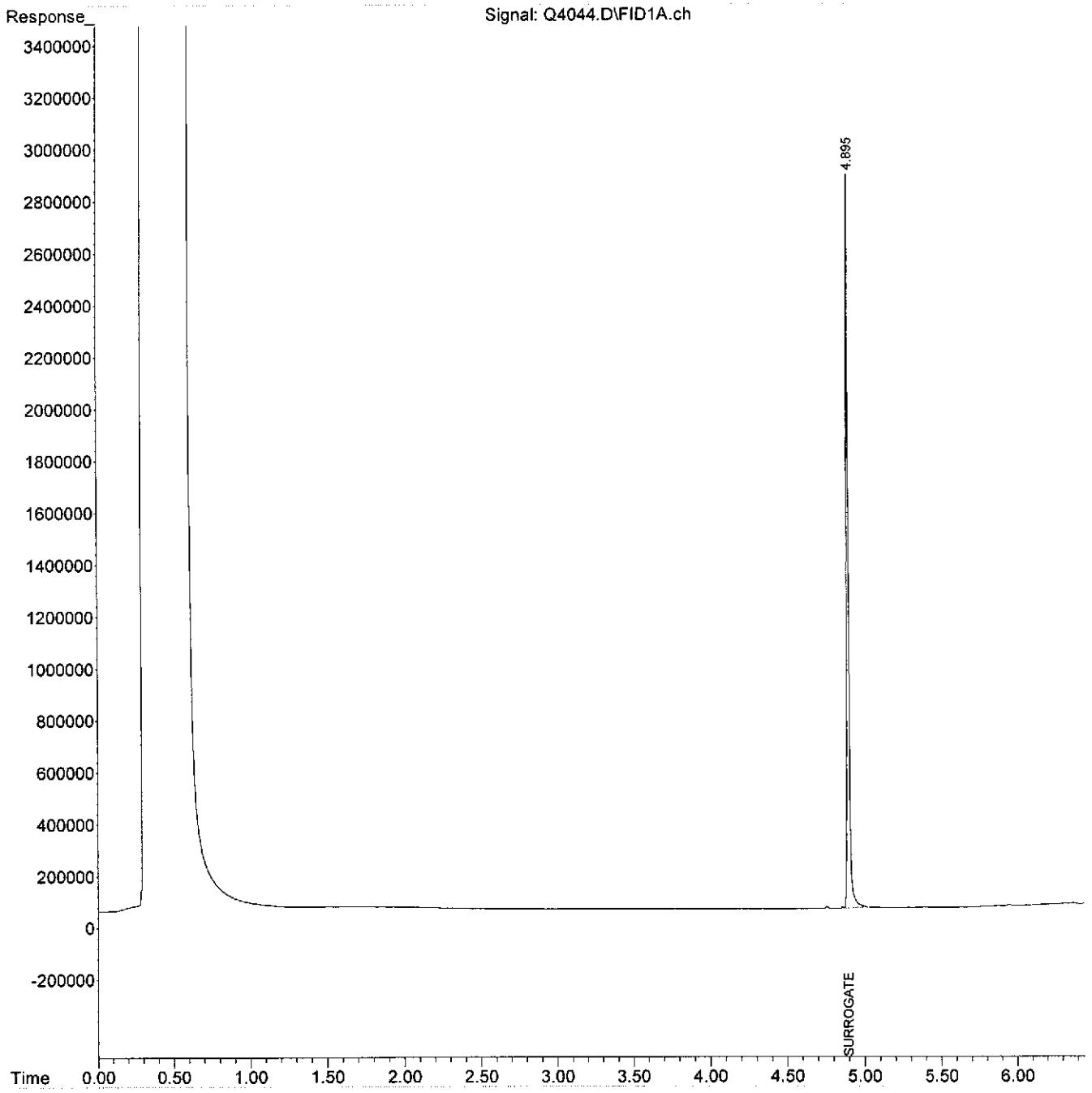
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4044.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 1:36 pm
Operator : LIZ
Sample : Z5/4.5-5,04018-005,S,10.24g,46.1,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 29 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 13:43:08 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4045.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 1:46 pm
Operator : LIZ
Sample : Z6/4.5-5,04018-006,S,10.30g,49.1,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 30 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 13:53:26 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.896	27231923	122.792 ng
Spiked Amount 100.000		Recovery =	122.79%
Target Compounds			

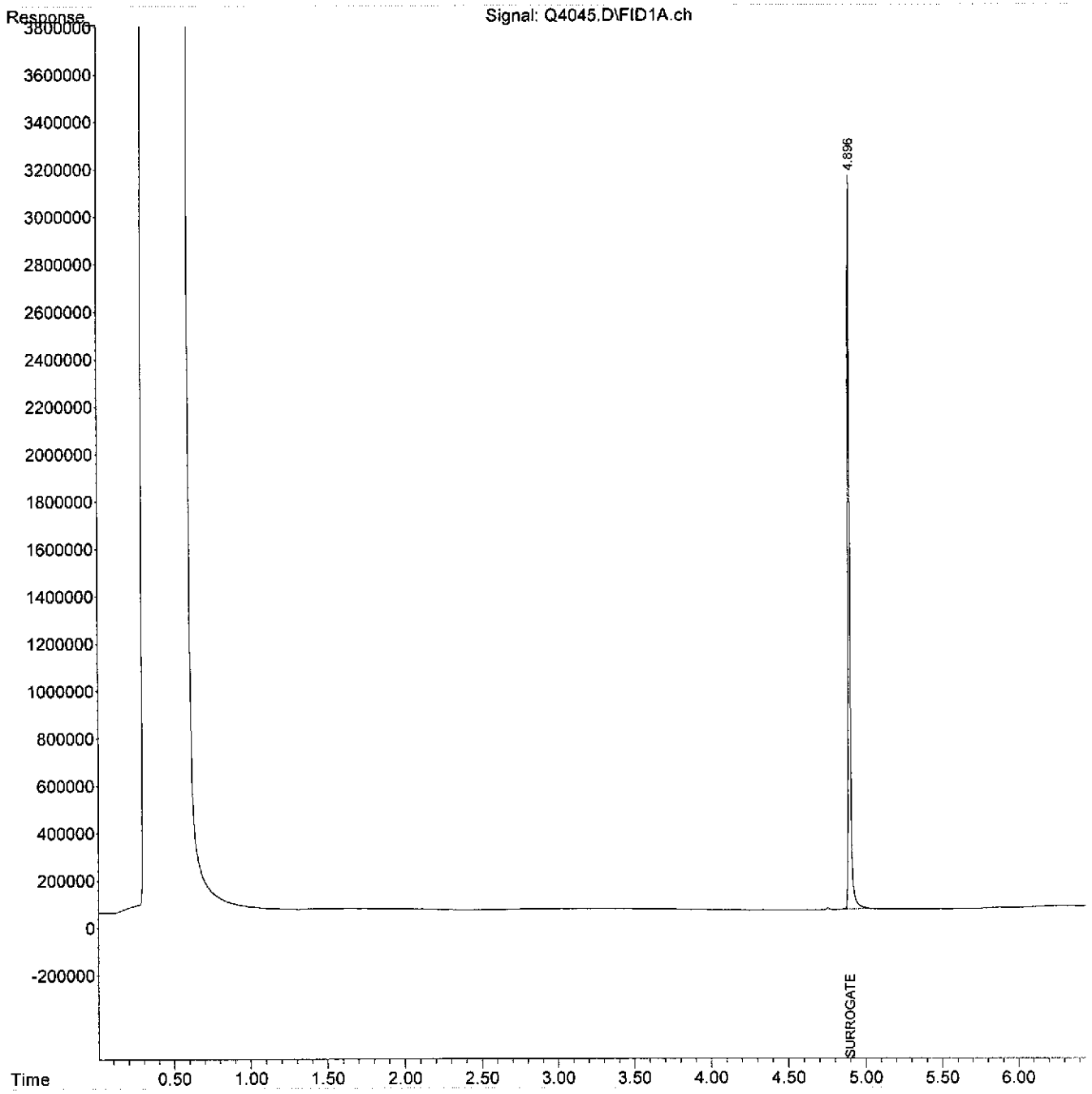
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4045.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 1:46 pm
Operator : LIZ
Sample : Z6/4.5-5,04018-006,S,10.30g,49.1,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 30 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 13:53:26 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3951.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 9:30 pm
Operator : LIZ
Sample : Z7/4.83-,04018-007,S,10.03g,17.8,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:20:49 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.894	26569057	119.803	ng	m
Spiked Amount 100.000		Recovery = 119.80%			
Target Compounds					

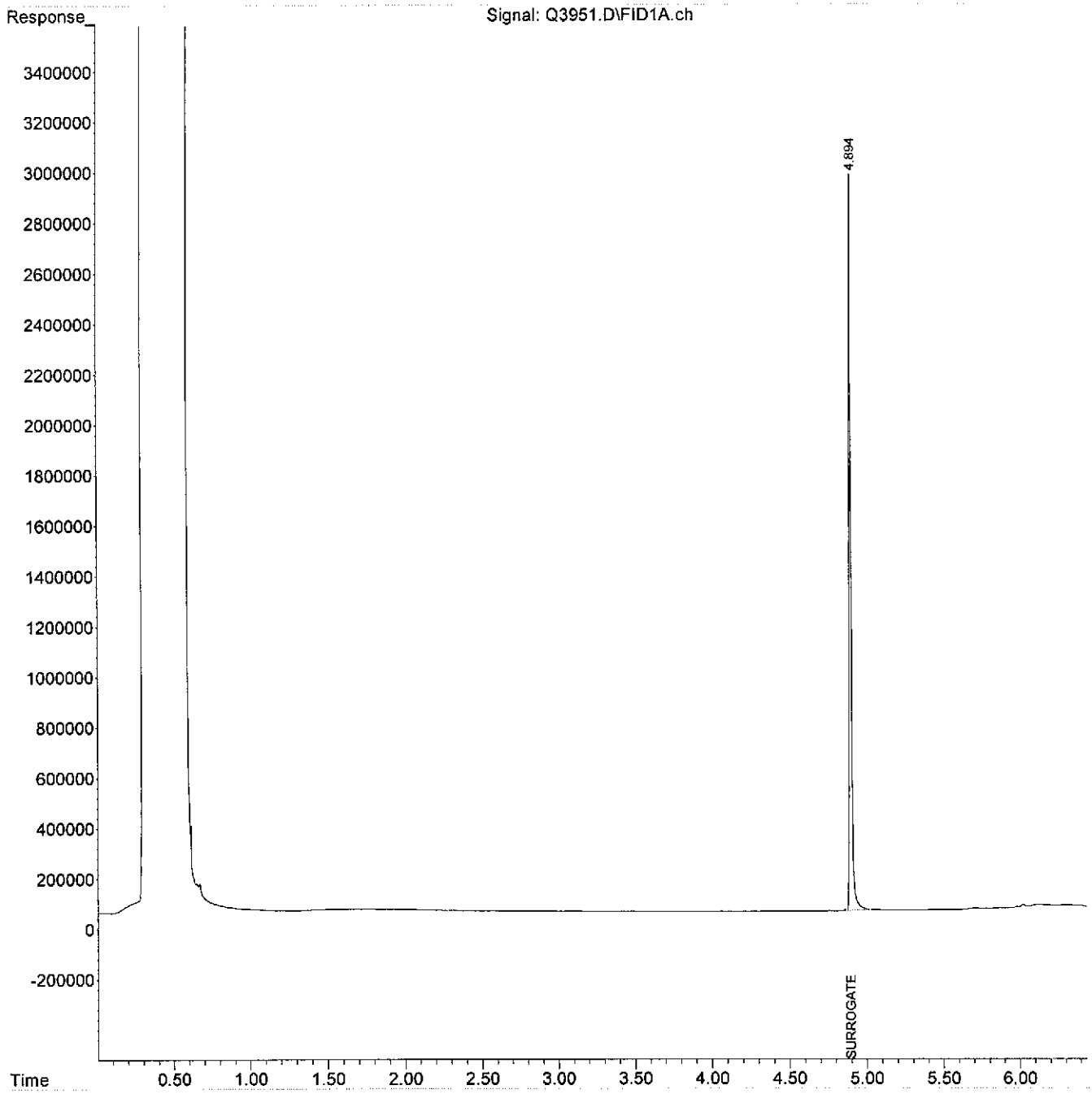
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3951.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 9:30 pm
Operator : LIZ
Sample : Z7/4.83-,04018-007,S,10.03g,17.8,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:20:49 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3952.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 9:40 pm
Operator : LIZ
Sample : Z8/4.83-,04018-008,S,10.05g,16.0,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:20:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.894	25357655	114.341	ng	m
Spiked Amount 100.000		Recovery = 114.34%			
Target Compounds					

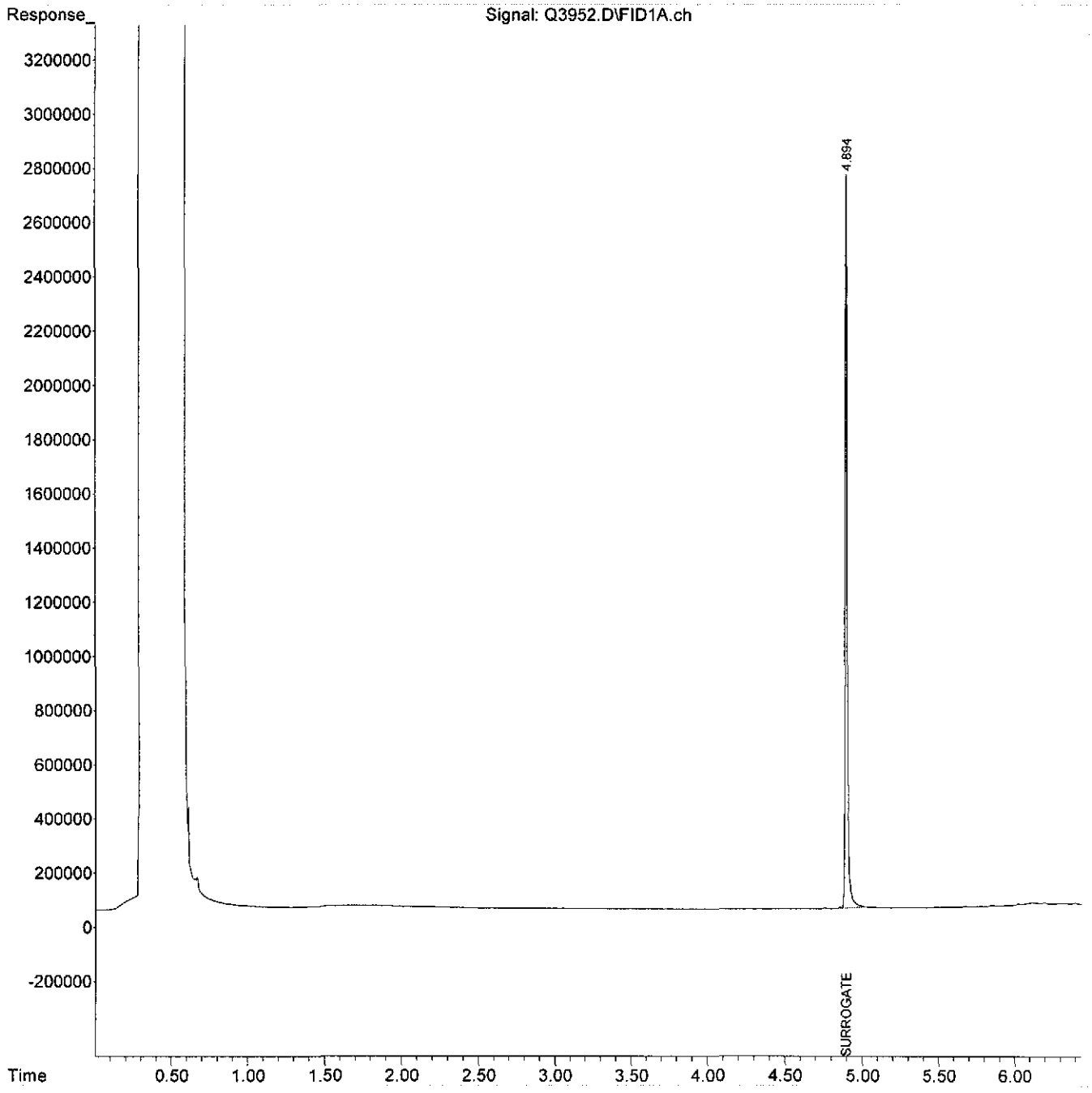
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3952.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 9:40 pm
Operator : LIZ
Sample : Z8/4.83-,04018-008,S,10.05g,16.0,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: autointl.e
Quant Time: May 04 09:20:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3953.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 9:50 pm
Operator : LIZ
Sample : Z9/4.83-,04018-009,S,10.04g,21.6,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 33 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:21:09 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.894	26728608	120.523 ng m
Spiked Amount 100.000		Recovery = 120.52%	
Target Compounds			

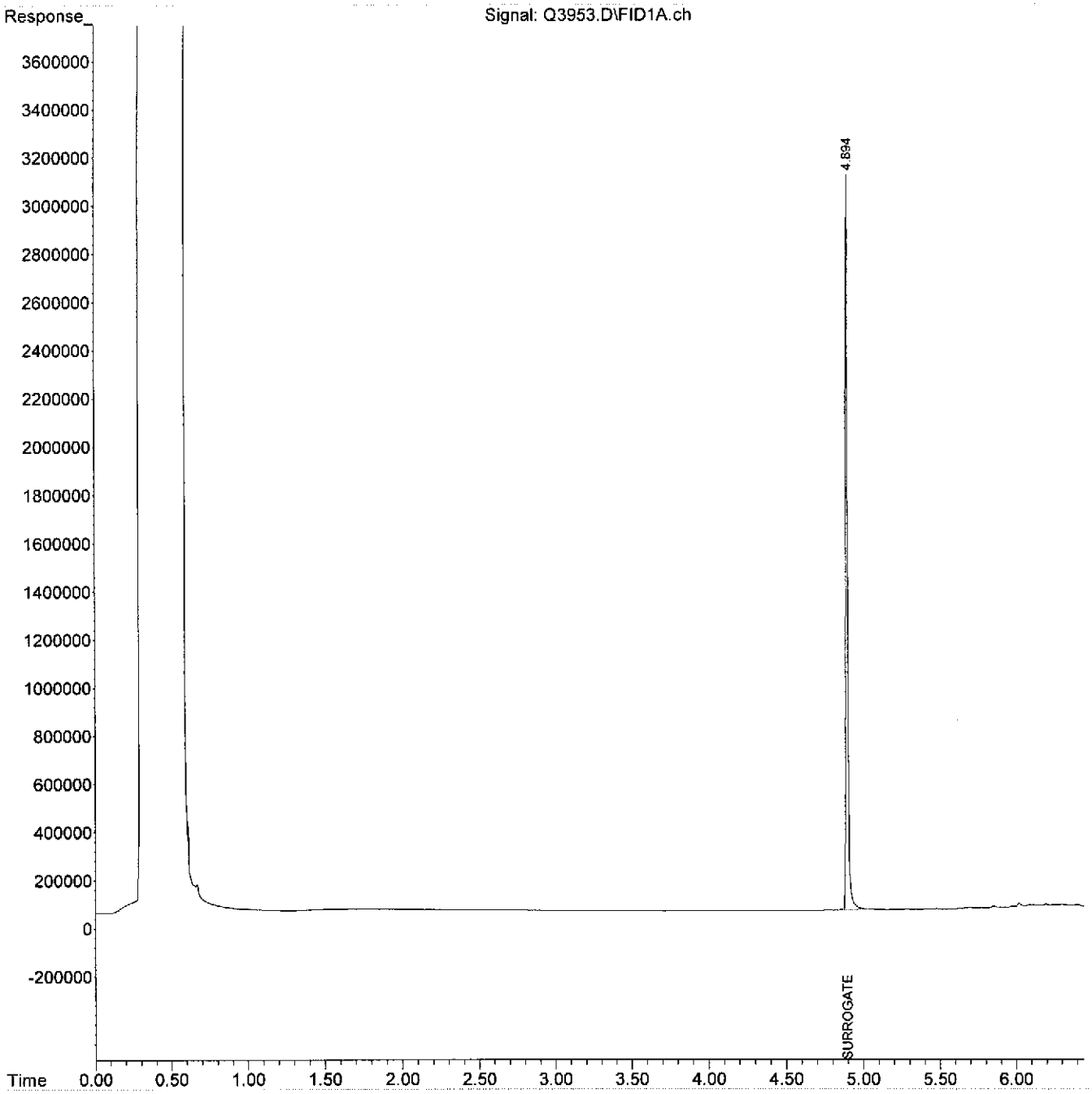
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3953.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 9:50 pm
Operator : LIZ
Sample : Z9/4.83-,04018-009,S,10.04g,21.6,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 33 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:21:09 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4046.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 1:57 pm
Operator : LIZ
Sample : Z10/4.83,04018-010,S,10.02g,43.2,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 14:08:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.894	26193068	118.108	ng	m
Spiked Amount 100.000		Recovery = 118.11%			
Target Compounds					

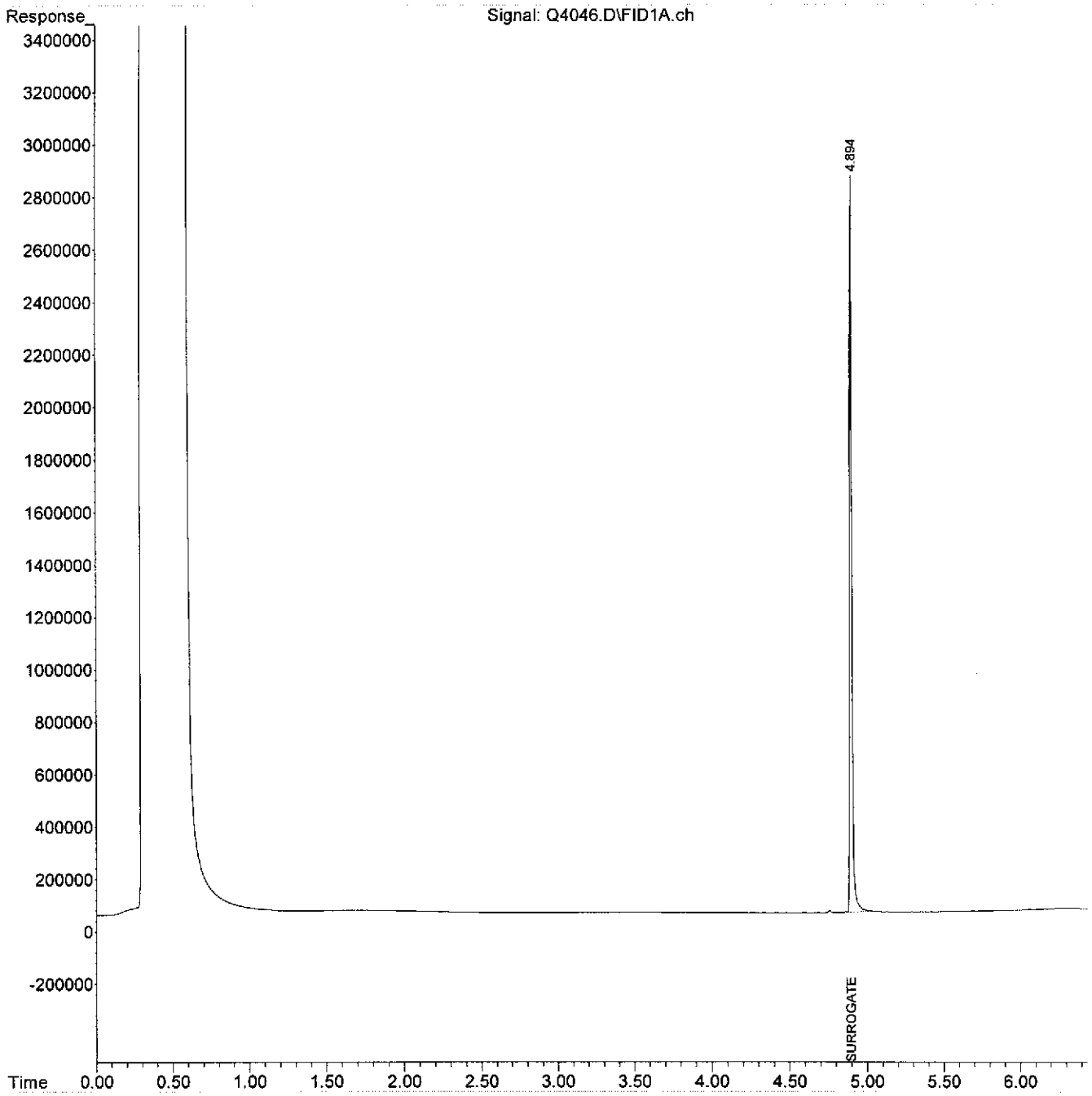
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4046.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 1:57 pm
Operator : LIZ
Sample : Z10/4.83,04018-010,S,10.02g,43.2,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 14:08:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4047.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 2:07 pm
Operator : LIZ
Sample : Z11/4.83,04018-011,S,10.03g,49.5,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 14:14:11 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.895	27163590	122.484	ng	m
Spiked Amount 100.000		Recovery = 122.48%			
Target Compounds					

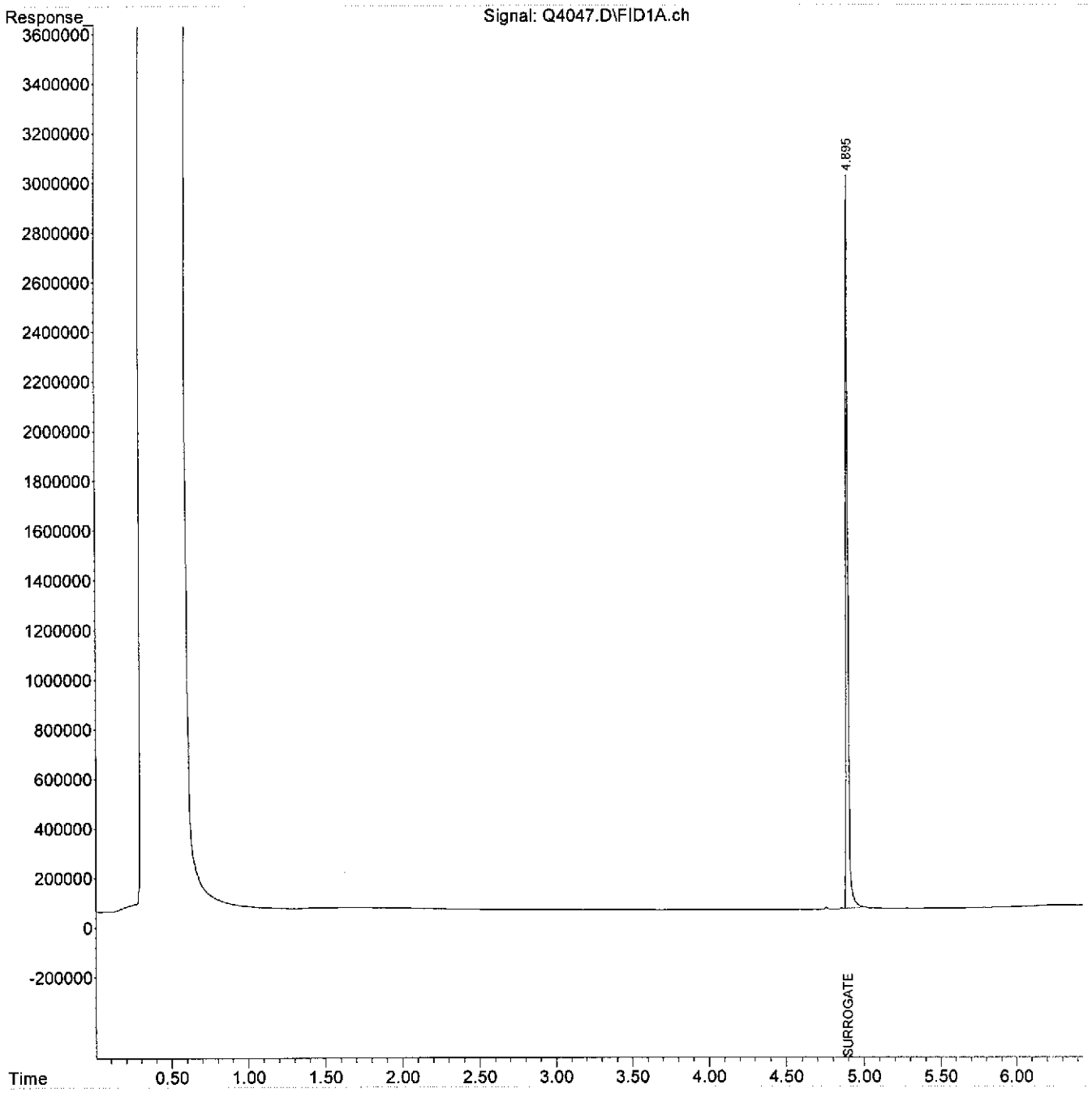
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4047.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 2:07 pm
Operator : LIZ
Sample : Z11/4.83,04018-011,S,10.03g,49.5,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 14:14:11 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4048.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 2:17 pm
Operator : LIZ
Sample : Z12/4.83,04018-012,S,10.07g,38.9,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 14:28:01 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.894	25141681	113.367	ng	m
Spiked Amount 100.000		Recovery = 113.37%			
Target Compounds					

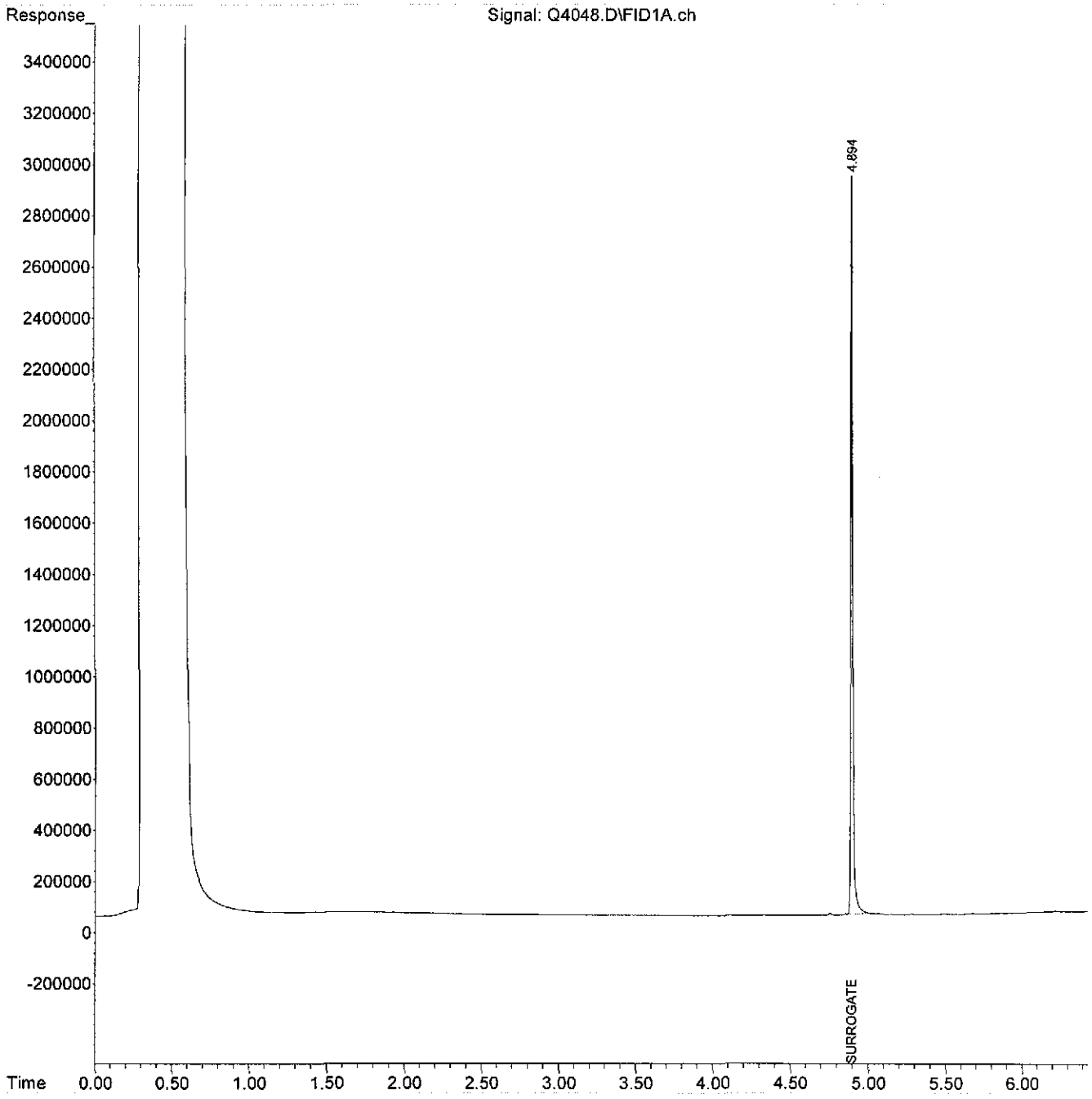
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4048.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 2:17 pm
Operator : LIZ
Sample : Z12/4.83,04018-012,S,10.07g,38.9,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 14:28:01 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3957.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 10:32 pm
Operator : LIZ
Sample : P4-D5/3.,04018-013,S,10.10g,20.1,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:22:35 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.896	27513395	124.061 ng m
Spiked Amount 100.000		Recovery = 124.06%	
Target Compounds			
3) H TPH-DRO	2.500	981429019	2394.702 ng

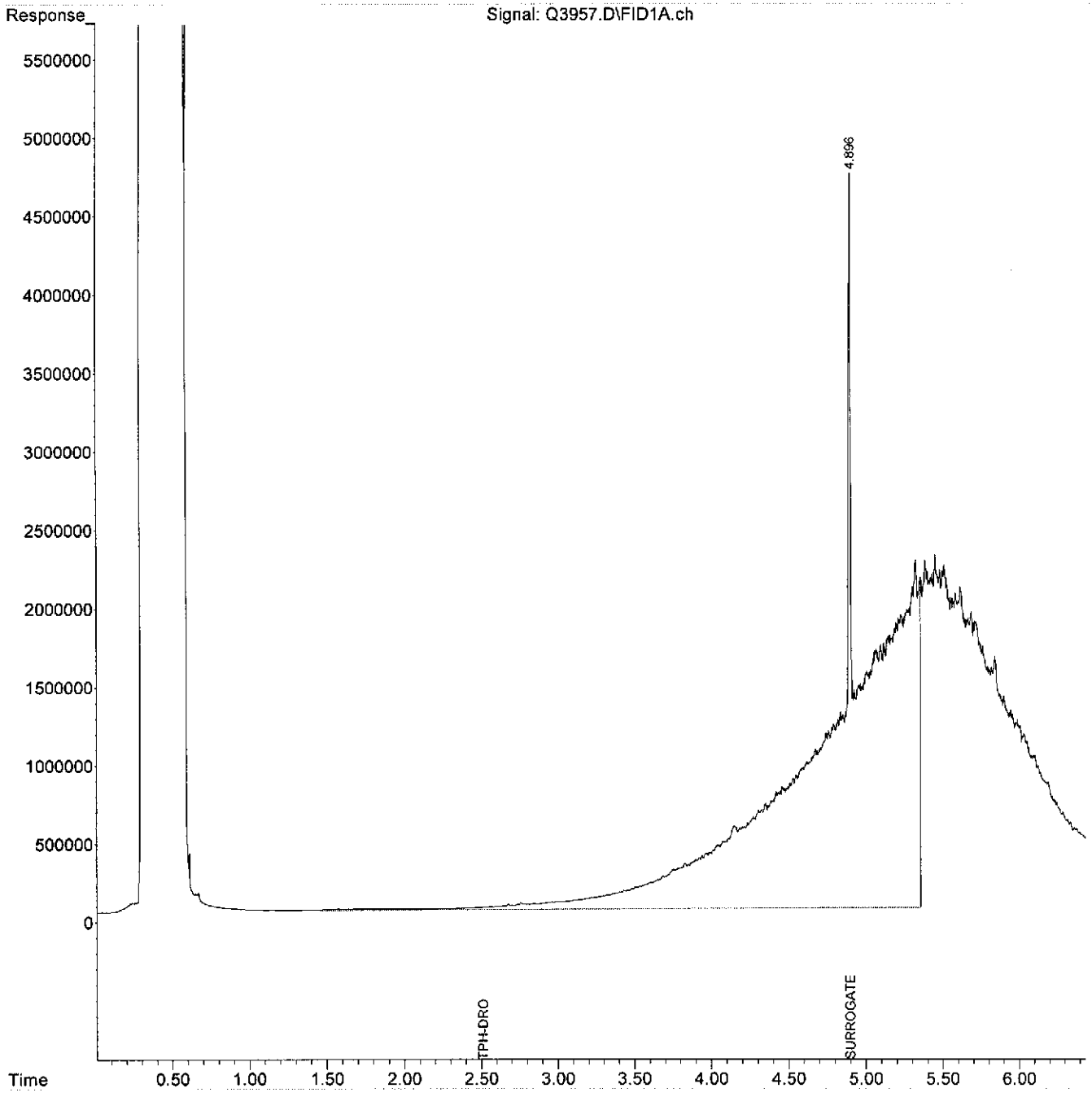
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3957.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 10:32 pm
Operator : LIZ
Sample : P4-D5/3.,04018-013,S,10.10g,20.1,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:22:35 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3958.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 10:42 pm
Operator : LIZ
Sample : P4-D6/3.,04018-014,S,10.15g,12.1,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 38 Sample Multiplier: 1

Integration File: autointl.e
Quant Time: May 04 09:22:14 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.896	25407248	114.564 ng
Spiked Amount 100.000		Recovery =	114.56%
Target Compounds			
3) H TPH-DRO	2.500	1563384361	3814.681 ng

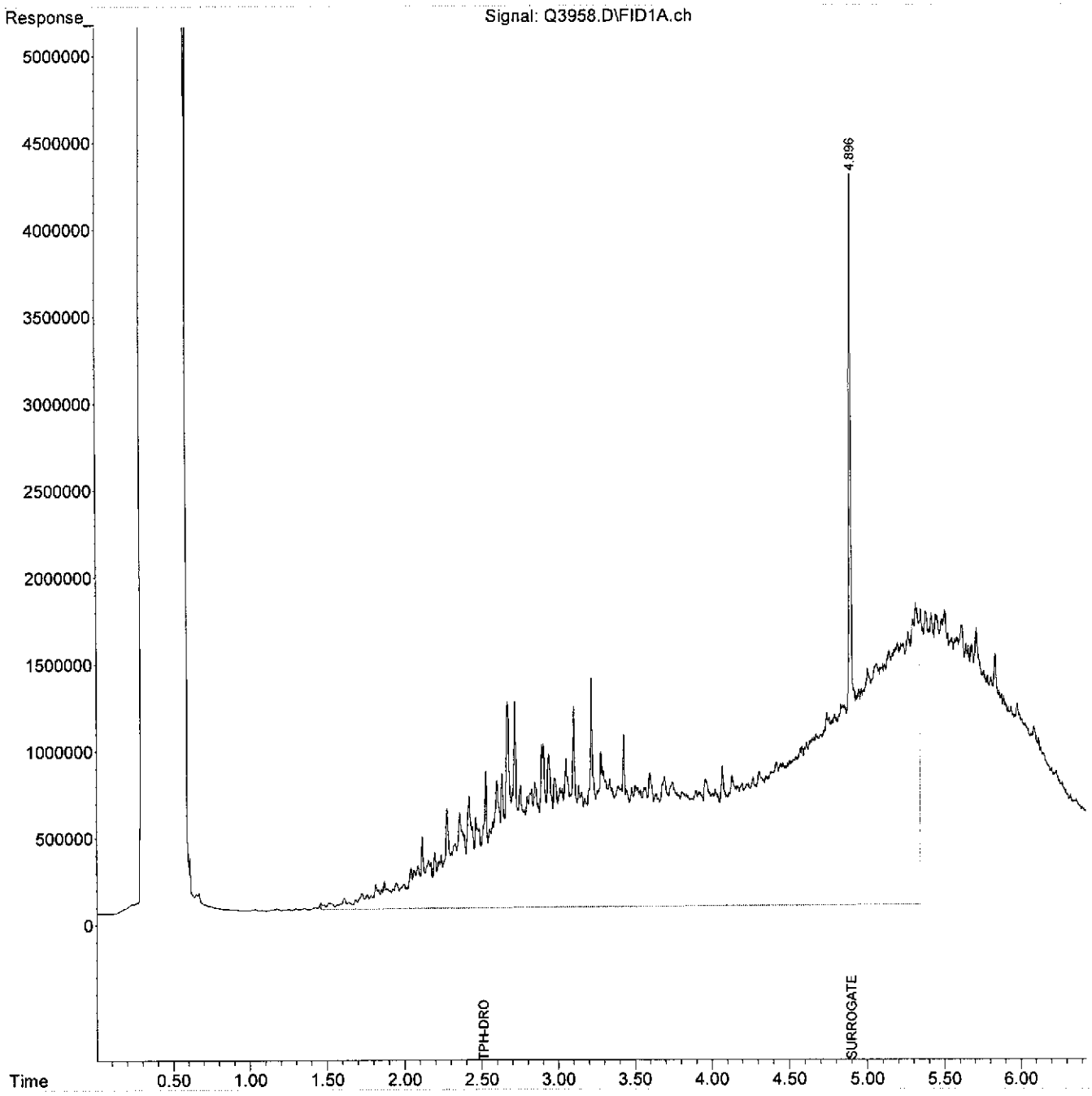
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3958.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 10:42 pm
Operator : LIZ
Sample : P4-D6/3.,04018-014,S,10.15g,12.1,04/30/10,15
Misc : PENNJERSEY/PALMER,04/29/10,04/30/10,1
ALS Vial : 38 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:22:14 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3938.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 7:14 pm
Operator : LIZ
Sample : DRO,0430-BLK07,S,10.0g,0,04/30/10,15
Misc : NA,NA,NA,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:18:29 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.894	20835709	93.951	ng	m
Spiked Amount 100.000		Recovery = 93.95%			
Target Compounds					

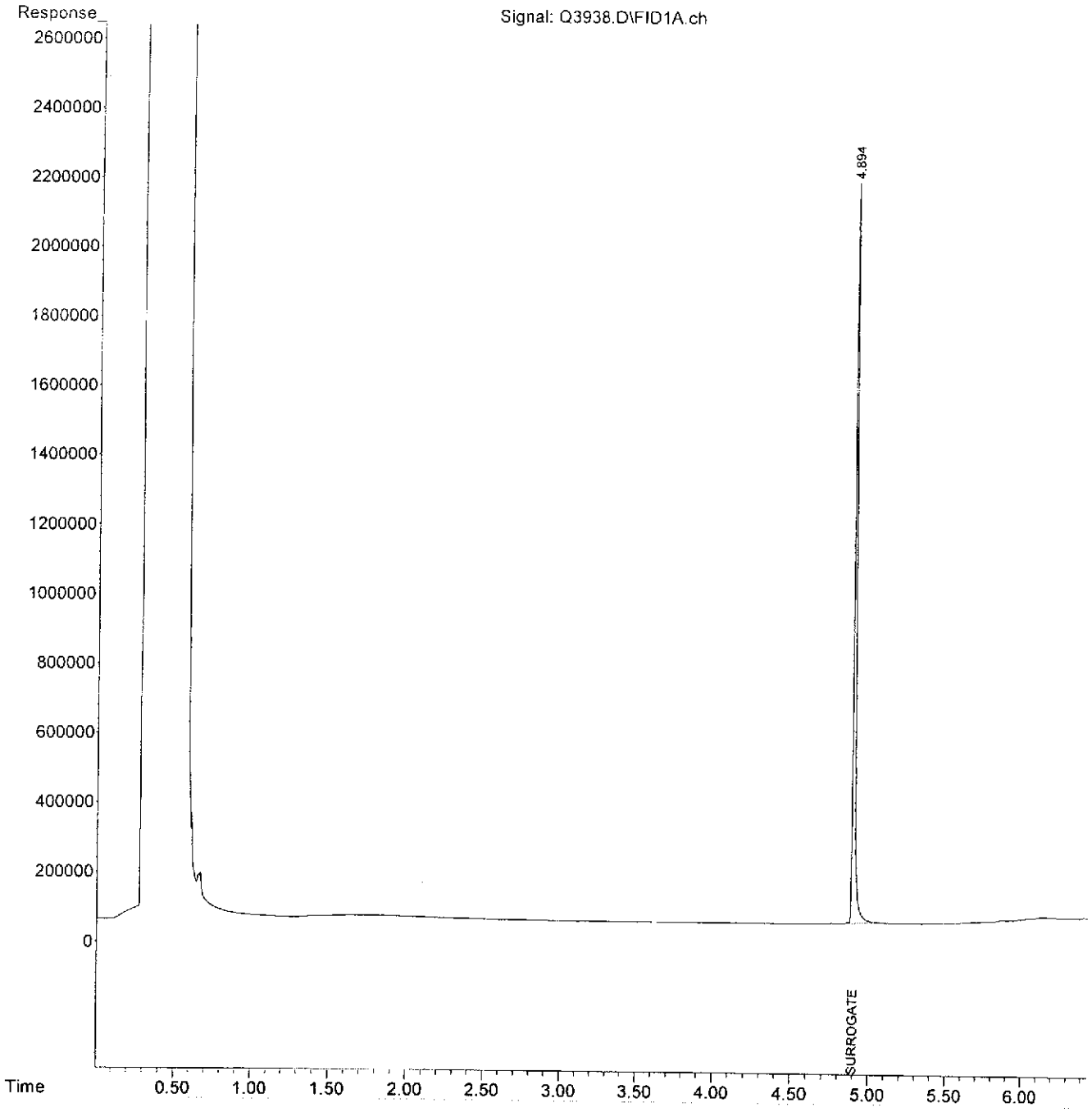
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3938.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 7:14 pm
Operator : LIZ
Sample : DRO,0430-BLK07,S,10.0g,0,04/30/10,15
Misc : NA,NA,NA,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:18:29 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3937.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 7:04 pm
Operator : LIZ
Sample : DRO/GRO_IAS_3670,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:18:19 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.893	18731911	84.465	ng	m
Spiked Amount 100.000		Recovery = 84.47%			
Target Compounds					
3) H TPH-DRO	2.500	401489150	979.640	ng	

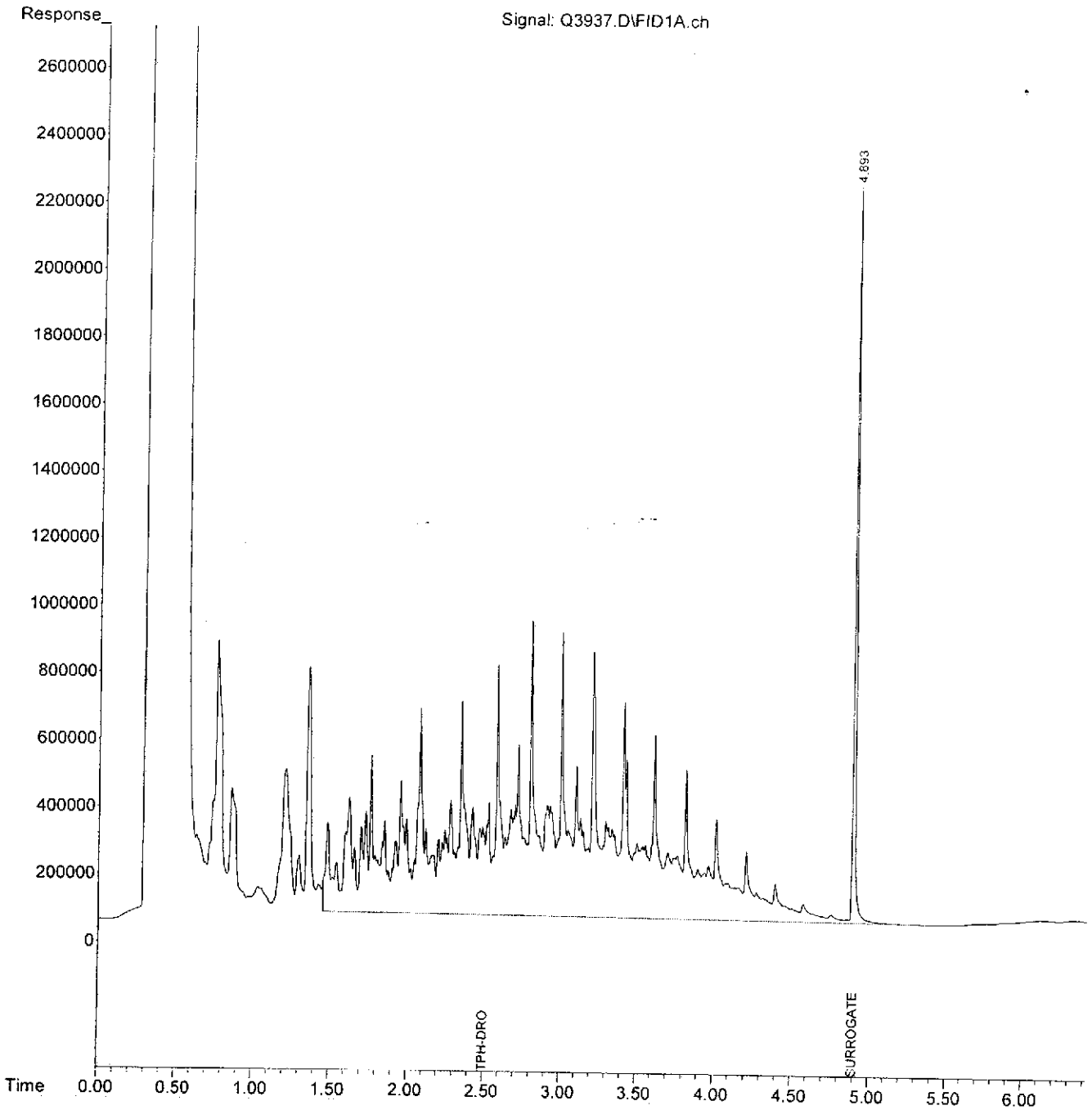
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3937.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 7:04 pm
Operator : LIZ
Sample : DRO/GRO_IAS_3670,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autointl.e
Quant Time: May 04 09:18:19 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3962.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 11:24 pm
Operator : LIZ
Sample : DRO/GRO_IAS_3670,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:23:42 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S SURROGATE	4.894	19063818	85.961 ng m
Spiked Amount 100.000		Recovery = 85.96%	
Target Compounds			
3) H TPH-DRO	2.500	359963679	878.317 ng

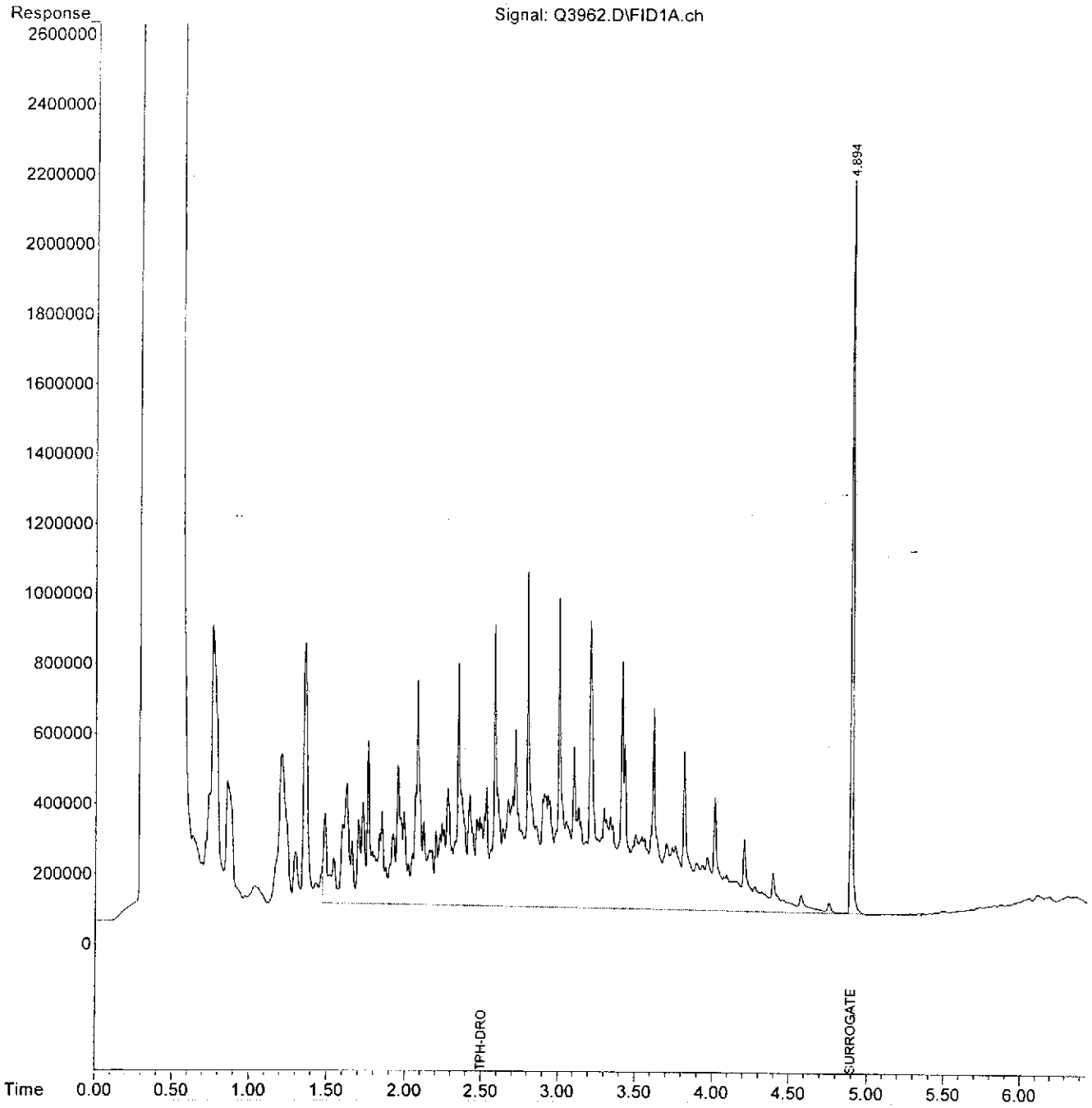
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3962.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 11:24 pm
Operator : LIZ
Sample : DRO/GRO_IAS_3670,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:23:42 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4043.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 1:26 pm
Operator : LIZ
Sample : DRO/GRO_IAS_3670,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 13:37:02 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.894	21238763	95.768	ng	m
Spiked Amount 100.000		Recovery = 95.77%			
Target Compounds					
3) H TPH-DRO	2.500	408629483	997.062	ng	

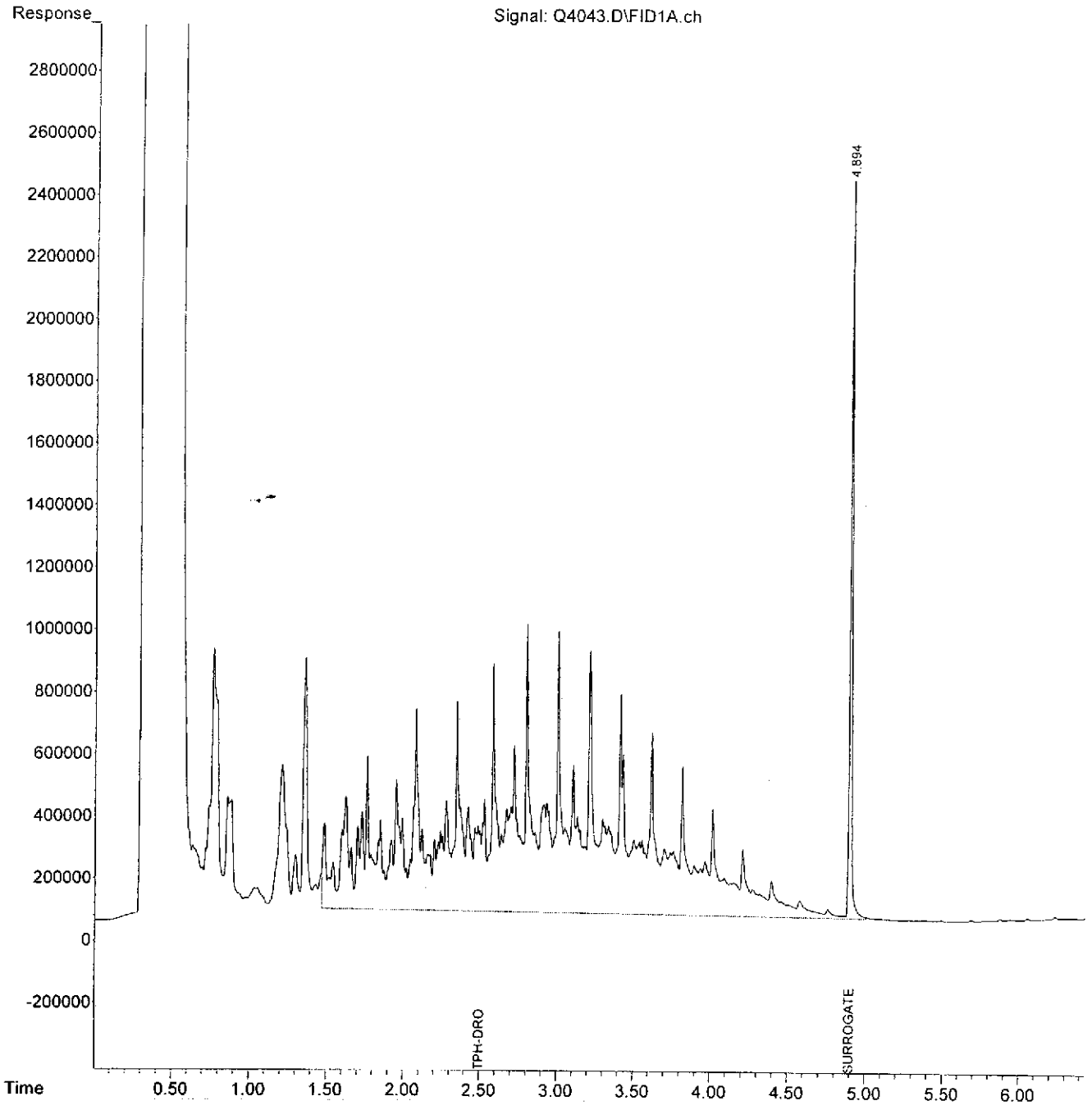
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4043.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 1:26 pm
Operator : LIZ
Sample : DRO/GRO_IAS_3670,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 13:37:02 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4053.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 3:30 pm
Operator : LIZ
Sample : DRO/GRO_IAS_3670,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 15:37:29 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S SURROGATE	4.894	21402795	96.508	ng	m
Spiked Amount 100.000		Recovery = 96.51%			
Target Compounds					
3) H TPH-DRO	2.500	398740289	972.932	ng	

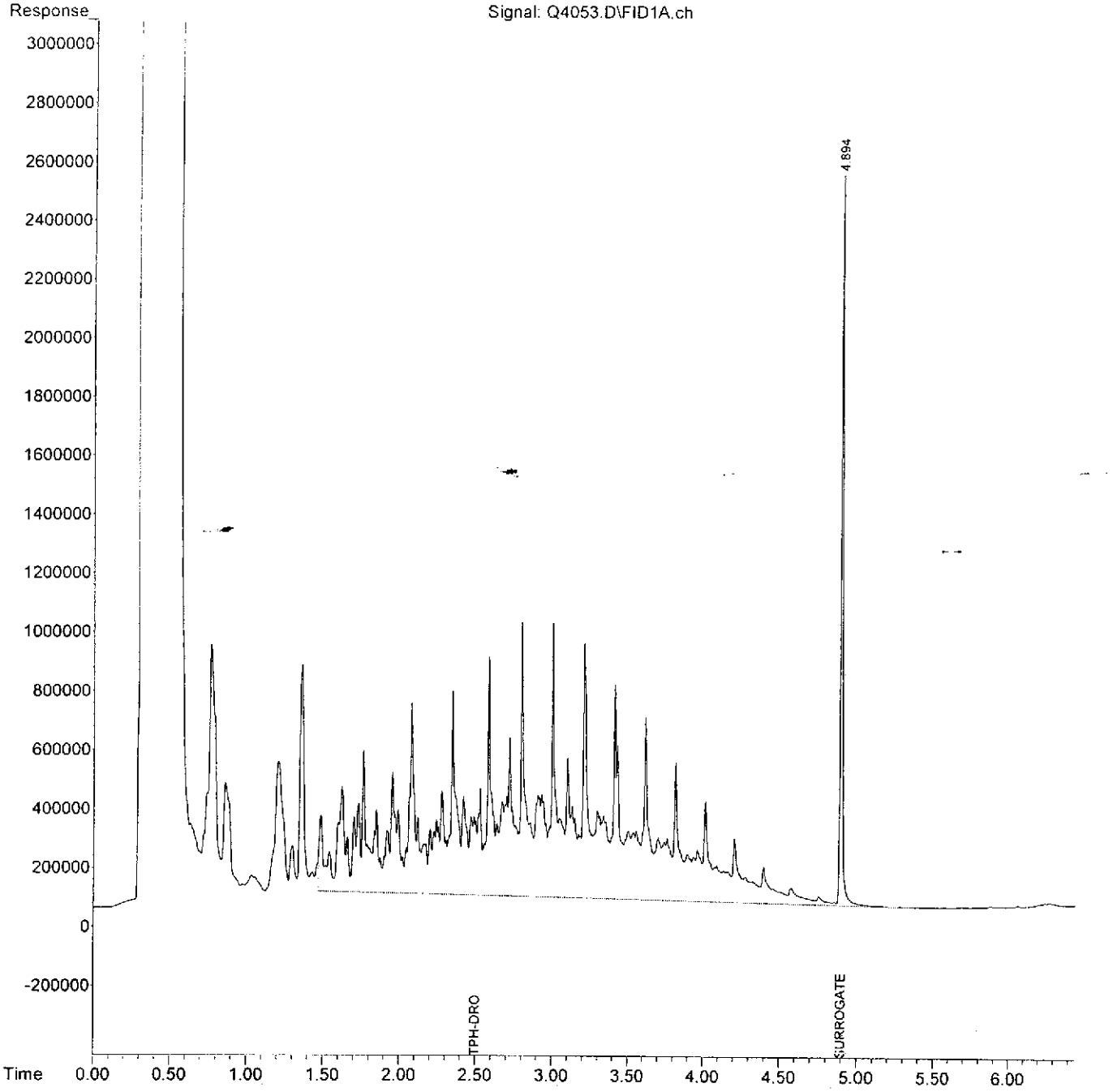
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q4053.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 3:30 pm
Operator : LIZ
Sample : DRO/GRO_IAS_3670,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 15:37:29 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3936.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 6:53 pm
Operator : LIZ
Sample : DRO/GRO_RT_IAS_3653,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:18:05 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
Target Compounds					
5) T	n-Decane (C10)	1.359	40919897	196.384	ng
6) T	n-Octacosane (C28)	5.234	44645794	192.775	ng

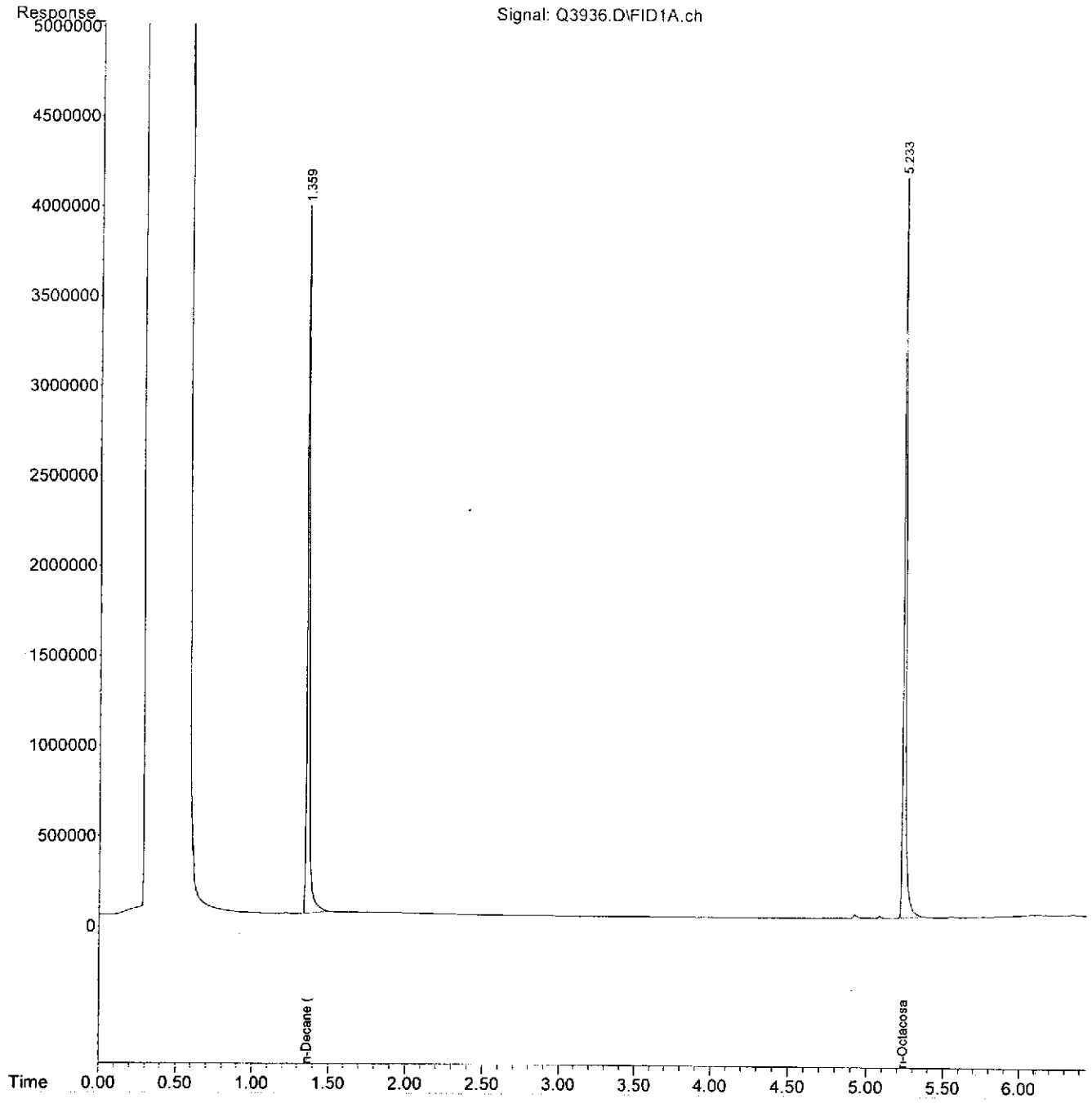
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3936.D
Signal(s) : FID1A.ch
Acq On : 3 May 10 6:53 pm
Operator : LIZ
Sample : DRO/GRO_RT_IAS_3653,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:18:05 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:11:16 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3989.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 4:05 am
Operator : LIZ
Sample : DRO/GRO_RT_IAS_3653,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:36:26 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:33:46 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
Target Compounds				
5) T	n-Decane (C10)	1.359	45274914	217.285 ng
6) T	n-Octacosane (C28)	5.233	49144172	212.198 ng

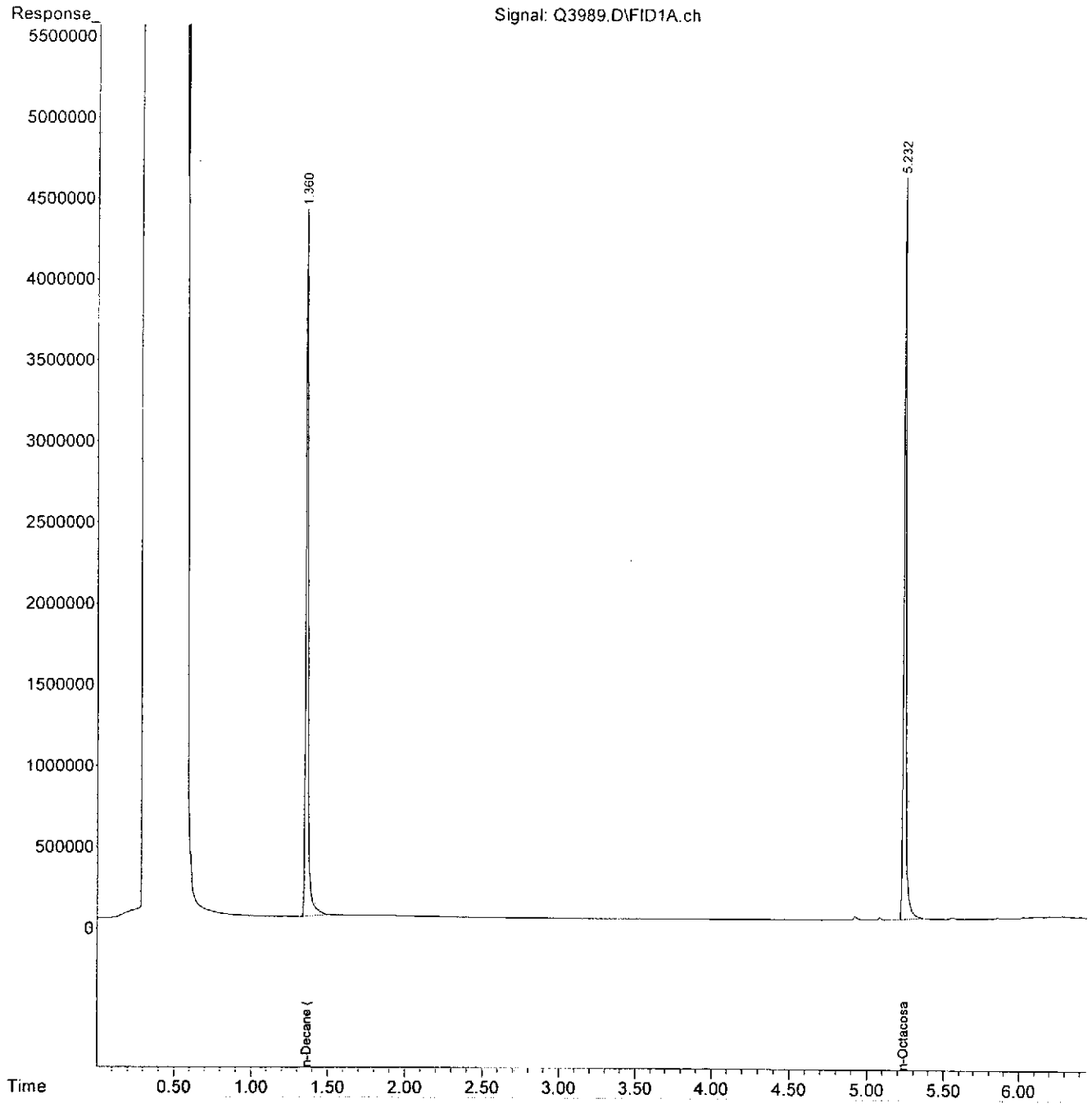
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\05-03-10\
Data File : Q3989.D
Signal(s) : FID1A.ch
Acq On : 4 May 10 4:05 am
Operator : LIZ
Sample : DRO/GRO_RT_IAS_3653,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: May 04 09:36:26 2010
Quant Method : C:\MSDCHEM\1\METHODS\QDRO0416.M
Quant Title :
QLast Update : Tue May 04 09:33:46 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC-PA
Address:	2034 E. WELLINGTON BD
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
EMAIL Address:	pecinc@aol.com
Project Manager:	M. Brogan
Sampler:	M. Brogan
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote #:	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE
DRO (3-5 day TAT) QAM025 (5 day TAT min.)
~~DRO (8015B)~~ - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax 2 wk/Std
24 hr* 48 hr* 72 hr* 1 wk*
Hard Copy 3 wk/Std
Other *call for price

Results needed by: STD / STD

Rush TAT Charge **: 24 hr - 100%... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only, Reduced, Regulatory - 15% Surcharge applies, Other (describe)

EDD's: SRP. dbf format, lab approved custom EDD, NO EDD/CD REQ'D

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

ANALYTICAL PARAMETERS

Cooler Temp 6 °C

BOTTLES & PRESERVATIVES

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	DRO	PAH	HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
Z1	4.83-5.33	4/29/10	11:10	S	1	01	✓	*								
Z2	↓		11:20	↓	↓	2	✓	↓								
Z3	↓		11:30			3	✓									
Z4	4.5-5.0		10:30			4	✓									
Z5	↓		10:40			5	✓									
Z6	↓		10:50			6	✓									
Z7	4.83-5.33		12:00			7	✓									
Z8	↓		11:50			8	✓									
Z9	↓		12:10			9	✓									
Z10	↓	↓	11:40	↓	↓	10	✓	↓								

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: [signature]	4/30/10	9:00	Received by: [signature]	4/30/10	9:00
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments: * HOLD

Lab Case # 4018

PAGE: 1 of 2

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Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC-PA
Address:	2034 E. WELLINGTON RD.
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
EMAIL Address:	pecinc@aol.com
Project Manager:	M. Brogan
Sampler:	M. Brogan
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote #:	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) — QAM025 (5 day TAT min.)

DRO (OQA-SB) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax — 24 hr* 48 hr* 72 hr* 1 wk* — 2 wk/Std

Hard Copy — Other *call for price — 3 wk/Std

Results needed by: STD / STD

Rush TAT Charge **
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

EDD's
SRP. dbf format
lab approved custom EDD
NO EDD/CD REQ'D

Cooler Temp 6 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

ANALYTICAL PARAMETERS

BOTTLES & PRESERVATIVES

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	DRO	PAH	HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
Z11	4.83-5.33	4/29/10	12:20	S	1	11	✓	*								
Z12	4.83-5.33	↓	11:00	S	1	12	✓	↓								
P4-D5	3.17-3.67	↓	12:30	S	1	13	✓	↓								
P4-D6	3.17-3.67	↓	1:15	S	1	14	✓	↓								

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by:	4/30/10	9:30	Received by:	4/30/10	9:00
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 4018

PAGE: 2 of 2

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

PROJECT INFORMATION

E10-04018

Case No. E10-04018 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Mike Brogan	**Received**	4/30/2010 09:00
EMail	pecinc@aol.com;nagorbm@yaho ☑ EMail EDDs	**Verbal Due**	5/19/2010
Phone	(973) 664-1199 **Fax** 1(973)664-1127	**Report Due**	5/26/2010

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Mike Brogan

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Mike Brogan

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☑ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
04018-001	Z1	4.83 / 5.33	4/29/2010@11:10	Soil	mg/Kg	1
04018-002	Z2	4.83 / 5.33	4/29/2010@11:20	Soil	mg/Kg	1
04018-003	Z3	4.83 / 5.33	4/29/2010@11:30	Soil	mg/Kg	1
04018-004	Z4	4.5 / 5	4/29/2010@10:30	Soil	mg/Kg	1
04018-005	Z5	4.5 / 5	4/29/2010@10:40	Soil	mg/Kg	1
04018-006	Z6	4.5 / 5	4/29/2010@10:50	Soil	mg/Kg	1
04018-007	Z7	4.83 / 5.33	4/29/2010@12:00	Soil	mg/Kg	1
04018-008	Z8	4.83 / 5.33	4/29/2010@11:50	Soil	mg/Kg	1
04018-009	Z9	4.83 / 5.33	4/29/2010@12:10	Soil	mg/Kg	1
04018-010	Z10	4.83 / 5.33	4/29/2010@11:40	Soil	mg/Kg	1
04018-011	Z11	4.83 / 5.33	4/29/2010@12:20	Soil	mg/Kg	1
04018-012	Z12	4.83 / 5.33	4/29/2010@11:00	Soil	mg/Kg	1
04018-013	P4-D5	3.17 / 3.67	4/29/2010@12:30	Soil	mg/Kg	1
04018-014	P4-D6	3.17 / 3.67	4/29/2010@13:15	Soil	mg/Kg	1

Sample #	Tests	Status	QA Method
001	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
002	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
003	PAH	Run	8270C
"	TPH-DRO-72 HR	Complete	8015B M
004	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
005	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
006	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
007	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
008	PAH	Cancel	8270C

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PROJECT INFORMATION

E10-04018

Case No. E10-04018 **Project** PALMER

Sample #	Tests	Status	QA Method
"	TPH-DRO-72 HR	Complete	8015B M
009	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
010	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
011	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
012	PAH	Cancel	8270C
"	TPH-DRO-72 HR	Complete	8015B M
013	PAH	Run	8270C
"	TPH-DRO-72 HR	Complete	8015B M
014	PAH	Run	8270C
"	TPH-DRO-72 HR	Complete	8015B M

05/05/2010 11:51 by Mark - REV 1

REV 01 DUE 5/19/10

PER MIKE BROGAN, ANALYZE SAMPLES #003, 013 & 014 FOR PAH.

CANCEL OTHERS ON HOLD

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **04018** CLIENT: PEC-PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL DATE

CORRECTIVE ACTION REQUIRED: **YES** (SEE BELOW) **NO**

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES Date/ Time: NO

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KM DATE 4/30/10

Laboratory Custody Chronicle

IAL Case No.

E10-04018

Client PennJersey Environmental Consulting

Project PALMER

Received On 4/30/2010@09:00

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
PAH	04018-003	Soil	5/ 6/10	Kou-Liang	5/ 6/10	JC
"	-013	"	5/ 6/10	Kou-Liang	5/ 6/10	JC
"	-014	"	5/ 6/10	Kou-Liang	5/ 6/10	JC

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TPH-DRO-72 HR	-001	Soil	4/30/10	Archimede	n/a	Tracy
"	-002	"	4/30/10	Archimede	n/a	Tracy
"	-003	"	4/30/10	Archimede	n/a	Tracy
"	-004	"	4/30/10	Archimede	n/a	Tracy
"	-005	"	4/30/10	Archimede	n/a	Tracy
"	-006	"	4/30/10	Archimede	n/a	Tracy
"	-007	"	4/30/10	Archimede	n/a	Tracy
"	-008	"	4/30/10	Archimede	n/a	Tracy
"	-009	"	4/30/10	Archimede	n/a	Tracy
"	-010	"	4/30/10	Archimede	n/a	Tracy
"	-011	"	4/30/10	Archimede	n/a	Tracy
"	-012	"	4/30/10	Archimede	n/a	Tracy
"	-013	"	4/30/10	Archimede	n/a	Tracy
"	-014	"	4/30/10	Archimede	n/a	Tracy

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IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E10-04230**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E10-04230

Client PennJersey Environmental Consulting

Project PALMER

Received On 5/ 5/2010@11:15

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
04230-001	L8-D2 DUP	2/2.5	5/ 5/2010@09:00	Soil	1

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received one (1) soil sample(s) from PennJersey Environmental Consulting (Project: PALMER) on May 5, 2010 for the analysis of:

(1) PAH

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

5/18/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E10-04230

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS SEMIVOLATILE ANALYSIS

Lab Case Number: E10 - 04230

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. DFTPP Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series.		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank: a. B/N Fraction b. Acid Fraction	✓	
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range) a. B/N Fraction b. Acid Fraction		✓
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) a. B/N Fraction b. Acid Fraction		✓
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		✓
11. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12. Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

5-7-10
Date

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E10-04230

	Lab ID:	04230-001	
	Client ID:	L8-D2 DUP	
	Depth:	2/2.5	
	Matrix:	Soil	
	Sampled Date	5/5/10	
PARAMETER(Units)	Conc	Q	MDL
Semivolatiles - PAH (Units)	*(mg/Kg-ppm)*		
Naphthalene	ND		0.025
Acenaphthylene	ND		0.032
Acenaphthene	ND		0.028
Fluorene	ND		0.027
Phenanthrene	ND		0.025
Anthracene	ND		0.043
Fluoranthene	0.080		0.025
Pyrene	0.151		0.027
Benzo[a]anthracene	0.078		0.034
Chrysene	0.083		0.047
Benzo[b]fluoranthene	0.075		0.029
Benzo[k]fluoranthene	0.075		0.034
Benzo[a]pyrene	0.085		0.035
Indeno[1,2,3-cd]pyrene	0.056		0.025
Dibenz[a,h]anthracene	ND		0.027
Benzo[g,h,i]perylene	0.062		0.030

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 04230-001
Client ID: L8-D2_DUP/2-
Date Received: 05/05/2010
Date Extracted: 05/06/2010
Date Analyzed: 05/06/2010
Data file: C1278.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 20.9

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.084	0.025
Acenaphthylene	ND		0.084	0.032
Acenaphthene	ND		0.084	0.028
Fluorene	ND		0.084	0.027
Phenanthrene	ND		0.084	0.025
Anthracene	ND		0.084	0.043
Fluoranthene	0.080	J	0.084	0.025
Pyrene	0.151		0.084	0.027
Benzo[a]anthracene	0.078	J	0.084	0.034
Chrysene	0.083	J	0.084	0.047
Benzo[b]fluoranthene	0.075	J	0.084	0.029
Benzo[k]fluoranthene	0.075	J	0.084	0.034
Benzo[a]pyrene	0.085		0.084	0.035
Indeno[1,2,3-cd]pyrene	0.056	J	0.084	0.025
Dibenz[a,h]anthracene	ND		0.084	0.027
Benzo[g,h,i]perylene	0.062	J	0.084	0.030
Total Target Compounds:	0.745	J		

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0483.D

DFTPP Injection Date : 04/13/2010

Inst ID: MSDC

DFTPP Injection Time: 14:21

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	41.3			
68	Less than 2.0% of mass 69	0.6	(	1.6	)1
69	Mass 69 relative abundance	37.5			
70	Less than 2.0% of mass 69	0.3	(	0.9	)1
127	40.0 - 60.0% of mass 198	49.6			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.8			
275	10.0 - 30.0% of mass 198	29.9			
365	Greater than 1.0% of mass 198	3.7			
441	Present, but less than mass 443	9.63	(	68.3	)3
442	40.0 - 100.0% of mass 198	64.7			
443	17.0 - 23.0% of mass 442	14.1	(	21.8	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN051.10	40ngBNA_FOR_0	C0484.D	04/13/2010	14:30
ABN048.10	1ngBNA_FOR_04	C0485.D	04/13/2010	14:46
ABN049.10	10ngBNA_FOR_0	C0486.D	04/13/2010	15:02
ABN050.10	20ngBNA_FOR_0	C0487.D	04/13/2010	15:18
ABN052.10	80ngBNA_FOR_0	C0488.D	04/13/2010	15:34
ABN053.10	120ngBNA_FOR_	C0489.D	04/13/2010	15:50
ABN054.10	40ngBNAchk_FOI	C0490.D	04/13/2010	16:06
ABN027.10	10ngOLMO4_FOF	C0492.D	04/13/2010	16:38
ABN028.10	20ngOLMO4_FOF	C0493.D	04/13/2010	16:54
ABN026.10	1ngOLMO4_FOR_	C0494.D	04/13/2010	17:10
ABN029.10	40ngOLMO4_FOF	C0495.D	04/13/2010	17:26
ABN030.10	80ngOLMO4_FOF	C0496.D	04/13/2010	17:42
ABN031.10	120ngOLMO4_FC	C0497.D	04/13/2010	17:58
ABN032.10	40ngOLMO4chk_I	C0498.D	04/13/2010	18:14

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0776.D DFTPP Injection Date : 04/23/2010

Inst ID: MSDC DFTPP Injection Time: 11:22

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	47.8			
68	Less than 2.0% of mass 69	0.7	(	1.8	)1
69	Mass 69 relative abundance	41.5			
70	Less than 2.0% of mass 69	0.4	(	0.9	)1
127	40.0 - 60.0% of mass 198	53.7			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.9			
275	10.0 - 30.0% of mass 198	28.3			
365	Greater than 1.0% of mass 198	4.7			
441	Present, but less than mass 443	15.39	(	73.6	)3
442	40.0 - 100.0% of mass 198	99.6			
443	17.0 - 23.0% of mass 442	20.9	(	21.0	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN054.10	40ngBNAchk_FOI	C0777.D	04/23/2010	11:42
ABN032.10	40ngOLMO4chk_I	C0778.D	04/23/2010	12:10
B5-6-1/9.5-1	03590-001	C0779.D	04/23/2010	12:26
B5-6-2/11-11	03590-002	C0780.D	04/23/2010	12:42
1B	03605-003	C0781.D	04/23/2010	12:58
1A	03605-004	C0782.D	04/23/2010	13:14
4B	03605-005	C0783.D	04/23/2010	13:30
4A	03605-006	C0784.D	04/23/2010	13:46
PE-1	03484-001	C0785.D	04/23/2010	14:03
.	Method_Blank	C0786.D	04/23/2010	14:19
.	LCS	C0787.D	04/23/2010	14:35
PES-20/6.5-7	03684-001	C0788.D	04/23/2010	14:55
.	Method_Blank	C0789.D	04/23/2010	15:11
.	LCS	C0790.D	04/23/2010	15:27
.	MS03758-006)	C0791.D	04/23/2010	16:17
.	MSD03758-006)	C0792.D	04/23/2010	16:33
D5/0-0.5	03758-001	C0793.D	04/23/2010	16:49
D6/0-0.5	03758-002	C0794.D	04/23/2010	17:05
D7/0-0.5	03758-003	C0795.D	04/23/2010	17:21
D8/0-0.5	03758-004	C0796.D	04/23/2010	17:37
D9/0-0.5	03758-005	C0797.D	04/23/2010	17:54
D10/0-0.5	03758-006	C0798.D	04/23/2010	18:10
DUP-1/0-0.5	03758-007	C0799.D	04/23/2010	18:26

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C0776.D DFTPP Injection Date : 04/23/2010

Inst ID: MSDC DFTPP Injection Time: 11:22

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	47.8			
68	Less than 2.0% of mass 69	0.7	(	1.8	)1
69	Mass 69 relative abundance	41.5			
70	Less than 2.0% of mass 69	0.4	(	0.9	)1
127	40.0 - 60.0% of mass 198	53.7			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.9			
275	10.0 - 30.0% of mass 198	28.3			
365	Greater than 1.0% of mass 198	4.7			
441	Present, but less than mass 443	0.00	(	73.6	)3
442	40.0 - 100.0% of mass 198	99.6			
443	17.0 - 23.0% of mass 442	20.9	(	21.0	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
.	Method_Blank	C0800.D	04/23/2010	18:42
.	LCS	C0801.D	04/23/2010	18:58
.	MS(03683-002)	C0802.D	04/23/2010	19:14
.	MSD(03683-002)	C0803.D	04/23/2010	19:30
TP1/3.5-4	03691-001	C0804.D	04/23/2010	19:47
TP3/3.5-4	03691-002	C0805.D	04/23/2010	20:03
TP4/4-4.5	03691-003	C0806.D	04/23/2010	20:19
TP5/4-4.5	03691-004	C0807.D	04/23/2010	20:35
TP6/3.5-4	03691-005	C0808.D	04/23/2010	20:51
TP7/3.5-4	03691-006	C0809.D	04/23/2010	21:07
B1/5.5-6	03691-007	C0810.D	04/23/2010	21:23
B2/4-4.5	03691-008	C0811.D	04/23/2010	21:39
B4/3.5-4	03691-009	C0812.D	04/23/2010	21:55
PEB-21/7-7.5	03690-021	C0813.D	04/23/2010	22:11
PEB-22/7-7.5	03690-022	C0814.D	04/23/2010	20:27
PEB-23/7-7.5	03690-023	C0815.D	04/23/2010	22:43
S8	03530-002	C0816.D	04/23/2010	22:59
SIDEWALL_#1_	03683-002	C0817.D	04/23/2010	23:15
SIDEWALL_#2_	03683-004	C0818.D	04/23/2010	23:31

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C1251.D DFTPP Injection Date : 05/06/2010

Inst ID: MSDC DFTPP Injection Time: 09:43

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	31.3			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	36.7			
70	Less than 2.0% of mass 69	0.3	(	0.7	)1
127	40.0 - 60.0% of mass 198	50.0			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.8			
275	10.0 - 30.0% of mass 198	24.3			
365	Greater than 1.0% of mass 198	2.3			
441	Present, but less than mass 443	8.76	(	65.9	)3
442	40.0 - 100.0% of mass 198	63.6			
443	17.0 - 23.0% of mass 442	13.3	(	20.9	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN051.10	40ngBNA_FOR_0	C1252.D	05/06/2010	10:01
ABN048.10	1ngBNA_FOR_05	C1253.D	05/06/2010	10:19
ABN049.10	10ngBNA_FOR_0	C1254.D	05/06/2010	10:34
ABN050.10	20ngBNA_FOR_0	C1255.D	05/06/2010	10:50
ABN052.10	80ngBNA_FOR_0	C1256.D	05/06/2010	11:06
ABN053.10	120ngBNA_FOR_	C1257.D	05/06/2010	11:21
ABN026.10	1ngOLMO4_FOR_	C1258.D	05/06/2010	11:37
ABN027.10	10ngOLMO4_FOF	C1259.D	05/06/2010	11:53
ABN028.10	20ngOLMO4_FOF	C1260.D	05/06/2010	12:08
ABN029.10	40ngOLMO4_FOF	C1261.D	05/06/2010	12:24
ABN030.10	80ngOLMO4_FOF	C1262.D	05/06/2010	12:39
ABN031.10	120ngOLMO4_FC	C1263.D	05/06/2010	12:55

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C1264.D DFTPP Injection Date : 05/06/2010

Inst ID: MSDC DFTPP Injection Time: 13:24

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	46.2			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	53.9			
70	Less than 2.0% of mass 69	0.5	(	0.9	)1
127	40.0 - 60.0% of mass 198	59.4			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.8			
275	10.0 - 30.0% of mass 198	20.0			
365	Greater than 1.0% of mass 198	1.8			
441	Present, but less than mass 443	12.11	(	67.4	)3
442	40.0 - 100.0% of mass 198	88.5			
443	17.0 - 23.0% of mass 442	18.0	(	20.3	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN054.10	40ngBNAchk_FOI	C1265.D	05/06/2010	13:34
ABN032.10	40ngOLMO4chk_I	C1266.D	05/06/2010	13:49
SIDEWALL_2_2	04140-004	C1267.D	05/06/2010	14:05
SIDEWALL_3_3	04140-006	C1268.D	05/06/2010	14:21
SIDEWALL_4_4	04140-008	C1269.D	05/06/2010	14:37
BOTTOM_5_5A/	04140-010	C1270.D	05/06/2010	14:52
WASTE_CLASS	04110-001	C1271.D	05/06/2010	15:08
.	Method_Blank	C1272.D	05/06/2010	15:24
.	LCS	C1273.D	05/06/2010	15:40
Z3/4.83-5.33	04018-003	C1274.D	05/06/2010	15:55
P4-D5/3.17-3	04018-013	C1275.D	05/06/2010	16:11
P4-D6/3.17-3	04018-014	C1276.D	05/06/2010	16:27
PE-2	03895-002	C1277.D	05/06/2010	16:43
L8-D2_DUP/2-	04230-001	C1278.D	05/06/2010	16:59

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C0789.D

Instrument ID: MSDC

Date Extracted: 04/23/10

Matrix: SOIL

Date Analyzed: 04/23/2010

Time Analyzed: 15:11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	04/23/2010	15:27
.	MS03758-006)	04/23/2010	16:17
.	MSD03758-006)	04/23/2010	16:33
D5/0-0.5	03758-001	04/23/2010	16:49
D6/0-0.5	03758-002	04/23/2010	17:05
D7/0-0.5	03758-003	04/23/2010	17:21
D8/0-0.5	03758-004	04/23/2010	17:37
D9/0-0.5	03758-005	04/23/2010	17:54
D10/0-0.5	03758-006	04/23/2010	18:10
DUP-1/0-0.5	03758-007	04/23/2010	18:26

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 04/23/2010
Date Analyzed: 04/23/2010
Data file: C0789.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.033
Pyridine	ND		0.033	0.020
Benzaldehyde	ND		0.033	0.018
Phenol	ND		0.033	0.026
Aniline	ND		0.033	0.022
Bis(2-chloroethyl) ether	ND		0.033	0.019
2-Chlorophenol	ND		0.033	0.028
1,3-Dichlorobenzene	ND		0.033	0.016
1,4-Dichlorobenzene	ND		0.033	0.022
Benzyl alcohol	ND		0.033	0.019
1,2-Dichlorobenzene	ND		0.033	0.010
2-Methylphenol	ND		0.033	0.011
Bis(2-chloroisopropyl) ether	ND		0.033	0.013
4-Methylphenol	ND		0.033	0.011
N-Nitrosodi-n-propylamine	ND		0.033	0.012
Acetophenone	ND		0.033	0.016
Hexachloroethane	ND		0.033	0.010
Nitrobenzene	ND		0.033	0.021
Isophorone	ND		0.033	0.015
2-Nitrophenol	ND		0.033	0.019
2,4-Dimethylphenol	ND		0.033	0.019
Bis(2-chloroethoxy) methane	ND		0.033	0.031
Benzoic acid	ND		0.033	0.022
2,4-Dichlorophenol	ND		0.033	0.011
1,2,4-Trichlorobenzene	ND		0.033	0.027
Naphthalene	ND		0.033	0.00997
4-Chloroaniline	ND		0.033	0.022
Hexachlorobutadiene	ND		0.033	0.019
Caprolactam	ND		0.033	0.027
4-Chloro-3-methylphenol	ND		0.033	0.023
2-Methylnaphthalene	ND		0.033	0.011
Hexachlorocyclopentadiene	ND		0.033	0.019
2,4,6-Trichlorophenol	ND		0.033	0.014
2,4,5-Trichlorophenol	ND		0.033	0.015
1,1'-Biphenyl	ND		0.033	0.015
2-Chloronaphthalene	ND		0.033	0.015
2-Nitroaniline	ND		0.033	0.013
Dimethyl phthalate	ND		0.033	0.021

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 04/23/2010
Date Analyzed: 04/23/2010
Data file: C0789.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.010
Acenaphthylene	ND		0.033	0.013
3-Nitroaniline	ND		0.033	0.023
Acenaphthene	ND		0.033	0.011
2,4-Dinitrophenol	ND		0.033	0.019
4-Nitrophenol	ND		0.033	0.026
2,4-Dinitrotoluene	ND		0.033	0.031
Dibenzofuran	ND		0.033	0.014
Diethyl phthalate	ND		0.033	0.010
Fluorene	ND		0.033	0.011
4-Chlorophenyl phenyl ether	ND		0.033	0.026
4-Nitroaniline	ND		0.033	0.018
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.015
4,6-Dinitro-2-methylphenol	ND		0.033	0.022
N-Nitrosodiphenylamine	ND		0.033	0.018
1,2-Diphenylhydrazine	ND		0.033	0.00967
4-Bromophenyl phenyl ether	ND		0.033	0.013
Hexachlorobenzene	ND		0.033	0.00967
Atrazine	ND		0.033	0.011
Pentachlorophenol	ND		0.033	0.010
Phenanthrene	ND		0.033	0.00997
Anthracene	ND		0.033	0.017
Carbazole	ND		0.033	0.019
Di-n-butyl phthalate	ND		0.033	0.012
Fluoranthene	ND		0.033	0.00997
Benzidine	ND		0.033	0.023
Pyrene	ND		0.033	0.011
3,3'-Dimethylbenzidine	ND		0.033	0.025
Butyl benzyl phthalate	ND		0.033	0.024
3,3'-Dichlorobenzidine	ND		0.033	0.014
Benzo[a]anthracene	ND		0.033	0.013
Chrysene	ND		0.033	0.019
Bis(2-ethylhexyl) phthalate	ND		0.033	0.022
Di-n-octyl phthalate	ND		0.033	0.033
Benzo[b]fluoranthene	ND		0.033	0.011
Benzo[k]fluoranthene	ND		0.033	0.013
Benzo[a]pyrene	ND		0.033	0.014
Indeno[1,2,3-cd]pyrene	ND		0.033	0.010
Dibenz[a,h]anthracene	ND		0.033	0.011
Benzo[g,h,i]perylene	ND		0.033	0.012

Total Target Compounds: 0

0014

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 04/23/2010
Date Analyzed: 04/23/2010
Data file: C0789.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C1272.D Instrument ID: MSDC

Date Extracted: 05/06/10 Matrix: SOIL

Date Analyzed: 05/06/2010 Time Analyzed: 15:24

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	05/06/2010	15:40
Z3/4.83-5.33	04018-003	05/06/2010	15:55
P4-D5/3.17-3	04018-013	05/06/2010	16:11
P4-D6/3.17-3	04018-014	05/06/2010	16:27
PE-2	03895-002	05/06/2010	16:43
L8-D2_DUP/2-	04230-001	05/06/2010	16:59

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 05/06/2010
Date Analyzed: 05/06/2010
Data file: C1272.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.033
Pyridine	ND		0.033	0.020
Benzaldehyde	ND		0.033	0.018
Phenol	ND		0.033	0.026
Aniline	ND		0.033	0.022
Bis(2-chloroethyl) ether	ND		0.033	0.019
2-Chlorophenol	ND		0.033	0.028
1,3-Dichlorobenzene	ND		0.033	0.016
1,4-Dichlorobenzene	ND		0.033	0.022
Benzyl alcohol	ND		0.033	0.019
1,2-Dichlorobenzene	ND		0.033	0.010
2-Methylphenol	ND		0.033	0.011
Bis(2-chloroisopropyl) ether	ND		0.033	0.013
4-Methylphenol	ND		0.033	0.011
N-Nitrosodi-n-propylamine	ND		0.033	0.012
Acetophenone	ND		0.033	0.016
Hexachloroethane	ND		0.033	0.010
Nitrobenzene	ND		0.033	0.021
Isophorone	ND		0.033	0.015
2-Nitrophenol	ND		0.033	0.019
2,4-Dimethylphenol	ND		0.033	0.019
Bis(2-chloroethoxy) methane	ND		0.033	0.031
Benzoic acid	ND		0.033	0.022
2,4-Dichlorophenol	ND		0.033	0.011
1,2,4-Trichlorobenzene	ND		0.033	0.027
Naphthalene	ND		0.033	0.00997
4-Chloroaniline	ND		0.033	0.022
Hexachlorobutadiene	ND		0.033	0.019
Caprolactam	ND		0.033	0.027
4-Chloro-3-methylphenol	ND		0.033	0.023
2-Methylnaphthalene	ND		0.033	0.011
Hexachlorocyclopentadiene	ND		0.033	0.019
2,4,6-Trichlorophenol	ND		0.033	0.014
2,4,5-Trichlorophenol	ND		0.033	0.015
1,1'-Biphenyl	ND		0.033	0.015
2-Chloronaphthalene	ND		0.033	0.015
2-Nitroaniline	ND		0.033	0.013
Dimethyl phthalate	ND		0.033	0.021

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 05/06/2010
Date Analyzed: 05/06/2010
Data file: C1272.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.010
Acenaphthylene	ND		0.033	0.013
3-Nitroaniline	ND		0.033	0.023
Acenaphthene	ND		0.033	0.011
2,4-Dinitrophenol	ND		0.033	0.019
4-Nitrophenol	ND		0.033	0.026
2,4-Dinitrotoluene	ND		0.033	0.031
Dibenzofuran	ND		0.033	0.014
Diethyl phthalate	ND		0.033	0.010
Fluorene	ND		0.033	0.011
4-Chlorophenyl phenyl ether	ND		0.033	0.026
4-Nitroaniline	ND		0.033	0.018
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.015
4,6-Dinitro-2-methylphenol	ND		0.033	0.022
N-Nitrosodiphenylamine	ND		0.033	0.018
1,2-Diphenylhydrazine	ND		0.033	0.00967
4-Bromophenyl phenyl ether	ND		0.033	0.013
Hexachlorobenzene	ND		0.033	0.00967
Atrazine	ND		0.033	0.011
Pentachlorophenol	ND		0.033	0.010
Phenanthrene	ND		0.033	0.00997
Anthracene	ND		0.033	0.017
Carbazole	ND		0.033	0.019
Di-n-butyl phthalate	ND		0.033	0.012
Fluoranthene	ND		0.033	0.00997
Benzidine	ND		0.033	0.023
Pyrene	ND		0.033	0.011
3,3'-Dimethylbenzidine	ND		0.033	0.025
Butyl benzyl phthalate	ND		0.033	0.024
3,3'-Dichlorobenzidine	ND		0.033	0.014
Benzo[a]anthracene	ND		0.033	0.013
Chrysene	ND		0.033	0.019
Bis(2-ethylhexyl) phthalate	ND		0.033	0.022
Di-n-octyl phthalate	ND		0.033	0.033
Benzo[b]fluoranthene	ND		0.033	0.011
Benzo[k]fluoranthene	ND		0.033	0.013
Benzo[a]pyrene	ND		0.033	0.014
Indeno[1,2,3-cd]pyrene	ND		0.033	0.010
Dibenz[a,h]anthracene	ND		0.033	0.011
Benzo[g,h,i]perylene	ND		0.033	0.012

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 05/06/2010
Date Analyzed: 05/06/2010
Data file: C1272.D

GC/MS Column: DB-5
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS0810.M
Title : BNA CALIBRATION METHOD
Last Update : Wed Apr 14 12:05:26 2010
Response Via : Initial Calibration

Calibration Files
1 =C0485.D 10 =C0486.D 20 =C0487.D
40 =C0484.D 80 =C0488.D 120 =C0489.D

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.926	0.875	0.910	0.750	0.766	0.785	0.835	9.26
3)	T	Pyridine	0.848	1.114	1.155	0.968	1.067	1.119	1.045	11.14
4)	S	2-Fluorophenol	1.221	1.260	1.286	1.290	1.260	1.310	1.271	2.45
5)	T	Benzaldehyde	0.938	0.941	0.966	0.664	0.907	1.008	0.904	13.53
6)	S	Phenol-d5	1.770	1.857	1.901	1.830	1.735	1.860	1.825	3.39
7)	MC	Phenol	1.983	1.726	1.650	1.477	1.615	1.795	1.707	10.10
8)	T	Aniline	1.013	0.823	0.786	0.734	0.743	0.779	0.813	12.66
9)	T	Bis(2-chloroethyl	1.040	1.144	1.101	1.042	1.022	1.095	1.074	4.34
10)	M	2-Chlorophenol	1.627	1.351	1.340	1.224	1.198	1.320	1.343	11.36
11)	T	1,3-Dichlorobenze	1.672	1.404	1.406	1.309	1.272	1.363	1.404	10.06
12)	MC	1,4-Dichlorobenze	1.672	1.442	1.438	1.475	1.451	1.539	1.503	6.03
13)	T	Benzyl alcohol	0.843	0.826	0.849	0.843	0.811	0.939	0.852	5.29
14)	T	1,2-Dichlorobenze	1.658	1.396	1.377	1.365	1.436	1.466	1.449	7.53
15)	T	2-Methylphenol	0.843	0.826	0.850	0.843	0.811	0.939	0.852	5.29
16)	T	Bis(2-chloroisopr	2.125	2.038	2.008	1.886	1.751	1.880	1.948	6.90
17)	T	4-Methylphenol	1.287	1.221	1.328	1.292	1.131	1.393	1.275	7.09
18)	MP	N-Nitrosodi-n-pro	0.971	0.984	1.071	1.098	0.924	1.130	1.030	7.89
19)	T	Acetophenone	1.908	1.824	1.827	1.702	1.677	1.863	1.800	5.08
20)	T	3-Methylphenol	1.287	1.221	1.328	1.290	1.131	1.389	1.274	7.01
21)	T	Hexachloroethane	0.549	0.540	0.531	0.509	0.496	0.518	0.524	3.77
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.379	0.379	0.410	0.415	0.435	0.464	0.414	7.99
25)	T	Nitrobenzene	0.382	0.344	0.351	0.370	0.328	0.368	0.357	5.50
26)	T	Isophorone	0.857	0.639	0.696	0.689	0.629	0.651	0.693	12.17
27)	TC	2-Nitrophenol	0.192	0.165	0.177	0.178	0.168	0.172	0.175	5.50
28)	T	2,4-Dimethylpheno	0.340	0.308	0.323	0.301	0.330	0.314	0.319	4.59
29)	T	Bis(2-chloroethox	0.413	0.372	0.384	0.390	0.380	0.369	0.385	4.11
30)	T	Benzoic acid	0.181	0.144	0.159	0.175	0.167	0.167	0.165	7.82
31)	T	2,4-Dimethylanili	0.422	0.369	0.380	0.356	0.363	0.382	0.379	6.25
32)	TC	2,4-Dichloropheno	0.271	0.251	0.260	0.278	0.251	0.263	0.262	4.10
33)	M	1,2,4-Trichlorobe	0.373	0.281	0.293	0.278	0.271	0.294	0.298	12.66
34)	T	Naphthalene	1.256	0.955	1.013	1.032	1.021	1.103	1.063	9.93
35)	T	4-Chloroaniline	0.426	0.515	0.525	0.532	0.503	0.560	0.510	8.90
36)	T	4-Aminotoluene	1.398	1.124	1.169	1.055	1.179	1.233	1.193	9.80
37)	TC	Hexachlorobutadie	0.211	0.155	0.156	0.160	0.158	0.162	0.167	13.07
38)	T	Caprolactam	0.162	0.155	0.175	0.169	0.147	0.161	0.162	6.18
39)	T	2-Aminotoluene	1.398	1.124	1.169	1.055	1.179	1.233	1.193	9.80
40)	MC	4-Chloro-3-methyl	0.284	0.265	0.286	0.275	0.262	0.274	0.274	3.51
41)	T	2-Methylnaphthale	0.768	0.600	0.643	0.627	0.605	0.683	0.654	9.67
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.129	0.127	0.126	0.148	0.168	0.149	0.141	11.79
45)	TC	2,4,6-Trichloroph	0.341	0.281	0.303	0.288	0.310	0.359	0.314	9.75
46)	T	2,4,5-Trichloroph	0.357	0.330	0.323	0.344	0.349	0.359	0.344	4.21
47)	S	2-Fluorobiphenyl	1.296	1.207	1.269	1.227	1.263	1.281	1.257	2.69
48)	T	1,1'-Biphenyl	1.539	1.243	1.205	1.179	1.248	1.257	1.278	10.24
49)	T	2-Chloronaphthale	1.159	0.948	0.943	0.904	0.970	0.964	0.981	9.17
50)	T	2-Nitroaniline	0.341	0.310	0.328	0.330	0.314	0.333	0.326	3.61
51)	T	Dimethyl phthalat	1.348	1.125	1.149	1.066	1.148	1.136	1.162	8.26

52)	T	2,6-Dinitrotoluen	0.230	0.233	0.236	0.254	0.243	0.274	0.245	6.70
53)	T	Acenaphthylene	1.844	1.545	1.597	1.595	1.631	1.605	1.636	6.44
54)	T	3-Nitroaniline	0.349	0.330	0.337	0.338	0.349	0.353	0.342	2.57
55)	MC	Acenaphthene	1.213	1.012	1.021	0.972	1.024	1.153	1.066	8.87
56)	TP	2,4-Dinitrophenol	0.101	0.076	0.086	0.112	0.113	0.097	0.098	14.98
57)	MP	4-Nitrophenol	0.168	0.192	0.225	0.243	0.223	0.233	0.214	13.27
58)	M	2,4-Dinitrotoluen	0.292	0.325	0.341	0.344	0.342	0.329	0.329	5.98
59)	T	Dibenzofuran	1.824	1.424	1.442	1.383	1.350	1.459	1.481	11.69
60)	T	Diethyl phthalate	1.260	1.120	1.119	1.123	1.041	1.227	1.148	7.03
61)	T	Fluorene	1.334	1.172	1.184	1.151	1.129	1.291	1.210	6.84
62)	T	4-Chlorophenyl ph	0.711	0.571	0.575	0.547	0.560	0.668	0.605	11.14
63)	T	4-Nitroaniline	0.257	0.274	0.295	0.293	0.280	0.283	0.280	5.00
64)		1,2,4,5-Tetrachlo	0.599	0.484	0.494	0.481	0.530	0.603	0.532	10.60
65)	T	3,5-Dimethylpheno							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.073	0.076	0.086	0.090	0.108	0.092	0.088	14.33
68)	TC	N-Nitrosodiphenyl	0.550	0.467	0.476	0.516	0.513	0.598	0.520	9.31
69)	T	1,2-Diphenylhydra	0.786	0.709	0.721	0.743	0.728	0.797	0.747	4.85
70)	S	2,4,6-Tribromophe	0.157	0.168	0.162	0.178	0.179	0.178	0.170	5.53
71)	T	4-Bromophenyl phe	0.253	0.191	0.189	0.211	0.216	0.244	0.217	12.24
72)	T	Hexachlorobenzene	0.322	0.233	0.237	0.255	0.256	0.287	0.265	12.84
73)	T	Atrazine	0.176	0.178	0.177	0.130	0.169	0.183	0.169	11.63
74)	MC	Pentachlorophenol	0.101	0.106	0.108	0.134	0.130	0.143	0.120	14.62
75)	T	Phenanthrene	1.163	0.960	0.938	0.987	0.924	1.070	1.007	9.17
76)	T	Anthracene	1.132	0.941	0.969	0.985	1.003	1.056	1.014	6.82
77)	T	Carbazole	1.039	0.901	0.902	0.907	0.866	0.922	0.923	6.47
78)	T	Di-n-butyl phthal	1.098	1.031	1.058	1.127	1.099	1.196	1.101	5.22
79)	TC	Fluoranthene	1.126	0.987	1.016	1.019	0.979	1.027	1.026	5.14
80)	T	Benzidine	0.465	0.420	0.511	0.371	0.539	0.523	0.472	13.94
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.059	0.943	0.917	1.174	1.221	1.209	1.087	12.41
84)	S	Terphenyl-d14	0.846	0.839	0.814	1.021	1.046	0.934	0.917	10.86
85)	T	3,3'-Dimethylbenz	0.462	0.433	0.490	0.439	0.612	0.550	0.498	14.12
86)	T	Butyl benzyl phth	0.431	0.398	0.394	0.478	0.499	0.480	0.447	10.09
87)	T	3,3'-Dichlorobenz	0.349	0.319	0.328	0.331	0.295	0.296	0.320	6.65
88)	T	Benzo[a]anthracen	1.012	0.832	0.827	0.867	0.880	0.892	0.885	7.61
89)	T	Chrysene	1.018	0.797	0.814	0.831	0.815	0.855	0.855	9.61
90)	T	Bis(2-ethylhexyl)	0.575	0.518	0.535	0.666	0.691	0.702	0.615	13.29
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.075	1.116	1.062	1.196	1.166	1.262	1.146	6.69
94)	T	Benzo[b]fluoranth	1.031	0.993	1.070	1.075	0.950	1.031	1.025	4.64
95)	T	Benzo[k]fluoranth	1.193	1.015	0.971	0.908	1.005	1.024	1.019	9.30
96)	TC	Benzo[a]pyrene	0.823	0.810	0.795	0.828	0.823	0.859	0.823	2.60
97)	T	Indeno[1,2,3-cd]p	0.942	0.859	0.871	1.144	1.181	1.124	1.020	14.28
98)	T	Dibenz[a,h]anthra	0.941	0.808	0.808	0.969	0.985	1.044	0.926	10.51
99)	T	Benzo[g,h,i]peryl	0.931	0.748	0.746	0.907	0.961	1.005	0.883	12.46
100)	T	Hydroquinone							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

CS0810.M Wed Apr 14 12:05:32 2010 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\04-23-10\
Data File : C0777.D
Acq On : 23 Apr 2010 11:42
Operator : EDM
Sample : ABN054.10,40ngBNAchk_FOR_04/23/10
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Apr 23 13:16:22 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS0810.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Apr 14 12:05:26 2010
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	74	0.00
2	T	N-Nitrosodimethylamine	0.835	0.796	4.7	78	0.00
3	T	Pyridine	1.045	1.048	-0.3	80	0.00
4	S	2-Fluorophenol	1.271	1.327	-4.4	76	0.00
5	T	Benzaldehyde	0.904	1.063	-17.6	174	0.00
6	S	Phenol-d5	1.825	1.741	4.6	70	-0.01
7	MC	Phenol	1.707	1.582	7.3	79	-0.01
8	T	Aniline	0.813	0.785	3.4	79	0.00
9	T	Bis(2-chloroethyl) ether	1.074	1.078	-0.4	76	0.00
10	M	2-Chlorophenol	1.343	1.240	7.7	75	-0.01
11	T	1,3-Dichlorobenzene	1.404	1.336	4.8	75	-0.01
12	MC	1,4-Dichlorobenzene	1.503	1.478	1.7	74	0.00
13	T	Benzyl alcohol	0.852	0.785	7.9	69	-0.01
14	T	1,2-Dichlorobenzene	1.449	1.431	1.2	77	0.00
15	T	2-Methylphenol	0.852	0.785	7.9	69	-0.01
16	T	Bis(2-chloroisopropyl) ethe	1.948	1.936	0.6	76	0.00
17	T	4-Methylphenol	1.275	1.227	3.8	70	-0.01
18	MP	N-Nitrosodi-n-propylamine	1.030	0.986	4.3	66	-0.01
19	T	Acetophenone	1.800	1.678	6.8	73	-0.01
20	T	3-Methylphenol	1.274	1.228	3.6	70	-0.01
21	T	Hexachloroethane	0.524	0.543	-3.6	79	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	73	0.00
24	S	Nitrobenzene-d5	0.414	0.412	0.5	72	0.00
25	T	Nitrobenzene	0.357	0.372	-4.2	73	-0.01
26	T	Isophorone	0.693	0.683	1.4	72	0.00
27	TC	2-Nitrophenol	0.175	0.173	1.1	71	0.00
28	T	2,4-Dimethylphenol	0.319	0.313	1.9	76	0.00
29	T	Bis(2-chloroethoxy) methane	0.385	0.383	0.5	72	0.00
30	T	Benzoic acid	0.165	0.168	-1.8	70	-0.02
31	T	2,4-Dimethylaniline	0.379	0.404	-6.6	83	-0.01
32	TC	2,4-Dichlorophenol	0.262	0.263	-0.4	69	-0.01
33	M	1,2,4-Trichlorobenzene	0.298	0.288	3.4	75	0.00
34	T	Naphthalene	1.063	1.029	3.2	73	0.00
35	T	4-Chloroaniline	0.510	0.524	-2.7	72	0.00
36	T	4-Aminotoluene	1.193	1.240	-3.9	86	0.00
37	TC	Hexachlorobutadiene	0.167	0.167	0.0	76	0.00
38	T	Caprolactam	0.162	0.150	7.4	64	-0.02
39	T	2-Aminotoluene	1.193	1.240	-3.9	86	0.00
40	MC	4-Chloro-3-methylphenol	0.274	0.270	1.5	72	0.00
41	T	2-Methylnaphthalene	0.654	0.613	6.3	71	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	68	0.00
44	TP	Hexachlorocyclopentadiene	0.141	0.116	17.7	53	0.00
45	TC	2,4,6-Trichlorophenol	0.314	0.330	-5.1	77	0.00
46	T	2,4,5-Trichlorophenol	0.344	0.330	4.1	65	0.00

47	S	2-Fluorobiphenyl	1.257	1.334	-6.1	74	0.00
48	T	1,1'-Biphenyl	1.278	1.224	4.2	70	0.00
49	T	2-Chloronaphthalene	0.981	0.941	4.1	70	0.00
50	T	2-Nitroaniline	0.326	0.311	4.6	64	0.00
51	T	Dimethyl phthalate	1.162	1.090	6.2	69	0.00
52	T	2,6-Dinitrotoluene	0.245	0.238	2.9	64	0.00
53	T	Acenaphthylene	1.636	1.604	2.0	68	0.00
54	T	3-Nitroaniline	0.342	0.331	3.2	66	0.00
55	MC	Acenaphthene	1.066	1.012	5.1	70	0.00
56	TP	2,4-Dinitrophenol	0.098	0.096	2.0	58	0.00
57	MP	4-Nitrophenol	0.214	0.197	7.9	55	0.00
58	M	2,4-Dinitrotoluene	0.329	0.325	1.2	64	0.00
59	T	Dibenzofuran	1.481	1.402	5.3	69	0.00
60	T	Diethyl phthalate	1.148	1.077	6.2	65	0.00
61	T	Fluorene	1.210	1.116	7.8	66	0.00
62	T	4-Chlorophenyl phenyl ether	0.605	0.543	10.2	67	0.00
63	T	4-Nitroaniline	0.280	0.272	2.9	63	0.00
64		1,2,4,5-Tetrachlorobenzene	0.532	0.505	5.1	71	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	66	0.02
67	T	4,6-Dinitro-2-methylphenol	0.088	0.092	-4.5	67	0.00
68	TC	N-Nitrosodiphenylamine	0.520	0.520	0.0	66	0.00
69	T	1,2-Diphenylhydrazine	0.747	0.778	-4.1	69	0.00
70	S	2,4,6-Tribromophenol	0.170	0.148	12.9	55	0.01
71	T	4-Bromophenyl phenyl ether	0.217	0.207	4.6	64	0.01
72	T	Hexachlorobenzene	0.265	0.239	9.8	61	0.01
73	T	Atrazine	0.169	0.183	-8.3	93	0.00
74	MC	Pentachlorophenol	0.120	0.104	13.3	51	0.02
75	T	Phenanthrene	1.007	0.931	7.5	62	0.01
76	T	Anthracene	1.014	0.996	1.8	66	0.02
77	T	Carbazole	0.923	0.893	3.3	65	0.03
78	T	Di-n-butyl phthalate	1.101	1.092	0.8	64	0.03
79	TC	Fluoranthene	1.026	0.964	6.0	62	0.03
80	T	Benzidine	0.472	0.530	-12.3	136	0.03
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	73	0.03
83	M	Pyrene	1.087	1.039	4.4	65	0.03
84	S	Terphenyl-d14	0.917	0.870	5.1	62	0.04
85	T	3,3'-Dimethylbenzidine	0.498	0.502	-0.8	131	0.03
86	T	Butyl benzyl phthalate	0.447	0.450	-0.7	69	0.04
87	T	3,3'-Dichlorobenzidine	0.320	0.319	0.3	70	0.03
88	T	Benzo[a]anthracene	0.885	0.862	2.6	73	0.03
89	T	Chrysene	0.855	0.854	0.1	75	0.03
90	T	Bis(2-ethylhexyl) phthalate	0.615	0.620	-0.8	68	0.03
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	78	0.03
93	TC	Di-n-octyl phthalate	1.146	1.142	0.3	75	0.02
94	T	Benzo[b]fluoranthene	1.025	0.949	7.4	69	0.02
95	T	Benzo[k]fluoranthene	1.019	1.010	0.9	87	0.01
96	TC	Benzo[a]pyrene	0.823	0.806	2.1	76	0.02
97	T	Indeno[1,2,3-cd]pyrene	1.020	1.091	-7.0	74	0.00
98	T	Dibenz[a,h]anthracene	0.926	0.924	0.2	74	0.00
99	T	Benzo[g,h,i]perylene	0.883	0.840	4.9	72	0.00
100	T	Hydroquinone					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS0810.M Fri Apr 23 13:16:41 2010 RPT1

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS1010.M
Title : BNA CALIBRATION METHOD
Last Update : Thu May 06 13:19:41 2010
Response Via : Initial Calibration

Calibration Files
1 =C1253.D 10 =C1254.D 20 =C1255.D
40 =C1252.D 80 =C1256.D 120 =C1257.D

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD							
2)	T	N-Nitrosodimethyl	0.591	0.523	0.497	0.570	0.511	0.523	0.536	6.81
3)	T	Pyridine	0.679	0.596	0.568	0.567	0.575	0.578	0.594	7.24
4)	S	2-Fluorophenol	1.131	1.146	1.142	1.161	1.145	1.164	1.148	1.08
5)	T	Benzaldehyde	0.731	0.879	0.813	0.719	0.791	0.661	0.766	10.17
6)	S	Phenol-d5	1.221	1.293	1.395	1.414	1.303	1.355	1.330	5.40
7)	MC	Phenol	1.483	1.300	1.155	1.229	1.192	1.115	1.246	10.64
8)	T	Aniline	0.645	0.494	0.504	0.509	0.481	0.463	0.516	12.65
9)	T	Bis(2-chloroethyl	0.812	0.644	0.648	0.694	0.599	0.609	0.668	11.70
10)	M	2-Chlorophenol	1.412	1.170	1.169	1.191	1.075	1.167	1.197	9.41
11)	T	1,3-Dichlorobenze	1.566	1.304	1.276	1.328	1.303	1.318	1.349	7.99
12)	MC	1,4-Dichlorobenze	1.848	1.466	1.411	1.402	1.282	1.293	1.450	14.32
13)	T	Benzyl alcohol	0.782	0.651	0.659	0.757	0.640	0.714	0.700	8.53
14)	T	1,2-Dichlorobenze	1.554	1.466	1.303	1.346	1.319	1.318	1.384	7.39
15)	T	2-Methylphenol	1.111	0.969	0.950	1.012	0.944	0.933	0.987	6.76
16)	T	Bis(2-chloroisopr	1.237	0.973	0.963	0.989	0.904	0.833	0.983	13.91
17)	T	4-Methylphenol	1.264	1.039	0.990	1.043	1.038	1.013	1.064	9.39
18)	MP	N-Nitrosodi-n-pro	0.785	0.679	0.646	0.706	0.654	0.647	0.686	7.81
19)	T	Acetophenone	1.664	1.416	1.336	1.494	1.325	1.305	1.423	9.64
20)	T	3-Methylphenol	1.264	1.038	0.990	1.039	1.035	1.013	1.063	9.44
21)	T	Hexachloroethane	0.498	0.445	0.432	0.454	0.431	0.437	0.450	5.60
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	ISTD							
24)	S	Nitrobenzene-d5	0.308	0.300	0.307	0.290	0.314	0.326	0.307	4.03
25)	T	Nitrobenzene	0.283	0.285	0.260	0.281	0.249	0.268	0.271	5.30
26)	T	Isophorone	0.665	0.492	0.536	0.526	0.485	0.474	0.530	13.32
27)	TC	2-Nitrophenol	0.171	0.165	0.170	0.179	0.176	0.164	0.171	3.46
28)	T	2,4-Dimethylpheno	0.330	0.270	0.299	0.290	0.284	0.260	0.289	8.46
29)	T	Bis(2-chloroethox	0.403	0.324	0.320	0.341	0.300	0.295	0.330	11.84
30)	T	Benzoic acid	0.109	0.118	0.149	0.159	0.142	0.144	0.137	14.07
31)	T	2,4-Dimethylanili	0.453	0.340	0.361	0.374	0.348	0.338	0.369	11.74
32)	TC	2,4-Dichloropheno	0.341	0.282	0.283	0.315	0.259	0.286	0.294	9.85
33)	M	1,2,4-Trichlorobe	0.422	0.327	0.339	0.336	0.328	0.311	0.344	11.48
34)	T	Naphthalene	1.192	0.912	1.034	1.029	0.842	0.926	0.989	12.51
35)	T	4-Chloroaniline	0.628	0.470	0.517	0.525	0.482	0.475	0.516	11.46
36)	T	4-Aminotoluene	1.286	1.036	1.082	1.082	0.944	0.910	1.057	12.58
37)	TC	Hexachlorobutadie	0.261	0.202	0.213	0.214	0.196	0.193	0.213	11.67
38)	T	Caprolactam	0.096	0.084	0.091	0.093	0.087	0.084	0.089	5.31
39)	T	2-Aminotoluene	1.286	1.036	1.082	1.082	0.944	0.910	1.057	12.58
40)	MC	4-Chloro-3-methyl	0.309	0.225	0.257	0.252	0.235	0.231	0.251	12.25
41)	T	2-Methylnaphthale	0.764	0.593	0.643	0.699	0.566	0.548	0.636	13.16
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	ISTD							
44)	TP	Hexachlorocyclope	0.271	0.293	0.329	0.384	0.353	0.367	0.333	13.19
45)	TC	2,4,6-Trichloroph	0.389	0.315	0.348	0.353	0.345	0.336	0.348	6.98
46)	T	2,4,5-Trichloroph	0.408	0.361	0.362	0.405	0.371	0.361	0.378	5.97
47)	S	2-Fluorobiphenyl	1.251	1.330	1.270	1.184	1.280	1.243	1.260	3.81
48)	T	1,1'-Biphenyl	1.613	1.229	1.289	1.365	1.226	1.135	1.309	12.77
49)	T	2-Chloronaphthale	1.190	1.021	0.983	1.011	0.926	0.974	1.017	8.94
50)	T	2-Nitroaniline	0.230	0.194	0.194	0.226	0.193	0.181	0.203	9.96
51)	T	Dimethyl phthalat	1.342	1.124	1.104	1.162	1.083	1.065	1.146	8.86

52)	T	2,6-Dinitrotoluen	0.250	0.229	0.237	0.280	0.235	0.238	0.245	7.55
53)	T	Acenaphthylene	1.885	1.570	1.587	1.702	1.494	1.567	1.634	8.57
54)	T	3-Nitroaniline	0.337	0.296	0.316	0.361	0.299	0.326	0.322	7.58
55)	MC	Acenaphthene	1.203	0.969	0.963	0.961	0.978	0.862	0.989	11.42
56)	TP	2,4-Dinitrophenol	0.097	0.091	0.088	0.122	0.118	0.106	0.104	13.62
57)	MP	4-Nitrophenol	0.278	0.230	0.230	0.260	0.245	0.227	0.245	8.43
58)	M	2,4-Dinitrotoluen	0.303	0.289	0.315	0.340	0.309	0.362	0.320	8.38
59)	T	Dibenzofuran	1.694	1.413	1.421	1.486	1.350	1.316	1.447	9.33
60)	T	Diethyl phthalate	1.227	1.018	1.039	1.064	0.992	0.973	1.052	8.69
61)	T	Fluorene	1.428	1.156	1.168	1.209	1.155	1.076	1.198	10.06
62)	T	4-Chlorophenyl ph	0.745	0.611	0.629	0.657	0.624	0.631	0.649	7.61
63)	T	4-Nitroaniline	0.294	0.258	0.264	0.283	0.279	0.284	0.277	4.92
64)		1,2,4,5-Tetrachlo	0.743	0.617	0.603	0.645	0.577	0.612	0.633	9.21
65)	T	3,5-Dimethylpheno							0.000	-1.00
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.080	0.074	0.080	0.099	0.106	0.100	0.090	14.99
68)	TC	N-Nitrosodiphenyl	0.592	0.473	0.482	0.502	0.464	0.481	0.499	9.48
69)	T	1,2-Diphenylhydra	0.549	0.478	0.476	0.509	0.486	0.536	0.506	6.13
70)	S	2,4,6-Tribromophe	0.179	0.184	0.191	0.192	0.195	0.210	0.192	5.49
71)	T	4-Bromophenyl phe	0.280	0.236	0.233	0.240	0.238	0.252	0.247	7.17
72)	T	Hexachlorobenzene	0.342	0.280	0.283	0.295	0.298	0.301	0.300	7.45
73)	T	Atrazine	0.232	0.180	0.186	0.200	0.170	0.177	0.191	11.90
74)	MC	Pentachlorophenol	0.139	0.127	0.144	0.165	0.164	0.178	0.153	12.60
75)	T	Phenanthrene	1.174	0.935	0.937	0.975	0.887	0.921	0.971	10.64
76)	T	Anthracene	1.165	0.958	0.975	0.975	0.990	1.034	1.016	7.59
77)	T	Carbazole	1.009	0.863	0.876	0.925	0.893	0.848	0.902	6.49
78)	T	Di-n-butyl phthal	1.147	0.938	0.969	1.027	0.969	1.027	1.013	7.37
79)	TC	Fluoranthene	1.232	1.002	1.050	1.081	1.009	1.068	1.074	7.80
80)	T	Benzidine	0.486	0.657	0.597	0.593	0.589	0.572	0.582	9.52
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.089	0.856	0.876	0.915	0.864	0.846	0.908	10.14
84)	S	Terphenyl-d14	0.795	0.780	0.798	0.763	0.790	0.765	0.782	1.91
85)	T	3,3'-Dimethylbenz	0.475	0.574	0.515	0.523	0.540	0.494	0.520	6.69
86)	T	Butyl benzyl phth	0.360	0.320	0.334	0.352	0.322	0.322	0.335	5.14
87)	T	3,3'-Dichlorobenz	0.287	0.390	0.336	0.381	0.390	0.431	0.369	13.66
88)	T	Benzo[a]anthracen	1.105	0.842	0.850	0.905	0.831	0.852	0.898	11.68
89)	T	Chrysene	1.036	0.823	0.812	0.840	0.789	0.788	0.848	11.13
90)	T	Bis(2-ethylhexyl)	0.578	0.485	0.499	0.539	0.498	0.503	0.517	6.77
91)		2-Aminoaniline							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	0.969	0.888	0.938	0.928	0.902	0.886	0.919	3.52
94)	T	Benzo[b]fluoranth	1.050	1.062	0.987	0.982	0.936	1.103	1.020	6.08
95)	T	Benzo[k]fluoranth	1.036	0.843	0.949	0.940	0.990	0.873	0.938	7.64
96)	TC	Benzo[a]pyrene	0.846	0.807	0.794	0.798	0.811	0.833	0.815	2.55
97)	T	Indeno[1,2,3-cd]p	0.999	0.952	0.924	0.977	1.058	1.052	0.993	5.40
98)	T	Dibenz[a,h]anthra	0.806	0.792	0.776	0.826	0.879	0.884	0.827	5.47
99)	T	Benzo[g,h,i]peryl	0.850	0.753	0.758	0.815	0.865	0.888	0.822	6.88
100)	T	Hydroquinone							0.000	-1.00
101)		2-Picoline							0.000	-1.00

(#) = Out of Range

CS1010.M Thu May 06 13:19:54 2010 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1265.D
Acq On : 6 May 2010 13:34
Operator : EDM
Sample : ABN054.10,40ngBNAchk_FOR_05/06/10
Misc :
ALS Vial : 97 Sample Multiplier: 1

Quant Time: May 06 13:46:03 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
2	T	N-Nitrosodimethylamine	0.536	0.569	-6.2	102	0.00
3	T	Pyridine	0.594	0.559	5.9	101	0.00
4	S	2-Fluorophenol	1.148	1.169	-1.8	103	0.00
5	T	Benzaldehyde	0.766	0.622	18.8	108	0.00
6	S	Phenol-d5	1.330	1.418	-6.6	103	0.00
7	MC	Phenol	1.246	1.222	1.9	102	0.00
8	T	Aniline	0.516	0.495	4.1	100	0.00
9	T	Bis(2-chloroethyl) ether	0.668	0.691	-3.4	102	0.00
10	M	2-Chlorophenol	1.197	1.156	3.4	100	0.00
11	T	1,3-Dichlorobenzene	1.349	1.316	2.4	102	0.00
12	MC	1,4-Dichlorobenzene	1.450	1.387	4.3	101	0.00
13	T	Benzyl alcohol	0.700	0.761	-8.7	103	0.00
14	T	1,2-Dichlorobenzene	1.384	1.349	2.5	103	0.00
15	T	2-Methylphenol	0.987	0.999	-1.2	101	0.00
16	T	Bis(2-chloroisopropyl) ethe	0.983	0.973	1.0	101	0.00
17	T	4-Methylphenol	1.064	1.025	3.7	101	0.00
18	MP	N-Nitrosodi-n-propylamine	0.686	0.679	1.0	99	0.00
19	T	Acetophenone	1.423	1.473	-3.5	101	0.00
20	T	3-Methylphenol	1.063	1.026	3.5	101	0.00
21	T	Hexachloroethane	0.450	0.445	1.1	101	0.00
22	T	2,6-Dimethylphenol					
23	I	Naphthalene-d8	1.000	1.000	0.0	101	0.00
24	S	Nitrobenzene-d5	0.307	0.284	7.5	99	0.00
25	T	Nitrobenzene	0.271	0.280	-3.3	101	0.00
26	T	Isophorone	0.530	0.522	1.5	101	0.00
27	TC	2-Nitrophenol	0.171	0.175	-2.3	99	0.00
28	T	2,4-Dimethylphenol	0.289	0.284	1.7	99	0.00
29	T	Bis(2-chloroethoxy) methane	0.330	0.341	-3.3	101	0.00
30	T	Benzoic acid	0.137	0.161	-17.5	102	-0.01
31	T	2,4-Dimethylaniline	0.369	0.368	0.3	100	0.00
32	TC	2,4-Dichlorophenol	0.294	0.314	-6.8	101	0.00
33	M	1,2,4-Trichlorobenzene	0.344	0.352	-2.3	106	0.00
34	T	Naphthalene	0.989	1.016	-2.7	100	0.00
35	T	4-Chloroaniline	0.516	0.521	-1.0	100	0.00
36	T	4-Aminotoluene	1.057	1.078	-2.0	101	0.00
37	TC	Hexachlorobutadiene	0.213	0.212	0.5	100	0.00
38	T	Caprolactam	0.089	0.090	-1.1	98	-0.02
39	T	2-Aminotoluene	1.057	1.078	-2.0	101	0.00
40	MC	4-Chloro-3-methylphenol	0.251	0.264	-5.2	106	0.00
41	T	2-Methylnaphthalene	0.636	0.659	-3.6	95	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	100	0.00
44	TP	Hexachlorocyclopentadiene	0.333	0.348	-4.5	90	0.00
45	TC	2,4,6-Trichlorophenol	0.348	0.361	-3.7	102	0.00

46	T	2,4,5-Trichlorophenol	0.378	0.398	-5.3	98	0.00
47	S	2-Fluorobiphenyl	1.260	1.222	3.0	103	0.00
48	T	1,1'-Biphenyl	1.309	1.304	0.4	95	0.00
49	T	2-Chloronaphthalene	1.017	1.067	-4.9	105	0.00
50	T	2-Nitroaniline	0.203	0.193	4.9	85	0.00
51	T	Dimethyl phthalate	1.146	1.148	-0.2	99	0.00
52	T	2,6-Dinitrotoluene	0.245	0.252	-2.9	90	0.00
53	T	Acenaphthylene	1.634	1.618	1.0	95	0.00
54	T	3-Nitroaniline	0.322	0.321	0.3	89	0.00
55	MC	Acenaphthene	0.989	1.011	-2.2	105	0.00
56	TP	2,4-Dinitrophenol	0.104	0.103	1.0	84	0.00
57	MP	4-Nitrophenol	0.245	0.254	-3.7	97	0.00
58	M	2,4-Dinitrotoluene	0.320	0.331	-3.4	97	0.00
59	T	Dibenzofuran	1.447	1.515	-4.7	102	0.00
60	T	Diethyl phthalate	1.052	1.098	-4.4	103	0.00
61	T	Fluorene	1.198	1.256	-4.8	104	0.00
62	T	4-Chlorophenyl phenyl ether	0.649	0.672	-3.5	102	0.00
63	T	4-Nitroaniline	0.277	0.295	-6.5	104	0.00
64		1,2,4,5-Tetrachlorobenzene	0.633	0.667	-5.4	103	0.00
65	T	3,5-Dimethylphenol					
66	I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00
67	T	4,6-Dinitro-2-methylphenol	0.090	0.091	-1.1	92	-0.01
68	TC	N-Nitrosodiphenylamine	0.499	0.489	2.0	98	0.00
69	T	1,2-Diphenylhydrazine	0.506	0.534	-5.5	105	0.00
70	S	2,4,6-Tribromophenol	0.192	0.205	-6.8	107	0.00
71	T	4-Bromophenyl phenyl ether	0.247	0.249	-0.8	104	0.00
72	T	Hexachlorobenzene	0.300	0.297	1.0	101	-0.01
73	T	Atrazine	0.191	0.198	-3.7	100	0.00
74	MC	Pentachlorophenol	0.153	0.164	-7.2	100	-0.01
75	T	Phenanthrene	0.971	0.975	-0.4	100	0.00
76	T	Anthracene	1.016	0.985	3.1	101	-0.01
77	T	Carbazole	0.902	0.897	0.6	97	-0.01
78	T	Di-n-butyl phthalate	1.013	1.014	-0.1	99	0.00
79	TC	Fluoranthene	1.074	1.080	-0.6	100	0.00
80	T	Benzidine	0.582	0.477	18.0	100	0.00
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	96	0.00
83	M	Pyrene	0.908	0.960	-5.7	100	0.00
84	S	Terphenyl-d14	0.782	0.773	1.2	97	0.00
85	T	3,3'-Dimethylbenzidine	0.520	0.426	18.1	103	0.00
86	T	Butyl benzyl phthalate	0.335	0.350	-4.5	95	0.00
87	T	3,3'-Dichlorobenzidine	0.369	0.345	6.5	87	0.00
88	T	Benzo[a]anthracene	0.898	0.905	-0.8	95	0.00
89	T	Chrysene	0.848	0.855	-0.8	97	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.517	0.538	-4.1	95	0.00
91		2-Aminoaniline					
92	I	Perylene-d12	1.000	1.000	0.0	93	0.00
93	TC	Di-n-octyl phthalate	0.919	0.928	-1.0	93	0.00
94	T	Benzo[b]fluoranthene	1.020	1.044	-2.4	99	0.00
95	T	Benzo[k]fluoranthene	0.938	0.914	2.6	91	0.00
96	TC	Benzo[a]pyrene	0.815	0.801	1.7	94	0.00
97	T	Indeno[1,2,3-cd]pyrene	0.993	0.993	0.0	95	-0.01
98	T	Dibenz[a,h]anthracene	0.827	0.832	-0.6	94	-0.01
99	T	Benzo[g,h,i]perylene	0.822	0.815	0.9	93	-0.01
100	T	Hydroquinone					
101		2-Picoline					

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS1010.M Thu May 06 13:59:23 2010 RPT1

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 04/23/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
Method_Blank	SOIL	C0789.D	74	80	74	76	56	70
LCS	SOIL	C0790.D	84	90	104	98	70	82
MS03758-006)	SOIL	C0791.D	58	64	51	58	67	76
MSD03758-006)	SOIL	C0792.D	N/A	66	49	57	66	74
03758-001	SOIL	C0793.D	N/A	N/A	47	55	N/A	54
03758-002	SOIL	C0794.D	N/A	N/A	41	48	N/A	64
03758-003	SOIL	C0795.D	N/A	N/A	36	43	N/A	58
03758-004	SOIL	C0796.D	N/A	N/A	42	50	N/A	61
03758-005	SOIL	C0797.D	N/A	N/A	45	54	N/A	50
03758-006	SOIL	C0798.D	N/A	N/A	33	41	N/A	49
03758-007	SOIL	C0799.D	N/A	N/A	41	51	N/A	58

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 04/23/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
Method_Blank	SOIL	C0800.D	81	77	87	96	67	95
LCS	SOIL	C0801.D	74	72	85	96	65	81
MS(03683-002)	SOIL	C0802.D	67	72	48	56	78	62
MSD(03683-002)	SOIL	C0803.D	68	72	48	57	77	62
03691-001	SOIL	C0804.D	75	72	38	50	77	49
03691-002	SOIL	C0805.D	74	74	50	64	84	58
03691-003	SOIL	C0806.D	72	77	49	64	85	62
03691-004	SOIL	C0807.D	67	70	46	61	82	57
03691-005	SOIL	C0808.D	64	65	45	57	71	52
03691-006	SOIL	C0809.D	67	70	46	58	74	49
03691-007	SOIL	C0810.D	58	58	42	54	65	51
03691-008	SOIL	C0811.D	59	62	53	65	70	63
03691-009	SOIL	C0812.D	65	65	56	66	69	63
03690-021	SOIL	C0813.D	62	61	42	51	65	49
03690-022	SOIL	C0814.D	62	62	40	56	74	50
03690-023	SOIL	C0815.D	70	74	46	60	87	54
03530-002	SOIL	C0816.D	N/A	N/A	47	60	N/A	53
03683-002	SOIL	C0817.D	N/A	N/A	34	53	N/A	53
03683-004	SOIL	C0818.D	N/A	N/A	48	60	N/A	56

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 05/06/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
Method_Blank	SOIL	C1272.D	54	68	65	76	60	78
LCS	SOIL	C1273.D	60	67	78	77	68	83
04018-003	SOIL	C1274.D	N/A	N/A	70	77	N/A	88
04018-013	SOIL	C1275.D	N/A	N/A	52	64	N/A	62
04018-014	SOIL	C1276.D	N/A	N/A	44	54	N/A	52
03895-002	SOIL	C1277.D	N/A	N/A	62	76	N/A	81
04230-001	SOIL	C1278.D	N/A	N/A	62	79	N/A	86

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SOIL SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 03758-006 Batch No.: c042310s

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	100.0	0.0	70.1	70	35 - 116
2-Chlorophenol	100.0	0.0	64.9	65	37 - 112
1,4-Dichlorobenzene	50.0	0.0	28.0	56	29 - 102
N-Nitrosodi-n-propylamine	50.0	0.0	34.0	68	38 - 119
1,2,4-Trichlorobenzene	50.0	0.0	30.8	62	33 - 100
4-Chloro-3-methylphenol	100.0	0.0	84.2	84	42 - 118
Acenaphthene	50.0	0.0	38.8	78	20 - 132
4-Nitrophenol	100.0	0.0	80.4	80	31 - 123
2,4-Dinitrotoluene	50.0	0.0	36.5	73	24 - 130
Pentachlorophenol	100.0	0.0	90.7	91	29 - 113
Pyrene	50.0	2.5	58.3	112	31 - 133

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	#	MSD % REC	% RPD	#	QC LIMITS RPD	REC.
Phenol	0.0	75.2		75	7		14	35 - 116
2-Chlorophenol	0.0	65.9		66	2		13	37 - 112
1,4-Dichlorobenzene	0.0	28.7		57	2		14	29 - 102
N-Nitrosodi-n-propylamine	0.0	34.7		69	1		14	38 - 119
1,2,4-Trichlorobenzene	0.0	30.7		61	2		12	33 - 100
4-Chloro-3-methylphenol	0.0	84.1		84	0		13	42 - 118
Acenaphthene	0.0	38.7		77	1		22	20 - 132
4-Nitrophenol	0.0	78.1		78	3		18	31 - 123
2,4-Dinitrotoluene	0.0	34.1		68	7		26	24 - 130
Pentachlorophenol	0.0	89.9		90	1		19	29 - 113
Pyrene	2.5	55.0		105	6		17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0484.D

Date Analyzed: 04/13/2010

Instrument ID: MSDC

Time Analyzed: 14:30

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	116820		2.43		475072		2.97		321494		3.77	
	UPPER LIMIT	233640		2.93		950144		3.47		642988		4.27	
	LOWER LIMIT	58410		1.93		237536		2.47		160747		3.27	
	LAB SAMPLE ID												
01	1ngBNA_FOR_04/13	87561		2.43		345184		2.97		218310		3.76	
02	10ngBNA_FOR_04/1	87228		2.43		378196		2.97		241380		3.76	
03	20ngBNA_FOR_04/1	67613		2.43		288575		2.97		195584		3.76	
04	80ngBNA_FOR_04/1	104896		2.43		414541		2.97		249701		3.76	
05	120ngBNA_FOR_04/	87343		2.43		358135		2.97		224500		3.76	
06	40ngBNAchk_FOR_0	92269		2.43		383475		2.97		240058		3.75	
07	10ngOLMO4_FOR_0	81321		2.43		327783		2.97		202495		3.75	
08	20ngOLMO4_FOR_0	95904		2.43		383354		2.97		234316		3.75	
09	1ngOLMO4_FOR_04	86254		2.43		340698		2.97		210091		3.75	
10	40ngOLMO4_FOR_0	76906		2.43		314137		2.97		200283		3.75	
11	80ngOLMO4_FOR_0	92710		2.43		366603		2.97		229705		3.75	
12	120ngOLMO4_FOR_	101430		2.43		409094		2.97		260235		3.75	
13	40ngOLMO4chk_FOI	97256		2.43		410098		2.97		275202		3.75	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

0032

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0484.D

Date Analyzed: 04/13/2010

Instrument ID: MSDC

Time Analyzed: 14:30

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	541912		4.52		464819		6.25		340571		7.54	
	UPPER LIMIT	1083824		5.02		929638		6.75		681142		8.04	
	LOWER LIMIT	270956		4.02		232410		5.75		170286		7.04	
	LAB SAMPLE ID												
01	1ngBNA_FOR_04/13	393119		4.50		430963		6.22		323879		7.51	
02	10ngBNA_FOR_04/1	447574		4.49		489043		6.21		335079		7.50	
03	20ngBNA_FOR_04/1	366534		4.50		411575		6.22		309598		7.51	
04	80ngBNA_FOR_04/1	411473		4.49		315220		6.21		239129		7.50	
05	120ngBNA_FOR_04/	377576		4.49		327744		6.21		239579		7.50	
06	40ngBNAchk_FOR_0	419331		4.47		428813		6.19		292093		7.49	
07	10ngOLMO4_FOR_0	338939		4.47		360544		6.19		235119		7.47	
08	20ngOLMO4_FOR_0	401170		4.47		413502		6.19		251376		7.48	
09	1ngOLMO4_FOR_04	357093		4.47		353207		6.19		267562		7.49	
10	40ngOLMO4_FOR_0	381057		4.47		421849		6.19		234960		7.47	
11	80ngOLMO4_FOR_0	390645		4.46		376321		6.17		211651		7.47	
12	120ngOLMO4_FOR_	446340		4.46		396644		6.17		239106		7.47	
13	40ngOLMO4chk_FOI	495426		4.46		493289		6.17		261080		7.47	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

0033

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0777.D

Date Analyzed: 04/23/2010

Instrument ID: MSDC

Time Analyzed: 11:42

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	86318		2.43		345899		2.97		217480		3.77	
	UPPER LIMIT	172636		2.93		691798		3.47		434960		4.27	
	LOWER LIMIT	43159		1.93		172950		2.47		108740		3.27	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	126645		2.43		516342		2.97		306327		3.76	
02	03590-001	110384		2.43		471382		2.97		252863		3.77	
03	03590-002	122781		2.43		518964		2.97		277108		3.76	
04	03605-003	144572		2.43		568821		2.97		318297		3.76	
05	03605-004	129562		2.43		502822		2.97		275236		3.76	
06	03605-005	128660		2.43		503703		2.97		279537		3.75	
07	03605-006	121559		2.43		480782		2.97		266748		3.75	
08	03484-001	125718		2.43		535925		2.97		305283		3.75	
09	Method_Blank	119496		2.43		469507		2.97		258355		3.75	
10	LCS	114712		2.43		463541		2.97		245861		3.75	
11	03684-001	99738		2.43		393753		2.97		221079		3.76	
12	Method_Blank	85452		2.43		348089		2.97		189968		3.75	
13	LCS	94633		2.43		384345		2.97		201202		3.74	
14	MS03758-006)	103845		2.42		403926		2.96		238647		3.74	
15	MSD03758-006)	69404		2.42		286944		2.96		171705		3.74	
16	03758-001	87161		2.43		378092		2.96		219819		3.74	
17	03758-002	101985		2.43		431941		2.96		249210		3.74	
18	03758-003	79708		2.43		331791		2.97		190181		3.74	
19	03758-004	106371		2.43		426244		2.96		250002		3.74	
20	03758-005	84996		2.43		345034		2.96		197443		3.74	
21	03758-006	106488		2.43		444299		2.96		251153		3.73	
22	03758-007	105750		2.43		443613		2.96		253548		3.73	

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0777.D

Date Analyzed: 04/23/2010

Instrument ID: MSDC

Time Analyzed: 11:42

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	356034		4.51		339390		6.24		265903		7.52	
	UPPER LIMIT	712068		5.01		678780		6.74		531806		8.02	
	LOWER LIMIT	178017		4.01		169695		5.74		132952		7.02	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	514710		4.51		532800		6.24		418358		7.52	
02	03590-001	341235		4.52		317767		6.25		245280		7.57	
03	03590-002	393964		4.49		373342		6.22		283236		7.52	
04	03605-003	448508		4.50		418356		6.23		321515		7.54	
05	03605-004	386752		4.50		355824		6.23		261413		7.53	
06	03605-005	396626		4.47		362318		6.20		279411		7.50	
07	03605-006	375400		4.47		356856		6.19		274009		7.49	
08	03484-001	412632		4.47		367722		6.19		278941		7.50	
09	Method_Blank	353826		4.46		308605		6.19		239283		7.49	
10	LCS	347840		4.46		317998		6.18		256066		7.47	
11	03684-001	319172		4.49		296992		6.21		276032		7.51	
12	Method_Blank	261674		4.47		232331		6.20		213885		7.49	
13	LCS	281868		4.46		261276		6.17		213393		7.48	
14	MS03758-006)	356518		4.46		239869		6.18		224775		7.46	
15	MSD03758-006)	267103		4.46		195136		6.18		181498		7.47	
16	03758-001	308481		4.46		233901		6.18		263409		7.46	
17	03758-002	371925		4.45		288595		6.17		288902		7.46	
18	03758-003	270998		4.45		211526		6.17		210119		7.45	
19	03758-004	348615		4.45		258874		6.17		251032		7.44	
20	03758-005	277248		4.44		243472		6.16		247764		7.44	
21	03758-006	347854		4.44		289665		6.15		283208		7.45	
22	03758-007	372816		4.44		294700		6.16		288794		7.44	

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0777.D

Date Analyzed: 04/23/2010

Instrument ID: MSDC

Time Analyzed: 11:42

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	86318	2.43	345899	2.97	217480	3.77
	UPPER LIMIT	172636	2.93	691798	3.47	434960	4.27
	LOWER LIMIT	43159	1.93	172950	2.47	108740	3.27
	LAB SAMPLE ID						
01	Method_Blank	98437	2.42	402170	2.97	239696	3.73
02	LCS	116153	2.42	468754	2.96	264847	3.73
03	MS(03683-002)	124930	2.42	497741	2.96	299551	3.73
04	MSD(03683-002)	134197	2.42	531875	2.96	316013	3.73
05	03691-001	119350	2.42	487301	2.96	284107	3.74
06	03691-002	153171	2.42	595729	2.96	329558	3.74
07	03691-003	123514	2.42	504730	2.96	294359	3.74
08	03691-004	126231	2.42	492078	2.96	276061	3.74
09	03691-005	128767	2.42	507020	2.96	285504	3.74
10	03691-006	155629	2.42	685179	2.96	367490	3.74
11	03691-007	126997	2.42	500811	2.96	290945	3.74
12	03691-008	117635	2.42	458772	2.96	267316	3.74
13	03691-009	113979	2.42	434856	2.96	253675	3.74
14	03690-021	113580	2.42	437214	2.96	253389	3.74
15	03690-022	135077	2.42	518861	2.96	292301	3.74
16	03690-023	128059	2.42	494225	2.96	282365	3.73
17	03530-002	112854	2.42	494431	2.96	314665	3.74
18	03683-002	106022	2.43	446954	2.96	254590	3.73
19	03683-004	114141	2.43	457468	2.96	251996	3.74
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C0777.D

Date Analyzed: 04/23/2010

Instrument ID: MSDC

Time Analyzed: 11:42

	50UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	356034	4.51	339390	6.24	265903	7.52
	UPPER LIMIT	712068	5.01	678780	6.74	531806	8.02
	LOWER LIMIT	178017	4.01	169695	5.74	132952	7.02
	LAB SAMPLE ID						
01	Method_Blank	362355	4.44	306133	6.15	295063	7.44
02	LCS	384233	4.43	316654	6.15	311721	7.44
03	MS(03683-002)	432908	4.43	329690	6.15	324896	7.43
04	MSD(03683-002)	462517	4.44	365342	6.16	356098	7.44
05	03691-001	398537	4.44	324398	6.15	336011	7.45
06	03691-002	446965	4.46	438998	6.17	472418	7.48
07	03691-003	394666	4.46	344455	6.18	370561	7.46
08	03691-004	394936	4.45	368037	6.17	406857	7.45
09	03691-005	372939	4.45	345661	6.17	358425	7.45
10	03691-006	445696	4.44	399857	6.15	423011	7.45
11	03691-007	391872	4.44	358246	6.16	372640	7.44
12	03691-008	371939	4.44	353234	6.16	362225	7.44
13	03691-009	363088	4.45	339030	6.16	358629	7.46
14	03690-021	354753	4.44	342354	6.16	348883	7.45
15	03690-022	401789	4.46	396971	6.18	410347	7.47
16	03690-023	374494	4.43	372300	6.15	389924	7.44
17	03530-002	383763	4.45	360302	6.16	375264	7.45
18	03683-002	364197	4.44	346148	6.15	360758	7.44
19	03683-004	344888	4.44	336964	6.16	356937	7.45
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1252.D

Date Analyzed: 05/06/2010

Instrument ID: MSDC

Time Analyzed: 10:01

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	188877		2.10		668520		2.63		435065		3.40	
	UPPER LIMIT	377754		2.60		1337040		3.13		870130		3.90	
	LOWER LIMIT	94439		1.60		334260		2.13		217533		2.90	
	LAB SAMPLE ID												
01	1ngBNA_FOR_05/06/	204158		2.10		720337		2.63		473781		3.40	
02	10ngBNA_FOR_05/0	180716		2.10		669276		2.63		429173		3.40	
03	20ngBNA_FOR_05/0	197183		2.10		695745		2.63		466842		3.40	
04	80ngBNA_FOR_05/0	183252		2.10		673895		2.64		441422		3.41	
05	120ngBNA_FOR_05/	170409		2.10		623646		2.64		401712		3.40	
06	1ngOLMO4_FOR_05	172391		2.10		623124		2.63		391248		3.39	
07	10ngOLMO4_FOR_0	176729		2.10		653553		2.63		409668		3.40	
08	20ngOLMO4_FOR_0	179673		2.10		654659		2.63		425549		3.39	
09	40ngOLMO4_FOR_0	218684		2.10		800070		2.63		488970		3.39	
10	80ngOLMO4_FOR_0	175235		2.10		632390		2.63		398700		3.40	
11	120ngOLMO4_FOR_	190326		2.10		686549		2.63		440446		3.40	
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1252.D

Date Analyzed: 05/06/2010

Instrument ID: MSDC

Time Analyzed: 10:01

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	780803	4.10	918913	5.61	729615	6.69
	UPPER LIMIT	1561606	4.60	1837826	6.11	1459230	7.19
	LOWER LIMIT	390402	3.60	459457	5.11	364808	6.19
	LAB SAMPLE ID						
01	1ngBNA_FOR_05/06	847830	4.11	1035595	5.62	787944	6.71
02	10ngBNA_FOR_05/0	768481	4.10	924213	5.59	704505	6.68
03	20ngBNA_FOR_05/0	845233	4.10	1015537	5.62	738386	6.70
04	80ngBNA_FOR_05/0	773785	4.12	909063	5.64	682690	6.71
05	120ngBNA_FOR_05/	677583	4.10	839897	5.60	658306	6.69
06	1ngOLMO4_FOR_05	682559	4.08	830566	5.55	694157	6.66
07	10ngOLMO4_FOR_0	742162	4.10	964385	5.60	701366	6.69
08	20ngOLMO4_FOR_0	774464	4.08	949655	5.55	672502	6.65
09	40ngOLMO4_FOR_0	926716	4.09	1127207	5.57	699564	6.67
10	80ngOLMO4_FOR_0	724447	4.10	862075	5.60	627160	6.69
11	120ngOLMO4_FOR_	764742	4.09	917150	5.59	709272	6.68
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1265.D

Date Analyzed: 05/06/2010

Instrument ID: MSDC

Time Analyzed: 13:34

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	193728	2.10	677399	2.63	433741	3.40
	UPPER LIMIT	387456	2.60	1354798	3.13	867482	3.90
	LOWER LIMIT	96864	1.60	338700	2.13	216871	2.90
	LAB SAMPLE ID						
01	40ngOLMO4chk_FOF	235106	2.10	822374	2.63	523586	3.40
02	04140-004	217817	2.10	833286	2.63	552924	3.40
03	04140-006	228516	2.10	846514	2.63	562902	3.39
04	04140-008	213386	2.10	840493	2.63	523959	3.40
05	04140-010	197945	2.10	744993	2.63	513432	3.40
06	04110-001	207675	2.10	731484	2.63	491287	3.40
07	Method_Blank	194601	2.10	762985	2.63	488252	3.39
08	LCS	184475	2.10	659336	2.63	451032	3.39
09	04018-003	140077	2.10	526252	2.63	331121	3.40
10	04018-013	179457	2.10	644098	2.63	393626	3.39
11	04018-014	159272	2.10	562626	2.63	354490	3.40
12	03895-002	153336	2.10	542300	2.63	329243	3.39
13	04230-001	138443	2.10	513970	2.63	319924	3.39
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C1265.D

Date Analyzed: 05/06/2010

Instrument ID: MSDC

Time Analyzed: 13:34

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	783477		4.11		877610		5.64		679488		6.71	
	UPPER LIMIT	1566954		4.61		1755220		6.14		1358976		7.21	
	LOWER LIMIT	391739		3.61		438805		5.14		339744		6.21	
	LAB SAMPLE ID												
01	40ngOLMO4chk_FOF	969984		4.11		1163855		5.63		714906		6.70	
02	04140-004	977367		4.09		1051778		5.58		768094		6.68	
03	04140-006	980855		4.07		1120343		5.54		849578		6.65	
04	04140-008	938982		4.10		1045587		5.61		796178		6.69	
05	04140-010	890738		4.09		983472		5.59		757178		6.68	
06	04110-001	855937		4.09		894165		5.56		737588		6.67	
07	Method_Blank	902215		4.08		1063175		5.55		829232		6.67	
08	LCS	804315		4.07		913887		5.55		617714		6.66	
09	04018-003	566706		4.08		568430		5.54		504393		6.65	
10	04018-013	596803		4.07		681554		5.54		630804		6.68	
11	04018-014	545571		4.11		697941		5.63		621475		6.73	
12	03895-002	555029		4.06		590612		5.51		563978		6.63	
13	04230-001	523088		4.06		548736		5.51		521550		6.63	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1278.D
Acq On : 6 May 2010 16:59
Operator : EDM
Sample : L8-D2_DUP/2-,04230-001,S,15.10g,20.9,05/06/10
Misc : PENNJERSEY/PALMER,05/05/10,05/05/10,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: May 07 09:39:46 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration

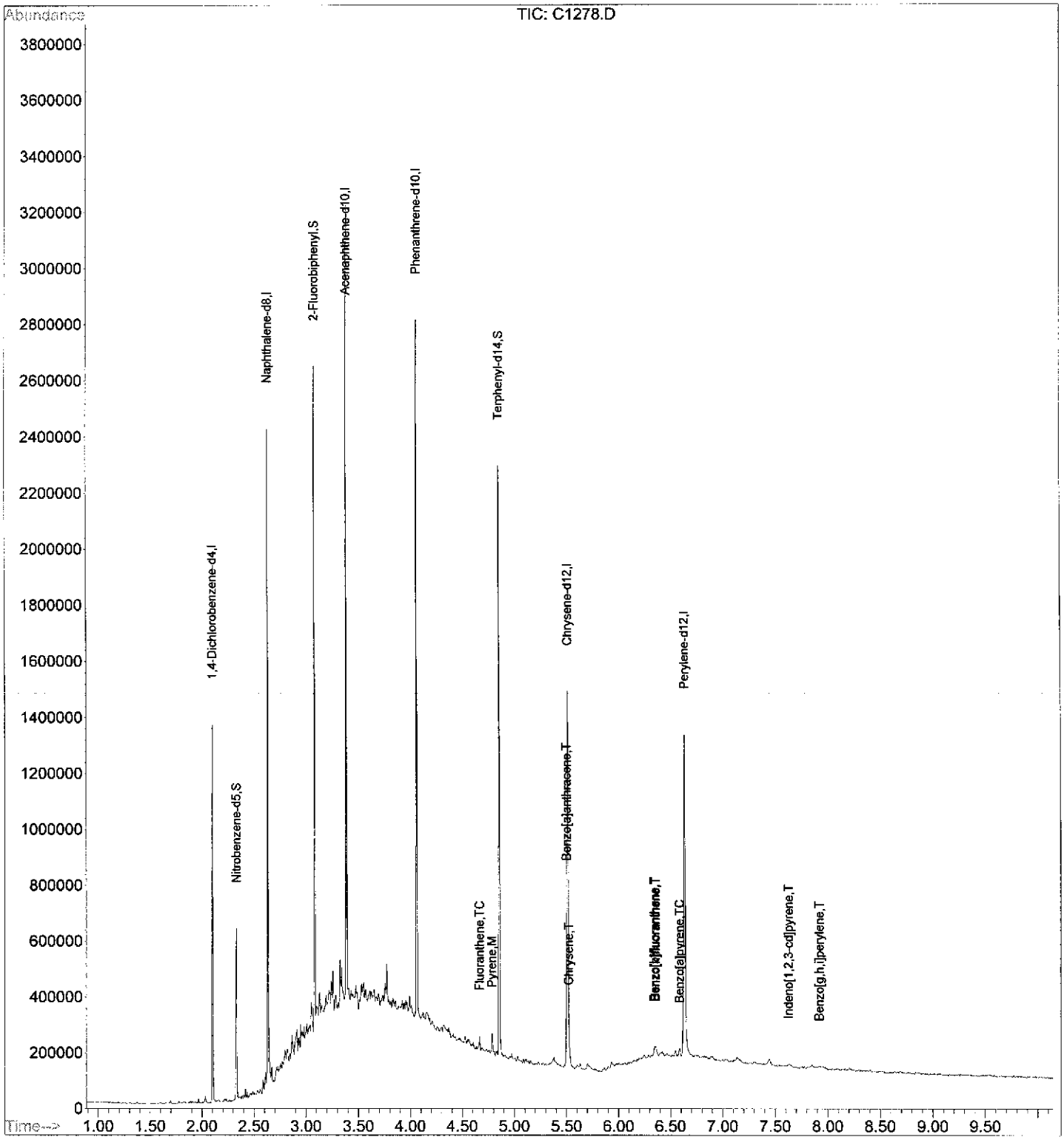
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.10	152	138443	40.00	UG	0.00
23) Naphthalene-d8	2.63	136	513970	40.00	UG	0.00
43) Acenaphthene-d10	3.39	164	319924	40.00	UG	-0.02
66) Phenanthrene-d10	4.06	188	523088	40.00	UG	-0.06
82) Chrysene-d12	5.51	240	548736	40.00	UG	-0.13
92) Perylene-d12	6.63	264	521550	40.00	UG	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 108		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 34 - 107		Recovery =	0.00%#		
24) Nitrobenzene-d5	2.33	82	123190	31.19	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery =	62.38%		
47) 2-Fluorobiphenyl	3.08	172	395909	39.29	UG	-0.01
Spiked Amount 50.000	Range 32 - 128		Recovery =	78.58%		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 32 - 126		Recovery =	0.00%#		
84) Terphenyl-d14	4.85	244	463764	43.23	UG	-0.11
Spiked Amount 50.000	Range 32 - 135		Recovery =	86.46%		
Target Compounds						Qvalue
79) Fluoranthene	4.67	202	13393m	0.95	UG	
83) Pyrene	4.79	202	22463	1.80	UG	# 84
88) Benzo[a]anthracene	5.50	228	11475	0.93	UG	# 84
89) Chrysene	5.53	228	11540	0.99	UG	# 91
94) Benzo[b]fluoranthene	6.34	252	11926m	0.90	UG	
95) Benzo[k]fluoranthene	6.36	252	10987m	0.90	UG	
96) Benzo[a]pyrene	6.59	252	10748	1.01	UG	# 91
97) Indeno[1,2,3-cd]pyrene	7.63	276	8702	0.67	UG	# 63
99) Benzo[g,h,i]perylene	7.93	276	7928	0.74	UG	# 48

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1278.D
Acq On : 6 May 2010 16:59
Operator : EDM
Sample : L8-D2_DUP/2-,04230-001,S,15.10g,20.9,05/06/10
Misc : PENNJERSEY/PALMER,05/05/10,05/05/10,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: May 07 09:39:46 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-23-10\
Data File : C0789.D
Acq On : 23 Apr 2010 15:11
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,04/23/10
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 23 15:23:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS0810.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Apr 14 12:05:26 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.43	152	85452	40.00	UG	0.00
23) Naphthalene-d8	2.97	136	348089	40.00	UG	0.00
43) Acenaphthene-d10	3.75	164	189968	40.00	UG	-0.02
66) Phenanthrene-d10	4.47	188	261674	40.00	UG	-0.02
82) Chrysene-d12	6.20	240	232331	40.00	UG	-0.01
92) Perylene-d12	7.49	264	213885	40.00	UG	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	1.92	112	200859m	73.96	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 73.96%			
6) Phenol-d5	2.26	99	310184	79.54	UG	-0.01
Spiked Amount 100.000	Range 34 - 107		Recovery = 79.54%			
24) Nitrobenzene-d5	2.66	82	132863	36.91	UG	0.00
Spiked Amount 50.000	Range 26 - 104		Recovery = 73.82%			
47) 2-Fluorobiphenyl	3.42	172	226219	37.89	UG	0.00
Spiked Amount 50.000	Range 32 - 128		Recovery = 75.78%			
70) 2,4,6-Tribromophenol	4.13	330	62092	55.79	UG	-0.02
Spiked Amount 100.000	Range 32 - 126		Recovery = 55.79%			
84) Terphenyl-d14	5.32	244	186732	35.07	UG	-0.02
Spiked Amount 50.000	Range 32 - 135		Recovery = 70.14%			

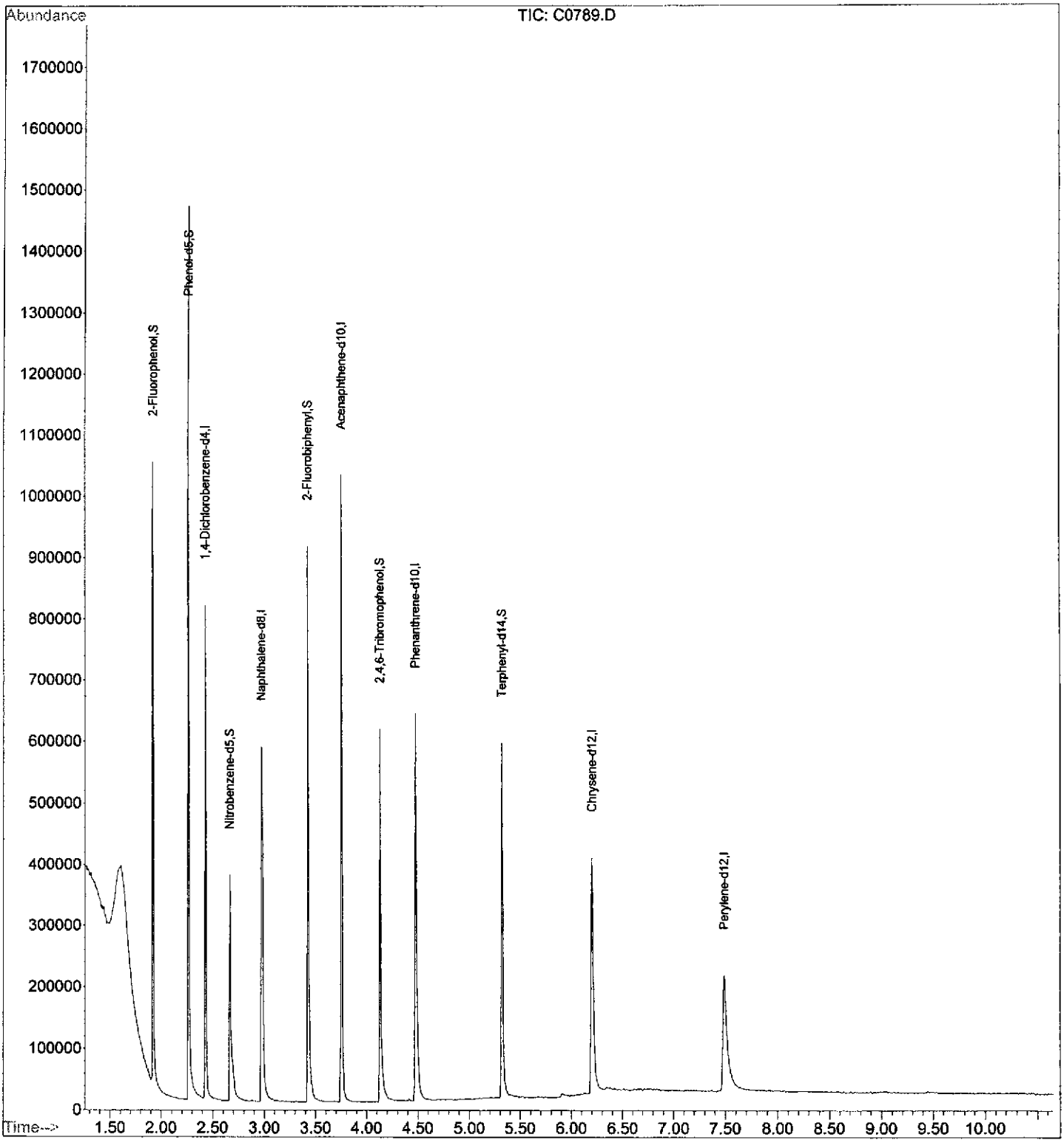
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\04-23-10\
Data File : C0789.D
Acq On : 23 Apr 2010 15:11
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,04/23/10
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 23 15:23:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS0810.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Wed Apr 14 12:05:26 2010
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\04-23-10\
Data File : C0789.D
Acq On : 23 Apr 2010 15:11
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,04/23/10
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS0810.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS0810.M Fri Apr 23 15:23:43 2010 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1272.D
Acq On : 6 May 2010 15:24
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,05/06/10
Misc : NA,NA,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 06 15:35:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration

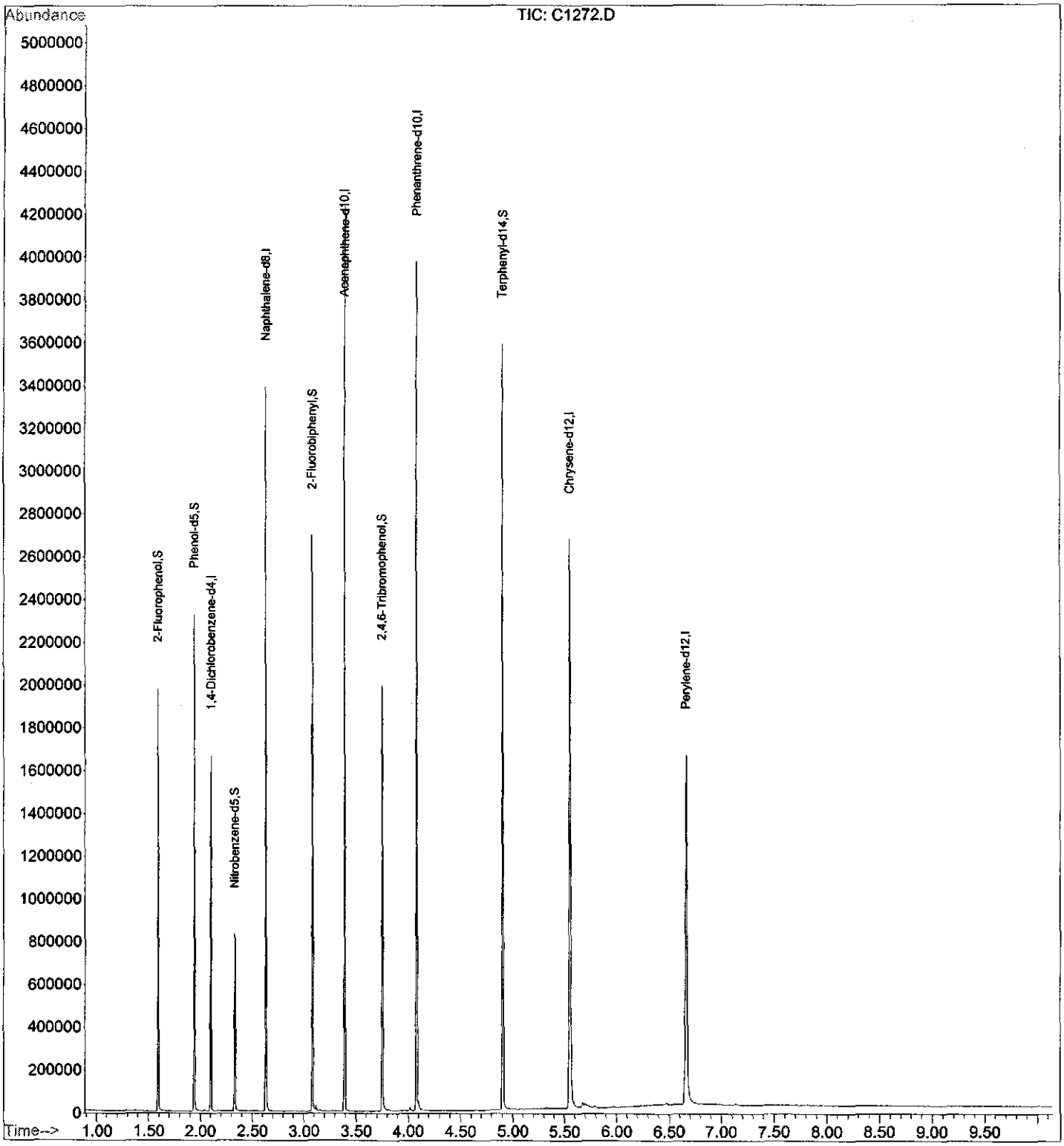
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.10	152	194601	40.00	UG	0.00
23) Naphthalene-d8	2.63	136	762985	40.00	UG	0.00
43) Acenaphthene-d10	3.39	164	488252	40.00	UG	-0.02
66) Phenanthrene-d10	4.08	188	902215	40.00	UG	-0.04
82) Chrysene-d12	5.55	240	1063175	40.00	UG	-0.09
92) Perylene-d12	6.67	264	829232	40.00	UG	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	1.59	112	300958	53.88	UG	0.00
Spiked Amount 100.000	Range 28 - 108		Recovery = 53.88%			
6) Phenol-d5	1.94	99	441424	68.22	UG	0.00
Spiked Amount 100.000	Range 34 - 107		Recovery = 68.22%			
24) Nitrobenzene-d5	2.33	82	189713m	32.35	UG	-0.01
Spiked Amount 50.000	Range 26 - 104		Recovery = 64.70%			
47) 2-Fluorobiphenyl	3.08	172	583725	37.96	UG	-0.01
Spiked Amount 50.000	Range 32 - 128		Recovery = 75.92%			
70) 2,4,6-Tribromophenol	3.75	330	258136	59.64	UG	-0.03
Spiked Amount 100.000	Range 32 - 126		Recovery = 59.64%			
84) Terphenyl-d14	4.90	244	810291	38.99	UG	-0.06
Spiked Amount 50.000	Range 32 - 135		Recovery = 77.98%			

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1272.D
Acq On : 6 May 2010 15:24
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,05/06/10
Misc : NA,NA,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 06 15:35:06 2010
Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu May 06 13:19:41 2010
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\05-06-10\
Data File : C1272.D
Acq On : 6 May 2010 15:24
Operator : EDM
Sample : .,Method_Blank,S,30.00g,0,05/06/10
Misc : NA,NA,NA,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1010.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS1010.M Thu May 06 15:35:32 2010 RPT1

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC-PA
Address:	2034 E. Wellington Rd
	Newtown PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
Project Manager:	M. Brogan
Sampler:	M. Brogan
Project Name:	Palmer
Project Location (State):	NJ
Bottle Order #:	
Quote # :	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax: 24 hr* 48 hr* 72 hr* 1 wk* 2 wk/Std

Hard Copy: 3 wk/Std

Other *call for price

Results needed by: STD / STD

Rush TAT Charge **: 24 hr - 100%.... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only; Reduced; Regulatory - 15% Surcharge applies; Other (describe)

EDD's: SRP. dbf format; SRP.wk1 format; lab approved custom EDD; NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	ANALYTICAL PARAMETERS: PAH	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
L8-D2 DUP	2-2.5'	5/5/10	9:00	S	1	1	✓								

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company
Relinquished by:	5/5/10	11:15	Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

Lab Case # 04230

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

PROJECT INFORMATION

Case No. E10-04230 **Project** PALMER

Customer	**PennJersey Environmental Consulting**	**P.O. #**	
Contact	Mike Brogan	**Received**	5/5/2010 11:15
EMail	pecinc@aol.com;nagorbm@yaho ☑ EMail EDDs	**Verbal Due**	5/19/2010
Phone	(973) 664-1199 **Fax** 1(973)664-1127	**Report Due**	5/26/2010

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Mike Brogan

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Mike Brogan

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
04230-001	L8-D2 DUP	2 / 2.5	5/5/2010@09:00	Soil	mg/Kg	1

Sample #	Tests	Status	QA Method
001	PAH	Run	8270C

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **04230** CLIENT: PEC-PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [signature] DATE 5/5/10

CORRECTIVE ACTION REQUIRED: **YES** (SEE BELOW) **NO**

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES Date/ Time: NO

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [signature] DATE 5.5.10

Laboratory Custody Chronicle

IAL Case No.

E10-04230

Client PennJersey Environmental Consulting

Project PALMER

Received On 5/ 5/2010@11:15

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
PAH	04230-001	Soil	5/ 6/10	Kou-Liang	5/ 6/10	JC

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E10-05088**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E10-05088

Client PennJersey Environmental Consulting

Project PALMER

Received On 5/27/2010@16:34

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
05088-001	TRIP	n/a	5/27/2010	Aqueous	2
05088-002	FIELD	n/a	5/27/2010@11:30	Aqueous	2
05088-003	TW1A	n/a	5/27/2010@12:15	Aqueous	2
05088-004	TW3A	n/a	5/27/2010@14:30	Aqueous	2

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received four (4) aqueous sample(s) from PennJersey Environmental Consulting (Project: PALMER) on May 27, 2010 for the analysis of:

(4) TCL VOA + 10 + TBA

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

6/10/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E10-05088

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E10 - 05033

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	GC/MS Tuning Specifications: a. BFB Passed		✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4.	GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5.	GC/MS Calibration Requirements: a. Calibration Check Compounds		na
	b. System Performance Check Compounds		na
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
	If not met, were the calculations checked and the results qualified as "estimated"?		na
8.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		na
9.	Internal Standard Area/Retention Time Shift meet criteria		✓
10.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		na
11.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12.	Sample Dilution Performed	V	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

06/02/2010
Date

rev 01/10

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E10-05088

Lab ID:	05088-001			05088-002			05088-003			05088-004		
Client ID:	TRIP			FIELD			TW1A			TW3A		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	5/27/10			5/27/10			5/27/10			5/27/10		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles + TBA (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Acetone	ND		1.26	ND		1.26	4.78	J	1.26	4.66	J	1.26
tert-Butyl alcohol (TBA)	ND		1.19	ND		1.19	3.22		1.19	3.44		1.19
Methyl tert-butyl ether (MTBE)	ND		0.300	ND		0.300	2.45		0.300	0.829		0.300
1,1-Dichloroethane	ND		0.260	ND		0.260	1.25		0.260	ND		0.260
cis-1,2-Dichloroethene	ND		0.210	ND		0.210	0.284	J	0.210	ND		0.210
2-Butanone (MEK)	ND		0.730	ND		0.730	1.83		0.730	1.32		0.730
Benzene	ND		0.250	ND		0.250	2.49		0.250	2.19		0.250
Chlorobenzene	ND		0.260	ND		0.260	ND		0.260	47.7		0.260
Ethylbenzene	ND		0.210	ND		0.210	6.10		0.210	2.92		0.210
Total Xylenes	ND		0.580	ND		0.580	ND		0.580	1.36		0.580
Isopropylbenzene	ND		0.240	ND		0.240	38.9		0.240	12.4		0.240
1,4-Dichlorobenzene	ND		0.210	ND		0.210	ND		0.210	1.68		0.210
1,2-Dichlorobenzene	ND		0.230	ND		0.230	ND		0.230	3.64		0.230
Cyclohexane	ND		0.260	ND		0.260	13.1		0.260	1.09		0.260
TOTAL VO's:	ND			ND			74.4	J		83.2	J	
TOTAL TIC's:	ND			ND			1540			842		
TOTAL VO's & TIC's:	ND			ND			1610	J		925	J	

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-001
Client ID: TRIP
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Data file: G3721.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-001
Client ID: TRIP
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Data file: G3721.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

0007

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-001
Client ID: TRIP
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Date File: G3721.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-002
Client ID: FIELD
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Data file: G3722.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-002
Client ID: FIELD
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Data file: G3722.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

0010

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-002
Client ID: FIELD
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Date File: G3722.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-003
Client ID: TW1A
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Data file: G3723.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	4.78	J	5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	3.22		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	2.45		0.500	0.300
1,1-Dichloroethane	1.25		0.500	0.260
cis-1,2-Dichloroethene	0.284	J	0.500	0.210
2-Butanone (MEK)	1.83		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	2.49		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-003
Client ID: TW1A
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Data file: G3723.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	6.10		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	38.9		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	13.1		1.00	0.260
Methylcyclohexane	ND		0.500	0.410
Total Target Compounds:	74.4	J		

0013

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-003
Client ID: TW1A
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Date File: G3723.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	160	13.06
	Unknown aromatic	109	13.31
	Substituted benzene	73.9	13.88
	Unknown aromatic	67.1	14.02
	Substituted benzene	60.0	14.36
	Substituted benzene	188	14.91
	Unknown aromatic	100	15.11
000091-20-3	Naphthalene	473	15.61
	Unknown aromatic	204	16.74
	Unknown aromatic	109	16.94

Total TICs = 1540

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-004
Client ID: TW3A
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Data file: G3725.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	4.66	J	5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	3.44		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	0.829		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	1.32		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	2.19		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-004
Client ID: TW3A
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Data file: G3725.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	47.7		0.500	0.260
Ethylbenzene	2.92		0.500	0.210
Total Xylenes	1.36		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	12.4		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	1.68		0.500	0.210
1,2-Dichlorobenzene	3.64		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	1.09		1.00	0.260
Methylcyclohexane	ND		0.500	0.410
Total Target Compounds:	83.2	J		

0016

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 05088-004
Client ID: TW3A
Date Received: 05/27/2010
Date Analyzed: 06/02/2010
Date File: G3725.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	145	13.31
	Substituted benzene	56.2	13.88
	Unknown aromatic	79.8	14.02
	Substituted benzene	49.7	14.36
	Unknown aromatic	76.9	14.73
	Unknown aromatic	177	14.92
	Unknown aromatic	39.0	15.44
	Unknown aromatic	41.6	16.18
	Unknown aromatic	82.8	16.74
	Unknown aromatic	93.7	16.94

Total TICs = 842

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3499.D

Inst ID: MSD_G

BFB Injection Date: 05/25/2010

BFB Injection Time: 8:09

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	17.2			
75	30.0 - 60.0% of mass 95	49.2			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	75.5			
175	5.0 - 9.0% of mass 174	5.9	(	7.8	)1
176	95.0 - 101.0% of mass 174	73.6	(	97.5	)1
177	5.0 - 9.0% of mass 176	4.9	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G3500.D	05/25/2010	8:37
0.5PPB_STD	0.5PPB_STD	G3501.D	05/25/2010	9:31
1PPB_STD	1PPB_STD	G3502.D	05/25/2010	10:00
100PPB_STD	100PPB_STD	G3503.D	05/25/2010	10:28
5PPB_STD	5PPB_STD	G3504.D	05/25/2010	10:55
METHOD_BLK	METHOD_BLK	G3505.D	05/25/2010	11:22
LFB_20PPB	LFB_20PPB	G3506.D	05/25/2010	11:50
TWP-1	04816-7DIL	G3507.D	05/25/2010	12:18
4887-007MS	4887-007MS	G3509.D	05/25/2010	1:14
4887-007MSD	4887-007MSD	G3510.D	05/25/2010	1:41
MW-6DI	04824-12DIL	G3513.D	05/25/2010	3:04
BPZ-1	04804-1DIL	G3514.D	05/25/2010	3:31
MW-2	04784-1DIL	G3515.D	05/25/2010	3:59
TWP-2/12	04845-2DIL	G3516.D	05/25/2010	4:26
TP-1	04878-001	G3517.D	05/25/2010	4:54
TP-2	04878-002	G3518.D	05/25/2010	5:22
TP-3	04878-003	G3519.D	05/25/2010	5:50
TP-4	04878-004	G3520.D	05/25/2010	6:18
TP-5	04878-005	G3521.D	05/25/2010	6:46
MW-2D	04887-001	G3523.D	05/25/2010	7:41

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3499.D

BFB Injection Date : 05/25/201

Inst ID: MSD_G

BFB Injection Time: 8:09

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	17.2			
75	30.0 - 60.0% of mass 95	49.2			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	75.5			
175	5.0 - 9.0% of mass 174	5.9	(	7.8	)1
176	95.0 - 101.0% of mass 174	73.6	(	97.5	)1
177	5.0 - 9.0% of mass 176	4.9	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-4	04887-002	G3524.D	05/25/2010	8:09
MW-5	04887-003	G3525.D	05/25/2010	8:36
MW-6N	04887-004	G3526.D	05/25/2010	9:04
MW-7R	04887-005	G3527.D	05/25/2010	9:31
MW-8B	04887-006	G3528.D	05/25/2010	9:58
SW-1	04887-007	G3529.D	05/25/2010	10:25
SW-2	04887-008	G3530.D	05/25/2010	10:52
SW-3	04887-009	G3531.D	05/25/2010	11:20
SW-4	04887-010	G3532.D	05/25/2010	11:47
HOLDING_TANK	04888-001	G3533.D	05/26/2010	12:15
TW5-W	04896-004	G3534.D	05/26/2010	12:43
TW3-W	04896-003	G3535.D	05/26/2010	1:11
TW2-W	04896-002	G3536.D	05/26/2010	1:39
TW1-W	04896-001	G3537.D	05/26/2010	2:07
TW4-W	04896-005	G3539.D	05/26/2010	3:02
4888-001MS	4888-001MS	G3540.D	05/26/2010	3:30
4888-001MSD	4888-001MSD	G3541.D	05/26/2010	3:57
MW-13S/23.51	04813-002	G3546.D	05/26/2010	7:58

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3675.D

BFB Injection Date: 06/01/2010

Inst ID: MSD_G

BFB Injection Time: 8:17

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.6			
75	30.0 - 60.0% of mass 95	48.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	82.8			
175	5.0 - 9.0% of mass 174	6.0	(	7.2	)1
176	95.0 - 101.0% of mass 174	79.5	(	96.0	)1
177	5.0 - 9.0% of mass 176	5.3	(	6.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G3676.D	06/01/2010	9:15
METHOD_BLK	METHOD_BLK	G3677.D	06/01/2010	9:45
LFB_20PPB	LFB_20PPB	G3678.D	06/01/2010	10:13
5090-006MS	5090-006MS	G3679.D	06/01/2010	10:42
5090-006MSD	5090-006MSD	G3680.D	06/01/2010	11:10
MW-4	04987-4DIL	G3681.D	06/01/2010	11:38
PT-2	05040-1DIL	G3682.D	06/01/2010	12:06
B-6	05040-2DIL	G3683.D	06/01/2010	12:33
FB	05090-001	G3685.D	06/01/2010	1:28
TRIP_BLANK	05090-004	G3686.D	06/01/2010	1:56
TW-2	05090-002	G3687.D	06/01/2010	2:24
TW-3	05090-003	G3688.D	06/01/2010	2:52
TW-4	05090-005	G3689.D	06/01/2010	3:20
TW-5	05090-006	G3690.D	06/01/2010	3:48
BF-45	05063-021	G3691.D	06/01/2010	4:16
BF-46	05063-022	G3692.D	06/01/2010	4:43
BF-43	05063-023	G3693.D	06/01/2010	5:11
BF-49	05063-024	G3694.D	06/01/2010	5:39
BF-50	05063-025	G3695.D	06/01/2010	6:07
BF-51	05063-026	G3696.D	06/01/2010	6:35

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3675.D

Inst ID: MSD_G

BFB Injection Date: 06/01/2010

BFB Injection Time: 8:17

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.6			
75	30.0 - 60.0% of mass 95	48.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	82.8			
175	5.0 - 9.0% of mass 174	6.0	(	7.2	)1
176	95.0 - 101.0% of mass 174	79.5	(	96.0	)1
177	5.0 - 9.0% of mass 176	5.3	(	6.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G3676.D	06/01/2010	9:15
METHOD_BLK	METHOD_BLK	G3677.D	06/01/2010	9:45
LFB_20PPB	LFB_20PPB	G3678.D	06/01/2010	10:13
5090-006MS	5090-006MS	G3679.D	06/01/2010	10:42
5090-006MSD	5090-006MSD	G3680.D	06/01/2010	11:10
MW-4	04987-4DIL	G3681.D	06/01/2010	11:38
PT-2	05040-1DIL	G3682.D	06/01/2010	12:06
B-6	05040-2DIL	G3683.D	06/01/2010	12:33
FB	05090-001	G3685.D	06/01/2010	1:28
TRIP_BLANK	05090-004	G3686.D	06/01/2010	1:56
TW-2	05090-002	G3687.D	06/01/2010	2:24
TW-3	05090-003	G3688.D	06/01/2010	2:52
TW-4	05090-005	G3689.D	06/01/2010	3:20
TW-5	05090-006	G3690.D	06/01/2010	3:48
BF-45	05063-021	G3691.D	06/01/2010	4:16
BF-46	05063-022	G3692.D	06/01/2010	4:43
BF-43	05063-023	G3693.D	06/01/2010	5:11
BF-49	05063-024	G3694.D	06/01/2010	5:39
BF-50	05063-025	G3695.D	06/01/2010	6:07
BF-51	05063-026	G3696.D	06/01/2010	6:35

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3675.D

BFB Injection Date : 06/01/201

Inst ID: MSD_G

BFB Injection Time: 8:17

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.6			
75	30.0 - 60.0% of mass 95	48.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	82.8			
175	5.0 - 9.0% of mass 174	6.0	(	7.2	)1
176	95.0 - 101.0% of mass 174	79.5	(	96.0	)1
177	5.0 - 9.0% of mass 176	5.3	(	6.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
BF-48	05063-027	G3697.D	06/01/2010	7:03
BF-47	05063-028	G3698.D	06/01/2010	7:30
BF-33	05063-029	G3699.D	06/01/2010	7:58
BF-52	05063-030	G3700.D	06/01/2010	8:25
BF-53	05063-031	G3701.D	06/01/2010	8:53
BF-39	05063-032	G3702.D	06/01/2010	9:21
OCW-1	05063-033	G3703.D	06/01/2010	9:48
OCW-4	05063-034	G3704.D	06/01/2010	10:16
OCW-2	05063-035	G3705.D	06/01/2010	10:43
OCW-3	05063-036	G3706.D	06/01/2010	11:11
BF-42	05063-037	G3707.D	06/01/2010	11:38
BF-41	05063-038	G3708.D	06/02/2010	12:06
BF-40	05063-039	G3709.D	06/02/2010	12:33
BF-23	05063-052	G3710.D	06/02/2010	1:01
BF-22	05063-053	G3711.D	06/02/2010	1:28
BF-24	05063-054	G3712.D	06/02/2010	1:56
BF-21	05063-055	G3713.D	06/02/2010	2:24
BF-19	05063-056	G3714.D	06/02/2010	2:52
BF-25	05063-059	G3715.D	06/02/2010	3:19
5063-036MS	5063-036MS	G3716.D	06/02/2010	3:47
5063-036MSD	5063-036MSD	G3717.D	06/02/2010	4:14

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G3675.D

BFB Injection Date : 06/01/201

Inst ID: MSD_G

BFB Injection Time: 8:17

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.6			
75	30.0 - 60.0% of mass 95	48.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	82.8			
175	5.0 - 9.0% of mass 174	6.0	(	7.2	)1
176	95.0 - 101.0% of mass 174	79.5	(	96.0	)1
177	5.0 - 9.0% of mass 176	5.3	(	6.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
FB	05063-057	G3719.D	06/02/2010	5:09
TB	05063-058	G3720.D	06/02/2010	5:36
TRIP	05088-001	G3721.D	06/02/2010	6:04
FIELD	05088-002	G3722.D	06/02/2010	6:32
TW1A	05088-003	G3723.D	06/02/2010	7:00
TW3A	05088-004	G3725.D	06/02/2010	7:54

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G3677.D Instrument ID: MSD_G

Date Analyzed: 06/01/2010 Time Analyzed: 09:45

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LFB_20PPB	LFB_20PPB	06/01/2010	10:13
5090-006MS	5090-006MS	06/01/2010	10:42
5090-006MSD	5090-006MSD	06/01/2010	11:10
MW-4	04987-4DIL	06/01/2010	11:38
PT-2	05040-1DIL	06/01/2010	12:06
B-6	05040-2DIL	06/01/2010	12:33
FB	05090-001	06/01/2010	1:28
TRIP_BLANK	05090-004	06/01/2010	1:56
TW-2	05090-002	06/01/2010	2:24
TW-3	05090-003	06/01/2010	2:52
TW-4	05090-005	06/01/2010	3:20
TW-5	05090-006	06/01/2010	3:48
BF-45	05063-021	06/01/2010	4:16
BF-46	05063-022	06/01/2010	4:43
BF-43	05063-023	06/01/2010	5:11
BF-49	05063-024	06/01/2010	5:39
BF-50	05063-025	06/01/2010	6:07
BF-51	05063-026	06/01/2010	6:35
BF-48	05063-027	06/01/2010	7:03
BF-47	05063-028	06/01/2010	7:30
BF-33	05063-029	06/01/2010	7:58
BF-52	05063-030	06/01/2010	8:25
BF-53	05063-031	06/01/2010	8:53
BF-39	05063-032	06/01/2010	9:21
OCW-1	05063-033	06/01/2010	9:48
OCW-4	05063-034	06/01/2010	10:16
OCW-2	05063-035	06/01/2010	10:43
OCW-3	05063-036	06/01/2010	11:11
BF-42	05063-037	06/01/2010	11:38
BF-41	05063-038	06/02/2010	12:06
BF-40	05063-039	06/02/2010	12:33
BF-23	05063-052	06/02/2010	1:01

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G3677.D

Instrument ID: MSD_G

Date Analyzed: 06/01/2010

Time Analyzed: 09:45

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
BF-22	05063-053	06/02/2010	1:28
BF-24	05063-054	06/02/2010	1:56
BF-21	05063-055	06/02/2010	2:24
BF-19	05063-056	06/02/2010	2:52
BF-25	05063-059	06/02/2010	3:19
5063-036MS	5063-036MS	06/02/2010	3:47
5063-036MSD	5063-036MSD	06/02/2010	4:14
FB	05063-057	06/02/2010	5:09
TB	05063-058	06/02/2010	5:36
TRIP	05088-001	06/02/2010	6:04
FIELD	05088-002	06/02/2010	6:32
TW1A	05088-003	06/02/2010	7:00
TW3A	05088-004	06/02/2010	7:54

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 06/01/2010
Data file: G3677.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
Acrolein	ND		10.0	2.51
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	2.29
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,1-Dichloropropene	ND		0.500	0.310
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
2-Chloroethyl vinyl ether	ND		0.500	0.210
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 06/01/2010
Data file: G3677.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

Response Factor Report MSD_G

Method Path : C:\MSDCHEM\1\METHODS\
Method File : GA052510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624
Last Update : Tue May 25 14:57:43 2010
Response Via : Initial Calibration

Calibration Files
0.5 =G3501.D 1 =G3502.D 5 =G3504.D
20 =G3500.D 100 =G3503.D

		Compound	0.5	1	5	20	100	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------						
2)	T	Dichlorodifluoromet	0.509	0.299	0.502	0.428	0.395	0.427	20.24
3)	P	Chloromethane	0.725	0.426	0.492	0.480	0.419	0.508	24.65
4)	C	Vinyl chloride	0.754	0.410	0.512	0.497	0.440	0.523	25.97
5)	T	Bromomethane	0.411	0.275	0.307	0.278	0.174	0.289	29.32
6)	T	Chloroethane	0.425	0.253	0.268	0.270	0.190	0.281	30.87
7)	T	Trichlorofluorometh		0.579	0.731	0.695	0.659	0.666	9.76
8)	T	Acrolein	0.059	0.044	0.046	0.049	0.039	0.047	16.06
9)	MC	1,1-Dichloroethene	0.734	0.416	0.440	0.443	0.383	0.483	29.49
10)	T	Acetone			0.172	0.153	0.127	0.151	14.93
11)	T	Carbon disulfide	1.860	1.038	1.292	1.365	1.292	1.370	21.98
12)	T	Vinyl acetate	1.250	0.708	1.047	1.193	1.214	1.082	20.63
13)	T	Methylene chloride	0.832	0.551	0.495	0.478	0.461	0.563	27.33
14)	T	Acrylonitrile	0.272	0.149	0.180	0.185	0.181	0.193	23.78
15)	T	tert-Butyl alcohol		0.028	0.034	0.030	0.030	0.030	7.22
16)	T	trans-1,2-Dichloroe	0.654	0.369	0.476	0.480	0.470	0.490	21.01
17)	T	Methyl tert-butyl e	1.473	0.800	1.152	1.155	1.216	1.159	20.72
18)	P	1,1-Dichloroethane	1.066	0.603	0.728	0.739	0.712	0.770	22.65
19)	T	Diisopropyl ether (	1.129	0.642	1.158	1.345	1.345	1.124	25.58
20)	T	cis-1,2-Dichloroeth	0.507	0.276	0.424	0.452	0.476	0.427	21.03
21)	T	2,2-Dichloropropane	0.523	0.276	0.418	0.401	0.447	0.413	21.72
22)	T	2-Butanone (MEK)		0.159	0.204	0.220	0.209	0.198	13.65
23)	T	Bromochloromethane	0.326	0.191	0.244	0.242	0.237	0.248	19.67
25)	C	Chloroform	1.183	0.640	0.762	0.776	0.734	0.819	25.66
26)	T	1,1,1-Trichloroetha	0.784	0.474	0.594	0.580	0.604	0.607	18.43
27)	T	Carbon tetrachlorid	0.734	0.421	0.552	0.544	0.603	0.571	19.78
28)	T	1,1-Dichloropropene	0.730	0.421	0.563	0.589	0.620	0.585	19.10
29)	T	1,2-Dichloroethane	0.901	0.552	0.610	0.642	0.592	0.660	21.01
30)	S	1,2-Dichloroethane-	0.691	0.698	0.609	0.619	0.547	0.633	9.92
31)	I	1,4-Difluorobenzene	----------ISTD----------						
32)	M	Benzene	1.436	0.774	1.056	1.120	1.184	1.114	21.42
33)	M	Trichloroethene	0.322	0.174	0.255	0.262	0.296	0.262	21.41
34)	C	1,2-Dichloropropane	0.298	0.168	0.247	0.267	0.282	0.252	20.05
35)	T	Dibromomethane	0.228	0.130	0.170	0.183	0.190	0.180	19.61
36)	T	1,4-Dioxane	0.005	0.003	0.003	0.003	0.003	0.004	29.38
37)	T	Bromodichloromethan	0.389	0.209	0.295	0.321	0.361	0.315	22.07
38)	T	2-Chloroethyl vinyl	0.103	0.050	0.097	0.136	0.123	0.102	32.37
39)	T	cis-1,3-Dichloropro	0.314	0.172	0.302	0.370	0.450	0.322	31.65
40)	T	4-Methyl-2-pentanon	0.168	0.119	0.180	0.232	0.264	0.193	29.53
41)	S	Toluene-d8	1.147	1.164	1.157	1.211	1.206	1.177	2.51
42)	MC	Toluene	0.848	0.454	0.634	0.676	0.752	0.673	21.81
43)	T	trans-1,3-Dichlorop	0.296	0.160	0.267	0.332	0.423	0.296	32.40
44)	T	1,1,2-Trichloroetha	0.248	0.153	0.188	0.203	0.216	0.202	17.39
45)	T	Tetrachloroethene	0.329	0.182	0.265	0.269	0.314	0.272	21.08
46)	T	1,3-Dichloropropane	0.418	0.259	0.367	0.423	0.458	0.385	20.13
47)	T	2-Hexanone	0.108	0.072	0.125	0.174	0.150	0.126	31.14
48)	T	Dibromochloromethan	0.235	0.132	0.206	0.237	0.294	0.221	26.73
49)	T	1,2-Dibromoethane (	0.263	0.159	0.217	0.243	0.279	0.232	20.30
50)	I	Chlorobenzene-d5	----------ISTD----------						
51)	MP	Chlorobenzene	1.202	0.695	0.839	0.860	0.892	0.897	20.73
52)	T	1,1,1,2-Tetrachloro	0.340	0.191	0.263	0.285	0.320	0.280	20.76

53)	C	Ethylbenzene	1.207	0.711	1.171	1.339	1.470	1.180	24.34
54)	T	m,p-Xylene	0.428	0.256	0.511	0.573	0.655	0.484	31.49
55)	T	o-Xylene	0.304	0.195	0.431	0.536	0.430	0.379	34.78
56)	T	Styrene	0.495	0.427	0.773	0.941	0.879	0.703	32.78
57)	P	Bromoform	0.155	0.085	0.125	0.150	0.193	0.142	28.15
58)	T	Isopropylbenzene	0.704	0.562	1.037	1.309	0.949	0.912	31.98
59)	S	Bromofluorobenzene	0.463	0.489	0.494	0.516	0.492	0.491	3.86
60)	P	1,1,2,2-Tetrachloro	0.482	0.293	0.362	0.384	0.395	0.383	17.70
61)	T	Bromobenzene	0.391	0.246	0.329	0.357	0.391	0.343	17.59
62)	T	1,2,3-Trichloroprop		0.236	0.241	0.266	0.268	0.253	6.66
63)	T	n-Propylbenzene	1.144	0.691	1.356	1.542	1.654	1.277	29.81
64)	T	2-Chlorotoluene	0.842	0.559	1.074	1.143	1.203	0.964	27.43
65)	T	1,3,5-Trimethylbenz	0.697	0.823	1.025	1.179	1.315	1.008	25.01
66)	T	4-Chlorotoluene	0.842	0.559	1.074	1.143	1.203	0.964	27.43
67)	T	tert-Butylbenzene	0.507	0.360	0.728	0.904	0.696	0.639	32.90
70)	T	1,3-Dichlorobenzene	0.640	0.394	0.657	0.693	0.736	0.624	21.44
72)	T	1,4-Dichlorobenzene	0.598	0.397	0.706	0.730	0.760	0.638	23.22
74)	T	1,2-Dichlorobenzene	0.585	0.380	0.697	0.722	0.740	0.625	23.92
75)	T	1,2-Dibromo-3-chlor	0.171	0.117	0.201	0.213	0.211	0.183	22.12
76)	T	1,2,4-Trichlorobenz	0.213	0.181	0.319	0.333	0.430	0.295	33.89
77)	T	Hexachlorobutadiene	0.118	0.081	0.167	0.132	0.137	0.127	24.52
78)	T	Naphthalene	0.642	0.409	0.796	0.886	0.580	0.663	28.20
79)	T	1,2,3-Trichlorobenz	0.235	0.229	0.400	0.317	0.367	0.309	24.76
80)	T	1,1,2-Trichloro-1,2		0.257	0.354	0.342	0.309	0.316	13.79
81)	T	Methyl acetate	0.478	0.255	0.294	0.293	0.289	0.322	27.60
82)	T	Cyclohexane		0.602	0.530	0.457	0.474	0.516	12.71
83)	T	Methylcyclohexane	0.439	0.228	0.324	0.342	0.374	0.341	22.64

(#) = Out of Range

A052510.M Tue May 25 15:28:28 2010

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3676.D
Acq On : 1 Jun 2010 9:15 am
Operator : Sylvia
Sample : 20PPB_STD,20PPB_STD,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 01 15:03:55 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	105	0.00
2	T	Dichlorodifluoromethane	0.427	0.459	-7.5	113	0.01
3	P	Chloromethane	0.508	0.435	14.4	96	0.00
4	C	Vinyl chloride	0.523	0.428	18.2	91	0.02
5	T	Bromomethane	0.289	0.236	18.3	89	0.00
6	T	Chloroethane	0.281	0.212	24.6	83	0.00
7	T	Trichlorofluoromethane	0.666	0.684	-2.7	104	0.00
8	T	Acrolein	0.047	0.046	2.1	99	0.00
9	MC	1,1-Dichloroethene	0.483	0.392	18.8	93	0.00
10	T	Acetone	0.151	0.138	8.6	95	-0.02
11	T	Carbon disulfide	1.370	1.204	12.1	93	0.00
12	T	Vinyl acetate	1.082	1.092	-0.9	96	0.00
13	T	Methylene chloride	0.563	0.498	11.5	110	0.00
14	T	Acrylonitrile	0.193	0.188	2.6	107	0.00
15	T	tert-Butyl alcohol (TBA)	0.030	0.034	-13.3	122	-0.01
16	T	trans-1,2-Dichloroethene	0.490	0.485	1.0	107	0.00
17	T	Methyl tert-butyl ether (MT	1.159	1.269	-9.5	116	0.00
18	P	1,1-Dichloroethane	0.770	0.728	5.5	104	0.00
19	T	Diisopropyl ether (DIPE)	1.124	1.220	-8.5	96	0.00
20	T	cis-1,2-Dichloroethene	0.427	0.475	-11.2	111	0.00
21	T	2,2-Dichloropropane	0.413	0.491	-18.9	129	0.00
22	T	2-Butanone (MEK)	0.198	0.189	4.5	90	0.00
23	T	Bromochloromethane	0.248	0.259	-4.4	112	0.00
24	T	Tetrahydrofuran	0.000	0.000	0.0	89	0.00
25	C	Chloroform	0.819	0.808	1.3	110	0.00
26	T	1,1,1-Trichloroethane	0.607	0.664	-9.4	121	0.00
27	T	Carbon tetrachloride	0.571	0.646	-13.1	125	0.00
28	T	1,1-Dichloropropene	0.585	0.583	0.3	104	0.00
29	T	1,2-Dichloroethane (EDC)	0.660	0.634	3.9	104	0.00
30	S	1,2-Dichloroethane-d4	0.633	0.567	10.4	96	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
32	M	Benzene	1.114	1.107	0.6	99	0.00
33	M	Trichloroethene	0.262	0.283	-8.0	108	0.00
34	C	1,2-Dichloropropane	0.252	0.254	-0.8	95	0.00
35	T	Dibromomethane	0.180	0.188	-4.4	102	0.00
36	T	1,4-Dioxane	0.004	0.003	25.0	92	0.00
37	T	Bromodichloromethane	0.315	0.359	-14.0	112	0.00
38	T	2-Chloroethyl vinyl ether	0.102	0.132	-29.4	96	0.00
39	T	cis-1,3-Dichloropropene	0.322	0.395	-22.7	107	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.193	0.205	-6.2	88	0.00
41	S	Toluene-d8	1.177	1.142	3.0	94	0.00
42	MC	Toluene	0.673	0.680	-1.0	100	0.00
43	T	trans-1,3-Dichloropropene	0.296	0.357	-20.6	107	0.00
44	T	1,1,2-Trichloroethane	0.202	0.197	2.5	97	0.00
45	T	Tetrachloroethene	0.272	0.303	-11.4	113	0.00

46	T	1,3-Dichloropropane	0.385	0.408	-6.0	96	0.00
47	T	2-Hexanone	0.126	0.134	-6.3	77	0.00
48	T	Dibromochloromethane	0.221	0.283	-28.1	119	0.00
49	T	1,2-Dibromoethane (EDB)	0.232	0.254	-9.5	104	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
51	MP	Chlorobenzene	0.897	0.862	3.9	101	0.00
52	T	1,1,1,2-Tetrachloroethane	0.280	0.332	-18.6	117	0.00
53	C	Ethylbenzene	1.180	1.334	-13.1	100	0.00
54	T	m,p-Xylene	0.484	0.575	-18.8	101	0.00
55	T	o-Xylene	0.379	0.473	-24.8	89	0.00
56	T	Styrene	0.703	0.903	-28.4	96	0.00
57	P	Bromoform	0.142	0.178	-25.4	119	0.00
58	T	Isopropylbenzene	0.912	1.194	-30.9	92	0.00
59	S	Bromofluorobenzene	0.491	0.505	-2.9	98	0.00
60	P	1,1,2,2-Tetrachloroethane	0.383	0.359	6.3	94	0.00
61	T	Bromobenzene	0.343	0.379	-10.5	107	0.00
62	T	1,2,3-Trichloropropane	0.253	0.249	1.6	94	0.00
63	T	n-Propylbenzene	1.277	1.506	-17.9	98	0.00
64	T	2-Chlorotoluene	0.964	1.126	-16.8	99	0.00
65	T	1,3,5-Trimethylbenzene	1.008	1.202	-19.2	102	0.00
66	T	4-Chlorotoluene	0.964	1.126	-16.8	99	0.00
67	T	tert-Butylbenzene	0.639	0.824	-29.0	92	0.00
68	T	1,2,4-Trimethylbenzene	0.813	1.046	-28.7	87	0.00
69	T	sec-Butylbenzene	1.029	1.343	-30.5	101	0.00
70	T	1,3-Dichlorobenzene	0.624	0.712	-14.1	103	0.00
71	T	4-Isopropyltoluene	0.941	1.186	-26.0	103	0.00
72	T	1,4-Dichlorobenzene	0.638	0.743	-16.5	102	0.00
73	T	n-Butylbenzene	0.716	0.935	-30.6	98	0.00
74	T	1,2-Dichlorobenzene	0.625	0.732	-17.1	102	0.00
75	T	1,2-Dibromo-3-chloropropane	0.183	0.204	-11.5	96	0.00
76	T	1,2,4-Trichlorobenzene	0.295	0.387	-31.2	117	0.00
77	T	Hexachlorobutadiene	0.127	0.160	-26.0	122	0.00
78	T	Naphthalene	0.663	0.880	-32.7	100	0.00
79	T	1,2,3-Trichlorobenzene	0.309	0.349	-12.9	111	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.316	0.314	0.6	92	0.00
81	T	Methyl acetate	0.322	0.290	9.9	99	0.00
82	T	Cyclohexane	0.516	0.430	16.7	94	0.00
83	T	Methylcyclohexane	0.341	0.380	-11.4	112	0.00

(#) = Out of Range

GA052510.M Tue Jun 01 15:04:00 2010

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 06/01/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	AQUEOUS	G3677.D	96	90	94
LFB_20PPB	AQUEOUS	G3678.D	88	98	104
5090-006MS	AQUEOUS	G3679.D	86	97	103
5090-006MSD	AQUEOUS	G3680.D	87	96	102
04987-4DIL	AQUEOUS	G3681.D	89	92	99
05040-1DIL	AQUEOUS	G3682.D	94	93	98
05040-2DIL	AQUEOUS	G3683.D	96	91	94
05090-001	AQUEOUS	G3685.D	104	93	97
05090-004	AQUEOUS	G3686.D	110	91	95
05090-002	AQUEOUS	G3687.D	98	91	94
05090-003	AQUEOUS	G3688.D	110	92	94
05090-005	AQUEOUS	G3689.D	106	91	97
05090-006	AQUEOUS	G3690.D	110	91	97
05063-021	AQUEOUS	G3691.D	106	93	96
05063-022	AQUEOUS	G3692.D	111	90	95
05063-023	AQUEOUS	G3693.D	112	89	92
05063-024	AQUEOUS	G3694.D	110	92	95
05063-025	AQUEOUS	G3695.D	110	93	95
05063-026	AQUEOUS	G3696.D	112	92	97
05063-027	AQUEOUS	G3697.D	111	92	96
05063-028	AQUEOUS	G3698.D	109	92	95
05063-029	AQUEOUS	G3699.D	110	92	95
05063-030	AQUEOUS	G3700.D	110	93	92
05063-031	AQUEOUS	G3701.D	112	93	92

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	84-141
SMC2 = Toluene-d8	30 ppb	62-124
SMC3 = Bromofluorobenzene	30 ppb	81-111

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 06/01/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
05063-032	AQUEOUS	G3702.D	110	93	94
05063-033	AQUEOUS	G3703.D	104	93	98
05063-034	AQUEOUS	G3704.D	110	93	88
05063-035	AQUEOUS	G3705.D	110	90	96
05063-036	AQUEOUS	G3706.D	106	85	98
05063-037	AQUEOUS	G3707.D	105	93	95
05063-038	AQUEOUS	G3708.D	113	93	97
05063-039	AQUEOUS	G3709.D	100	93	94
05063-052	AQUEOUS	G3710.D	108	93	97
05063-053	AQUEOUS	G3711.D	109	87	96
05063-054	AQUEOUS	G3712.D	105	86	98
05063-055	AQUEOUS	G3713.D	104	95	95
05063-056	AQUEOUS	G3714.D	112	94	98
05063-059	AQUEOUS	G3715.D	108	92	95
5063-036MS	AQUEOUS	G3716.D	92	101	106
5063-036MSD	AQUEOUS	G3717.D	89	100	104
05063-057	AQUEOUS	G3719.D	109	92	98
05063-058	AQUEOUS	G3720.D	111	91	97
05088-001	AQUEOUS	G3721.D	110	92	96
05088-002	AQUEOUS	G3722.D	109	93	99
05088-003	AQUEOUS	G3723.D	94	96	101
05088-004	AQUEOUS	G3725.D	102	91	101

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	84-141
SMC2 = Toluene-d8	30 ppb	62-124
SMC3 = Bromofluorobenzene	30 ppb	81-111

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 5090-006MSD
Client ID: 5090-006MSD
Date Received: NA
Date Analyzed: 06/01/2010
Data file: G3680.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
Chloromethane	20.0	0.0	15.6	78.0	0.0	14.5	73.0
Vinyl chloride	20.0	0.0	15.2	76.0	0.0	14.3	72.0
Bromomethane	20.0	0.0	15.5	78.0	0.0	15.4	77.0
Chloroethane	20.0	0.0	15.2	76.0	0.0	17.0	85.0
Trichlorofluoromethane	20.0	0.0	18.8	94.0	0.0	18.0	90.0
Acrolein	200.0	0.0	150.7	75.0	0.0	162.4	81.0
1,1-Dichloroethene	20.0	0.0	15.3	77.0	0.0	14.5	73.0
Methylene chloride	20.0	0.0	15.8	79.0	0.0	15.8	79.0
Acrylonitrile	200.0	0.0	167.5	84.0	0.0	170.1	85.0
trans-1,2-Dichloroethene	20.0	0.0	18.0	90.0	0.0	17.6	88.0
1,1-Dichloroethane	20.0	0.0	17.3	87.0	0.0	16.9	85.0
Chloroform	20.0	0.0	18.2	91.0	0.0	17.8	89.0
1,1,1-Trichloroethane	20.0	0.0	20.1	101.0	0.0	19.4	97.0
Carbon tetrachloride	20.0	0.0	21.0	105.0	0.0	20.1	101.0
1,2-Dichloroethane (EDC)	20.0	0.0	18.2	91.0	0.0	17.5	88.0
Benzene	20.0	0.0	19.2	96.0	0.0	18.2	91.0
Trichloroethene	20.0	0.0	21.2	106.0	0.0	20.0	100.0
1,2-Dichloropropane	20.0	0.0	19.7	99.0	0.0	18.2	91.0
Bromodichloromethane	20.0	0.0	22.1	111.0	0.0	20.5	103.0
2-Chloroethyl vinyl ether	20.0	0.0	0.0	0.0	0.0	0.0	0.0
cis-1,3-Dichloropropene	20.0	0.0	24.3	122.0	0.0	22.5	113.0
Toluene	20.0	0.0	20.3	102.0	0.0	18.5	93.0
trans-1,3-Dichloropropene	20.0	0.0	24.9	125.0	0.0	22.5	113.0
1,1,2-Trichloroethane	20.0	0.0	20.0	100.0	0.0	17.8	89.0
Tetrachloroethene	20.0	0.0	22.6	113.0	0.0	20.5	103.0
Dibromochloromethane	20.0	0.0	26.2	131.0	0.0	23.7	119.0
Chlorobenzene	20.0	0.0	18.7	94.0	0.0	17.7	89.0
Ethylbenzene	20.0	0.0	22.1	111.0	0.0	20.7	104.0
total-Xylenes	60.0	0.0	73.6	123.0	0.0	69.7	116.0
Bromoform	20.0	0.0	27.4	137.0	0.0	25.2	126.0
1,1,2,2-Tetrachloroethane	20.0	0.0	18.1	91.0	0.0	17.1	86.0
1,3-Dichlorobenzene	20.0	0.0	22.4	112.0	0.0	20.6	103.0
1,4-Dichlorobenzene	20.0	0.0	23.2	116.0	0.0	21.0	105.0
1,2-Dichlorobenzene	20.0	0.0	23.0	115.0	0.0	20.8	104.0

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G3500.D Date Analyzed: 05/25/2010

Instrument ID: MSD_G Time Analyzed: 8:37

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	522985	6.01	842394	6.83	791191	10.16
	UPPER LIMIT	1045970	6.51	1684788	7.33	1582382	10.66
	LOWER LIMIT	261492.5	5.51	421197	6.33	395595.5	9.66
	LAB SAMPLE ID						
01	0.5PPB_STD	454052	6.01	814757	6.83	721384	10.16
02	1PPB_STD	456833	6.01	831419	6.83	761814	10.16
03	100PPB_STD	630803	6.00	942500	6.83	909000	10.16
04	5PPB_STD	545295	6.01	892557	6.83	813858	10.16
05	METHOD_BLK	484549	6.01	860196	6.83	778977	10.16
06	LFB_20PPB	580851	6.01	922981	6.83	866426	10.16
07	04816-7DIL	498567	6.01	872674	6.83	793901	10.16
08	4887-007MS	598470	6.01	953172	6.83	883018	10.16
09	4887-007MSD	645505	6.01	1011480	6.83	921901	10.16
10	04824-12DIL	584659	6.01	991776	6.83	872098	10.16
11	04804-1DIL	542424	6.01	933345	6.83	830658	10.16
12	04784-1DIL	577423	6.01	968372	6.83	845381	10.16
13	04845-2DIL	616166	6.01	956454	6.83	829813	10.16
14	04878-001	574203	6.01	938117	6.83	836769	10.16
15	04878-002	568437	6.01	934558	6.83	841335	10.16
16	04878-003	554773	6.01	904793	6.83	843753	10.16
17	04878-004	598475	6.01	971444	6.83	865404	10.16
18	04878-005	544724	6.01	890569	6.83	780566	10.16
19	04887-001	552503	6.01	923234	6.83	812707	10.16
20	04887-002	533526	6.01	904534	6.83	790649	10.16
21	04887-003	535502	6.01	900470	6.83	782875	10.16
22	04887-004	504811	6.01	858054	6.83	745997	10.16

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G3500.D Date Analyzed: 05/25/2010

Instrument ID: MSD_G Time Analyzed: 8:37

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	522985	6.01	842394	6.83	791191	10.16
	UPPER LIMIT	1045970	6.51	1684788	7.33	1582382	10.66
	LOWER LIMIT	261492.5	5.51	421197	6.33	395595.5	9.66
	LAB SAMPLE ID						
23	04887-005	514597	6.01	864900	6.83	762269	10.16
24	04887-006	506416	6.01	855549	6.83	759836	10.16
25	04887-007	498873	6.01	857679	6.83	729645	10.16
26	04887-008	502041	6.01	851304	6.83	721314	10.16
27	04887-009	481161	6.01	835862	6.83	713379	10.16
28	04887-010	482354	6.01	838138	6.83	721058	10.16
29	04888-001	479661	6.01	850173	6.83	743043	10.16
30	04896-004	493255	6.01	830781	6.83	729887	10.16
31	04896-003	524186	6.01	844145	6.83	747377	10.16
32	04896-002	520894	6.01	865046	6.83	755501	10.16
33	04896-001	488230	6.01	836073	6.83	734443	10.16
34	04896-005	520695	6.01	873883	6.83	756756	10.16
35	4888-001MS	592026	6.01	905981	6.83	824520	10.16
36	4888-001MSD	594780	6.01	902217	6.83	832487	10.16
37	04813-002	479807	6.02	850238	6.83	795906	10.16
38							
39							
40							
41							
42							
43							
44							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G3676.D

Date Analyzed: 06/01/2010

Instrument ID: MSD_G

Time Analyzed: 9:15

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	550832	6.01	841310	6.83	795103	10.16
	UPPER LIMIT	1101664	6.51	1682620	7.33	1590206	10.66
	LOWER LIMIT	275416	5.51	420655	6.33	397551.5	9.66
	LAB SAMPLE ID						
01	METHOD_BLK	511856	6.01	846874	6.83	764210	10.16
02	LFB_20PPB	580199	6.01	875358	6.83	848010	10.16
03	5090-006MS	574963	6.01	858906	6.83	841008	10.16
04	5090-006MSD	563855	6.01	849651	6.83	793955	10.16
05	04987-4DIL	553220	6.01	870067	6.83	822744	10.16
06	05040-1DIL	500216	6.01	800936	6.83	761213	10.16
07	05040-2DIL	492750	6.01	799864	6.83	726333	10.16
08	05090-001	452818	6.01	789643	6.83	745993	10.16
09	05090-004	416546	6.01	753201	6.83	684819	10.16
10	05090-002	452790	6.01	715186	6.83	655499	10.16
11	05090-003	421303	6.02	768707	6.83	704172	10.16
12	05090-005	453699	6.01	813963	6.83	759656	10.16
13	05090-006	431111	6.02	790808	6.83	741073	10.16
14	05063-021	457486	6.01	817917	6.83	780150	10.16
15	05063-022	421417	6.01	769382	6.83	687394	10.16
16	05063-023	416123	6.01	771327	6.83	701400	10.16
17	05063-024	423078	6.01	774838	6.83	740773	10.16
18	05063-025	418595	6.01	763809	6.83	739783	10.16
19	05063-026	420598	6.02	771692	6.83	735049	10.16
20	05063-027	418557	6.02	766193	6.83	732930	10.16
21	05063-028	428833	6.02	782646	6.83	749972	10.16
22	05063-029	421444	6.02	757198	6.83	704757	10.16

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G3676.D Date Analyzed: 06/01/2010

Instrument ID: MSD_G Time Analyzed: 9:15

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	550832	6.01	841310	6.83	795103	10.16
	UPPER LIMIT	1101664	6.51	1682620	7.33	1590206	10.66
	LOWER LIMIT	275416	5.51	420655	6.33	397551.5	9.66
	LAB SAMPLE ID						
23	05063-030	413956	6.01	743683	6.83	709138	10.16
24	05063-031	404595	6.01	742961	6.83	706347	10.16
25	05063-032	418452	6.01	751168	6.83	701862	10.16
26	05063-033	463696	6.01	762704	6.83	729037	10.16
27	05063-034	408890	6.02	741116	6.83	738831	10.16
28	05063-035	408812	6.01	774340	6.83	711883	10.16
29	05063-036	459645	6.01	835114	6.83	720614	10.16
30	05063-037	436289	6.01	761396	6.83	725617	10.16
31	05063-038	402827	6.02	751595	6.83	715297	10.16
32	05063-039	454847	6.01	756671	6.83	730020	10.16
33	05063-052	422937	6.01	759080	6.83	730264	10.16
34	05063-053	448687	6.01	809842	6.83	730054	10.16
35	05063-054	455162	6.01	821767	6.83	724910	10.16
36	05063-055	440617	6.01	737636	6.83	720377	10.16
37	05063-056	404258	6.01	751078	6.83	719127	10.16
38	05063-059	422431	6.01	761743	6.83	730040	10.16
39	5063-036MS	493485	6.01	763238	6.83	750830	10.16
40	5063-036MSD	529968	6.01	805993	6.83	791035	10.16
41	05063-057	435699	6.02	809013	6.83	755086	10.16
42	05063-058	419850	6.01	790499	6.83	742130	10.16
43	05088-001	418360	6.01	775263	6.83	735954	10.16
44	05088-002	408624	6.01	741123	6.83	705809	10.16

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G3676.D

Date Analyzed: 06/01/2010

Instrument ID: MSD_G

Time Analyzed: 9:15

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	550832	6.01	841310	6.83	795103	10.16
	UPPER LIMIT	1101664	6.51	1682620	7.33	1590206	10.66
	LOWER LIMIT	275416	5.51	420655	6.33	397551.5	9.66
	LAB SAMPLE ID						
45	05088-003	507941	6.01	813374	6.83	763526	10.16
46	05088-004	476896	6.01	816138	6.83	765475	10.16
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IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3721.D
Acq On : 2 Jun 2010 6:04 am
Operator : Sylvia
Sample : TRIP,05088-001,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Jun 02 10:55:53 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	418360	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	775263	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	735954	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	290616	32.92	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 109.73%			
41) Toluene-d8	8.49	98	843455	27.73	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 92.43%			
59) Bromofluorobenzene	11.56	95	346778	28.81	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 96.03%			

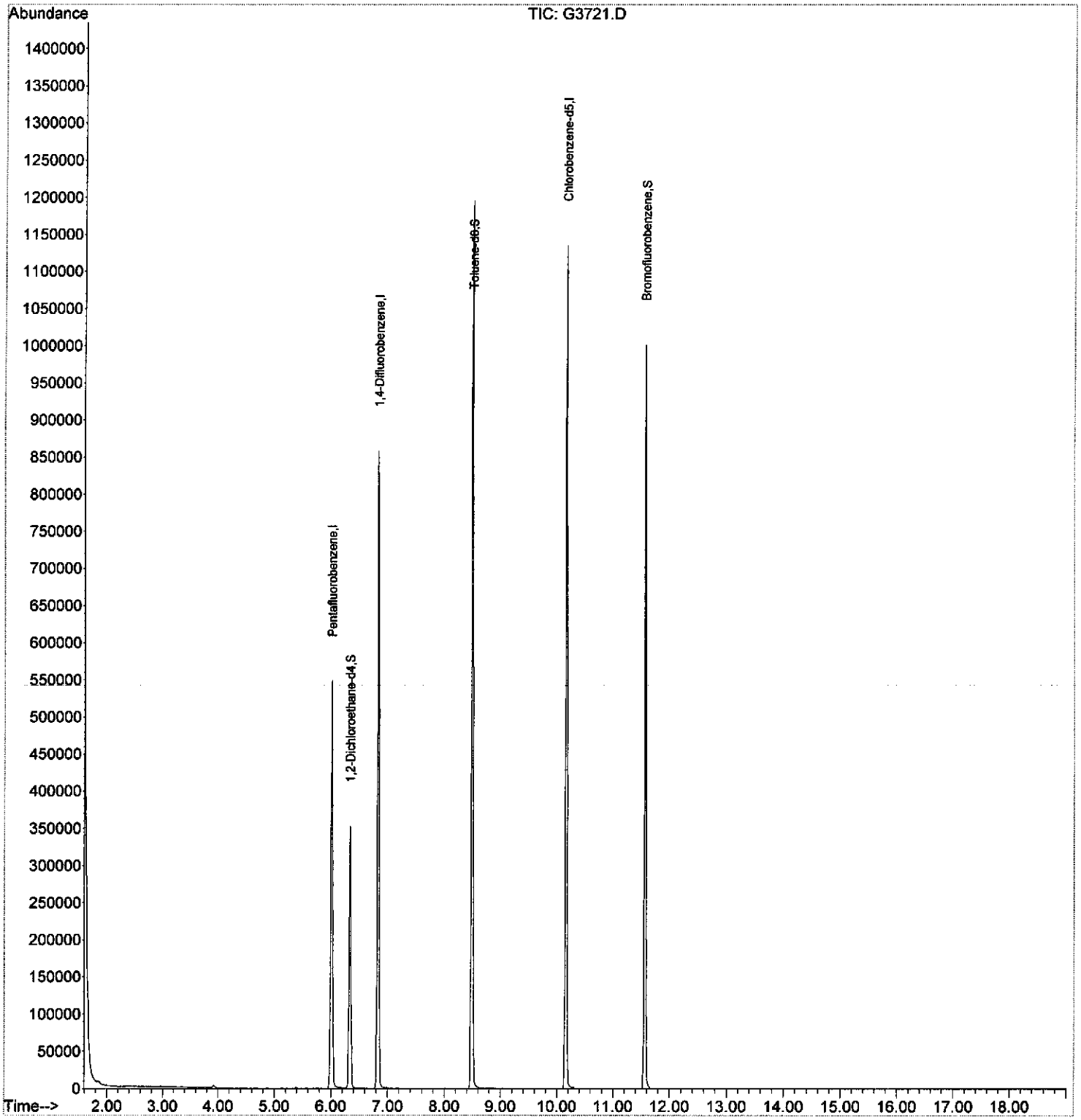
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3721.D
Acq On : 2 Jun 2010 6:04 am
Operator : Sylvia
Sample : TRIP,05088-001,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Jun 02 10:55:53 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3721.D
Acq On : 2 Jun 2010 6:04 am
Operator : Sylvia
Sample : TRIP,05088-001,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 45 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA052510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	834	847	871	rBV	548331	1175075	53.63%	12.337%
2	6.334	896	909	939	rBV	351886	771240	35.20%	8.097%
3	6.826	992	1003	1024	rBV	857776	1664498	75.97%	17.476%
4	8.489	1310	1321	1362	rBV	1195703	2191066	100.00%	23.004%
5	10.157	1630	1640	1675	rVB	1135332	2041402	93.17%	21.433%
6	11.559	1898	1908	1932	rBV	1001332	1681381	76.74%	17.653%

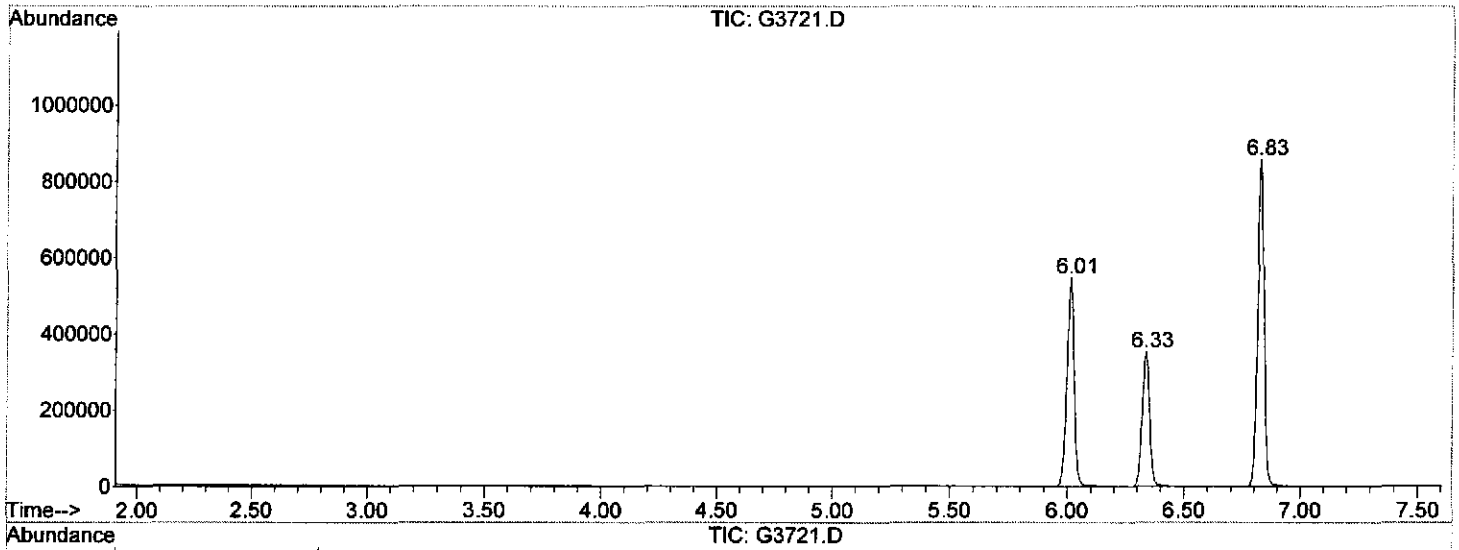
Sum of corrected areas: 9524662

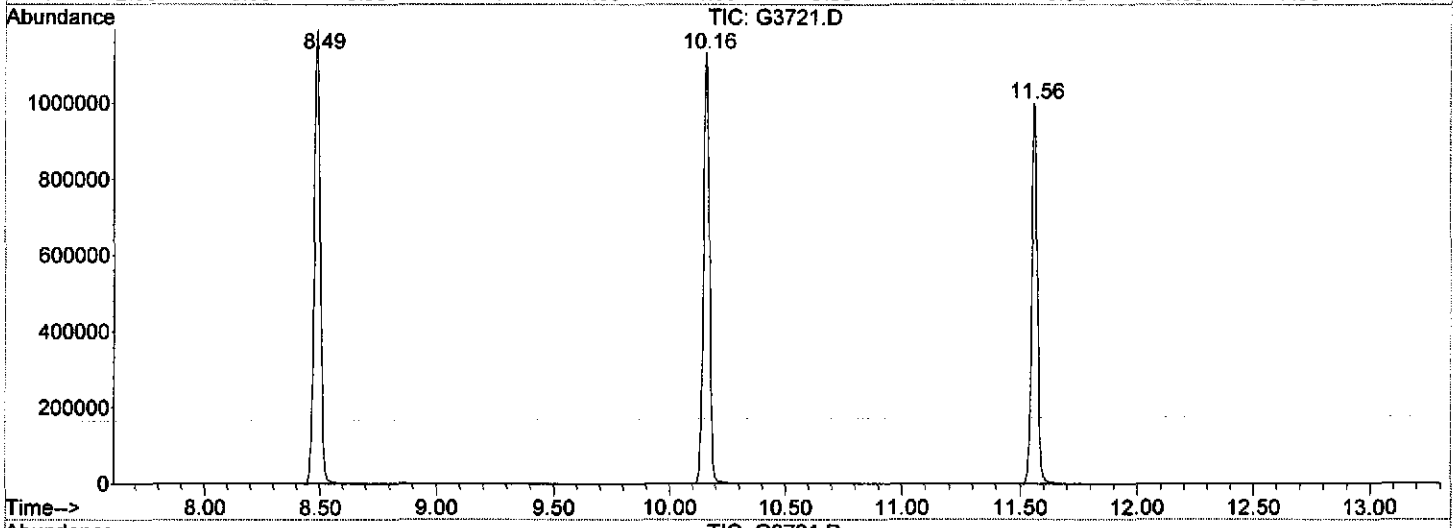
LSC Report - Integrated Chromatogram

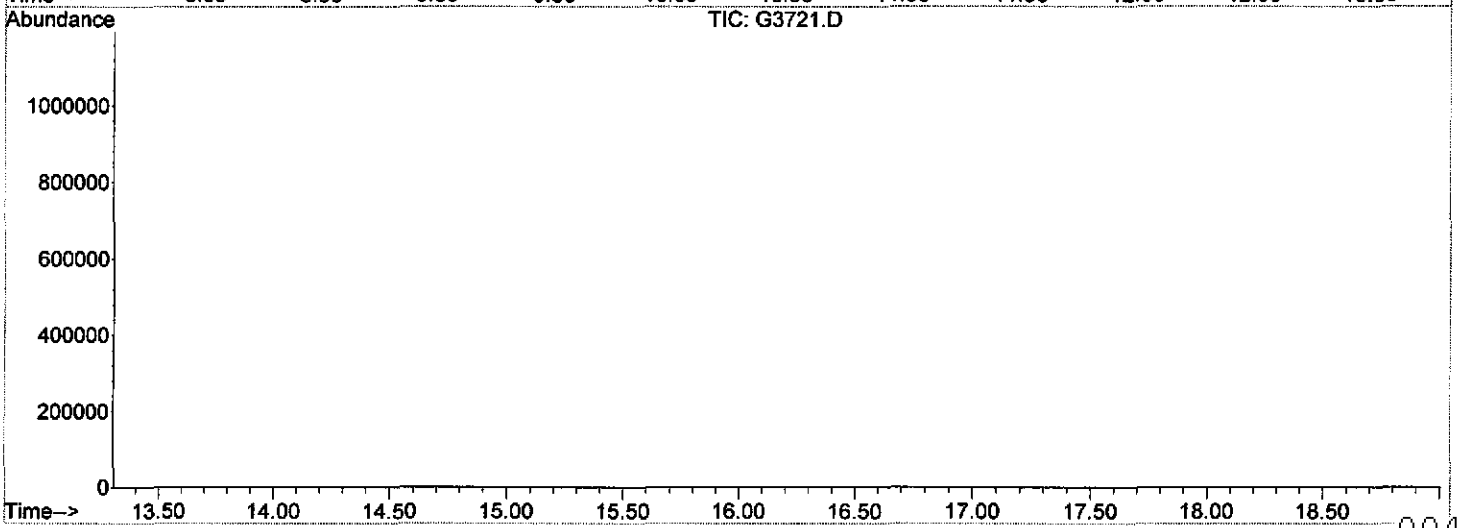
Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3721.D
Acq On : 2 Jun 2010 6:04 am
Operator : Sylvia
Sample : TRIP,05088-001,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3722.D
Acq On : 2 Jun 2010 6:32 am
Operator : Sylvia
Sample : FIELD,05088-002,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Jun 02 10:57:53 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	408624	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	741123	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	705809	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	281486	32.65	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery =	108.83%		
41) Toluene-d8	8.49	98	809919	27.86	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery =	92.87%		
59) Bromofluorobenzene	11.56	95	342009	29.62	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery =	98.73%		

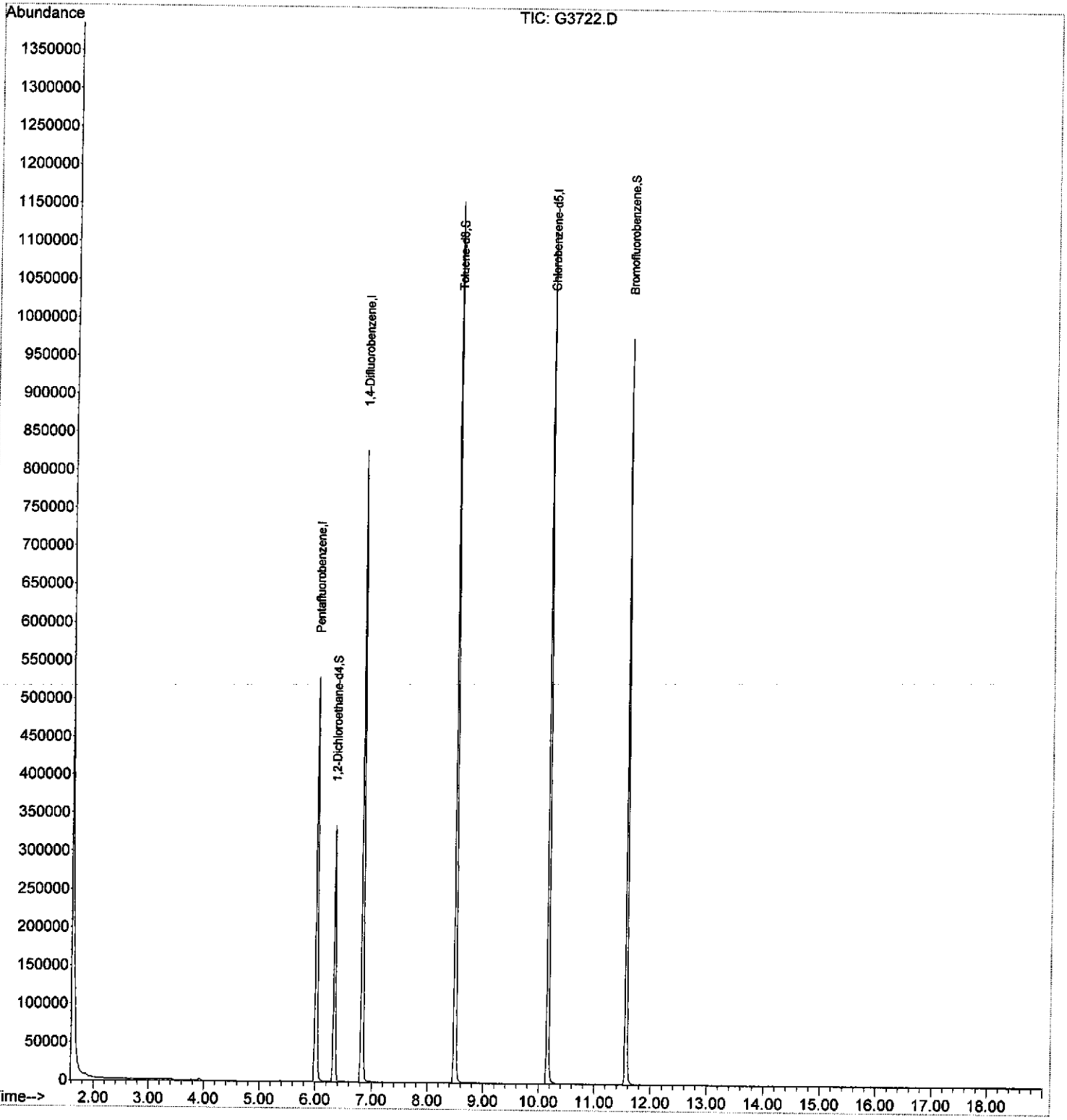
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3722.D
Acq On : 2 Jun 2010 6:32 am
Operator : Sylvia
Sample : FIELD,05088-002,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Jun 02 10:57:53 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3722.D
Acq On : 2 Jun 2010 6:32 am
Operator : Sylvia
Sample : FIELD,05088-002,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 46 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA052510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	832	847	881	rBV	530412	1148642	54.31%	12.466%
2	6.334	898	909	927	rBV	334497	741793	35.08%	8.050%
3	6.826	993	1003	1029	rBV	827277	1600874	75.70%	17.374%
4	8.489	1311	1321	1358	rBV	1154551	2114789	100.00%	22.951%
5	10.157	1629	1640	1665	rBV	1116454	1968176	93.07%	21.360%
6	11.559	1898	1908	1933	rBV	977679	1640155	77.56%	17.800%

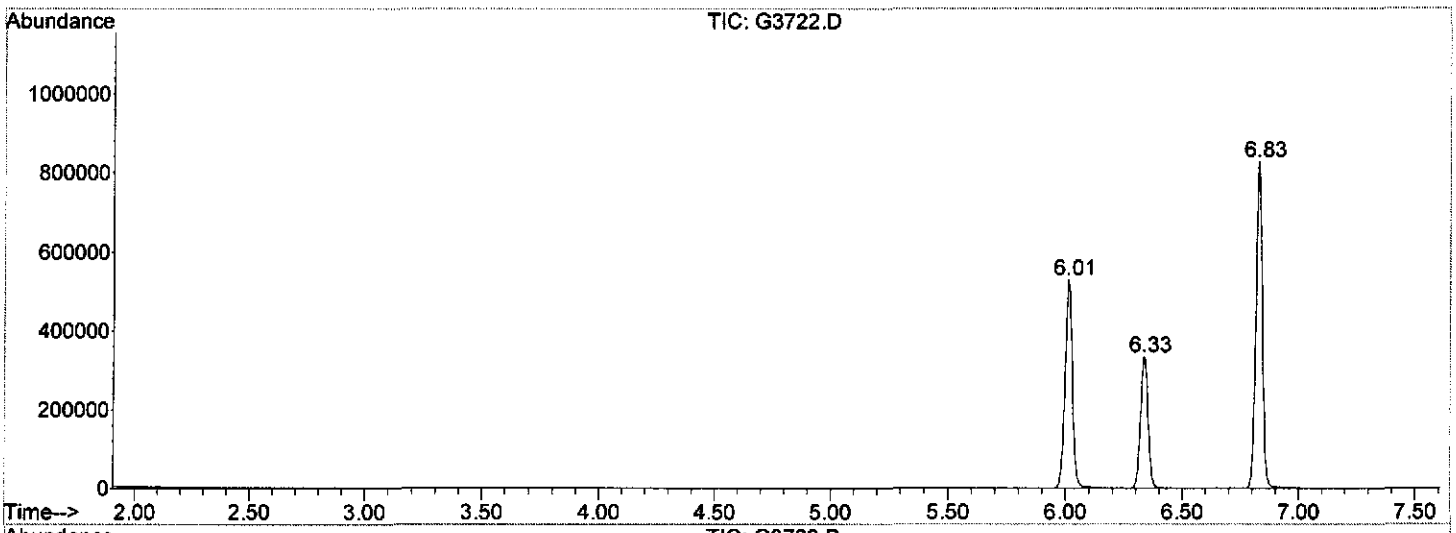
Sum of corrected areas: 9214429

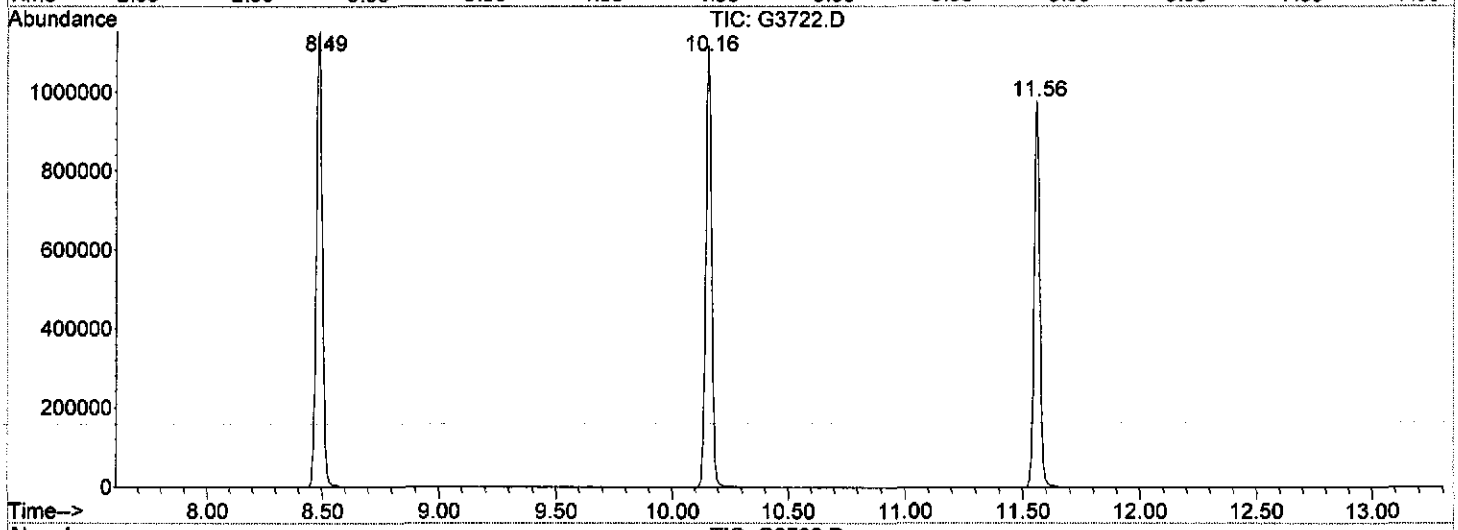
LSC Report - Integrated Chromatogram

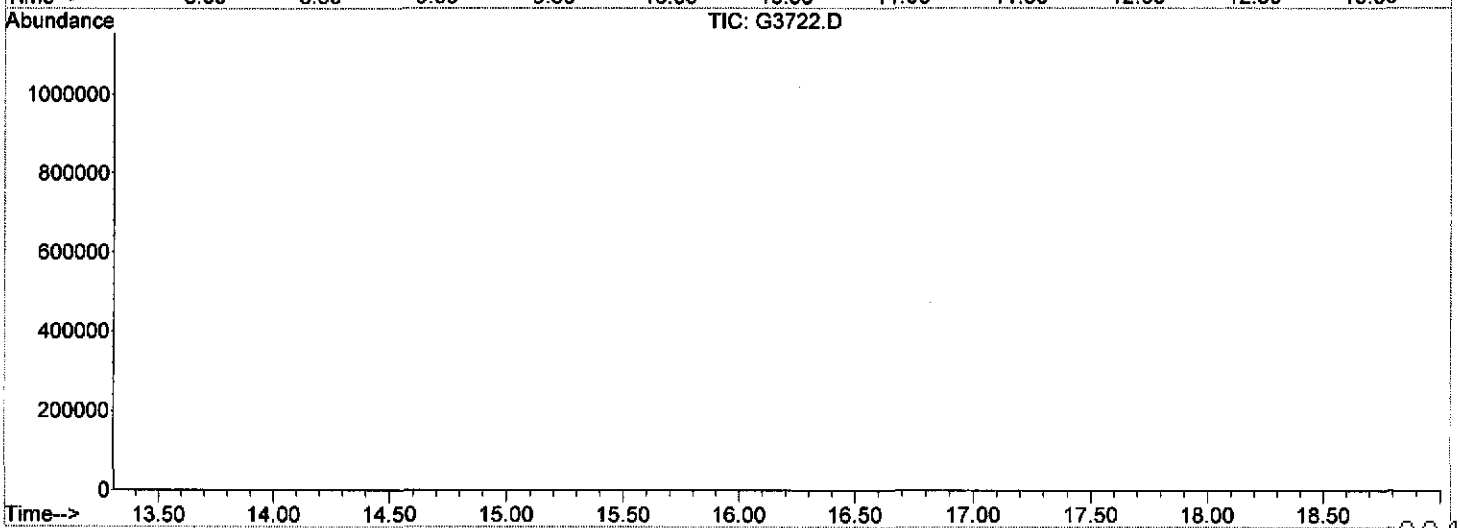
Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3722.D
Acq On : 2 Jun 2010 6:32 am
Operator : Sylvia
Sample : FIELD,05088-002,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 46 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jun 02 11:01:26 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration

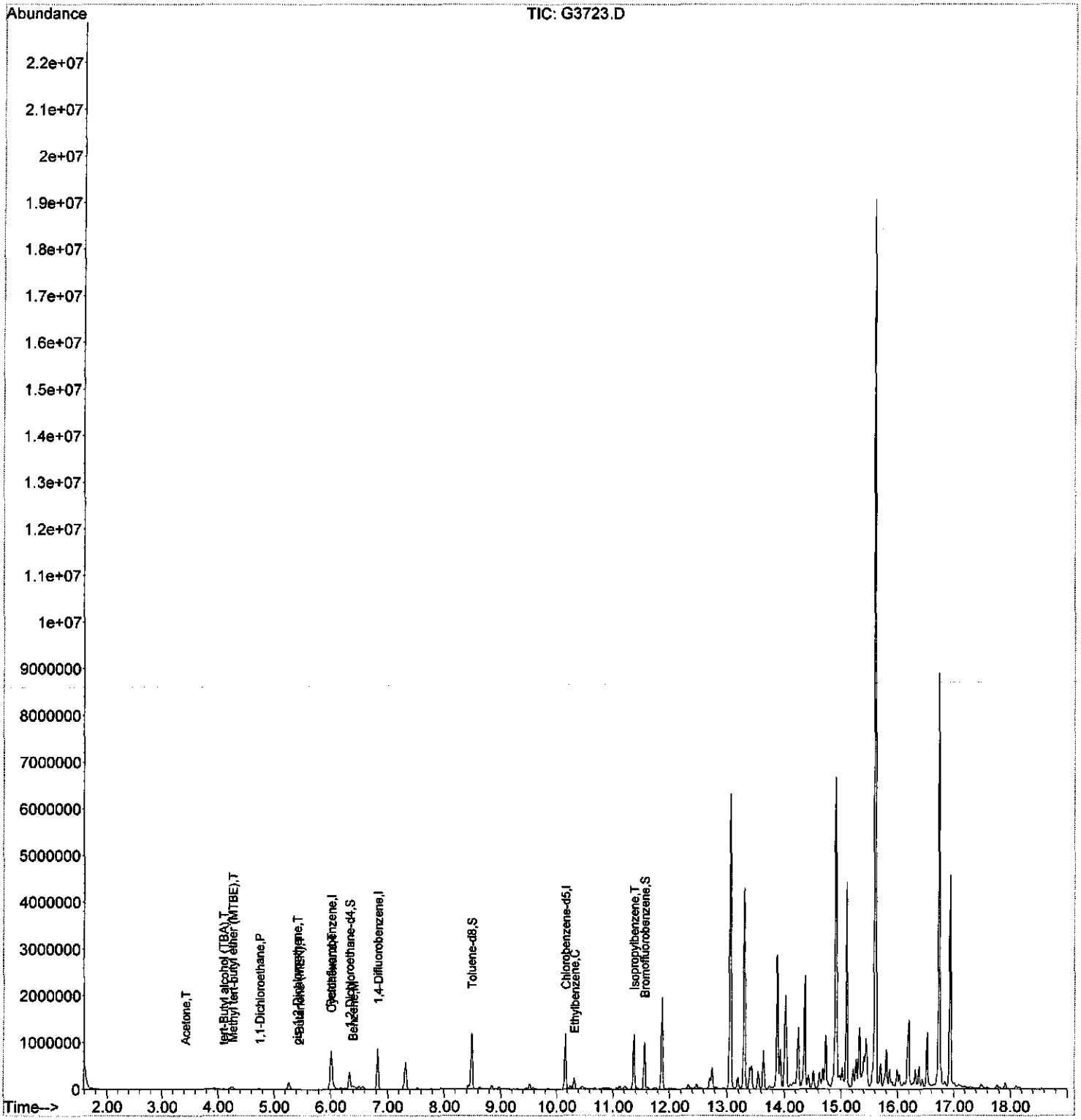
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	507941	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.83	114	813374	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	763526	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	301729	28.15	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 93.83%				
41) Toluene-d8	8.48	98	922956	28.92	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 96.40%				
59) Bromofluorobenzene	11.56	95	380273	30.45	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 101.50%				
Target Compounds							Qvalue
10) Acetone	3.42	43	12206	4.78	UG	#	1
15) tert-Butyl alcohol (TBA)	4.10	59	1659	3.22	UG	#	90
17) Methyl tert-butyl ether (M	4.26	73	48164	2.45	UG		100
18) 1,1-Dichloroethane	4.73	63	16337	1.25	UG		99
20) cis-1,2-Dichloroethene	5.42	96	2052	0.28	UG	#	93
22) 2-Butanone (MEK)	5.45	43	6128	1.83	UG	#	1
32) Benzene	6.39	78	75058	2.49	UG		100
53) Ethylbenzene	10.32	91	183221	6.10	UG		98
58) Isopropylbenzene	11.37	105	902577	38.89	UG	#	98
82) Cyclohexane	6.03	56	171983	13.10	UG	#	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jun 02 11:01:26 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.1
Stop Thrs : 0.1

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA052510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.272	694	706	721	rVB3	151402	397765	1.18%	0.246%
2	6.010	833	847	872	rBV2	802661	2194150	6.49%	1.359%
3	6.334	900	909	917	rBV	349079	786969	2.33%	0.487%
4	6.826	993	1003	1025	rBV	867536	1745020	5.16%	1.081%
5	7.317	1081	1097	1118	rBV	568004	1409317	4.17%	0.873%
6	8.484	1312	1320	1336	rVB	1190352	2421192	7.16%	1.500%
7	10.157	1627	1640	1651	rBV	1177013	2143718	6.34%	1.328%
8	10.319	1664	1671	1680	rVB	232443	421212	1.25%	0.261%
9	11.371	1857	1872	1893	rBV	1156428	2190651	6.48%	1.357%
10	11.559	1893	1908	1916	rBV	997984	1836844	5.43%	1.138%
11	11.873	1958	1968	1985	rBV	1958623	3579822	10.59%	2.217%
12	12.715	2118	2129	2131	rBV	236684	409005	1.21%	0.253%
13	12.752	2131	2136	2144	rVB	438764	837188	2.48%	0.518%
14	13.060	2183	2195	2212	rBV	6309616	11427010	33.80%	7.077%
15	13.196	2212	2221	2228	rVV	245734	452193	1.34%	0.280%
16	13.306	2228	2242	2253	rVV	4278493	7766333	22.97%	4.810%
17	13.405	2253	2261	2264	rVV2	455530	888098	2.63%	0.550%
18	13.431	2264	2266	2280	rVB	476679	767249	2.27%	0.475%
19	13.552	2280	2289	2298	rBV	375798	722298	2.14%	0.447%
20	13.641	2298	2306	2318	rVB	812741	1479545	4.38%	0.916%
21	13.881	2335	2352	2358	rBV	2835697	5277935	15.61%	3.269%
22	13.934	2358	2362	2370	rVV	810139	1411639	4.18%	0.874%
23	14.023	2370	2379	2391	rVB3	1960885	4791876	14.17%	2.968%
24	14.253	2414	2423	2431	rVB2	1263030	2658018	7.86%	1.646%
25	14.362	2431	2444	2452	rBV	2354260	4288634	12.69%	2.656%
26	14.430	2452	2457	2466	rVB3	259358	528065	1.56%	0.327%
27	14.519	2466	2474	2485	rVB3	359835	729970	2.16%	0.452%
28	14.624	2485	2494	2501	rBV2	336418	695989	2.06%	0.431%
29	14.687	2501	2506	2510	rBV2	327524	504901	1.49%	0.313%
30	14.734	2510	2515	2532	rVB	1101100	2068312	6.12%	1.281%
31	14.912	2532	2549	2560	rBV2	6617805	13424277	39.71%	8.314%
32	15.027	2567	2571	2579	rVB	287657	406610	1.20%	0.252%
33	15.105	2579	2586	2600	rVB	4362693	7142430	21.13%	4.423%
34	15.220	2600	2608	2613	rBV2	387579	733528	2.17%	0.454%
35	15.278	2613	2619	2623	rVV	475124	796334	2.36%	0.493%
36	15.330	2623	2629	2636	rVV4	1164487	2289209	6.77%	1.418%
37	15.414	2636	2645	2647	rVV2	538559	1152794	3.41%	0.714%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA052510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

38	15.445	2647	2651	2664	rVB2	1023534	2358248	6.98%	1.461%
39	15.607	2664	2682	2693	rBV	18997677	33805449	100.00%	20.937%
40	15.701	2693	2700	2707	rVB	474215	865206	2.56%	0.536%
41	15.801	2707	2719	2726	rBV4	773428	1690516	5.00%	1.047%
42	15.864	2726	2731	2737	rBV2	312312	503134	1.49%	0.312%
43	16.000	2749	2757	2761	rBV2	354520	637347	1.89%	0.395%
44	16.198	2784	2795	2806	rVB2	1385173	3290955	9.73%	2.038%
45	16.319	2813	2818	2825	rVB	310949	470250	1.39%	0.291%
46	16.387	2825	2831	2837	rVB	411066	635042	1.88%	0.393%
47	16.523	2849	2857	2877	rBV2	1156718	2097995	6.21%	1.299%
48	16.737	2884	2898	2914	rBV	8825052	14565849	43.09%	9.021%
49	16.936	2927	2936	2959	rVB	4493710	7769824	22.98%	4.812%

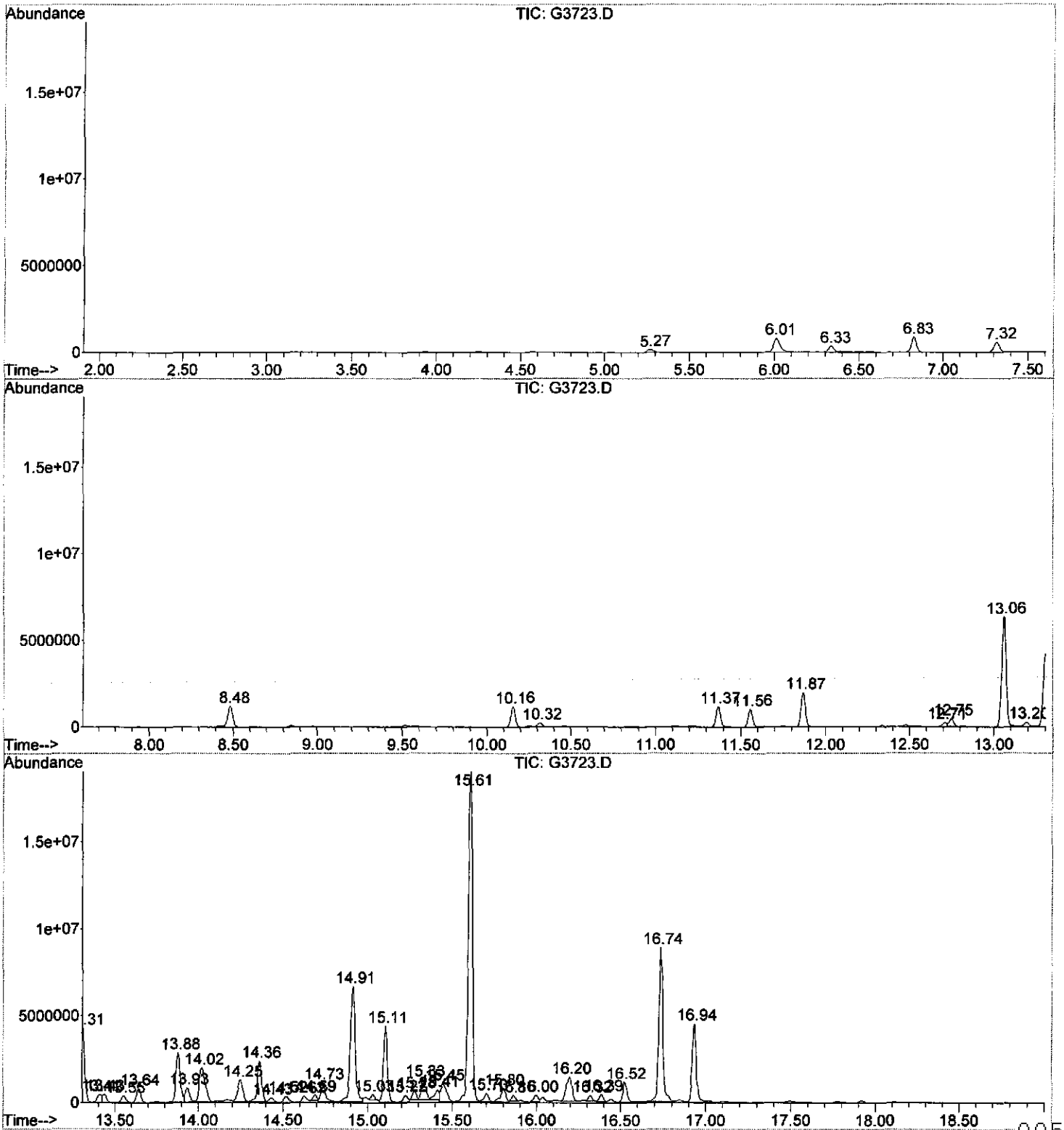
Sum of corrected areas: 161465915

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

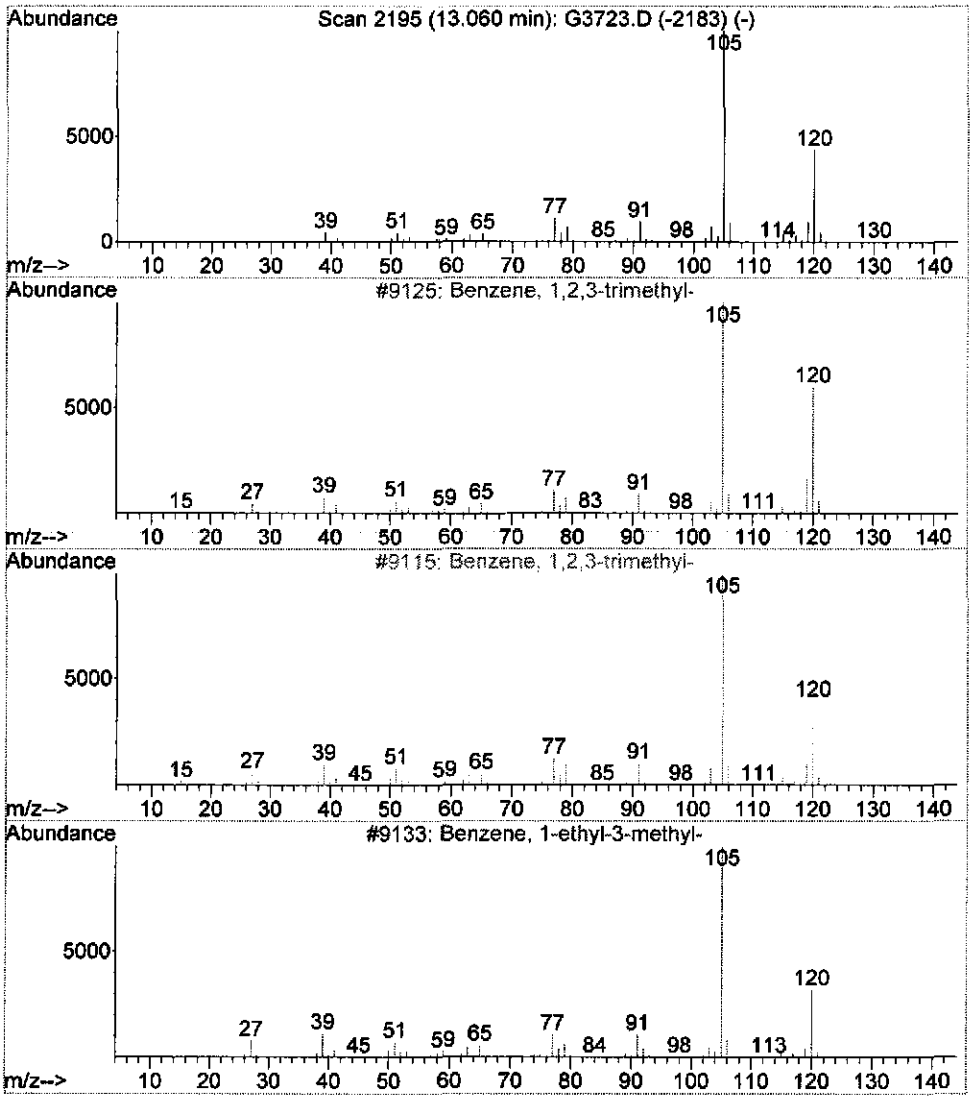
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

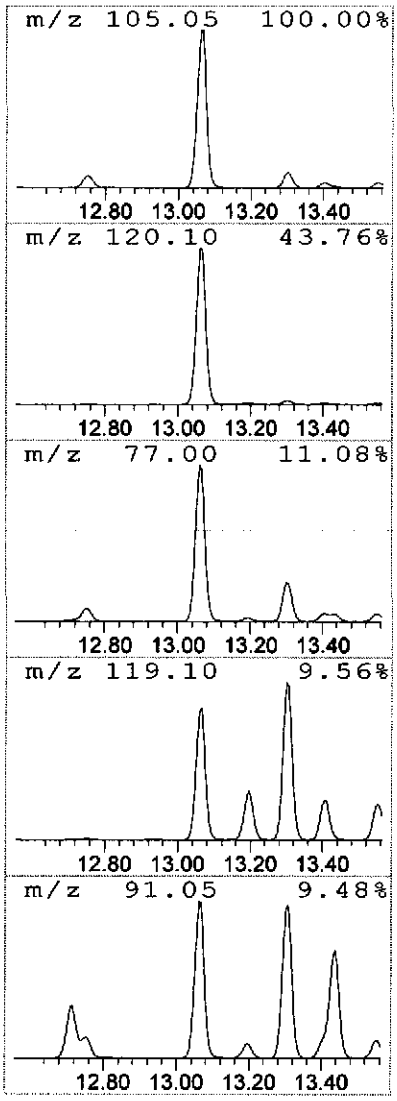
****

Peak Number 1 Substituted benzene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.06	159.91 UG	11427000	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
3	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
4	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

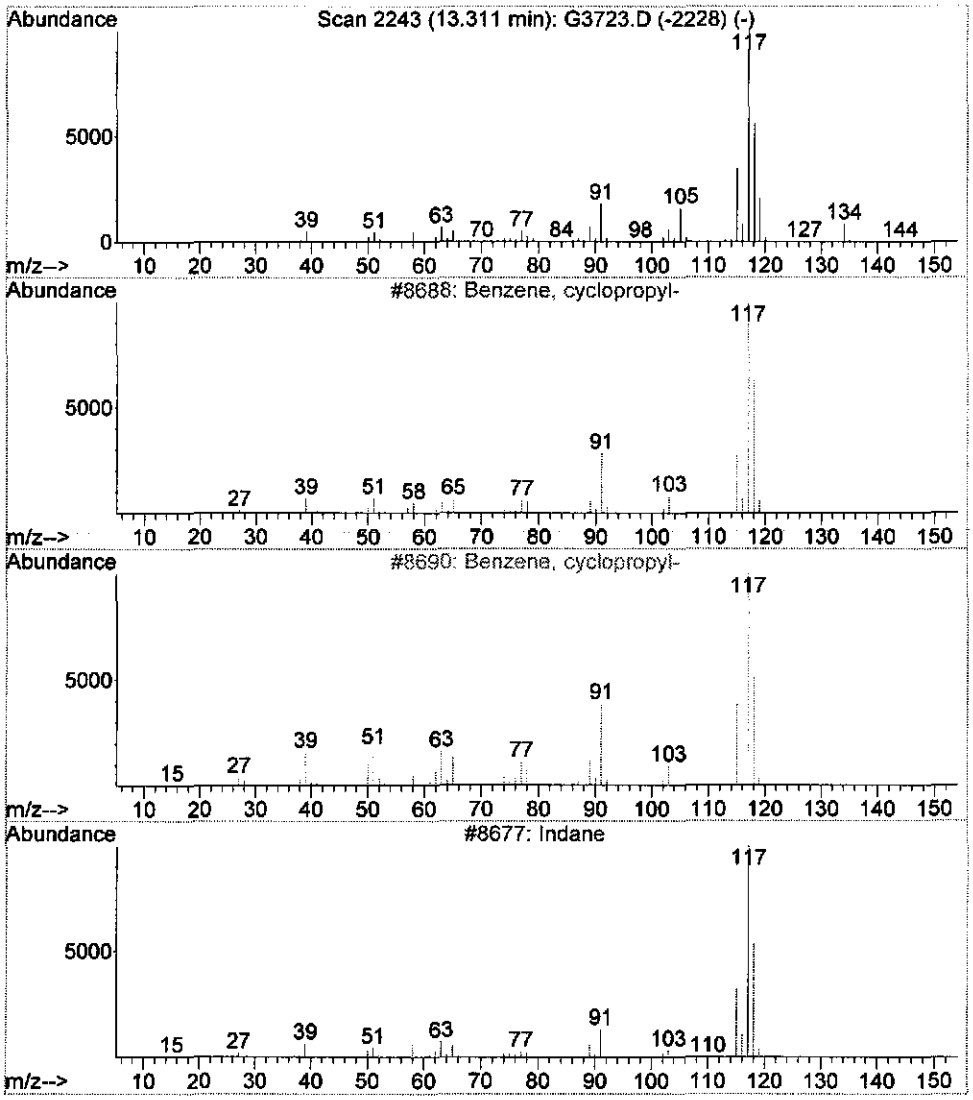
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

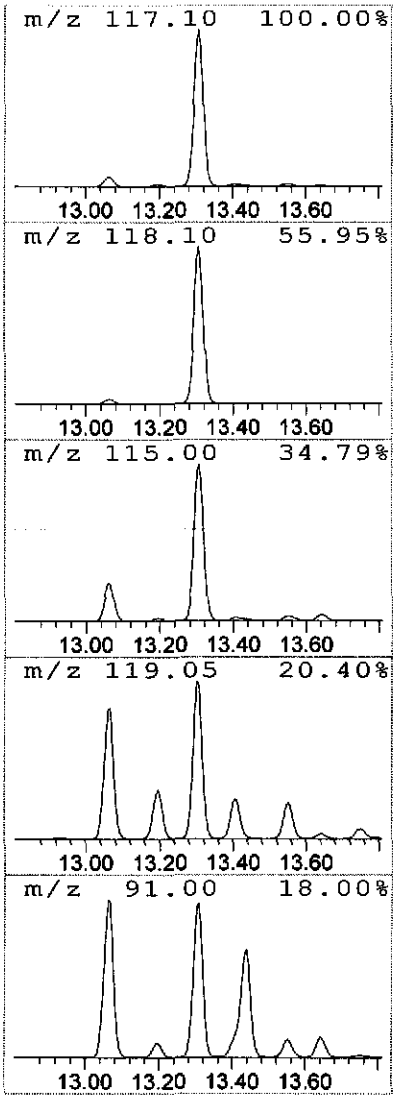
****

Peak Number 2 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.31	108.69 UG	7766330	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, cyclopropyl-	118	C9H10	000873-49-4	70
2	Benzene, cyclopropyl-	118	C9H10	000873-49-4	70
3	Indane	118	C9H10	000496-11-7	70
4	Indane	118	C9H10	000496-11-7	62
5	Benzene, cyclopropyl-	118	C9H10	000873-49-4	58





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

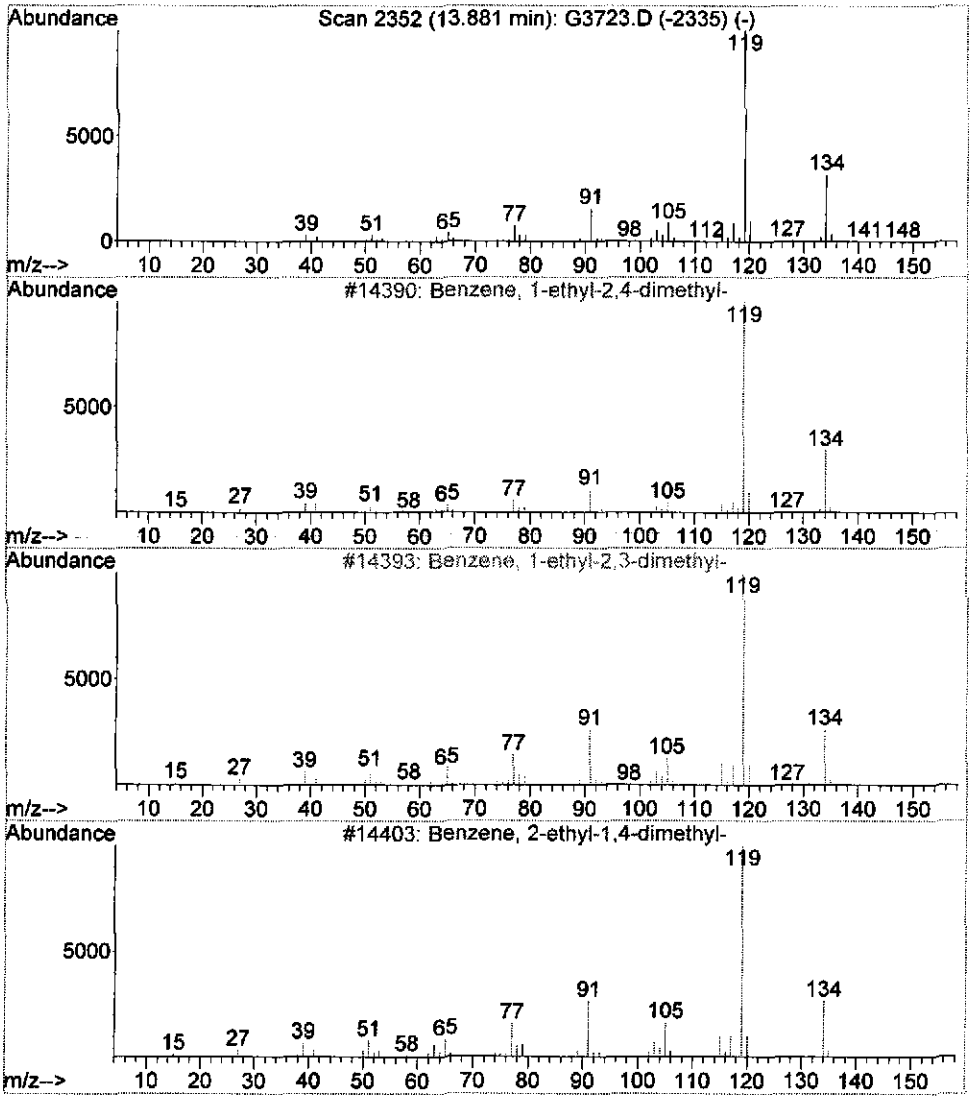
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

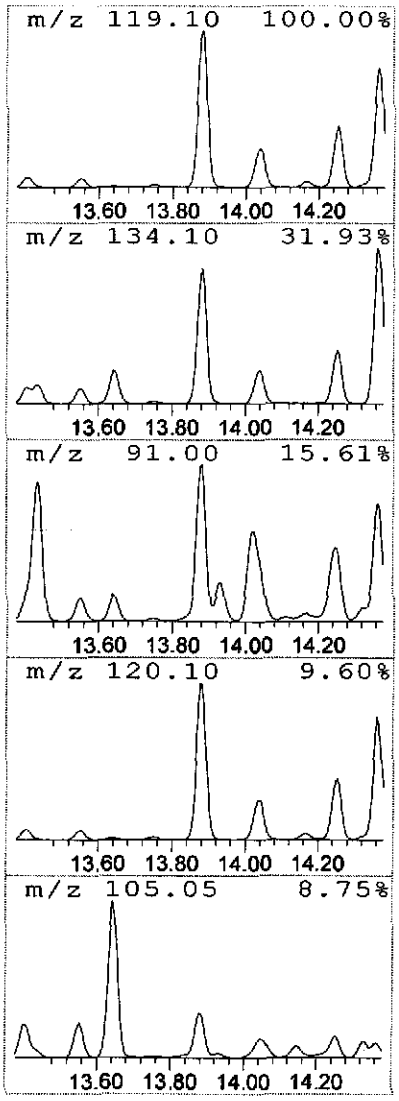
****

Peak Number 3 Substituted benzene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.88	73.86 UG	5277940	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	97
2	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	96
3	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	96
4	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	96
5	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

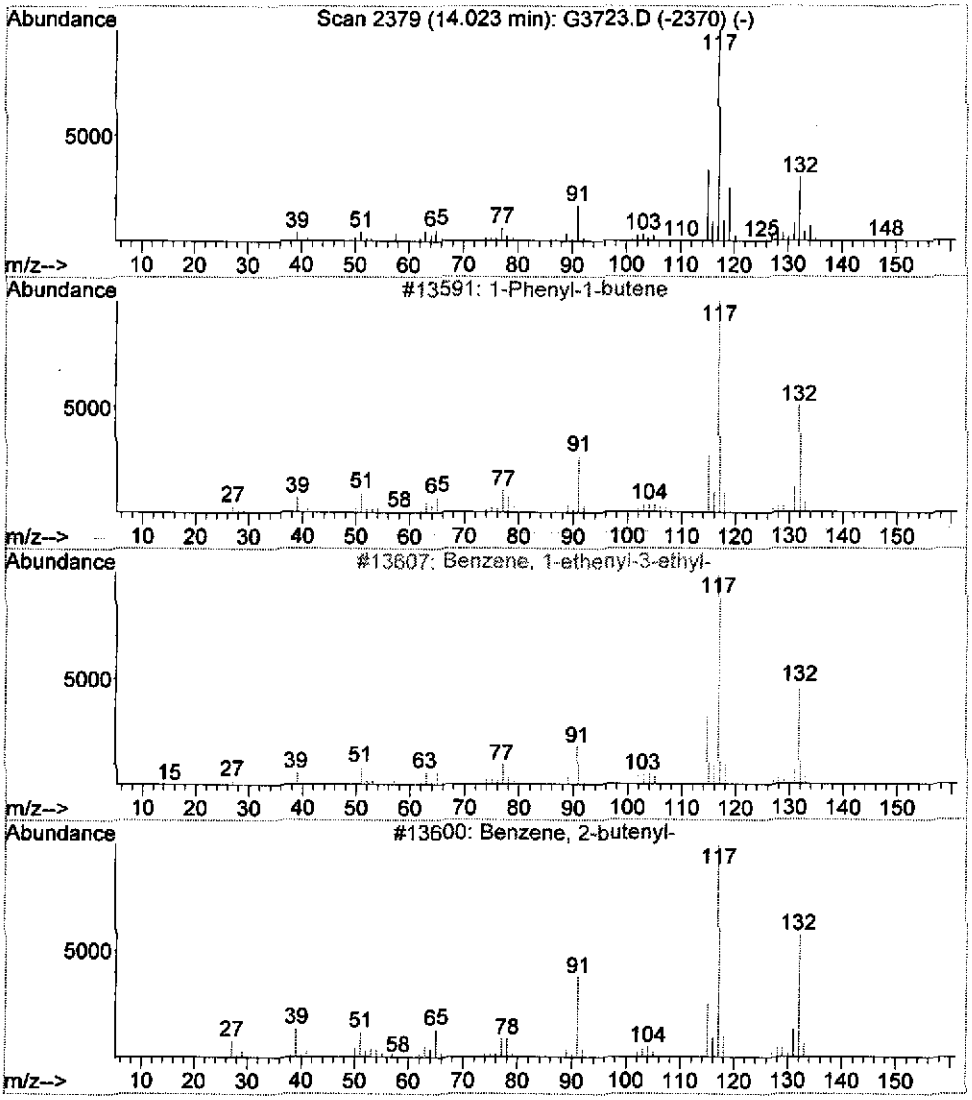
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

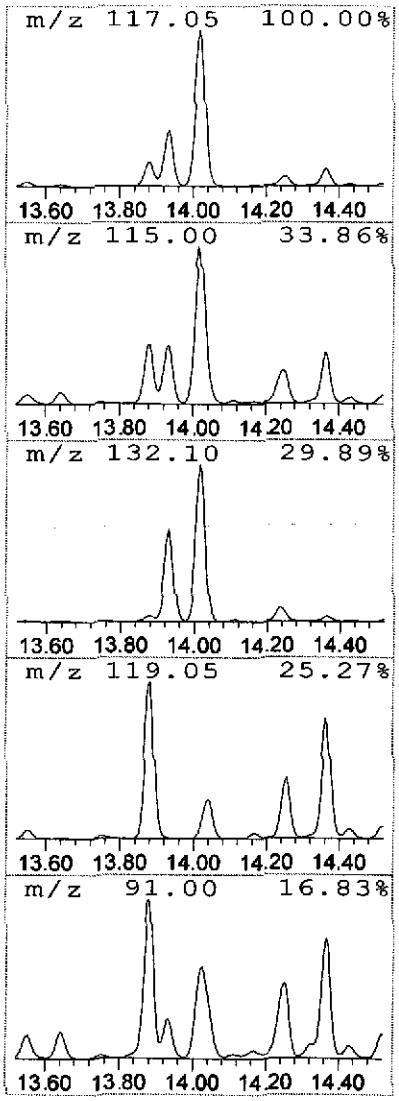
****

Peak Number 4 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	67.06 UG	4791880	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Phenyl-1-butene	132	C10H12	000824-90-8	87
2	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	87
3	Benzene, 2-butenyl-	132	C10H12	001560-06-1	83
4	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	83
5	Indan, 1-methyl-	132	C10H12	000767-58-8	81





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

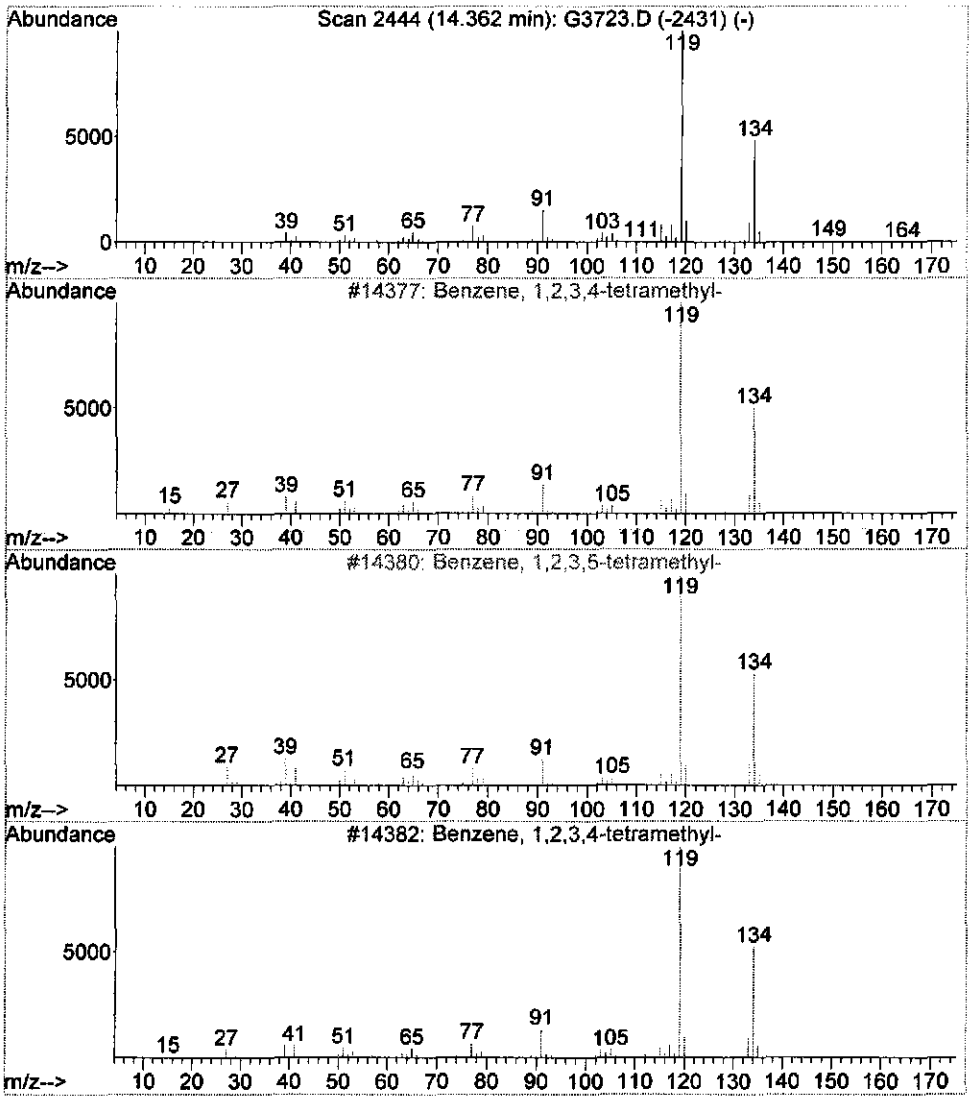
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

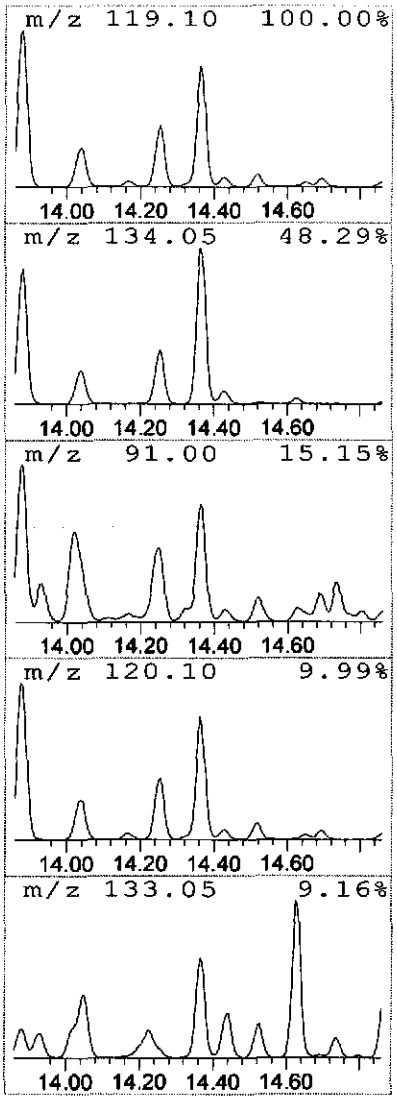
****

Peak Number 5 Substituted benzene Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.36	60.02 UG	4288630	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	97
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
4	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
5	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

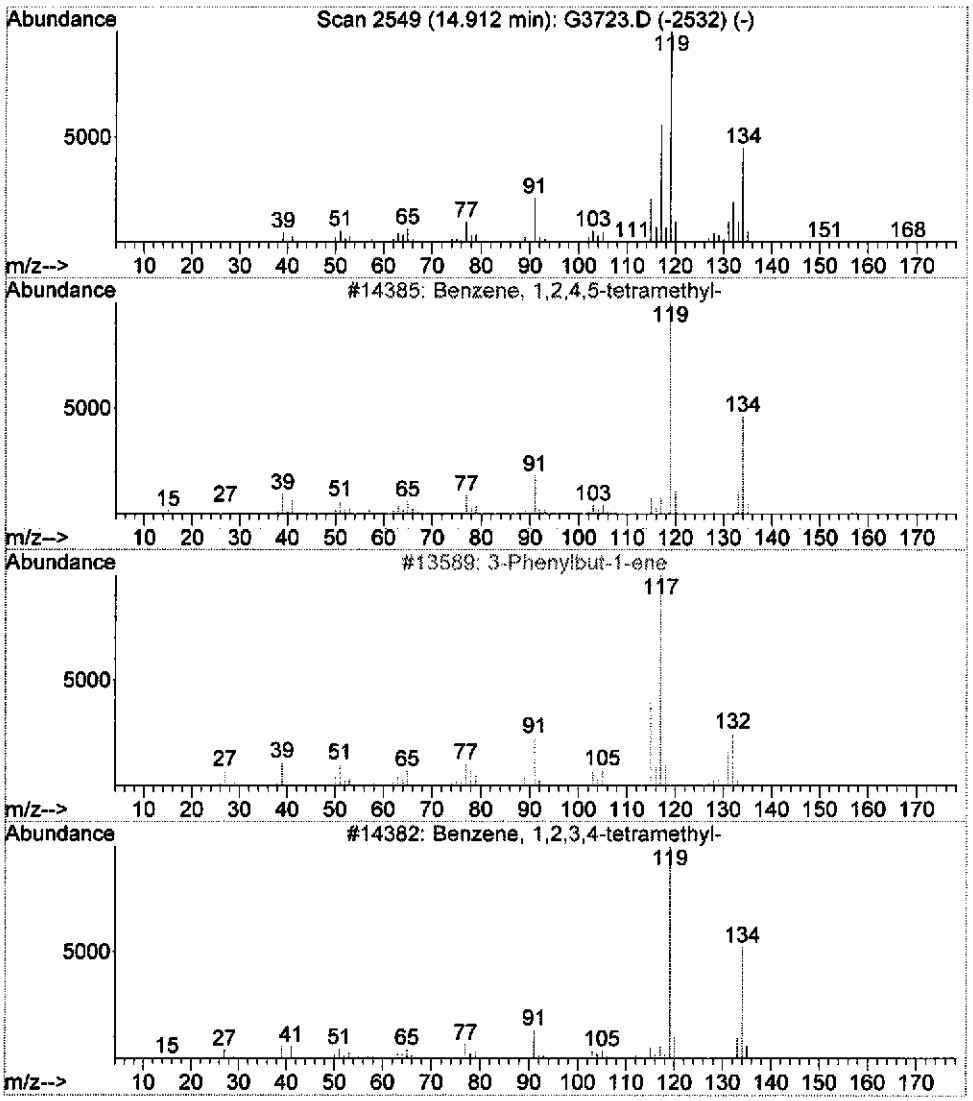
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

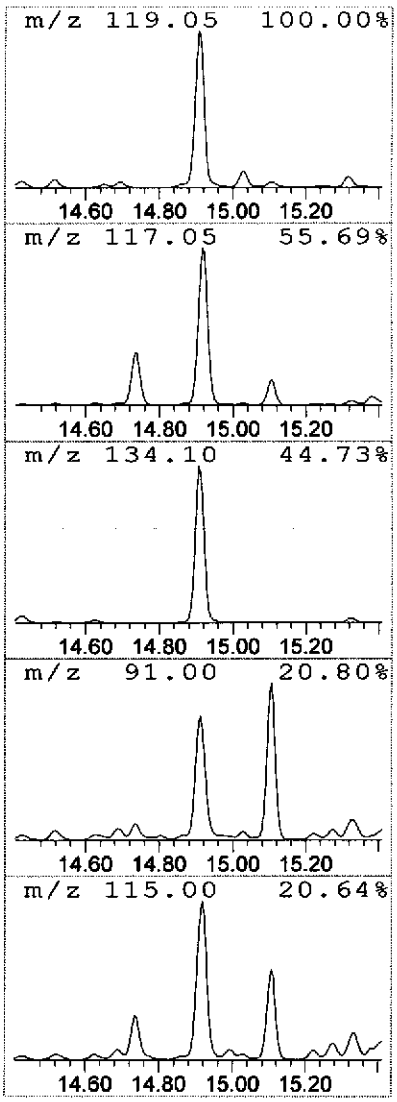
****

Peak Number 6 Substituted benzene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.91	187.86 UG	13424300	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	91
2	3-Phenylbut-1-ene	132	C10H12	000934-10-1	74
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	64
4	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	64
5	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	60





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

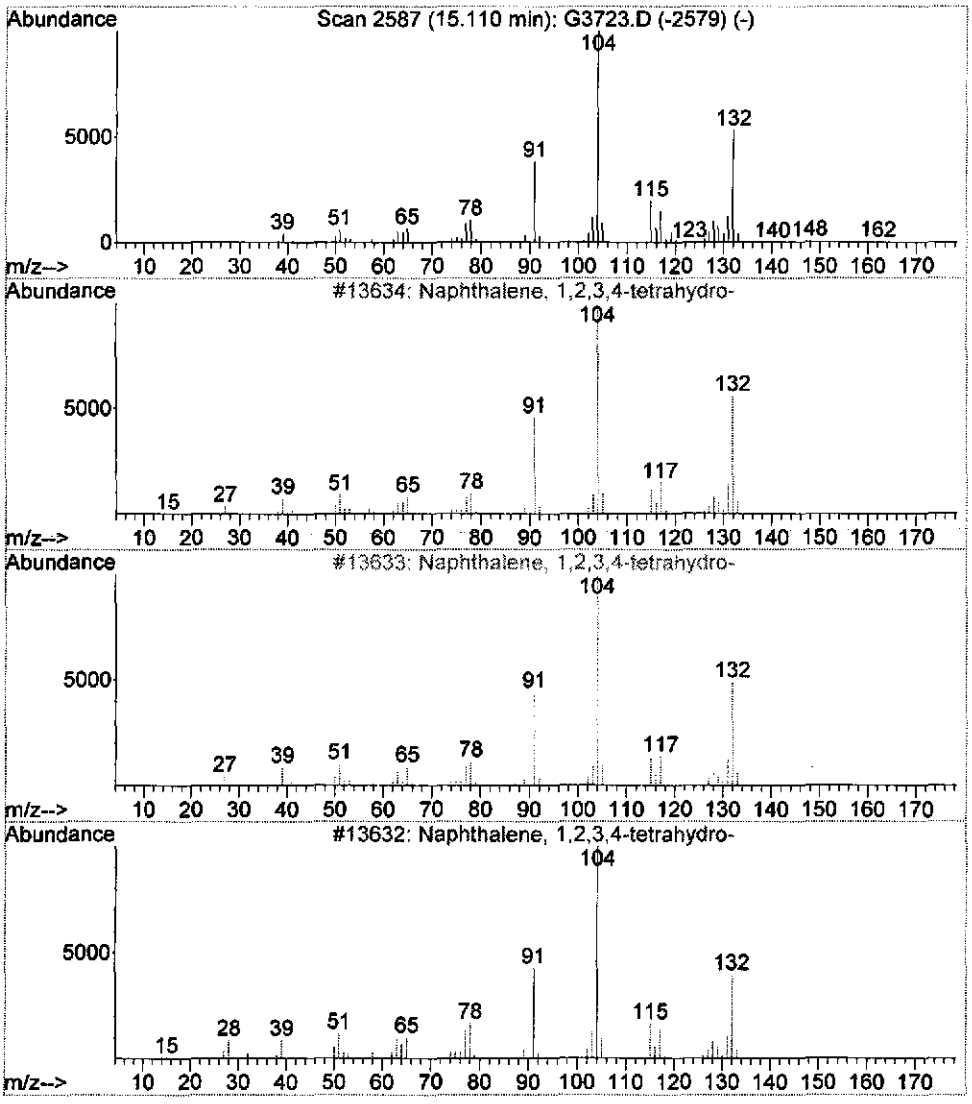
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

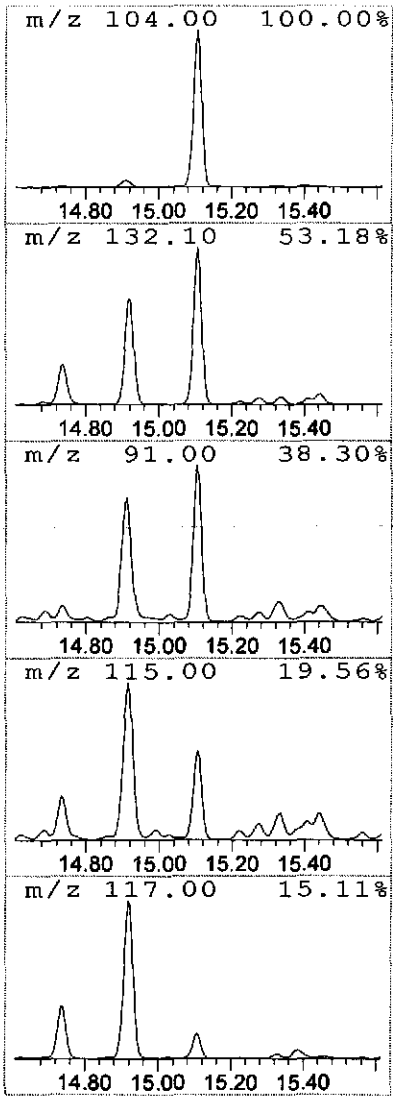
****

Peak Number 7 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.11	99.95 UG	7142430	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	96
2	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	96
3	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	95
4	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	91
5	2H-Inden-2-one, 1,3-dihydro-	132	C9H8O	000615-13-4	58





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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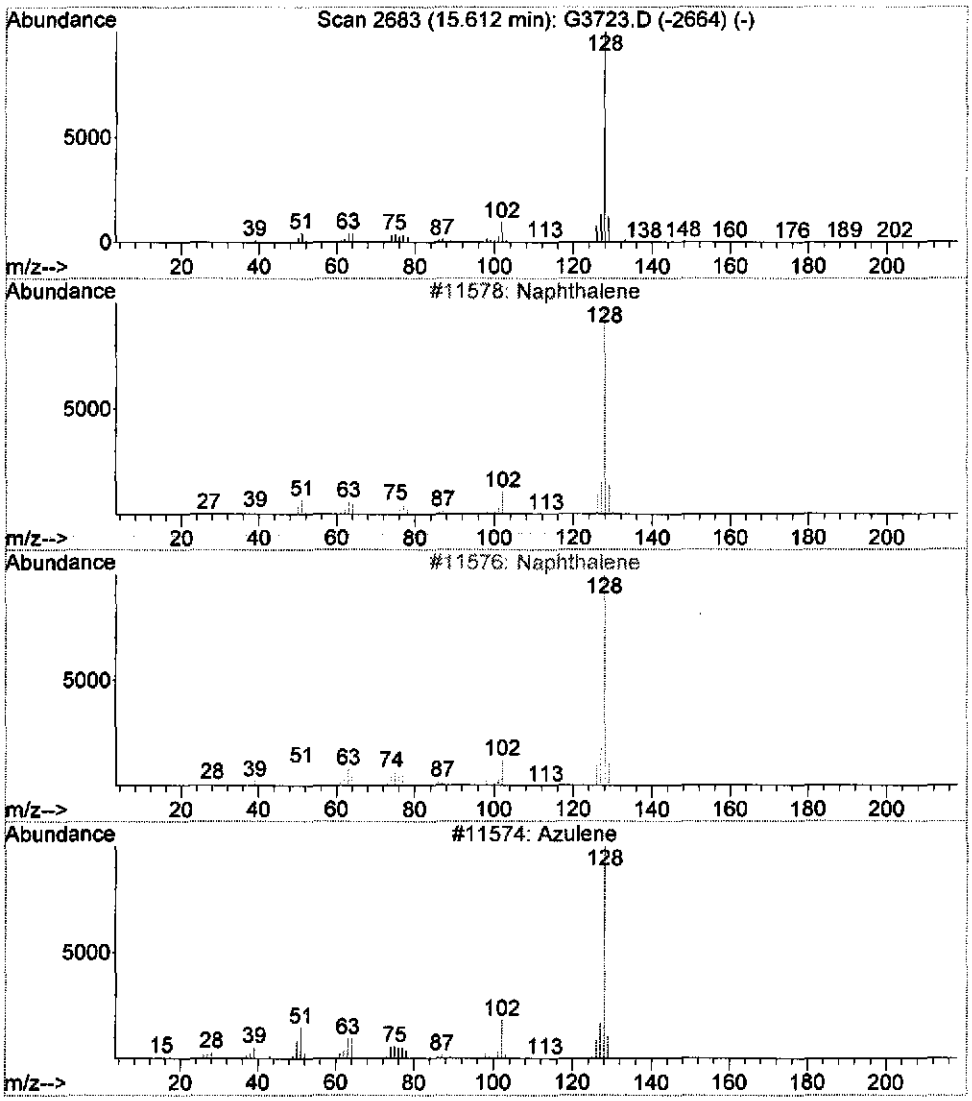
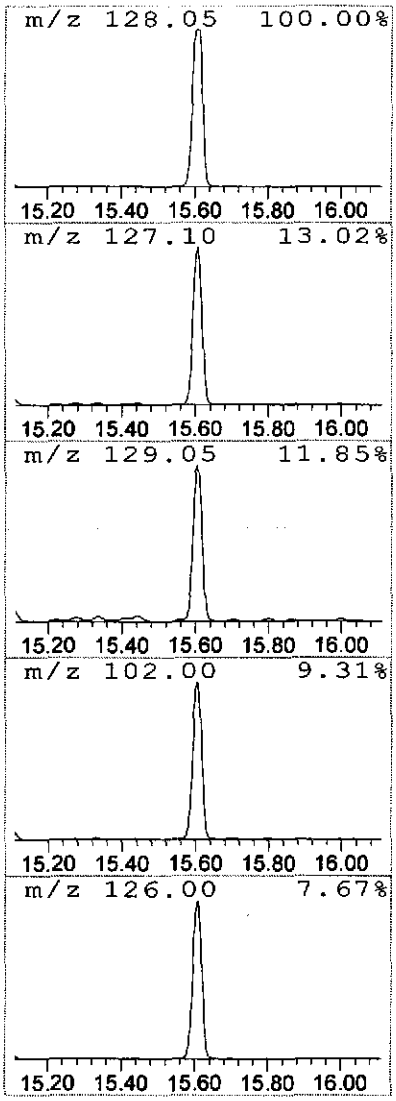
Peak Number 8 Naphthalene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.61	473.09 UG	33805400	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	97
2	Naphthalene	128	C10H8	000091-20-3	95
3	Azulene	128	C10H8	000275-51-4	94
4	Azulene	128	C10H8	000275-51-4	91
5	Azulene	128	C10H8	000275-51-4	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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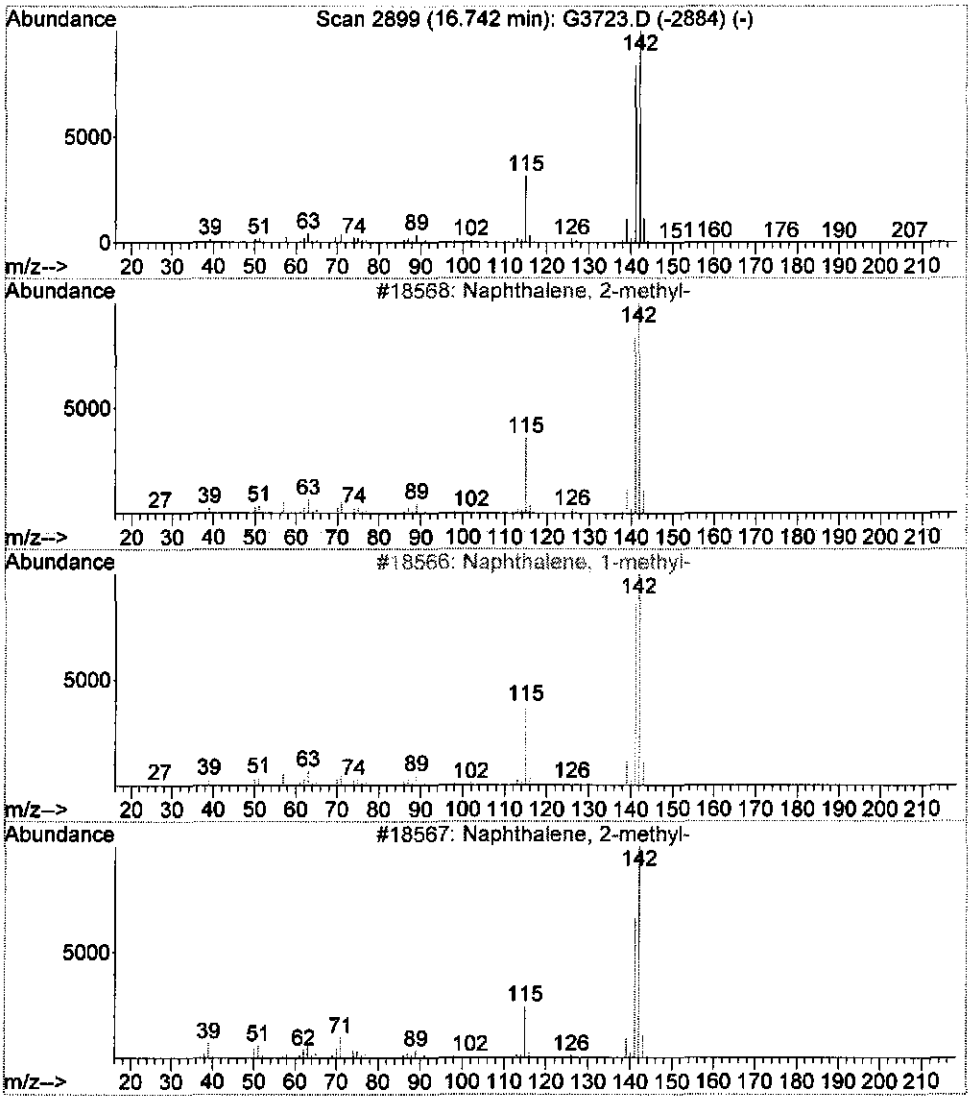
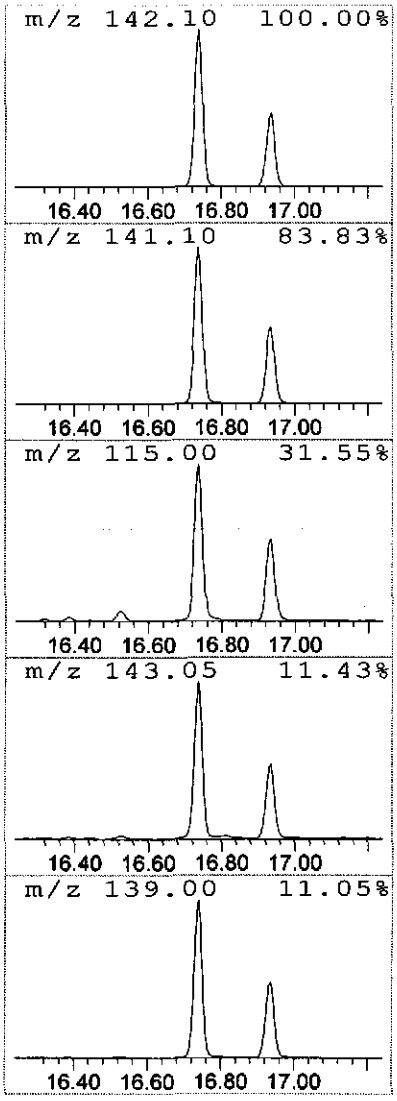
Peak Number 9 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.74	203.84 UG	14565800	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
3	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
5	Benzocycloheptatriene	142	C11H10	000264-09-5	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3723.D
Acq On : 2 Jun 2010 7:00 am
Operator : Sylvia
Sample : TW1A,05088-003,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

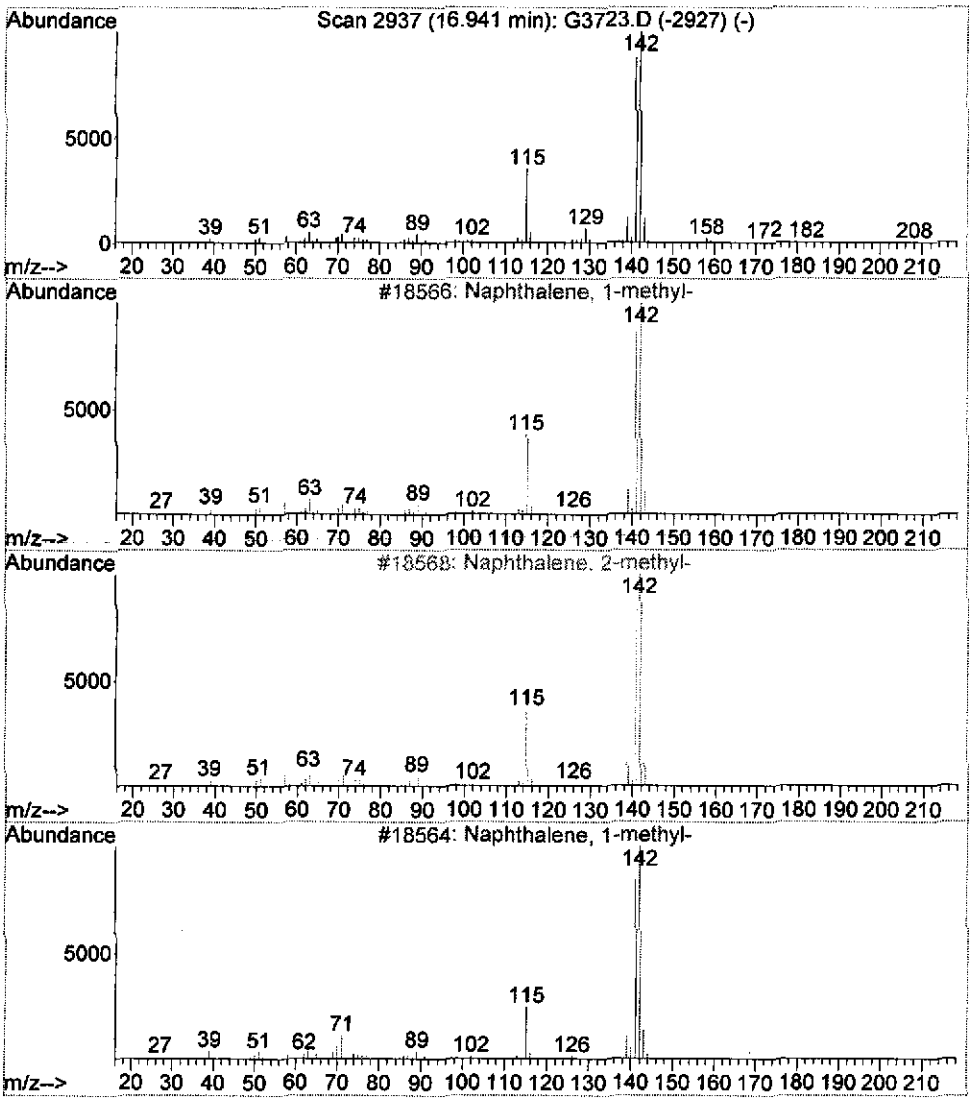
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

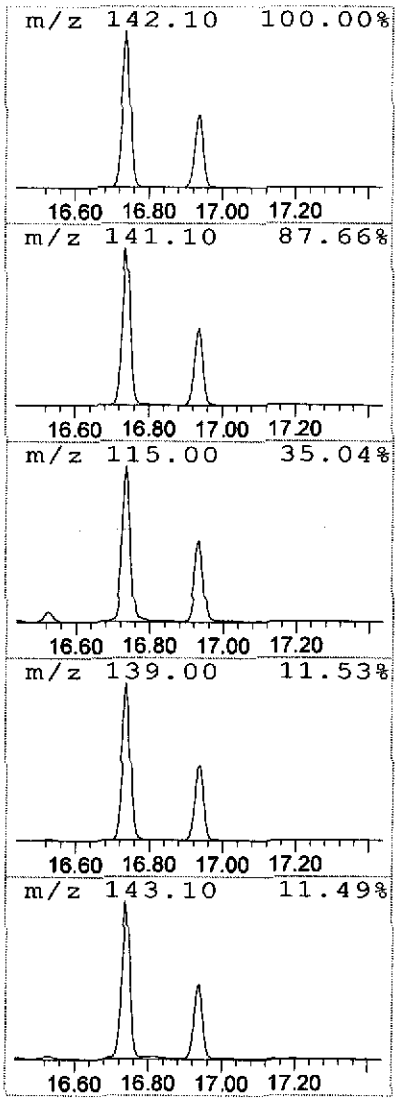
****

Peak Number 10 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.94	108.73 UG	7769820	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Jun 02 11:11:12 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration

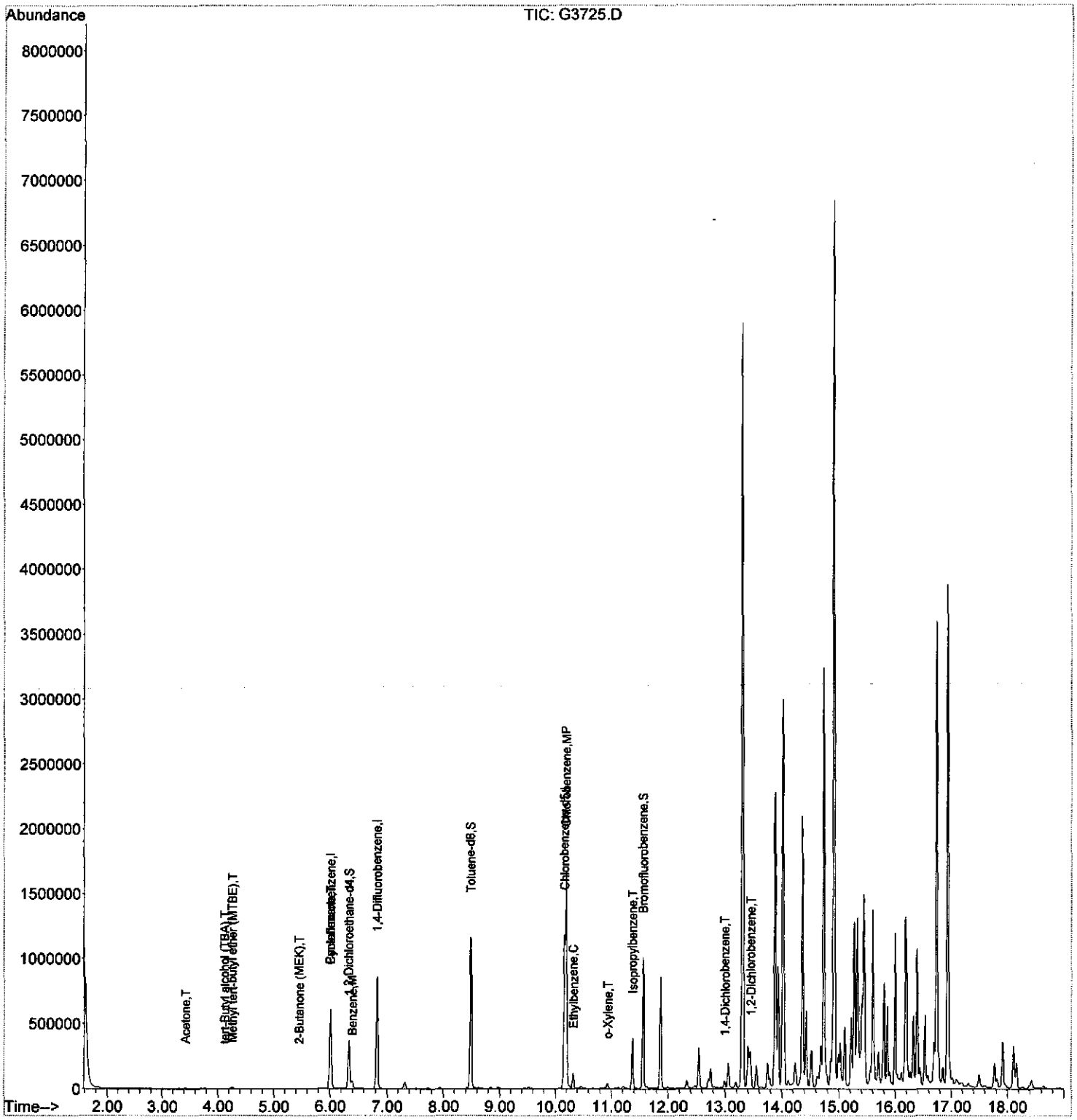
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	476896	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.83	114	816138	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	765475	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	308994	30.71	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 102.37%				
41) Toluene-d8	8.48	98	871675	27.22	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 90.73%				
59) Bromofluorobenzene	11.56	95	379956	30.34	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 101.13%				
Target Compounds							Qvalue
10) Acetone	3.43	43	11184	4.66	UG	#	1
15) tert-Butyl alcohol (TBA)	4.13	59	1662m	3.44	UG		
17) Methyl tert-butyl ether (M	4.26	73	15269	0.83	UG		100
22) 2-Butanone (MEK)	5.46	43	4172	1.32	UG	#	1
32) Benzene	6.39	78	66245	2.19	UG		100
51) Chlorobenzene	10.19	112	1091490	47.67	UG	#	65
53) Ethylbenzene	10.32	91	87786	2.92	UG	#	97
55) o-Xylene	10.93	106	13201	1.36	UG		85
58) Isopropylbenzene	11.37	105	287713	12.36	UG	#	98
72) 1,4-Dichlorobenzene	13.00	146	27304	1.68	UG		99
74) 1,2-Dichlorobenzene	13.46	146	58106	3.64	UG	#	83
82) Cyclohexane	6.02	56	14358	1.09	UG	#	48

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Jun 02 11:11:12 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA052510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	834	847	876	rBV	608429	1355296	10.27%	1.237%
2	6.334	898	909	917	rBV	366616	827602	6.27%	0.755%
3	6.826	993	1003	1026	rBV	861356	1746231	13.23%	1.594%
4	7.317	1081	1097	1110	rBV2	52335	133060	1.01%	0.121%
5	8.484	1311	1320	1342	rVB	1159544	2231764	16.91%	2.037%
6	10.157	1630	1640	1643	rBV	1180349	2231857	16.91%	2.037%
7	10.189	1643	1646	1663	rVV	1667511	2975128	22.54%	2.716%
8	10.320	1663	1671	1683	rVB	114373	211525	1.60%	0.193%
9	11.371	1860	1872	1891	rVB	385688	711189	5.39%	0.649%
10	11.559	1891	1908	1929	rBV	1002978	1849929	14.02%	1.689%
11	11.873	1959	1968	1986	rBV	851624	1568732	11.89%	1.432%
12	12.338	2046	2057	2072	rBV2	62303	144908	1.10%	0.132%
13	12.542	2089	2096	2111	rVB	304056	541769	4.10%	0.494%
14	12.715	2119	2129	2131	rBV2	72760	132511	1.00%	0.121%
15	12.752	2131	2136	2145	rVB	140777	272465	2.06%	0.249%
16	13.060	2189	2195	2212	rVV	188289	352938	2.67%	0.322%
17	13.306	2227	2242	2253	rBV	5894268	10794457	81.79%	9.853%
18	13.405	2253	2261	2265	rVV	317249	665652	5.04%	0.608%
19	13.437	2265	2267	2280	rVB2	278454	541967	4.11%	0.495%
20	13.552	2280	2289	2300	rBV	172222	347762	2.63%	0.317%
21	13.751	2316	2327	2342	rBV	192888	514010	3.89%	0.469%
22	13.881	2342	2352	2357	rVV	2261210	4181088	31.68%	3.816%
23	13.934	2357	2362	2370	rVV	909397	1681075	12.74%	1.534%
24	14.017	2370	2378	2391	rVV	2969060	5937213	44.98%	5.419%
25	14.237	2413	2420	2430	rVB3	172871	396972	3.01%	0.362%
26	14.363	2430	2444	2451	rBV	2068072	3695380	28.00%	3.373%
27	14.425	2451	2456	2466	rVB	569803	1023223	7.75%	0.934%
28	14.519	2466	2474	2486	rVB4	277995	611373	4.63%	0.558%
29	14.629	2486	2495	2501	rBV2	83158	235272	1.78%	0.215%
30	14.687	2501	2506	2509	rVV	292483	484282	3.67%	0.442%
31	14.734	2509	2515	2533	rVB	3203574	5720388	43.34%	5.221%
32	14.917	2533	2550	2560	rBV2	6813161	13198413	100.00%	12.047%
33	14.995	2560	2565	2568	rVV2	212660	367600	2.79%	0.336%
34	15.027	2568	2571	2580	rVV	296297	478644	3.63%	0.437%
35	15.105	2580	2586	2599	rVB2	450333	854251	6.47%	0.780%
36	15.220	2599	2608	2612	rBV2	521404	904110	6.85%	0.825%
37	15.273	2612	2618	2624	rVV	1216161	2282198	17.29%	2.083%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA052510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

38	15.330	2624	2629	2637	rVV2	1246472	2618736	19.84%	2.390%
39	15.409	2637	2644	2646	rVV2	647770	1174183	8.90%	1.072%
40	15.440	2646	2650	2664	rVB2	1448083	2900234	21.97%	2.647%
41	15.602	2664	2681	2694	rBV	1328466	2583190	19.57%	2.358%
42	15.701	2694	2700	2709	rVB2	231781	422449	3.20%	0.386%
43	15.801	2709	2719	2725	rBV2	758746	1406274	10.65%	1.284%
44	15.858	2725	2730	2736	rVV	554495	841288	6.37%	0.768%
45	15.905	2736	2739	2749	rVB3	99982	177373	1.34%	0.162%
46	16.000	2749	2757	2774	rBV	1160664	2051056	15.54%	1.872%
47	16.183	2784	2792	2806	rBV2	1260276	3095713	23.46%	2.826%
48	16.319	2812	2818	2825	rBV	473584	696044	5.27%	0.635%
49	16.387	2825	2831	2838	rVV2	982092	1595305	12.09%	1.456%
50	16.444	2838	2842	2850	rVB	132515	228614	1.73%	0.209%
51	16.528	2850	2858	2865	rBV2	530145	963970	7.30%	0.880%
52	16.690	2878	2889	2892	rBV3	303756	548443	4.16%	0.501%
53	16.737	2892	2898	2914	rVV	3539345	6161713	46.69%	5.624%
54	16.852	2914	2920	2927	rVV2	117555	207281	1.57%	0.189%
55	16.936	2927	2936	2950	rVV	3834637	6972288	52.83%	6.364%
56	17.501	3029	3044	3056	rVV2	95325	234021	1.77%	0.214%
57	17.773	3083	3096	3102	rBV	185094	395404	3.00%	0.361%
58	17.919	3114	3124	3148	rVB	350336	804836	6.10%	0.735%
59	18.113	3148	3161	3167	rBV	316184	680621	5.16%	0.621%
60	18.165	3167	3171	3184	rVB2	191255	368413	2.79%	0.336%
61	18.432	3203	3222	3252	rVB4	65156	230204	1.74%	0.210%

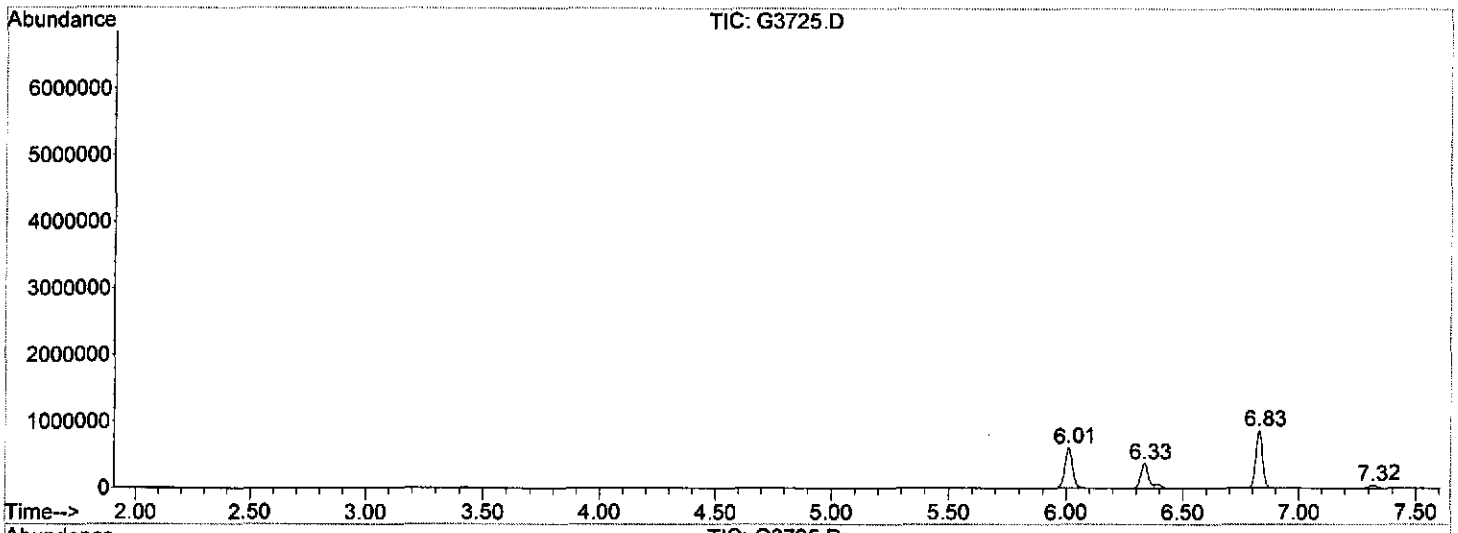
Sum of corrected areas: 109559887

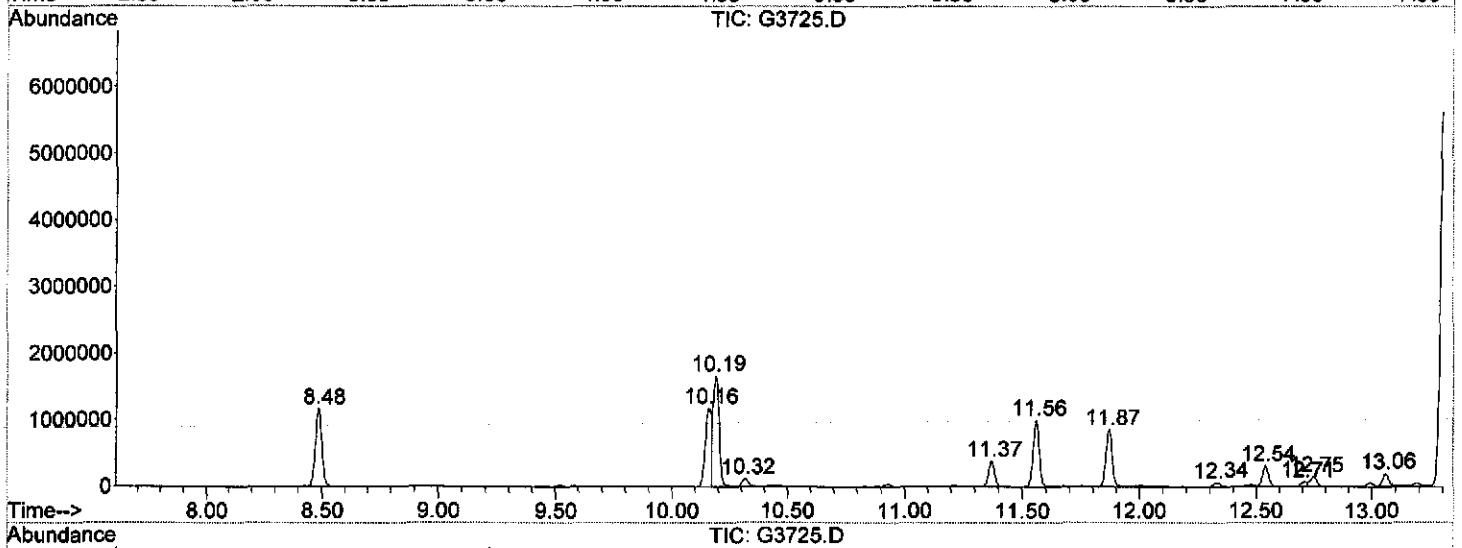
LSC Report - Integrated Chromatogram

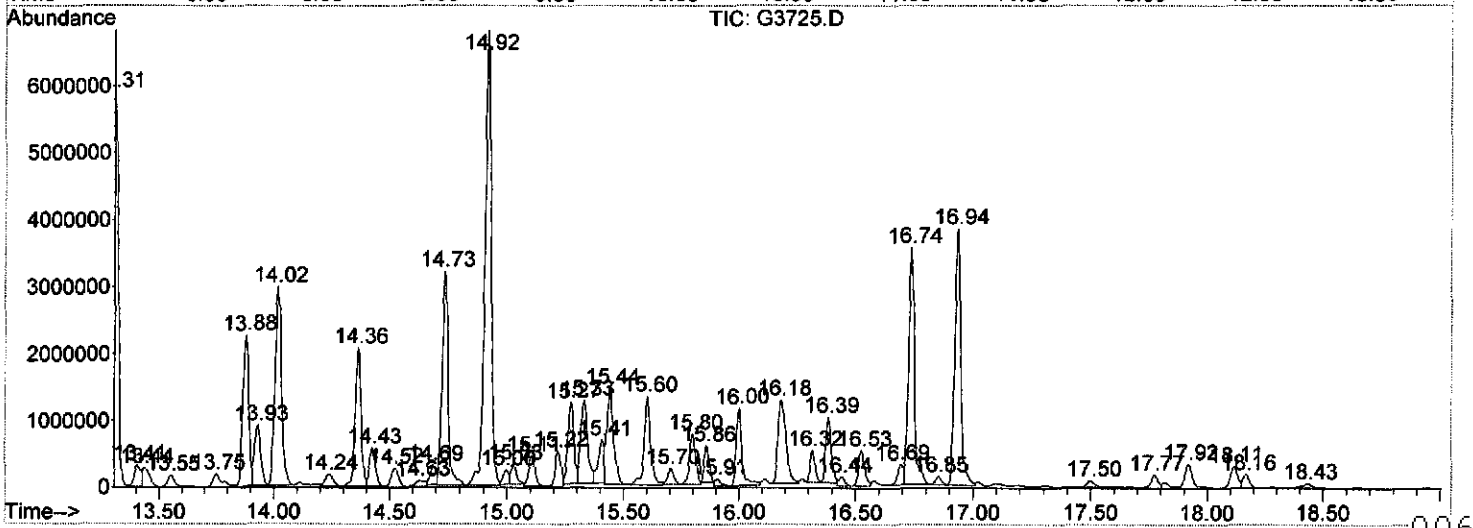
Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

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Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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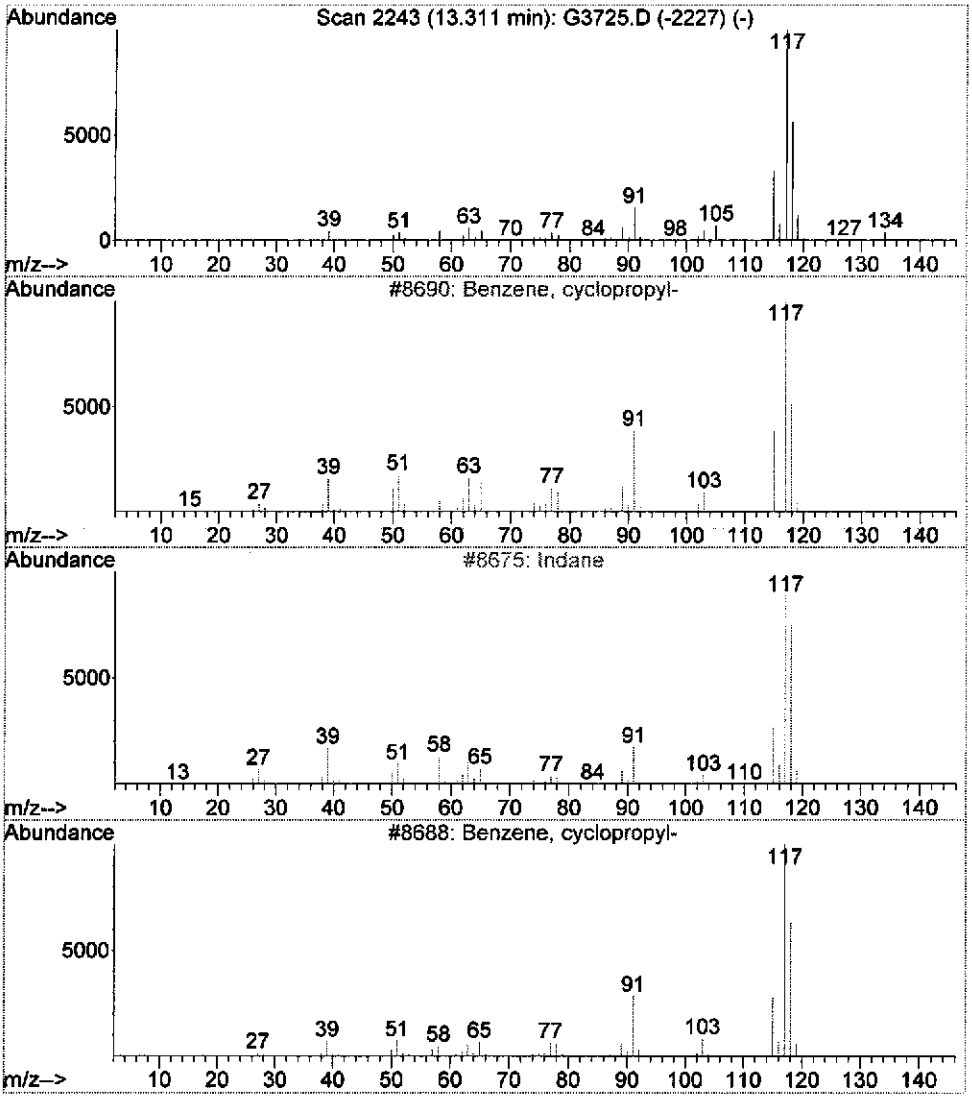
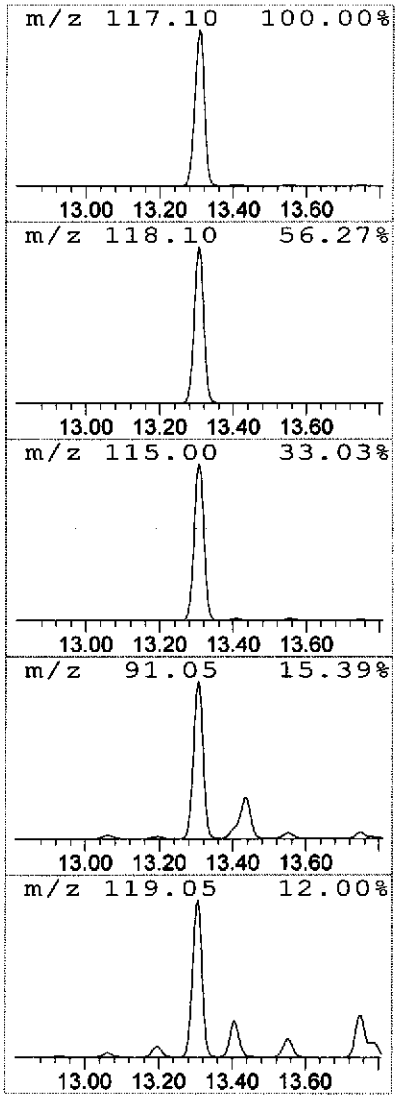
Peak Number 1 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.31	145.10 UG	10794500	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, cyclopropyl-	118	C9H10	000873-49-4	81
2	Indane	118	C9H10	000496-11-7	81
3	Benzene, cyclopropyl-	118	C9H10	000873-49-4	81
4	Indane	118	C9H10	000496-11-7	81
5	Indane	118	C9H10	000496-11-7	74





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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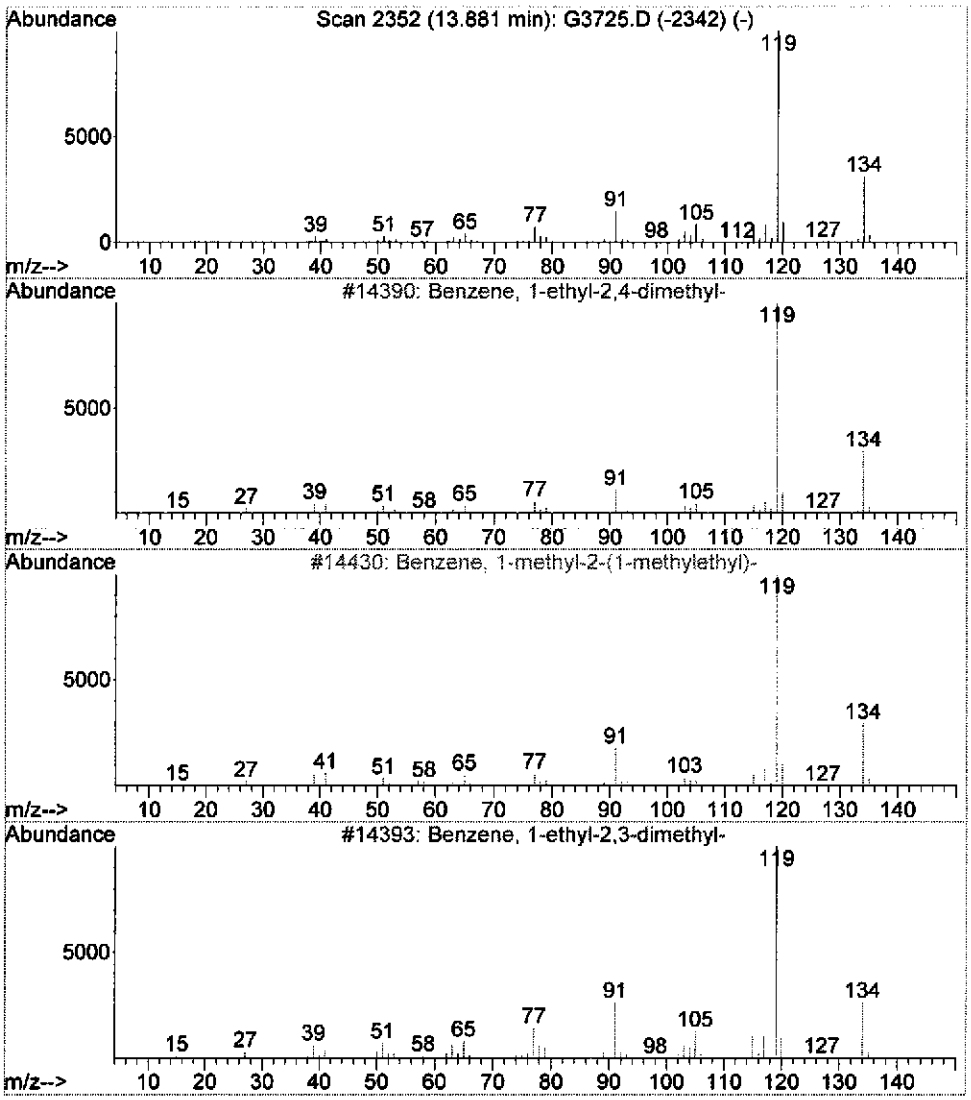
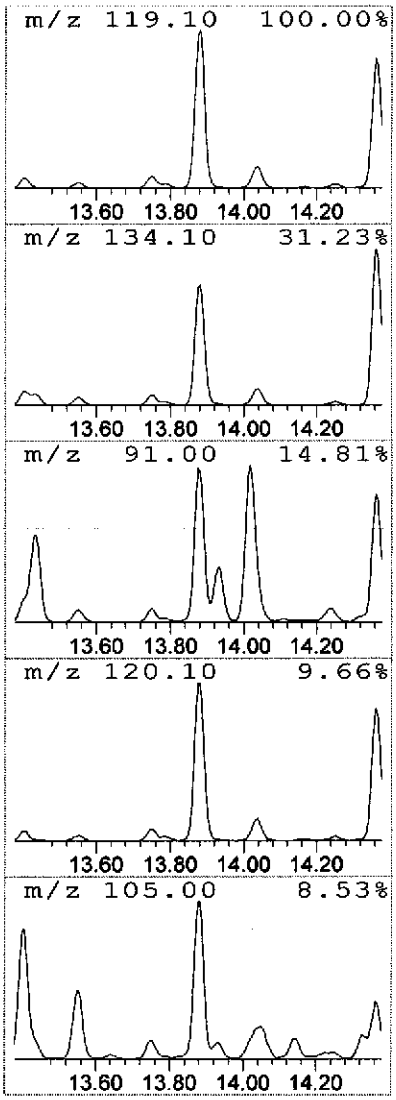
Peak Number 2 Substituted benzene Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.88	56.20 UG	4181090	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	97
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	97
3	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	96
4	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95
5	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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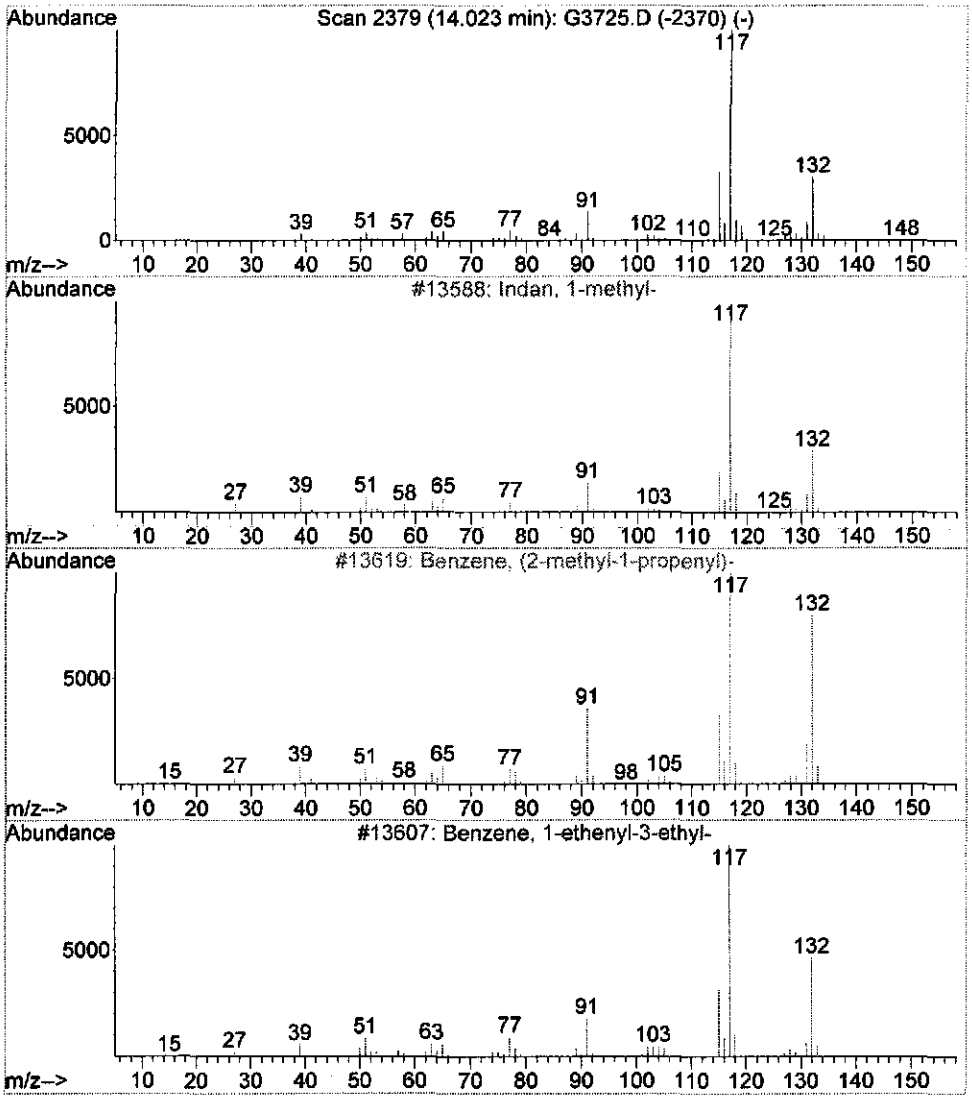
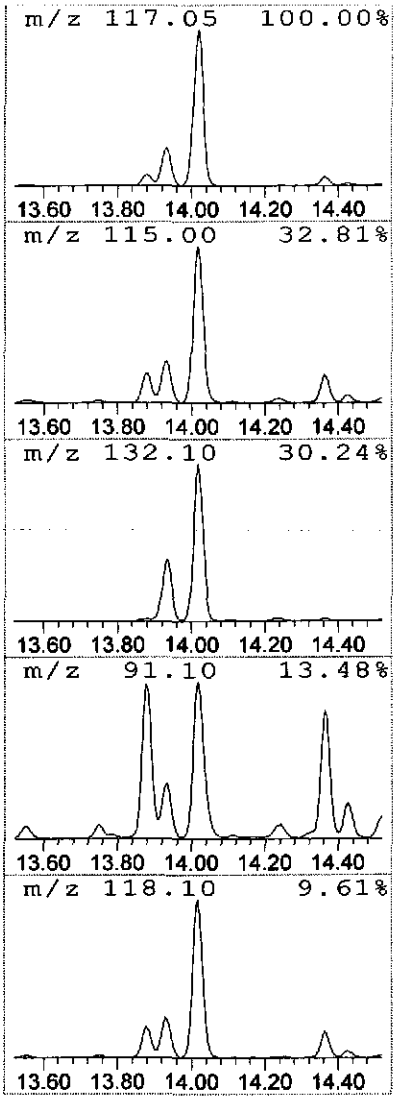
Peak Number 3 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	79.81 UG	5937210	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	87
2	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	87
3	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	87
4	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	87
5	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	83





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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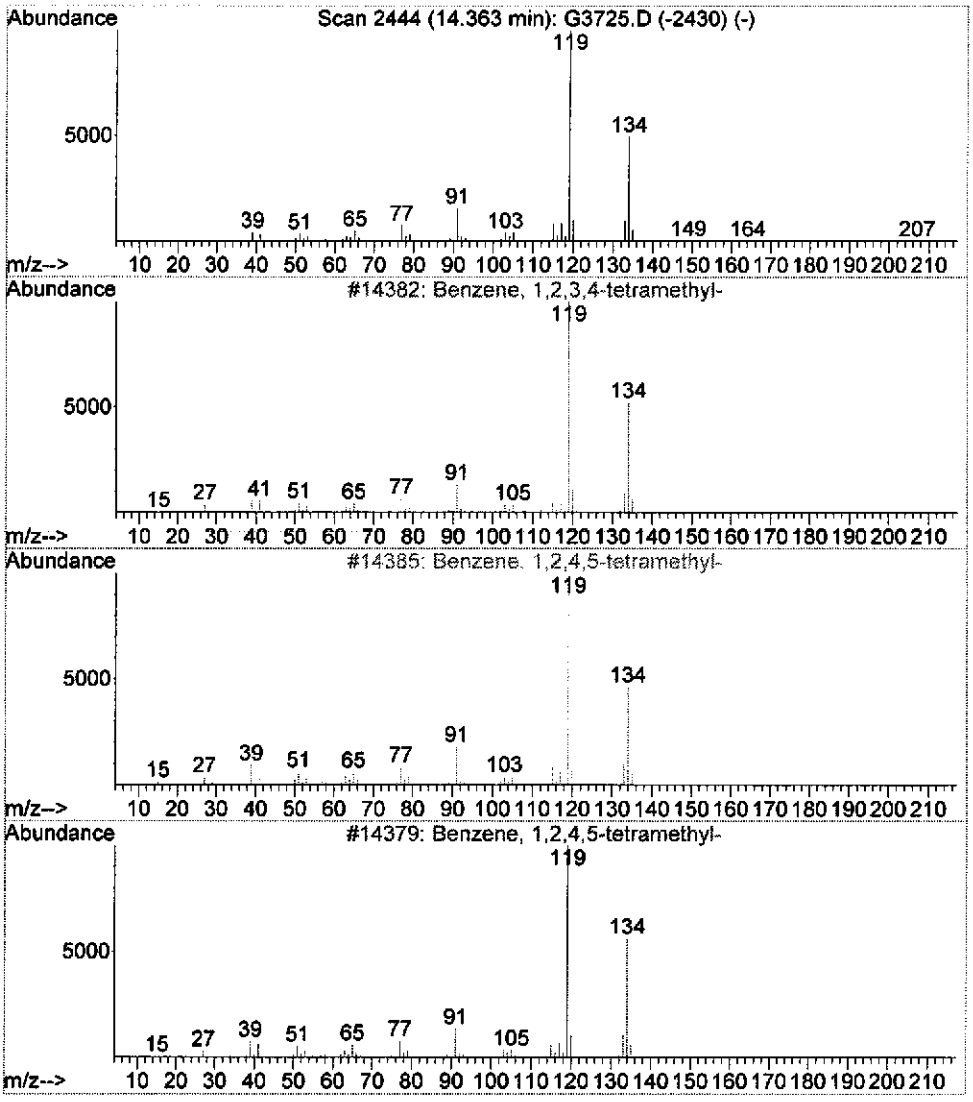
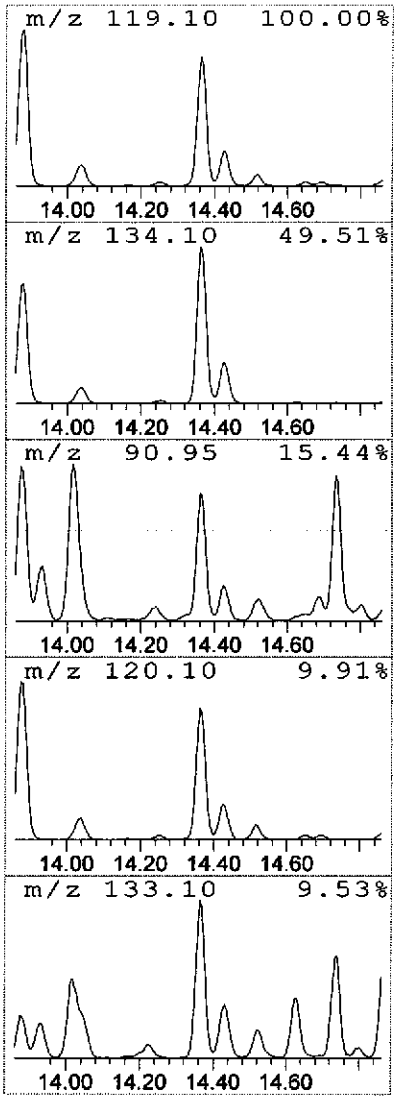
Peak Number 4 Substituted benzene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.36	49.67 UG	3695380	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
5	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	97





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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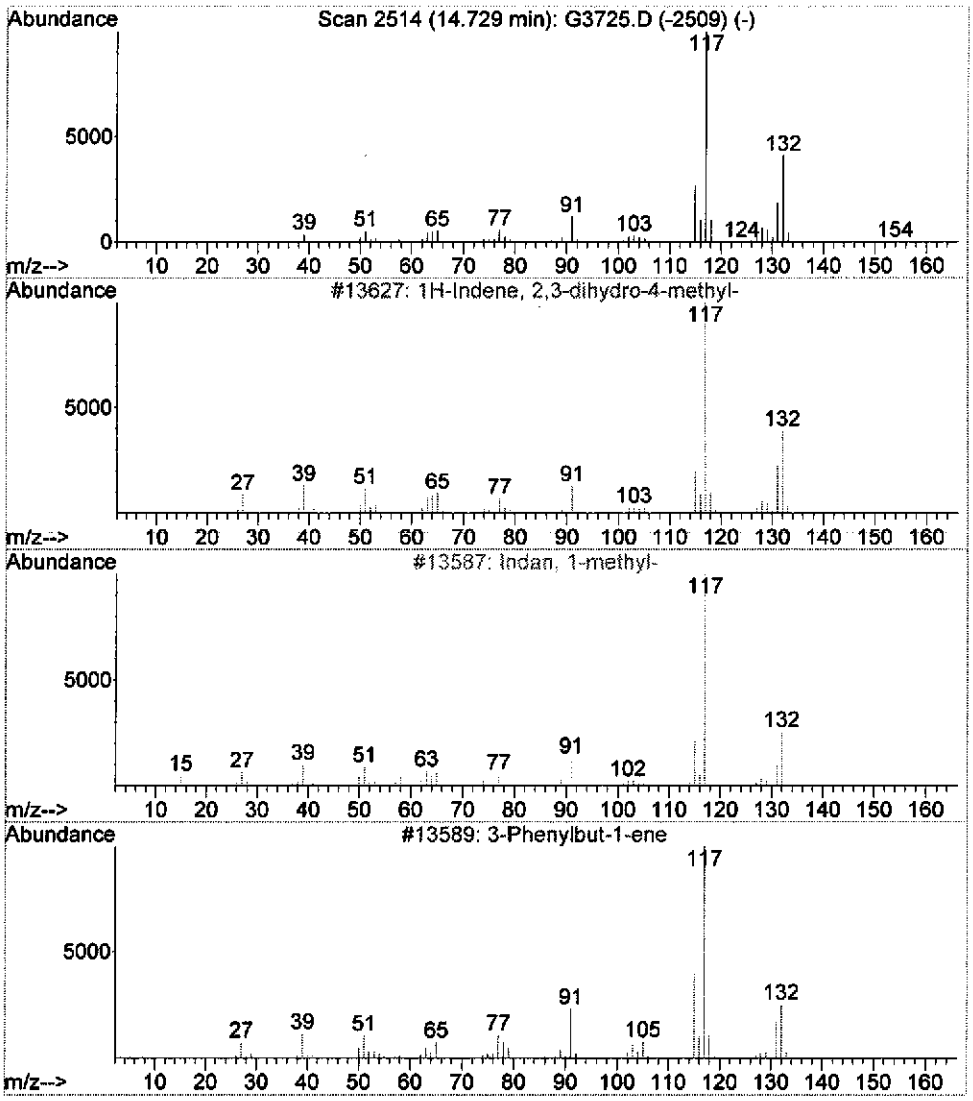
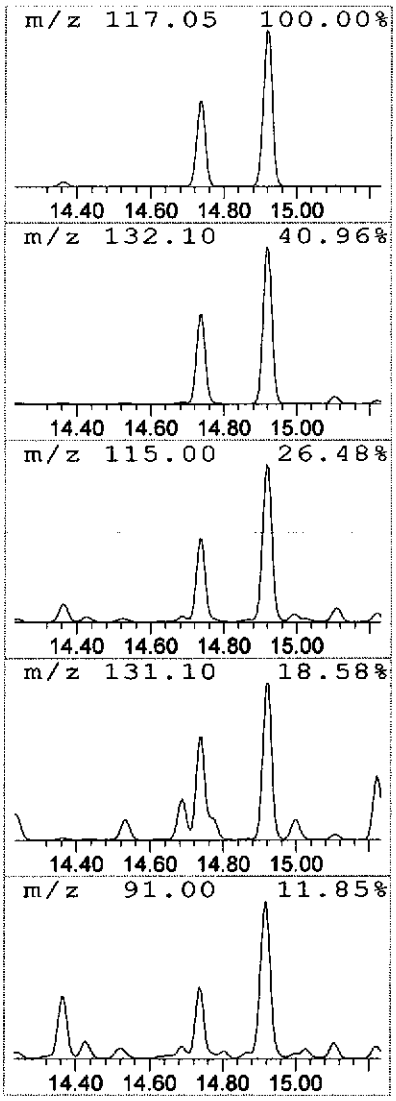
Peak Number 5 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.73	76.89 UG	5720390	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	90
2	Indan, 1-methyl-	132	C10H12	000767-58-8	90
3	3-Phenylbut-1-ene	132	C10H12	000934-10-1	90
4	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000767-99-7	87
5	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

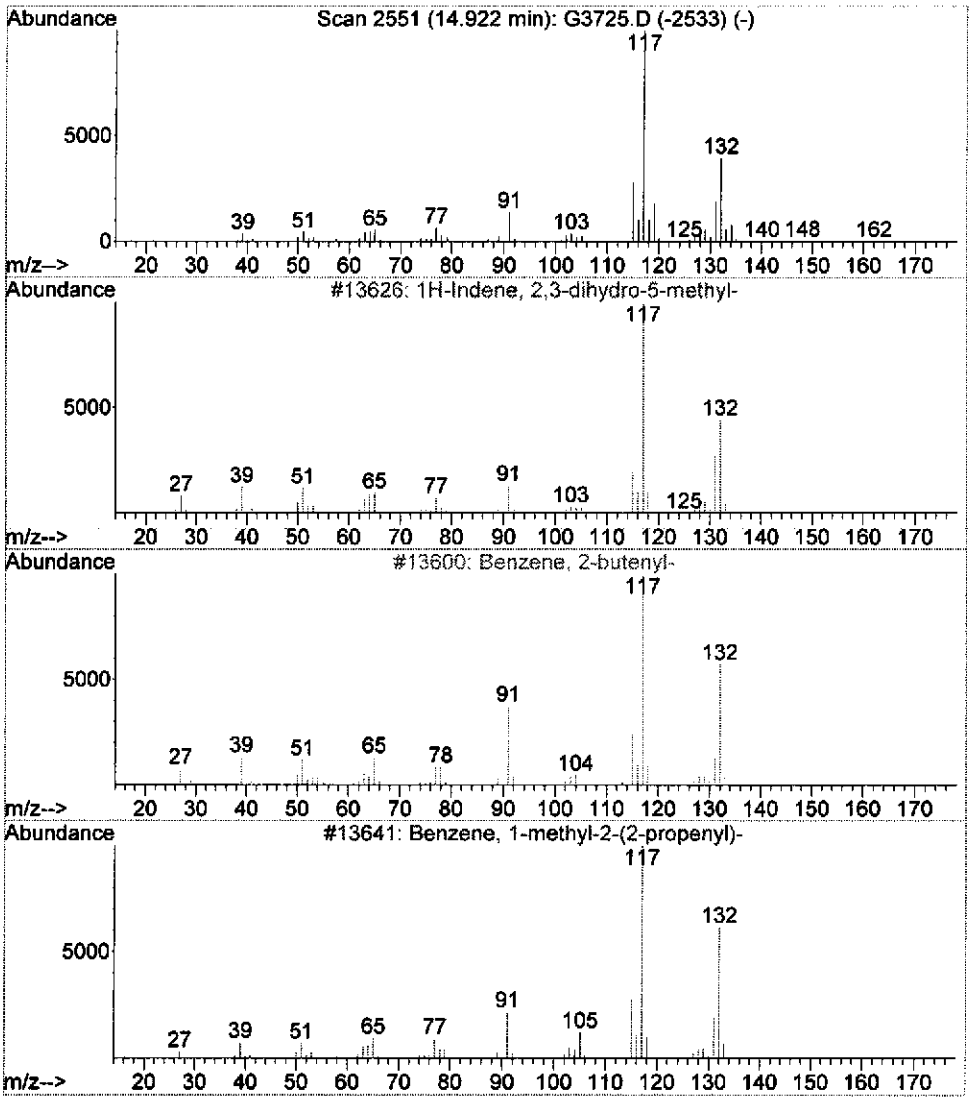
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

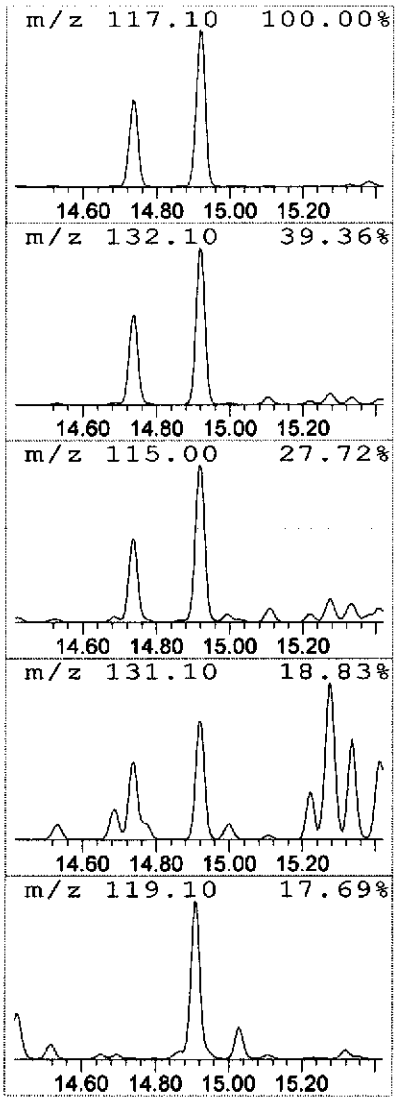
****

Peak Number 6 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.92	177.41 UG	13198400	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	90
2	Benzene, 2-butenyl-	132	C10H12	001560-06-1	87
3	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	87
4	1-Phenyl-1-butene	132	C10H12	000824-90-8	87
5	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	83





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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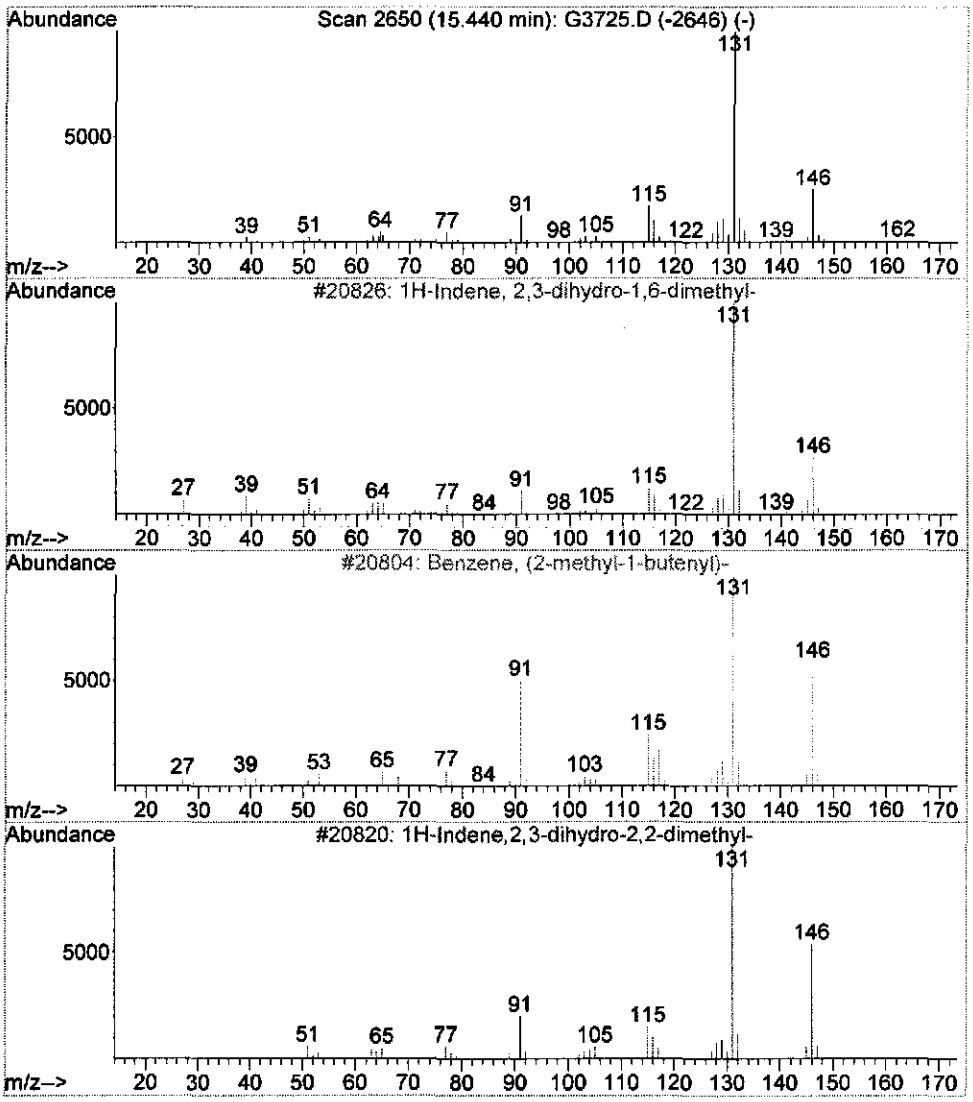
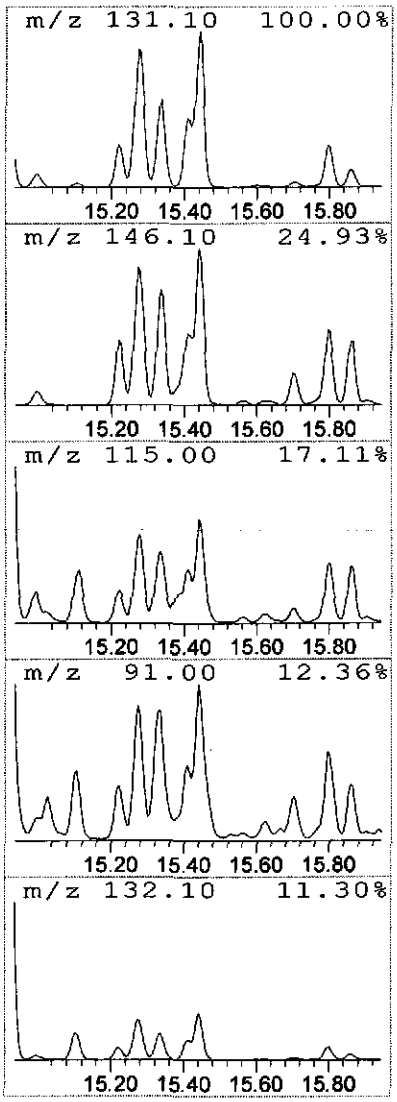
Peak Number 7 Unknown aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.44	38.98 UG	2900230	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	94
2	Benzene, (2-methyl-1-butenyl)-	146	C11H14	056253-64-6	94
3	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	91
4	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	91
5	1H-Indene, 2,3-dihydro-1,1-dimet...	146	C11H14	004912-92-9	91





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Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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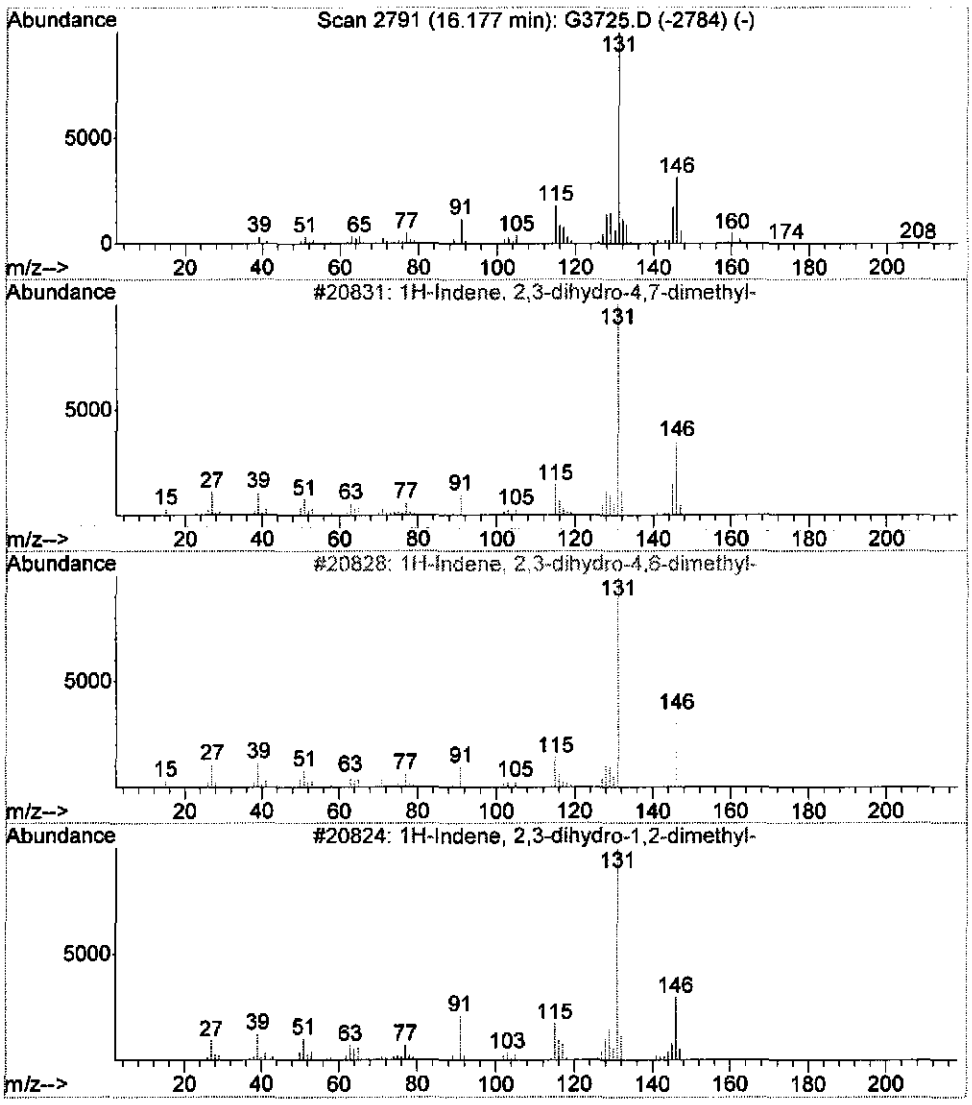
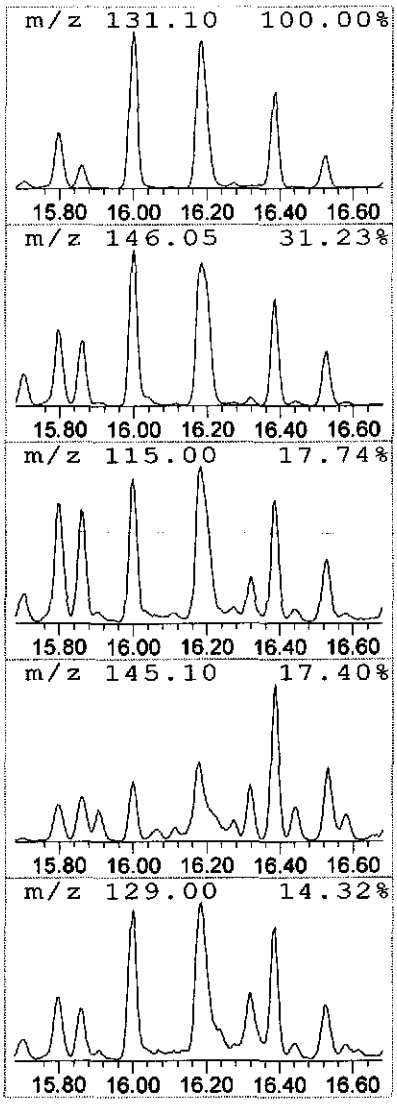
Peak Number 8 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.18	41.61 UG	3095710	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	95
2	1H-Indene, 2,3-dihydro-4,6-dimet...	146	C11H14	001685-82-1	94
3	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	93
4	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	93
5	1H-Indene, 2,3-dihydro-5,6-dimet...	146	C11H14	001075-22-5	91





Library Search Compound Report

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Data File : G3725.D
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Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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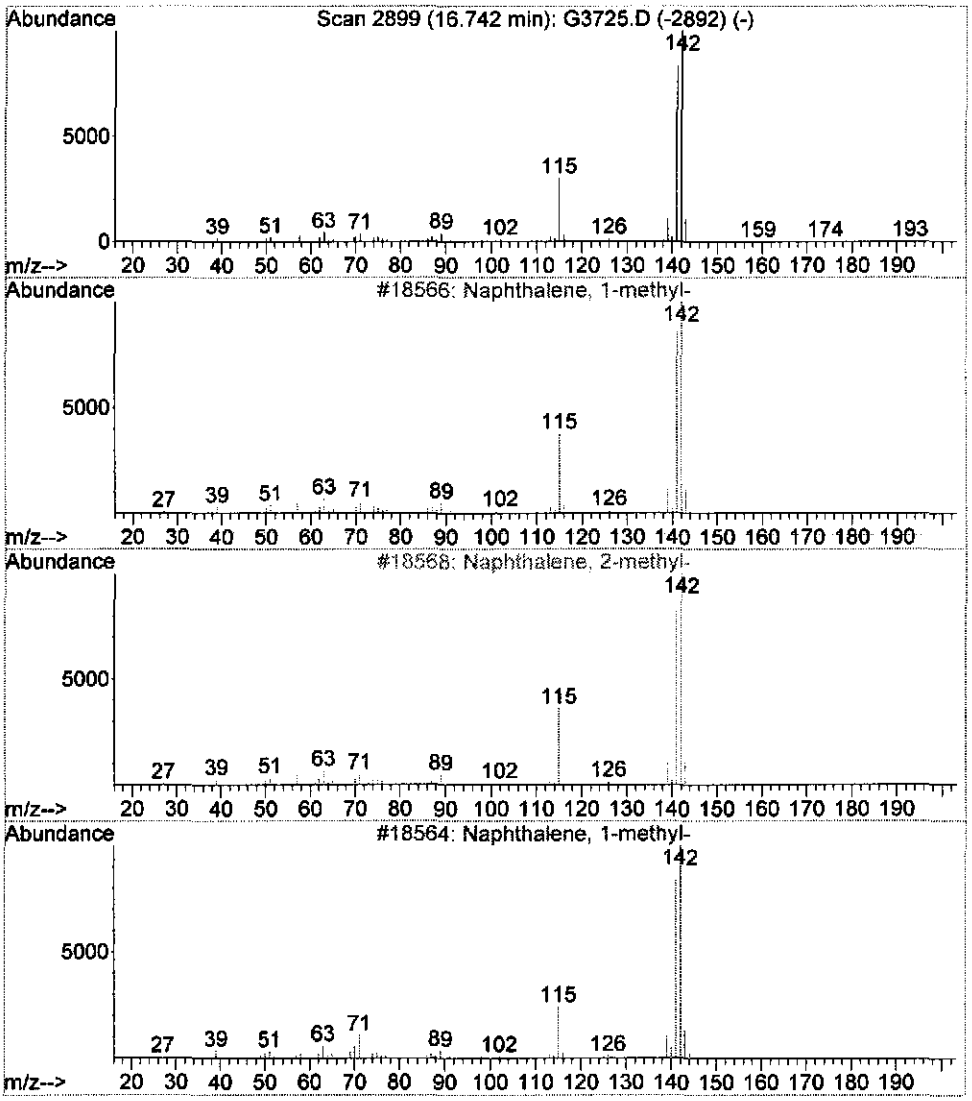
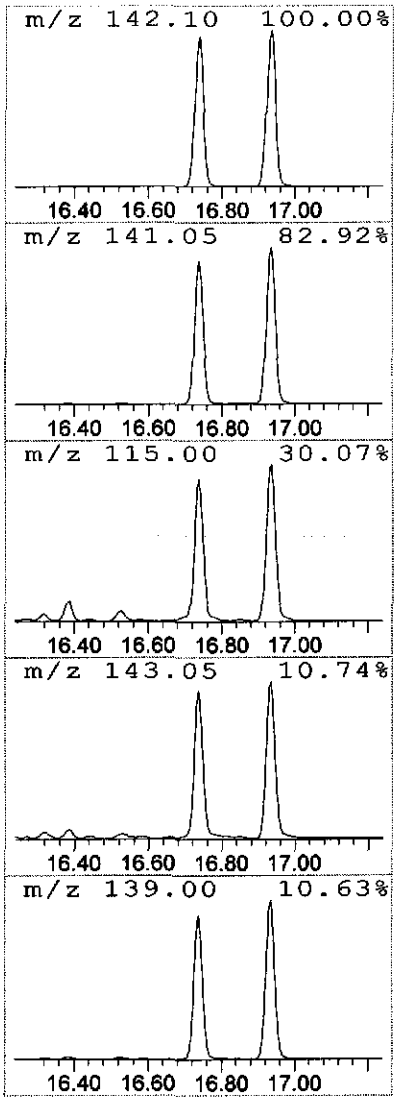
Peak Number 9 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.74	82.82 UG	6161710	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
5	Benzocycloheptatriene	142	C11H10	000264-09-5	91





Library Search Compound Report

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Data File : G3725.D
Acq On : 2 Jun 2010 7:54 am
Operator : Sylvia
Sample : TW3A,05088-004,A,5mL,100
Misc : PENNJERSEY/PALMER,05/27/10,05/27/10
ALS Vial : 49 Sample Multiplier: 1

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TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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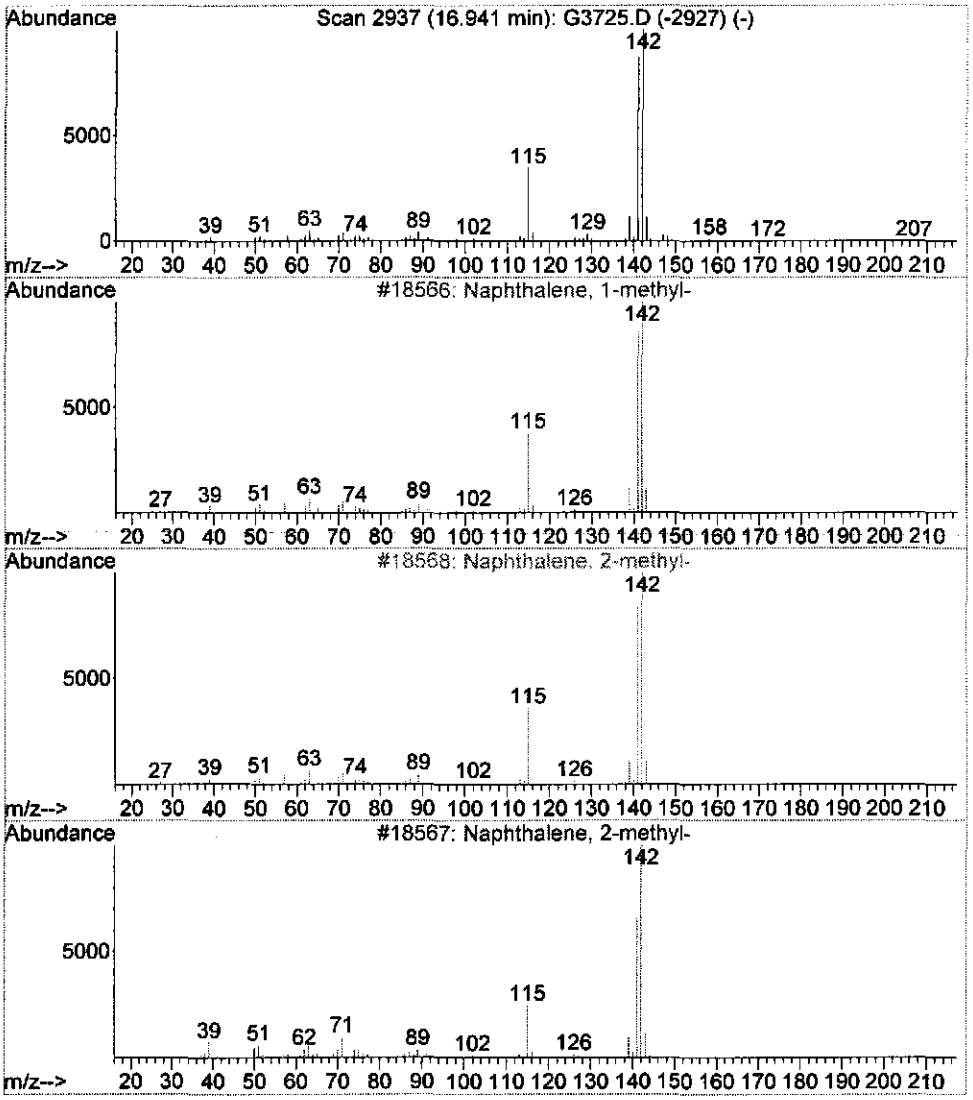
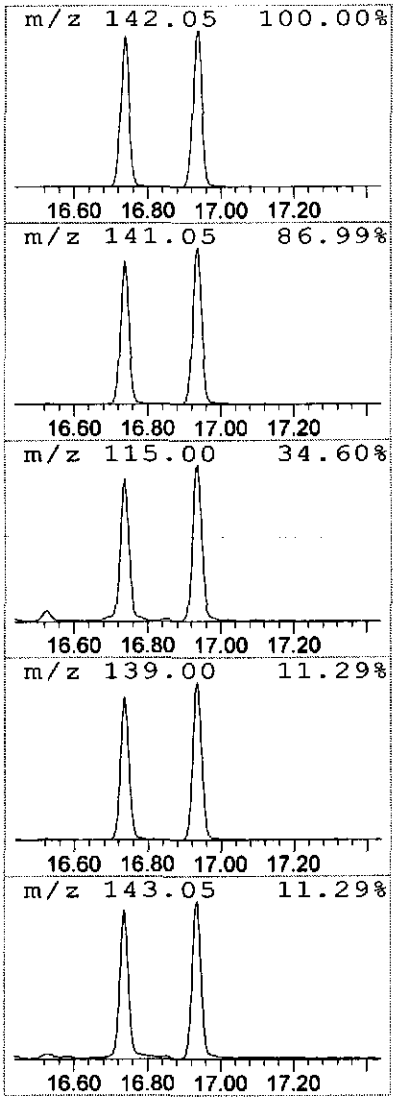
Peak Number 10 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.94	93.72 UG	6972290	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
3	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3677.D
Acq On : 1 Jun 2010 9:45 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 01 15:06:17 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	511856	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	846874	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	764210	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	310949	28.79	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 95.97%			
41) Toluene-d8	8.49	98	898079	27.03	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 90.10%			
59) Bromofluorobenzene	11.56	95	353404	28.27	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 94.23%			

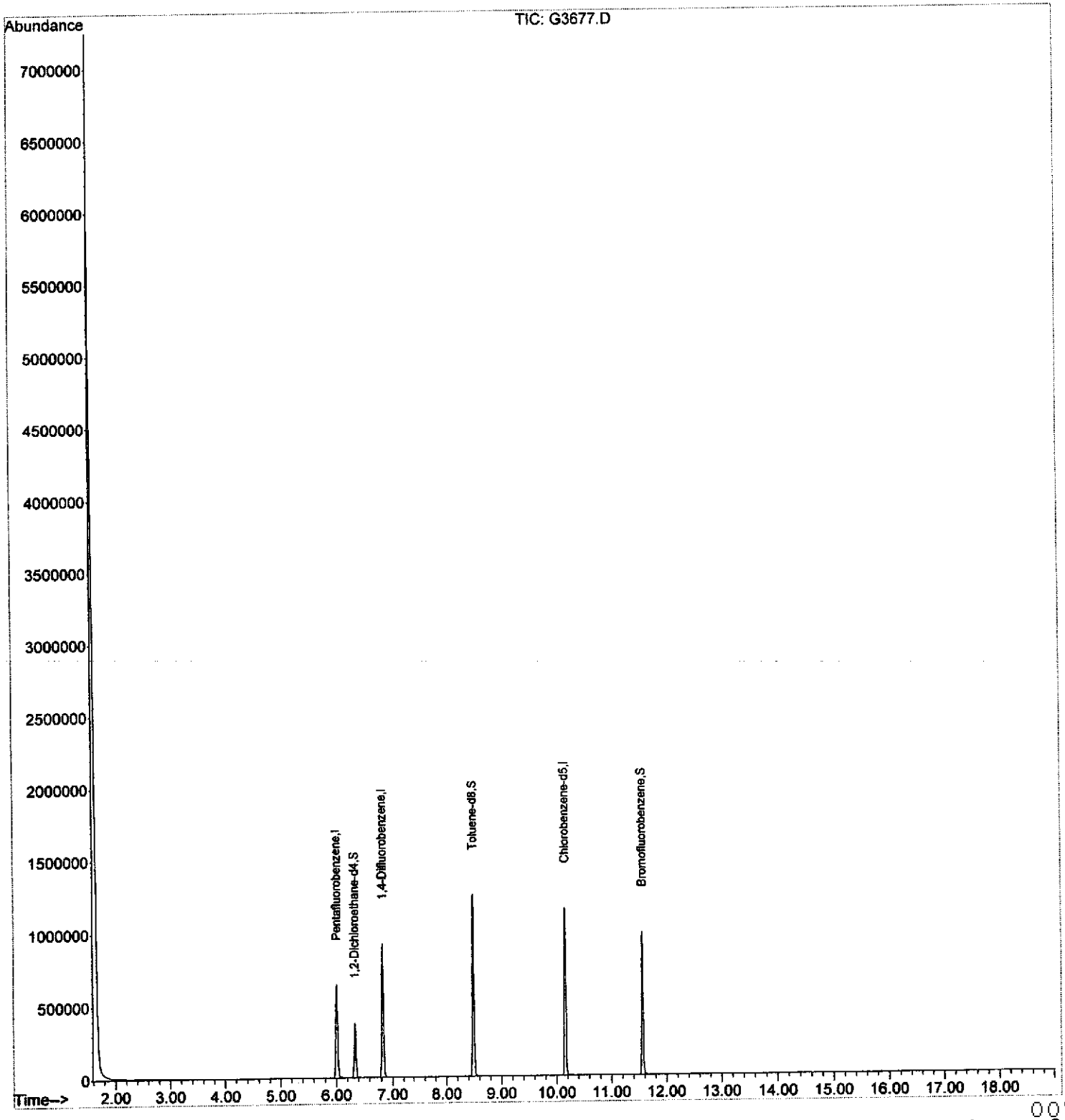
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3677.D
Acq On : 1 Jun 2010 9:45 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 01 15:06:17 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue May 25 14:57:43 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3677.D
Acq On : 1 Jun 2010 9:45 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA052510.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	832	847	870	rBV	642571	1426798	61.10%	13.924%
2	6.334	897	909	930	rBV	378117	824811	35.32%	8.049%
3	6.826	991	1003	1028	rBV	917749	1826021	78.19%	17.820%
4	8.489	1308	1321	1352	rBV	1250644	2335315	100.00%	22.791%
5	10.157	1630	1640	1660	rBV	1152436	2126014	91.04%	20.748%
6	11.564	1896	1909	1938	rVB	983875	1707914	73.13%	16.668%

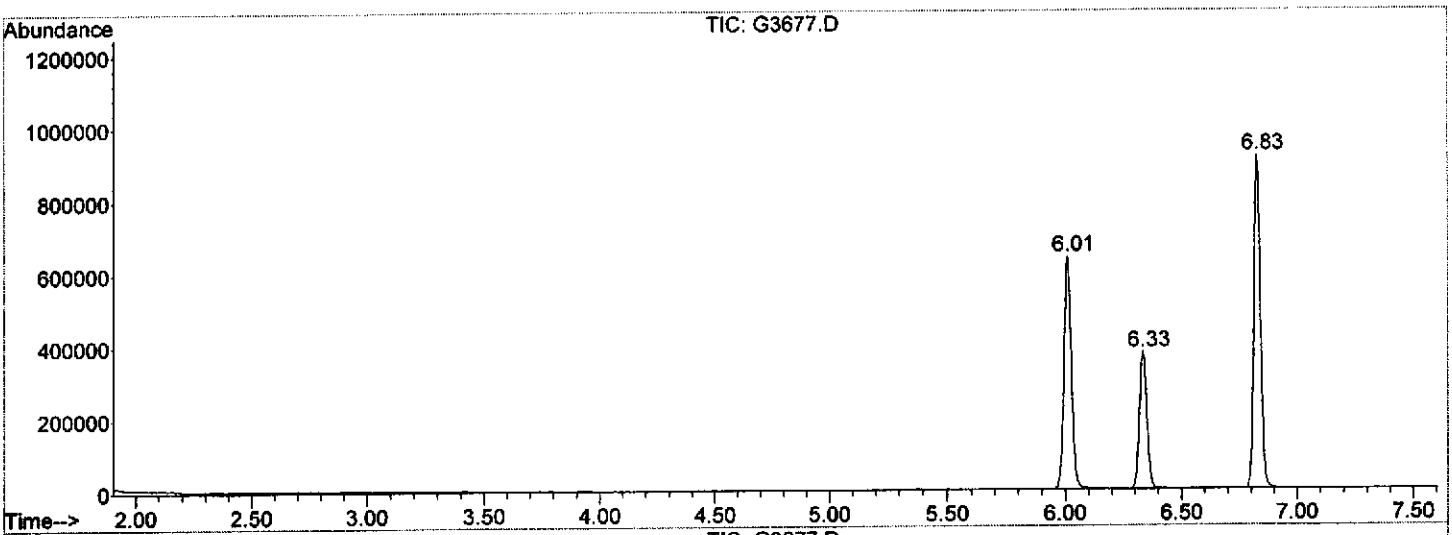
Sum of corrected areas: 10246873

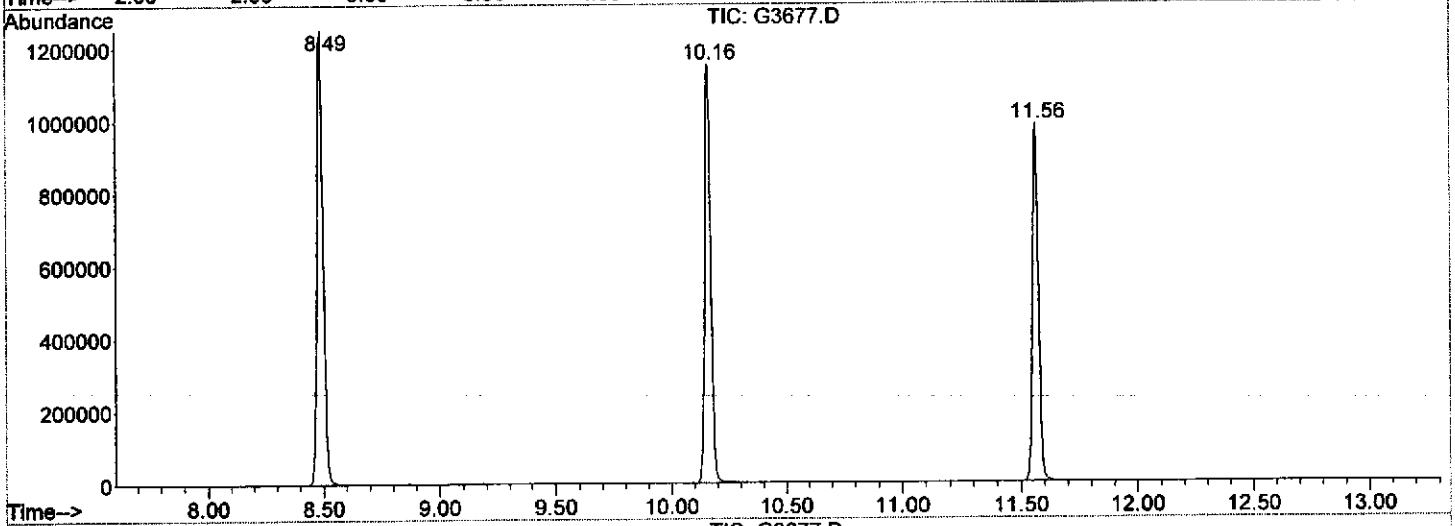
LSC Report - Integrated Chromatogram

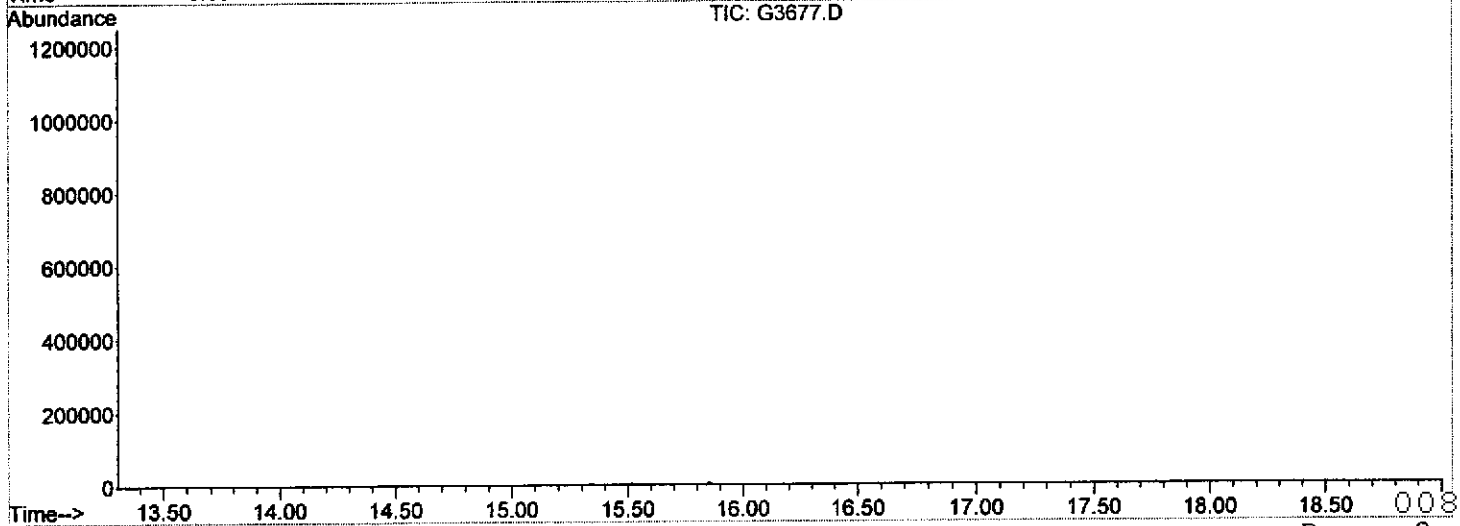
Data Path : C:\MSDChem\1\DATA\06-01-10\
Data File : G3677.D
Acq On : 1 Jun 2010 9:45 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA052510.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC-PA
Address:	2034 E. WELLINGTON RD.
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
EMAIL Address:	PECINC@ aol.com
Project Manager:	D. KATZ
Sampler:	M. Brogan
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote #:	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PECPA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE

DRO (3-5 day TAT) QAM025 (5 day TAT min.)

DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax 24 hr* 48 hr* **2 wk/Std** 72 hr* 1 wk*

Hard Copy Other *call for price **3 wk/Std**

Results needed by: STD / STD

Rush TAT Charge **: 24 hr - 100%... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only (Reduced) Regulatory - 15% Surcharge applies; Other (describe)

EDD's: (SRP. dbf format); lab approved custom EDD; NO EDD/CD REQ'D

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS

Cooler Temp 4 °C

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	TAL #	TCL VO+10 MTBE TBA	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
TRIP		5/27/10	11:00	AQ	2	1	✓	2							
FIELD			11:30	AQ	2	2	✓	2							
TW1A			12:15	GW	2	3	✓	2							
TW3A		↓	2:30	GW	2	4	✓	2							

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by:	5/27/10	4:34	Received by:	5/27/10	1834
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 05088

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

PROJECT INFORMATION

E10-05088

Case No. E10-05088 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Dick Katz	**Received**	5/27/2010 16:34
EMail	pecinc@aol.com;nagorbm@yaho	☑ EMail EDDs	**Verbal Due** 6/11/2010
Phone	(215) 860-1231 **Fax** 1(215) 860-9988		**Report Due** 6/18/2010

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
05088-001	TRIP	n/a	5/27/2010	Aqueous	ug/L	2
05088-002	FIELD	n/a	5/27/2010@11:30	Aqueous	ug/L	2
05088-003	TW1A	n/a	5/27/2010@12:15	Aqueous	ug/L	2
05088-004	TW3A	n/a	5/27/2010@14:30	Aqueous	ug/L	2

Sample #	Tests	Status	QA Method
001	TCL VOA + 10 + TBA	Run	624
002	TCL VOA + 10 + TBA	Run	624
003	TCL VOA + 10 + TBA	Run	624
004	TCL VOA + 10 + TBA	Run	624

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **05088** CLIENT: DEC-PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE

Comments

KEY
✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [signature] DATE 5/27/10

CORRECTIVE ACTION REQUIRED: **YES** (SEE BELOW) **NO**

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES Date/ Time: NO

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [signature] DATE 5-28-10

Laboratory Custody Chronicle

IAL Case No.

E10-05088

Client PennJersey Environmental Consulting

Project PALMER

Received On 5/27/2010@16:34

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VOA + 10 + TBA	05088-001	Aqueous	n/a	n/a	6/ 2/10	Barbara
"	-002	"	n/a	n/a	6/ 2/10	Barbara
"	-003	"	n/a	n/a	6/ 2/10	Barbara
"	-004	"	n/a	n/a	6/ 2/10	Barbara

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E10-09269**

These data have been reviewed and accepted by:

Michael H. Leftin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E10-09269

Client PennJersey Environmental Consulting

Project PALMER

Received On 9/16/2010@15:30

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
09269-001	MW13-1	10.5/11	9/15/2010@10:00	Soil	1
09269-002	MW13-2	12.5/13	9/15/2010@10:10	Soil	1
09269-003	MW14-1	6.67/7.17	9/15/2010@11:30	Soil	4
09269-004	MW14-2	11/11.5	9/15/2010@11:55	Soil	4
09269-005	MW12-1	10.5/11	9/15/2010@14:00	Soil	1
09269-006	MW12-2	13.5/14	9/15/2010@14:20	Soil	1
09269-007	TRIP	n/a	9/15/2010	Aqueous	2

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received one (1) aqueous and six (6) soil sample(s) from PennJersey Environmental Consulting (Project: PALMER) on September 16, 2010 for the analysis of:

(3) TCL VOA + 10
(4) PAH
(4) NJ-EPH-Fractionated
(2) Metal - Lead

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

9/30/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E10-09269

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E10 - 9269

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. BFB Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		✓
11. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12. Sample Dilution Performed		✓

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other
	✓		

13. Comments:

Organics Manager

9/20/10
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E10 - 9269

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	GC/MS Tuning Specifications: a. BFB Passed		✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4.	GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5.	GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
	b. System Performance Check Compounds		✓
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
	If not met, were the calculations checked and the results qualified as "estimated"?		na
8.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
9.	Internal Standard Area/Retention Time Shift meet criteria		✓
10.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		✓
11.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12.	Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

9/23/10
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - NJ EPH - FRACTIONATED

Lab Case Number: E10 - 09269

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike (MS)/Matrix Spike Duplicate (MSD) (as needed) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7a.	Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7b.	n-Nonane LCS/LCSD % Recoveries were found to be less than 40% but within the acceptance range of 25 - 140%.	✓	
8.	Retention Time Shift Meets Criteria (if applicable).		
9.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
10.	Fractionation Holding Time Met. If not met, list number of days exceeded for each sample:		✓
11.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

09/25/2010
Date

rev 08/10

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
METAL ANALYSIS

Lab Case Number: E10-09269

		No	Yes
1.	Calibration Summary Meet Criteria.		✓
2.	Interference Check Sample Results Meets Criteria (if applicable)		✓
3.	Serial Dilution/Post Spike Summary Submitted (if applicable) / Meets Criteria		✓
4.	Internal Standards Meet Criteria (if applicable)		✓
5.	Laboratory Control Sample Summary Submitted (if applicable) / Meets Criteria		✓
6.	Blank Contamination: If yes, list compounds and concentrations in each blank:	✓	
7.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).		✓
8.	Extraction Holding Time Met. If not, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not, list number of days exceeded for each sample:		✓

Additional Comments:

Wei Cheng
Inorganic Manager

September 22, 2010
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: PennJersey Environmental Consulting

Project: PALMER

Lab Case No.: E10-09269

	Lab ID:	Client ID:	Matrix:	Sampled Date
	09269-007	TRIP	Aqueous	9/15/10
PARAMETER(Units)	Conc Q MDL			
Volatiles (Units)	*(mg/L-ppm)*			
TOTAL VO's:	ND			
TOTAL TIC's:	ND			
TOTAL VO's & TIC's:	ND			

	Lab ID:	09269-001			09269-002			09269-003			09269-004		
	Client ID:	MW13-1			MW13-2			MW14-1			MW14-2		
	Depth:	10.5/11			12.5/13			6.67/7.17			11/11.5		
	Matrix:	Soil			Soil			Soil			Soil		
	Sampled Date	9/15/10			9/15/10			9/15/10			9/15/10		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)								*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Ethylbenzene		~		~	~		~	13.0		0.454	ND		0.041
Total Xylenes		~		~	~		~	13.8		1.20	ND		0.108
Isopropylbenzene		~		~	~		~	7.08		0.440	ND		0.040
Cyclohexane		~		~	~		~	31.8		0.337	ND		0.030
Methylcyclohexane		~		~	~		~	187		0.425	ND		0.038
TOTAL VO's:								253			ND		
TOTAL TIC's:		~		~	~		~	870			3.35		
TOTAL VO's & TIC's:		~		~	~		~	1120			3.35		
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*								
C9-C12 Aliphatics		60.3		3.48	14.0		3.36	~		~	~		~
C12-C16 Aliphatics		356		2.32	103		2.24	~		~	~		~
C16-C21 Aliphatics		373		3.48	130		3.36	~		~	~		~
C21-C40 Aliphatics		649		11.6	257		11.2	~		~	~		~
Total Aliphatics		1440			504			~		~	~		~
C10-C12 Aromatics		6.27	J	2.32	2.76	J	2.24	~		~	~		~
C12-C16 Aromatics		32.3		3.48	34.5		3.36	~		~	~		~
C16-C21 Aromatics		589		5.80	205		5.59	~		~	~		~
C21-C36 Aromatics		621		9.28	217		8.95	~		~	~		~
Total Aromatics		1250			459			~		~	~		~
Total NJ-EPH		2690			963			~		~	~		~
Metals (Units)								*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Lead		~		~	~		~	3.67		0.153	2.37		0.151

	Lab ID:	09269-005			09269-006		
	Client ID:	MW12-1			MW12-2		
	Depth:	10.5/11			13.5/14		
	Matrix:	Soil			Soil		
	Sampled Date	9/15/10			9/15/10		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics		1090		1.50	ND		3.68
C12-C16 Aliphatics		4040		7.70	ND		2.45
C16-C21 Aliphatics		2770		1.50	ND		3.68
C21-C40 Aliphatics		1180		238	ND		12.3
Total Aliphatics		9080			0		
C10-C12 Aromatics		607		23.8	ND		2.45
C12-C16 Aromatics		2950		35.8	ND		3.68
C16-C21 Aromatics		4380		59.6	ND		6.13
C21-C36 Aromatics		1260		95.4	ND		9.82
Total Aromatics		9200			0		
Total NJ-EPH		18300			0		

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-003
Client ID: MW14-1/6.67-7.
Date Received: 09/16/2010
Date Analyzed: 09/18/2010
Data file: L8751.D

GC/MS Column: DB-624
Sample wt/vol: 0.0038g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 10
% Moisture: 10.2

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.47	0.366
Chloromethane	ND		1.47	0.527
Vinyl chloride	ND		1.47	0.527
Bromomethane	ND		1.47	0.630
Chloroethane	ND		1.47	0.542
Trichlorofluoromethane	ND		1.47	0.498
1,1-Dichloroethene	ND		1.47	0.542
Acetone	ND		2.93	1.03
Carbon disulfide	ND		1.47	0.440
Methylene chloride	ND		2.93	2.90
trans-1,2-Dichloroethene	ND		1.47	0.513
Methyl tert-butyl ether (MTBE)	ND		1.47	0.249
1,1-Dichloroethane	ND		1.47	0.498
cis-1,2-Dichloroethene	ND		1.47	0.396
2-Butanone (MEK)	ND		1.47	0.762
Bromochloromethane	ND		1.47	0.308
Chloroform	ND		1.47	0.381
1,1,1-Trichloroethane	ND		1.47	0.440
Carbon tetrachloride	ND		1.47	0.396
1,2-Dichloroethane (EDC)	ND		1.47	0.352
Benzene	ND		1.47	0.425
Trichloroethene	ND		1.47	0.498
1,2-Dichloropropane	ND		1.47	0.410
1,4-Dioxane	ND		293	28.1
Bromodichloromethane	ND		1.47	0.366
cis-1,3-Dichloropropene	ND		1.47	0.308
4-Methyl-2-pentanone (MIBK)	ND		1.47	0.278

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-003
Client ID: MW14-1/6.67-7.
Date Received: 09/16/2010
Date Analyzed: 09/18/2010
Data file: L8751.D

GC/MS Column: DB-624
Sample wt/vol: 0.0038g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 10
% Moisture: 10.2

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.47	0.425
trans-1,3-Dichloropropene	ND		1.47	0.396
1,1,2-Trichloroethane	ND		1.47	0.381
Tetrachloroethene	ND		1.47	0.484
2-Hexanone	ND		1.47	0.366
Dibromochloromethane	ND		1.47	0.322
1,2-Dibromoethane (EDB)	ND		1.47	0.249
Chlorobenzene	ND		1.47	0.308
Ethylbenzene	13.0		1.47	0.454
Total Xylenes	13.8		2.93	1.20
Styrene	ND		1.47	0.322
Bromoform	ND		1.47	0.249
Isopropylbenzene	7.08		1.47	0.440
1,1,2,2-Tetrachloroethane	ND		1.47	0.366
1,3-Dichlorobenzene	ND		1.47	0.352
1,4-Dichlorobenzene	ND		1.47	0.366
1,2-Dichlorobenzene	ND		1.47	0.308
1,2-Dibromo-3-chloropropane	ND		1.47	0.777
1,2,4-Trichlorobenzene	ND		1.47	0.396
1,2,3-Trichlorobenzene	ND		1.47	0.498
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.47	0.484
Methyl acetate	ND		1.47	0.586
Cyclohexane	31.8		2.93	0.337
Methylcyclohexane	187		1.47	0.425

Total Target Compounds: 253

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-003
Client ID: MW14-1/6.67-7.
Date Received: 09/16/2010
Date Analyzed: 09/18/2010
Date File: L8751.D

GC/MS Column: DB-624
Sample wt/vol: 0.0038g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 10
% Moisture: 10.2

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	106	8.19
	Unknown cyclic hydrocarbon	56.4	8.61
	Unknown alkane	93.6	8.85
	Unknown cyclic hydrocarbon	80.3	9.75
	Unknown alkane	73.7	10.03
	Unknown alkane	79.3	10.17
	Unknown alkane	89.7	11.23
	Unknown cyclic hydrocarbon	92.3	11.39
	Substituted benzene	58.5	12.18
	Unknown alkane	140	12.24

Total TICs = 870

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-004
Client ID: MW14-2/11-11.5
Date Received: 09/16/2010
Date Analyzed: 09/18/2010
Data file: L8749.D

GC/MS Column: DB-624
Sample wt/vol: 0.045g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.0

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.132	0.033
Chloromethane	ND		0.132	0.048
Vinyl chloride	ND		0.132	0.048
Bromomethane	ND		0.132	0.057
Chloroethane	ND		0.132	0.049
Trichlorofluoromethane	ND		0.132	0.045
1,1-Dichloroethene	ND		0.132	0.049
Acetone	ND		0.265	0.093
Carbon disulfide	ND		0.132	0.040
Methylene chloride	ND		0.265	0.262
trans-1,2-Dichloroethene	ND		0.132	0.046
Methyl tert-butyl ether (MTBE)	ND		0.132	0.023
1,1-Dichloroethane	ND		0.132	0.045
cis-1,2-Dichloroethene	ND		0.132	0.036
2-Butanone (MEK)	ND		0.132	0.069
Bromochloromethane	ND		0.132	0.028
Chloroform	ND		0.132	0.034
1,1,1-Trichloroethane	ND		0.132	0.040
Carbon tetrachloride	ND		0.132	0.036
1,2-Dichloroethane (EDC)	ND		0.132	0.032
Benzene	ND		0.132	0.038
Trichloroethene	ND		0.132	0.045
1,2-Dichloropropane	ND		0.132	0.037
1,4-Dioxane	ND		26.5	2.54
Bromodichloromethane	ND		0.132	0.033
cis-1,3-Dichloropropene	ND		0.132	0.028
4-Methyl-2-pentanone (MIBK)	ND		0.132	0.025

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-004
Client ID: MW14-2/11-11.5
Date Received: 09/16/2010
Date Analyzed: 09/18/2010
Data file: L8749.D

GC/MS Column: DB-624
Sample wt/vol: 0.045g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.0

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.132	0.038
trans-1,3-Dichloropropene	ND		0.132	0.036
1,1,2-Trichloroethane	ND		0.132	0.034
Tetrachloroethene	ND		0.132	0.044
2-Hexanone	ND		0.132	0.033
Dibromochloromethane	ND		0.132	0.029
1,2-Dibromoethane (EDB)	ND		0.132	0.023
Chlorobenzene	ND		0.132	0.028
Ethylbenzene	ND		0.132	0.041
Total Xylenes	ND		0.265	0.108
Styrene	ND		0.132	0.029
Bromoform	ND		0.132	0.023
Isopropylbenzene	ND		0.132	0.040
1,1,2,2-Tetrachloroethane	ND		0.132	0.033
1,3-Dichlorobenzene	ND		0.132	0.032
1,4-Dichlorobenzene	ND		0.132	0.033
1,2-Dichlorobenzene	ND		0.132	0.028
1,2-Dibromo-3-chloropropane	ND		0.132	0.070
1,2,4-Trichlorobenzene	ND		0.132	0.036
1,2,3-Trichlorobenzene	ND		0.132	0.045
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.132	0.044
Methyl acetate	ND		0.132	0.053
Cyclohexane	ND		0.265	0.030
Methylcyclohexane	ND		0.132	0.038

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-004
Client ID: MW14-2/11-11.5
Date Received: 09/16/2010
Date Analyzed: 09/18/2010
Date File: L8749.D

GC/MS Column: DB-624
Sample wt/vol: 0.045g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.0

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown cyclic hydrocarbon	0.741	14.45
	Unknown	0.794	15.05
	Unknown alkane	0.966	15.18
	Unknown	0.847	15.24

Total TICs = 3.35

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-007
Client ID: TRIP
Date Received: 09/16/2010
Date Analyzed: 09/23/2010
Data file: L8844.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-mg/L (ppm)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.00035
Chloromethane	ND		0.001	0.00027
Vinyl chloride	ND		0.001	0.00041
Bromomethane	ND		0.001	0.00052
Chloroethane	ND		0.001	0.00062
Trichlorofluoromethane	ND		0.001	0.00046
1,1-Dichloroethene	ND		0.001	0.00045
Acetone	ND		0.002	0.00064
Carbon disulfide	ND		0.001	0.00042
Methylene chloride	ND		0.002	0.00198
trans-1,2-Dichloroethene	ND		0.001	0.00046
Methyl tert-butyl ether (MTBE)	ND		0.001	0.00032
1,1-Dichloroethane	ND		0.001	0.00039
cis-1,2-Dichloroethene	ND		0.001	0.00042
2-Butanone (MEK)	ND		0.001	0.00021
Bromochloromethane	ND		0.001	0.00042
Chloroform	ND		0.001	0.00043
1,1,1-Trichloroethane	ND		0.001	0.0004
Carbon tetrachloride	ND		0.001	0.00038
1,2-Dichloroethane (EDC)	ND		0.001	0.00033
Benzene	ND		0.001	0.00037
Trichloroethene	ND		0.001	0.00038
1,2-Dichloropropane	ND		0.001	0.00034
1,4-Dioxane	ND		0.200	0.020
Bromodichloromethane	ND		0.001	0.00031
cis-1,3-Dichloropropene	ND		0.001	0.00026
4-Methyl-2-pentanone (MIBK)	ND		0.001	0.00028

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-007
Client ID: TRIP
Date Received: 09/16/2010
Date Analyzed: 09/23/2010
Data file: L8844.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-mg/L (ppm)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.00028
trans-1,3-Dichloropropene	ND		0.001	0.00024
1,1,2-Trichloroethane	ND		0.001	0.0004
Tetrachloroethene	ND		0.001	0.00033
2-Hexanone	ND		0.001	0.00032
Dibromochloromethane	ND		0.001	0.00022
1,2-Dibromoethane (EDB)	ND		0.001	0.00032
Chlorobenzene	ND		0.001	0.00043
Ethylbenzene	ND		0.001	0.00038
Total Xylenes	ND		0.002	0.00079
Styrene	ND		0.001	0.00037
Bromoform	ND		0.001	0.00035
Isopropylbenzene	ND		0.001	0.00034
1,1,2,2-Tetrachloroethane	ND		0.001	0.00022
1,3-Dichlorobenzene	ND		0.001	0.00034
1,4-Dichlorobenzene	ND		0.001	0.00037
1,2-Dichlorobenzene	ND		0.001	0.00034
1,2-Dibromo-3-chloropropane	ND		0.001	0.00057
1,2,4-Trichlorobenzene	ND		0.001	0.00038
1,2,3-Trichlorobenzene	ND		0.001	0.00028
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.00045
Methyl acetate	ND		0.001	0.00043
Cyclohexane	ND		0.002	0.00055
Methylcyclohexane	ND		0.001	0.00052

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-007
Client ID: TRIP
Date Received: 09/16/2010
Date Analyzed: 09/23/2010
Date File: L8844.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-mg/L (ppm)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-001
Client ID: MW13-1/1
Date Received: 09/16/2010
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0714.D
Data file: U0739.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 13.8

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	60.3		13.9	3.48
C12-C16 Aliphatics	356		9.28	2.32
C16-C21 Aliphatics	373		13.9	3.48
C21-C40 Aliphatics	649		46.4	11.6
Total Aliphatics	1440			
C10-C12 Aromatics	6.27	J	9.28	2.32
C12-C16 Aromatics	32.3		13.9	3.48
C16-C21 Aromatics	589		23.2	5.80
C21-C36 Aromatics	621		37.1	9.28
Total Aromatics	1250			
Total NJ-EPH	2690			

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-002
Client ID: MW13-2/1
Date Received: 09/16/2010
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0715.D
Data file: U0740.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 10.6

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	14.0		13.4	3.36
C12-C16 Aliphatics	103		8.95	2.24
C16-C21 Aliphatics	130		13.4	3.36
C21-C40 Aliphatics	257		44.7	11.2
Total Aliphatics	504			
C10-C12 Aromatics	2.76	J	8.95	2.24
C12-C16 Aromatics	34.5		13.4	3.36
C16-C21 Aromatics	205		22.4	5.59
C21-C36 Aromatics	217		35.8	8.95
Total Aromatics	459			
Total NJ-EPH	963			

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-005
Client ID: MW12-1/1
Date Received: 09/16/2010
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0732.D
Data file: U0741.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 16.1

Dilution Factor: 20
Dilution Factor: 10

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	1090		286	1.5
C12-C16 Aliphatics	4040		191	7.7
C16-C21 Aliphatics	2770		286	1.5
C21-C40 Aliphatics	1180		954	238
Total Aliphatics	9080			
C10-C12 Aromatics	607		95.4	23.8
C12-C16 Aromatics	2950		143	35.8
C16-C21 Aromatics	4380		238	59.6
C21-C36 Aromatics	1260		381	95.4
Total Aromatics	9200			
Total NJ-EPH	18300			

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Client/Project: PENNJERSEY/PALMER

Lab ID: 09269-006
Client ID: MW12-2/1
Date Received: 09/16/2010
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0761.D
Data file: U0742.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 18.5

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		14.7	3.68
C12-C16 Aliphatics	ND		9.82	2.45
C16-C21 Aliphatics	ND		14.7	3.68
C21-C40 Aliphatics	ND		49.1	12.3
Total Aliphatics	0			
C10-C12 Aromatics	ND		9.82	2.45
C12-C16 Aromatics	ND		14.7	3.68
C16-C21 Aromatics	ND		24.5	6.13
C21-C36 Aromatics	ND		39.3	9.82
Total Aromatics	0			
Total NJ-EPH	0			

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Lead

Client/Project: PENNJERSEYPALMER

Batch #: 380
Date Received: 09/16/2010
Method: 6020

Lab ID	Client ID	Result	Q	DF	Matrix-Unit	RL	MDL	% Moist	Date Analyzed
09269-003	MW14-1	3.67		1	Soil-mg/Kg	0.614	0.153	10.2	9/20/10
09269-004	MW14-2	2.37		1	Soil-mg/Kg	0.602	0.151	16.0	9/20/10

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L8621.D BFB Injection Date: 09/13/2010

Inst ID: MSD_L BFB Injection Time: 10:05

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.2			
75	30.0 - 60.0% of mass 95	39.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	0.6	(	0.7	)1
174	Great than 50.0% of mass 95	85.8			
175	5.0 - 9.0% of mass 174	5.9	(	6.9	)1
176	95.0 - 101.0% of mass 174	81.6	(	95.1	)1
177	5.0 - 9.0% of mass 176	4.2	(	5.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	L8622.D	09/13/2010	10:34
20PPB	STD-20PPB	L8623.D	09/13/2010	11:02
5PPB	STD-5PPB	L8624.D	09/13/2010	11:29
1PPB	STD-1PPB	L8627.D	09/13/2010	12:58
2PPB	STD-2PPB	L8628.D	09/13/2010	13:32
150PPB	STD-150PPB	L8629.D	09/13/2010	14:02
200PPB	STD-200PPB	L8630.D	09/13/2010	14:32
N/A	METHOD-BLK	L8634.D	09/13/2010	16:58
LCS-50PPB	BLK-SPK	L8635.D	09/13/2010	17:30
MS	MEOH-MS	L8636.D	09/13/2010	18:00
MSD	MEOH-MSD	L8637.D	09/13/2010	18:30
B27/7.5-8	08672-035	L8639.D	09/13/2010	19:30
B3/7.5-8	08672-047	L8640.D	09/13/2010	20:00
B2/4.5-5	08672-046	L8641.D	09/13/2010	20:30
B16/7.5-8	08672-049	L8642.D	09/13/2010	21:00

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L8731.D

BFB Injection Date: 09/17/2010

Inst ID: MSD_L

BFB Injection Time: 22:21

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.8			
75	30.0 - 60.0% of mass 95	40.3			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.4			
173	Less than 2.0% of mass 174	0.8	(	1.0	)1
174	Great than 50.0% of mass 95	79.5			
175	5.0 - 9.0% of mass 174	6.5	(	8.2	)1
176	95.0 - 101.0% of mass 174	75.7	(	95.2	)1
177	5.0 - 9.0% of mass 176	5.7	(	7.5	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	L8732.D	09/17/2010	22:49
N/A	METHOD-BLK	L8736.D	09/18/2010	0:44
LCS-50PPB	BLK-SPK	L8739.D	09/18/2010	2:08
MS	MEOH-MS	L8740.D	09/18/2010	2:35
MSD	MEOH-MSD	L8741.D	09/18/2010	3:02
E1S/10-10.5	09194-002	L8742.D	09/18/2010	3:30
MW14-2/11-11.5	09269-004	L8749.D	09/18/2010	6:56
SBMW11B(11.5-1	09191-004	L8750.D	09/18/2010	7:26
MW14-1/6.67-7.	09269-003	L8751.D	09/18/2010	7:56
BR-WC	09262-001	L8753.D	09/18/2010	8:54

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L8838.D BFB Injection Date: 09/23/2010

Inst ID: MSD_L BFB Injection Time: 10:11

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.2			
75	30.0 - 60.0% of mass 95	40.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.5			
173	Less than 2.0% of mass 174	0.4	(	0.5	)1
174	Great than 50.0% of mass 95	74.9			
175	5.0 - 9.0% of mass 174	5.5	(	7.4	)1
176	95.0 - 101.0% of mass 174	71.2	(	95.1	)1
177	5.0 - 9.0% of mass 176	4.8	(	6.8	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	L8840.D	09/23/2010	11:10
N/A	METHOD-BLK	L8843.D	09/23/2010	12:39
TRIP	09269-007	L8844.D	09/23/2010	13:08
FB-1	09411-008	L8845.D	09/23/2010	13:38
TB-1	09411-013	L8846.D	09/23/2010	14:07
LCS-50PPB	BLK-SPK	L8847.D	09/23/2010	14:37
MS	09269-007MS	L8848.D	09/23/2010	15:06
MSD	09269-007MSD	L8849.D	09/23/2010	15:35
MW-7/46-51	09411-001	L8850.D	09/23/2010	16:04
MW-7/46-51	09411-001	L8851.D	09/23/2010	16:33
MW-7BR/96-101	09411-002	L8852.D	09/23/2010	17:02
MW-7WT/16-21	09411-003	L8853.D	09/23/2010	17:31
MW-10WT/13-18	09411-004	L8854.D	09/23/2010	18:00
MW-10/56-61	09411-005	L8855.D	09/23/2010	18:29
MW-19I/53-58	09411-006	L8856.D	09/23/2010	18:58
MW-19BR/101-10	09411-007	L8857.D	09/23/2010	19:27
MW-19S/26-31	09411-009	L8858.D	09/23/2010	19:56
MW-20I/52-57	09411-010	L8859.D	09/23/2010	20:26
MW-20BR/101-10	09411-011	L8860.D	09/23/2010	20:52
MW-20S/25-30	09411-012	L8861.D	09/23/2010	21:21

VOLATILE METHOD BLANK SUMMARY

Lab File ID: L8736.D Instrument ID: MSD_L

Date Analyzed: 09/18/2010 Time Analyzed: 00:44

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS-50PPB	BLK-SPK	09/18/2010	2:08
MS	MEOH-MS	09/18/2010	2:35
MSD	MEOH-MSD	09/18/2010	3:02
E1S/10-10.5	09194-002	09/18/2010	3:30
MW14-2/11-11.5	09269-004	09/18/2010	6:56
SBMW11B(11.5-1	09191-004	09/18/2010	7:26
MW14-1/6.67-7.	09269-003	09/18/2010	7:56
BR-WC	09262-001	09/18/2010	8:54

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 09/18/2010
Data file: L8736.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 50
% Moisture: 0

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.050	0.013
Chloromethane	ND		0.050	0.018
Vinyl chloride	ND		0.050	0.018
Bromomethane	ND		0.050	0.022
Chloroethane	ND		0.050	0.019
Trichlorofluoromethane	ND		0.050	0.017
1,1-Dichloroethene	ND		0.050	0.019
Acetone	ND		0.100	0.035
Carbon disulfide	ND		0.050	0.015
Methylene chloride	ND		0.100	0.099
trans-1,2-Dichloroethene	ND		0.050	0.018
Methyl tert-butyl ether (MTBE)	ND		0.050	0.0085
1,1-Dichloroethane	ND		0.050	0.017
cis-1,2-Dichloroethene	ND		0.050	0.014
2-Butanone (MEK)	ND		0.050	0.026
Bromochloromethane	ND		0.050	0.010
Chloroform	ND		0.050	0.013
1,1,1-Trichloroethane	ND		0.050	0.015
Carbon tetrachloride	ND		0.050	0.014
1,2-Dichloroethane (EDC)	ND		0.050	0.012
Benzene	ND		0.050	0.014
Trichloroethene	ND		0.050	0.017
1,2-Dichloropropane	ND		0.050	0.014
1,4-Dioxane	ND		10.0	0.959
Bromodichloromethane	ND		0.050	0.013
cis-1,3-Dichloropropene	ND		0.050	0.010
4-Methyl-2-pentanone (MIBK)	ND		0.050	0.0095

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 09/18/2010
Data file: L8736.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 50
% Moisture: 0

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.050	0.014
trans-1,3-Dichloropropene	ND		0.050	0.014
1,1,2-Trichloroethane	ND		0.050	0.013
Tetrachloroethene	ND		0.050	0.016
2-Hexanone	ND		0.050	0.013
Dibromochloromethane	ND		0.050	0.011
1,2-Dibromoethane (EDB)	ND		0.050	0.0085
Chlorobenzene	ND		0.050	0.010
Ethylbenzene	ND		0.050	0.015
Total Xylenes	ND		0.100	0.041
Styrene	ND		0.050	0.011
Bromoform	ND		0.050	0.0085
Isopropylbenzene	ND		0.050	0.015
1,1,2,2-Tetrachloroethane	ND		0.050	0.013
1,3-Dichlorobenzene	ND		0.050	0.012
1,4-Dichlorobenzene	ND		0.050	0.013
1,2-Dichlorobenzene	ND		0.050	0.010
1,2-Dibromo-3-chloropropane	ND		0.050	0.026
1,2,4-Trichlorobenzene	ND		0.050	0.014
1,2,3-Trichlorobenzene	ND		0.050	0.017
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.050	0.016
Methyl acetate	ND		0.050	0.020
Cyclohexane	ND		0.100	0.012
Methylcyclohexane	ND		0.050	0.014

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 09/18/2010
Date File: L8736.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 50
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: L8843.D Instrument ID: MSD_L

Date Analyzed: 09/23/2010 Time Analyzed: 12:39

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TRIP	09269-007	09/23/2010	13:08
FB-1	09411-008	09/23/2010	13:38
TB-1	09411-013	09/23/2010	14:07
LCS-50PPB	BLK-SPK	09/23/2010	14:37
MS	09269-007MS	09/23/2010	15:06
MSD	09269-007MSD	09/23/2010	15:35
MW-7/46-51	09411-001	09/23/2010	16:04
MW-7/46-51	09411-001	09/23/2010	16:33
MW-7BR/96-101	09411-002	09/23/2010	17:02
MW-7WT/16-21	09411-003	09/23/2010	17:31
MW-10WT/13-18	09411-004	09/23/2010	18:00
MW-10/56-61	09411-005	09/23/2010	18:29
MW-19I/53-58	09411-006	09/23/2010	18:58
MW-19BR/101-10	09411-007	09/23/2010	19:27
MW-19S/26-31	09411-009	09/23/2010	19:56
MW-20I/52-57	09411-010	09/23/2010	20:26
MW-20BR/101-10	09411-011	09/23/2010	20:52
MW-20S/25-30	09411-012	09/23/2010	21:21

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 09/23/2010
Data file: L8843.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.350
Chloromethane	ND		1.00	0.270
Vinyl chloride	ND		1.00	0.410
Bromomethane	ND		1.00	0.520
Chloroethane	ND		1.00	0.620
Trichlorofluoromethane	ND		1.00	0.460
1,1-Dichloroethene	ND		1.00	0.450
Acetone	ND		2.00	0.640
Carbon disulfide	ND		1.00	0.420
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.460
Methyl tert-butyl ether (MTBE)	ND		1.00	0.320
1,1-Dichloroethane	ND		1.00	0.390
cis-1,2-Dichloroethene	ND		1.00	0.420
2-Butanone (MEK)	ND		1.00	0.210
Bromochloromethane	ND		1.00	0.420
Chloroform	ND		1.00	0.430
1,1,1-Trichloroethane	ND		1.00	0.400
Carbon tetrachloride	ND		1.00	0.380
1,2-Dichloroethane (EDC)	ND		1.00	0.330
Benzene	ND		1.00	0.370
Trichloroethene	ND		1.00	0.380
1,2-Dichloropropane	ND		1.00	0.340
1,4-Dioxane	ND		200	19.6
Bromodichloromethane	ND		1.00	0.310
cis-1,3-Dichloropropene	ND		1.00	0.260
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.280

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 09/23/2010
Data file: L8843.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.280
trans-1,3-Dichloropropene	ND		1.00	0.240
1,1,2-Trichloroethane	ND		1.00	0.400
Tetrachloroethene	ND		1.00	0.330
2-Hexanone	ND		1.00	0.320
Dibromochloromethane	ND		1.00	0.220
1,2-Dibromoethane (EDB)	ND		1.00	0.320
Chlorobenzene	ND		1.00	0.430
Ethylbenzene	ND		1.00	0.380
Total Xylenes	ND		2.00	0.790
Styrene	ND		1.00	0.370
Bromoform	ND		1.00	0.350
Isopropylbenzene	ND		1.00	0.340
1,1,2,2-Tetrachloroethane	ND		1.00	0.220
1,3-Dichlorobenzene	ND		1.00	0.340
1,4-Dichlorobenzene	ND		1.00	0.370
1,2-Dichlorobenzene	ND		1.00	0.340
1,2-Dibromo-3-chloropropane	ND		1.00	0.570
1,2,4-Trichlorobenzene	ND		1.00	0.380
1,2,3-Trichlorobenzene	ND		1.00	0.280
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.450
Methyl acetate	ND		1.00	0.430
Cyclohexane	ND		2.00	0.550
Methylcyclohexane	ND		1.00	0.520

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 09/23/2010
Date File: L8843.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Response Factor Report MSD_L

Method Path : C:\MSDCHEM\1\METHODS\
Method File : LAM0913.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Wed Sep 15 13:14:46 2010
Response Via : Initial Calibration

Calibration Files
1 =L8627.D 2 =L8628.D 5 =L8624.D
20 =L8623.D 100 =L8622.D 200 =L8630.D 150 =L8629.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------						
2)	T	Dichlorodifluorom	0.269	0.394	0.387	0.394	0.443	0.423	0.429	0.391	14.78
3)	P	Chloromethane	1.235	0.932	1.015	0.903	0.942	0.927	0.967	0.989	11.55
4)	C	Vinyl chloride	0.699	0.684	0.663	0.739	0.810	0.812	0.827	0.748	9.16
5)	T	Bromomethane	0.569	0.485	0.489	0.455	0.405	0.415	0.391	0.459	13.54
6)	T	Chloroethane	0.435	0.433	0.447	0.430	0.419	0.319	0.394	0.411	10.71
7)	T	Trichlorofluorome	0.428	0.677	0.553	0.530	0.609	0.577	0.573	0.564	13.52
8)	T	Acrolein	0.047	0.054	0.049	0.064	0.059	0.063	0.061	0.057	12.00
9)	MC	1,1-Dichloroethen	0.606	0.551	0.592	0.568	0.553	0.546	0.566	0.569	3.97
0)	T	Acetone		0.275	0.383	0.304	0.305	0.268	0.282	0.303	13.86
1)	T	Carbon disulfide	1.599	1.446	1.567	1.556	1.654	1.629	1.648	1.585	4.56
2)	T	Vinyl acetate	2.823	2.838	2.749	2.483	2.483	2.325	2.420	2.589	8.08
3)	T	Methylene chlorid		0.694	0.678	0.596	0.586	0.560	0.593	0.618	8.78
4)	T	Acrylonitrile	0.275	0.310	0.293	0.370	0.348	0.361	0.358	0.331	11.43
5)	T	tert-Butyl alcoho	0.094	0.101	0.089	0.088	0.102	0.102	0.099	0.096	6.30
6)	T	trans-1,2-Dichlor	0.708	0.651	0.732	0.650	0.660	0.659	0.682	0.677	4.71
7)	T	Methyl tert-butyl	2.175	2.279	2.092	1.902	1.917	1.822	1.889	2.011	8.52
8)	P	1,1-Dichloroethan	1.561	1.501	1.577	1.402	1.426	1.424	1.467	1.480	4.67
9)	T	Diisopropyl ether	3.528	3.626	3.531	3.140	2.991	2.905	3.026	3.249	9.28
20)	T	cis-1,2-Dichloroe	0.867	0.837	0.879	0.766	0.777	0.763	0.792	0.811	6.01
21)	T	2,2-Dichloropropa	0.436	0.444	0.428	0.439	0.506	0.519	0.520	0.470	9.00
22)	T	2-Butanone (MEK)	0.543	0.590	0.524	0.440	0.504	0.458	0.469	0.504	10.47
23)	T	Bromochloromethan	0.430	0.484	0.475	0.432	0.441	0.431	0.445	0.448	4.93
25)	C	Chloroform	1.257	1.207	1.253	1.125	1.112	1.094	1.134	1.169	5.86
26)	T	1,1,1-Trichloroet	0.418	0.447	0.492	0.467	0.607	0.568	0.596	0.514	14.81
27)	T	Carbon tetrachlor	0.537	0.546	0.520	0.618	0.698	0.688	0.706	0.616	13.32
28)	T	1,1-Dichloroprope	0.743	0.668	0.673	0.685	0.724	0.724	0.729	0.707	4.29
29)	T	1,2-Dichloroethan	1.080	1.152	1.103	0.989	0.982	0.947	0.995	1.035	7.35
30)	S	1,2-Dichloroethan	0.504	0.511	0.492	0.509	0.503	0.500	0.509	0.504	1.31
31)	I	1,4-Difluorobenzene	----------	ISTD	----------						
32)	M	Benzene	1.828	1.653	1.810	1.589	1.556	1.538	1.566	1.649	7.40
33)	M	Trichloroethene	0.447	0.382	0.417	0.386	0.394	0.386	0.391	0.400	5.93
34)	C	1,2-Dichloropropa	0.573	0.570	0.585	0.513	0.503	0.495	0.503	0.535	7.41
35)	T	Dibromomethane	0.277	0.281	0.279	0.253	0.260	0.252	0.254	0.265	5.07
36)	T	1,4-Dioxane	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.003	12.90
37)	T	Bromodichlorometh	0.548	0.533	0.544	0.501	0.506	0.500	0.505	0.520	4.07
38)	T	2-Chloroethyl vin	0.188	0.230	0.218	0.176	0.249	0.236	0.234	0.219	12.16
39)	T	cis-1,3-Dichlorop	0.637	0.663	0.694	0.630	0.637	0.627	0.638	0.646	3.70
40)	T	4-Methyl-2-pentan	0.582	0.622	0.525	0.512	0.581	0.547	0.541	0.559	6.85
41)	S	Toluene-d8	1.065	1.063	1.069	1.062	1.059	1.069	1.067	1.065	0.35
42)	MC	Toluene	1.067	1.003	1.083	0.963	0.939	0.935	0.944	0.991	6.29
43)	T	trans-1,3-Dichlor	0.552	0.598	0.598	0.558	0.587	0.567	0.583	0.578	3.23
44)	T	1,1,2-Trichloroet	0.322	0.362	0.323	0.300	0.310	0.299	0.304	0.317	6.97
45)	T	Tetrachloroethene	0.308	0.274	0.305	0.289	0.293	0.292	0.289	0.293	3.92
46)	T	1,3-Dichloropropa	0.681	0.657	0.641	0.586	0.591	0.567	0.580	0.615	7.20
47)	T	2-Hexanone	0.407	0.428	0.373	0.368	0.423	0.405	0.401	0.401	5.71
48)	T	Dibromochlorometh	0.486	0.509	0.497	0.471	0.502	0.486	0.494	0.492	2.50
49)	T	1,2-Dibromoethane	0.427	0.446	0.425	0.399	0.430	0.408	0.413	0.421	3.74
50)	I	Chlorobenzene-d5	----------	ISTD	----------						
51)	MP	Chlorobenzene	1.206	1.222	1.216	1.074	1.038	0.986	1.022	1.109	9.22
52)	T	1,1,1,2-Tetrachlo	0.433	0.436	0.454	0.410	0.405	0.382	0.399	0.417	6.00

63)	C	Ethylbenzene	1.573	1.376	1.555	1.375	1.327	1.262	1.308	1.397	8.66
64)	T	m,p-Xylene	0.672	0.597	0.651	0.575	0.553	0.528	0.545	0.589	9.28
65)	T	o-Xylene	0.680	0.643	0.684	0.607	0.583	0.558	0.577	0.619	8.20
66)	T	Styrene	1.228	1.223	1.254	1.123	1.075	1.029	1.070	1.143	7.93
67)	P	Bromoform	0.226	0.257	0.251	0.250	0.287	0.265	0.272	0.258	7.53
68)	T	Isopropylbenzene	1.201	1.094	1.218	1.160	1.147	1.091	1.120	1.147	4.34
69)	S	Bromofluorobenzen	0.416	0.422	0.418	0.416	0.416	0.419	0.421	0.418	0.55
70)	P	1,1,2,2-Tetrachlo	0.458	0.512	0.470	0.438	0.476	0.430	0.440	0.461	6.18
71)	T	Bromobenzene	0.504	0.491	0.500	0.432	0.423	0.405	0.418	0.454	9.50
72)	T	1,2,3-Trichloropr	0.390	0.403	0.359	0.335	0.356	0.321	0.329	0.356	8.75
73)	T	n-Propylbenzene	1.277	1.108	1.286	1.213	1.159	1.102	1.127	1.182	6.57
74)	T	2-Chlorotoluene	1.020	0.927	1.004	0.872	0.832	0.791	0.827	0.896	10.01
75)	T	1,3,5-Trimethylbe	1.045	0.957	1.105	0.967	0.919	0.864	0.898	0.965	8.75
76)	T	4-Chlorotoluene	1.191	1.106	1.162	1.004	0.941	0.892	0.934	1.033	11.60
77)	T	tert-Butylbenzene	0.857	0.704	0.884	0.842	0.791	0.739	0.757	0.796	8.38
78)	T	1,2,4-Trimethylbe	1.094	1.050	1.164	1.041	0.979	0.918	0.960	1.029	8.20
79)	T	sec-Butylbenzene	1.023	0.936	1.147	1.126	0.996	0.944	0.951	1.018	8.56
80)	T	1,3-Dichlorobenze	0.754	0.748	0.787	0.666	0.650	0.612	0.632	0.693	9.95
81)	T	4-Isopropyltoluen	0.971	0.867	1.084	1.038	0.903	0.849	0.862	0.939	9.95
82)	T	1,4-Dichlorobenze	0.790	0.796	0.820	0.701	0.671	0.643	0.666	0.727	10.03
83)	T	n-Butylbenzene	0.421	0.343	0.497	0.468	0.391	0.377	0.378	0.411	13.32
84)	T	1,2-Dichlorobenze	0.745	0.786	0.786	0.681	0.660	0.620	0.646	0.703	9.75
85)	T	1,2-Dibromo-3-chl	0.054	0.054	0.055	0.062	0.075	0.066	0.066	0.062	12.75
86)	T	1,2,4-Trichlorobe	0.332	0.317	0.381	0.381	0.290	0.275	0.265	0.320	14.86
87)	T	Hexachlorobutadie		0.115	0.112	0.133	0.103	0.093	0.092	0.108	14.32
88)	T	Naphthalene	1.134	0.977	1.159	1.276	1.009	0.917	0.870	1.049	13.84
89)	T	1,2,3-Trichlorobe	0.242	0.254	0.288	0.312	0.239	0.224	0.205	0.252	14.57
90)	T	1,1,2-Trichloro-1	0.134	0.170	0.155	0.195	0.207	0.198	0.192	0.179	14.92
91)	T	Methyl acetate	0.453	0.557	0.459	0.396	0.445	0.372	0.380	0.438	14.59
92)	T	Cyclohexane		0.365	0.363	0.430	0.456	0.426	0.423	0.410	9.20
93)	T	Methylcyclohexane	0.201	0.240	0.214	0.273	0.285	0.261	0.257	0.247	12.46

(#) = Out of Range ### Number of calibration levels exceeded format ###

AM0913.M Wed Sep 15 13:15:52 2010 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8732.D
Acq On : 17 Sep 2010 22:49
Operator : MEI
Sample : 100PPB,STD-100PPB,W,5ml,100
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 17 15:30:46 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	100	0.00
2	T	Dichlorodifluoromethane	0.391	0.374	4.3	84	0.00
3	P	Chloromethane	0.989	0.990	-0.1	105	-0.02
4	C	Vinyl chloride	0.748	0.830	-11.0	102	0.00
5	T	Bromomethane	0.459	0.430	6.3	106	-0.02
6	T	Chloroethane	0.411	0.433	-5.4	103	-0.01
7	T	Trichlorofluoromethane	0.564	0.557	1.2	91	-0.01
8	T	Acrolein	0.057	0.051	10.5	87	0.00
9	MC	1,1-Dichloroethene	0.569	0.606	-6.5	109	-0.01
10	T	Acetone	0.303	0.279	7.9	91	0.01
11	T	Carbon disulfide	1.585	1.688	-6.5	102	0.01
12	T	Vinyl acetate	2.589	2.497	3.6	100	0.01
13	T	Methylene chloride	0.618	0.648	-4.9	110	0.00
14	T	Acrylonitrile	0.331	0.337	-1.8	96	0.01
15	T	tert-Butyl alcohol (TBA)	0.096	0.092	4.2	90	0.00
16	T	trans-1,2-Dichloroethene	0.677	0.721	-6.5	109	0.00
17	T	Methyl tert-butyl ether (MT	2.011	2.018	-0.3	105	0.01
18	P	1,1-Dichloroethane	1.480	1.566	-5.8	109	-0.01
19	T	Diisopropyl ether (DIPE)	3.249	3.326	-2.4	111	0.01
20	T	cis-1,2-Dichloroethene	0.811	0.853	-5.2	109	0.00
21	T	2,2-Dichloropropane	0.470	0.554	-17.9	109	0.01
22	T	2-Butanone (MEK)	0.504	0.452	10.3	89	0.00
23	T	Bromochloromethane	0.448	0.473	-5.6	107	-0.01
25	C	Chloroform	1.169	1.223	-4.6	110	0.00
26	T	1,1,1-Trichloroethane	0.514	0.571	-11.1	94	0.00
27	T	Carbon tetrachloride	0.616	0.693	-12.5	99	0.01
28	T	1,1-Dichloropropene	0.707	0.762	-7.8	105	0.00
29	T	1,2-Dichloroethane (EDC)	1.035	1.055	-1.9	107	0.00
30	S	1,2-Dichloroethane-d4	0.504	0.499	1.0	99	0.01
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	104	0.00
32	M	Benzene	1.649	1.646	0.2	110	0.01
33	M	Trichloroethene	0.400	0.406	-1.5	108	0.01
34	C	1,2-Dichloropropane	0.535	0.539	-0.7	112	0.00
35	T	Dibromomethane	0.265	0.263	0.8	106	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	104	0.01
37	T	Bromodichloromethane	0.520	0.531	-2.1	110	0.00
38	T	2-Chloroethyl vinyl ether	0.219	0.224	-2.3	94	0.01
39	T	cis-1,3-Dichloropropene	0.646	0.673	-4.2	110	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.559	0.521	6.8	93	0.00
41	S	Toluene-d8	1.065	1.073	-0.8	106	0.00
42	MC	Toluene	0.991	0.984	0.7	109	0.01
43	T	trans-1,3-Dichloropropene	0.578	0.599	-3.6	106	0.00
44	T	1,1,2-Trichloroethane	0.317	0.315	0.6	106	0.00
45	T	Tetrachloroethene	0.293	0.288	1.7	103	0.00
46	T	1,3-Dichloropropane	0.615	0.605	1.6	107	0.00

47	T	2-Hexanone	0.401	0.380	5.2	94	0.00
48	T	Dibromochloromethane	0.492	0.499	-1.4	104	0.00
49	T	1,2-Dibromoethane (EDB)	0.421	0.423	-0.5	103	0.01
50	I	Chlorobenzene-d5	1.000	1.000	0.0	107	0.00
51	MP	Chlorobenzene	1.109	1.064	4.1	109	0.00
52	T	1,1,1,2-Tetrachloroethane	0.417	0.408	2.2	107	0.00
53	C	Ethylbenzene	1.397	1.362	2.5	109	0.00
54	T	m,p-Xylene	0.589	0.561	4.8	108	0.01
55	T	o-Xylene	0.619	0.596	3.7	109	0.00
56	T	Styrene	1.143	1.113	2.6	110	0.00
57	P	Bromoform	0.258	0.254	1.6	94	0.00
58	T	Isopropylbenzene	1.147	1.141	0.5	106	0.01
59	S	Bromofluorobenzene	0.418	0.419	-0.2	107	0.00
60	P	1,1,2,2-Tetrachloroethane	0.461	0.431	6.5	96	0.00
61	T	Bromobenzene	0.454	0.425	6.4	107	0.00
62	T	1,2,3-Trichloropropane	0.356	0.324	9.0	97	0.00
63	T	n-Propylbenzene	1.182	1.163	1.6	107	0.00
64	T	2-Chlorotoluene	0.896	0.845	5.7	108	0.00
65	T	1,3,5-Trimethylbenzene	0.965	0.922	4.5	107	0.00
66	T	4-Chlorotoluene	1.033	0.958	7.3	109	0.00
67	T	tert-Butylbenzene	0.796	0.768	3.5	104	0.00
68	T	1,2,4-Trimethylbenzene	1.029	0.989	3.9	108	0.00
69	T	sec-Butylbenzene	1.018	0.959	5.8	103	0.00
70	T	1,3-Dichlorobenzene	0.693	0.642	7.4	105	0.00
71	T	4-Isopropyltoluene	0.939	0.875	6.8	103	0.00
72	T	1,4-Dichlorobenzene	0.727	0.668	8.1	106	0.00
73	T	n-Butylbenzene	0.411	0.378	8.0	103	0.00
74	T	1,2-Dichlorobenzene	0.703	0.639	9.1	103	0.00
75	T	1,2-Dibromo-3-chloropropane	0.062	0.055	11.3	78	0.00
76	T	1,2,4-Trichlorobenzene	0.320	0.266	16.9	98	0.00
77	T	Hexachlorobutadiene	0.108	0.092	14.8	95	0.00
78	T	Naphthalene	1.049	0.847	19.3	89	0.00
79	T	1,2,3-Trichlorobenzene	0.252	0.245	2.8	109	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.179	0.178	0.6	92	0.00
81	T	Methyl acetate	0.438	0.391	10.7	94	0.01
82	T	Cyclohexane	0.410	0.393	4.1	92	0.00
83	T	Methylcyclohexane	0.247	0.241	2.4	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

AM0913.M Fri Sep 17 15:30:52 2010 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\09-22-10\
Data File : L8840.D
Acq On : 23 Sep 2010 11:10
Operator : MEI
Sample : 100PPB,STD-100PPB,W,5ml,100
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 23 10:52:00 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	T	Dichlorodifluoromethane	0.391	0.398	-1.8	91	0.00
3	P	Chloromethane	0.989	0.908	8.2	98	-0.02
4	C	Vinyl chloride	0.748	0.749	-0.1	94	0.00
5	T	Bromomethane	0.459	0.411	10.5	103	-0.02
6	T	Chloroethane	0.411	0.404	1.7	98	-0.02
7	T	Trichlorofluoromethane	0.564	0.485	14.0	80	-0.02
8	T	Acrolein	0.057	0.049	14.0	84	-0.02
9	MC	1,1-Dichloroethene	0.569	0.580	-1.9	106	-0.01
10	T	Acetone	0.303	0.280	7.6	93	0.00
11	T	Carbon disulfide	1.585	1.530	3.5	94	0.00
12	T	Vinyl acetate	2.589	2.191	15.4	89	0.01
13	T	Methylene chloride	0.618	0.632	-2.3	109	0.00
14	T	Acrylonitrile	0.331	0.342	-3.3	99	0.00
15	T	tert-Butyl alcohol (TBA)	0.096	0.094	2.1	93	0.00
16	T	trans-1,2-Dichloroethene	0.677	0.680	-0.4	104	-0.01
17	T	Methyl tert-butyl ether (MT	2.011	2.035	-1.2	107	0.01
18	P	1,1-Dichloroethane	1.480	1.487	-0.5	106	-0.01
19	T	Diisopropyl ether (DIPE)	3.249	3.187	1.9	108	0.00
20	T	cis-1,2-Dichloroethene	0.811	0.824	-1.6	107	0.00
21	T	2,2-Dichloropropane	0.470	0.385	18.1	77	0.00
22	T	2-Butanone (MEK)	0.504	0.455	9.7	91	0.00
23	T	Bromochloromethane	0.448	0.467	-4.2	107	-0.01
25	C	Chloroform	1.169	1.180	-0.9	107	0.00
26	T	1,1,1-Trichloroethane	0.514	0.491	4.5	82	0.00
27	T	Carbon tetrachloride	0.616	0.610	1.0	88	0.00
28	T	1,1-Dichloropropene	0.707	0.696	1.6	97	0.00
29	T	1,2-Dichloroethane (EDC)	1.035	1.034	0.1	106	0.00
30	S	1,2-Dichloroethane-d4	0.504	0.498	1.2	100	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
32	M	Benzene	1.649	1.589	3.6	108	0.00
33	M	Trichloroethene	0.400	0.390	2.5	105	0.00
34	C	1,2-Dichloropropane	0.535	0.523	2.2	110	0.00
35	T	Dibromomethane	0.265	0.261	1.5	106	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	98	0.01
37	T	Bromodichloromethane	0.520	0.517	0.6	108	0.00
38	T	2-Chloroethyl vinyl ether	0.219	0.258	-17.8	110	0.01
39	T	cis-1,3-Dichloropropene	0.646	0.634	1.9	105	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.559	0.526	5.9	96	0.00
41	S	Toluene-d8	1.065	1.083	-1.7	108	0.00
42	MC	Toluene	0.991	0.944	4.7	106	0.00
43	T	trans-1,3-Dichloropropene	0.578	0.573	0.9	103	0.00
44	T	1,1,2-Trichloroethane	0.317	0.315	0.6	107	0.00
45	T	Tetrachloroethene	0.293	0.265	9.6	96	0.00
46	T	1,3-Dichloropropane	0.615	0.604	1.8	108	0.00

47	T	2-Hexanone	0.401	0.381	5.0	95	0.00
48	T	Dibromochloromethane	0.492	0.493	-0.2	104	0.00
49	T	1,2-Dibromoethane (EDB)	0.421	0.425	-1.0	105	0.01
50	I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00
51	MP	Chlorobenzene	1.109	1.000	9.8	107	0.00
52	T	1,1,1,2-Tetrachloroethane	0.417	0.388	7.0	106	0.00
53	C	Ethylbenzene	1.397	1.257	10.0	105	0.00
54	T	m,p-Xylene	0.589	0.521	11.5	104	0.00
55	T	o-Xylene	0.619	0.555	10.3	106	0.00
56	T	Styrene	1.143	1.043	8.7	108	0.00
57	P	Bromoform	0.258	0.252	2.3	97	0.00
58	T	Isopropylbenzene	1.147	1.049	8.5	101	0.00
59	S	Bromofluorobenzene	0.418	0.423	-1.2	113	0.00
60	P	1,1,2,2-Tetrachloroethane	0.461	0.428	7.2	100	0.00
61	T	Bromobenzene	0.454	0.404	11.0	106	0.00
62	T	1,2,3-Trichloropropane	0.356	0.326	8.4	102	0.00
63	T	n-Propylbenzene	1.182	1.061	10.2	102	0.00
64	T	2-Chlorotoluene	0.896	0.793	11.5	106	0.00
65	T	1,3,5-Trimethylbenzene	0.965	0.865	10.4	104	0.00
66	T	4-Chlorotoluene	1.033	0.902	12.7	106	0.00
67	T	tert-Butylbenzene	0.796	0.731	8.2	102	0.00
68	T	1,2,4-Trimethylbenzene	1.029	0.931	9.5	105	0.00
69	T	sec-Butylbenzene	1.018	0.917	9.9	102	0.00
70	T	1,3-Dichlorobenzene	0.693	0.614	11.4	105	0.00
71	T	4-Isopropyltoluene	0.939	0.841	10.4	103	0.00
72	T	1,4-Dichlorobenzene	0.727	0.648	10.9	107	0.00
73	T	n-Butylbenzene	0.411	0.368	10.5	105	0.00
74	T	1,2-Dichlorobenzene	0.703	0.631	10.2	106	0.00
75	T	1,2-Dibromo-3-chloropropane	0.062	0.067	-8.1	99	0.00
76	T	1,2,4-Trichlorobenzene	0.320	0.307	4.1	117	0.00
77	T	Hexachlorobutadiene	0.108	0.092	14.8	98	0.00
78	T	Naphthalene	1.049	1.143	-9.0	126	0.00
79	T	1,2,3-Trichlorobenzene	0.252	0.285	-13.1	132	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.179	0.150	16.2	81	0.00
81	T	Methyl acetate	0.438	0.390	11.0	97	0.00
82	T	Cyclohexane	0.410	0.338	17.6	82	0.00
83	T	Methylcyclohexane	0.247	0.205	17.0	80	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LAM0913.M Thu Sep 23 10:52:05 2010 RPT1

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/18/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD-BLK	SOIL	L8736.D	100	102	101
BLK-SPK	MEOH	L8739.D	100	102	108
MEOH-MS	MEOH	L8740.D	101	102	101
MEOH-MSD	MEOH	L8741.D	101	102	101
09194-002	MEOH	L8742.D	98	102	104
09269-004	MEOH	L8749.D	101	102	103
09191-004	MEOH	L8750.D	103	102	99
09269-003	MEOH	L8751.D	102	103	102
09262-001	SOIL	L8753.D	101	101	101

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	45-154	51-164
SMC2 = Toluene-d8	50 ppb	47-151	52-157
SMC3 = Bromofluorobenzene	50 ppb	48-149	56-154

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/23/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD-BLK	AQUEOUS	L8843.D	102	102	102
09269-007	AQUEOUS	L8844.D	101	103	102
09411-008	AQUEOUS	L8845.D	103	102	102
09411-013	AQUEOUS	L8846.D	102	102	101
BLK-SPK	AQUEOUS	L8847.D	100	101	101
09269-007MS	AQUEOUS	L8848.D	101	103	103
09269-007MSD	AQUEOUS	L8849.D	102	103	101
09411-001	AQUEOUS	L8850.D	101	101	101
09411-001	AQUEOUS	L8851.D	102	102	103
09411-002	AQUEOUS	L8852.D	103	103	103
09411-003	AQUEOUS	L8853.D	102	102	102
09411-004	AQUEOUS	L8854.D	102	102	101
09411-005	AQUEOUS	L8855.D	100	102	103
09411-006	AQUEOUS	L8856.D	101	103	102
09411-007	AQUEOUS	L8857.D	101	102	101
09411-009	AQUEOUS	L8858.D	100	101	101
09411-010	AQUEOUS	L8859.D	101	102	101
09411-011	AQUEOUS	L8860.D	102	102	103
09411-012	AQUEOUS	L8861.D	103	101	104

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	45-154	51-164
SMC2 = Toluene-d8	50 ppb	47-151	52-157
SMC3 = Bromofluorobenzene	50 ppb	48-149	56-154

Column to be used to flag recovery values

MEOH VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: MEOH-MSD

Batch No.: LAM091710A

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	54.1	108	46 - 150
Benzene	50.0	0.0	59.6	119	63 - 146
Trichloroethene	50.0	0.0	61.3	123	60 - 152
Toluene	50.0	0.0	59.2	118	63 - 151
Chlorobenzene	50.0	0.0	56.6	113	75 - 149

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	48.3	97	11	17	46 - 150
Benzene	0.0	52.9	106	12	14	63 - 146
Trichloroethene	0.0	53.5	107	14	15	60 - 152
Toluene	0.0	51.6	103	14	15	63 - 151
Chlorobenzene	0.0	49.9	100	12	12	75 - 149

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

AQUEOUS VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 09269-007

Batch No.: LAM092210B

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	45.4	91	46 - 150
Benzene	50.0	0.0	51.1	102	63 - 146
Trichloroethene	50.0	0.0	50.9	102	60 - 152
Toluene	50.0	0.0	50.3	101	63 - 151
Chlorobenzene	50.0	0.0	47.0	94	75 - 149

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	0.0	48.8	98	7	17	46 - 150
Benzene	0.0	55.3	111	8	14	63 - 146
Trichloroethene	0.0	55.3	111	8	15	60 - 152
Toluene	0.0	54.2	108	7	15	63 - 151
Chlorobenzene	0.0	50.9	102	8	12	75 - 149

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L8622.D

Date Analyzed: 09/13/2010

Instrument ID: MSD_L

Time Analyzed: 10:34

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	172706		6.19		290875		7.00		309963		10.32	
	UPPER LIMIT	345412		6.69		581750		7.50		619926		10.82	
	LOWER LIMIT	86353		5.69		145437.5		6.50		154981.5		9.82	
	LAB SAMPLE ID												
01	STD-20PPB	171228		6.19		287312		7.00		301657		10.32	
02	STD-5PPB	177472		6.19		297323		7.00		310617		10.32	
03	STD-1PPB	178686		6.19		302932		7.00		319143		10.32	
04	STD-2PPB	172741		6.19		295107		7.00		311356		10.32	
05	STD-150PPB	162624		6.19		280336		7.00		304853		10.32	
06	STD-200PPB	169419		6.18		287613		6.99		318276		10.32	
07	METHOD-BLK	158091		6.19		270296		7.00		286751		10.32	
08	BLK-SPK	154492		6.19		262279		7.00		278087		10.32	
09	MEOH-MS	179976		6.19		301932		7.00		323805		10.32	
10	MEOH-MSD	180558		6.19		306251		7.00		325254		10.32	
11	08672-035	175515		6.19		295885		7.00		314790		10.32	
12	08672-047	172133		6.19		294988		7.00		313029		10.32	
13	08672-046	172897		6.19		292237		7.00		311906		10.32	
14	08672-049	150953		6.19		253045		7.00		272985		10.32	
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L8732.D

Date Analyzed: 09/17/2010

Instrument ID: MSD_L

Time Analyzed: 22:49

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	172109	6.19	303708	7.00	330378	10.32
	UPPER LIMIT	344218	6.69	607416	7.50	660756	10.82
	LOWER LIMIT	86054.5	5.69	151854	6.50	165189	9.82
	LAB SAMPLE ID						
01	METHOD-BLK	183849	6.19	315701	7.00	341262	10.32
02	BLK-SPK	179436	6.19	307798	7.00	311582	10.32
03	MEOH-MS	157295	6.19	271692	7.00	292933	10.32
04	MEOH-MSD	181061	6.19	312906	7.00	337371	10.32
05	09194-002	176952	6.18	302192	6.99	326256	10.32
06	09269-004	162966	6.18	277888	6.99	304085	10.32
07	09191-004	165776	6.19	289401	7.00	304588	10.32
08	09269-003	158025	6.19	271690	7.00	286485	10.32
09	09262-001	180957	6.19	311539	7.00	335899	10.32
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L8840.D Date Analyzed: 09/23/2010

Instrument ID: MSD_L Time Analyzed: 11:10

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	174736	6.19	307642	7.00	343720	10.32
	UPPER LIMIT	349472	6.69	615284	7.50	687440	10.82
	LOWER LIMIT	87368	5.69	153821	6.50	171860	9.82
	LAB SAMPLE ID						
01	METHOD-BLK	172714	6.19	304016	7.00	336290	10.32
02	09269-007	171811	6.19	300719	7.00	334252	10.32
03	09411-008	164015	6.19	292153	7.00	323033	10.32
04	09411-013	180932	6.19	318258	7.00	354188	10.32
05	BLK-SPK	169985	6.19	299024	7.00	334065	10.32
06	09269-007MS	177278	6.19	307264	7.00	343934	10.32
07	09269-007MSD	162953	6.19	284418	7.00	317803	10.32
08	09411-001	176918	6.19	311770	7.00	346746	10.32
09	09411-001	172636	6.19	305166	7.00	338133	10.32
10	09411-002	154955	6.19	272406	7.00	302316	10.32
11	09411-003	177743	6.19	312986	7.00	346071	10.32
12	09411-004	179349	6.19	316015	7.00	349721	10.32
13	09411-005	174614	6.19	304516	7.00	336077	10.32
14	09411-006	179669	6.19	312328	7.00	346364	10.32
15	09411-007	176590	6.19	306481	7.00	342097	10.32
16	09411-009	181326	6.19	316950	7.00	351120	10.32
17	09411-010	178398	6.19	311886	7.00	346027	10.32
18	09411-011	176577	6.19	310799	7.00	342658	10.32
19	09411-012	167516	6.19	296160	7.00	326525	10.32
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 20 09:50:30 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration

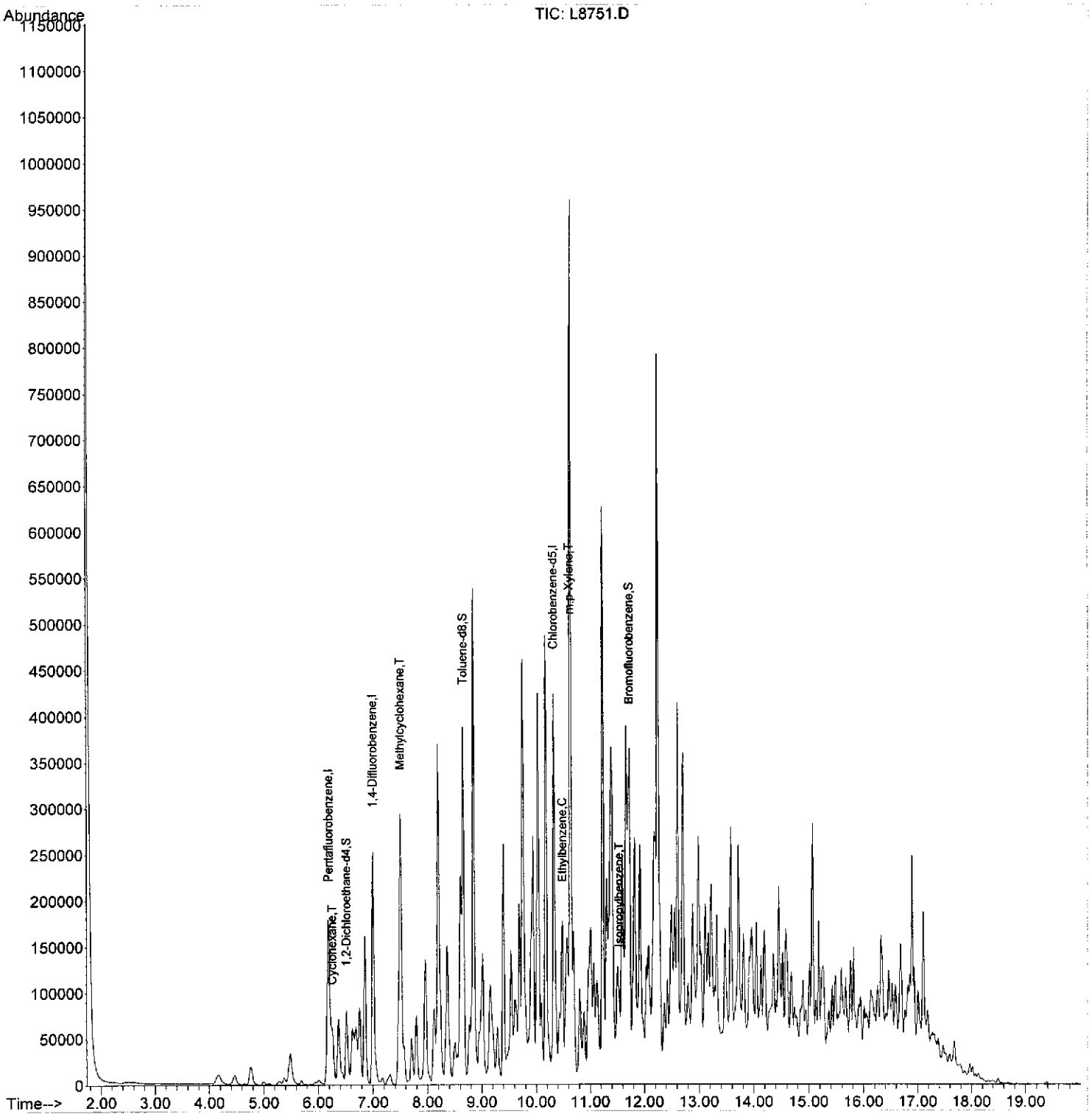
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.19	168	158025	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.00	114	271690	50.00	UG		0.00
50) Chlorobenzene-d5	10.32	117	286485	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.52	65	81435	51.11	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 102.22%				
41) Toluene-d8	8.66	98	298779	51.63	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 103.26%				
59) Bromofluorobenzene	11.72	95	122601	51.16	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 102.32%				
Target Compounds							Qvalue
53) Ethylbenzene	10.49	91	71269	8.91	UG		99
54) m,p-Xylene	10.62	106	31854	9.44	UG		97
58) Isopropylbenzene	11.53	105	31784	4.84	UG		99
82) Cyclohexane	6.25	56	51089	21.72	UG	#	83
83) Methylcyclohexane	7.50	55	180656	127.42	UG	#	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 20 09:50:30 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.760	292	299	314	rVB2	19518	84659	3.58%	0.201%
2	5.491	363	371	386	rVV	33215	153658	6.49%	0.365%
3	6.181	431	439	453	rBV3	177906	820993	34.70%	1.951%
4	6.374	453	458	468	rVB	64316	200047	8.45%	0.475%
5	6.516	468	472	478	rBV	73623	198783	8.40%	0.472%
6	6.628	478	483	486	rBV3	50056	167682	7.09%	0.399%
7	6.760	492	496	501	rVB	75070	211639	8.94%	0.503%
8	6.851	501	505	514	rVB	159560	411099	17.37%	0.977%
9	7.003	514	520	533	rBV	251249	696965	29.45%	1.657%
10	7.501	558	569	582	rBV	293529	1074415	45.41%	2.554%
11	7.704	584	589	593	rBV	46581	115615	4.89%	0.275%
12	7.795	593	598	604	rVB	69522	181404	7.67%	0.431%
13	7.958	605	614	624	rVB2	131664	407007	17.20%	0.967%
14	8.120	624	630	633	rBV3	78209	246600	10.42%	0.586%
15	8.191	633	637	647	rVB	359215	1011990	42.77%	2.405%
16	8.364	647	654	662	rVB	142391	472110	19.95%	1.122%
17	8.496	662	667	671	rBV3	37615	128911	5.45%	0.306%
18	8.607	673	678	680	rBV	196796	537264	22.71%	1.277%
19	8.648	680	682	689	rVB	377116	842263	35.60%	2.002%
20	8.770	689	694	695	rBV	54522	124139	5.25%	0.295%
21	8.851	695	702	708	rVB	514587	1238201	52.33%	2.943%
22	9.014	708	718	725	rVB2	129693	520035	21.98%	1.236%
23	9.156	725	732	741	rBV6	95635	410518	17.35%	0.976%
24	9.288	741	745	751	rVB3	53321	143131	6.05%	0.340%
25	9.389	751	755	760	rBV	252203	588219	24.86%	1.398%
26	9.531	763	769	773	rBV	113236	285024	12.05%	0.677%
27	9.612	773	777	781	rBV5	39304	111327	4.70%	0.265%
28	9.684	781	784	787	rBV2	138613	280022	11.83%	0.666%
29	9.755	787	791	799	rVB	416297	1061371	44.85%	2.523%
30	9.937	800	809	813	rVB2	225570	687619	29.06%	1.634%
31	10.029	813	818	823	rBV2	380946	974084	41.17%	2.315%
32	10.171	828	832	841	rVB	464084	1049045	44.33%	2.493%
33	10.323	841	847	854	rBV	400200	968703	40.94%	2.302%
34	10.475	854	862	866	rBV3	144442	446573	18.87%	1.061%
35	10.567	866	871	874	rBV3	117876	395699	16.72%	0.940%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	10.638	874	878	889	rVB2	945684	2366234	100.00%	5.624%
37	10.800	889	894	898	rBV2	89002	237662	10.04%	0.565%
38	10.881	899	902	906	rVB3	52569	113651	4.80%	0.270%
39	11.003	906	914	917	rBV4	144531	615408	26.01%	1.463%
40	11.064	918	920	923	rVB	58392	87975	3.72%	0.209%
41	11.125	923	926	931	rVB4	74374	201422	8.51%	0.479%
42	11.227	931	936	940	rBV	587983	1186550	50.15%	2.820%
43	11.298	940	943	945	rBV2	152592	320172	13.53%	0.761%
44	11.389	946	952	959	rVB3	315770	1221362	51.62%	2.903%
45	11.501	959	963	968	rBV3	78135	256615	10.84%	0.610%
46	11.592	968	972	975	rBV2	173709	461538	19.51%	1.097%
47	11.663	975	979	981	rBV	251698	508387	21.49%	1.208%
48	11.815	989	994	999	rBV2	202498	528943	22.35%	1.257%
49	11.917	999	1004	1012	rVB3	210323	581680	24.58%	1.383%
50	12.069	1012	1019	1024	rBV3	100803	431233	18.22%	1.025%
51	12.181	1024	1030	1033	rVV3	208732	772955	32.67%	1.837%
52	12.242	1033	1036	1044	rVB	756152	1854032	78.35%	4.407%
53	12.364	1044	1048	1051	rBV3	52470	135068	5.71%	0.321%
54	12.425	1051	1054	1056	rBV2	53283	90605	3.83%	0.215%
55	12.496	1056	1061	1064	rVV4	129764	366661	15.50%	0.871%
56	12.557	1064	1067	1069	rVV2	126967	270623	11.44%	0.643%
57	12.607	1069	1072	1076	rVV	349129	644226	27.23%	1.531%
58	12.709	1076	1082	1087	rVB	295426	689330	29.13%	1.638%
59	12.800	1087	1091	1095	rBV	45477	99035	4.19%	0.235%
60	12.881	1095	1099	1105	rVV2	130952	392963	16.61%	0.934%
61	12.983	1105	1109	1118	rVB2	207855	671528	28.38%	1.596%
62	13.115	1118	1122	1124	rBV2	133576	310673	13.13%	0.738%
63	13.166	1125	1127	1129	rVV	99580	179604	7.59%	0.427%
64	13.216	1129	1132	1136	rVV2	152252	400596	16.93%	0.952%
65	13.318	1140	1142	1149	rVB3	129014	255402	10.79%	0.607%
66	13.470	1153	1157	1163	rBV2	113648	297331	12.57%	0.707%
67	13.572	1163	1167	1172	rVV3	214631	494503	20.90%	1.175%
68	13.714	1176	1181	1187	rVV2	195125	492059	20.80%	1.170%
69	13.805	1187	1190	1196	rVB4	102861	243200	10.28%	0.578%
70	13.957	1196	1205	1211	rBV5	109417	501362	21.19%	1.192%
71	14.049	1211	1214	1217	rVV	111622	221654	9.37%	0.527%
72	14.130	1218	1222	1225	rVV2	75400	147215	6.22%	0.350%
73	14.191	1225	1228	1234	rVB2	109103	279700	11.82%	0.665%
74	14.353	1234	1244	1248	rBV5	83200	294402	12.44%	0.700%
75	14.455	1251	1254	1258	rVV2	150682	333361	14.09%	0.792%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	14.526	1258	1261	1263	rVV	79259	149093	6.30%	0.354%
77	14.577	1263	1266	1273	rVB3	108612	324768	13.73%	0.772%
78	14.678	1273	1276	1280	rBV4	61684	148545	6.28%	0.353%
79	14.891	1289	1297	1300	rBV3	61855	198263	8.38%	0.471%
80	15.013	1305	1309	1311	rBV2	77037	168459	7.12%	0.400%
81	15.064	1311	1314	1318	rVV2	227481	479172	20.25%	1.139%
82	15.176	1322	1325	1328	rVV	119004	191640	8.10%	0.455%
83	15.257	1328	1333	1338	rVB7	84552	329596	13.93%	0.783%
84	15.419	1346	1349	1352	rBV	51774	88134	3.72%	0.209%
85	15.480	1352	1355	1359	rVV3	54581	128474	5.43%	0.305%
86	15.592	1363	1366	1371	rVV2	60559	141206	5.97%	0.336%
87	15.673	1371	1374	1379	rVB3	59645	131829	5.57%	0.313%
88	15.754	1379	1382	1385	rBV2	79051	162658	6.87%	0.387%
89	15.815	1385	1388	1394	rVB2	88052	159164	6.73%	0.378%
90	15.937	1394	1400	1404	rVB5	46412	174609	7.38%	0.415%
91	16.008	1404	1407	1410	rBV3	35696	86259	3.65%	0.205%
92	16.130	1416	1419	1428	rBV8	40789	182188	7.70%	0.433%
93	16.252	1428	1431	1434	rVV3	46316	102211	4.32%	0.243%
94	16.323	1434	1438	1444	rVV3	100309	293179	12.39%	0.697%
95	16.455	1448	1451	1456	rVV3	62102	165196	6.98%	0.393%
96	16.587	1461	1464	1468	rVB3	48765	108520	4.59%	0.258%
97	16.678	1469	1473	1478	rVB3	95951	257301	10.87%	0.612%
98	16.891	1483	1494	1501	rVB3	194929	732089	30.94%	1.740%
99	17.003	1502	1505	1511	rBV3	43692	102396	4.33%	0.243%
100	17.105	1511	1515	1520	rBV2	127678	264922	11.20%	0.630%

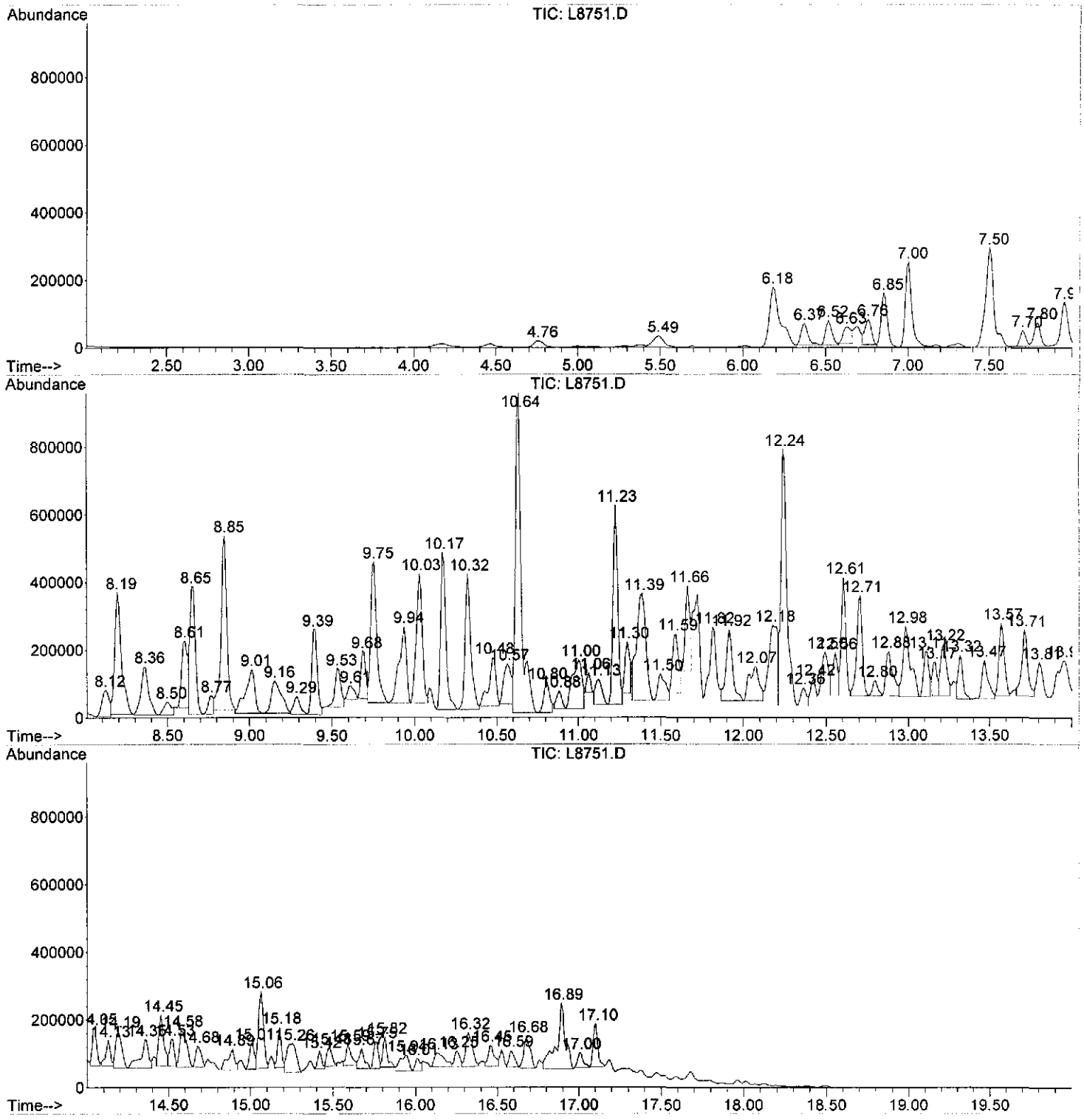
Sum of corrected areas: 42073605

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

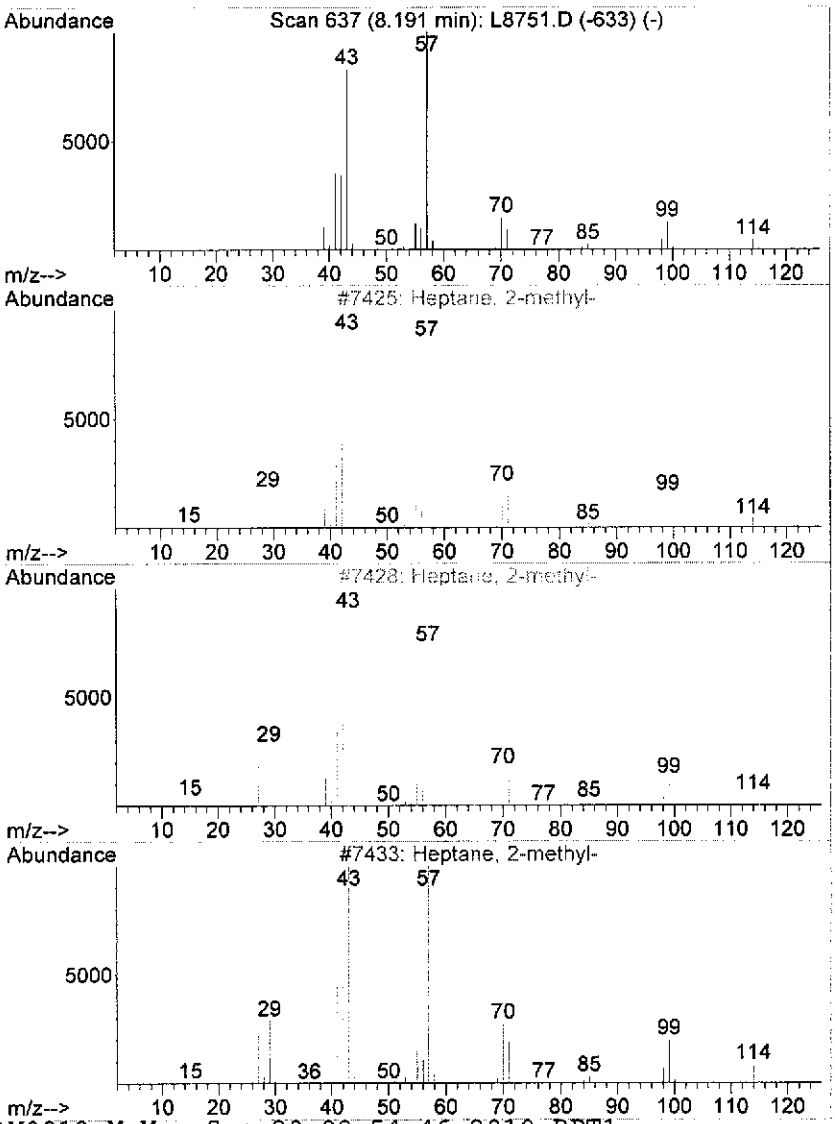
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

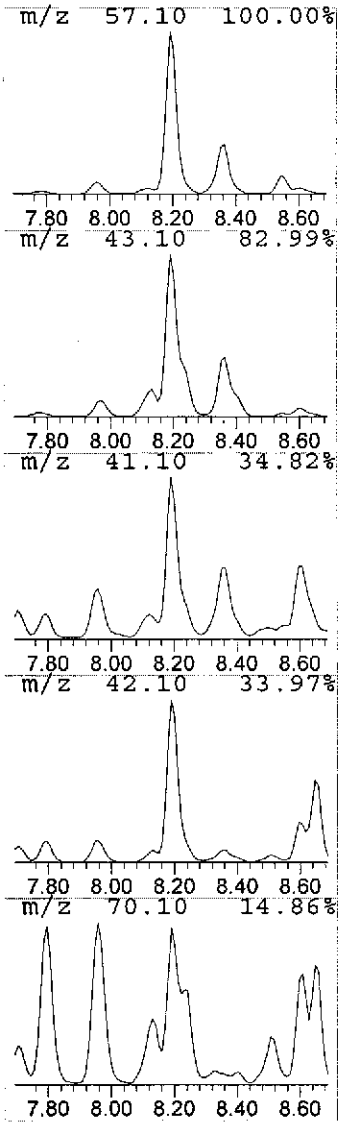
****

Peak Number 1 Unknown alkane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.19	72.60 UG	1011990	1,4-Difluorobenzene	7.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane, 2-methyl-	114	C8H18	000592-27-8	90
2	Heptane, 2-methyl-	114	C8H18	000592-27-8	90
3	Heptane, 2-methyl-	114	C8H18	000592-27-8	72
4	Hexane, 2,5-dimethyl-	114	C8H18	000592-13-2	64
5	Hexane, 2,5-dimethyl-	114	C8H18	000592-13-2	50





Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

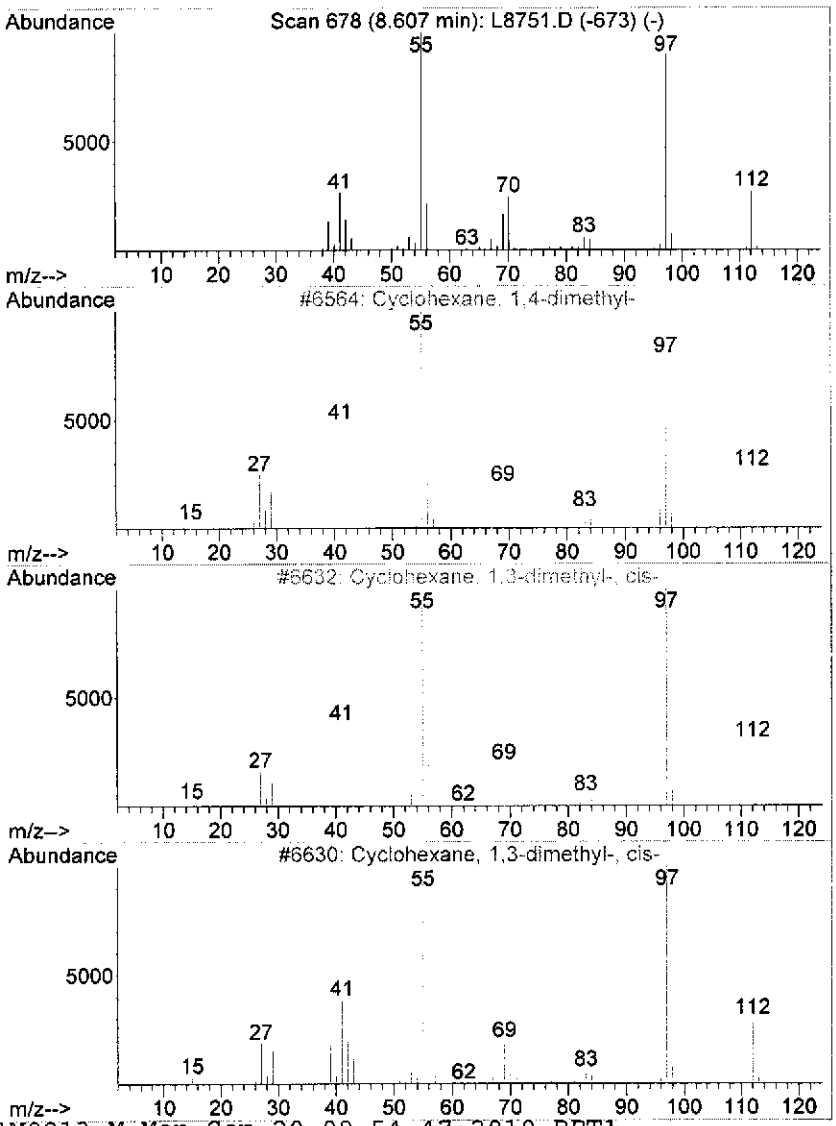
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

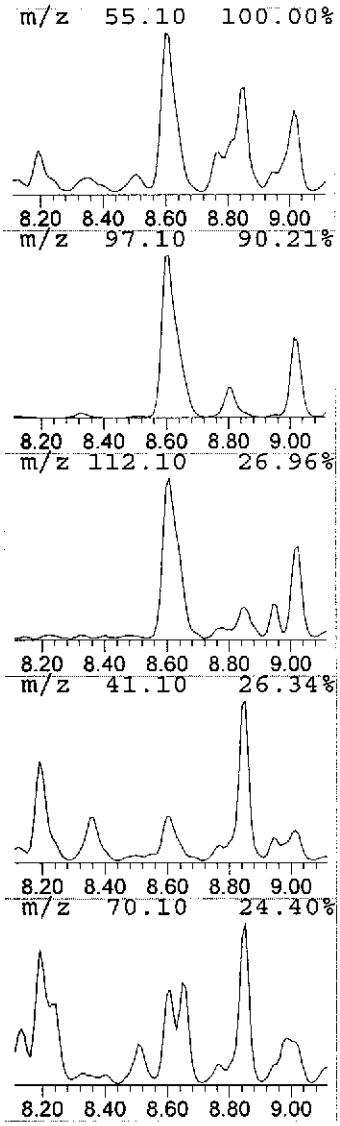
****

Peak Number 2 Unknown cyclic hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.61	38.54 UG	537264	1,4-Difluorobenzene	7.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,4-dimethyl-	112	C8H16	000589-90-2	90
2	Cyclohexane, 1,3-dimethyl-, cis-	112	C8H16	000638-04-0	90
3	Cyclohexane, 1,3-dimethyl-, cis-	112	C8H16	000638-04-0	87
4	Cyclohexane, 1,4-dimethyl-, cis-	112	C8H16	000624-29-3	87
5	Cyclohexane, 1,3-dimethyl-, cis-	112	C8H16	000638-04-0	87





Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

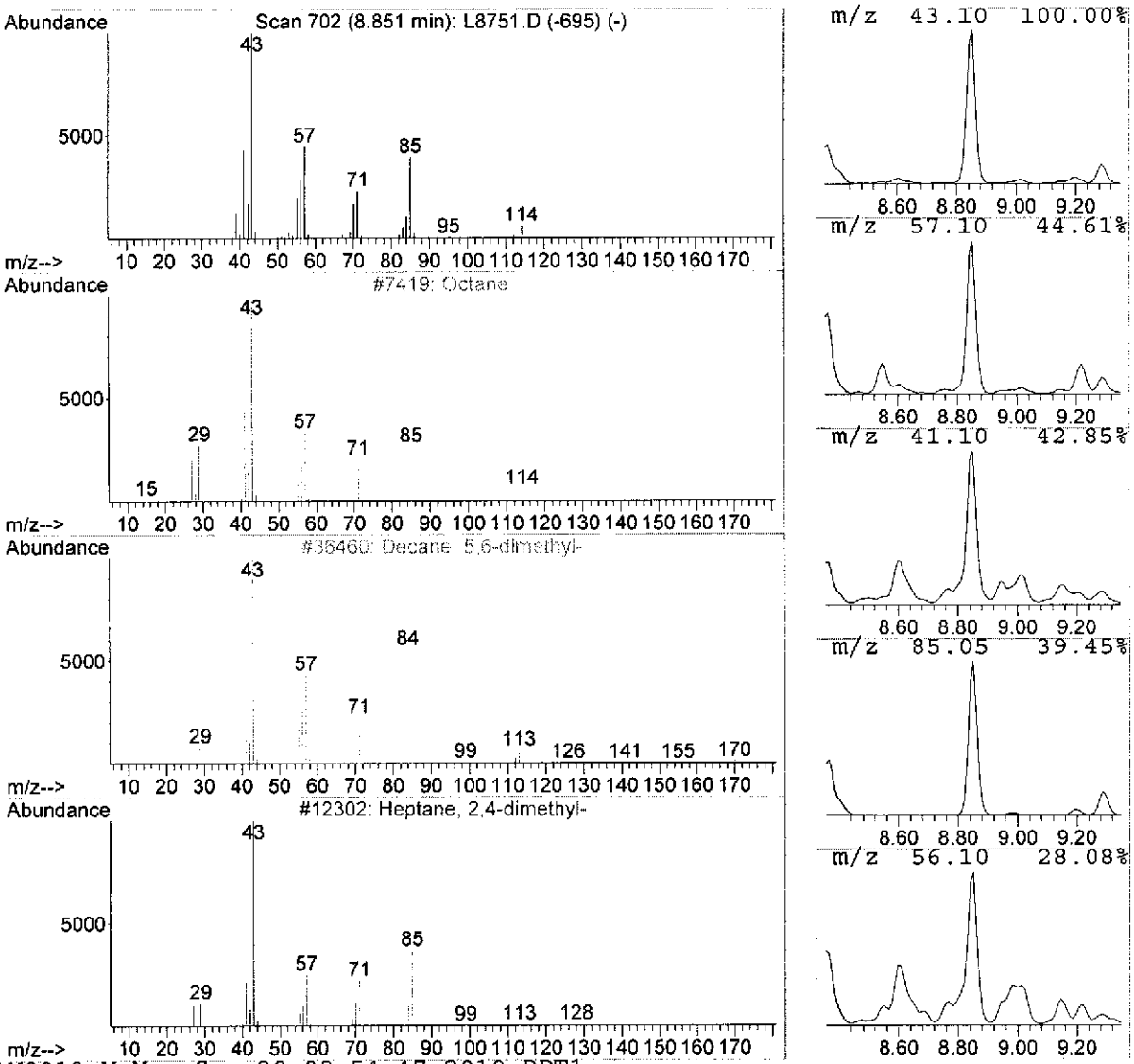
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 3 Unknown alkane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.85	63.91 UG	1238200	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane	114	C8H18	000111-65-9	76
2	Decane, 5,6-dimethyl-	170	C12H26	001636-43-7	72
3	Heptane, 2,4-dimethyl-	128	C9H20	002213-23-2	72
4	Octane	114	C8H18	000111-65-9	68
5	Oxalic acid, butyl isohexyl ester	230	C12H22O4	1000309-32-7	59



Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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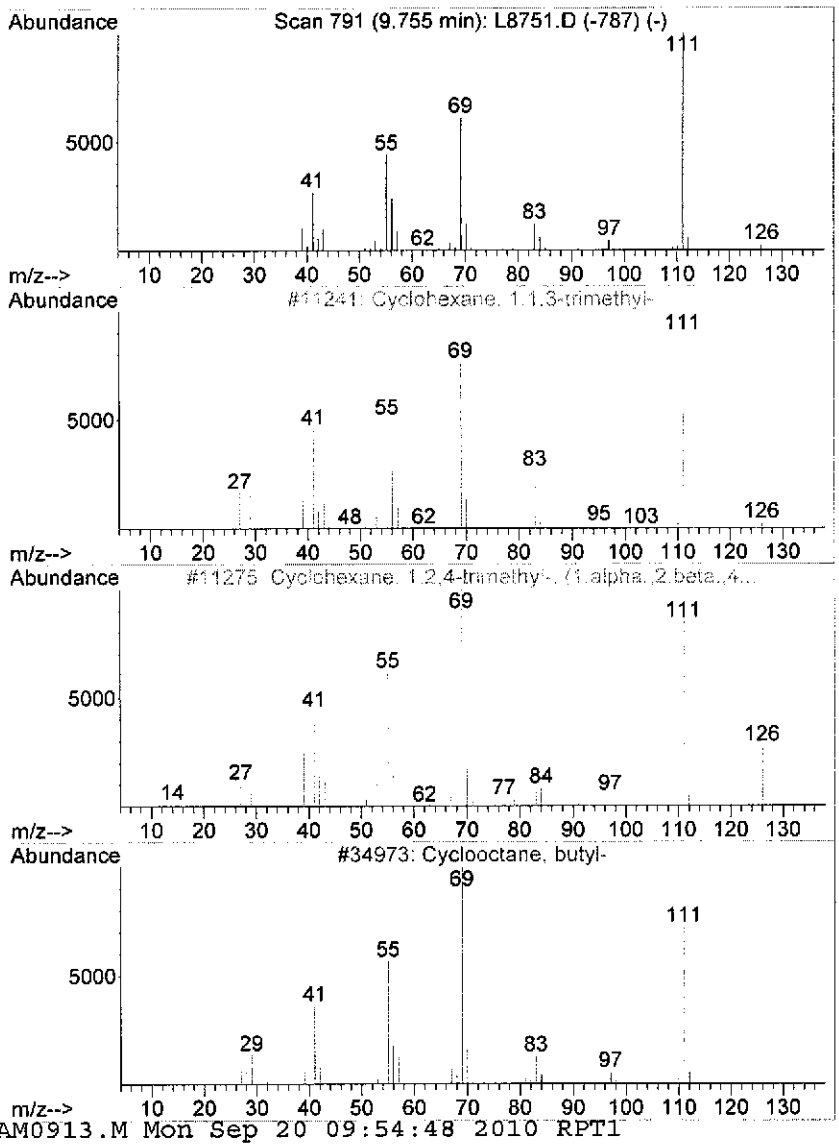
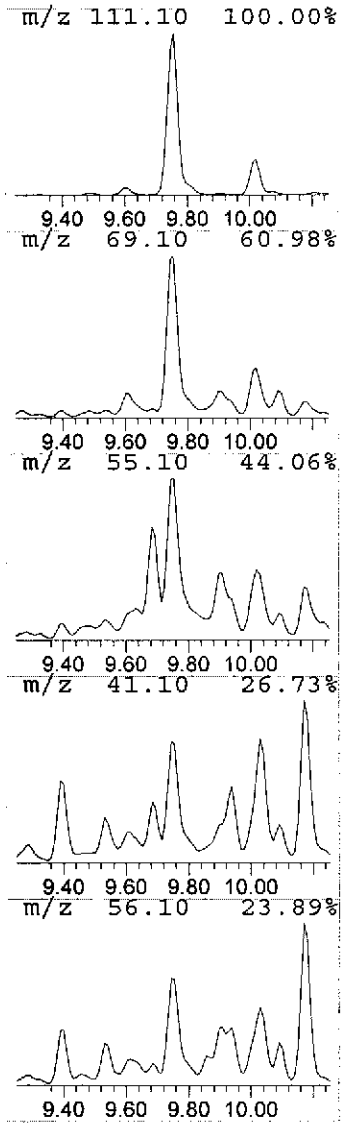
Peak Number 4 Unknown cyclic hydrocarbon Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.75	54.78 UG	1061370	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,1,3-trimethyl-	126	C9H18	003073-66-3	83
2	Cyclohexane, 1,2,4-trimethyl-, (...	126	C9H18	007667-60-9	64
3	Cyclooctane, butyl-	168	C12H24	016538-93-5	56
4	4-Amino-6-hydroxypyrimidine	111	C4H5N3O	001193-22-2	50
5	Cyclohexane, 1-ethyl-1,4-dimethy...	140	C10H20	062238-30-6	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

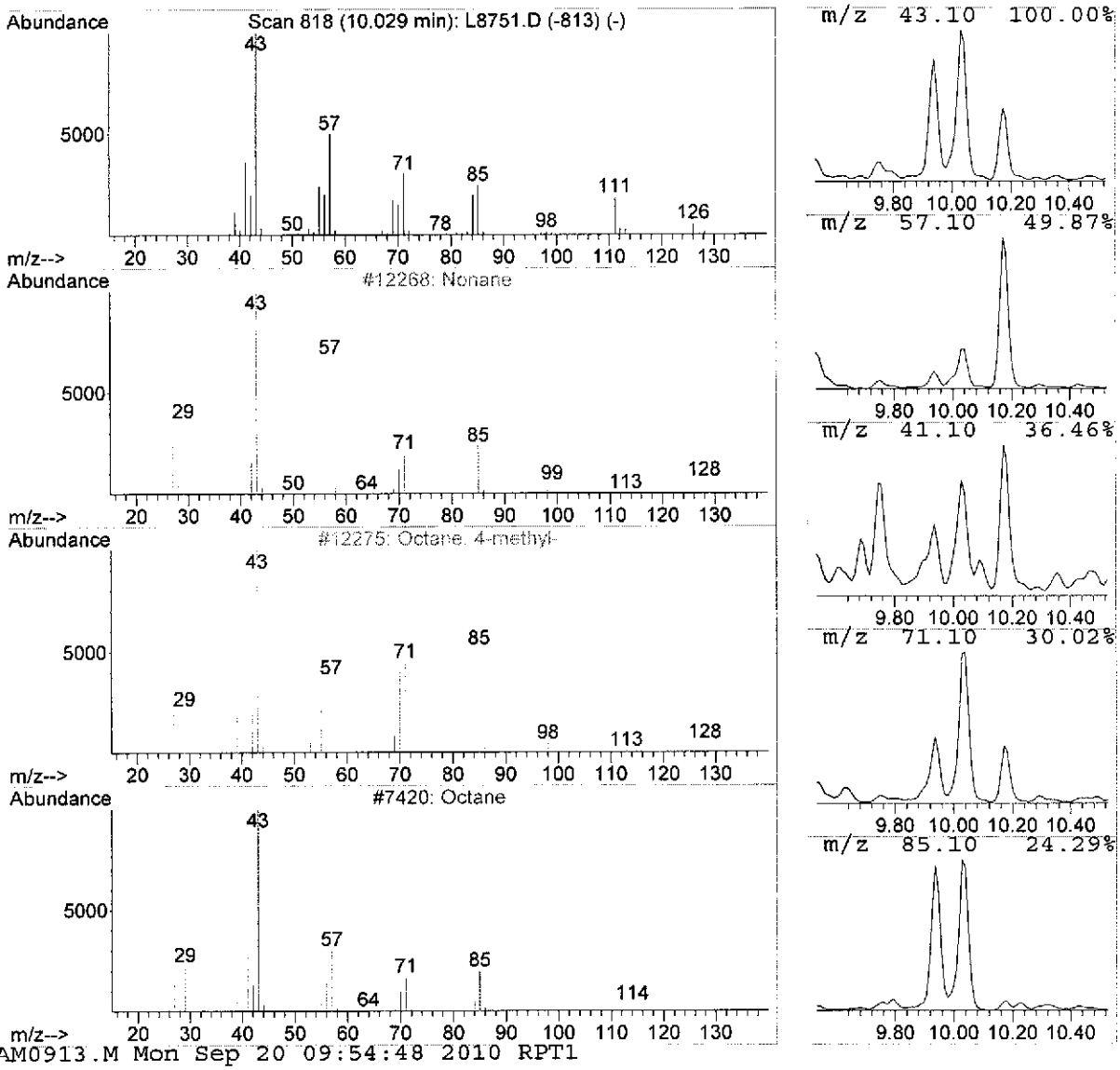
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 5 Unknown alkane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.03	50.28 UG	974084	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonane	128	C9H20	000111-84-2	52
2	Octane, 4-methyl-	128	C9H20	002216-34-4	50
3	Octane	114	C8H18	000111-65-9	50
4	Octane	114	C8H18	000111-65-9	50
5	Heptane, 3,4,5-trimethyl-	142	C10H22	020278-89-1	49



Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

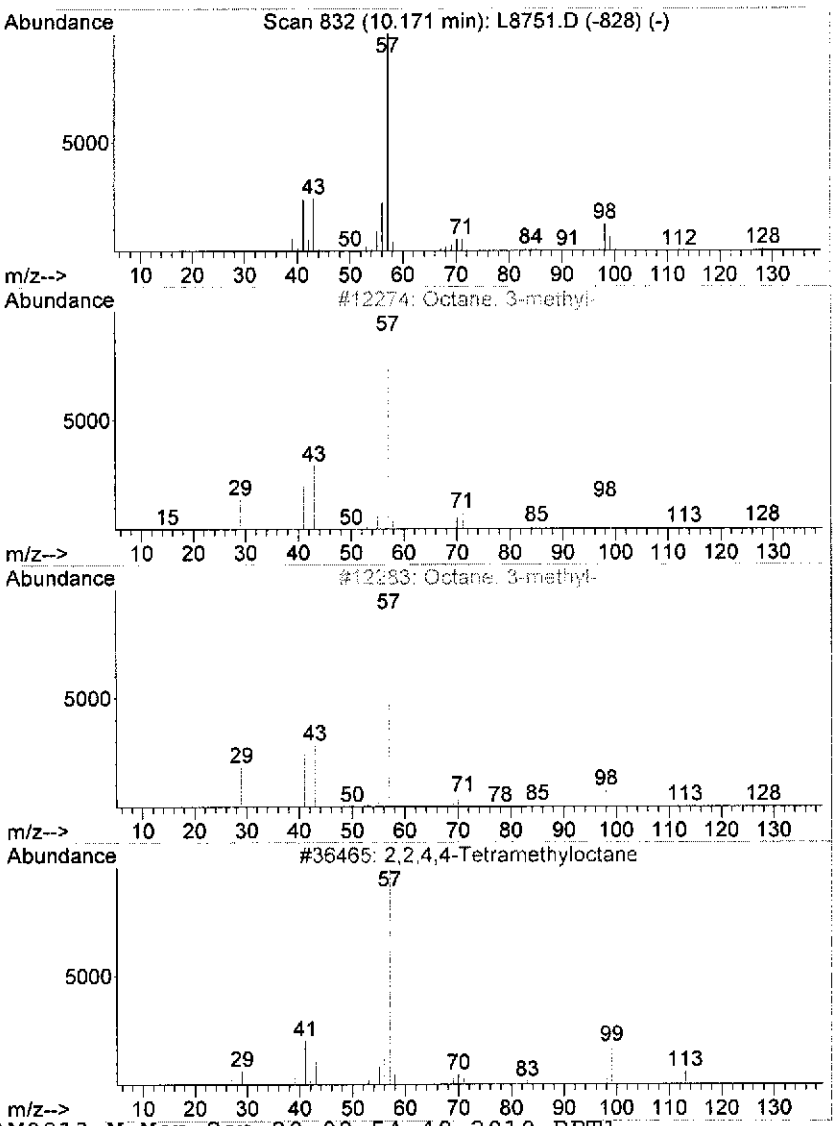
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

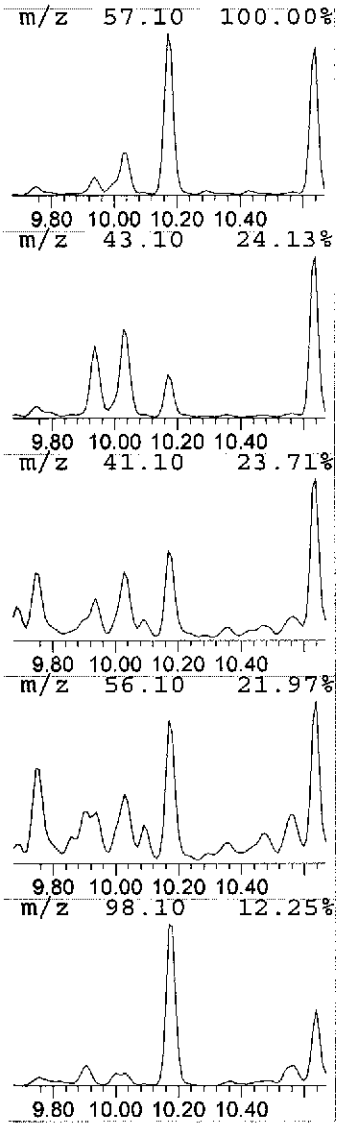
****

Peak Number 6 Unknown alkane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.17	54.15 UG	1049050	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane, 3-methyl-	128	C9H20	002216-33-3	83
2	Octane, 3-methyl-	128	C9H20	002216-33-3	78
3	2,2,4,4-Tetramethyloctane	170	C12H26	062183-79-3	59
4	Undecane, 6-methyl-	170	C12H26	017302-33-9	59
5	Decane, 2,5,9-trimethyl-	184	C13H28	062108-22-9	50





Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

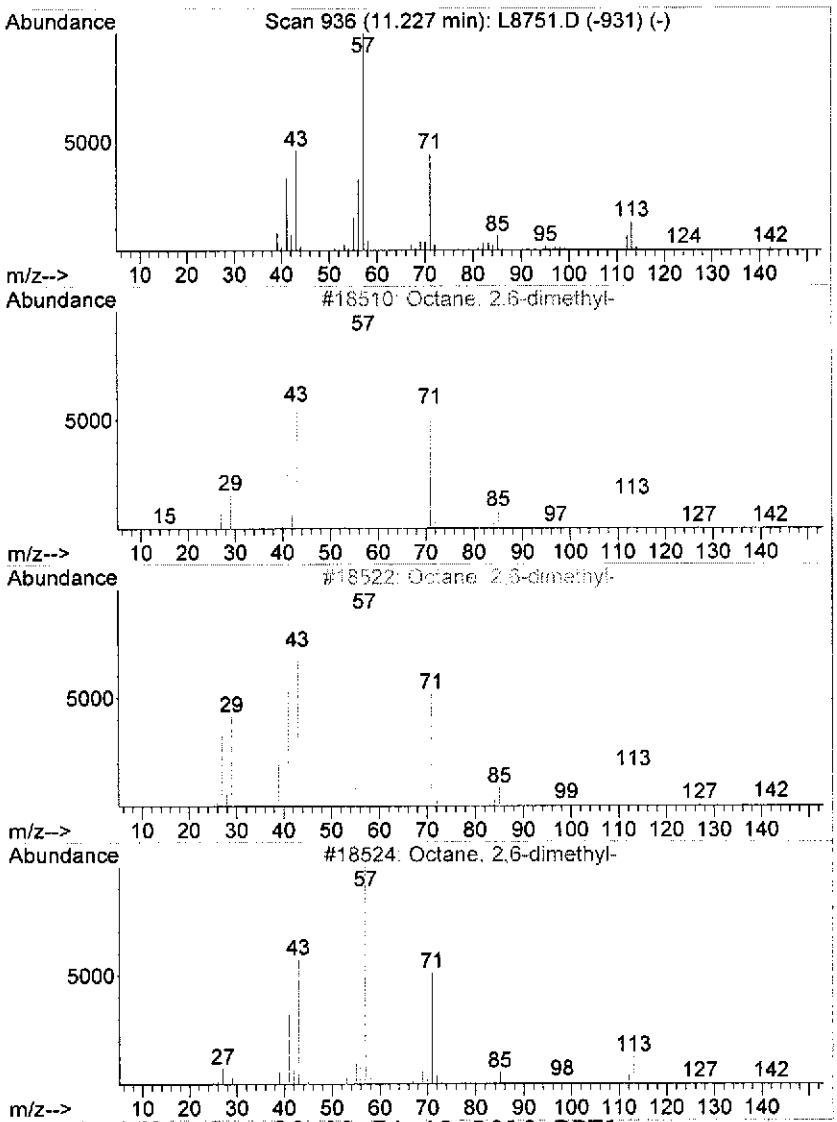
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

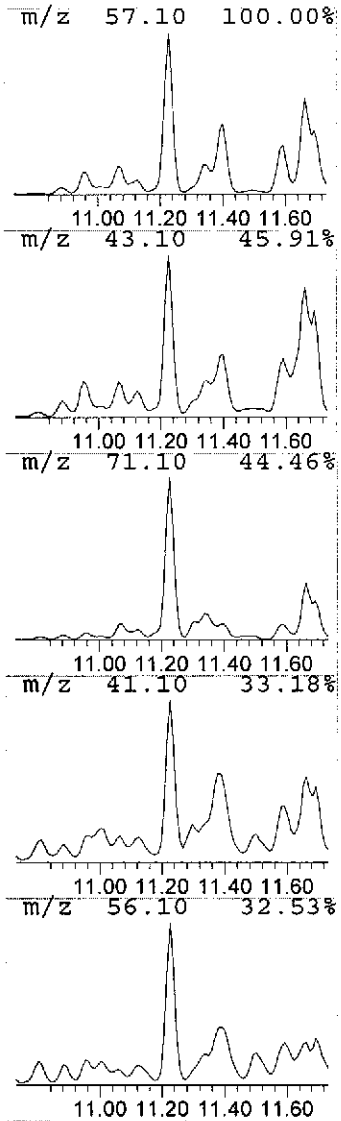
****

Peak Number 7 Unknown alkane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.23	61.24 UG	1186550	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	95
2	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	91
3	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	90
4	Nonane, 3-methyl-	142	C10H22	005911-04-6	76
5	Octane, 3,6-dimethyl-	142	C10H22	015869-94-0	74





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

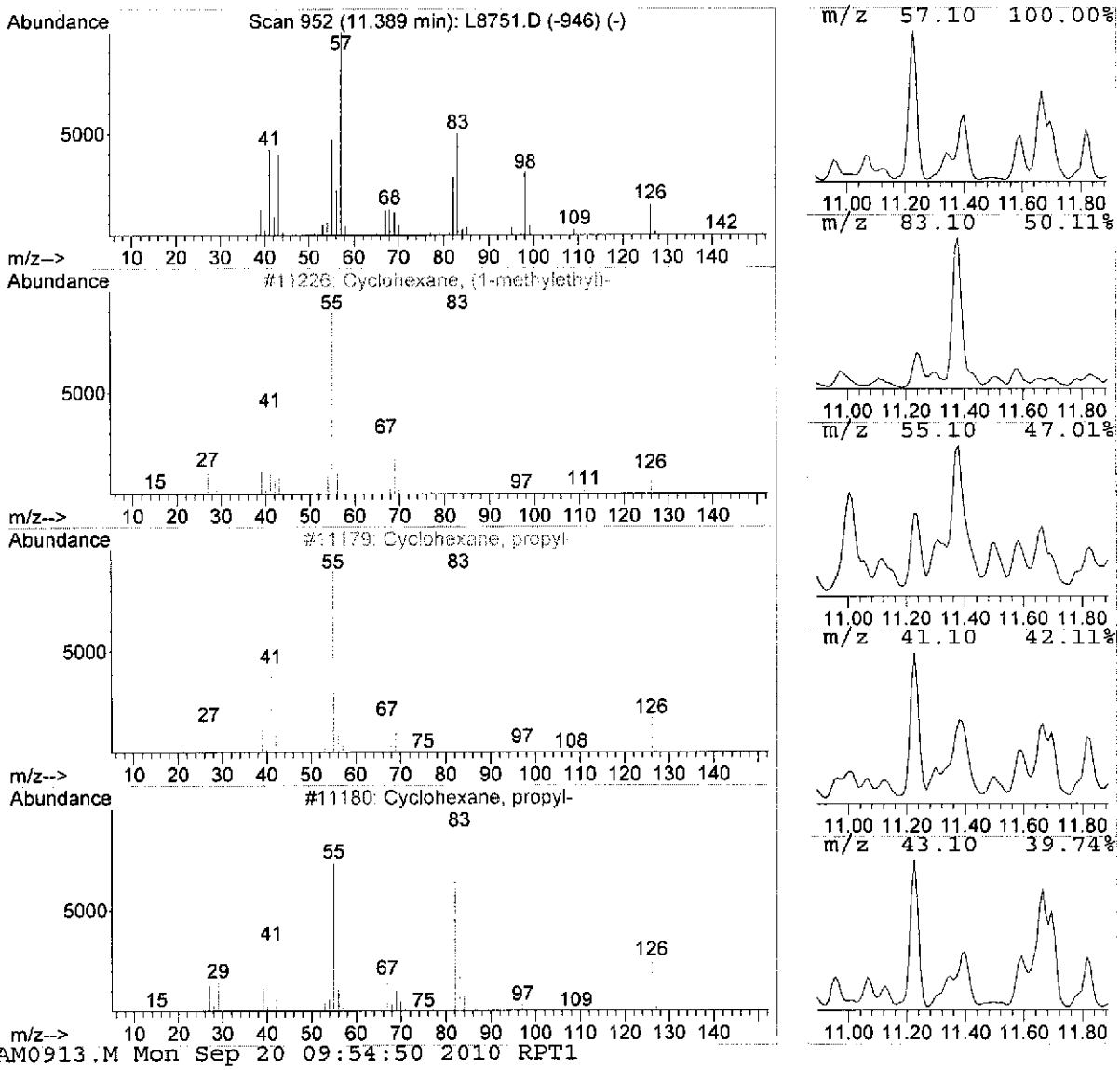
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 8 Unknown cyclic hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.39	63.04 UG	1221360	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, (1-methylethyl)-	126	C9H18	000696-29-7	46
2	Cyclohexane, propyl-	126	C9H18	001678-92-8	43
3	Cyclohexane, propyl-	126	C9H18	001678-92-8	38
4	1,4-Pentadien-3-ol	84	C5H8O	000922-65-6	38
5	Cyclohexane, propyl-	126	C9H18	001678-92-8	32



Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

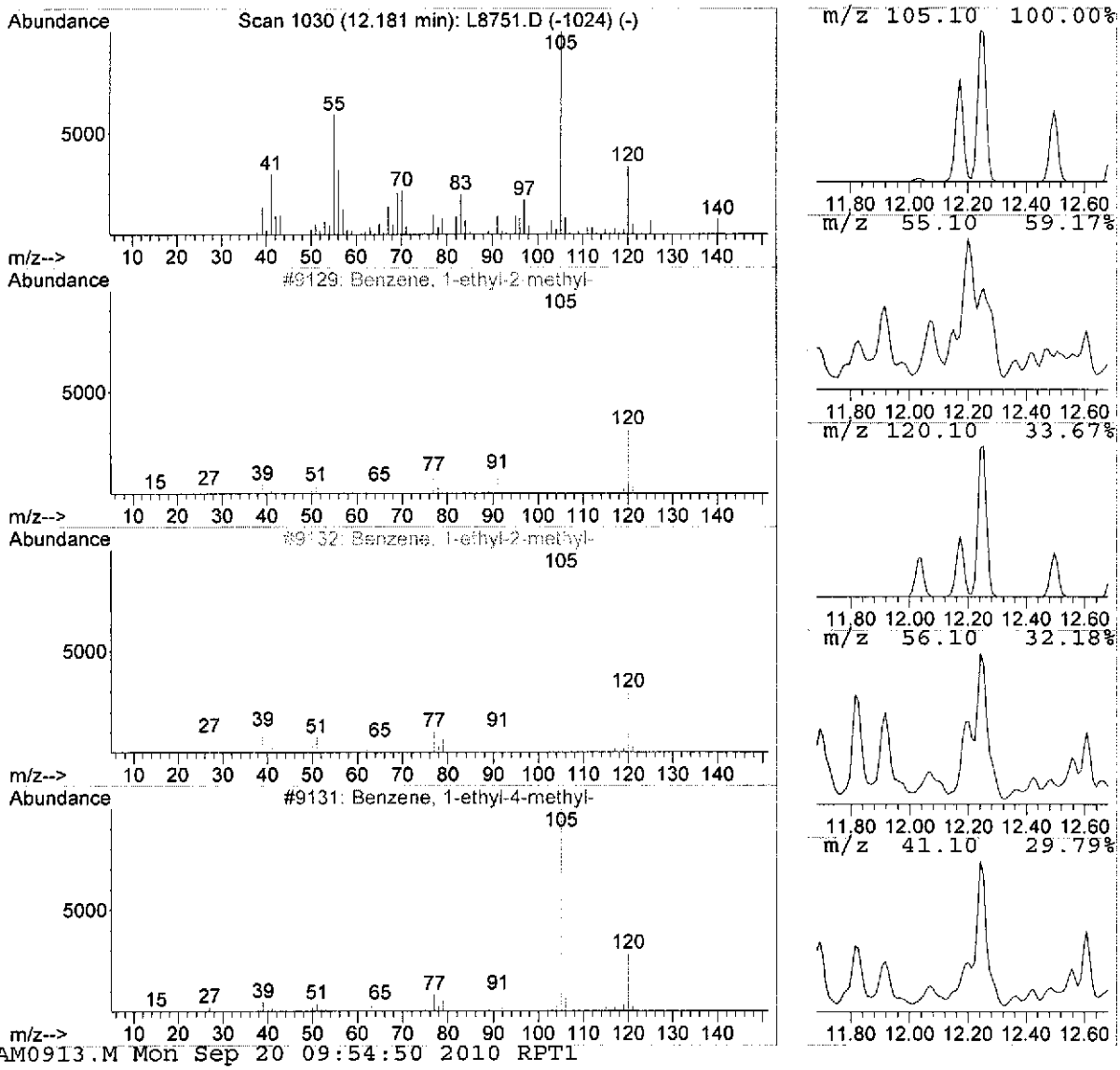
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 9 Substituted benzene Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.18	39.90 UG	772955	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	64
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	60
3	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	60
4	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	60
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	35



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8751.D
Acq On : 18 Sep 2010 7:56
Operator : MEI
Sample : MW14-1/6.67-7.,09269-003,M,0.0038g,10.2
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

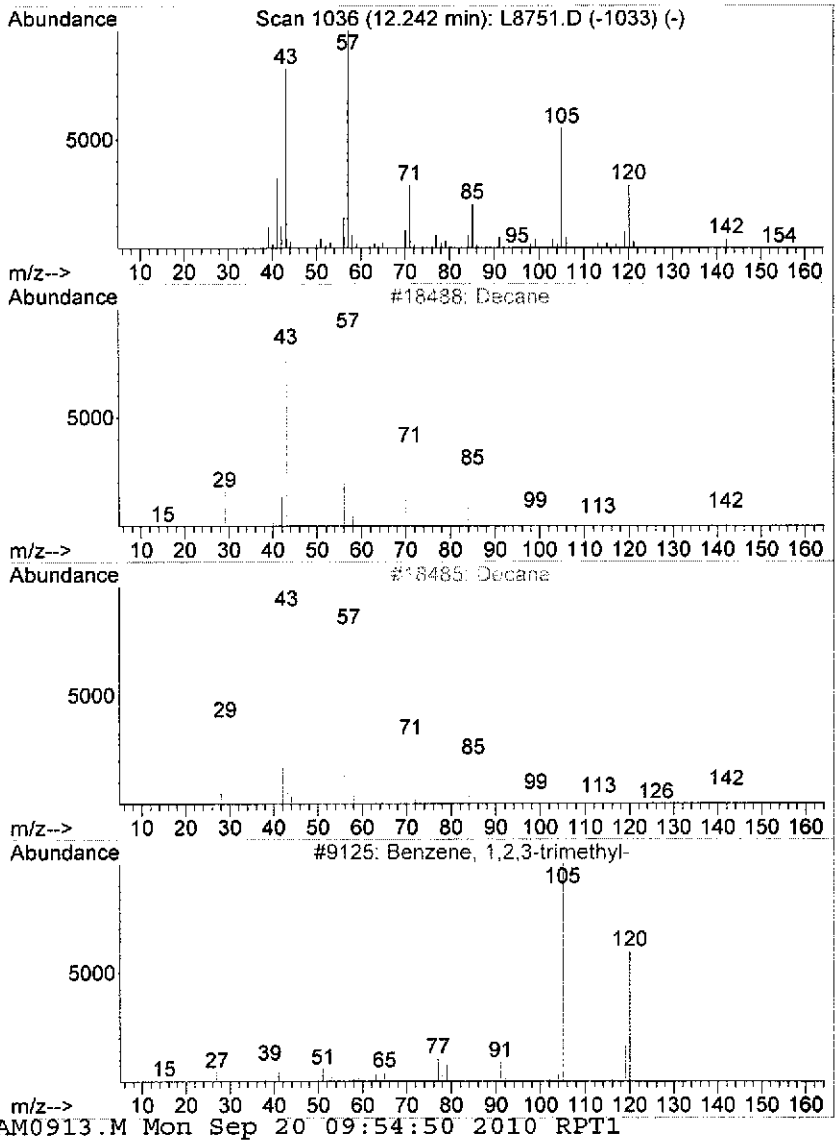
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

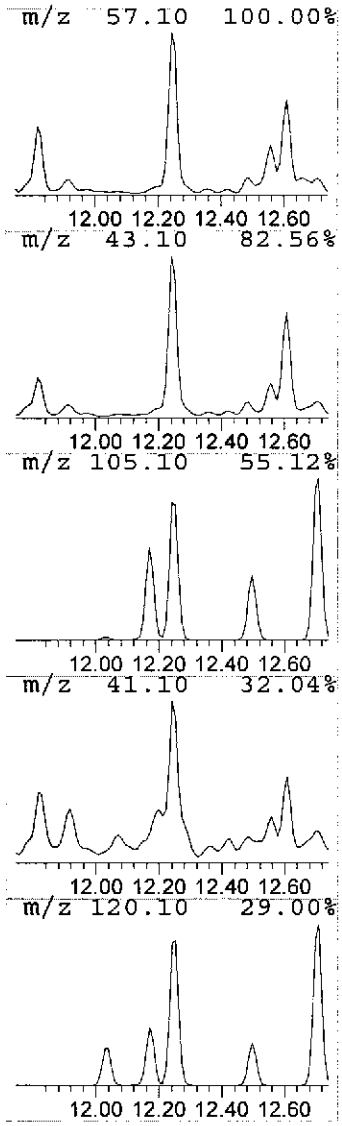
****

Peak Number 10 Unknown alkane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.24	95.70 UG	1854030	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane	142	C10H22	000124-18-5	50
2	Decane	142	C10H22	000124-18-5	45
3	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	42
4	Decane	142	C10H22	000124-18-5	42
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	42





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8749.D
Acq On : 18 Sep 2010 6:56
Operator : MEI
Sample : MW14-2/11-11.5,09269-004,M,0.045g,16.0
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 20 09:45:52 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.18	168	162966	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.99	114	277888	50.00	UG	-0.01
50) Chlorobenzene-d5	10.32	117	304085	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	83216	50.64	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 101.28%			
41) Toluene-d8	8.66	98	302594	51.12	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 102.24%			
59) Bromofluorobenzene	11.72	95	130659	51.36	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 102.72%			

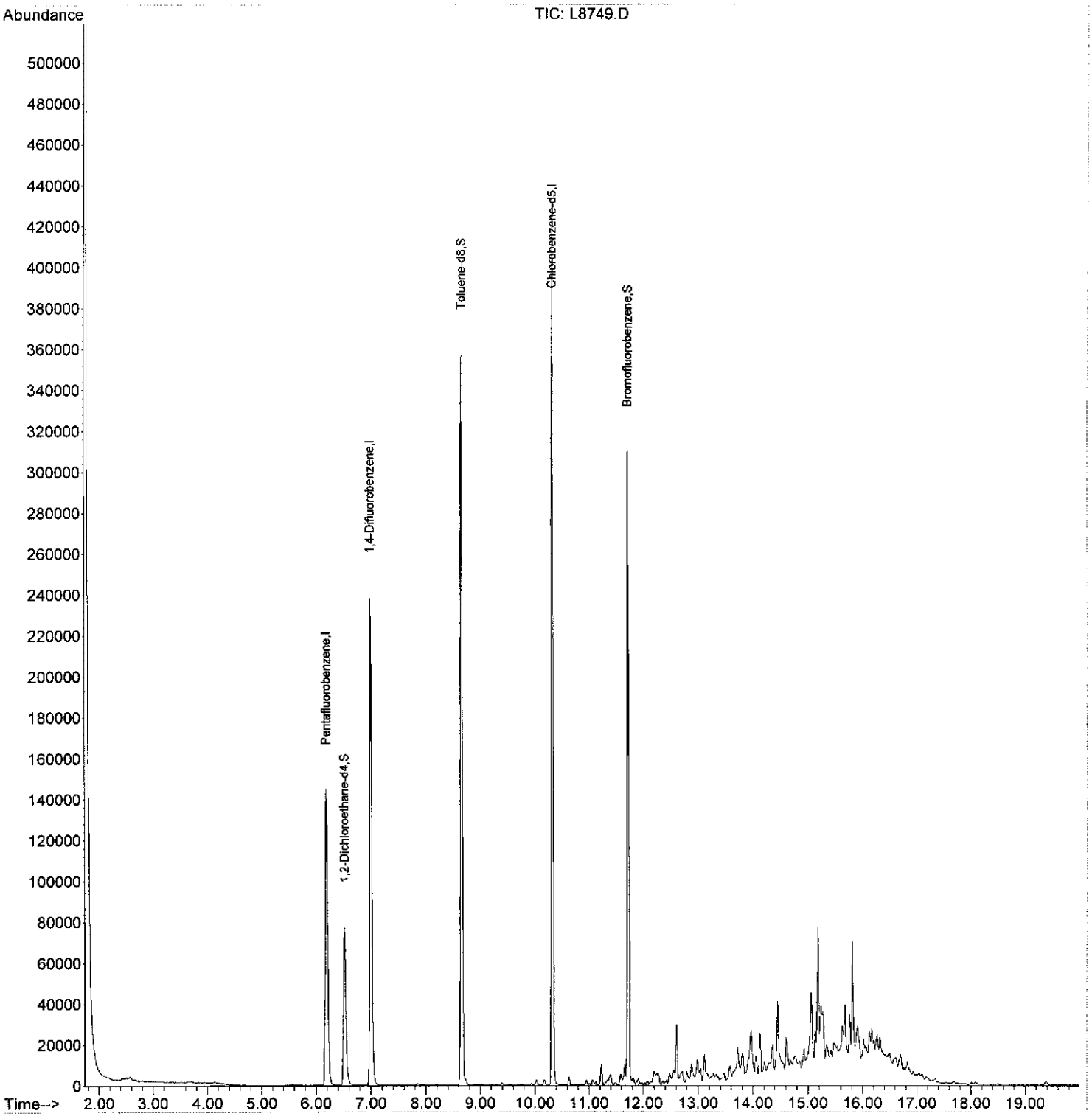
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8749.D
Acq On : 18 Sep 2010 6:56
Operator : MEI
Sample : MW14-2/11-11.5,09269-004,M,0.045g,16.0
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 20 09:45:52 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8749.D
Acq On : 18 Sep 2010 6:56
Operator : MEI
Sample : MW14-2/11-11.5,09269-004,M,0.045g,16.0
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.181	432	439	455	rBV	144716	440449	51.70%	8.637%
2	6.516	462	472	493	rBV	77311	240824	28.27%	4.723%
3	6.993	511	519	541	rBV	238096	607887	71.35%	11.921%
4	8.658	675	683	697	rVB	357253	807736	94.81%	15.840%
5	10.323	841	847	861	rBV	432485	851946	100.00%	16.707%
6	11.227	930	936	940	rVB	9846	19265	2.26%	0.378%
7	11.399	940	953	958	rBV3	5034	21979	2.58%	0.431%
8	11.582	967	971	974	rBV2	5341	13366	1.57%	0.262%
9	11.663	974	979	981	rVV	9866	23392	2.75%	0.459%
10	11.724	981	985	992	rVV	309189	589926	69.24%	11.569%
11	12.201	1024	1032	1034	rBV3	6089	17147	2.01%	0.336%
12	12.485	1056	1060	1064	rBV3	5068	15125	1.78%	0.297%
13	12.557	1064	1067	1069	rVV2	5938	12402	1.46%	0.243%
14	12.607	1069	1072	1076	rVV	27190	48511	5.69%	0.951%
15	12.709	1076	1082	1086	rVB5	5547	19657	2.31%	0.385%
16	12.800	1086	1091	1095	rBV2	5405	14128	1.66%	0.277%
17	12.881	1095	1099	1104	rBV4	7701	19155	2.25%	0.376%
18	12.983	1104	1109	1112	rBV2	9002	20358	2.39%	0.399%
19	13.115	1118	1122	1125	rBV	12753	28129	3.30%	0.552%
20	13.572	1160	1167	1171	rBV7	7513	22628	2.66%	0.444%
21	13.724	1172	1182	1186	rVV	15205	52938	6.21%	1.038%
22	13.815	1186	1191	1195	rVV4	11286	35675	4.19%	0.700%
23	13.968	1196	1206	1212	rVV3	21823	84950	9.97%	1.666%
24	14.059	1212	1215	1218	rVB2	8945	18463	2.17%	0.362%
25	14.130	1218	1222	1226	rBV	19484	36994	4.34%	0.725%
26	14.211	1226	1230	1233	rBV4	5404	11348	1.33%	0.223%
27	14.364	1234	1245	1248	rVB6	12754	43386	5.09%	0.851%
28	14.455	1248	1254	1266	rBV2	33804	96134	11.28%	1.885%
29	14.607	1266	1269	1274	rBV4	15473	39002	4.58%	0.765%
30	14.770	1280	1285	1290	rBV6	4503	14342	1.68%	0.281%
31	14.932	1296	1301	1304	rBV4	9491	26802	3.15%	0.526%
32	15.054	1307	1313	1318	rVV3	35331	101737	11.94%	1.995%
33	15.125	1318	1320	1322	rVV2	16301	30183	3.54%	0.592%
34	15.176	1322	1325	1328	rVV	65328	125193	14.69%	2.455%
35	15.237	1328	1331	1338	rVB5	26008	109447	12.85%	2.146%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8749.D
Acq On : 18 Sep 2010 6:56
Operator : MEI
Sample : MW14-2/11-11.5,09269-004,M,0.045g,16.0
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

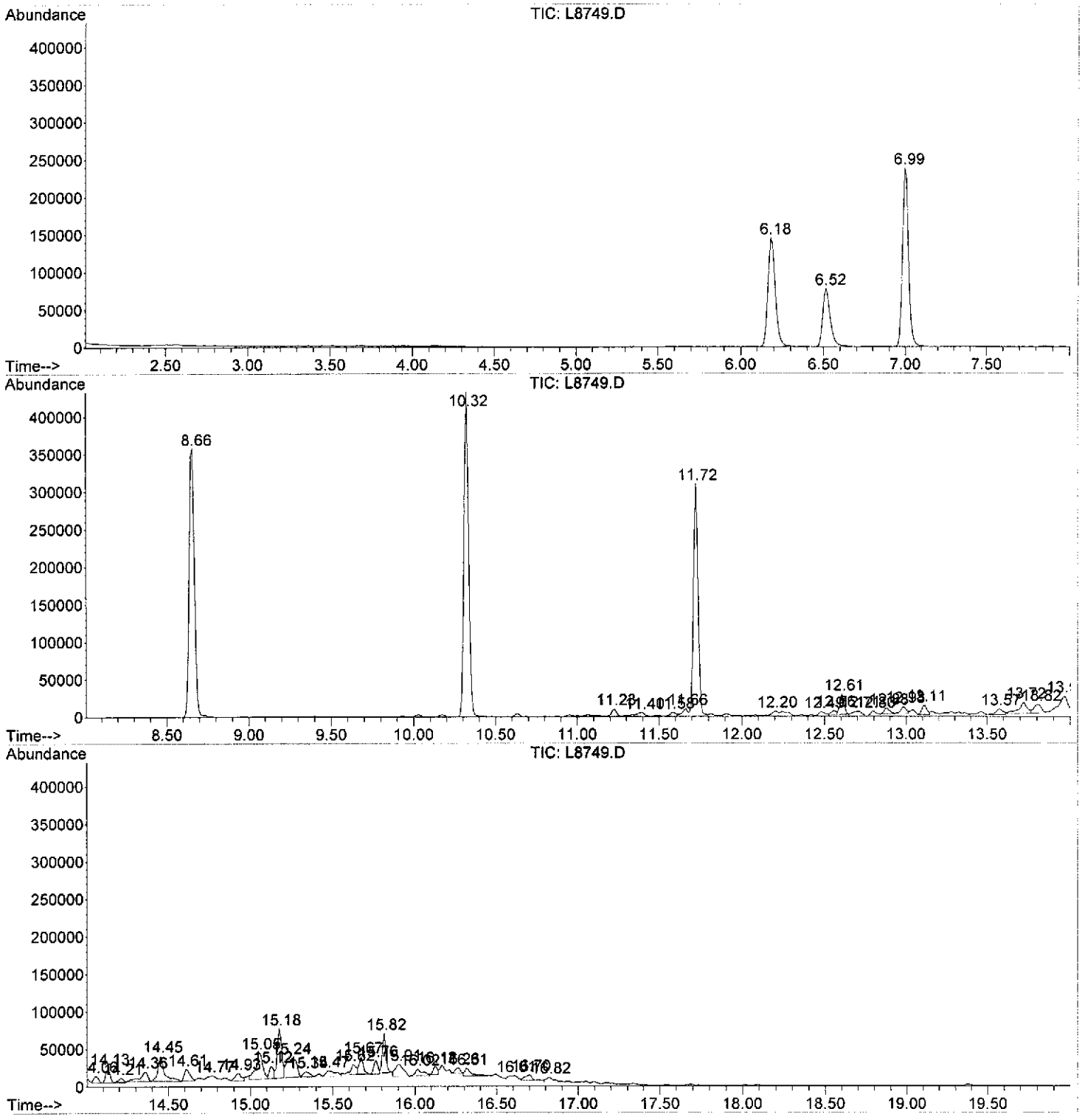
36	15.338	1338	1341	1346	rBV5	6897	19732	2.32%	0.387%
37	15.470	1351	1354	1362	rBV7	7286	33011	3.87%	0.647%
38	15.622	1367	1369	1372	rVV3	12932	29417	3.45%	0.577%
39	15.673	1372	1374	1379	rVB2	23087	37534	4.41%	0.736%
40	15.764	1379	1383	1385	rBV4	18289	32445	3.81%	0.636%
41	15.815	1385	1388	1393	rVV	51830	79607	9.34%	1.561%
42	15.907	1393	1397	1403	rVB7	16287	56548	6.64%	1.109%
43	16.018	1404	1408	1415	rBV7	8490	26296	3.09%	0.516%
44	16.120	1415	1418	1420	rBV2	10588	19856	2.33%	0.389%
45	16.262	1429	1432	1435	rVV3	7540	15598	1.83%	0.306%
46	16.313	1435	1437	1449	rVB7	10091	28861	3.39%	0.566%
47	16.607	1461	1466	1470	rVV5	4779	17020	2.00%	0.334%
48	16.698	1470	1475	1479	rVB3	7708	22474	2.64%	0.441%
49	16.820	1484	1487	1496	rVB4	6510	20349	2.39%	0.399%

Sum of corrected areas: 5099352

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8749.D
Acq On : 18 Sep 2010 6:56
Operator : MEI
Sample : MW14-2/11-11.5,09269-004,M,0.045g,16.0
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8749.D
Acq On : 18 Sep 2010 6:56
Operator : MEI
Sample : MW14-2/11-11.5,09269-004,M,0.045g,16.0
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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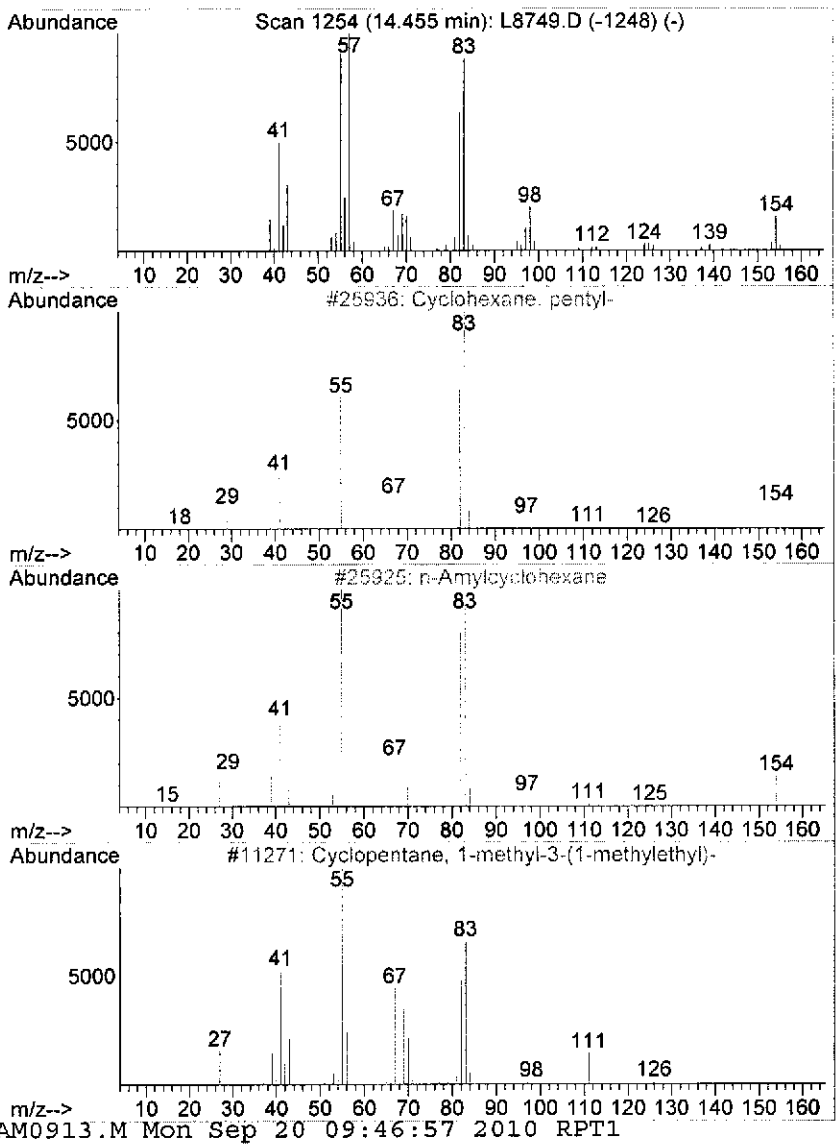
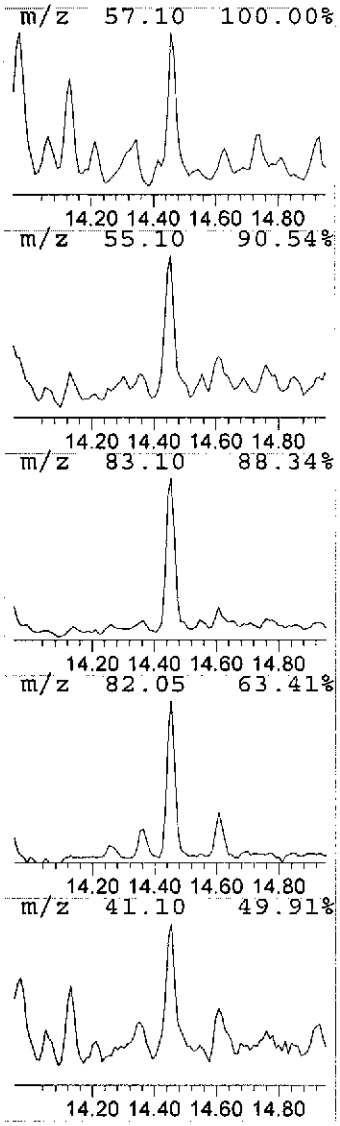
Peak Number 1 Unknown cyclic hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.45	5.64 UG	96134	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, pentyl-	154	C11H22	004292-92-6	70
2	n-Amylcyclohexane	154	C11H22	029949-27-7	70
3	Cyclopentane, 1-methyl-3-(1-meth...	126	C9H18	053771-88-3	62
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	58
5	Cyclohexane, pentyl-	154	C11H22	004292-92-6	53





Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8749.D
Acq On : 18 Sep 2010 6:56
Operator : MEI
Sample : MW14-2/11-11.5,09269-004,M,0.045g,16.0
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

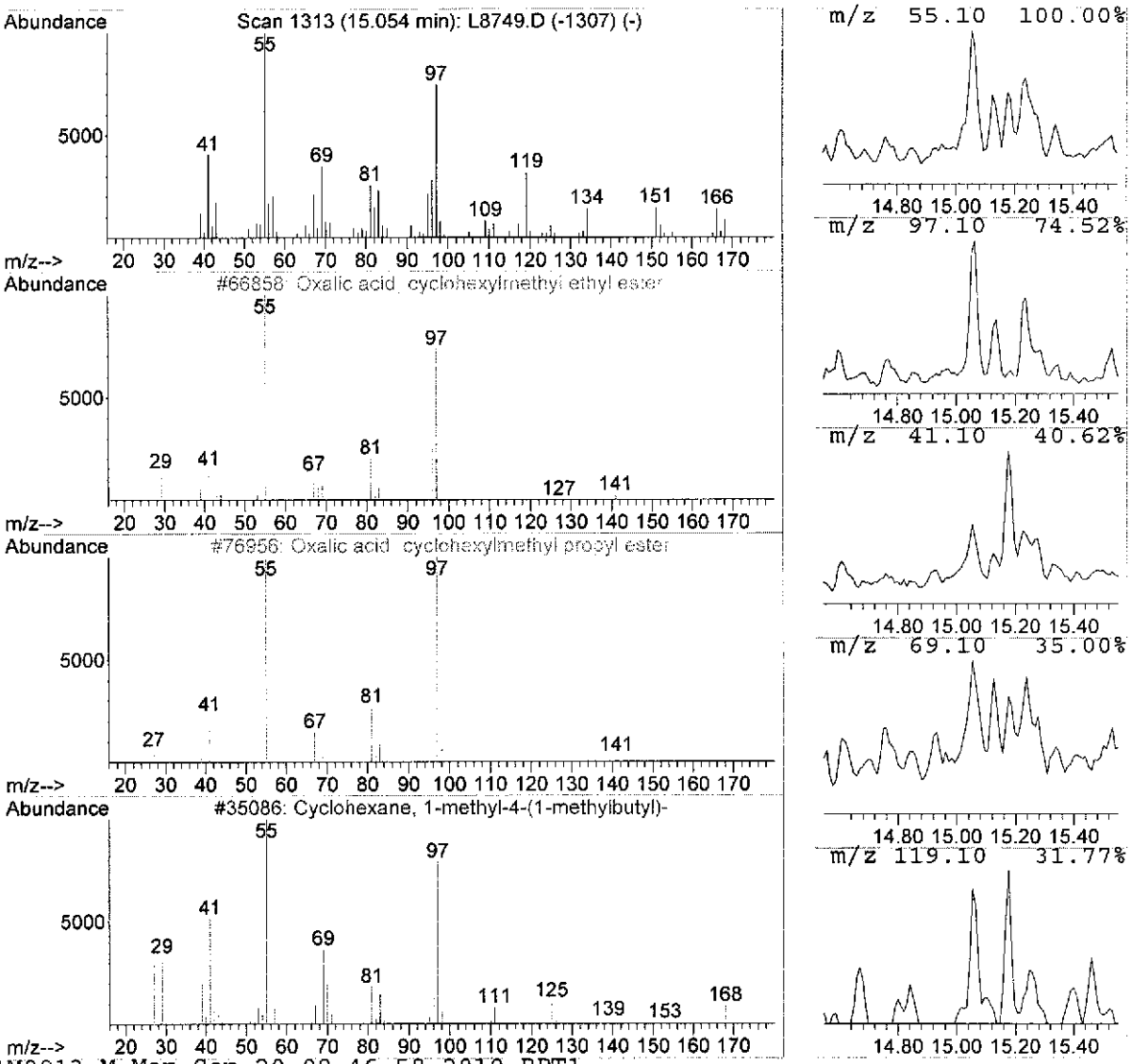
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.05	5.97 UG	101737	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Oxalic acid, cyclohexylmethyl et...	214	C11H18O4	1000309-68-0	50
2	Oxalic acid, cyclohexylmethyl pr...	228	C12H20O4	1000309-68-1	50
3	Cyclohexane, 1-methyl-4-(1-methy...	168	C12H24	054411-00-6	49
4	Oxalic acid, butyl cyclohexylmet...	242	C13H22O4	1000309-68-2	47
5	Sulfurous acid, cyclohexylmethyl...	304	C16H32O3S	1000309-21-8	47



Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8749.D
Acq On : 18 Sep 2010 6:56
Operator : MEI
Sample : MW14-2/11-11.5,09269-004,M,0.045g,16.0
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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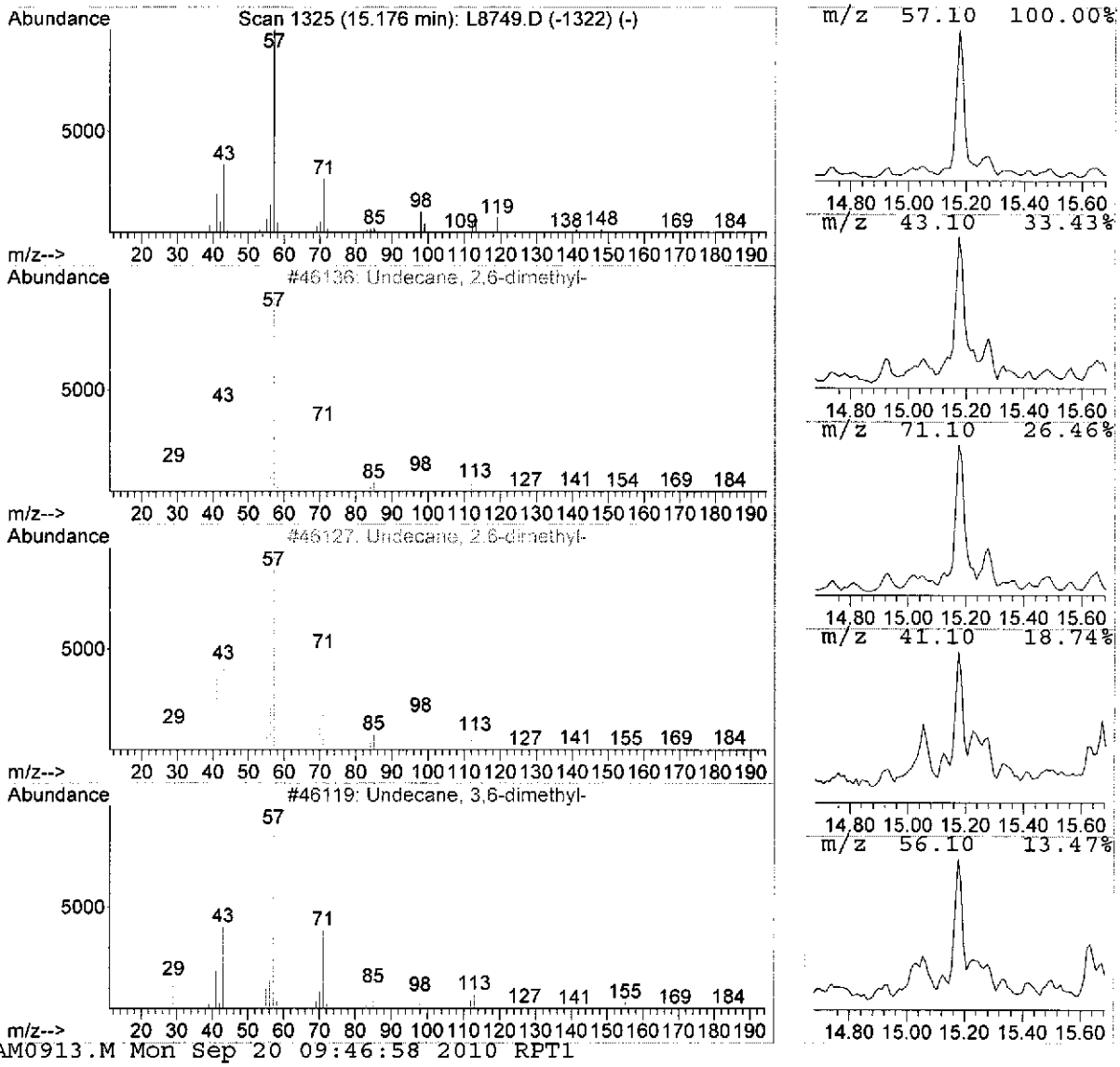
Peak Number 3 Unknown alkane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.18	7.35 UG	125193	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	80
2	Undecane, 2,6-dimethyl-	184	C13H28	017301-23-4	72
3	Undecane, 3,6-dimethyl-	184	C13H28	017301-28-9	62
4	Tridecane, 6-methyl-	198	C14H30	013287-21-3	59
5	Decane, 2,6,8-trimethyl-	184	C13H28	062108-26-3	58



Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8749.D
Acq On : 18 Sep 2010 6:56
Operator : MEI
Sample : MW14-2/11-11.5,09269-004,M,0.045g,16.0
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

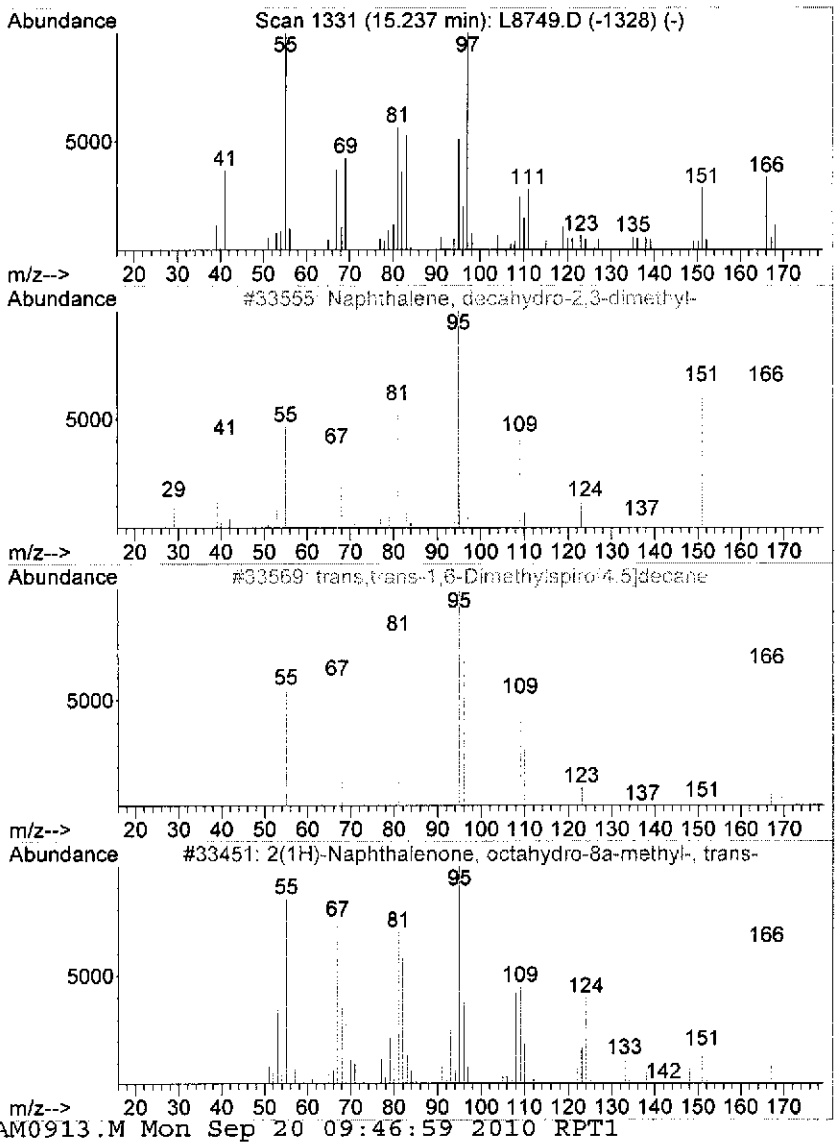
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

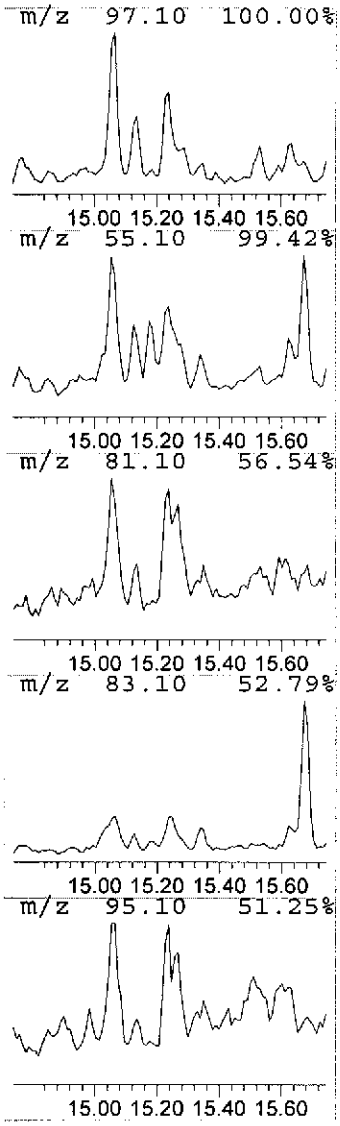
****

Peak Number 4 Unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.24	6.42 UG	109447	Chlorobenzene-d5	10.32

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-2,3-dimet...	166	C12H22	001008-80-6	42
2	trans,trans-1,6-Dimethylspiro[4....	166	C12H22	1000111-72-1	35
3	2(1H)-Naphthalenone, octahydro-8...	166	C11H18O	001197-95-1	30
4	1-Cyclohexanone, 3,5,5-trimethyl...	166	C11H18O	027749-07-1	30
5	Naphthalene, decahydro-2,6-dimet...	166	C12H22	001618-22-0	25





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-22-10\
Data File : L8844.D
Acq On : 23 Sep 2010 13:08
Operator : MEI
Sample : TRIP,09269-007,A,5ml,100
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 23 10:55:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.19	168	171811	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.00	114	300719	50.00	UG	0.00
50) Chlorobenzene-d5	10.32	117	334252	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	87528	50.53	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 101.06%			
41) Toluene-d8	8.66	98	328596	51.30	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 102.60%			
59) Bromofluorobenzene	11.72	95	142012	50.79	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 101.58%			

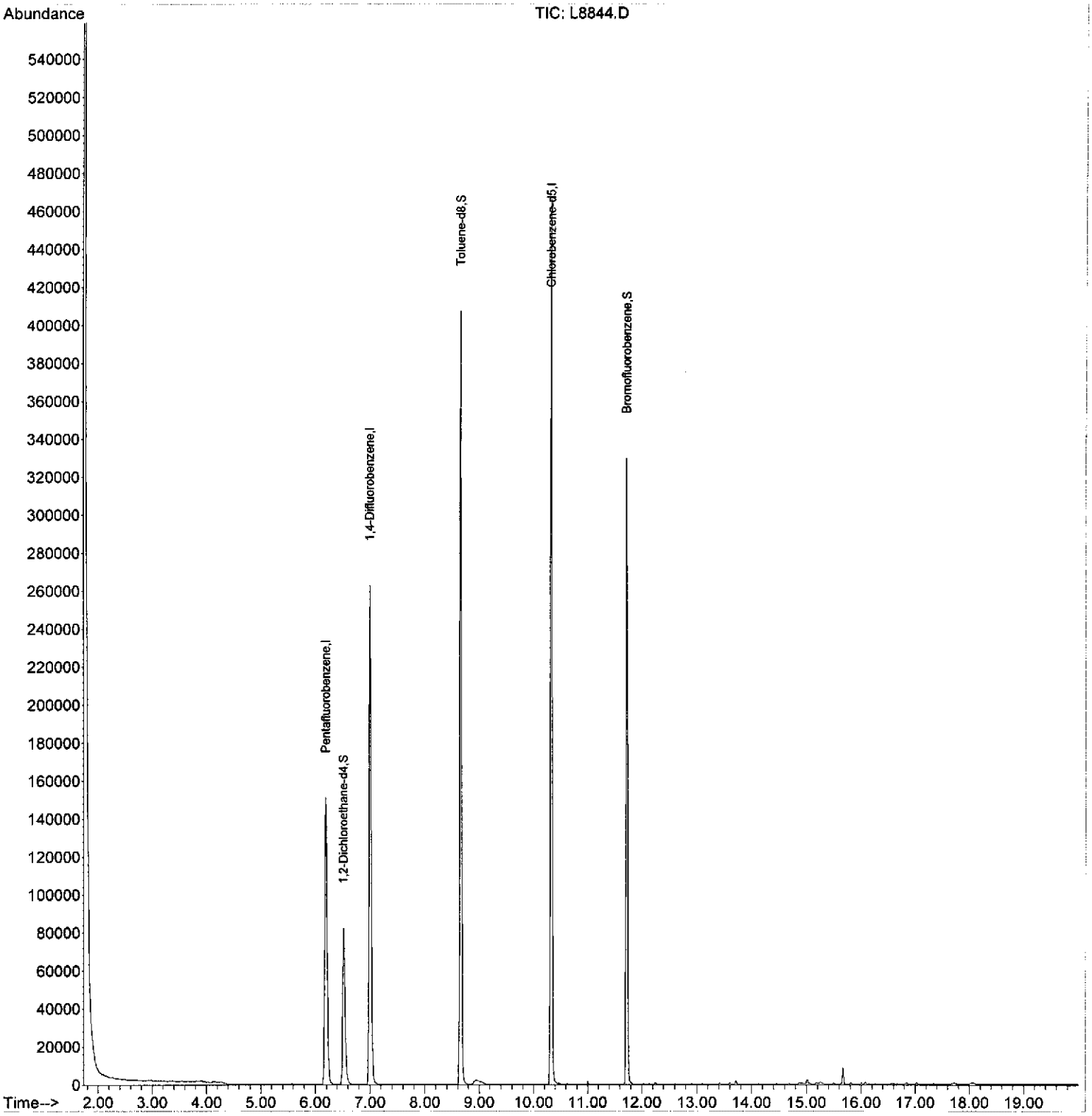
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-22-10\
Data File : L8844.D
Acq On : 23 Sep 2010 13:08
Operator : MEI
Sample : TRIP,09269-007,A,5ml,100
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 23 10:55:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\09-22-10\
Data File : L8844.D
Acq On : 23 Sep 2010 13:08
Operator : MEI
Sample : TRIP,09269-007,A,5ml,100
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,
ALS Vial : 33 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.191	430	440	457	rBV	151166	469345	50.57%	12.226%
2	6.516	465	472	492	rBV	82173	253781	27.35%	6.611%
3	7.003	512	520	534	rBV	262815	651749	70.23%	16.977%
4	8.658	677	683	702	rBV	407408	867550	93.48%	22.599%
5	8.942	702	711	736	rVV4	2274	20735	2.23%	0.540%
6	10.323	841	847	860	rBV	465867	928030	100.00%	24.174%
7	11.724	978	985	997	rVB	329748	631917	68.09%	16.461%
8	15.663	1365	1373	1380	rVB2	8772	15812	1.70%	0.412%

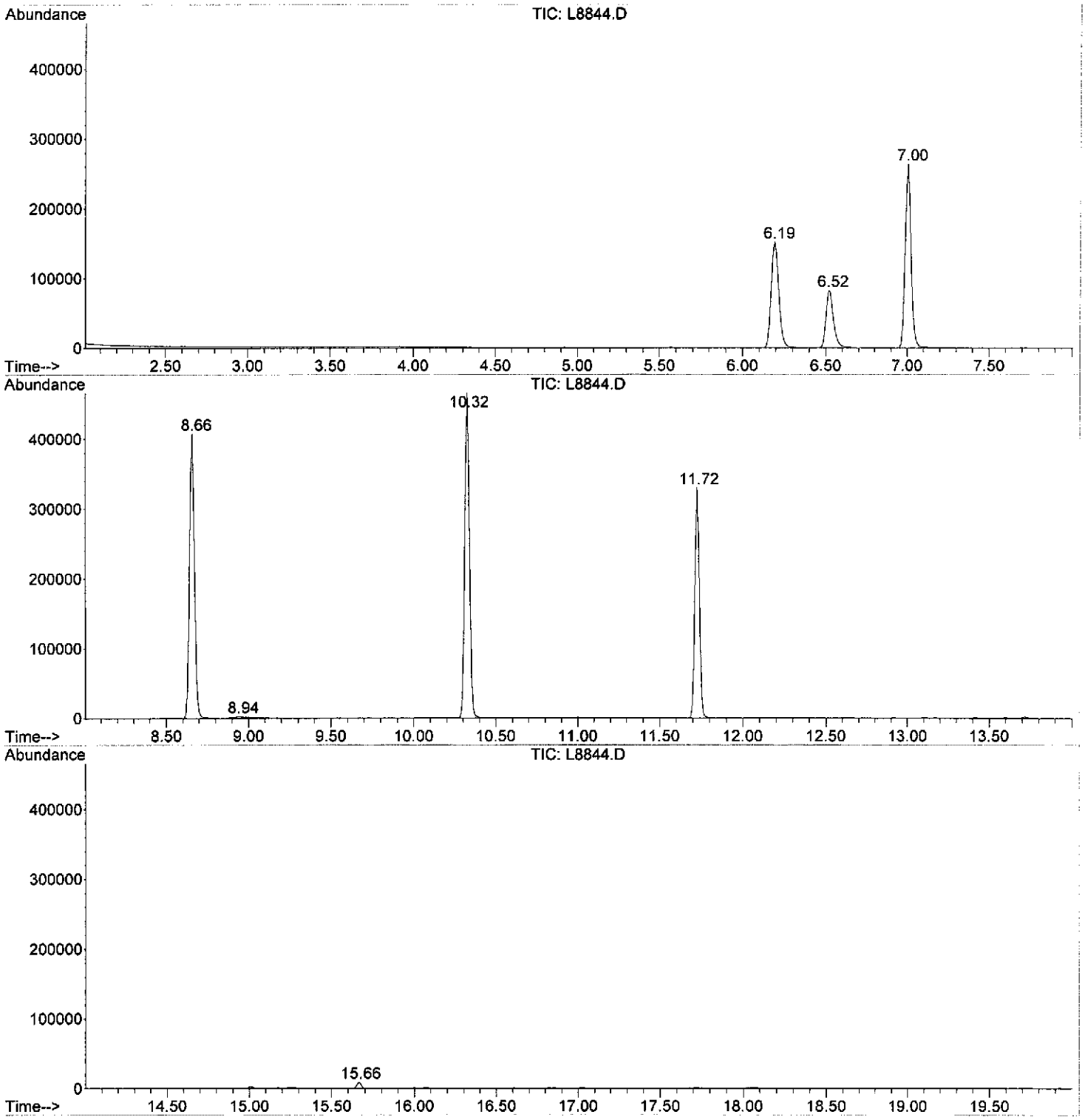
Sum of corrected areas: 3838919

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\09-22-10\
Data File : L8844.D
Acq On : 23 Sep 2010 13:08
Operator : MEI
Sample : TRIP,09269-007,A,5ml,100
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8736.D
Acq On : 18 Sep 2010 00:44
Operator : MEI
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 17 14:53:57 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.19	168	183849	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.00	114	315701	50.00	UG	0.00
50) Chlorobenzene-d5	10.32	117	341262	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	92827	50.08	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 100.16%			
41) Toluene-d8	8.66	98	342375	50.91	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.82%			
59) Bromofluorobenzene	11.72	95	143826	50.38	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 100.76%			

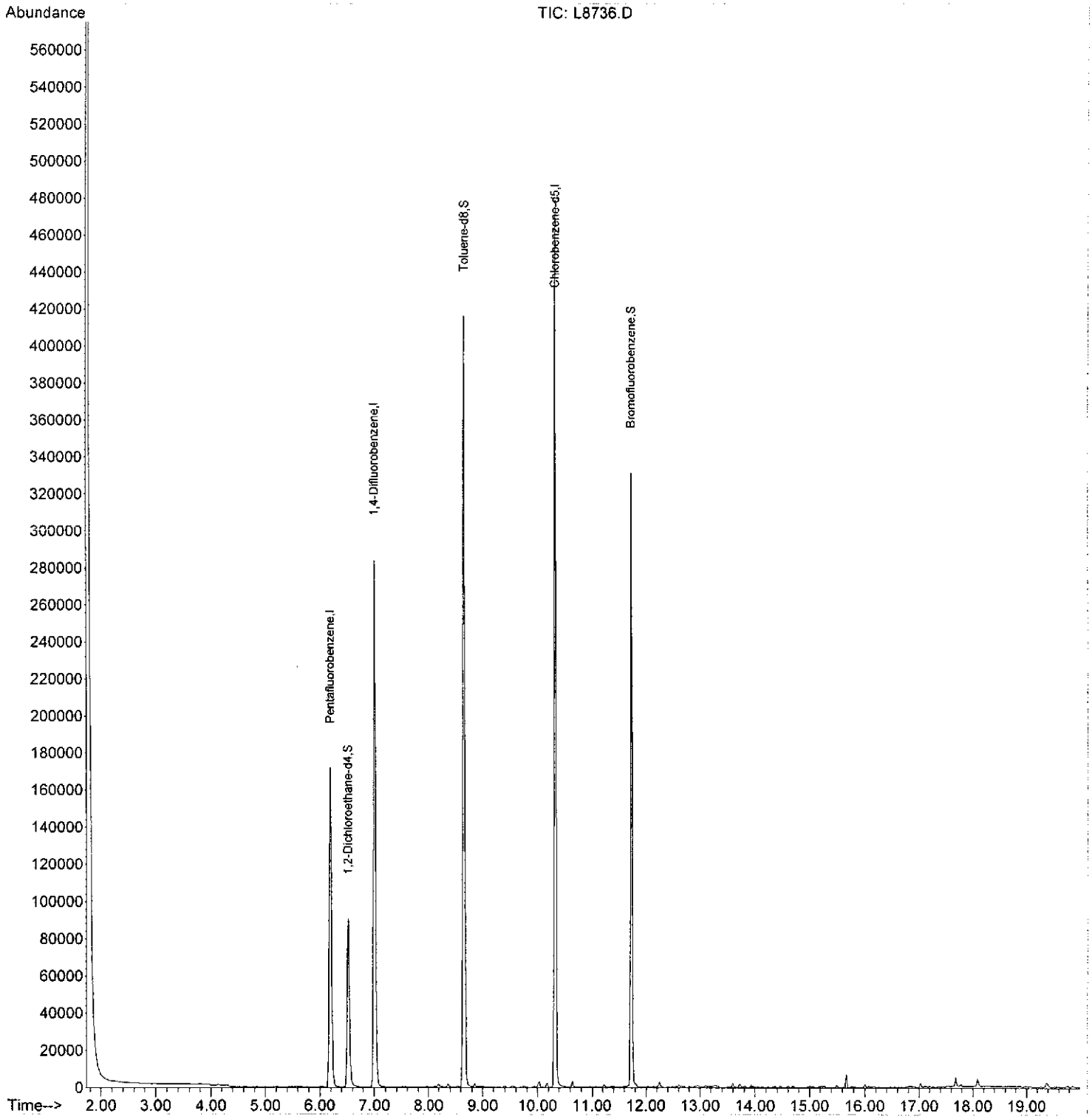
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8736.D
Acq On : 18 Sep 2010 00:44
Operator : MEI
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 17 14:53:57 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8736.D
Acq On : 18 Sep 2010 00:44
Operator : MEI
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.191	431	440	461	rVB	171831	502430	52.66%	12.579%
2	6.526	466	473	483	rBV	90339	267822	28.07%	6.705%
3	7.003	512	520	535	rBV	283885	687597	72.06%	17.214%
4	8.658	677	683	697	rBV	416118	904410	94.79%	22.643%
5	10.323	838	847	861	rBV	479231	954153	100.00%	23.888%
6	11.724	973	985	1002	rVB	331355	644099	67.50%	16.125%
7	15.663	1363	1373	1380	rBV2	7141	12939	1.36%	0.324%
8	17.683	1565	1572	1578	rBV	5228	11052	1.16%	0.277%
9	18.089	1607	1612	1620	rVB	4242	9791	1.03%	0.245%

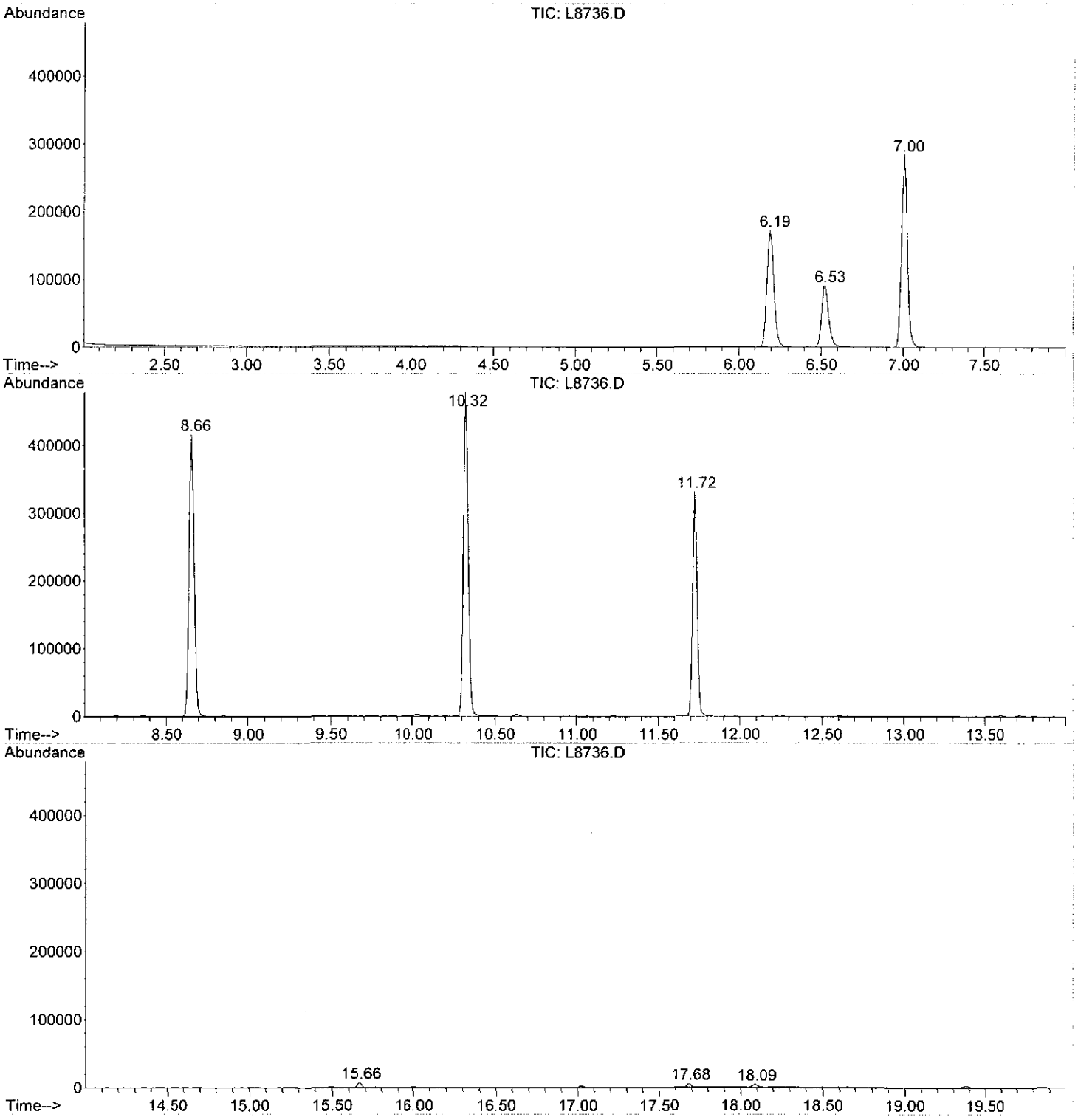
Sum of corrected areas: 3994293

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\09-17-10\
Data File : L8736.D
Acq On : 18 Sep 2010 00:44
Operator : MEI
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-22-10\
Data File : L8843.D
Acq On : 23 Sep 2010 12:39
Operator : MEI
Sample : N/A,METHOD-BLK,A,5ml,100
Misc :
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 23 10:54:57 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.19	168	172714	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.00	114	304016	50.00	UG	0.00
50) Chlorobenzene-d5	10.32	117	336290	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.53	65	89083	51.15	UG	0.01
Spiked Amount 50.000	Range 43 - 133		Recovery = 102.30%			
41) Toluene-d8	8.66	98	329578	50.90	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.80%			
59) Bromofluorobenzene	11.72	95	143022	50.84	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 101.68%			

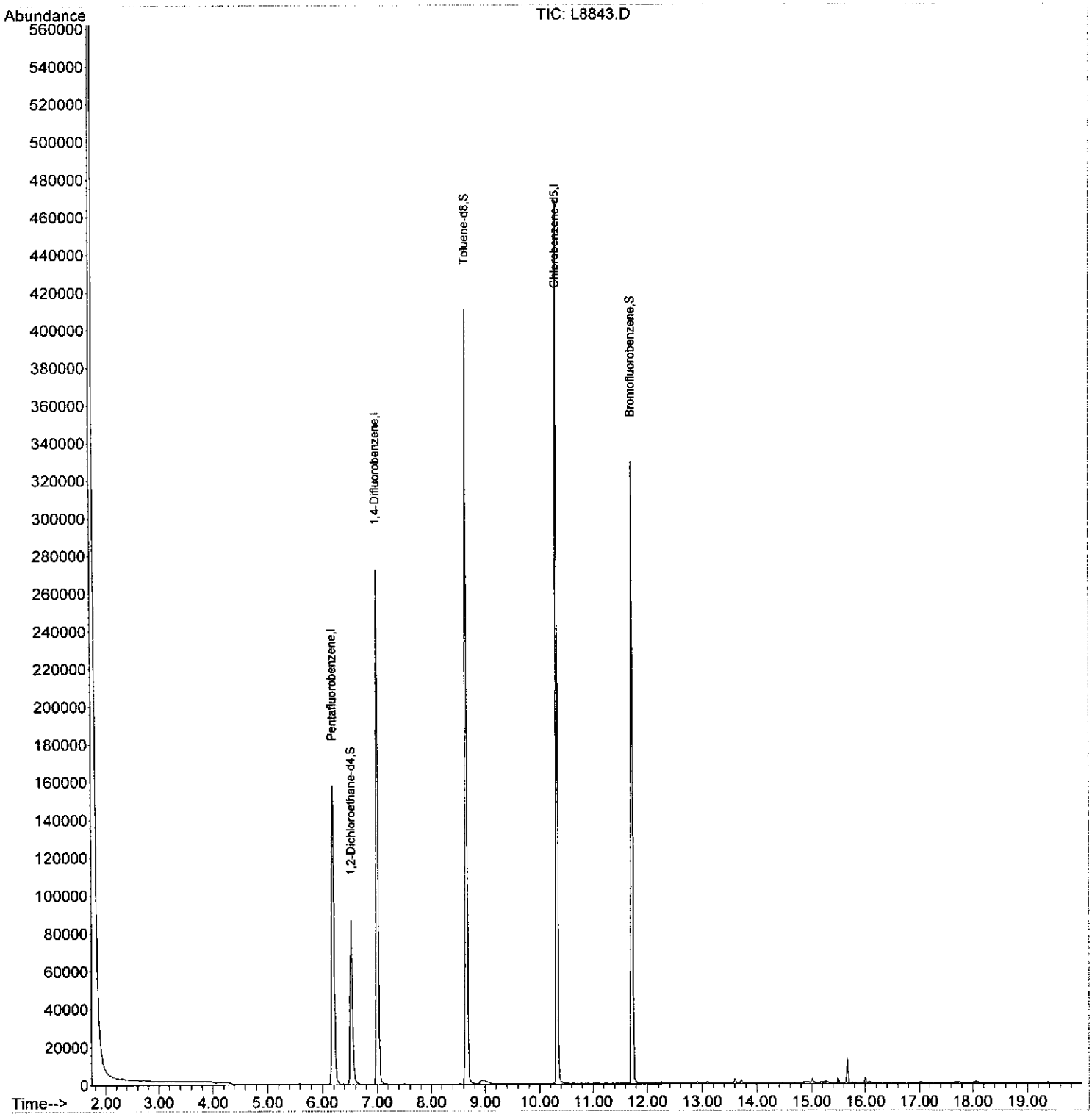
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-22-10\
Data File : L8843.D
Acq On : 23 Sep 2010 12:39
Operator : MEI
Sample : N/A,METHOD-BLK,A,5ml,100
Misc :
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 23 10:54:57 2010
Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Sep 15 13:14:46 2010
Response via : Initial Calibration



0081

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\09-22-10\
Data File : L8843.D
Acq On : 23 Sep 2010 12:39
Operator : MEI
Sample : N/A,METHOD-BLK,A,5ml,100
Misc :
ALS Vial : 32 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.191	431	440	456	rVB	158009	473360	50.52%	12.207%
2	6.526	466	473	490	rBV	86595	259947	27.75%	6.703%
3	7.003	510	520	536	rBV	272367	660811	70.53%	17.041%
4	8.658	676	683	700	rBV	410624	871555	93.03%	22.475%
5	8.932	701	710	732	rBV4	1955	16648	1.78%	0.429%
6	10.323	839	847	869	rVB	468357	936898	100.00%	24.160%
7	11.724	979	985	998	rBV	329212	635197	67.80%	16.380%
8	15.663	1364	1373	1380	rVV	13215	23393	2.50%	0.603%

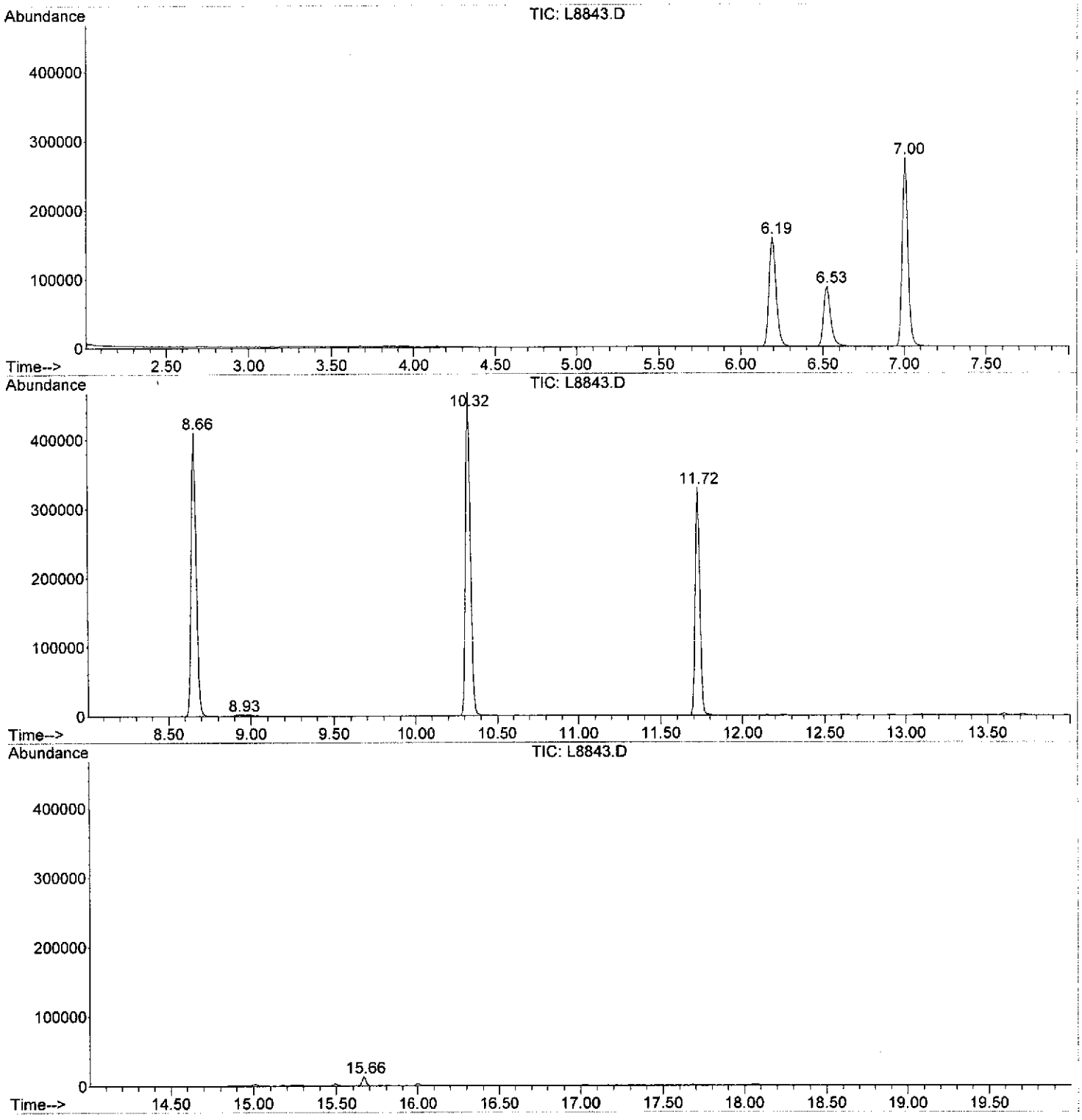
Sum of corrected areas: 3877809

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\09-22-10\
Data File : L8843.D
Acq On : 23 Sep 2010 12:39
Operator : MEI
Sample : N/A,METHOD-BLK,A,5ml,100
Misc :
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LAM0913.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



0083

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID:	U0711.D	Instrument ID:	GC-U
Date Extracted:	09/20/2010	Matrix:	SOIL
Date Analyzed:	09/21/2010	Time Analyzed:	12:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	0920-LCS01	09/21/2010	13:31
ALI	0920-LCSD01	09/21/2010	14:05
MW13-1/1	09269-001	09/21/2010	14:39
MW13-2/1	09269-002	09/21/2010	15:14
TP10A-3/	09270-003	09/21/2010	18:05
SBMW6_(8	09282-001	09/21/2010	18:39
SBMW7_(9	09282-002	09/21/2010	19:13
SBMW5_(1	09282-003	09/21/2010	19:47
SBMW3_(5	09282-004	09/21/2010	20:21
S-102A	09334-001	09/21/2010	20:55
S-101B	09334-003	09/21/2010	21:30
S-103A	09334-004	09/21/2010	22:03
S-104A	09334-006	09/21/2010	22:38
SBMW2(5-	09219-001	09/21/2010	23:12
SBMW7_(9	09282-2D	09/21/2010	23:46
ALI	09282-002-MS01	09/22/2010	00:20
MW12-1/1	09269-005	09/22/2010	00:54
MW12-2/1	09269-006	09/22/2010	17:32
TP10A-1/	09270-001	09/22/2010	18:06
TP10A-2/	09270-002	09/22/2010	18:41

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID:	U0736.D	Instrument ID:	GC-U
Date Extracted:	09/20/2010	Matrix:	SOIL
Date Analyzed:	09/22/2010	Time Analyzed:	03:11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	0920-LCS01	09/22/2010	03:45
ARO	0920-LCSD01	09/22/2010	04:19
MW13-1/1	09269-001	09/22/2010	04:54
MW13-2/1	09269-002	09/22/2010	05:28
MW12-1/1	09269-005	09/22/2010	06:02
MW12-2/1	09269-006	09/22/2010	06:36
TP10A-1/	09270-001	09/22/2010	07:11
TP10A-2/	09270-002	09/22/2010	07:45
TP10A-3/	09270-003	09/22/2010	08:20
SBMW6_(8	09282-001	09/22/2010	08:53
SBMW7_(9	09282-002	09/22/2010	09:28
SBMW5_(1	09282-003	09/22/2010	10:02
SBMW3_(5	09282-004	09/22/2010	10:36
S-102A	09334-001	09/22/2010	11:11
S-101B	09334-003	09/22/2010	11:45
S-103A	09334-004	09/22/2010	12:19
S-104A	09334-006	09/22/2010	12:54
SBMW2(5-	09219-001	09/22/2010	13:28
SBMW7_(9	09282-2D	09/22/2010	14:02
ARO	09282-002-MS01	09/22/2010	14:37

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Client/Project: NA

Lab ID: 0920-BLK01
Client ID: ARO
Date Received: NA
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0711.D
Data file: U0736.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 0

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	3.00
C12-C16 Aliphatics	ND		8.00	2.00
C16-C21 Aliphatics	ND		12.0	3.00
C21-C40 Aliphatics	ND		40.0	10.0
Total Aliphatics	0			
C10-C12 Aromatics	ND		8.00	2.00
C12-C16 Aromatics	ND		12.0	3.00
C16-C21 Aromatics	ND		20.0	5.00
C21-C36 Aromatics	ND		32.0	8.00
Total Aromatics	0			
Total NJ-EPH	0			

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/17/2010 **Instrument ID:** GC-U
GC Column : DB-5

Data File: U0627.D U0626.D U0625.D U0624.D U0623.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	1.31	1.31	1.31	1.32	1.32	1.32	1.25	1.39
n-Decane (C10)	1.80	1.80	1.80	1.81	1.81	1.81	1.74	1.88
n-Dodecane (C12)	3.17	3.17	3.18	3.19	3.20	3.18	3.11	3.25
n-Tetradecane (C14)	4.87	4.88	4.89	4.90	4.92	4.89	4.82	4.96
n-Hexadecane (C16)	6.90	6.91	6.93	6.94	6.96	6.93	6.85	7.01
n-Octadecane (C18)	9.05	9.06	9.08	9.09	9.12	9.08	9.00	9.16
n-Eicosane (C20)	11.13	11.14	11.16	11.17	11.21	11.16	11.08	11.24
n-Heneicosane (C21)	12.12	12.13	12.15	12.17	12.21	12.16	12.08	12.24
n-Docosane (C22)	13.08	13.09	13.11	13.13	13.17	13.11	13.02	13.20
n-Tetracosane (C24)	14.89	14.90	14.92	14.94	14.98	14.92	14.83	15.01
n-Hexacosane (C26)	16.57	16.58	16.60	16.62	16.66	16.61	16.52	16.70
n_Octacosane (C28)	18.14	18.15	18.17	18.20	18.23	18.18	18.09	18.27
n-Triacontane (C30)	19.61	19.63	19.65	19.67	19.71	19.65	19.55	19.75
n-Dotriacontane (C32)	20.91	20.92	20.94	20.96	20.98	20.94	20.84	21.04
n-Tetratriacontane (C34)	21.65	21.67	21.69	21.71	21.72	21.69	21.59	21.79
n-Hexatriacontane (C36)	22.44	22.46	22.49	22.52	22.53	22.49	22.34	22.64
n-Octatriacontane (C38)	23.43	23.45	23.48	23.51	23.54	23.48	23.33	23.63
n-Tetracontane (40)	24.73	24.75	24.80	24.84	24.88	24.80	24.65	24.95
C9-C12	2.46	2.46	2.46	2.46	2.46	2.46	2.36	2.56
C12-C16	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
C16-C21	10.20	10.20	10.20	10.20	10.20	10.20	10.09	10.31
C21-C40	19.30	19.30	19.30	19.30	19.30	19.30	19.19	19.41

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/17/2010 **Instrument ID:** GC-U

GC Column : DB-5

Data File: U0627.D U0626.D U0625.D U0624.D U0623.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
n-Nonane (C9)	566580	509356	517721	411080	396321	480212	15.28
n-Decane (C10)	573404	521694	536411	428835	422224	496513	13.60
n-Dodecane (C12)	549570	526125	556900	449081	449505	506236	10.51
n-Tetradecane (C14)	568785	555045	592016	478759	477392	534399	9.93
n-Hexadecane (C16)	607320	581514	610954	497050	493605	558089	10.47
n-Octadecane (C18)	628840	592474	611772	501028	505703	567963	10.63
n-Eicosane (C20)	665545	606966	615398	504147	528323	584076	11.37
n-Heneicosane (C21)	658065	582776	577184	471204	511717	560189	12.83
n-Docosane (C22)	664340	585662	581396	485710	529212	569264	11.80
n-Tetracosane (C24)	648977	554808	549812	469121	526701	549884	11.82
n-Hexacosane (C26)	620787	526517	532763	474710	529090	536773	9.81
n_Octacosane (C28)	606605	509662	525189	477888	519595	527788	9.04
n-Triacontane (C30)	616630	517826	545503	497903	532171	542006	8.36
n-Dotriacontane (C32)	588776	504427	541651	491164	519523	529108	7.23
n-Tetratriacontane (C34)	575036	497852	539474	484895	510857	521623	6.91
n-Hexatriacontane (C36)	569515	507174	549717	491481	516607	526899	6.07
n-Octatriacontane (C38)	556413	502597	542209	483224	508143	518517	5.79
n-Tetracontane (40)	550414	506131	543657	484243	509549	518799	5.33
C9-C12	2139394	1735748	1713598	1304192	1276572	1633901	21.82
C12-C16	1377937	1183759	1226454	986226	979093	1150694	14.73
C16-C21	2082347	1818053	1830108	1497138	1563279	1758185	13.34
C21-C40	8374687	6579226	6015747	5146593	5367619	6296775	20.50

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/21/2010 **Instrument ID:** GC-U

Data File: U0710.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.31	1.25	1.39	480212	474509	1.19
n-Decane (C10)	1.80	1.74	1.88	496513	494416	0.42
n-Dodecane (C12)	3.18	3.11	3.25	506236	511165	0.97
n-Tetradecane (C14)	4.88	4.82	4.96	534399	538398	0.75
n-Hexadecane (C16)	6.92	6.85	7.01	558089	558237	0.03
n-Octadecane (C18)	9.07	9.00	9.16	567963	565691	0.40
n-Eicosane (C20)	11.15	11.08	11.24	584076	578842	0.90
n-Heneicosane (C21)	12.14	12.08	12.24	560189	549504	1.91
n-Docosane (C22)	13.10	13.02	13.20	569264	564780	0.79
n-Tetracosane (C24)	14.91	14.83	15.01	549884	558470	1.56
n-Hexacosane (C26)	16.59	16.52	16.70	536773	557087	3.78
n_Octacosane (C28)	18.17	18.09	18.27	527788	556208	5.38
n-Triacontane (C30)	19.64	19.55	19.75	542006	576064	6.28
n-Dotriacontane (C32)	20.93	20.84	21.04	529108	564983	6.78
n-Tetratriacontane (C34)	21.69	21.59	21.79	521623	556400	6.67
n-Hexatriacontane (C36)	22.48	22.34	22.64	526899	559979	6.28
n-Octatriacontane (C38)	23.47	23.33	23.63	518517	542265	4.58
n-Tetracontane (40)	24.78	24.65	24.95	518799	526856	1.55
C9-C12	2.46	2.36	2.56	1633901	1497372	8.36
C12-C16	5.60	5.50	5.70	1150694	1111859	3.37
C16-C21	10.20	10.09	10.31	1758185	1718358	2.27
C21-C40	19.30	19.19	19.41	6296775	5928923	5.84

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/22/2010 **Instrument ID:** GC-U

Data File: U0733.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.31	1.25	1.39	480212	458996	4.42
n-Decane (C10)	1.80	1.74	1.88	496513	481259	3.07
n-Dodecane (C12)	3.17	3.11	3.25	506236	499804	1.27
n-Tetradecane (C14)	4.88	4.82	4.96	534399	525147	1.73
n-Hexadecane (C16)	6.91	6.85	7.01	558089	540688	3.12
n-Octadecane (C18)	9.06	9.00	9.16	567963	546477	3.78
n-Eicosane (C20)	11.14	11.08	11.24	584076	558219	4.43
n-Heneicosane (C21)	12.14	12.08	12.24	560189	534000	4.68
n-Docosane (C22)	13.09	13.02	13.20	569264	546787	3.95
n-Tetracosane (C24)	14.91	14.83	15.01	549884	537413	2.27
n-Hexacosane (C26)	16.59	16.52	16.70	536773	534656	0.39
n_Octacosane (C28)	18.16	18.09	18.27	527788	532284	0.85
n-Triacontane (C30)	19.63	19.55	19.75	542006	549962	1.47
n-Dotriacontane (C32)	20.93	20.84	21.04	529108	538212	1.72
n-Tetratriacontane (C34)	21.67	21.59	21.79	521623	528602	1.34
n-Hexatriacontane (C36)	22.46	22.34	22.64	526899	531167	0.81
n-Octatriacontane (C38)	23.45	23.33	23.63	518517	512869	1.09
n-Tetracontane (40)	24.75	24.65	24.95	518799	501024	3.43
C9-C12	2.46	2.36	2.56	1633901	1458671	10.72
C12-C16	5.60	5.50	5.70	1150694	1081808	5.99
C16-C21	10.20	10.09	10.31	1758185	1664422	5.33
C21-C40	19.30	19.19	19.41	6296775	5761077	8.51

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/22/2010 **Instrument ID:** GC-U

Data File: U0760.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.31	1.25	1.39	480212	510248	6.25
n-Decane (C10)	1.80	1.74	1.88	496513	538660	8.49
n-Dodecane (C12)	3.17	3.11	3.25	506236	564778	11.56
n-Tetradecane (C14)	4.87	4.82	4.96	534399	595465	11.43
n-Hexadecane (C16)	6.91	6.85	7.01	558089	612158	9.69
n-Octadecane (C18)	9.06	9.00	9.16	567963	614030	8.11
n-Eicosane (C20)	11.14	11.08	11.24	584076	621829	6.46
n-Heneicosane (C21)	12.14	12.08	12.24	560189	590025	5.33
n-Docosane (C22)	13.09	13.02	13.20	569264	600027	5.40
n-Tetracosane (C24)	14.90	14.83	15.01	549884	587968	6.93
n-Hexacosane (C26)	16.59	16.52	16.70	536773	582493	8.52
n_Octacosane (C28)	18.16	18.09	18.27	527788	579424	9.78
n-Triacontane (C30)	19.63	19.55	19.75	542006	597764	10.29
n-Dotriacontane (C32)	20.93	20.84	21.04	529108	585024	10.57
n-Tetratriacontane (C34)	21.68	21.59	21.79	521623	575059	10.24
n-Hexatriacontane (C36)	22.47	22.34	22.64	526899	577252	9.56
n-Octatriacontane (C38)	23.46	23.33	23.63	518517	556413	7.31
n-Tetracontane (40)	24.76	24.65	24.95	518799	543405	4.74
C9-C12	2.46	2.36	2.56	1633901	1672366	2.35
C12-C16	5.60	5.50	5.70	1150694	1227220	6.65
C16-C21	10.20	10.09	10.31	1758185	1852377	5.36
C21-C40	19.30	19.19	19.41	6296775	6172929	1.97

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/22/2010 **Instrument ID:** GC-U

Data File: U0764.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.31	1.25	1.39	480212	549429	14.41
n-Decane (C10)	1.80	1.74	1.88	496513	578980	16.61
n-Dodecane (C12)	3.17	3.11	3.25	506236	601130	18.74
n-Tetradecane (C14)	4.88	4.82	4.96	534399	627870	17.49
n-Hexadecane (C16)	6.91	6.85	7.01	558089	641697	14.98
n-Octadecane (C18)	9.06	9.00	9.16	567963	640294	12.74
n-Eicosane (C20)	11.15	11.08	11.24	584076	646544	10.70
n-Heneicosane (C21)	12.14	12.08	12.24	560189	612991	9.43
n-Docosane (C22)	13.10	13.02	13.20	569264	623421	9.51
n-Tetracosane (C24)	14.91	14.83	15.01	549884	609896	10.91
n-Hexacosane (C26)	16.59	16.52	16.70	536773	607802	13.23
n_Octacosane (C28)	18.16	18.09	18.27	527788	607272	15.06
n-Triacontane (C30)	19.63	19.55	19.75	542006	627064	15.69
n-Dotriacontane (C32)	20.92	20.84	21.04	529108	613980	16.04
n-Tetratriacontane (C34)	21.67	21.59	21.79	521623	603785	15.75
n-Hexatriacontane (C36)	22.46	22.34	22.64	526899	606382	15.09
n-Octatriacontane (C38)	23.44	23.33	23.63	518517	584844	12.79
n-Tetracontane (40)	24.75	24.65	24.95	518799	571388	10.14
C9-C12	2.46	2.36	2.56	1633901	1765708	8.07
C12-C16	5.60	5.50	5.70	1150694	1287780	11.91
C16-C21	10.20	10.09	10.31	1758185	1926581	9.58
C21-C40	19.30	19.19	19.41	6296775	6425458	2.04

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2010 **Instrument ID:** GC-U
GC Column : DB-5

Data File: U0287.D U0286.D U0285.D U0284.D U0283.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	20	100	250	500	1000	RT	FROM	TO
1,2,3-Trimethylbenzene	1.98	1.98	1.99	1.99	1.99	1.99	1.87	2.11
Napthalene	3.17	3.17	3.17	3.18	3.19	3.18	3.06	3.30
2-Methylnaphthalene	4.07	4.07	4.08	4.09	4.10	4.08	3.96	4.20
Acenaphthylene	5.50	5.51	5.51	5.53	5.55	5.52	5.40	5.64
Acenaphthene	5.85	5.86	5.87	5.90	5.92	5.88	5.76	6.00
Fluorene	6.85	6.86	6.87	6.90	6.92	6.88	6.76	7.00
Phenanthrene	8.92	8.94	8.95	8.98	9.01	8.96	8.84	9.08
Anthracene	9.03	9.04	9.07	9.10	9.13	9.08	8.96	9.20
Fluoroanthene	11.77	11.79	11.81	11.85	11.88	11.82	11.70	11.94
Pyrene	12.27	12.30	12.32	12.36	12.40	12.33	12.21	12.45
Benzo[a]anthracene	15.33	15.36	15.39	15.43	15.47	15.40	15.28	15.52
Chrysene	15.43	15.47	15.50	15.56	15.60	15.51	15.39	15.63
Benzo[b]fluoranthene	17.94	18.00	18.04	18.11	18.17	18.05	17.93	18.17
Benzo[k]fluoranthene	17.94	18.00	18.04	18.11	18.17	18.05	17.93	18.17
Benzo[a]pyrene	18.56	18.60	18.64	18.70	18.76	18.65	18.53	18.77
Indeno[1,2,3-cd]pyrene	20.78	20.88	20.93	20.98	21.03	20.92	20.80	21.04
Dibenz[a,h]anthracene	20.78	20.88	20.93	20.98	21.03	20.92	20.80	21.04
Benzo[g,h,i]perylene	21.10	21.14	21.18	21.23	21.28	21.19	21.07	21.31
C10-C12	2.70	2.70	2.70	2.70	2.70	2.70	2.58	2.82
C12-C16	5.00	5.00	5.00	5.00	5.00	5.00	4.88	5.12
C16-C21	9.80	9.80	9.80	9.80	9.80	9.80	9.68	9.92
C21-C36	17.50	17.50	17.50	17.50	17.50	17.50	17.38	17.62

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2010 **Instrument ID:** GC-U
GC Column : DB-5

Data File: U0287.D U0286.D U0285.D U0284.D U0283.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
1,2,3-Trimethylbenzene	580299	670013	572490	610928	471021	580950	12.47
Napthalene	608716	741603	615247	674712	542017	636459	11.83
2-Methylnaphthalene	622026	748589	614754	637233	549713	634463	11.35
Acenaphthylene	644124	799469	647674	725334	590553	681431	11.98
Acenaphthene	704320	826413	662263	739916	600040	706590	12.01
Fluorene	659295	834247	673146	721794	623850	702466	11.62
Phenanthrene	669446	893945	719901	837757	690263	762262	12.89
Anthracene	733811	870487	699256	778031	637790	743875	11.75
Fluoroanthene	748200	947464	756778	854290	689741	799295	12.73
Pyrene	802176	1012709	809388	903046	727019	850868	12.92
Benzo[a]anthracene	820250	1034809	858421	898093	722094	866733	13.20
Chrysene	846859	1023286	824800	819523	636620	830218	16.51
Benzo[b]fluoranthene	1733515	2053348	1705528	1689565	1354565	1707304	14.50
Benzo[k]fluoranthene	1719451	2052935	1706114	1689565	1354565	1704526	14.50
Benzo[a]pyrene	846596	1007770	839590	832896	670266	839423	14.23
Indeno[1,2,3-cd]pyrene	1575359	1931436	1625104	1626138	1439267	1639461	10.99
Dibenz[a,h]anthracene	1564435	1928482	1625104	1626138	1439267	1636685	11.00
Benzo[g,h,i]perylene	790437	991678	839368	840588	838875	860189	8.90
C10-C12	1257195	1432721	1199925	1299792	1044982	1246923	11.37
C12-C16	2030370	2416737	1953848	2173595	1759560	2066822	11.91
C16-C21	2973594	3637321	2907568	3302579	2686728	3101558	11.99
C21-C36	7704992	8307423	6823103	6783656	5412183	7006271	15.64

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/22/2010 **Instrument ID:** GC-U

Data File: U0735.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	1.97	1.87	2.11	580950	549240	5.46
Napthalene	3.15	3.06	3.30	636459	617467	2.98
2-Methylnaphthalene	4.05	3.96	4.20	634463	632105	0.37
Acenaphthylene	5.48	5.40	5.64	681431	685810	0.64
Acenaphthene	5.83	5.76	6.00	706590	712835	0.88
Fluorene	6.84	6.76	7.00	702466	724657	3.16
Phenanthrene	8.91	8.84	9.08	762262	777340	1.98
Anthracene	9.03	8.96	9.20	743875	762512	2.51
Fluoroanthene	11.77	11.70	11.94	799295	789107	1.27
Pyrene	12.27	12.21	12.45	850868	833229	2.07
Benzo[a]anthracene	15.34	15.28	15.52	866733	791760	8.65
Chrysene	15.45	15.39	15.63	830218	752898	9.31
Benzo[b]fluoranthene	17.98	17.93	18.17	1707304	1455259	14.76
Benzo[k]fluoranthene	17.98	17.93	18.17	1704526	1455568	14.61
Benzo[a]pyrene	18.58	18.53	18.77	839423	709477	15.48
Indeno[1,2,3-cd]pyrene	20.88	20.80	21.04	1639461	1354277	17.39
Dibenz[a,h]anthracene	20.88	20.80	21.04	1636685	1354277	17.25
Benzo[g,h,i]perylene	21.13	21.07	21.31	860189	701361	18.46
C10-C12	2.70	2.58	2.82	1246923	1179118	5.44
C12-C16	5.00	4.88	5.12	2066822	2144294	3.75
C16-C21	9.80	9.68	9.92	3101558	3112063	0.34
C21-C36	17.50	17.38	17.62	7006271	5856030	16.42

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/22/2010 **Instrument ID:** GC-U

Data File: U0757.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	1.97	1.87	2.11	580950	615505	5.95
Napthalene	3.15	3.06	3.30	636459	690467	8.49
2-Methylnaphthalene	4.05	3.96	4.20	634463	705475	11.19
Acenaphthylene	5.48	5.40	5.64	681431	760978	11.67
Acenaphthene	5.84	5.76	6.00	706590	782618	10.76
Fluorene	6.83	6.76	7.00	702466	798276	13.64
Phenanthrene	8.91	8.84	9.08	762262	843374	10.64
Anthracene	9.02	8.96	9.20	743875	816564	9.77
Fluoroanthene	11.76	11.70	11.94	799295	810986	1.46
Pyrene	12.27	12.21	12.45	850868	848027	0.33
Benzo[a]anthracene	15.32	15.28	15.52	866733	739845	14.64
Chrysene	15.44	15.39	15.63	830218	759177	8.56
Benzo[b]fluoranthene	17.97	17.93	18.17	1707304	1528049	10.50
Benzo[k]fluoranthene	17.97	17.93	18.17	1704526	1527430	10.39
Benzo[a]pyrene	18.58	18.53	18.77	839423	752358	10.37
Indeno[1,2,3-cd]pyrene	20.88	20.80	21.04	1639461	1378007	15.95
Dibenz[a,h]anthracene	20.88	20.80	21.04	1636685	1378007	15.81
Benzo[g,h,i]perylene	21.14	21.07	21.31	860189	759108	11.75
C10-C12	2.70	2.58	2.82	1246923	1323795	6.16
C12-C16	5.00	4.88	5.12	2066822	2289616	10.78
C16-C21	9.80	9.68	9.92	3101558	3330464	7.38
C21-C36	17.50	17.38	17.62	7006271	6157301	12.12

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/21/2010

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	0920-BLK01	SOIL	63	
ALI	0920-LCS01	SOIL	73	
ALI	0920-LCSD01	SOIL	76	
MW13-1/1	09269-001	SOIL	51	
MW13-2/1	09269-002	SOIL	57	
TP10A-3/	09270-003	SOIL	47	
SBMW6_(8	09282-001	SOIL	51	
SBMW7_(9	09282-002	SOIL	42	
SBMW5_(1	09282-003	SOIL	42	
SBMW3_(5	09282-004	SOIL	61	
S-102A	09334-001	SOIL	53	
S-101B	09334-003	SOIL	79	
S-103A	09334-004	SOIL	57	
S-104A	09334-006	SOIL	66	
SBMW2(5-	09219-001	SOIL	75	
SBMW7_(9	09282-2D	SOIL	50	
ALI	09282-002-MS01	SOIL	58	
MW12-1/1	09269-005	SOIL	64	
MW12-2/1	09269-006	SOIL	57	
TP10A-1/	09270-001	SOIL	46	
TP10A-2/	09270-002	SOIL	58	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/22/2010

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	0920-BLK01	SOIL	87		87		73	
ARO	0920-LCS01	SOIL	90		87		77	
ARO	0920-LCSD01	SOIL	89		85		78	
MW13-1/1	09269-001	SOIL	89		89		69	
MW13-2/1	09269-002	SOIL	85		77		70	
MW12-1/1	09269-005	SOIL	81		83		139	
MW12-2/1	09269-006	SOIL	81		80		59	
TP10A-1/	09270-001	SOIL	88		99		50	
TP10A-2/	09270-002	SOIL	83		79		81	
TP10A-3/	09270-003	SOIL	109		97		64	
SBMW6_(8	09282-001	SOIL	92		90		66	
SBMW7_(9	09282-002	SOIL	80		81		56	
SBMW5_(1	09282-003	SOIL	86		82		61	
SBMW3_(5	09282-004	SOIL	90		88		58	
S-102A	09334-001	SOIL	88		90		62	
S-101B	09334-003	SOIL	97		97		68	
S-103A	09334-004	SOIL	107		105		67	
S-104A	09334-006	SOIL	90		83		71	
SBMW2(5-	09219-001	SOIL	90		89		65	
SBMW7_(9	09282-2D	SOIL	75		75		60	
ARO	09282-002-MS01	SOIL	82		97		66	

Surrogate QC Limits	Soil	Aqueous
FBP = 1-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: 0920-LCSD01
Client ID: ALI
Date Received: NA
Date Extracted: 09/20/2010
Date Analyzed: 09/21/2010
Data file: U0713.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Conc. MSD	%Rec. MSD	%RPD
n-Nonane (C9)	50	0.00	21	42	24	48	13
n-Decane (C10)	50	0.00	25	50	28	56	11
n-Dodecane (C12)	50	0.00	29	58	33	66	13
n-Tetradecane (C14)	50	0.00	33	66	37	74	11
n-Hexadecane (C16)	50	0.00	36	72	39	78	8
n-Octadecane (C18)	50	0.00	38	76	41	82	8
n-Eicosane (C20)	50	0.00	38	76	39	78	3
n-Heneicosane (C21)	50	0.00	40	80	42	84	5
n-Docosane (C22)	50	0.00	39	78	40	80	3
n-Tetracosane (C24)	50	0.00	39	78	40	80	3
n-Hexacosane (C26)	50	0.00	39	78	40	80	3
n-Octacosane (C28)	50	0.00	39	78	40	80	3
n-Triacontane (C30)	50	0.00	38	76	40	80	5
n-Dotriacontane (C32)	50	0.00	37	74	40	80	8
n-Tetratriacontane (C34)	50	0.00	39	78	41	82	5
n-Hexatriacontane (C36)	50	0.00	36	72	39	78	8
n-Octatriacontane (C38)	50	0.00	35	70	37	74	6
n-Tetracontane (40)	50	0.00	34	68	36	72	6
C9-C12	150	0.00	77	51	87	58	12
C12-C16	100	0.00	78	78	85	85	9
C16-C21	150	0.00	130	87	136	91	5
C21-C40	500	0.00	456	91	475	95	4

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 09282-002-MS01
Client ID: ALI
Date Received: NA
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0731.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C9-C12	150	0	87	58
C12-C16	100	0	83	83
C16-C21	150	0	139	93
C21-C40	500	268	625	71

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: 0920-LCSD01
Client ID: ARO
Date Received: NA
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0738.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Conc. MSD	%Rec. MSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	25	50	24	48	4
Napthalene	50	0.00	34	68	33	66	3
2-Methylnaphthalene	50	0.00	36	72	37	74	3
Acenaphthylene	50	0.00	34	68	33	66	3
Acenaphthene	50	0.00	37	74	37	74	0
Fluorene	50	0.00	36	72	37	74	3
Phenanthrene	50	0.00	32	64	33	66	3
Anthracene	50	0.00	39	78	39	78	0
Fluoroanthene	50	0.00	35	70	36	72	3
Pyrene	50	0.00	34	68	35	70	3
Benzo[a]anthracene	50	0.00	33	66	33	66	0
Chrysene	50	0.00	35	70	36	72	3
Benzo[b]fluoranthene	50	0.00	34	68	35	70	3
Benzo[k]fluoranthene	50	0.00	34	68	35	70	3
Benzo[a]pyrene	50	0.00	33	66	34	68	3
Indeno[1,2,3-cd]pyrene	50	0.00	34	68	35	70	3
Dibenz[a,h]anthracene	50	0.00	34	68	34	68	0
Benzo[g,h,i]perylene	50	0.00	33	66	34	68	3
C10-C12	100	0.00	61	61	60	60	2
C12-C16	150	0.00	115	77	114	76	1
C16-C21	250	0.00	209	84	211	84	1
C21-C36	400	0.00	297	74	301	75	1

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 09282-002-MS01
Client ID: ARO
Date Received: NA
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0756.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C10-C12	100	0	52	52
C12-C16	150	0	86	57
C16-C21	250	0	185	74
C21-C36	400	0	267	67

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-U **Column:** DB-5

Surrogate RT from initial calibration :

COD 11.97

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	0920-BLK01	09/21/2010	12:57	11.97	
ALI	0920-LCS01	09/21/2010	13:31	11.97	
ALI	0920-LCSD01	09/21/2010	14:05	11.97	
MW13-1/1	09269-001	09/21/2010	14:39	11.98	
MW13-2/1	09269-002	09/21/2010	15:14	11.97	
TP10A-3/	09270-003	09/21/2010	18:05	11.97	
SBMW6_(8	09282-001	09/21/2010	18:39	11.97	
SBMW7_(9	09282-002	09/21/2010	19:13	11.97	
SBMW5_(1	09282-003	09/21/2010	19:47	11.97	
SBMW3_(5	09282-004	09/21/2010	20:21	11.97	
S-102A	09334-001	09/21/2010	20:55	11.97	
S-101B	09334-003	09/21/2010	21:30	11.97	
S-103A	09334-004	09/21/2010	22:03	11.97	
S-104A	09334-006	09/21/2010	22:38	11.97	
SBMW2(5-	09219-001	09/21/2010	23:12	11.97	
SBMW7_(9	09282-2D	09/21/2010	23:46	11.97	
ALI	09282-002-MS01	09/22/2010	00:20	11.97	
MW12-1/1	09269-005	09/22/2010	00:54	11.97	
MW12-2/1	09269-006	09/22/2010	17:32	11.96	
TP10A-1/	09270-001	09/22/2010	18:06	11.97	
TP10A-2/	09270-002	09/22/2010	18:41	11.96	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-U **Column:** DB-5

Surrogate RT from initial calibration :

FBP 4.66 **BNP** 5.71 **OTP** 10.06

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	0920-BLK01	09/22/2010	03:11	4.66		5.71		10.06	
ARO	0920-LCS01	09/22/2010	03:45	4.66		5.70		10.06	
ARO	0920-LCSD01	09/22/2010	04:19	4.66		5.70		10.06	
MW13-1/1	09269-001	09/22/2010	04:54	4.65		5.70		10.06	
MW13-2/1	09269-002	09/22/2010	05:28	4.65		5.70		10.05	
MW12-1/1	09269-005	09/22/2010	06:02	4.65		5.70		10.06	
MW12-2/1	09269-006	09/22/2010	06:36	4.66		5.71		10.06	
TP10A-1/	09270-001	09/22/2010	07:11	4.66		5.70		10.06	
TP10A-2/	09270-002	09/22/2010	07:45	4.66		5.71		10.06	
TP10A-3/	09270-003	09/22/2010	08:20	4.65		5.70		10.05	
SBMW6_(8	09282-001	09/22/2010	08:53	4.66		5.70		10.06	
SBMW7_(9	09282-002	09/22/2010	09:28	4.66		5.71		10.06	
SBMW5_(1	09282-003	09/22/2010	10:02	4.65		5.70		10.05	
SBMW3_(5	09282-004	09/22/2010	10:36	4.66		5.70		10.06	
S-102A	09334-001	09/22/2010	11:11	4.66		5.70		10.06	
S-101B	09334-003	09/22/2010	11:45	4.66		5.70		10.06	
S-103A	09334-004	09/22/2010	12:19	4.66		5.70		10.05	
S-104A	09334-006	09/22/2010	12:54	4.66		5.70		10.05	
SBMW2(5-	09219-001	09/22/2010	13:28	4.66		5.70		10.05	
SBMW7_(9	09282-2D	09/22/2010	14:02	4.66		5.70		10.05	
ARO	09282-002-MS01	09/22/2010	14:37	4.66		5.81		10.05	

Surrogate QC Limits

FBP = 1-Fluorobiphenyl (± 0.10 Minutes)

BNP = 2-Bromonaphthalene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0714.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 14:39
Operator : MJ
Sample : MW13-1/1,09269-001,S,5.00g,13.8,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 15:14:55 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1-Chlorooctadecane	11.98	12549457	25.493	ng	m
Spiked Amount	50.000		Recovery =	50.99%		
Target Compounds						
20) H	C9-C12	2.46	141512951	259.831	ng	
21) H	C12-C16	5.60	881611234	1532.312	ng	
22) H	C16-C21	10.20	942539759	1608.260	ng	
23) H	C21-C40	19.30	1762640361	2799.275	ng	

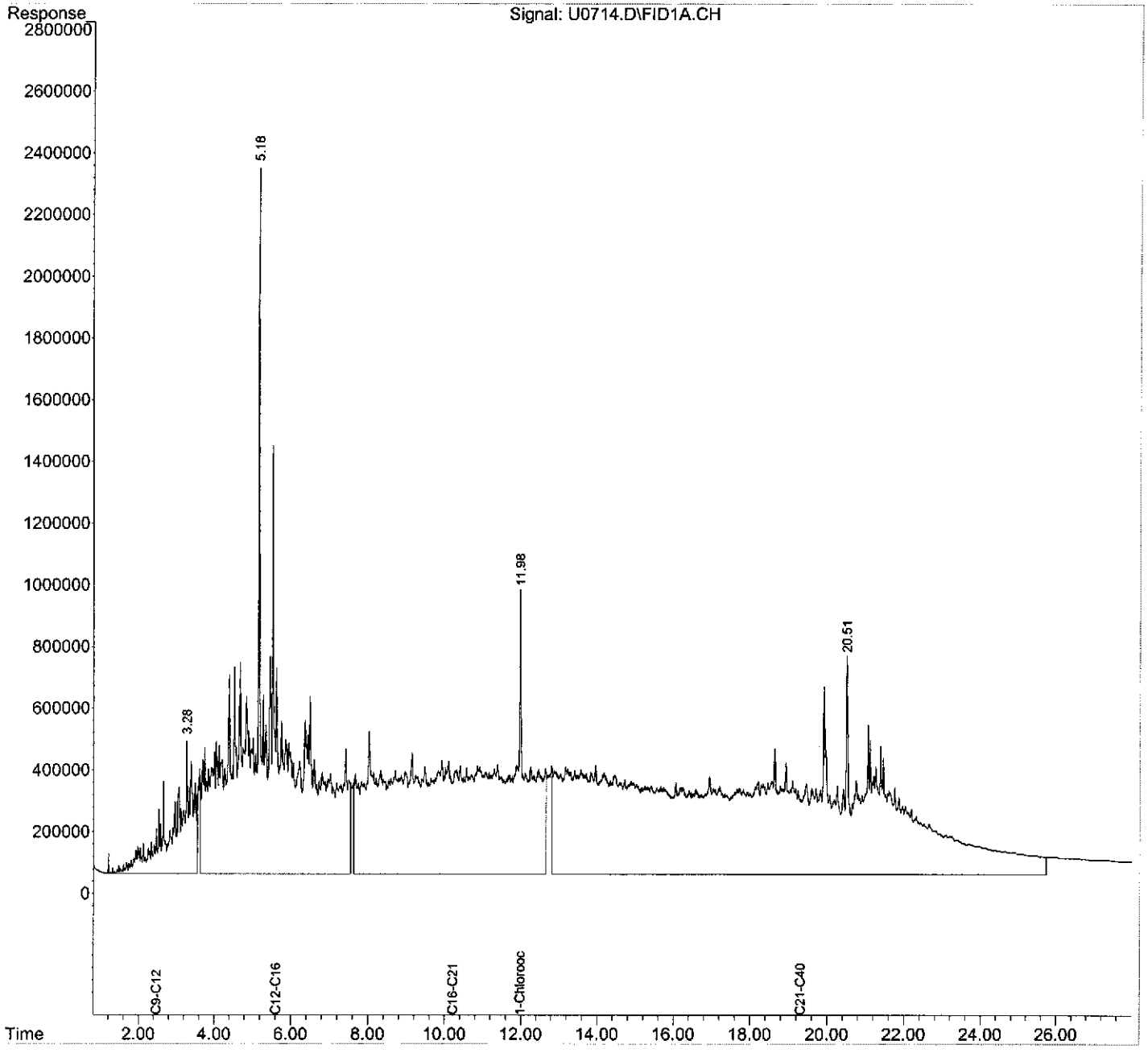
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0714.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 14:39
Operator : MJ
Sample : MW13-1/1,09269-001,S,5.00g,13.8,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 15:14:55 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0739.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 4:54
Operator : MJ
Sample : MW13-1/1,09269-001,S,5.00g,13.8,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:18:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.65	28401743	44.524	ng	m
Spiked Amount	50.000		Recovery =	89.05%		
2) S	2-Bromonaphthalene	5.70	19550822	44.577	ng	m
Spiked Amount	50.000		Recovery =	89.15%		
3) S	o-Terphenyl	10.06	29125367	34.460	ng	m
Spiked Amount	50.000		Recovery =	68.92%		
	Target Compounds					
22) H	C10-C12	2.70	16840006	27.010	ng	
23) H	C12-C16	5.00	95932779	139.247	ng	
24) H	C16-C21	9.80	1574444376	2538.151	ng	
25) H	C21-C36	17.50	2342278230	2674.493	ng	

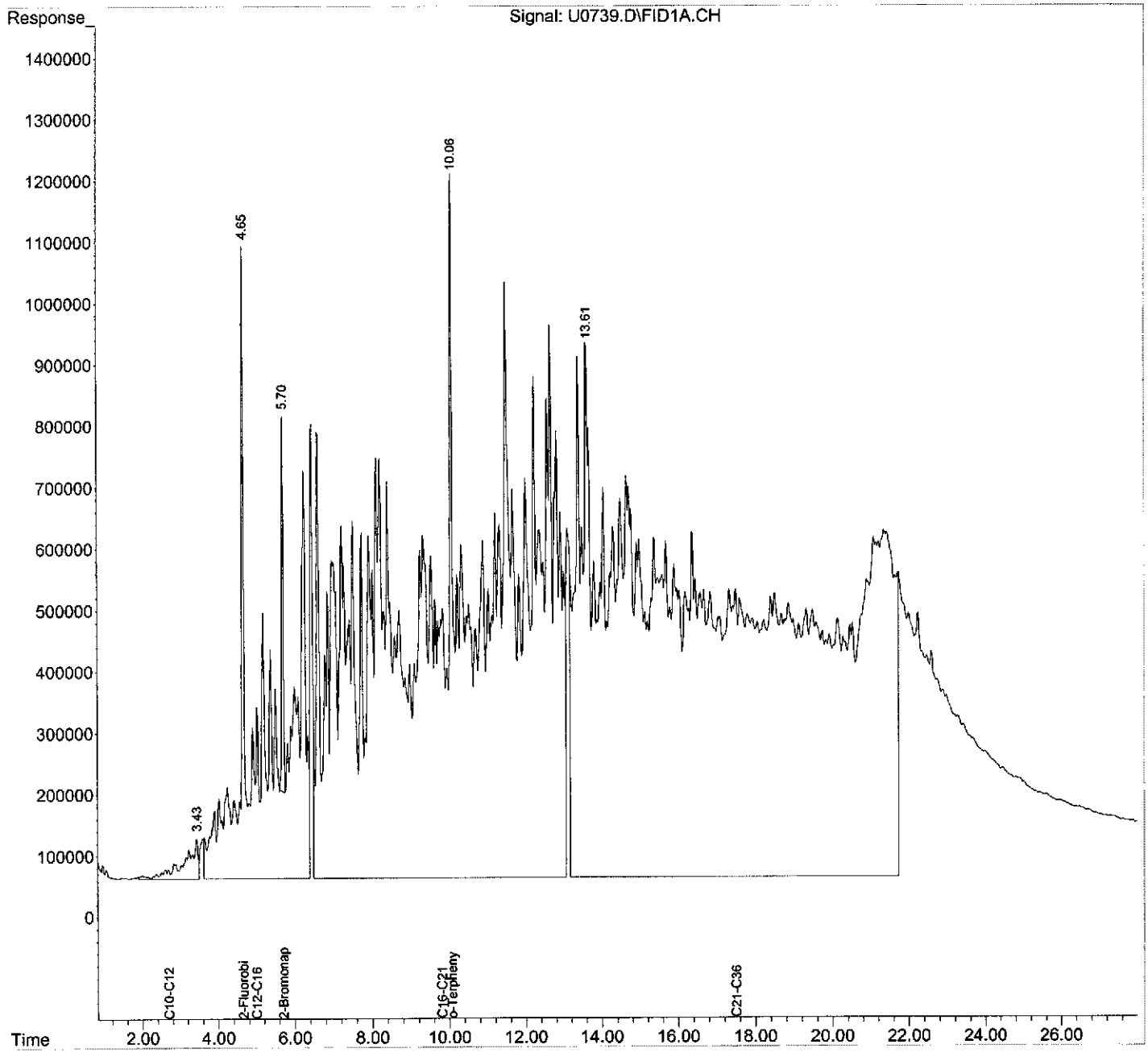
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0739.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 4:54
Operator : MJ
Sample : MW13-1/1,09269-001,S,5.00g,13.8,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:18:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



0108

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0715.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 15:14
Operator : MJ
Sample : MW13-2/1,09269-002,S,5.00g,10.6,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 16:39:02 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	11.97	14078312	28.599 ng
Spiked Amount	50.000		Recovery =	57.20%
	Target Compounds			
20) H	C9-C12	2.46	34082952	62.580 ng
21) H	C12-C16	5.60	265724099	461.850 ng
22) H	C16-C21	10.20	341823957	583.256 ng
23) H	C21-C40	19.30	724162299	1150.053 ng

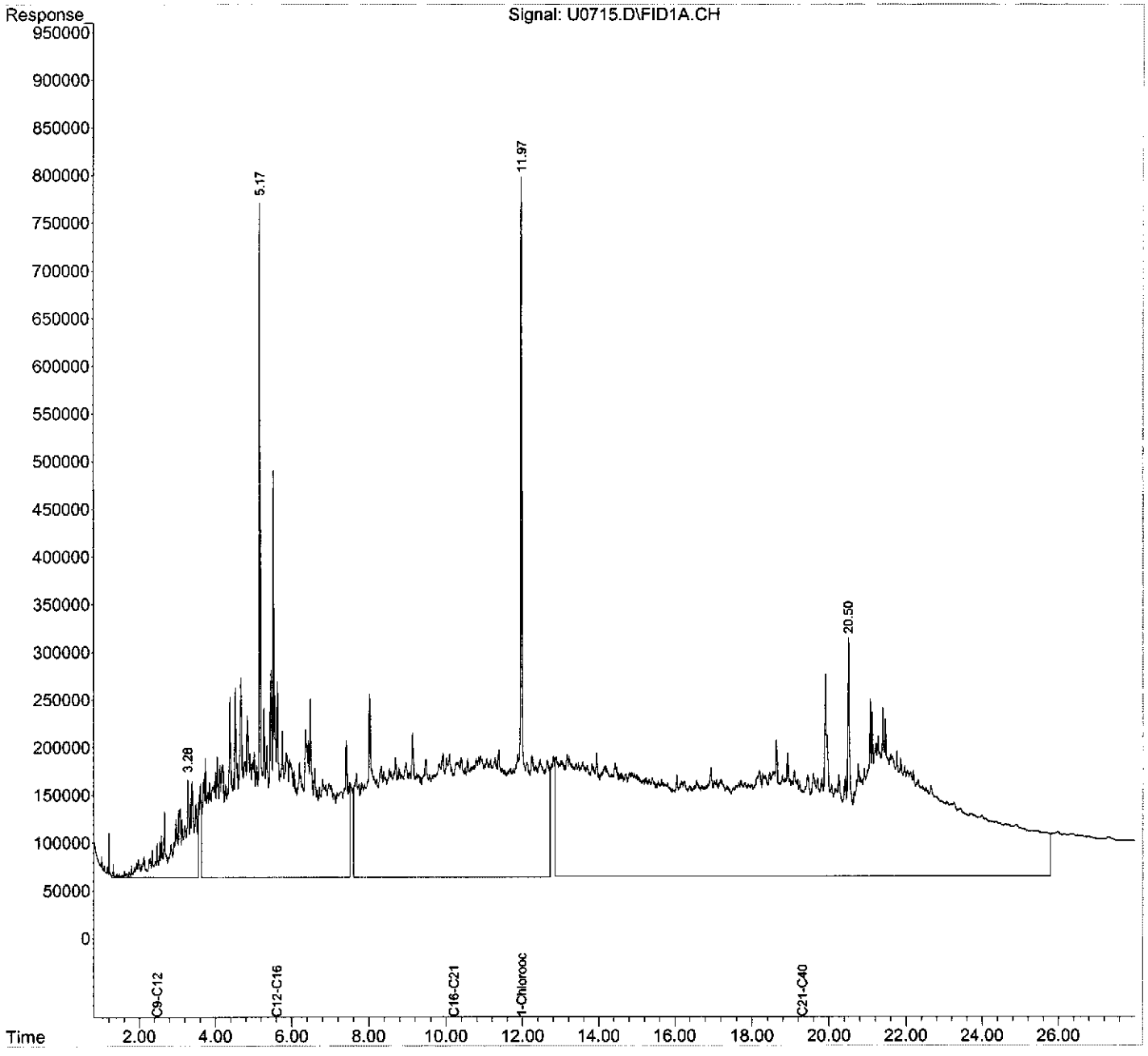
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0715.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 15:14
Operator : MJ
Sample : MW13-2/1,09269-002,S,5.00g,10.6,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 16:39:02 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0740.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 5:28
Operator : MJ
Sample : MW13-2/1,09269-002,S,5.00g,10.6,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:32:09 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.65	27116695	42.510	ng	m
Spiked Amount	50.000		Recovery =	85.02%		
2) S	2-Bromonaphthalene	5.70	16937567	38.619	ng	m
Spiked Amount	50.000		Recovery =	77.24%		
3) S	o-Terphenyl	10.05	29571643	34.988	ng	m
Spiked Amount	50.000		Recovery =	69.98%		
	Target Compounds					
22) H	C10-C12	2.70	7678633	12.316	ng	
23) H	C12-C16	5.00	106258202	154.234	ng	
24) H	C16-C21	9.80	569699681	918.409	ng	
25) H	C21-C36	17.50	849476514	969.961	ng	

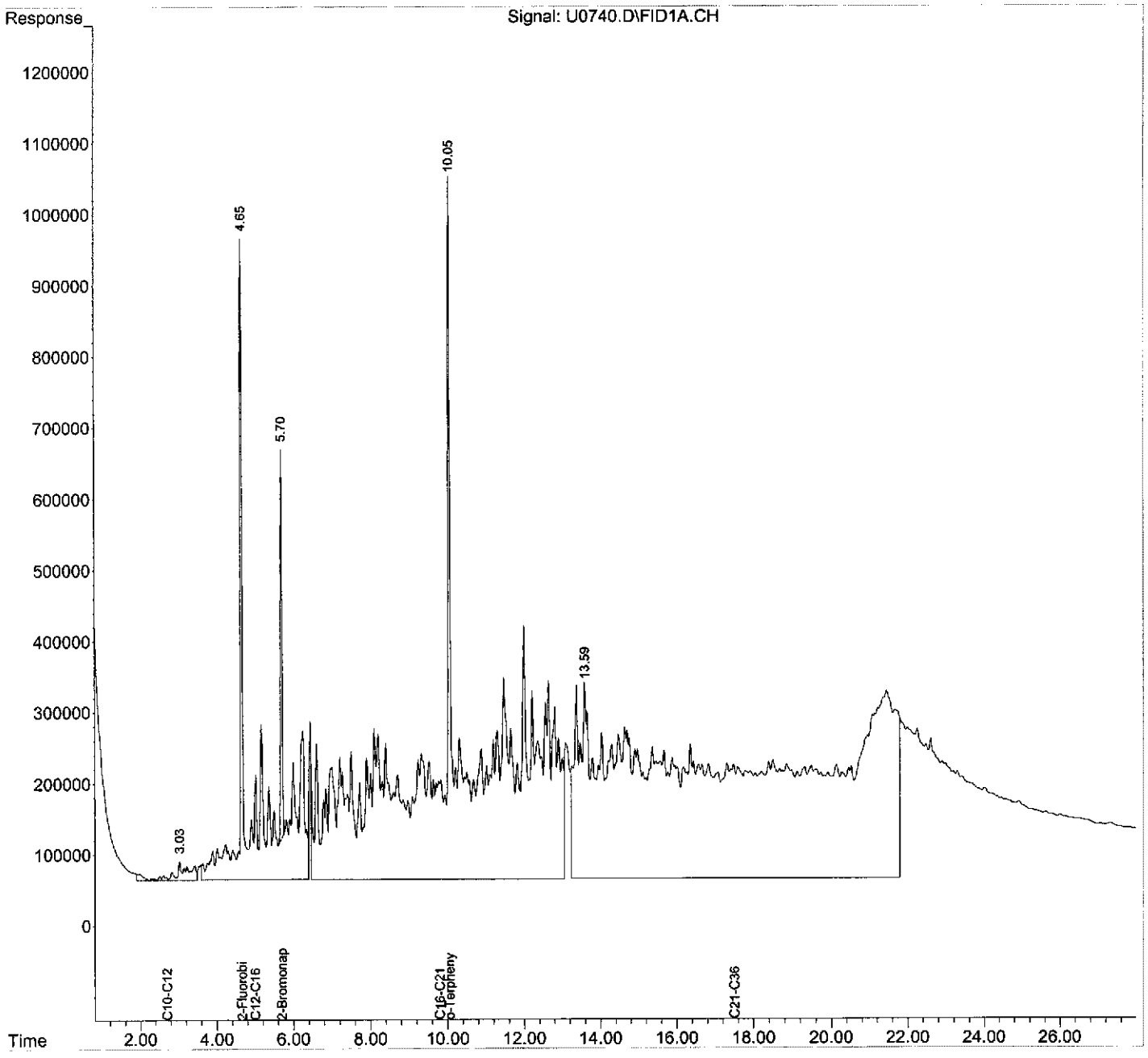
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0740.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 5:28
Operator : MJ
Sample : MW13-2/1,09269-002,S,5.00g,10.6,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:32:09 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0732.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 00:54
Operator : MJ
Sample : MW12-1/1,09269-005,S,5.00g,16.1,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,20
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:08:35 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	11.97	793404	1.612	ng	m
Spiked Amount	50.000		Recovery =	3.22%		
	Target Compounds					
20) H	C9-C12	2.46	124442425	228.488	ng	
21) H	C12-C16	5.60	487593801	847.478	ng	
22) H	C16-C21	10.20	340073791	580.270	ng	
23) H	C21-C40	19.30	155549008	247.030	ng	

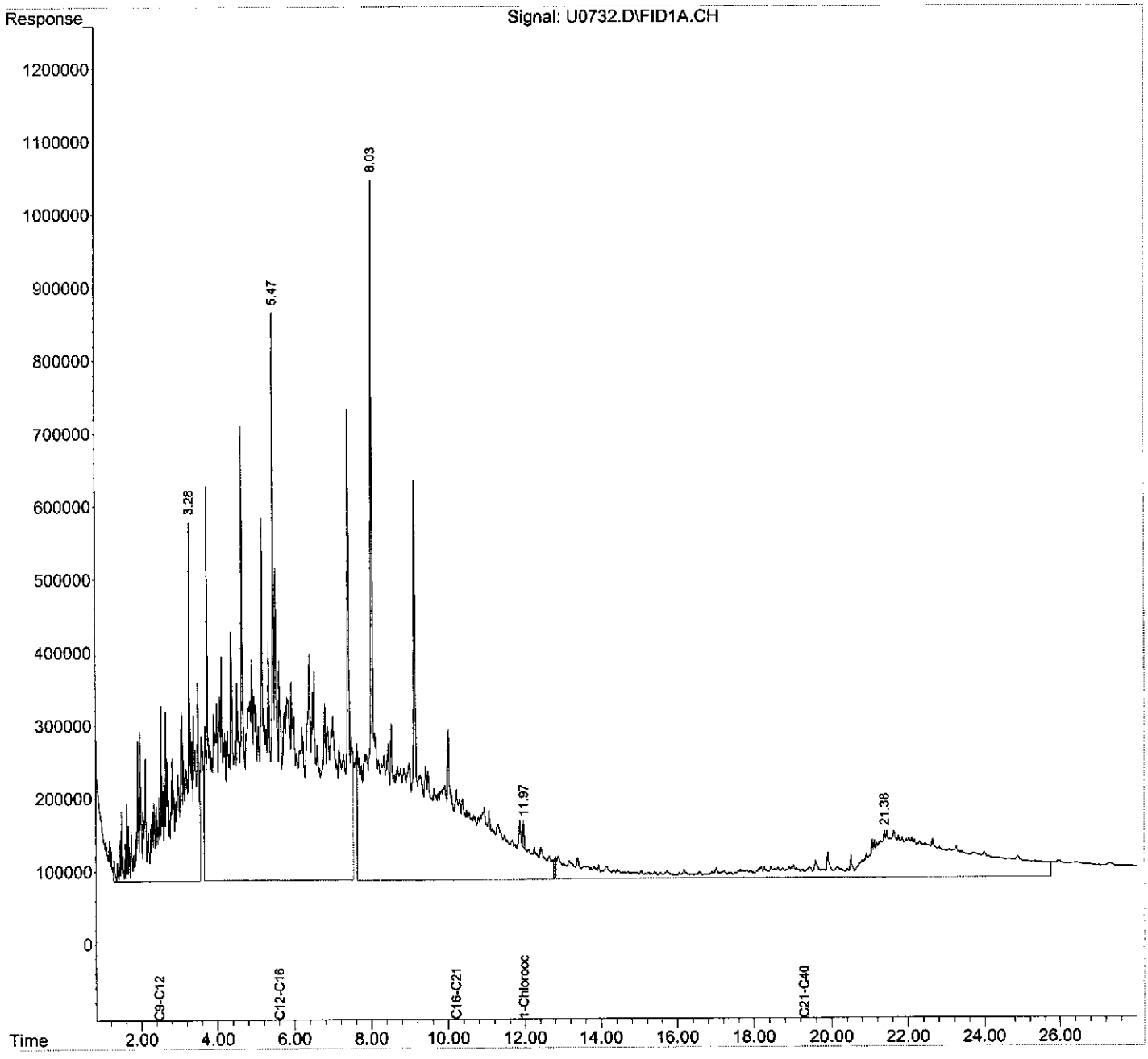
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0732.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 00:54
Operator : MJ
Sample : MW12-1/1,09269-005,S,5.00g,16.1,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,20
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:08:35 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0741.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 6:02
Operator : MJ
Sample : MW12-1/1,09269-005,S,5.00g,16.1,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 33 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:38:56 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.65	2577248	4.040	ng	m
Spiked Amount	50.000		Recovery =	8.08%		
2) S	2-Bromonaphthalene	5.70	1815056	4.138	ng	m
Spiked Amount	50.000		Recovery =	8.28%		
3) S	o-Terphenyl	10.06	5888317	6.967	ng	m
Spiked Amount	50.000		Recovery =	13.93%		
	Target Compounds					
22) H	C10-C12	2.70	158717239	254.574	ng	
23) H	C12-C16	5.00	851344706	1235.730	ng	
24) H	C16-C21	9.80	1139731702	1837.354	ng	
25) H	C21-C36	17.50	463880603	529.675	ng	

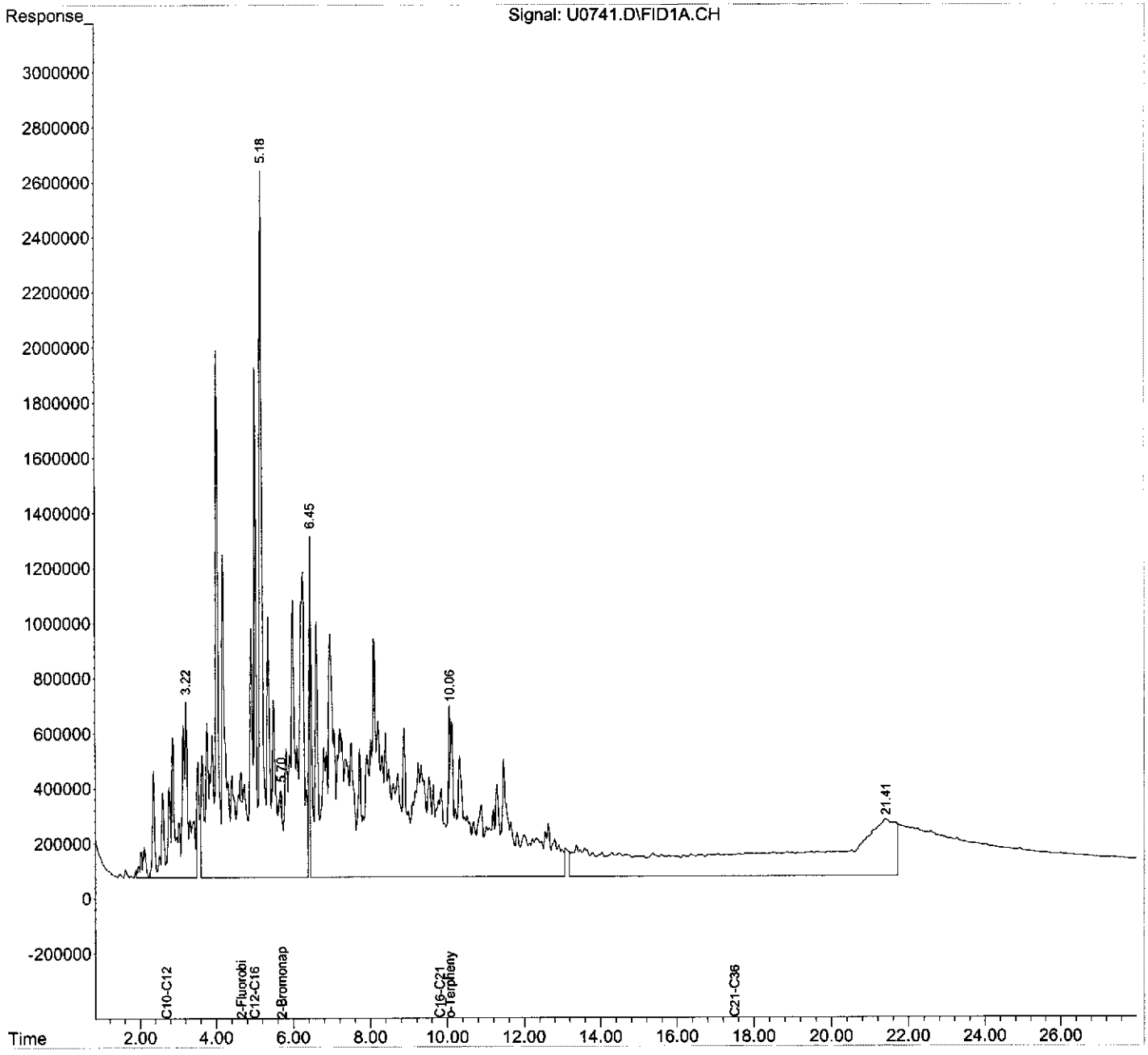
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0741.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 6:02
Operator : MJ
Sample : MW12-1/1,09269-005,S,5.00g,16.1,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 33 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:38:56 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0761.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 17:32
Operator : MJ
Sample : MW12-2/1,09269-006,S,5.00g,18.5,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:22:16 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.96	13992304	28.424 ng
Spiked Amount 50.000		Recovery =	56.85%
Target Compounds			

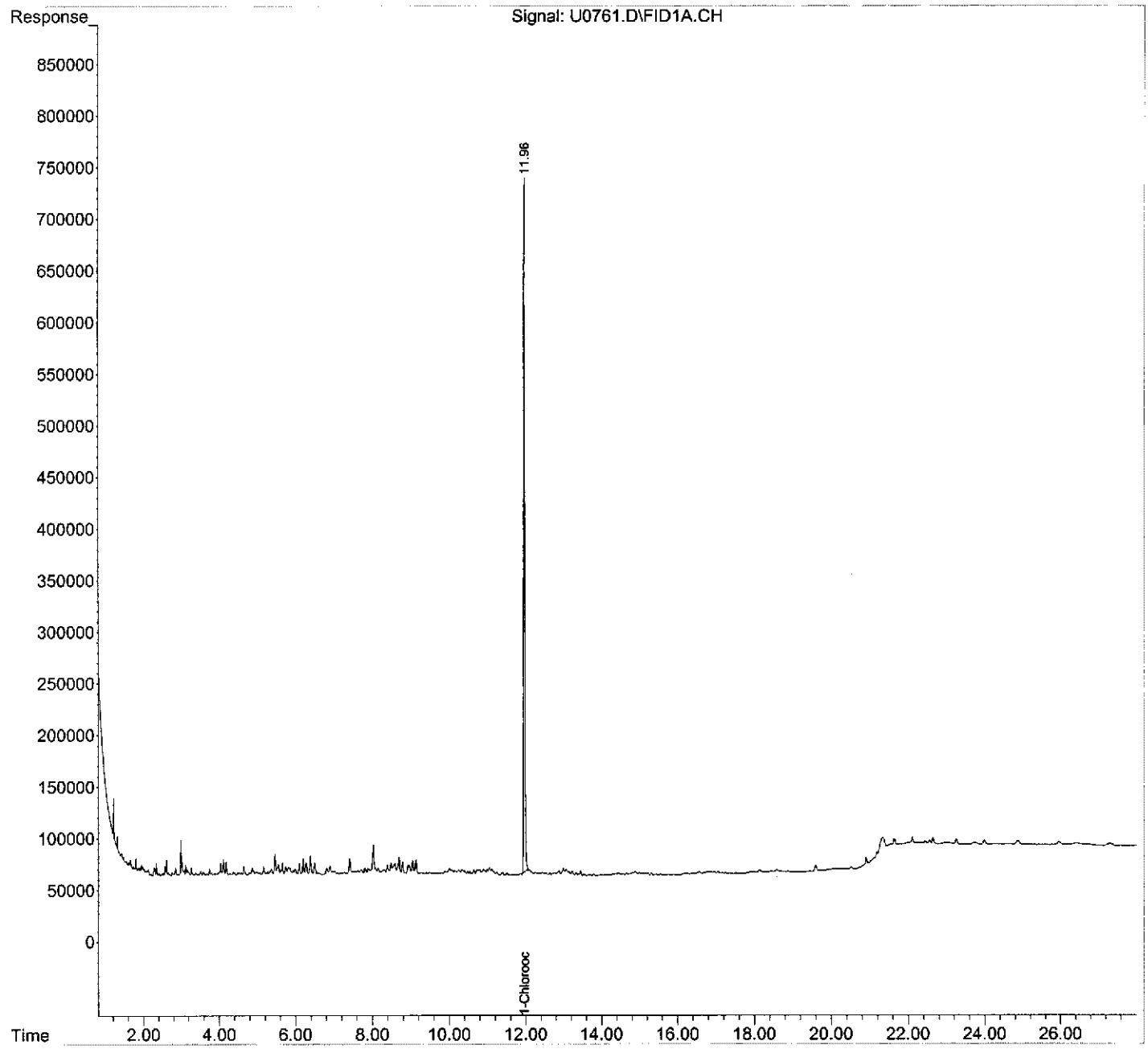
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0761.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 17:32
Operator : MJ
Sample : MW12-2/1,09269-006,S,5.00g,18.5,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:22:16 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0742.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 6:36
Operator : MJ
Sample : MW12-2/1,09269-006,S,5.00g,18.5,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:22:37 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.66	25908130	40.615 ng
Spiked Amount 50.000		Recovery =	81.23%
2) S 2-Bromonaphthalene	5.71	17502669	39.907 ng
Spiked Amount 50.000		Recovery =	79.81%
3) S o-Terphenyl	10.06	25119907	29.721 ng
Spiked Amount 50.000		Recovery =	59.44%
Target Compounds			

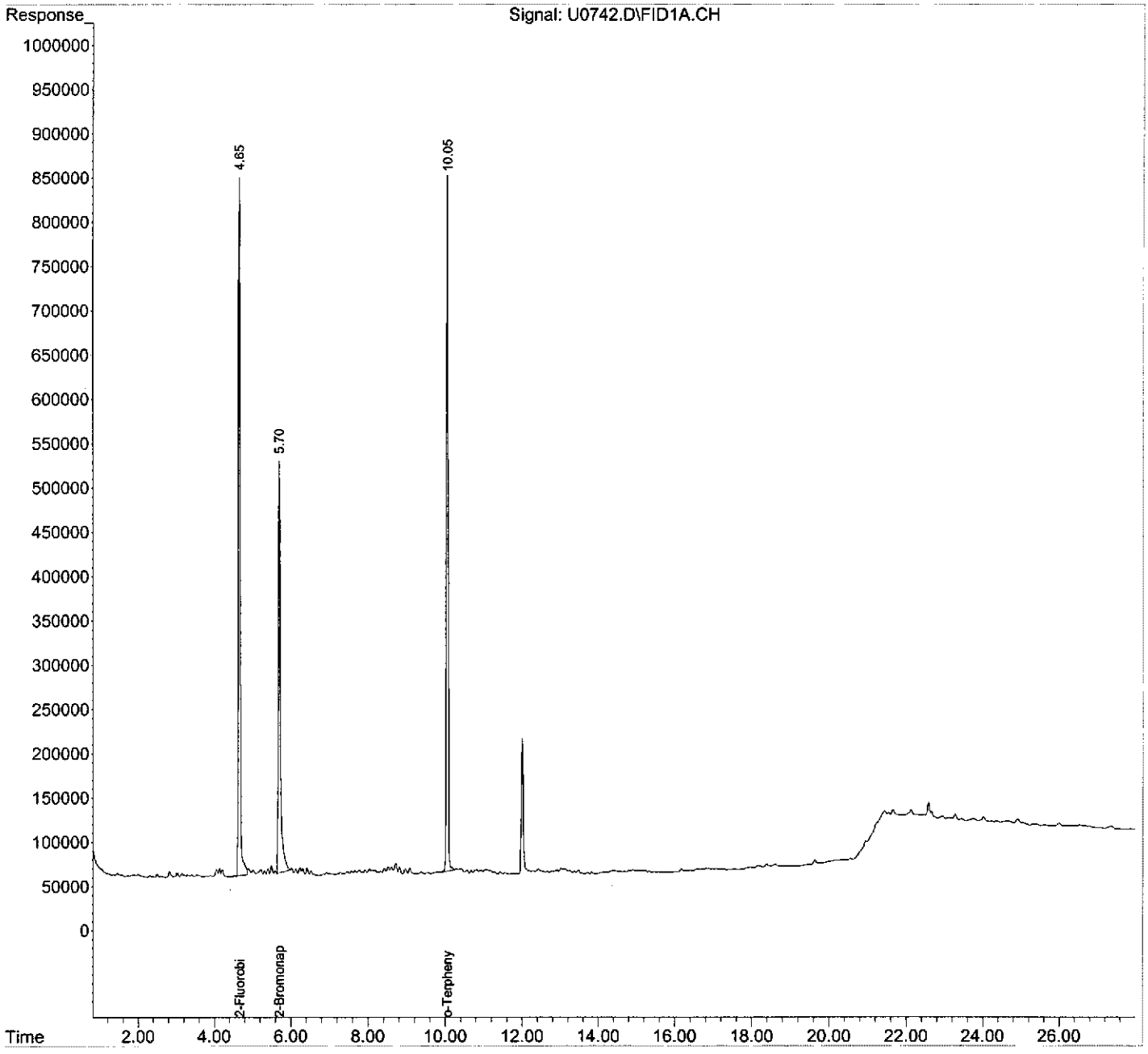
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0742.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 6:36
Operator : MJ
Sample : MW12-2/1,09269-006,S,5.00g,18.5,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:22:37 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0711.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 12:57
Operator : MJ
Sample : ALI,0920-BLK01,S,5.00g,0,09/20/10,1
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 13:34:33 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.97	15513381	31.514 ng
Spiked Amount 50.000		Recovery =	63.03%
Target Compounds			

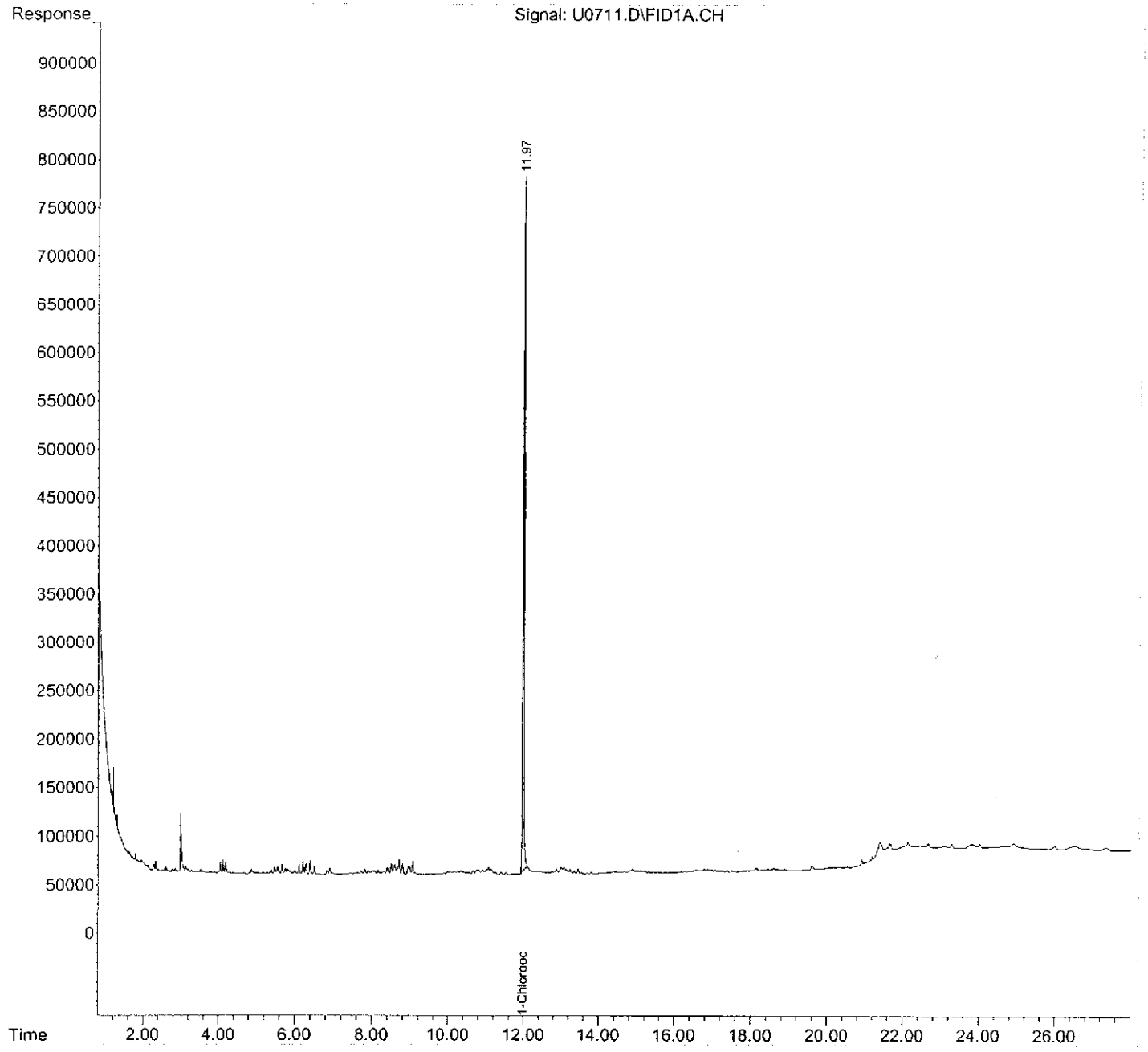
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0711.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 12:57
Operator : MJ
Sample : ALI,0920-BLK01,S,5.00g,0,09/20/10,1
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 13:34:33 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0736.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 3:11
Operator : MJ
Sample : ARO,0920-BLK01,S,5.00g,0,09/20/10,1
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:13:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.66	27886171	43.716 ng
Spiked Amount 50.000		Recovery =	87.43%
2) S 2-Bromonaphthalene	5.71	18994739	43.309 ng
Spiked Amount 50.000		Recovery =	86.62%
3) S o-Terphenyl	10.06	30750793	36.383 ng
Spiked Amount 50.000		Recovery =	72.77%
Target Compounds			

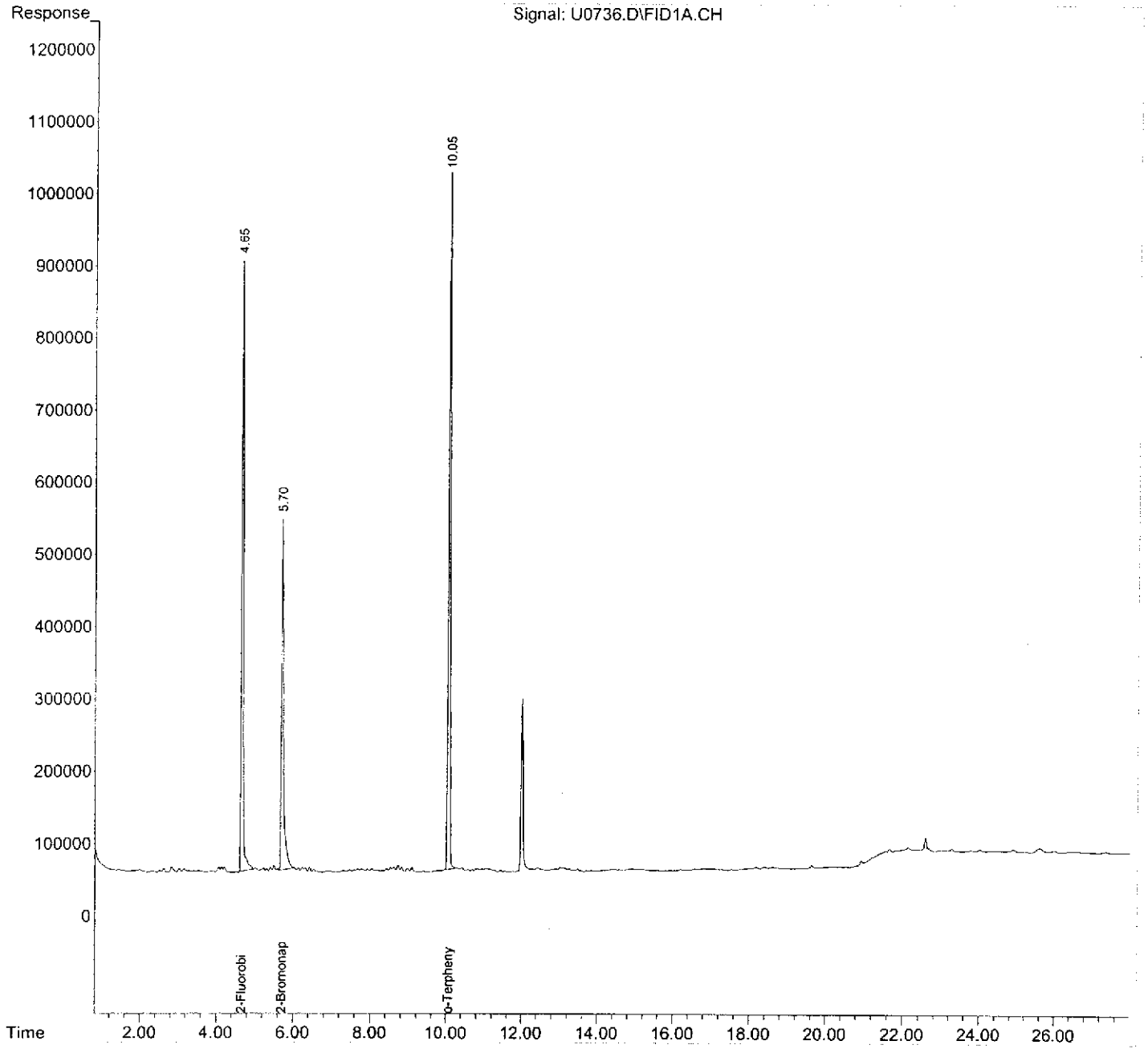
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0736.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 3:11
Operator : MJ
Sample : ARO,0920-BLK01,S,5.00g,0,09/20/10,1
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:13:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0710.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 12:24
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 13:34:20 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	12.00	122831632	249.522 ng
Spiked Amount	50.000		Recovery =	499.04%
	Target Compounds			
2)	T n-Nonane (C9)	1.31	118627210	247.031 ng
3)	T n-Decane (C10)	1.80	123603953	248.944 ng
4)	T n-Dodecane (C12)	3.18	127791322	252.434 ng
5)	T n-Tetradecane (C14)	4.88	134599487	251.871 ng
6)	T n-Hexadecane (C16)	6.92	139559172	250.066 ng
7)	T n-Octadecane (C18)	9.07	141422714	249.000 ng
8)	T n-Eicosane (C20)	11.15	144710563	247.760 ng
9)	T n-Heneicosane (C21)	12.14	137375905	245.231 ng
10)	T n-Docosane (C22)	13.10	141195059	248.031 ng
11)	T n-Tetracosane (C24)	14.91	139617449	253.904 ng
12)	T n-Hexacosane (C26)	16.59	139271679	259.461 ng
13)	T n-Octacosane (C28)	18.17	139051922	263.462 ng
14)	T n-Triacontane (C30)	19.64	144016042	265.709 ng
15)	T n-Dotriacontane (C32)	20.93	141245853	266.951 ng
16)	T n-Tetratriacontane (C34)	21.69	139100118	266.668 ng
17)	T n-Hexatriacontane (C36)	22.48	139994853	265.696 ng
18)	T n-Octatriacontane (C38)	23.47	135566271	261.450 ng
19)	T n-Tetracontane (40)	24.78	131713960	253.882 ng
20)	H C9-C12	2.46	374342950	687.330 ng
21)	H C12-C16	5.60	277964868	483.126 ng
22)	H C16-C21	10.20	429589589	733.011 ng
23)	H C21-C40	19.30	1482230756	2353.952 ng

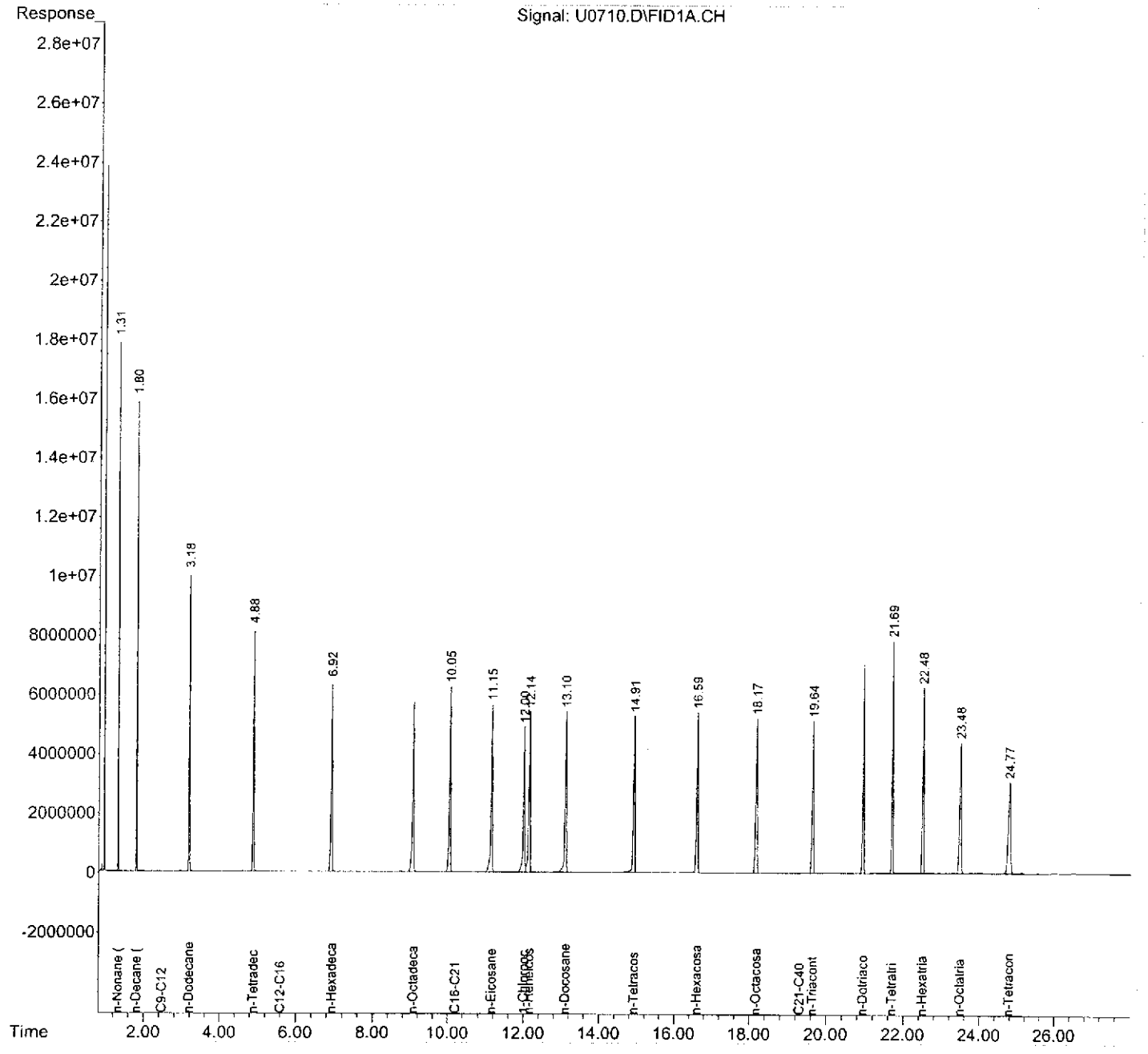
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0710.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 12:24
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 13:34:20 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0733.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 1:28
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 08:49:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	12.00	118128343	239.967 ng
Spiked Amount	50.000		Recovery =	479.93%
26) S	o-Terphenyl	10.05	143478319	240.114 ng
Spiked Amount	50.000		Recovery =	480.23%
	Target Compounds			
2) T	n-Nonane (C9)	1.31	114749033	238.955 ng
3) T	n-Decane (C10)	1.80	120314788	242.319 ng
4) T	n-Dodecane (C12)	3.17	124951022	246.824 ng
5) T	n-Tetradecane (C14)	4.88	131286874	245.672 ng
6) T	n-Hexadecane (C16)	6.91	135172046	242.205 ng
7) T	n-Octadecane (C18)	9.06	136619127	240.542 ng
8) T	n-Eicosane (C20)	11.14	139554642	238.932 ng
9) T	n-Heneicosane (C21)	12.14	133500073	238.312 ng
10) T	n-Docosane (C22)	13.09	136696867	240.129 ng
11) T	n-Tetracosane (C24)	14.91	134353331	244.330 ng
12) T	n-Hexacosane (C26)	16.59	133664123	249.014 ng
13) T	n-Octacosane (C28)	18.16	133071028	252.130 ng
14) T	n-Triacontane (C30)	19.63	137490501	253.670 ng
15) T	n-Dotriacontane (C32)	20.93	134552885	254.301 ng
16) T	n-Tetratriacontane (C34)	21.67	132150609	253.345 ng
17) T	n-Hexatriacontane (C36)	22.46	132791772	252.025 ng
18) T	n-Octatriacontane (C38)	23.45	128217165	247.277 ng
19) T	n-Tetracontane (40)	24.75	125256120	241.435 ng
20) H	C9-C12	2.46	364667654	669.565 ng
21) H	C12-C16	5.60	270451926	470.068 ng
22) H	C16-C21	10.20	416105597	710.003 ng
23) H	C21-C40	19.30	1440269236	2287.313 ng

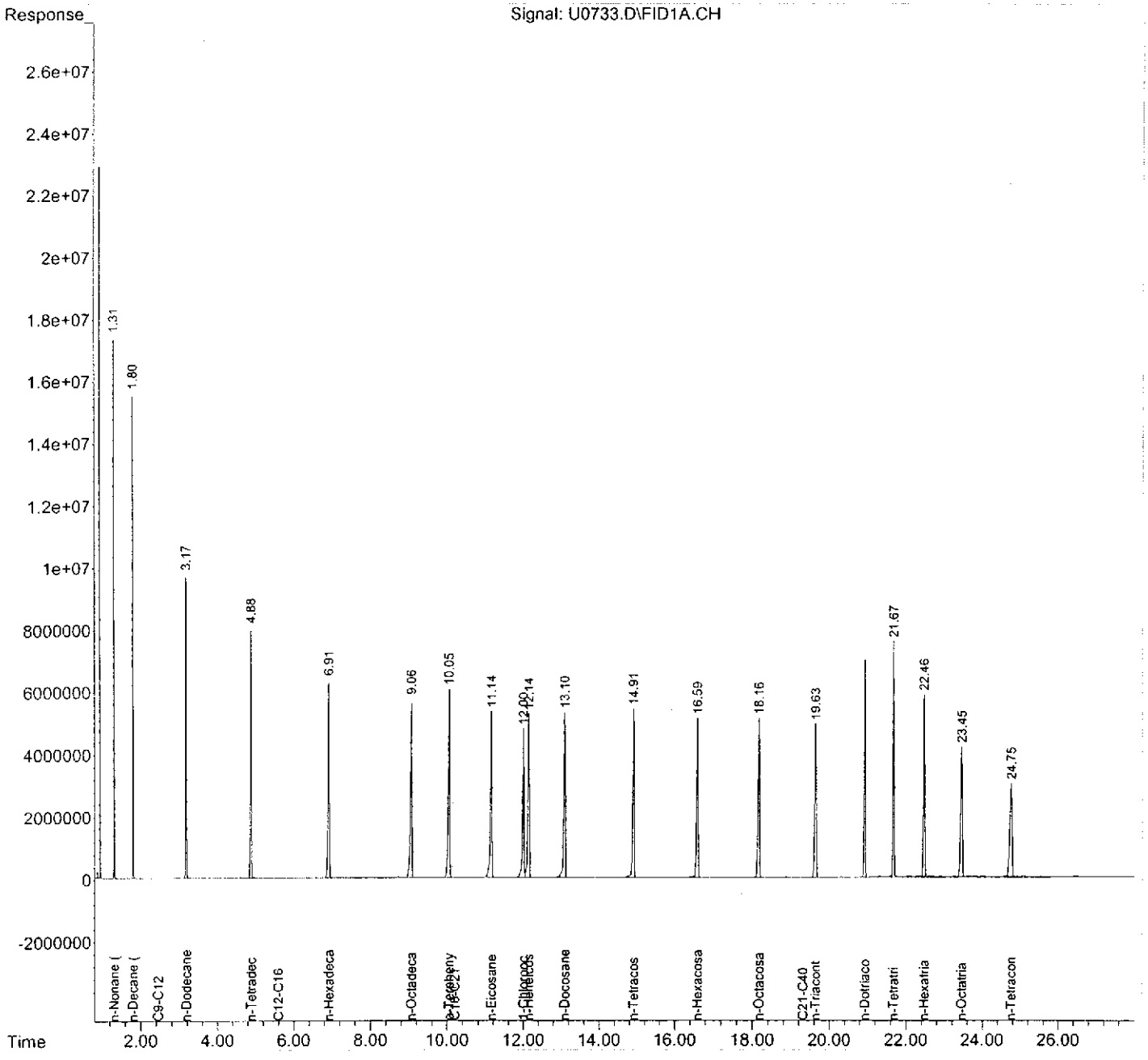
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0733.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 1:28
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 08:49:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0760.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 16:57
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:20:30 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	11.99	130351916	264.798 ng
Spiked Amount	50.000		Recovery =	529.60%
26)	S o-Terphenyl	10.04	160161672	268.034 ng
Spiked Amount	50.000		Recovery =	536.07%
	Target Compounds			
2)	T n-Nonane (C9)	1.31	127562084	265.637 ng
3)	T n-Decane (C10)	1.80	134665003	271.221 ng
4)	T n-Dodecane (C12)	3.17	141194585	278.910 ng
5)	T n-Tetradecane (C14)	4.87	148866142	278.567 ng
6)	T n-Hexadecane (C16)	6.91	153039526	274.221 ng
7)	T n-Octadecane (C18)	9.06	153507623	270.277 ng
8)	T n-Eicosane (C20)	11.14	155457325	266.159 ng
9)	T n-Heneicosane (C21)	12.14	147506168	263.315 ng
10)	T n-Docosane (C22)	13.09	150006736	263.510 ng
11)	T n-Tetracosane (C24)	14.90	146991924	267.315 ng
12)	T n-Hexacosane (C26)	16.59	145623200	271.294 ng
13)	T n-Octacosane (C28)	18.16	144856019	274.459 ng
14)	T n-Triacontane (C30)	19.63	149440949	275.718 ng
15)	T n-Dotriacontane (C32)	20.93	146256048	276.420 ng
16)	T n-Tetratriacontane (C34)	21.68	143764678	275.610 ng
17)	T n-Hexatriacontane (C36)	22.47	144312984	273.891 ng
18)	T n-Octatriacontane (C38)	23.46	139103176	268.271 ng
19)	T n-Tetracontane (40)	24.76	135851249	261.857 ng
20)	H C9-C12	2.46	418091539	767.657 ng
21)	H C12-C16	5.60	306805032	533.252 ng
22)	H C16-C21	10.20	463094266	790.180 ng
23)	H C21-C40	19.30	1543232217	2450.830 ng

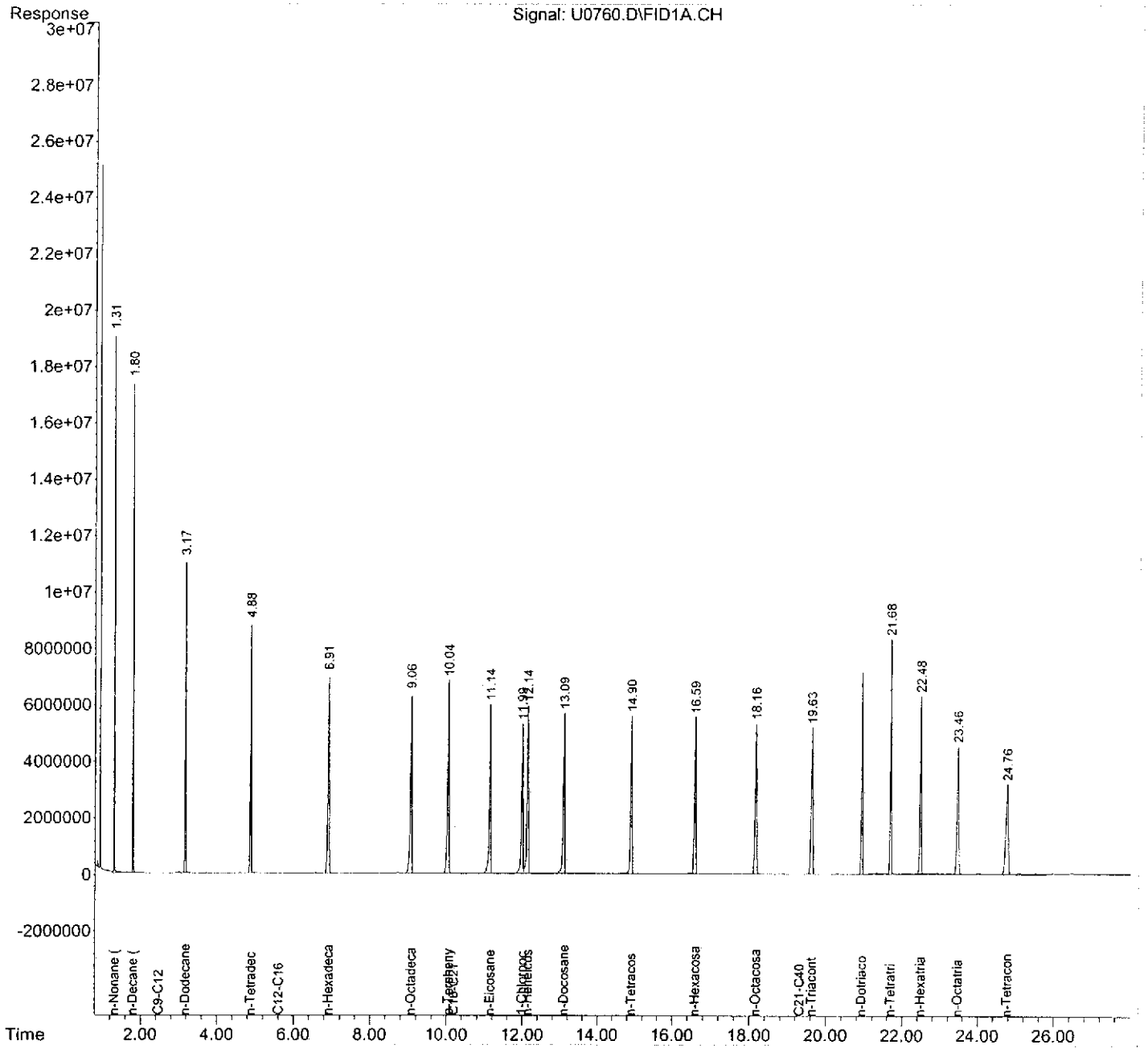
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0760.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 16:57
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:20:30 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0764.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 19:15
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:34:19 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	12.00	135695262	275.653 ng
Spiked Amount	50.000		Recovery =	551.31%
26) S	o-Terphenyl	10.05	166972118	279.432 ng
Spiked Amount	50.000		Recovery =	558.86%
	Target Compounds			
2) T	n-Nonane (C9)	1.31	137357194	286.035 ng
3) T	n-Decane (C10)	1.80	144744966	291.523 ng
4) T	n-Dodecane (C12)	3.17	150282551	296.862 ng
5) T	n-Tetradecane (C14)	4.88	156967530	293.727 ng
6) T	n-Hexadecane (C16)	6.91	160424362	287.453 ng
7) T	n-Octadecane (C18)	9.06	160073537	281.838 ng
8) T	n-Eicosane (C20)	11.15	161636041	276.738 ng
9) T	n-Heneicosane (C21)	12.14	153247801	273.564 ng
10) T	n-Docosane (C22)	13.10	155855183	273.784 ng
11) T	n-Tetracosane (C24)	14.91	152474035	277.284 ng
12) T	n-Hexacosane (C26)	16.59	151950433	283.081 ng
13) T	n-Octacosane (C28)	18.16	151817992	287.650 ng
14) T	n-Triacontane (C30)	19.63	156766093	289.233 ng
15) T	n-Dotriacontane (C32)	20.92	153495063	290.102 ng
16) T	n-Tetratriacontane (C34)	21.67	150946309	289.378 ng
17) T	n-Hexatriacontane (C36)	22.46	151595556	287.713 ng
18) T	n-Octatriacontane (C38)	23.44	146210938	281.979 ng
19) T	n-Tetracontane (40)	24.75	142847083	275.342 ng
20) H	C9-C12	2.46	441427048	810.503 ng
21) H	C12-C16	5.60	321944983	559.567 ng
22) H	C16-C21	10.20	481645243	821.834 ng
23) H	C21-C40	19.30	1606364476	2551.091 ng

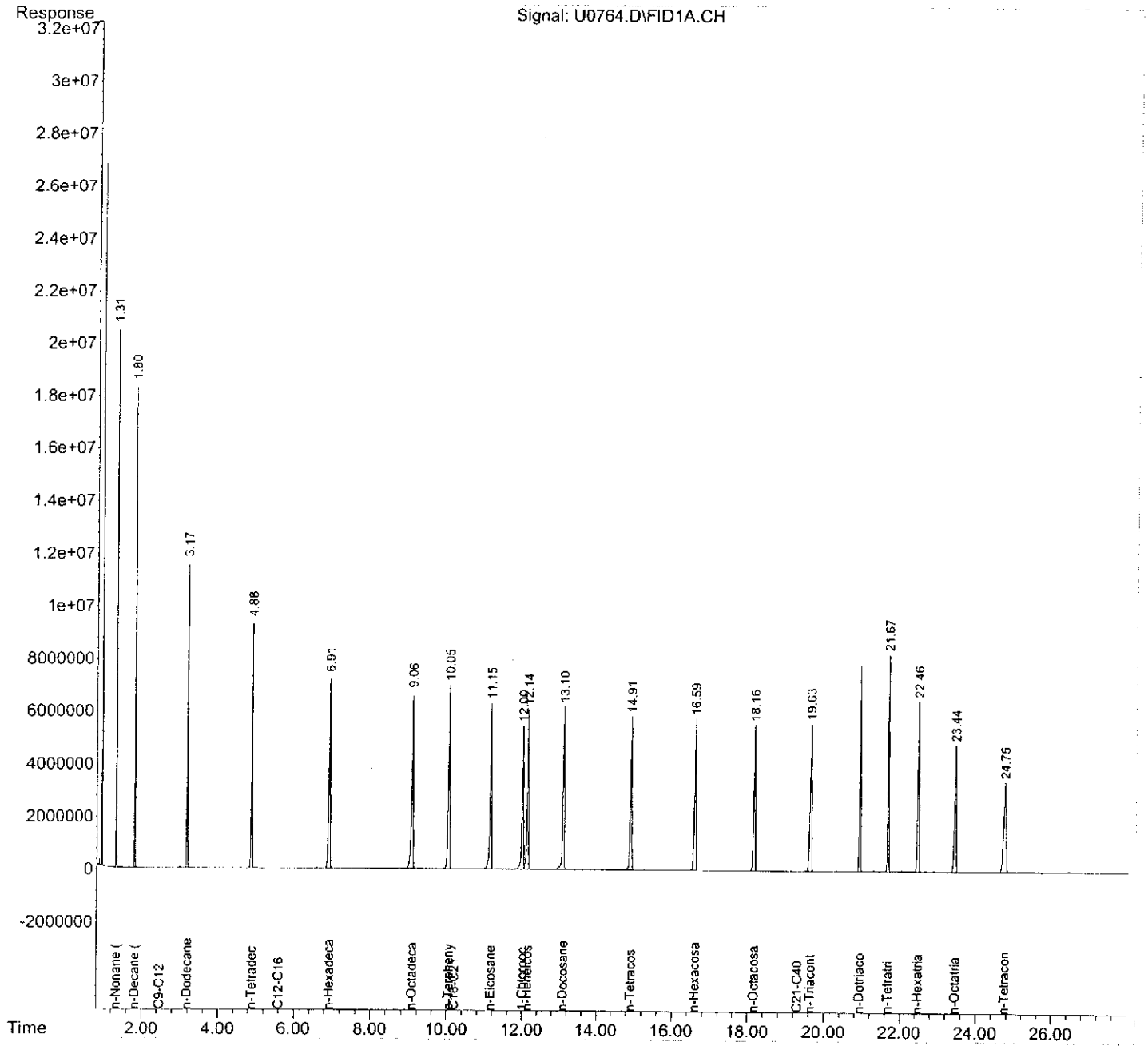
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0764.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 19:15
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:34:19 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0735.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 2:37
Operator : MJ
Sample : ARO_C_IAS_3766,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:13:42 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S 2-Fluorobiphenyl	4.67	133220747	208.846	ng	
Spiked Amount	50.000		Recovery	= 417.69%		
2)	S 2-Bromonaphthalene	5.72	109945172	250.682	ng	
Spiked Amount	50.000		Recovery	= 501.36%		
3)	S o-Terphenyl	10.09	194568330	230.206	ng	
Spiked Amount	50.000		Recovery	= 460.41%		
	Target Compounds					
4)	T 1,2,3-Trimethylbenzene	1.97	137310076	236.354	ng	
5)	T Napthalene	3.15	154366740	242.540	ng	
6)	T 2-Methylnaphthalene	4.05	158026191	249.071	ng	
7)	T Acenaphthylene	5.48	171452387	251.606	ng	
8)	T Acenaphthene	5.83	178208762	252.210	ng	m
9)	T Fluorene	6.84	181164277	257.897	ng	
10)	T Phenanthrene	8.91	194335116	254.945	ng	
11)	T Anthracene	9.03	190627931	256.263	ng	
12)	T Fluoroanthene	11.77	197276726	246.814	ng	
13)	T Pyrene	12.27	208307241	244.817	ng	
14)	T Benzo[a]anthracene	15.34	197940100	228.375	ng	
15)	T Chrysene	15.45	188224579	226.717	ng	
16)	T Benzo[b]fluoranthene	17.98	363814723	213.093	ng	m
17)	T Benzo[k]fluoranthene	17.98	363892021	213.486	ng	m
18)	T Benzo[a]pyrene	18.58	177369145	211.299	ng	
19)	T Indeno[1,2,3-cd]pyrene	20.88	338569241	206.513	ng	
20)	T Dibenz[a,h]anthracene	20.88	338569241	206.863	ng	
21)	T Benzo[g,h,i]perylene	21.13	175340371	203.839	ng	
22)	H C10-C12	2.70	294779564	472.811	ng	
23)	H C12-C16	5.00	536073517	778.113	ng	
24)	H C16-C21	9.80	778015667	1254.234	ng	
25)	H C21-C36	17.50	1464007407	1671.654	ng	

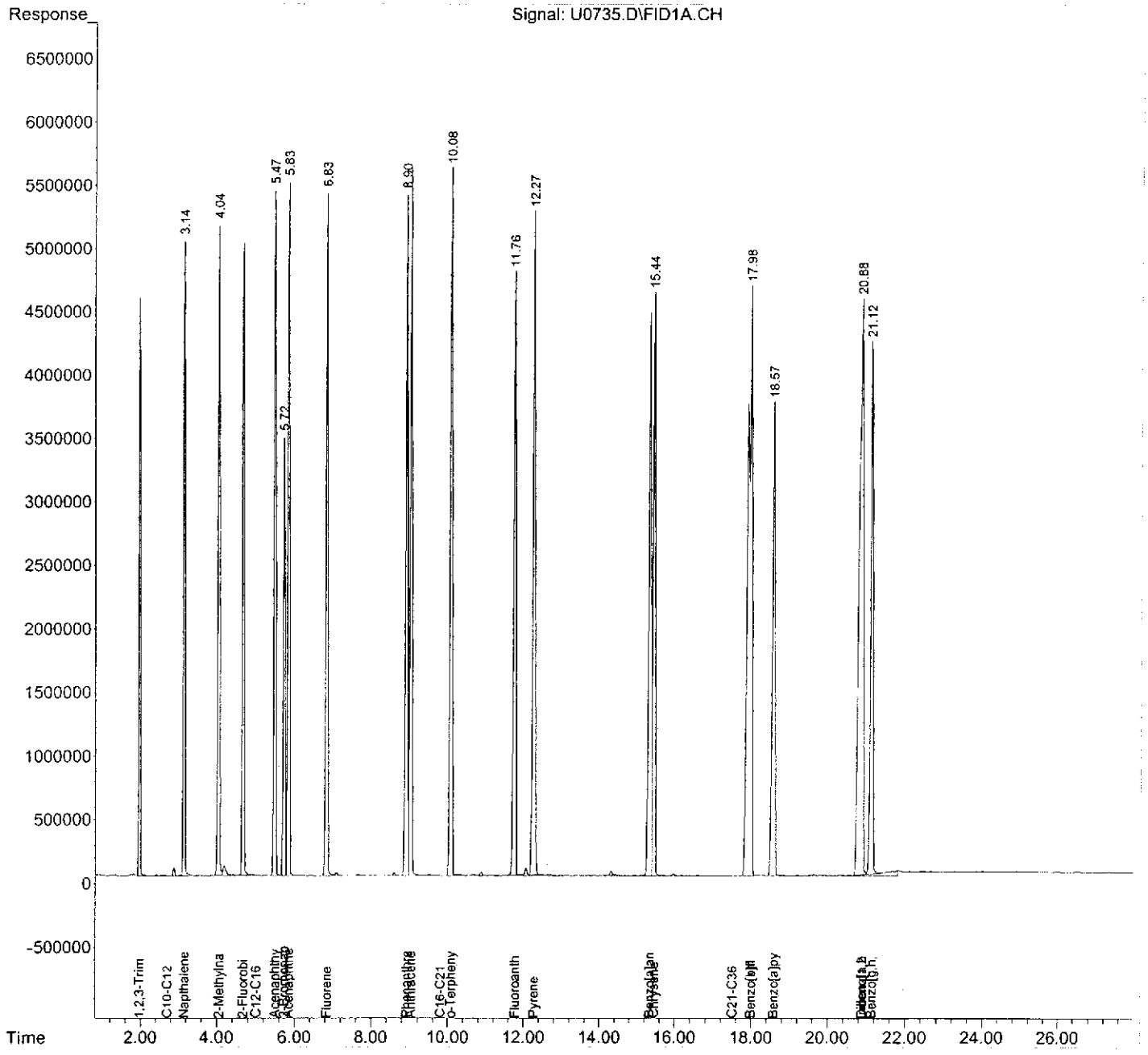
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0735.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 2:37
Operator : MJ
Sample : ARO_C_IAS_3766,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:13:42 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0757.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 15:11
Operator : MJ
Sample : ARO_C_IAS_3766,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 49 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 15:53:31 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.67	172107767	269.808	ng	
Spiked Amount	50.000		Recovery	= 539.62%		
2) S	2-Bromonaphthalene	5.72	121883982	277.903	ng	
Spiked Amount	50.000		Recovery	= 555.81%		
3) S	o-Terphenyl	10.08	209116257	247.419	ng	
Spiked Amount	50.000		Recovery	= 494.84%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.97	153876166	264.870	ng	
5) T	Napthalene	3.15	172616779	271.214	ng	
6) T	2-Methylnaphthalene	4.05	176368663	277.981	ng	
7) T	Acenaphthylene	5.48	190244616	279.184	ng	
8) T	Acenaphthene	5.84	195654484	276.900	ng	
9) T	Fluorene	6.83	199569011	284.098	ng	
10) T	Phenanthrene	8.91	210843399	276.602	ng	
11) T	Anthracene	9.02	204141071	274.429	ng	
12) T	Fluoroanthene	11.76	202746393	253.657	ng	
13) T	Pyrene	12.27	212006732	249.165	ng	
14) T	Benzo[a]anthracene	15.32	184961145	213.400	ng	m
15) T	Chrysene	15.44	189794287	228.608	ng	
16) T	Benzo[b]fluoranthene	17.97	382012164	223.752	ng	m
17) T	Benzo[k]fluoranthene	17.97	381857399	224.026	ng	m
18) T	Benzo[a]pyrene	18.58	188089433	224.070	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.88	344501736	210.131	ng	
20) T	Dibenz[a,h]anthracene	20.88	344501736	210.487	ng	
21) T	Benzo[g,h,i]perylene	21.14	189776918	220.622	ng	
22) H	C10-C12	2.70	330948664	530.824	ng	
23) H	C12-C16	5.00	572403994	830.847	ng	
24) H	C16-C21	9.80	832616095	1342.255	ng	
25) H	C21-C36	17.50	1539325183	1757.654	ng	

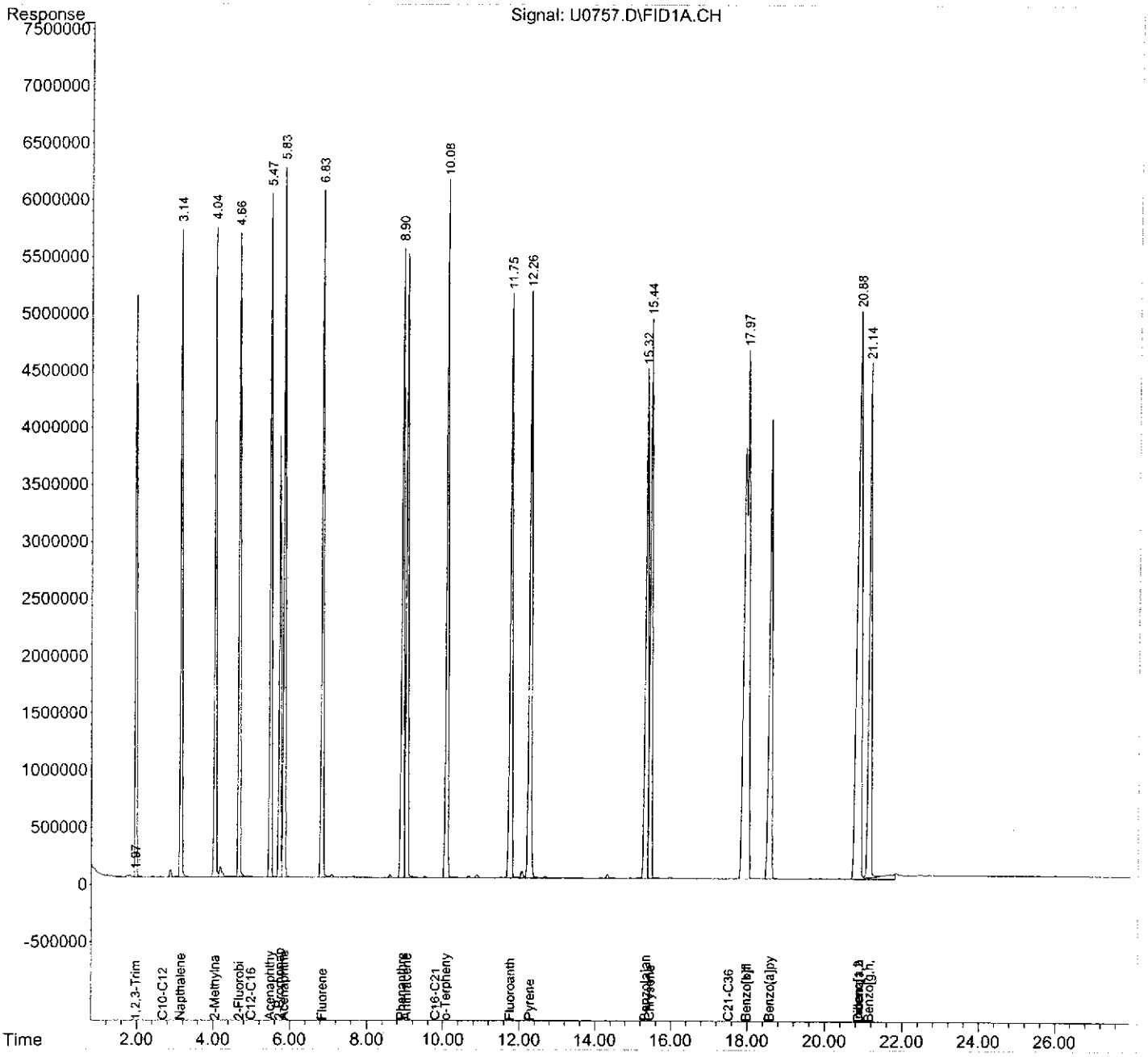
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0757.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 15:11
Operator : MJ
Sample : ARO_C_IAS_3766,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 49 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 15:53:31 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS QUALITY CONTROL

BLANK 2 RESULTS SUMMARY

Batch (Page) #: 380

Associated Lab Case for Blank 2: 09203, 09219, 09258, 09269, 09297, 09301, 09324

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Arsenic	0.250	ND
Lead	0.125	ND

Associated Sample for Blank 2:

09203-001~002; 09219-001; 09258-001~005; 09269-003~004
09297-001~002; 09301-001~002; 09324-001~005

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 380
Lab Case: 09193, 09191, 09282, 09301, 09203, 09219, 09258, 09269, 09297, 09324

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Arsenic	0.00025	ND	ND	ND	ND	ND	ND
Lead	0.000125	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 380
Lab Case: 09193, 09191, 09282, 09301, 09203, 09219, 09258, 09269, 09297, 09324

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	CCB	CCB				
Arsenic	0.00025	ND	ND				
Lead	0.000125	ND	ND				

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 380
Lab Case: 09193, 09191, 09282, 09301, 09203, 09219, 09258, 09269, 09297, 09324

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Arsenic	0.250	20.0	21.1	106	20.6	103	21.8	109	20.0	100
Lead	0.125	10.0	10.3	103	10.1	101	10.1	101	10.2	102

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 380
Lab Case: 09193, 09191, 09282, 09301, 09203, 09219, 09258, 09269, 09297, 09324

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R
Arsenic	0.250	20.0	20.0	100	20.3	102	20.2	101	20.8	104
Lead	0.125	10.0	9.93	99.3	10.2	102	9.67	96.7	10.00	100

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 380
Lab Case: 09193, 09191, 09282, 09301, 09203, 09219, 09258, 09269, 09297, 09324

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL LIMIT %R
	SOL A	SOL B	SOL A	SOL A+B	%R	
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	> LRG	> LRG	NA	NA
Calcium	100000	-	107000	103000	103	NA
Iron	100000	-	-	-	-	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2350	2350	118	NA
Titanium	2000	-	2330	2210	111	NA
Silver	-	20.0	-	20.0	100	80-120
Arsenic	-	20.0	-	22.1	111	80-120
Cadmium	-	20.0	-	21.8	109	80-120
Cobalt	-	20.0	-	22.9	115	80-120
Chromium	-	20.0	-	22.2	111	80-120
Copper	-	20.0	-	21.2	106	80-120
Manganese	-	20.0	-	23.2	116	80-120
Nickel	-	20.0	-	20.8	104	80-120
Zinc	-	20.0	-	23.0	115	80-120

%R = Percent Recovery

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 380

Lab Case: 09191, 09193, 09282, 09203, 09219, 09258, 09269, 09297, 09301, 09324

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Arsenic	48.1	1.35	106	44.0	49.5	4.66	100	44.8	75-125
Lead	49.9	3.21	106	44.0	92.0	40.8	114	44.8	75-125

SSR = Spike Sample Result
SR = Sample Result
SA = Spike Added
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 09193-004
QC Sample 1 for following samples:
09191-001~006; 09193-001~010; 09282-001~004

QC Sample 2 09301-002
QC Sample 2 for following samples:
09203-001~002; 09219-001; 09258-001~005; 09269-003~004
09297-001~002; 09301-001~002; 09324-001~005

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 380
Lab Case: 09191, 09193, 09282, 09203, 09219, 09258, 09269, 09297, 09301, 09324

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Arsenic	20	1.35	1.41	4.35	20	4.66	4.73	1.49
Lead	20	3.21	3.05	5.11	20	40.8	38.6	5.54

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 09193-004
QC Sample 1 for following samples:
09191-001~006; 09193-001~010; 09282-001~004

QC Sample 2 09301-002
QC Sample 2 for following samples:
09203-001~002; 09219-001; 09258-001~005; 09269-003~004
09297-001~002; 09301-001~002; 09324-001~005

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 380

Lab Case: 09191, 09193, 09282, 09203, 09219, 09258, 09269, 09297, 09301, 09324

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	BSS1			BSS2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Arsenic	40.0	39.3	98.3	40.0	39.9	99.8
Lead	40.0	40.9	102	40.0	41.2	103

(1) Control Limits % Recovery = 85-115%

BSS1

09191-001~006; 09193-001~010; 09282-001~004

BSS2

09203-001~002; 09219-001; 09258-001~005; 09269-003~004

09297-001~002; 09301-001~002; 09324-001~005

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 2

Batch (Page) #: 380
Lab Case: 09203, 09219, 09258, 09269, 09297, 09301, 09324

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Arsenic	4.66			51.6	44.8	105.0
Lead	40.8	38.7	5.28			

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample2 : 09301-002
QC Sample 2 for following samples:
09203-001~002; 09219-001; 09258-001~005; 09269-003~004
09297-001~002; 09301-001~002; 09324-001~005

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC / PA
Address:	2034 E. WELLINGTON RD.
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
EMAIL Address:	pecinc@aol.com
Project Manager:	D. KATZ
Sampler:	M. BROGAN
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote #:	

REPORTING INFO	
REPORT TO:	PEC / PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC / PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE
DRO (3-5 day TAT) — QAM025 (5 day TAT min.)
DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax — 2 wk/Std
24 hr* 48 hr* 72 hr* 1 wk*
Results needed by: STD

Hard Copy — 3 wk/Std
Other *call for price
STD

Rush TAT Charge **
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

EDD's
SRP. dbf format
lab approved custom EDD
NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

ANALYTICAL PARAMETERS

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	TAL #	NJ-EPH-FRACT.	TCL VOA+10	LEAD	PAH	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
MW13-1	10.5-11'	9/15/10	10:00	S	1	1	✓			*							1	
MW13-2	12.5-13'		10:10	S	1	2	✓			*							1	
MW14-1	6.67-7.17'		11:30	S	4	3		✓	✓						1	2	1	
MW14-2	11-11.5'		11:55	S	4	4		✓	✓						1	2	1	
MW 12-1	10.5-11'		2:00	S	1	5	✓			*							1	
MW 12-2	13.5-14'		2:20	S	1	6	✓			*							1	
TRIP						7		✓			2							

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by:	9/16/10	3:30	Received by:	9/16/10	1550
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments: * HOLD

Lab Case # 09269

PAGE: 1 of 1

5 COPIES - WHITE & YELLOW; CLIENT COPY - PINK

PROJECT INFORMATION

E10-09269

Case No. E10-09269 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Dick Katz	**Received**	9/16/2010 15:30
EMail	pecinc@aol.com;nagorbm@yahoo	☑ EMail EDDs	**Verbal Due** 9/30/2010
Phone	(215) 860-1231 **Fax** 1(215) 860-9988		**Report Due** 10/7/2010

Report To

2034 E. Wellington Rd.

Newtown, PA 18940

Attn: Dick Katz

Bill To

2034 E. Wellington Rd.

Newtown, PA 18940

Attn: Dick Katz

Report Format **Reduced**

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
09269-001	MW13-1	10.5 / 11	9/15/2010@10:00	Soil	mg/Kg	1
09269-002	MW13-2	12.5 / 13	9/15/2010@10:10	Soil	mg/Kg	1
09269-003	MW14-1	6.67 / 7.17	9/15/2010@11:30	Soil	mg/Kg	4
09269-004	MW14-2	11 / 11.5	9/15/2010@11:55	Soil	mg/Kg	4
09269-005	MW12-1	10.5 / 11	9/15/2010@14:00	Soil	mg/Kg	1
09269-006	MW12-2	13.5 / 14	9/15/2010@14:20	Soil	mg/Kg	1
09269-007	TRIP	n/a	9/15/2010	Aqueous	mg/L	2

Sample #	Tests	Status	QA Method
001	PAH	**Cancel**	8270C
"	NJ-EPH-Fractionated	Complete	Method 10/08 Rev 3
002	PAH	**Cancel**	8270C
"	NJ-EPH-Fractionated	Complete	Method 10/08 Rev 3
003	TCL VOA + 10	Complete	8260B
"	Lead - Pb	Complete	6020
004	TCL VOA + 10	Complete	8260B
"	Lead - Pb	Complete	6020
005	PAH	**Cancel**	8270C
"	NJ-EPH-Fractionated	Complete	Method 10/08 Rev 3
006	PAH	**Cancel**	8270C
"	NJ-EPH-Fractionated	Complete	Method 10/08 Rev 3
007	TCL VOA + 10	Complete	8260B

09/29/2010 11:48 by katie - REV 1

As per Mike Brogan, cancel PAH for sample # 1,2,5,6

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **09269** CLIENT: PEC/PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [signature] DATE 9/16/10

CORRECTIVE ACTION REQUIRED: **YES** (SEE BELOW) **NO**

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES Date/ Time: NO

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [signature] DATE 9.17.10

Laboratory Custody Chronicle

IAL Case No.
E10-09269

Client PennJersey Environmental Consulting

Project PALMER

Received On 9/16/2010@15:30

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VOA + 10	09269-003	Soil	n/a	n/a	9/18/10	Xing
"	-004	"	n/a	n/a	9/18/10	Xing
"	-007	Aqueous	n/a	n/a	9/23/10	Xing

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
NJ-EPH-Fractionated	-001	Soil	9/20/10	Archimede	9/22/10	Margaret
"	-002	"	9/20/10	Archimede	9/22/10	Margaret
"	-005	"	9/20/10	Archimede	9/22/10	Margaret
"	-006	"	9/20/10	Archimede	9/22/10	Margaret

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Lead - Pb	-003	Soil	9/17/10	Lisa	9/20/10	Wei
"	-004	"	9/17/10	Lisa	9/20/10	Wei

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E10-09270**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E10-09270

Client PennJersey Environmental Consulting

Project PALMER

Received On 9/16/2010@15:30

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
09270-001	TP10A-1	6.5/7	9/15/2010@15:15	Soil	1
09270-002	TP10A-2	8/8.5	9/15/2010@15:25	Soil	1
09270-003	TP10A-3	10/10.5	9/15/2010@15:45	Soil	1

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received three (3) soil sample(s) from PennJersey Environmental Consulting (Project: PALMER) on September 16, 2010 for the analysis of:

(3) NJ-EPH-Fractionated

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

9/24/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E10-09270

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - NJ EPH - FRACTIONATED

Lab Case Number: E10 - 09270

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike (MS)/Matrix Spike Duplicate (MSD) (as needed) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7a.	Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7b.	n-Nonane LCS/LCSD % Recoveries were found to be less than 40% but within the acceptance range of 25 - 140%.	✓	
8.	Retention Time Shift Meets Criteria (if applicable).		
9.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
10.	Fractionation Holding Time Met. If not met, list number of days exceeded for each sample:		✓
11.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

09/23/2010
Date

rev 08/10

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E10-09270

	Lab ID:	09270-001			09270-002			09270-003		
	Client ID:	TP10A-1			TP10A-2			TP10A-3		
	Depth:	6.5/7			8/8.5			10/10.5		
	Matrix:	Soil			Soil			Soil		
	Sampled Date	9/15/10			9/15/10			9/15/10		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Hydrocarbons (Units)		*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics		522		6.50	450		3.70	38.7		3.85
C12-C16 Aliphatics		1890		7.70	1960		9.10	142		2.56
C16-C21 Aliphatics		602		6.50	693		3.70	44.0		3.85
C21-C40 Aliphatics		ND		188	ND		146	ND		12.8
Total Aliphatics		3010			3100			225		
C10-C12 Aromatics		47.6		3.77	73.7		2.91	4.03	J	2.56
C12-C16 Aromatics		399		5.65	756		4.37	60.4		3.85
C16-C21 Aromatics		777		9.42	1010		7.28	81.7		6.41
C21-C36 Aromatics		24.4	J	15.1	23.6	J	11.6	ND		10.3
Total Aromatics		1250			1860			146		
Total NJ-EPH		4260			4960			371		

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Client/Project: PENNJERSEY/PALMER

Lab ID: 09270-001
Client ID: TP10A-1/
Date Received: 09/16/2010
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0762.D
Data file: U0743.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 46.9

Dilution Factor: 10
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	522		226	6.5
C12-C16 Aliphatics	1890		151	7.7
C16-C21 Aliphatics	602		226	6.5
C21-C40 Aliphatics	ND		753	188
Total Aliphatics	3010			
C10-C12 Aromatics	47.6		15.1	3.77
C12-C16 Aromatics	399		22.6	5.65
C16-C21 Aromatics	777		37.7	9.42
C21-C36 Aromatics	24.4	J	60.3	15.1
Total Aromatics	1250			
Total NJ-EPH	4260			

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Client/Project: PENNJERSEY/PALMER

Lab ID: 09270-002
Client ID: TP10A-2/
Date Received: 09/16/2010
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0763.D
Data file: U0744.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 31.3

Dilution Factor: 10
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	450		175	3.7
C12-C16 Aliphatics	1960		116	9.1
C16-C21 Aliphatics	693		175	3.7
C21-C40 Aliphatics	ND		582	146
Total Aliphatics	3100			
C10-C12 Aromatics	73.7		11.6	2.91
C12-C16 Aromatics	756		17.5	4.37
C16-C21 Aromatics	1010		29.1	7.28
C21-C36 Aromatics	23.6	J	46.6	11.6
Total Aromatics	1860			
Total NJ-EPH	4960			

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Client/Project: PENNJERSEY/PALMER

Lab ID: 09270-003
Client ID: TP10A-3/
Date Received: 09/16/2010
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0720.D
Data file: U0745.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 22.0

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	38.7		15.4	3.85
C12-C16 Aliphatics	142		10.3	2.56
C16-C21 Aliphatics	44.0		15.4	3.85
C21-C40 Aliphatics	ND		51.3	12.8
Total Aliphatics	225			
C10-C12 Aromatics	4.03	J	10.3	2.56
C12-C16 Aromatics	60.4		15.4	3.85
C16-C21 Aromatics	81.7		25.6	6.41
C21-C36 Aromatics	ND		41.0	10.3
Total Aromatics	146			
Total NJ-EPH	371			

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID:	U0711.D	Instrument ID:	GC-U
Date Extracted:	09/20/2010	Matrix:	SOIL
Date Analyzed:	09/21/2010	Time Analyzed:	12:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	0920-LCS01	09/21/2010	13:31
ALI	0920-LCSD01	09/21/2010	14:05
MW13-1/1	09269-001	09/21/2010	14:39
MW13-2/1	09269-002	09/21/2010	15:14
TP10A-3/	09270-003	09/21/2010	18:05
SBMW6_(8	09282-001	09/21/2010	18:39
SBMW7_(9	09282-002	09/21/2010	19:13
SBMW5_(1	09282-003	09/21/2010	19:47
SBMW3_(5	09282-004	09/21/2010	20:21
S-102A	09334-001	09/21/2010	20:55
S-101B	09334-003	09/21/2010	21:30
S-103A	09334-004	09/21/2010	22:03
S-104A	09334-006	09/21/2010	22:38
SBMW2(5-	09219-001	09/21/2010	23:12
SBMW7_(9	09282-2D	09/21/2010	23:46
ALI	09282-002-MS01	09/22/2010	00:20
MW12-1/1	09269-005	09/22/2010	00:54
MW12-2/1	09269-006	09/22/2010	17:32
TP10A-1/	09270-001	09/22/2010	18:06
TP10A-2/	09270-002	09/22/2010	18:41

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID: U0736.D

Instrument ID: GC-U

Date Extracted: 09/20/2010

Matrix: SOIL

Date Analyzed: 09/22/2010

Time Analyzed: 03:11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	0920-LCS01	09/22/2010	03:45
ARO	0920-LCSD01	09/22/2010	04:19
MW13-1/1	09269-001	09/22/2010	04:54
MW13-2/1	09269-002	09/22/2010	05:28
MW12-1/1	09269-005	09/22/2010	06:02
MW12-2/1	09269-006	09/22/2010	06:36
TP10A-1/	09270-001	09/22/2010	07:11
TP10A-2/	09270-002	09/22/2010	07:45
TP10A-3/	09270-003	09/22/2010	08:20
SBMW6_(8	09282-001	09/22/2010	08:53
SBMW7_(9	09282-002	09/22/2010	09:28
SBMW5_(1	09282-003	09/22/2010	10:02
SBMW3_(5	09282-004	09/22/2010	10:36
S-102A	09334-001	09/22/2010	11:11
S-101B	09334-003	09/22/2010	11:45
S-103A	09334-004	09/22/2010	12:19
S-104A	09334-006	09/22/2010	12:54
SBMW2(5-	09219-001	09/22/2010	13:28
SBMW7_(9	09282-2D	09/22/2010	14:02
ARO	09282-002-MS01	09/22/2010	14:37

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Client/Project: NA

Lab ID: 0920-BLK01
Client ID: ARO
Date Received: NA
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0711.D
Data file: U0736.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 0

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	3.00
C12-C16 Aliphatics	ND		8.00	2.00
C16-C21 Aliphatics	ND		12.0	3.00
C21-C40 Aliphatics	ND		40.0	10.0
Total Aliphatics	0			
C10-C12 Aromatics	ND		8.00	2.00
C12-C16 Aromatics	ND		12.0	3.00
C16-C21 Aromatics	ND		20.0	5.00
C21-C36 Aromatics	ND		32.0	8.00
Total Aromatics	0			
Total NJ-EPH	0			

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/17/2010 **Instrument ID:** GC-U
GC Column : DB-5

Data File: U0627.D U0626.D U0625.D U0624.D U0623.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	1.31	1.31	1.31	1.32	1.32	1.32	1.25	1.39
n-Decane (C10)	1.80	1.80	1.80	1.81	1.81	1.81	1.74	1.88
n-Dodecane (C12)	3.17	3.17	3.18	3.19	3.20	3.18	3.11	3.25
n-Tetradecane (C14)	4.87	4.88	4.89	4.90	4.92	4.89	4.82	4.96
n-Hexadecane (C16)	6.90	6.91	6.93	6.94	6.96	6.93	6.85	7.01
n-Octadecane (C18)	9.05	9.06	9.08	9.09	9.12	9.08	9.00	9.16
n-Eicosane (C20)	11.13	11.14	11.16	11.17	11.21	11.16	11.08	11.24
n-Heneicosane (C21)	12.12	12.13	12.15	12.17	12.21	12.16	12.08	12.24
n-Docosane (C22)	13.08	13.09	13.11	13.13	13.17	13.11	13.02	13.20
n-Tetracosane (C24)	14.89	14.90	14.92	14.94	14.98	14.92	14.83	15.01
n-Hexacosane (C26)	16.57	16.58	16.60	16.62	16.66	16.61	16.52	16.70
n_Octacosane (C28)	18.14	18.15	18.17	18.20	18.23	18.18	18.09	18.27
n-Triacontane (C30)	19.61	19.63	19.65	19.67	19.71	19.65	19.55	19.75
n-Dotriacontane (C32)	20.91	20.92	20.94	20.96	20.98	20.94	20.84	21.04
n-Tetratriacontane (C34)	21.65	21.67	21.69	21.71	21.72	21.69	21.59	21.79
n-Hexatriacontane (C36)	22.44	22.46	22.49	22.52	22.53	22.49	22.34	22.64
n-Octatriacontane (C38)	23.43	23.45	23.48	23.51	23.54	23.48	23.33	23.63
n-Tetracontane (40)	24.73	24.75	24.80	24.84	24.88	24.80	24.65	24.95
C9-C12	2.46	2.46	2.46	2.46	2.46	2.46	2.36	2.56
C12-C16	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
C16-C21	10.20	10.20	10.20	10.20	10.20	10.20	10.09	10.31
C21-C40	19.30	19.30	19.30	19.30	19.30	19.30	19.19	19.41

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/17/2010 **Instrument ID:** GC-U
GC Column : DB-5

Data File: U0627.D U0626.D U0625.D U0624.D U0623.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
n-Nonane (C9)	566580	509356	517721	411080	396321	480212	15.28
n-Decane (C10)	573404	521694	536411	428835	422224	496513	13.60
n-Dodecane (C12)	549570	526125	556900	449081	449505	506236	10.51
n-Tetradecane (C14)	568785	555045	592016	478759	477392	534399	9.93
n-Hexadecane (C16)	607320	581514	610954	497050	493605	558089	10.47
n-Octadecane (C18)	628840	592474	611772	501028	505703	567963	10.63
n-Eicosane (C20)	665545	606966	615398	504147	528323	584076	11.37
n-Heneicosane (C21)	658065	582776	577184	471204	511717	560189	12.83
n-Docosane (C22)	664340	585662	581396	485710	529212	569264	11.80
n-Tetracosane (C24)	648977	554808	549812	469121	526701	549884	11.82
n-Hexacosane (C26)	620787	526517	532763	474710	529090	536773	9.81
n_Octacosane (C28)	606605	509662	525189	477888	519595	527788	9.04
n-Triacontane (C30)	616630	517826	545503	497903	532171	542006	8.36
n-Dotriacontane (C32)	588776	504427	541651	491164	519523	529108	7.23
n-Tetratriacontane (C34)	575036	497852	539474	484895	510857	521623	6.91
n-Hexatriacontane (C36)	569515	507174	549717	491481	516607	526899	6.07
n-Octatriacontane (C38)	556413	502597	542209	483224	508143	518517	5.79
n-Tetracontane (40)	550414	506131	543657	484243	509549	518799	5.33
C9-C12	2139394	1735748	1713598	1304192	1276572	1633901	21.82
C12-C16	1377937	1183759	1226454	986226	979093	1150694	14.73
C16-C21	2082347	1818053	1830108	1497138	1563279	1758185	13.34
C21-C40	8374687	6579226	6015747	5146593	5367619	6296775	20.50

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/21/2010 **Instrument ID:** GC-U

Data File: U0710.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.31	1.25	1.39	480212	474509	1.19
n-Decane (C10)	1.80	1.74	1.88	496513	494416	0.42
n-Dodecane (C12)	3.18	3.11	3.25	506236	511165	0.97
n-Tetradecane (C14)	4.88	4.82	4.96	534399	538398	0.75
n-Hexadecane (C16)	6.92	6.85	7.01	558089	558237	0.03
n-Octadecane (C18)	9.07	9.00	9.16	567963	565691	0.40
n-Eicosane (C20)	11.15	11.08	11.24	584076	578842	0.90
n-Heneicosane (C21)	12.14	12.08	12.24	560189	549504	1.91
n-Docosane (C22)	13.10	13.02	13.20	569264	564780	0.79
n-Tetracosane (C24)	14.91	14.83	15.01	549884	558470	1.56
n-Hexacosane (C26)	16.59	16.52	16.70	536773	557087	3.78
n_Octacosane (C28)	18.17	18.09	18.27	527788	556208	5.38
n-Triacontane (C30)	19.64	19.55	19.75	542006	576064	6.28
n-Dotriacontane (C32)	20.93	20.84	21.04	529108	564983	6.78
n-Tetratriacontane (C34)	21.69	21.59	21.79	521623	556400	6.67
n-Hexatriacontane (C36)	22.48	22.34	22.64	526899	559979	6.28
n-Octatriacontane (C38)	23.47	23.33	23.63	518517	542265	4.58
n-Tetracontane (40)	24.78	24.65	24.95	518799	526856	1.55
C9-C12	2.46	2.36	2.56	1633901	1497372	8.36
C12-C16	5.60	5.50	5.70	1150694	1111859	3.37
C16-C21	10.20	10.09	10.31	1758185	1718358	2.27
C21-C40	19.30	19.19	19.41	6296775	5928923	5.84

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/22/2010 **Instrument ID:** GC-U

Data File: U0733.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.31	1.25	1.39	480212	458996	4.42
n-Decane (C10)	1.80	1.74	1.88	496513	481259	3.07
n-Dodecane (C12)	3.17	3.11	3.25	506236	499804	1.27
n-Tetradecane (C14)	4.88	4.82	4.96	534399	525147	1.73
n-Hexadecane (C16)	6.91	6.85	7.01	558089	540688	3.12
n-Octadecane (C18)	9.06	9.00	9.16	567963	546477	3.78
n-Eicosane (C20)	11.14	11.08	11.24	584076	558219	4.43
n-Heneicosane (C21)	12.14	12.08	12.24	560189	534000	4.68
n-Docosane (C22)	13.09	13.02	13.20	569264	546787	3.95
n-Tetracosane (C24)	14.91	14.83	15.01	549884	537413	2.27
n-Hexacosane (C26)	16.59	16.52	16.70	536773	534656	0.39
n_Octacosane (C28)	18.16	18.09	18.27	527788	532284	0.85
n-Triacontane (C30)	19.63	19.55	19.75	542006	549962	1.47
n-Dotriacontane (C32)	20.93	20.84	21.04	529108	538212	1.72
n-Tetratriacontane (C34)	21.67	21.59	21.79	521623	528602	1.34
n-Hexatriacontane (C36)	22.46	22.34	22.64	526899	531167	0.81
n-Octatriacontane (C38)	23.45	23.33	23.63	518517	512869	1.09
n-Tetracontane (40)	24.75	24.65	24.95	518799	501024	3.43
C9-C12	2.46	2.36	2.56	1633901	1458671	10.72
C12-C16	5.60	5.50	5.70	1150694	1081808	5.99
C16-C21	10.20	10.09	10.31	1758185	1664422	5.33
C21-C40	19.30	19.19	19.41	6296775	5761077	8.51

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/22/2010 **Instrument ID:** GC-U

Data File: U0760.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.31	1.25	1.39	480212	510248	6.25
n-Decane (C10)	1.80	1.74	1.88	496513	538660	8.49
n-Dodecane (C12)	3.17	3.11	3.25	506236	564778	11.56
n-Tetradecane (C14)	4.87	4.82	4.96	534399	595465	11.43
n-Hexadecane (C16)	6.91	6.85	7.01	558089	612158	9.69
n-Octadecane (C18)	9.06	9.00	9.16	567963	614030	8.11
n-Eicosane (C20)	11.14	11.08	11.24	584076	621829	6.46
n-Heneicosane (C21)	12.14	12.08	12.24	560189	590025	5.33
n-Docosane (C22)	13.09	13.02	13.20	569264	600027	5.40
n-Tetracosane (C24)	14.90	14.83	15.01	549884	587968	6.93
n-Hexacosane (C26)	16.59	16.52	16.70	536773	582493	8.52
n_Octacosane (C28)	18.16	18.09	18.27	527788	579424	9.78
n-Triacontane (C30)	19.63	19.55	19.75	542006	597764	10.29
n-Dotriacontane (C32)	20.93	20.84	21.04	529108	585024	10.57
n-Tetratriacontane (C34)	21.68	21.59	21.79	521623	575059	10.24
n-Hexatriacontane (C36)	22.47	22.34	22.64	526899	577252	9.56
n-Octatriacontane (C38)	23.46	23.33	23.63	518517	556413	7.31
n-Tetracontane (40)	24.76	24.65	24.95	518799	543405	4.74
C9-C12	2.46	2.36	2.56	1633901	1672366	2.35
C12-C16	5.60	5.50	5.70	1150694	1227220	6.65
C16-C21	10.20	10.09	10.31	1758185	1852377	5.36
C21-C40	19.30	19.19	19.41	6296775	6172929	1.97

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/22/2010 **Instrument ID:** GC-U

Data File: U0764.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.31	1.25	1.39	480212	549429	14.41
n-Decane (C10)	1.80	1.74	1.88	496513	578980	16.61
n-Dodecane (C12)	3.17	3.11	3.25	506236	601130	18.74
n-Tetradecane (C14)	4.88	4.82	4.96	534399	627870	17.49
n-Hexadecane (C16)	6.91	6.85	7.01	558089	641697	14.98
n-Octadecane (C18)	9.06	9.00	9.16	567963	640294	12.74
n-Eicosane (C20)	11.15	11.08	11.24	584076	646544	10.70
n-Heneicosane (C21)	12.14	12.08	12.24	560189	612991	9.43
n-Docosane (C22)	13.10	13.02	13.20	569264	623421	9.51
n-Tetracosane (C24)	14.91	14.83	15.01	549884	609896	10.91
n-Hexacosane (C26)	16.59	16.52	16.70	536773	607802	13.23
n_Octacosane (C28)	18.16	18.09	18.27	527788	607272	15.06
n-Triacontane (C30)	19.63	19.55	19.75	542006	627064	15.69
n-Dotriacontane (C32)	20.92	20.84	21.04	529108	613980	16.04
n-Tetratriacontane (C34)	21.67	21.59	21.79	521623	603785	15.75
n-Hexatriacontane (C36)	22.46	22.34	22.64	526899	606382	15.09
n-Octatriacontane (C38)	23.44	23.33	23.63	518517	584844	12.79
n-Tetracontane (40)	24.75	24.65	24.95	518799	571388	10.14
C9-C12	2.46	2.36	2.56	1633901	1765708	8.07
C12-C16	5.60	5.50	5.70	1150694	1287780	11.91
C16-C21	10.20	10.09	10.31	1758185	1926581	9.58
C21-C40	19.30	19.19	19.41	6296775	6425458	2.04

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2010 **Instrument ID:** GC-U
GC Column : DB-5

Data File: U0287.D U0286.D U0285.D U0284.D U0283.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
1,2,3-Trimethylbenzene	1.98	1.98	1.99	1.99	1.99	1.99	1.87	2.11
Napthalene	3.17	3.17	3.17	3.18	3.19	3.18	3.06	3.30
2-Methylnaphthalene	4.07	4.07	4.08	4.09	4.10	4.08	3.96	4.20
Acenaphthylene	5.50	5.51	5.51	5.53	5.55	5.52	5.40	5.64
Acenaphthene	5.85	5.86	5.87	5.90	5.92	5.88	5.76	6.00
Fluorene	6.85	6.86	6.87	6.90	6.92	6.88	6.76	7.00
Phenanthrene	8.92	8.94	8.95	8.98	9.01	8.96	8.84	9.08
Anthracene	9.03	9.04	9.07	9.10	9.13	9.08	8.96	9.20
Fluoroanthene	11.77	11.79	11.81	11.85	11.88	11.82	11.70	11.94
Pyrene	12.27	12.30	12.32	12.36	12.40	12.33	12.21	12.45
Benzo[a]anthracene	15.33	15.36	15.39	15.43	15.47	15.40	15.28	15.52
Chrysene	15.43	15.47	15.50	15.56	15.60	15.51	15.39	15.63
Benzo[b]fluoranthene	17.94	18.00	18.04	18.11	18.17	18.05	17.93	18.17
Benzo[k]fluoranthene	17.94	18.00	18.04	18.11	18.17	18.05	17.93	18.17
Benzo[a]pyrene	18.56	18.60	18.64	18.70	18.76	18.65	18.53	18.77
Indeno[1,2,3-cd]pyrene	20.78	20.88	20.93	20.98	21.03	20.92	20.80	21.04
Dibenz[a,h]anthracene	20.78	20.88	20.93	20.98	21.03	20.92	20.80	21.04
Benzo[g,h,i]perylene	21.10	21.14	21.18	21.23	21.28	21.19	21.07	21.31
C10-C12	2.70	2.70	2.70	2.70	2.70	2.70	2.58	2.82
C12-C16	5.00	5.00	5.00	5.00	5.00	5.00	4.88	5.12
C16-C21	9.80	9.80	9.80	9.80	9.80	9.80	9.68	9.92
C21-C36	17.50	17.50	17.50	17.50	17.50	17.50	17.38	17.62

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/05/2010 **Instrument ID:** GC-U

GC Column : DB-5

Data File: U0287.D U0286.D U0285.D U0284.D U0283.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
1,2,3-Trimethylbenzene	580299	670013	572490	610928	471021	580950	12.47
Napthalene	608716	741603	615247	674712	542017	636459	11.83
2-Methylnaphthalene	622026	748589	614754	637233	549713	634463	11.35
Acenaphthylene	644124	799469	647674	725334	590553	681431	11.98
Acenaphthene	704320	826413	662263	739916	600040	706590	12.01
Fluorene	659295	834247	673146	721794	623850	702466	11.62
Phenanthrene	669446	893945	719901	837757	690263	762262	12.89
Anthracene	733811	870487	699256	778031	637790	743875	11.75
Fluoroanthene	748200	947464	756778	854290	689741	799295	12.73
Pyrene	802176	1012709	809388	903046	727019	850868	12.92
Benzo[a]anthracene	820250	1034809	858421	898093	722094	866733	13.20
Chrysene	846859	1023286	824800	819523	636620	830218	16.51
Benzo[b]fluoranthene	1733515	2053348	1705528	1689565	1354565	1707304	14.50
Benzo[k]fluoranthene	1719451	2052935	1706114	1689565	1354565	1704526	14.50
Benzo[a]pyrene	846596	1007770	839590	832896	670266	839423	14.23
Indeno[1,2,3-cd]pyrene	1575359	1931436	1625104	1626138	1439267	1639461	10.99
Dibenz[a,h]anthracene	1564435	1928482	1625104	1626138	1439267	1636685	11.00
Benzo[g,h,i]perylene	790437	991678	839368	840588	838875	860189	8.90
C10-C12	1257195	1432721	1199925	1299792	1044982	1246923	11.37
C12-C16	2030370	2416737	1953848	2173595	1759560	2066822	11.91
C16-C21	2973594	3637321	2907568	3302579	2686728	3101558	11.99
C21-C36	7704992	8307423	6823103	6783656	5412183	7006271	15.64

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/22/2010 **Instrument ID:** GC-U

Data File: U0735.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	1.97	1.87	2.11	580950	549240	5.46
Napthalene	3.15	3.06	3.30	636459	617467	2.98
2-Methylnaphthalene	4.05	3.96	4.20	634463	632105	0.37
Acenaphthylene	5.48	5.40	5.64	681431	685810	0.64
Acenaphthene	5.83	5.76	6.00	706590	712835	0.88
Fluorene	6.84	6.76	7.00	702466	724657	3.16
Phenanthrene	8.91	8.84	9.08	762262	777340	1.98
Anthracene	9.03	8.96	9.20	743875	762512	2.51
Fluoroanthene	11.77	11.70	11.94	799295	789107	1.27
Pyrene	12.27	12.21	12.45	850868	833229	2.07
Benzo[a]anthracene	15.34	15.28	15.52	866733	791760	8.65
Chrysene	15.45	15.39	15.63	830218	752898	9.31
Benzo[b]fluoranthene	17.98	17.93	18.17	1707304	1455259	14.76
Benzo[k]fluoranthene	17.98	17.93	18.17	1704526	1455568	14.61
Benzo[a]pyrene	18.58	18.53	18.77	839423	709477	15.48
Indeno[1,2,3-cd]pyrene	20.88	20.80	21.04	1639461	1354277	17.39
Dibenz[a,h]anthracene	20.88	20.80	21.04	1636685	1354277	17.25
Benzo[g,h,i]perylene	21.13	21.07	21.31	860189	701361	18.46
C10-C12	2.70	2.58	2.82	1246923	1179118	5.44
C12-C16	5.00	4.88	5.12	2066822	2144294	3.75
C16-C21	9.80	9.68	9.92	3101558	3112063	0.34
C21-C36	17.50	17.38	17.62	7006271	5856030	16.42

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 09/22/2010 **Instrument ID:** GC-U

Data File: U0757.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	1.97	1.87	2.11	580950	615505	5.95
Napthalene	3.15	3.06	3.30	636459	690467	8.49
2-Methylnaphthalene	4.05	3.96	4.20	634463	705475	11.19
Acenaphthylene	5.48	5.40	5.64	681431	760978	11.67
Acenaphthene	5.84	5.76	6.00	706590	782618	10.76
Fluorene	6.83	6.76	7.00	702466	798276	13.64
Phenanthrene	8.91	8.84	9.08	762262	843374	10.64
Anthracene	9.02	8.96	9.20	743875	816564	9.77
Fluoroanthene	11.76	11.70	11.94	799295	810986	1.46
Pyrene	12.27	12.21	12.45	850868	848027	0.33
Benzo[a]anthracene	15.32	15.28	15.52	866733	739845	14.64
Chrysene	15.44	15.39	15.63	830218	759177	8.56
Benzo[b]fluoranthene	17.97	17.93	18.17	1707304	1528049	10.50
Benzo[k]fluoranthene	17.97	17.93	18.17	1704526	1527430	10.39
Benzo[a]pyrene	18.58	18.53	18.77	839423	752358	10.37
Indeno[1,2,3-cd]pyrene	20.88	20.80	21.04	1639461	1378007	15.95
Dibenz[a,h]anthracene	20.88	20.80	21.04	1636685	1378007	15.81
Benzo[g,h,i]perylene	21.14	21.07	21.31	860189	759108	11.75
C10-C12	2.70	2.58	2.82	1246923	1323795	6.16
C12-C16	5.00	4.88	5.12	2066822	2289616	10.78
C16-C21	9.80	9.68	9.92	3101558	3330464	7.38
C21-C36	17.50	17.38	17.62	7006271	6157301	12.12

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/21/2010

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	0920-BLK01	SOIL	63	
ALI	0920-LCS01	SOIL	73	
ALI	0920-LCSD01	SOIL	76	
MW13-1/1	09269-001	SOIL	51	
MW13-2/1	09269-002	SOIL	57	
TP10A-3/	09270-003	SOIL	47	
SBMW6_(8	09282-001	SOIL	51	
SBMW7_(9	09282-002	SOIL	42	
SBMW5_(1	09282-003	SOIL	42	
SBMW3_(5	09282-004	SOIL	61	
S-102A	09334-001	SOIL	53	
S-101B	09334-003	SOIL	79	
S-103A	09334-004	SOIL	57	
S-104A	09334-006	SOIL	66	
SBMW2(5-	09219-001	SOIL	75	
SBMW7_(9	09282-2D	SOIL	50	
ALI	09282-002-MS01	SOIL	58	
MW12-1/1	09269-005	SOIL	64	
MW12-2/1	09269-006	SOIL	57	
TP10A-1/	09270-001	SOIL	46	
TP10A-2/	09270-002	SOIL	58	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 09/22/2010

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	0920-BLK01	SOIL	87		87		73	
ARO	0920-LCS01	SOIL	90		87		77	
ARO	0920-LCSD01	SOIL	89		85		78	
MW13-1/1	09269-001	SOIL	89		89		69	
MW13-2/1	09269-002	SOIL	85		77		70	
MW12-1/1	09269-005	SOIL	81		83		139	
MW12-2/1	09269-006	SOIL	81		80		59	
TP10A-1/	09270-001	SOIL	88		99		50	
TP10A-2/	09270-002	SOIL	83		79		81	
TP10A-3/	09270-003	SOIL	109		97		64	
SBMW6_(8	09282-001	SOIL	92		90		66	
SBMW7_(9	09282-002	SOIL	80		81		56	
SBMW5_(1	09282-003	SOIL	86		82		61	
SBMW3_(5	09282-004	SOIL	90		88		58	
S-102A	09334-001	SOIL	88		90		62	
S-101B	09334-003	SOIL	97		97		68	
S-103A	09334-004	SOIL	107		105		67	
S-104A	09334-006	SOIL	90		83		71	
SBMW2(5-	09219-001	SOIL	90		89		65	
SBMW7_(9	09282-2D	SOIL	75		75		60	
ARO	09282-002-MS01	SOIL	82		97		66	

Surrogate QC Limits	Soil	Aqueous
FBP = 1-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: 0920-LCSD01
Client ID: ALI
Date Received: NA
Date Extracted: 09/20/2010
Date Analyzed: 09/21/2010
Data file: U0713.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Conc. MSD	%Rec. MSD	%RPD
n-Nonane (C9)	50	0.00	21	42	24	48	13
n-Decane (C10)	50	0.00	25	50	28	56	11
n-Dodecane (C12)	50	0.00	29	58	33	66	13
n-Tetradecane (C14)	50	0.00	33	66	37	74	11
n-Hexadecane (C16)	50	0.00	36	72	39	78	8
n-Octadecane (C18)	50	0.00	38	76	41	82	8
n-Eicosane (C20)	50	0.00	38	76	39	78	3
n-Heneicosane (C21)	50	0.00	40	80	42	84	5
n-Docosane (C22)	50	0.00	39	78	40	80	3
n-Tetracosane (C24)	50	0.00	39	78	40	80	3
n-Hexacosane (C26)	50	0.00	39	78	40	80	3
n-Octacosane (C28)	50	0.00	39	78	40	80	3
n-Triacontane (C30)	50	0.00	38	76	40	80	5
n-Dotriacontane (C32)	50	0.00	37	74	40	80	8
n-Tetratriacontane (C34)	50	0.00	39	78	41	82	5
n-Hexatriacontane (C36)	50	0.00	36	72	39	78	8
n-Octatriacontane (C38)	50	0.00	35	70	37	74	6
n-Tetracontane (40)	50	0.00	34	68	36	72	6
C9-C12	150	0.00	77	51	87	58	12
C12-C16	100	0.00	78	78	85	85	9
C16-C21	150	0.00	130	87	136	91	5
C21-C40	500	0.00	456	91	475	95	4

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 09282-002-MS01
Client ID: ALI
Date Received: NA
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0731.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C9-C12	150	0	87	58
C12-C16	100	0	83	83
C16-C21	150	0	139	93
C21-C40	500	268	625	71

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: 0920-LCSD01
Client ID: ARO
Date Received: NA
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0738.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Conc. MSD	%Rec. MSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	25	50	24	48	4
Napthalene	50	0.00	34	68	33	66	3
2-Methylnaphthalene	50	0.00	36	72	37	74	3
Acenaphthylene	50	0.00	34	68	33	66	3
Acenaphthene	50	0.00	37	74	37	74	0
Fluorene	50	0.00	36	72	37	74	3
Phenanthrene	50	0.00	32	64	33	66	3
Anthracene	50	0.00	39	78	39	78	0
Fluoroanthene	50	0.00	35	70	36	72	3
Pyrene	50	0.00	34	68	35	70	3
Benzo[a]anthracene	50	0.00	33	66	33	66	0
Chrysene	50	0.00	35	70	36	72	3
Benzo[b]fluoranthene	50	0.00	34	68	35	70	3
Benzo[k]fluoranthene	50	0.00	34	68	35	70	3
Benzo[a]pyrene	50	0.00	33	66	34	68	3
Indeno[1,2,3-cd]pyrene	50	0.00	34	68	35	70	3
Dibenz[a,h]anthracene	50	0.00	34	68	34	68	0
Benzo[g,h,i]perylene	50	0.00	33	66	34	68	3
C10-C12	100	0.00	61	61	60	60	2
C12-C16	150	0.00	115	77	114	76	1
C16-C21	250	0.00	209	84	211	84	1
C21-C36	400	0.00	297	74	301	75	1

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 09282-002-MS01
Client ID: ARO
Date Received: NA
Date Extracted: 09/20/2010
Date Analyzed: 09/22/2010
Data file: U0756.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C10-C12	100	0	52	52
C12-C16	150	0	86	57
C16-C21	250	0	185	74
C21-C36	400	0	267	67

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-U **Column:** DB-5

Surrogate RT from initial calibration :

COD 11.97

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	0920-BLK01	09/21/2010	12:57	11.97	
ALI	0920-LCS01	09/21/2010	13:31	11.97	
ALI	0920-LCSD01	09/21/2010	14:05	11.97	
MW13-1/1	09269-001	09/21/2010	14:39	11.98	
MW13-2/1	09269-002	09/21/2010	15:14	11.97	
TP10A-3/	09270-003	09/21/2010	18:05	11.97	
SBMW6_(8	09282-001	09/21/2010	18:39	11.97	
SBMW7_(9	09282-002	09/21/2010	19:13	11.97	
SBMW5_(1	09282-003	09/21/2010	19:47	11.97	
SBMW3_(5	09282-004	09/21/2010	20:21	11.97	
S-102A	09334-001	09/21/2010	20:55	11.97	
S-101B	09334-003	09/21/2010	21:30	11.97	
S-103A	09334-004	09/21/2010	22:03	11.97	
S-104A	09334-006	09/21/2010	22:38	11.97	
SBMW2(5-	09219-001	09/21/2010	23:12	11.97	
SBMW7_(9	09282-2D	09/21/2010	23:46	11.97	
ALI	09282-002-MS01	09/22/2010	00:20	11.97	
MW12-1/1	09269-005	09/22/2010	00:54	11.97	
MW12-2/1	09269-006	09/22/2010	17:32	11.96	
TP10A-1/	09270-001	09/22/2010	18:06	11.97	
TP10A-2/	09270-002	09/22/2010	18:41	11.96	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-U **Column:** DB-5

Surrogate RT from initial calibration :

FBP 4.66 **BNP** 5.71 **OTP** 10.06

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	0920-BLK01	09/22/2010	03:11	4.66		5.71		10.06	
ARO	0920-LCS01	09/22/2010	03:45	4.66		5.70		10.06	
ARO	0920-LCSD01	09/22/2010	04:19	4.66		5.70		10.06	
MW13-1/1	09269-001	09/22/2010	04:54	4.65		5.70		10.06	
MW13-2/1	09269-002	09/22/2010	05:28	4.65		5.70		10.05	
MW12-1/1	09269-005	09/22/2010	06:02	4.65		5.70		10.06	
MW12-2/1	09269-006	09/22/2010	06:36	4.66		5.71		10.06	
TP10A-1/	09270-001	09/22/2010	07:11	4.66		5.70		10.06	
TP10A-2/	09270-002	09/22/2010	07:45	4.66		5.71		10.06	
TP10A-3/	09270-003	09/22/2010	08:20	4.65		5.70		10.05	
SBMW6_(8	09282-001	09/22/2010	08:53	4.66		5.70		10.06	
SBMW7_(9	09282-002	09/22/2010	09:28	4.66		5.71		10.06	
SBMW5_(1	09282-003	09/22/2010	10:02	4.65		5.70		10.05	
SBMW3_(5	09282-004	09/22/2010	10:36	4.66		5.70		10.06	
S-102A	09334-001	09/22/2010	11:11	4.66		5.70		10.06	
S-101B	09334-003	09/22/2010	11:45	4.66		5.70		10.06	
S-103A	09334-004	09/22/2010	12:19	4.66		5.70		10.05	
S-104A	09334-006	09/22/2010	12:54	4.66		5.70		10.05	
SBMW2(5-	09219-001	09/22/2010	13:28	4.66		5.70		10.05	
SBMW7_(9	09282-2D	09/22/2010	14:02	4.66		5.70		10.05	
ARO	09282-002-MS01	09/22/2010	14:37	4.66		5.81		10.05	

Surrogate QC Limits

FBP = 1-Fluorobiphenyl (± 0.10 Minutes)

BNP = 2-Bromonaphthalene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0762.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 18:06
Operator : MJ
Sample : TP10A-1/,09270-001,S,5.00g,46.9,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 11 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:30:11 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	1-Chlorooctadecane	11.97	1137910	2.312	ng	m
Spiked Amount	50.000		Recovery =	4.62%		
	Target Compounds					
20) H	C9-C12	2.46	75537295	138.694	ng	
21) H	C12-C16	5.60	288400690	501.264	ng	
22) H	C16-C21	10.20	93693316	159.869	ng	

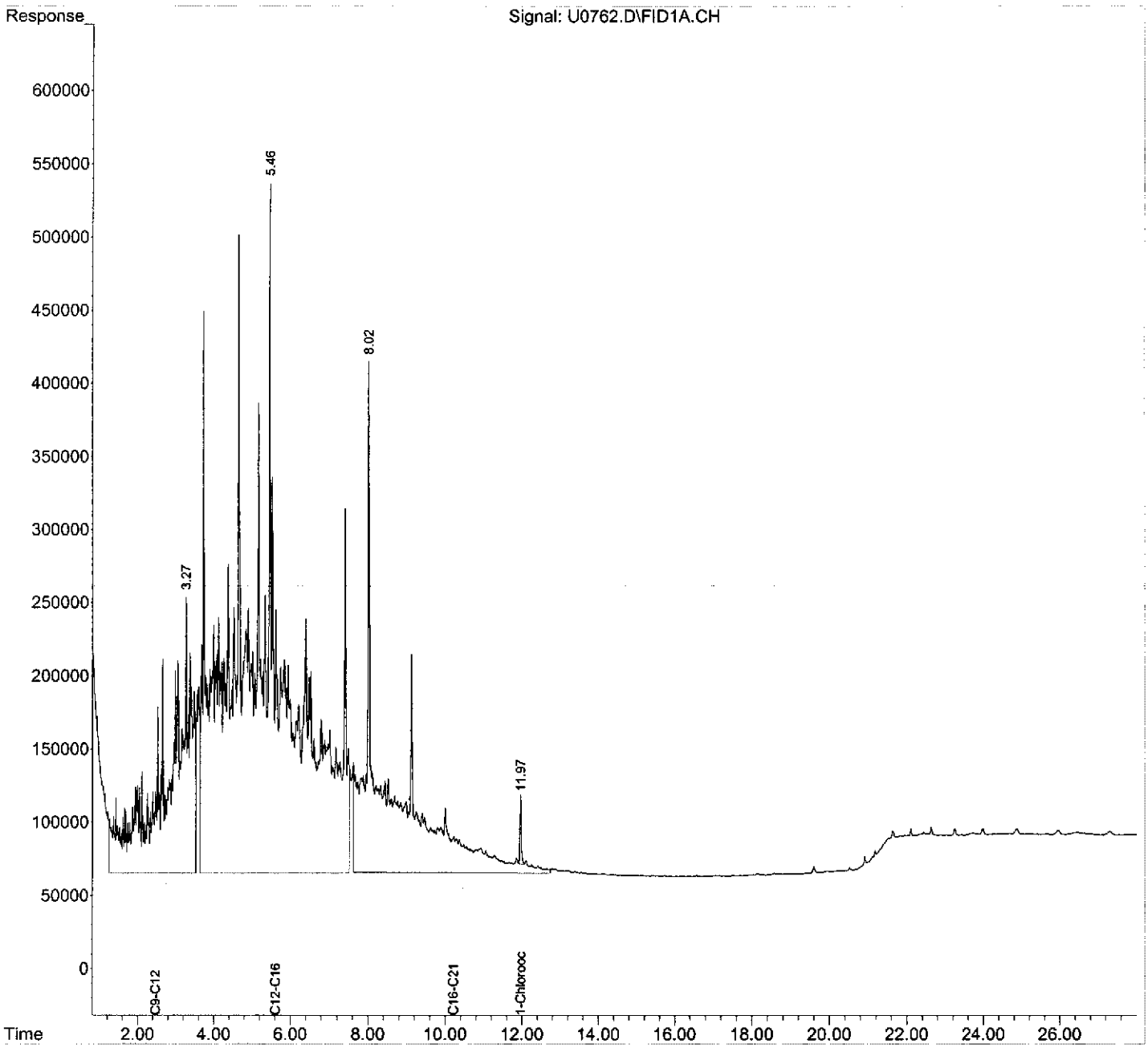
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0762.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 18:06
Operator : MJ
Sample : TP10A-1/,09270-001,S,5.00g,46.9,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 11 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:30:11 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0743.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 7:11
Operator : MJ
Sample : TP10A-1/,09270-001,S,5.00g,46.9,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:41:11 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.66	28097031	44.047	ng	m
Spiked Amount	50.000		Recovery =	88.09%		
2) S	2-Bromonaphthalene	5.70	21745765	49.582	ng	m
Spiked Amount	50.000		Recovery =	99.16%		
3) S	o-Terphenyl	10.06	21201892	25.085	ng	m
Spiked Amount	50.000		Recovery =	50.17%		
	Target Compounds					
22) H	C10-C12	2.70	78760827	126.328	ng	
23) H	C12-C16	5.00	729447323	1058.795	ng	
24) H	C16-C21	9.80	1279062051	2061.967	ng	
25) H	C21-C36	17.50	56691842	64.733	ng	

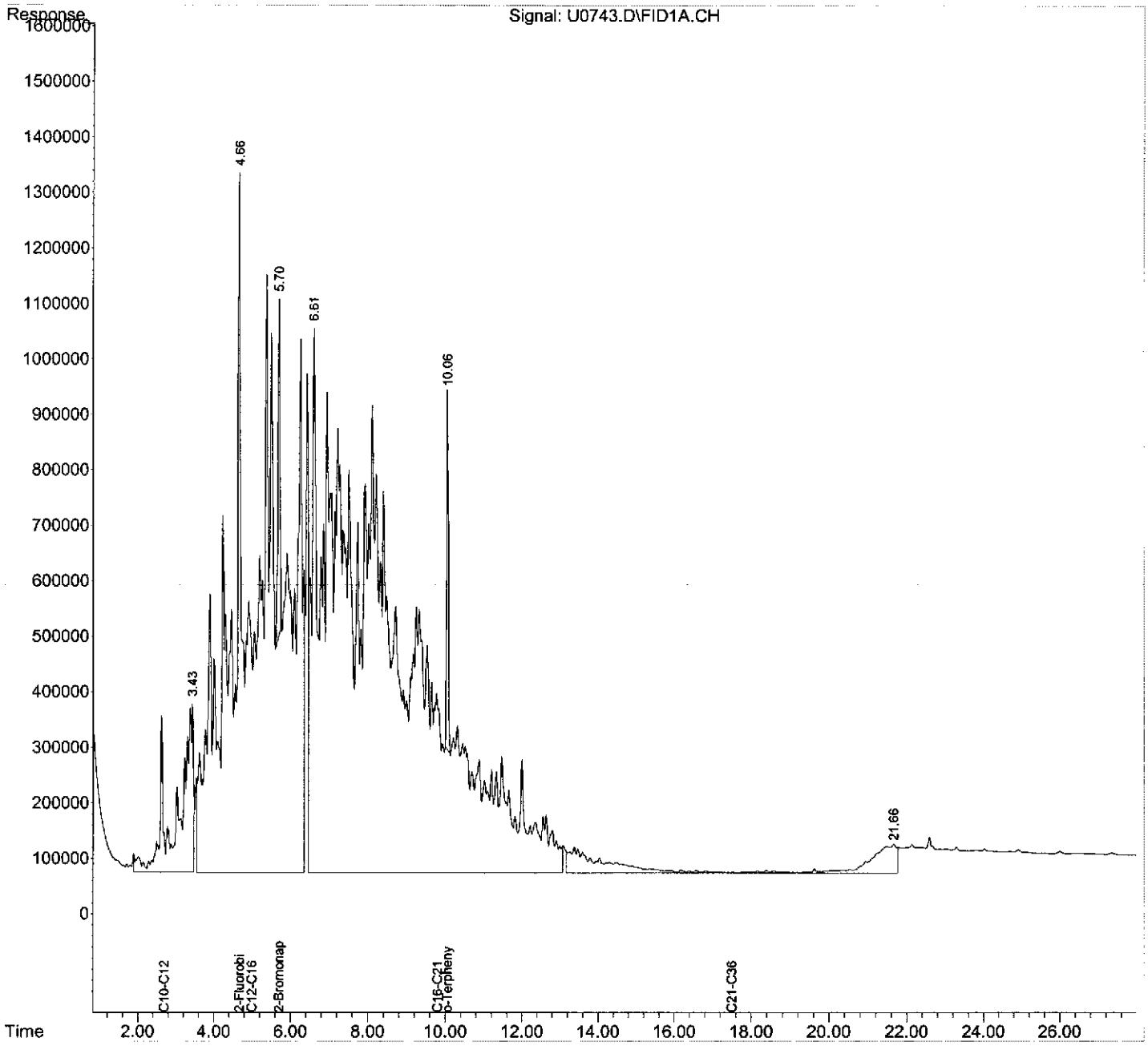
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0743.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 7:11
Operator : MJ
Sample : TP10A-1/,09270-001,S,5.00g,46.9,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:41:11 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0763.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 18:41
Operator : MJ
Sample : TP10A-2/,09270-002,S,5.00g,31.3,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 12 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:33:07 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1-Chlorooctadecane	11.96	1434590	2.914	ng	m
Spiked Amount	50.000		Recovery =	5.83%		
Target Compounds						
20) H	C9-C12	2.46	84165427	154.536	ng	
21) H	C12-C16	5.60	388045418	674.455	ng	
22) H	C16-C21	10.20	139440867	237.929	ng	

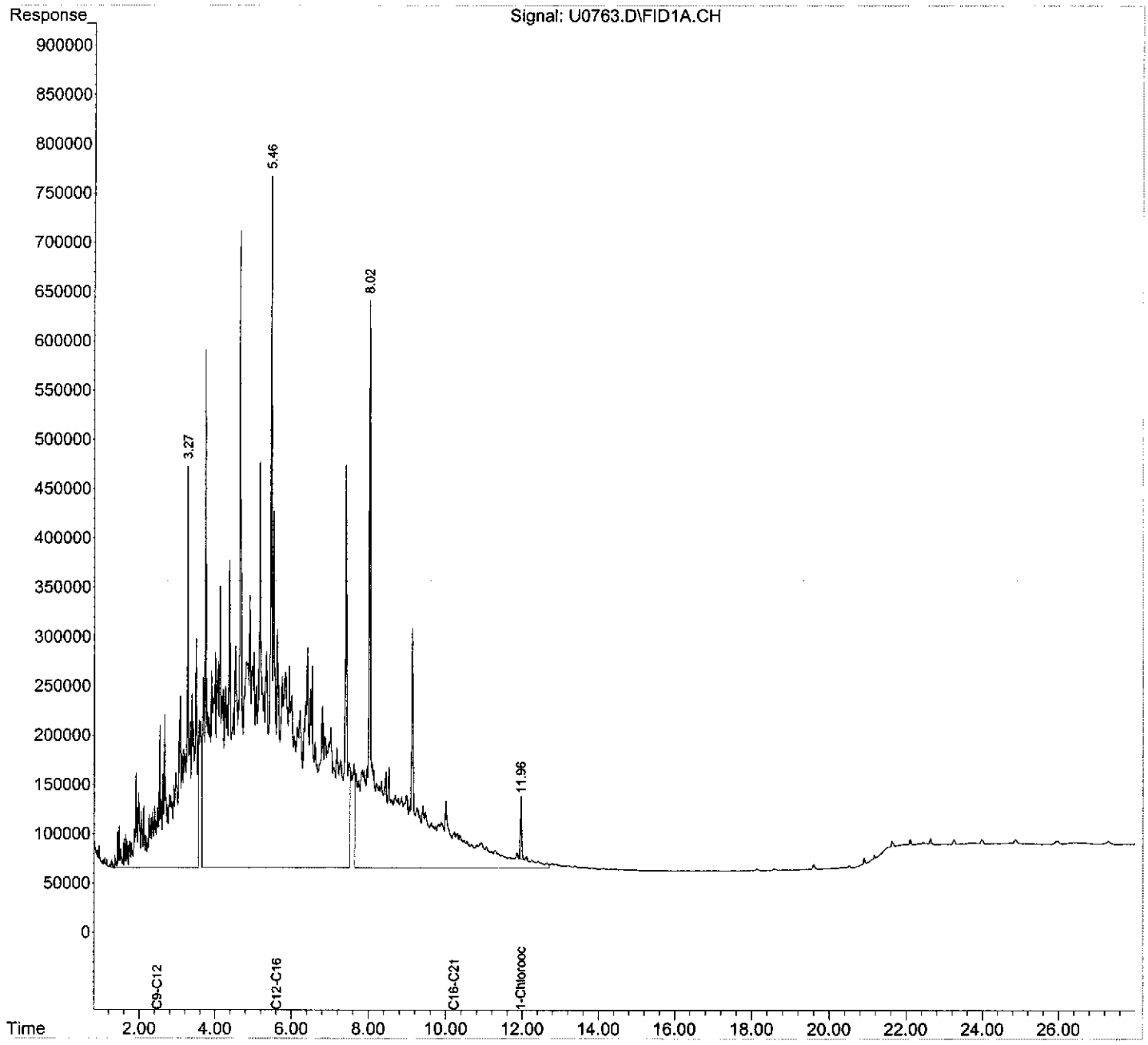
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0763.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 18:41
Operator : MJ
Sample : TP10A-2/,09270-002,S,5.00g,31.3,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,10
ALS Vial : 12 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:33:07 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0744.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 7:45
Operator : MJ
Sample : TP10A-2/,09270-002,S,5.00g,31.3,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:41:58 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S 2-Fluorobiphenyl	4.66	26607729	41.712	ng	m
Spiked Amount	50.000		Recovery =	83.42%		
2)	S 2-Bromonaphthalene	5.71	17368997	39.602	ng	m
Spiked Amount	50.000		Recovery =	79.20%		
3)	S o-Terphenyl	10.06	34258154	40.533	ng	m
Spiked Amount	50.000		Recovery =	81.07%		
	Target Compounds					
22)	H C10-C12	2.70	157888824	253.245	ng	
23)	H C12-C16	5.00	1790175872	2598.447	ng	
24)	H C16-C21	9.80	2149217212	3464.738	ng	
25)	H C21-C36	17.50	71130454	81.219	ng	

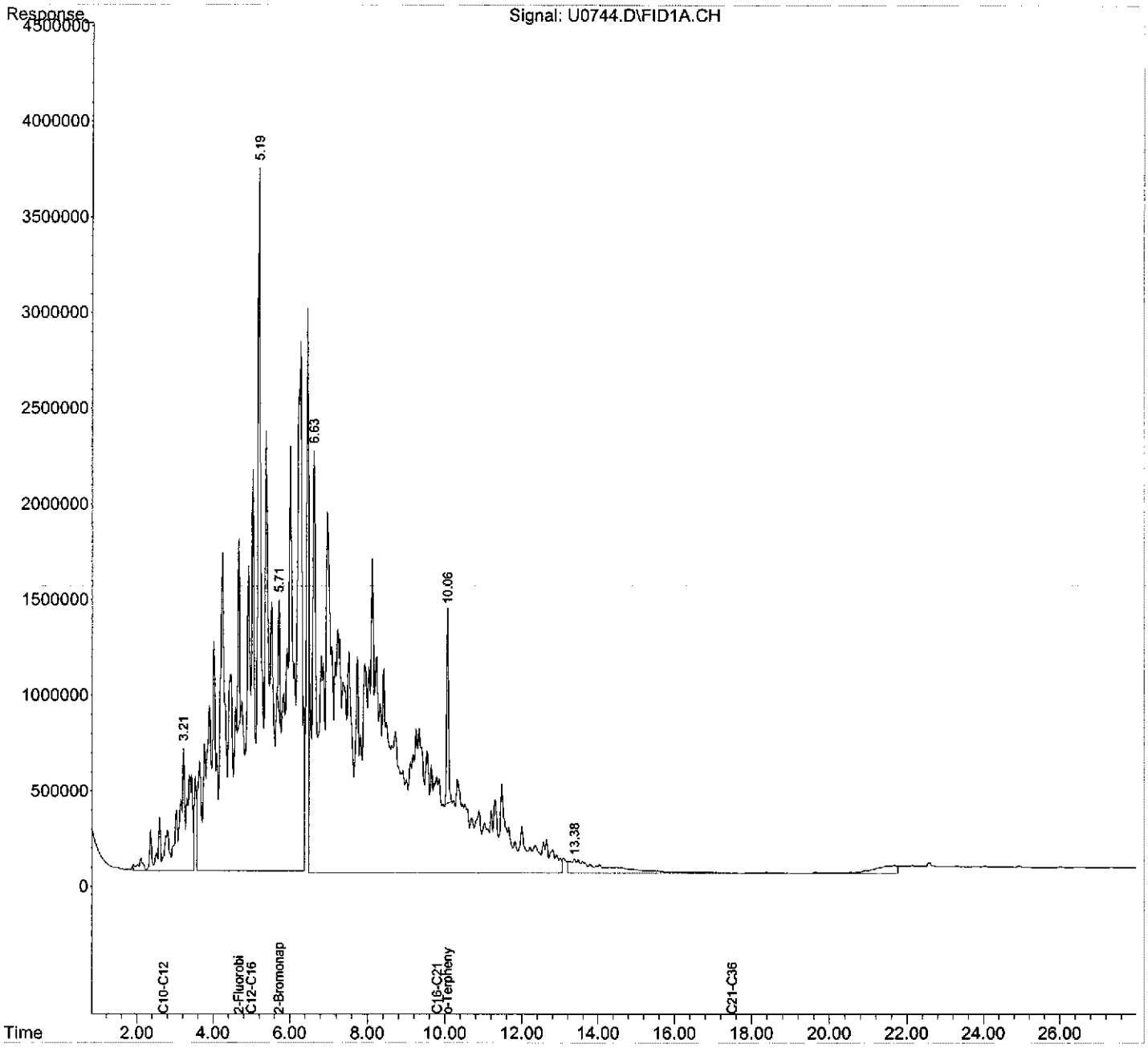
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0744.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 7:45
Operator : MJ
Sample : TP10A-2/,09270-002,S,5.00g,31.3,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:41:58 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0720.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 18:05
Operator : MJ
Sample : TP10A-3/,09270-003,S,5.00g,22.0,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 08:57:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1-Chlorooctadecane	11.97	11635822	23.637	ng	m
Spiked Amount	50.000		Recovery =	47.27%		
Target Compounds						
20) H	C9-C12	2.46	82283006	151.080	ng	
21) H	C12-C16	5.60	318736206	553.990	ng	
22) H	C16-C21	10.20	100479868	171.449	ng	

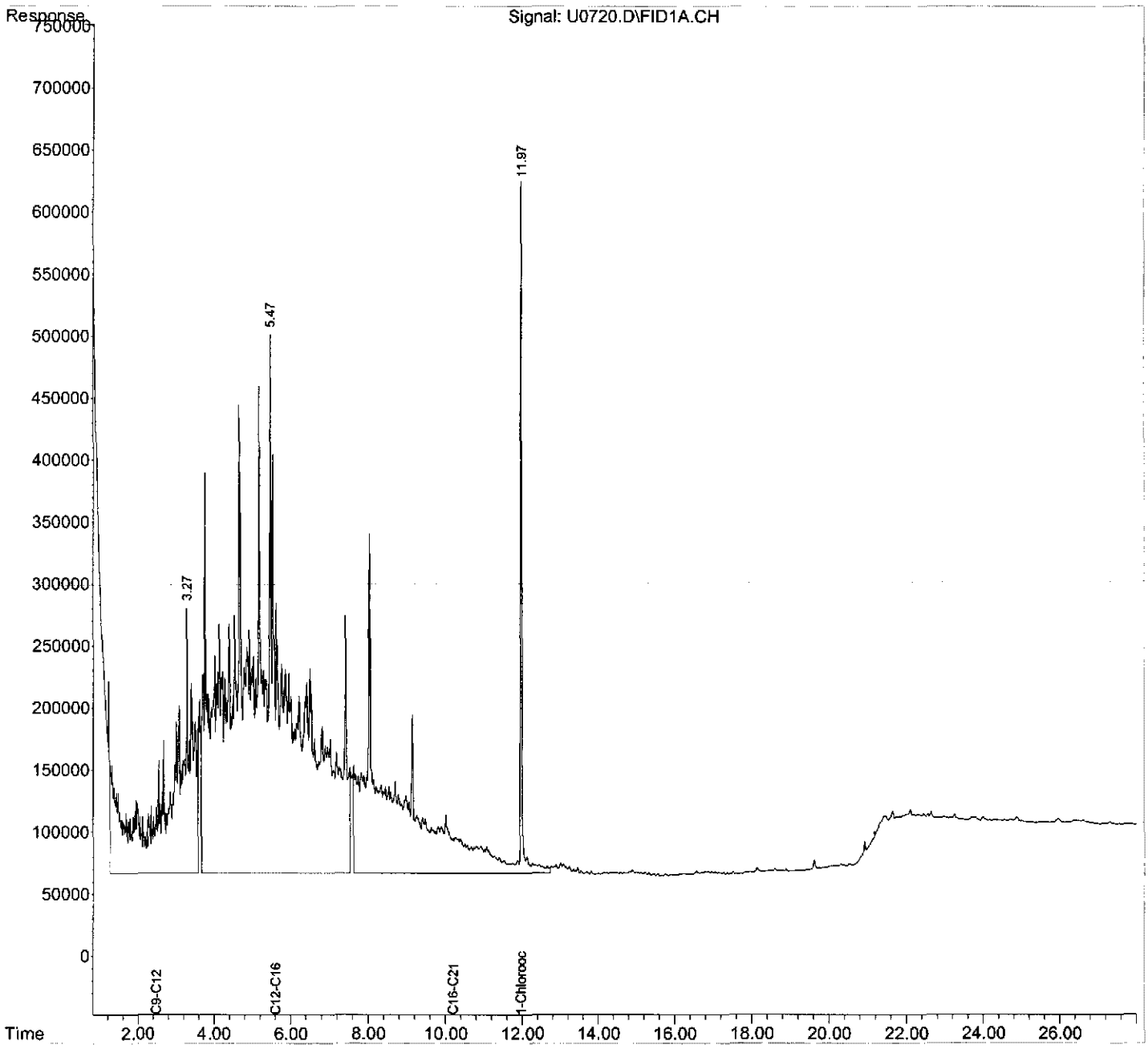
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0720.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 18:05
Operator : MJ
Sample : TP10A-3/,09270-003,S,5.00g,22.0,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 08:57:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0745.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 8:20
Operator : MJ
Sample : TP10A-3/,09270-003,S,5.00g,22.0,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:25:43 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S 2-Fluorobiphenyl	4.65	34881082	54.682	ng	m
Spiked Amount	50.000		Recovery =	109.36%		
2)	S 2-Bromonaphthalene	5.70	21247377	48.445	ng	m
Spiked Amount	50.000		Recovery =	96.89%		
3)	S o-Terphenyl	10.05	26926255	31.858	ng	m
Spiked Amount	50.000		Recovery =	63.72%		
	Target Compounds					
22)	H C10-C12	2.70	9785224	15.695	ng	
23)	H C12-C16	5.00	162318617	235.606	ng	
24)	H C16-C21	9.80	197669196	318.661	ng	

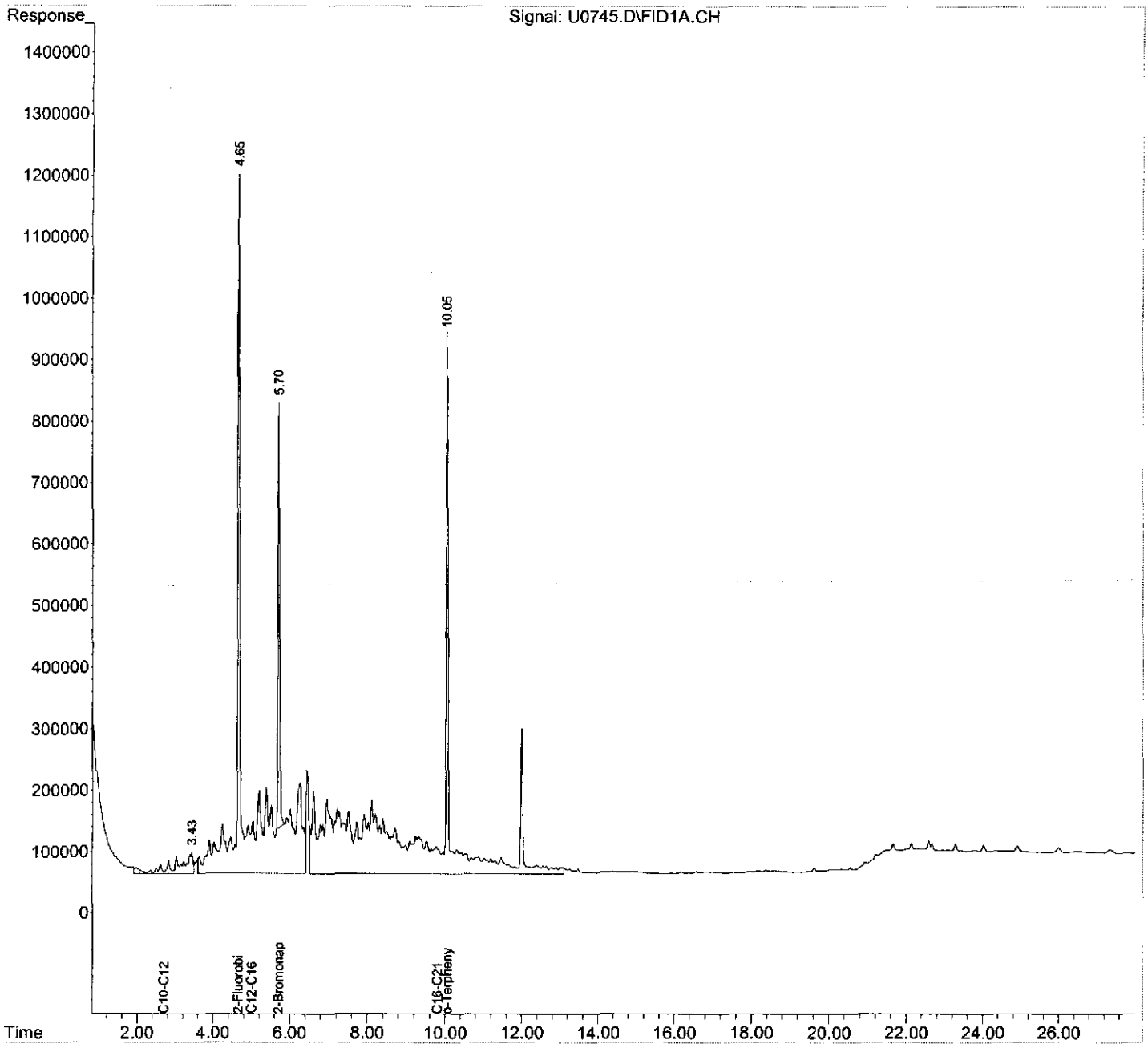
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0745.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 8:20
Operator : MJ
Sample : TP10A-3/,09270-003,S,5.00g,22.0,09/20/10,1
Misc : PENNJERSEY/PALMER,09/15/10,09/16/10,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:25:43 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0711.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 12:57
Operator : MJ
Sample : ALI,0920-BLK01,S,5.00g,0,09/20/10,1
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 13:34:33 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	11.97	15513381	31.514 ng
Spiked Amount 50.000		Recovery =	63.03%
Target Compounds			

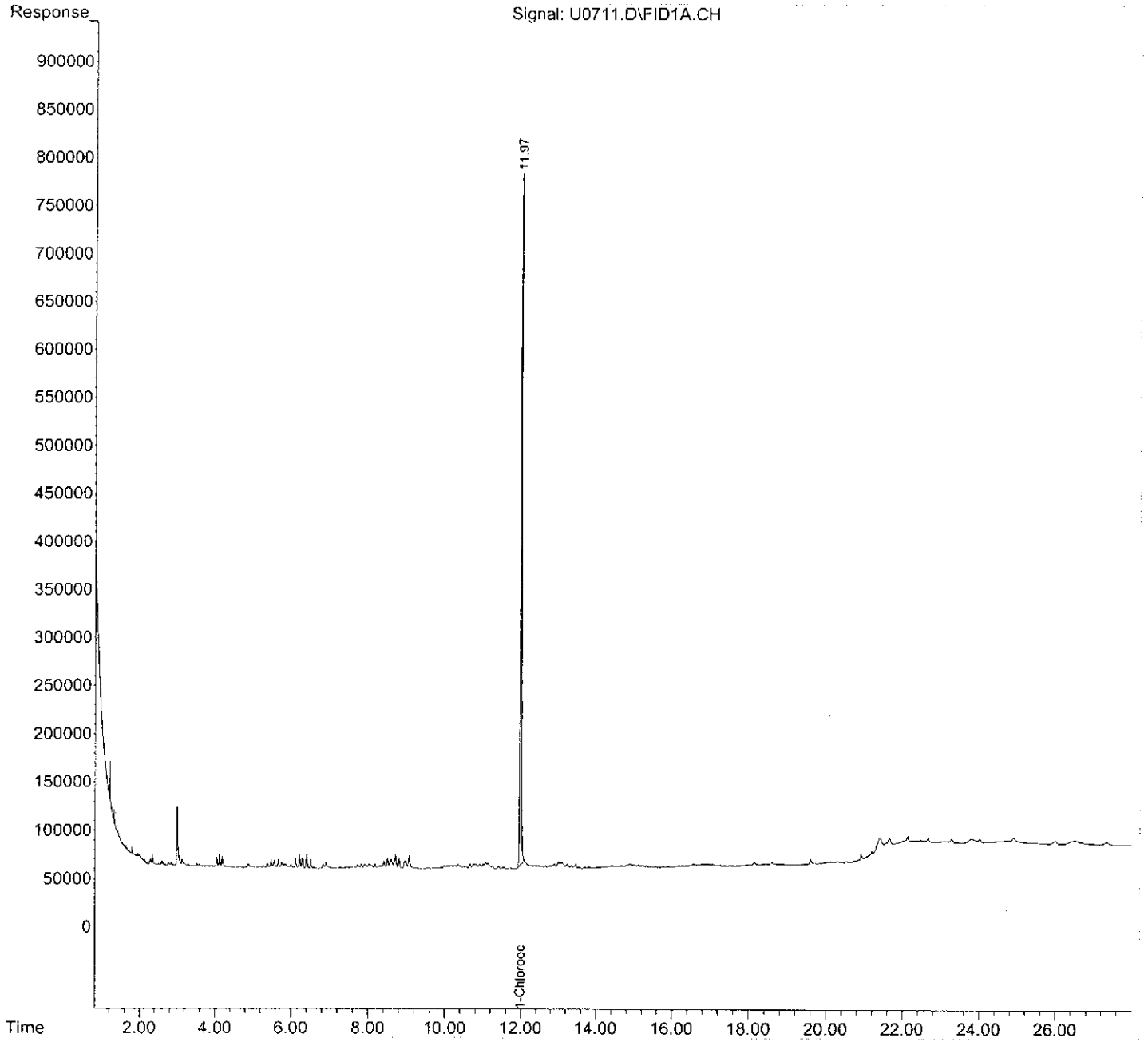
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0711.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 12:57
Operator : MJ
Sample : ALI,0920-BLK01,S,5.00g,0,09/20/10,1
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 13:34:33 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0736.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 3:11
Operator : MJ
Sample : ARO,0920-BLK01,S,5.00g,0,09/20/10,1
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:13:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.66	27886171	43.716 ng
Spiked Amount 50.000		Recovery =	87.43%
2) S 2-Bromonaphthalene	5.71	18994739	43.309 ng
Spiked Amount 50.000		Recovery =	86.62%
3) S o-Terphenyl	10.06	30750793	36.383 ng
Spiked Amount 50.000		Recovery =	72.77%
Target Compounds			

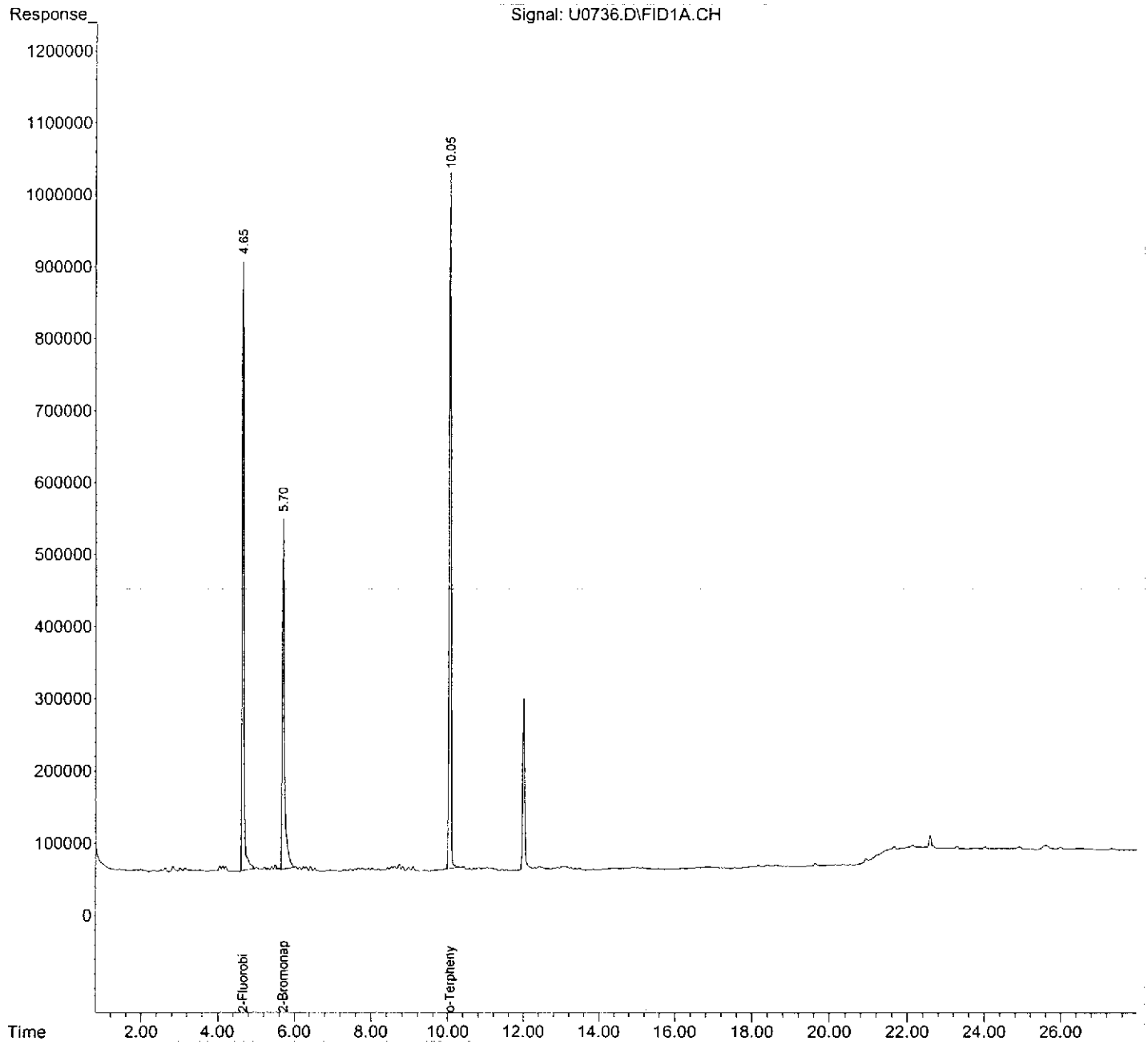
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0736.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 3:11
Operator : MJ
Sample : ARO,0920-BLK01,S,5.00g,0,09/20/10,1
Misc : NA,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:13:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



0045

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0710.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 12:24
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 13:34:20 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	12.00	122831632	249.522 ng
Spiked Amount	50.000		Recovery =	499.04%
	Target Compounds			
2) T	n-Nonane (C9)	1.31	118627210	247.031 ng
3) T	n-Decane (C10)	1.80	123603953	248.944 ng
4) T	n-Dodecane (C12)	3.18	127791322	252.434 ng
5) T	n-Tetradecane (C14)	4.88	134599487	251.871 ng
6) T	n-Hexadecane (C16)	6.92	139559172	250.066 ng
7) T	n-Octadecane (C18)	9.07	141422714	249.000 ng
8) T	n-Eicosane (C20)	11.15	144710563	247.760 ng
9) T	n-Heneicosane (C21)	12.14	137375905	245.231 ng
10) T	n-Docosane (C22)	13.10	141195059	248.031 ng
11) T	n-Tetracosane (C24)	14.91	139617449	253.904 ng
12) T	n-Hexacosane (C26)	16.59	139271679	259.461 ng
13) T	n-Octacosane (C28)	18.17	139051922	263.462 ng
14) T	n-Triacontane (C30)	19.64	144016042	265.709 ng
15) T	n-Dotriacontane (C32)	20.93	141245853	266.951 ng
16) T	n-Tetratriacontane (C34)	21.69	139100118	266.668 ng
17) T	n-Hexatriacontane (C36)	22.48	139994853	265.696 ng
18) T	n-Octatriacontane (C38)	23.47	135566271	261.450 ng
19) T	n-Tetracontane (40)	24.78	131713960	253.882 ng
20) H	C9-C12	2.46	374342950	687.330 ng
21) H	C12-C16	5.60	277964868	483.126 ng
22) H	C16-C21	10.20	429589589	733.011 ng
23) H	C21-C40	19.30	1482230756	2353.952 ng

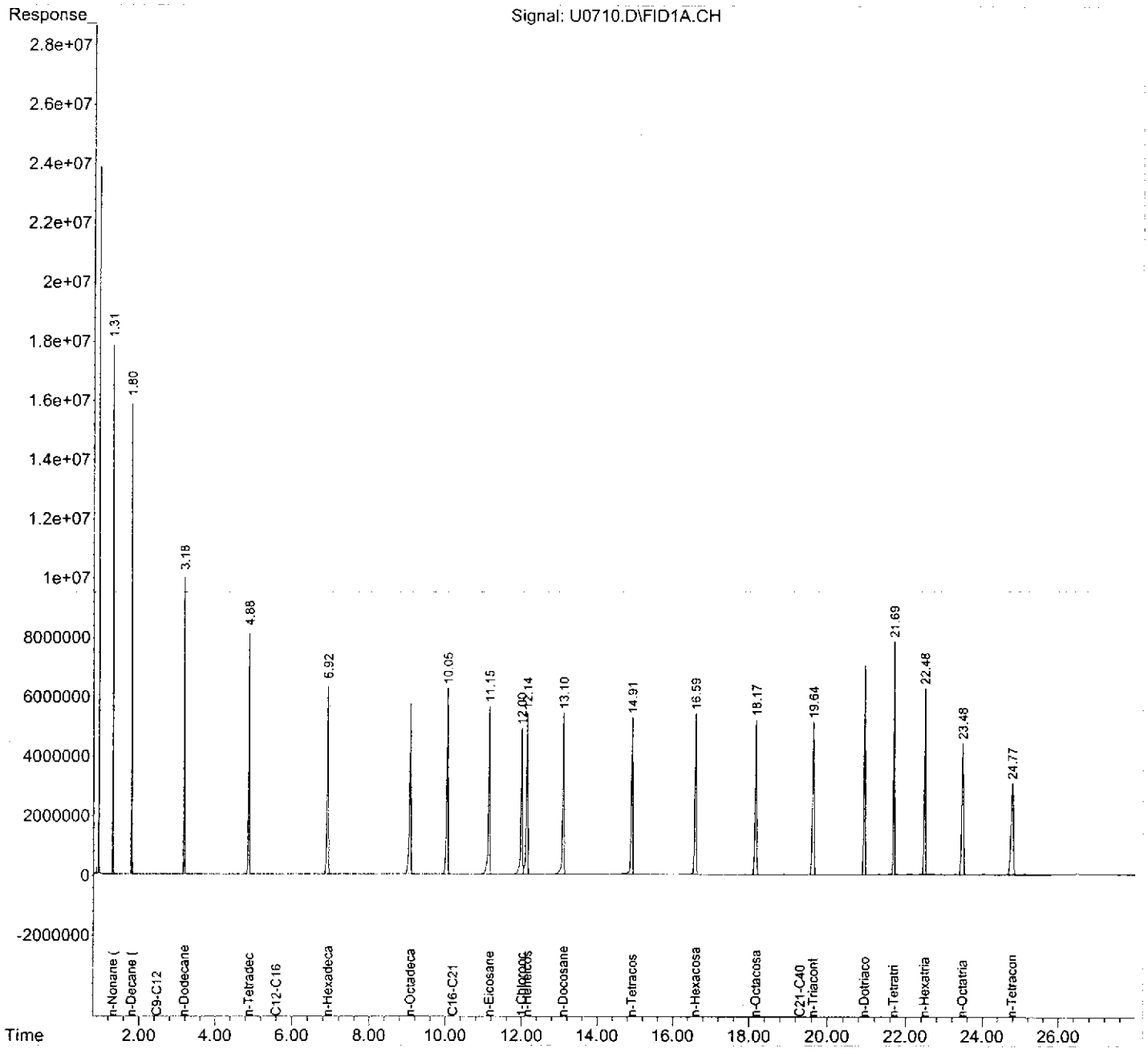
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-21-10\
Data File : U0710.D
Signal(s) : FID1A.CH
Acq On : 21 Sep 2010 12:24
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 21 13:34:20 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0733.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 1:28
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 08:49:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	12.00	118128343	239.967 ng
Spiked Amount	50.000		Recovery =	479.93%
26) S	o-Terphenyl	10.05	143478319	240.114 ng
Spiked Amount	50.000		Recovery =	480.23%
	Target Compounds			
2) T	n-Nonane (C9)	1.31	114749033	238.955 ng
3) T	n-Decane (C10)	1.80	120314788	242.319 ng
4) T	n-Dodecane (C12)	3.17	124951022	246.824 ng
5) T	n-Tetradecane (C14)	4.88	131286874	245.672 ng
6) T	n-Hexadecane (C16)	6.91	135172046	242.205 ng
7) T	n-Octadecane (C18)	9.06	136619127	240.542 ng
8) T	n-Eicosane (C20)	11.14	139554642	238.932 ng
9) T	n-Heneicosane (C21)	12.14	133500073	238.312 ng
10) T	n-Docosane (C22)	13.09	136696867	240.129 ng
11) T	n-Tetracosane (C24)	14.91	134353331	244.330 ng
12) T	n-Hexacosane (C26)	16.59	133664123	249.014 ng
13) T	n-Octacosane (C28)	18.16	133071028	252.130 ng
14) T	n-Triacontane (C30)	19.63	137490501	253.670 ng
15) T	n-Dotriacontane (C32)	20.93	134552885	254.301 ng
16) T	n-Tetratriacontane (C34)	21.67	132150609	253.345 ng
17) T	n-Hexatriacontane (C36)	22.46	132791772	252.025 ng
18) T	n-Octatriacontane (C38)	23.45	128217165	247.277 ng
19) T	n-Tetracontane (40)	24.75	125256120	241.435 ng
20) H	C9-C12	2.46	364667654	669.565 ng
21) H	C12-C16	5.60	270451926	470.068 ng
22) H	C16-C21	10.20	416105597	710.003 ng
23) H	C21-C40	19.30	1440269236	2287.313 ng

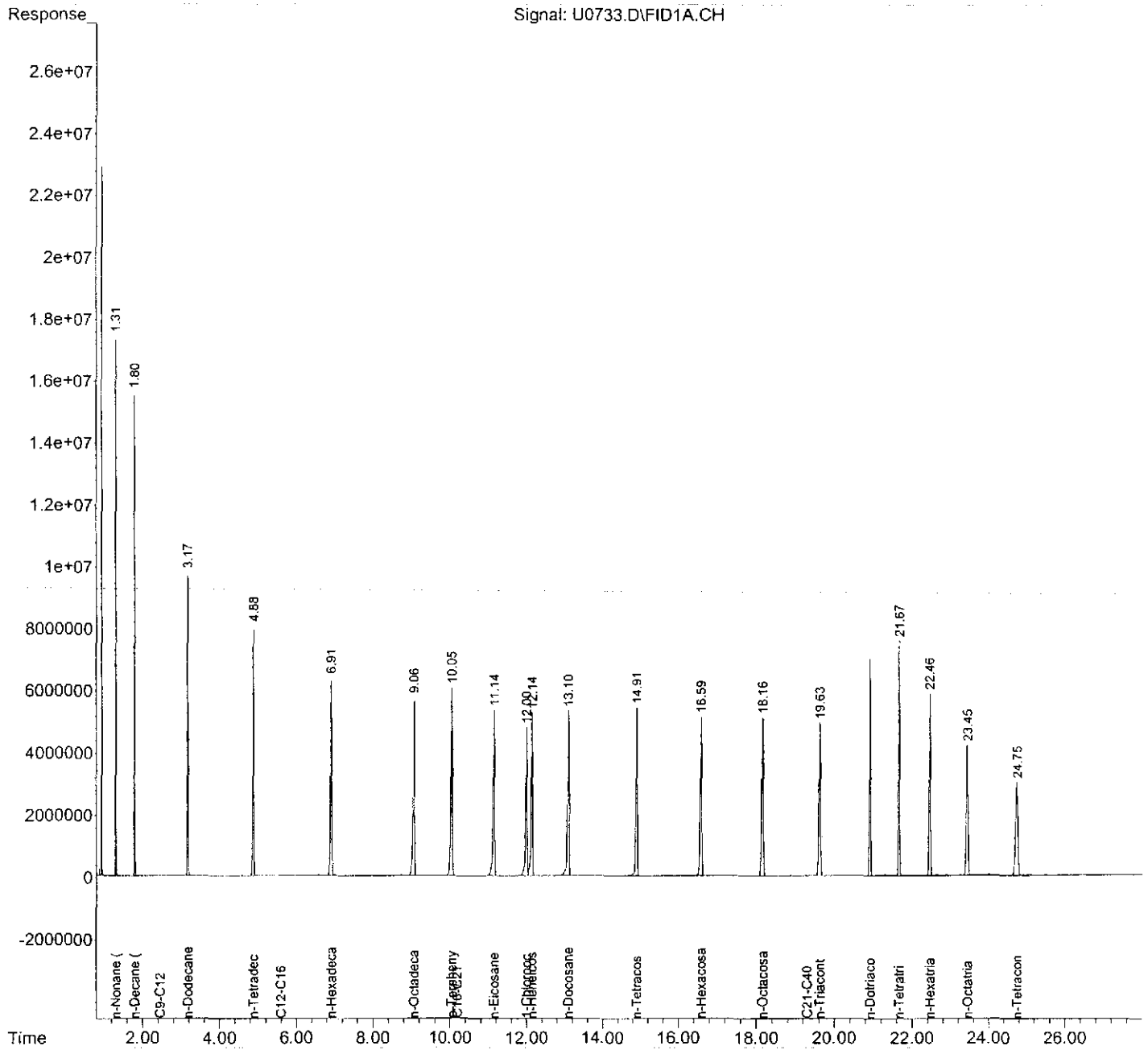
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0733.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 1:28
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 08:49:36 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0760.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 16:57
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:20:30 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1-Chlorooctadecane	11.99	130351916	264.798 ng
Spiked Amount	50.000		Recovery =	529.60%
26)	S o-Terphenyl	10.04	160161672	268.034 ng
Spiked Amount	50.000		Recovery =	536.07%
	Target Compounds			
2)	T n-Nonane (C9)	1.31	127562084	265.637 ng
3)	T n-Decane (C10)	1.80	134665003	271.221 ng
4)	T n-Dodecane (C12)	3.17	141194585	278.910 ng
5)	T n-Tetradecane (C14)	4.87	148866142	278.567 ng
6)	T n-Hexadecane (C16)	6.91	153039526	274.221 ng
7)	T n-Octadecane (C18)	9.06	153507623	270.277 ng
8)	T n-Eicosane (C20)	11.14	155457325	266.159 ng
9)	T n-Heneicosane (C21)	12.14	147506168	263.315 ng
10)	T n-Docosane (C22)	13.09	150006736	263.510 ng
11)	T n-Tetracosane (C24)	14.90	146991924	267.315 ng
12)	T n-Hexacosane (C26)	16.59	145623200	271.294 ng
13)	T n-Octacosane (C28)	18.16	144856019	274.459 ng
14)	T n-Triacontane (C30)	19.63	149440949	275.718 ng
15)	T n-Dotriacontane (C32)	20.93	146256048	276.420 ng
16)	T n-Tetratriacontane (C34)	21.68	143764678	275.610 ng
17)	T n-Hexatriacontane (C36)	22.47	144312984	273.891 ng
18)	T n-Octatriacontane (C38)	23.46	139103176	268.271 ng
19)	T n-Tetracontane (40)	24.76	135851249	261.857 ng
20)	H C9-C12	2.46	418091539	767.657 ng
21)	H C12-C16	5.60	306805032	533.252 ng
22)	H C16-C21	10.20	463094266	790.180 ng
23)	H C21-C40	19.30	1543232217	2450.830 ng

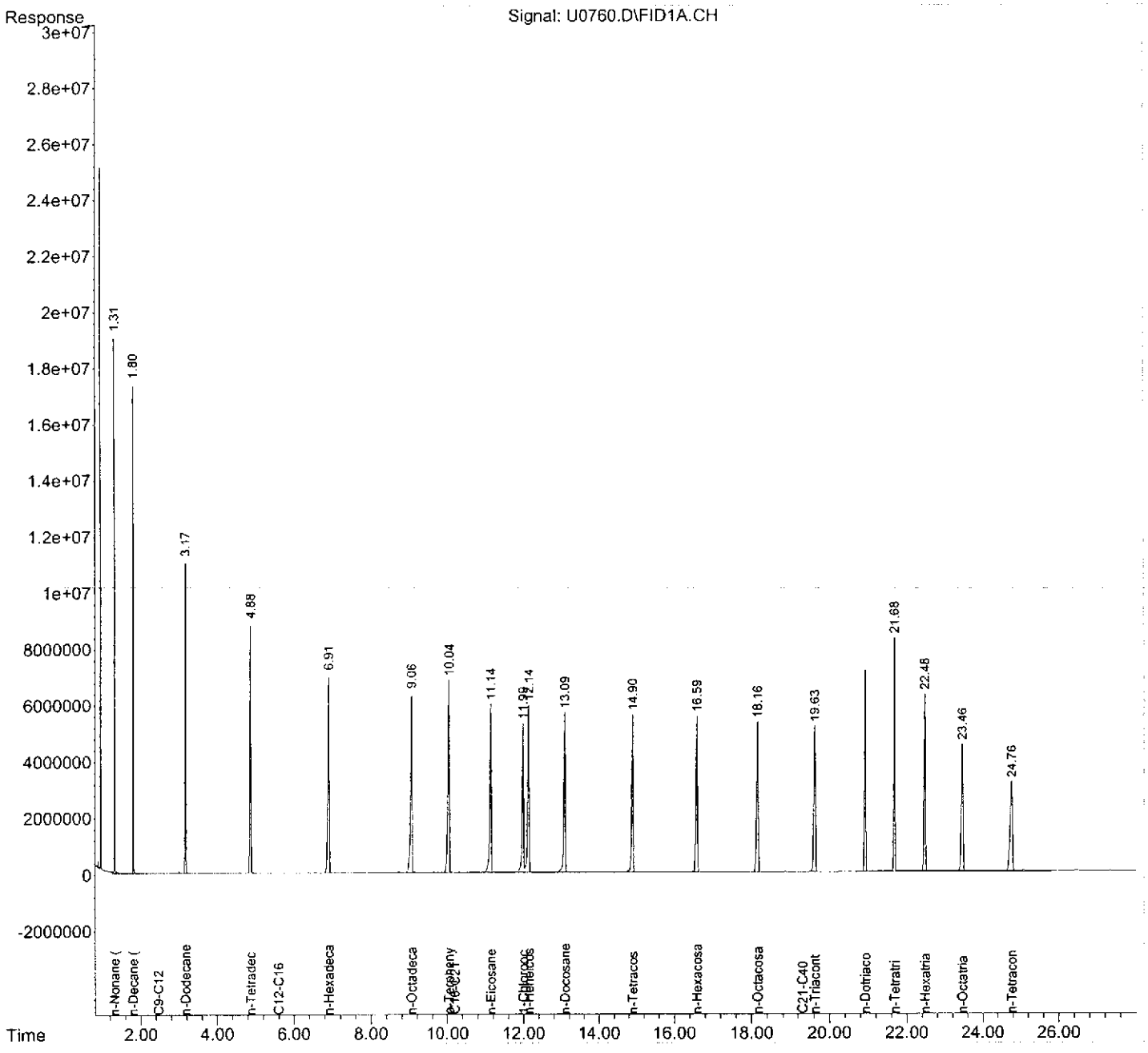
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0760.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 16:57
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:20:30 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0764.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 19:15
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:34:19 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	12.00	135695262	275.653 ng
Spiked Amount	50.000		Recovery =	551.31%
26) S	o-Terphenyl	10.05	166972118	279.432 ng
Spiked Amount	50.000		Recovery =	558.86%
	Target Compounds			
2) T	n-Nonane (C9)	1.31	137357194	286.035 ng
3) T	n-Decane (C10)	1.80	144744966	291.523 ng
4) T	n-Dodecane (C12)	3.17	150282551	296.862 ng
5) T	n-Tetradecane (C14)	4.88	156967530	293.727 ng
6) T	n-Hexadecane (C16)	6.91	160424362	287.453 ng
7) T	n-Octadecane (C18)	9.06	160073537	281.838 ng
8) T	n-Eicosane (C20)	11.15	161636041	276.738 ng
9) T	n-Heneicosane (C21)	12.14	153247801	273.564 ng
10) T	n-Docosane (C22)	13.10	155855183	273.784 ng
11) T	n-Tetracosane (C24)	14.91	152474035	277.284 ng
12) T	n-Hexacosane (C26)	16.59	151950433	283.081 ng
13) T	n-Octacosane (C28)	18.16	151817992	287.650 ng
14) T	n-Triacontane (C30)	19.63	156766093	289.233 ng
15) T	n-Dotriacontane (C32)	20.92	153495063	290.102 ng
16) T	n-Tetratriacontane (C34)	21.67	150946309	289.378 ng
17) T	n-Hexatriacontane (C36)	22.46	151595556	287.713 ng
18) T	n-Octatriacontane (C38)	23.44	146210938	281.979 ng
19) T	n-Tetracontane (40)	24.75	142847083	275.342 ng
20) H	C9-C12	2.46	441427048	810.503 ng
21) H	C12-C16	5.60	321944983	559.567 ng
22) H	C16-C21	10.20	481645243	821.834 ng
23) H	C21-C40	19.30	1606364476	2551.091 ng

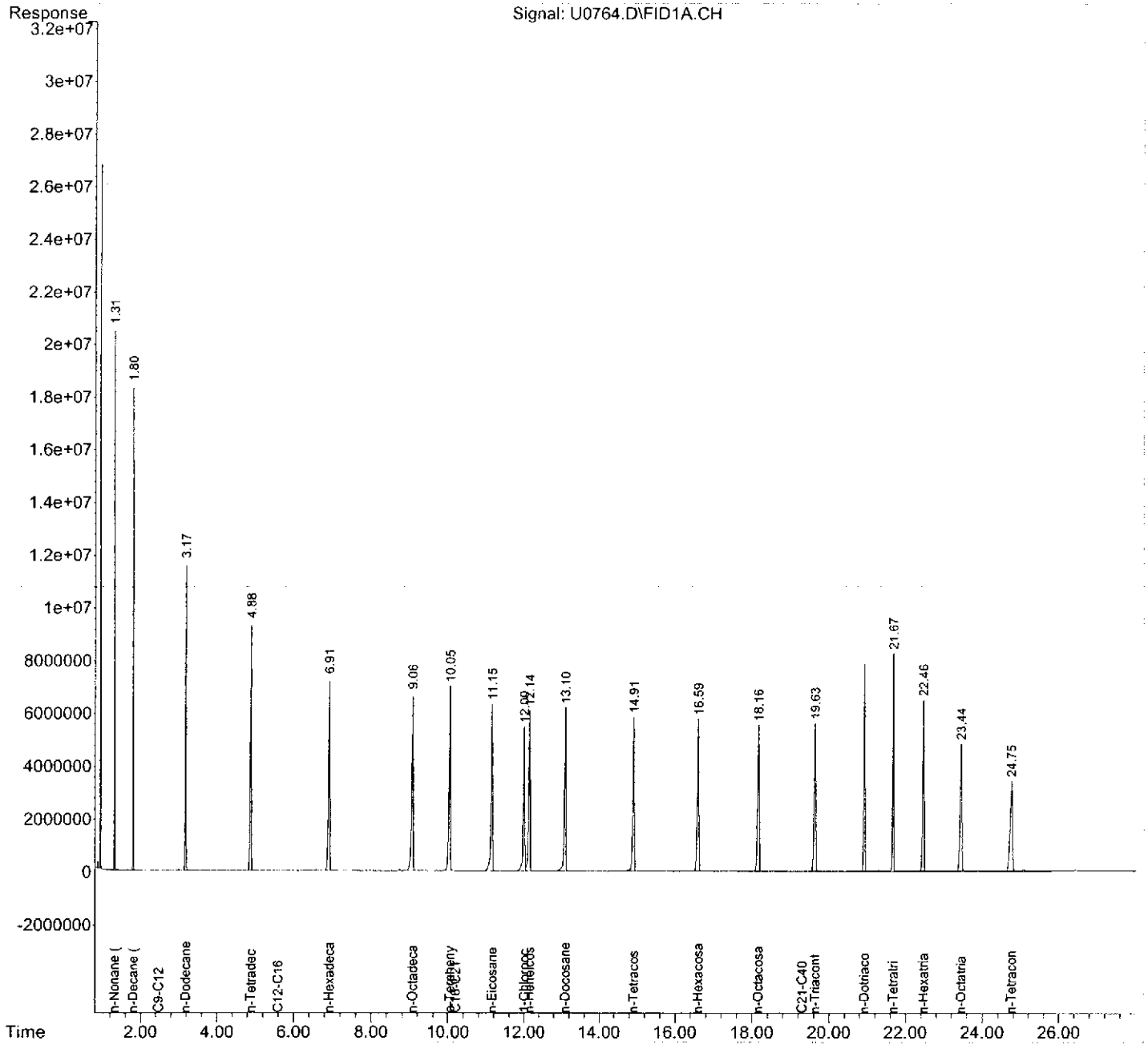
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\09-22-10\
Data File : U0764.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 19:15
Operator : MJ
Sample : ALI_C_IAS_3777,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 23 08:34:19 2010
Quant Method : C:\MSDCHEM\1\METHODS\UALI0917.M
Quant Title :
QLast Update : Fri Sep 17 16:45:59 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0735.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 2:37
Operator : MJ
Sample : ARO_C_IAS_3766,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:13:42 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.67	133220747	208.846	ng	
Spiked Amount	50.000		Recovery	= 417.69%		
2) S	2-Bromonaphthalene	5.72	109945172	250.682	ng	
Spiked Amount	50.000		Recovery	= 501.36%		
3) S	o-Terphenyl	10.09	194568330	230.206	ng	
Spiked Amount	50.000		Recovery	= 460.41%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.97	137310076	236.354	ng	
5) T	Napthalene	3.15	154366740	242.540	ng	
6) T	2-Methylnaphthalene	4.05	158026191	249.071	ng	
7) T	Acenaphthylene	5.48	171452387	251.606	ng	
8) T	Acenaphthene	5.83	178208762	252.210	ng	m
9) T	Fluorene	6.84	181164277	257.897	ng	
10) T	Phenanthrene	8.91	194335116	254.945	ng	
11) T	Anthracene	9.03	190627931	256.263	ng	
12) T	Fluoroanthene	11.77	197276726	246.814	ng	
13) T	Pyrene	12.27	208307241	244.817	ng	
14) T	Benzo[a]anthracene	15.34	197940100	228.375	ng	
15) T	Chrysene	15.45	188224579	226.717	ng	
16) T	Benzo[b]fluoranthene	17.98	363814723	213.093	ng	m
17) T	Benzo[k]fluoranthene	17.98	363892021	213.486	ng	m
18) T	Benzo[a]pyrene	18.58	177369145	211.299	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.88	338569241	206.513	ng	
20) T	Dibenz[a,h]anthracene	20.88	338569241	206.863	ng	
21) T	Benzo[g,h,i]perylene	21.13	175340371	203.839	ng	
22) H	C10-C12	2.70	294779564	472.811	ng	
23) H	C12-C16	5.00	536073517	778.113	ng	
24) H	C16-C21	9.80	778015667	1254.234	ng	
25) H	C21-C36	17.50	1464007407	1671.654	ng	

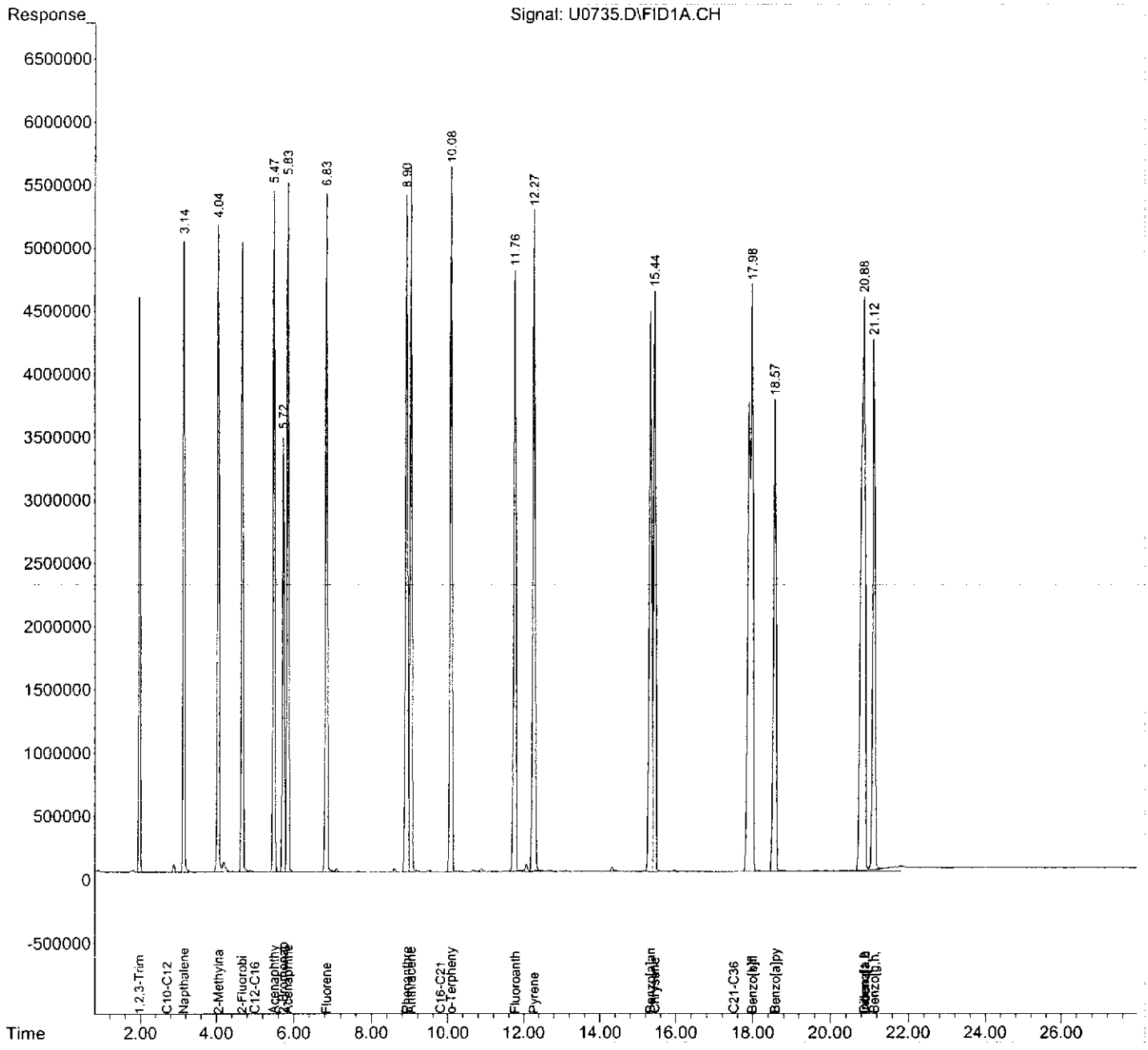
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0735.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 2:37
Operator : MJ
Sample : ARO_C_IAS_3766,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 09:13:42 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0757.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 15:11
Operator : MJ
Sample : ARO_C_IAS_3766,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 49 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 15:53:31 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.67	172107767	269.808	ng	
Spiked Amount	50.000		Recovery	= 539.62%		
2) S	2-Bromonaphthalene	5.72	121883982	277.903	ng	
Spiked Amount	50.000		Recovery	= 555.81%		
3) S	o-Terphenyl	10.08	209116257	247.419	ng	
Spiked Amount	50.000		Recovery	= 494.84%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	1.97	153876166	264.870	ng	
5) T	Napthalene	3.15	172616779	271.214	ng	
6) T	2-Methylnaphthalene	4.05	176368663	277.981	ng	
7) T	Acenaphthylene	5.48	190244616	279.184	ng	
8) T	Acenaphthene	5.84	195654484	276.900	ng	
9) T	Fluorene	6.83	199569011	284.098	ng	
10) T	Phenanthrene	8.91	210843399	276.602	ng	
11) T	Anthracene	9.02	204141071	274.429	ng	
12) T	Fluoroanthene	11.76	202746393	253.657	ng	
13) T	Pyrene	12.27	212006732	249.165	ng	
14) T	Benzo[a]anthracene	15.32	184961145	213.400	ng	m
15) T	Chrysene	15.44	189794287	228.608	ng	
16) T	Benzo[b]fluoranthene	17.97	382012164	223.752	ng	m
17) T	Benzo[k]fluoranthene	17.97	381857399	224.026	ng	m
18) T	Benzo[a]pyrene	18.58	188089433	224.070	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.88	344501736	210.131	ng	
20) T	Dibenz[a,h]anthracene	20.88	344501736	210.487	ng	
21) T	Benzo[g,h,i]perylene	21.14	189776918	220.622	ng	
22) H	C10-C12	2.70	330948664	530.824	ng	
23) H	C12-C16	5.00	572403994	830.847	ng	
24) H	C16-C21	9.80	832616095	1342.255	ng	
25) H	C21-C36	17.50	1539325183	1757.654	ng	

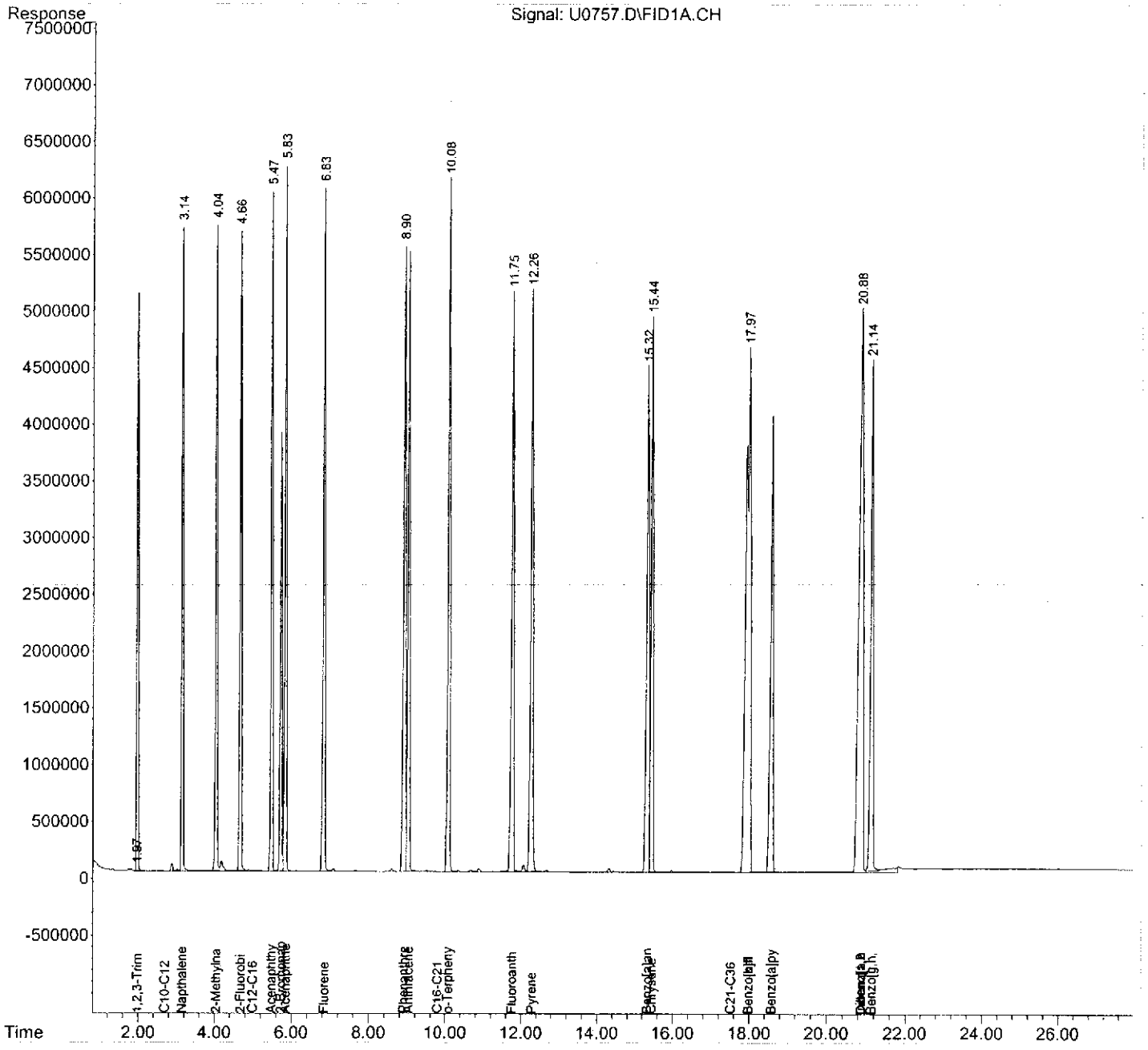
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\09-21-10\
Data File : U0757.D
Signal(s) : FID1A.CH
Acq On : 22 Sep 2010 15:11
Operator : MJ
Sample : ARO_C_IAS_3766,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 49 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Sep 22 15:53:31 2010
Quant Method : C:\MSDCHEM\1\METHODS\UARO0905.M
Quant Title :
QLast Update : Thu Sep 09 14:49:53 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC / PA
Address:	2034 E. WELLINGTON RD.
	NEWTOWN PA
Telephone #:	215 860 [redacted] 1231
Fax #:	215 860 9988
EMAIL Address:	[redacted] PECINC@aol.com
Project Manager:	D. KATZ
Sampler:	M. BROGAN
Project Name:	PALMA
Project Location (State):	NJ
Bottle Order #:	
Quote #:	

REPORTING INFO	
REPORT TO:	PEC / PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE
DRO (3-5 day TAT) (circled) QAM025 (5 day TAT min.)
DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax 24 hr* 48 hr* 72 hr* 1 wk* **2 wk/Std**
Hard Copy Other *call for price **3 wk/Std**
Results needed by: STD / STD

Rush TAT Charge **
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced (circled)
Regulatory - 15% Surcharge applies
Other (describe)

EDD's
SRP. dbf format (circled)
lab approved custom EDD
NO EDD/CD REQ'D

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS

Cooler Temp 4 °C

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	NJ-EPH-FRACT	TCL PAH	# BOTTLES & PRESERVATIVES: HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
TP10A-1	6.5-7'	9/15/10	3:15	S	1	1	✓	*								
TP10A-2	8-8.5'	↓	3:25	S	1	2	✓	*								
TP10A-3	10-10.5	↓	3:45	S	1	3	✓	*								

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: [signature]	9/16/10	3:20	Received by: [signature]	9/16/10	1530
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:
* 1404

Lab Case # 09270

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

10/2009 rev

PROJECT INFORMATION

E 1 0 - 0 9 2 7 0

Case No. E10-09270 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Dick Katz	**Received**	9/16/2010 15:30
EMail	pecinc@aol.com;nagorbm@yahoo	☑ EMail EDDs	**Verbal Due** 9/30/2010
Phone	(215) 860-1231 **Fax** (215) 860-9988		**Report Due** 10/7/2010

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Report Format **Reduced**

Additional Info ☐ State Form ☐ Field Sampling ☑ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
09270-001	TP10A-1	6.5 / 7	9/15/2010@15:15	Soil	mg/Kg	1
09270-002	TP10A-2	8 / 8.5	9/15/2010@15:25	Soil	mg/Kg	1
09270-003	TP10A-3	10 / 10.5	9/15/2010@15:45	Soil	mg/Kg	1

Sample #	Tests	Status	QA Method
001	PAH	Cancel	8270C
"	NJ-EPH-Fractionated	Complete	Method 10/08 Rev 3
002	PAH	Cancel	8270C
"	NJ-EPH-Fractionated	Complete	Method 10/08 Rev 3
003	PAH	Cancel	8270C
"	NJ-EPH-Fractionated	Complete	Method 10/08 Rev 3

09/29/2010 11:50 by katie - REV 1

As per Dick Katz, cancel PAH for sample # 1,2,3

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **09270** CLIENT: REC PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

- ✓ Bottles Intact
- ✓ no-Missing Bottles
- ✓ no-Extra Bottles
- ✓ Sufficient Sample Volume
- ✓ no-headspace/bubbles in VOs
- ✓ Labels intact/correct
- ✓ pH Check (exclude VOs)[1]
- ✓ Correct bottles/preservative
- ✓ Sufficient Holding/Prep Time[1]
- [ ] Sample to be Subcontracted
- ✓ **Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 9/16/10

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE 9/17/10

Laboratory Custody Chronicle

IAL Case No.

E10-09270

Client PennJersey Environmental Consulting

Project PALMER

Received On 9/16/2010@15:30

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
NJ-EPH-Fractionated	09270-001	Soil	9/20/10	Archimede	9/22/10	Margaret
"	-002	"	9/20/10	Archimede	9/22/10	Margaret
"	-003	"	9/20/10	Archimede	9/22/10	Margaret

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IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E10-09980**

These data have been reviewed and accepted by:

Michael H. Leftin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0693), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E10-09980

Client PennJersey Environmental Consulting

Project PALMER

Received On 10/ 5/2010@15:07

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
09980-001	TRIP	n/a	10/ 5/2010	Aqueous	2
09980-002	FIELD	n/a	10/ 5/2010@10:00	Aqueous	2
09980-003	MW16	n/a	10/ 5/2010@10:30	Aqueous	2
09980-004	MW15	n/a	10/ 5/2010@11:05	Aqueous	2
09980-005	MW8R	n/a	10/ 5/2010@11:45	Aqueous	2
09980-006	MW17	n/a	10/ 5/2010@12:15	Aqueous	2
09980-007	MW13	n/a	10/ 5/2010@12:50	Aqueous	2
09980-008	MW14	n/a	10/ 5/2010@13:25	Aqueous	2
09980-009	MW12	n/a	10/ 5/2010@14:00	Aqueous	5

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received nine (9) aqueous sample(s) from PennJersey Environmental Consulting (Project: PALMER) on October 5, 2010 for the analysis of:

(9) TCL VOA + 10 + MTBE & TBA
(1) PAH
(1) Metal - Lead

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

10/12/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E10-09980

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E10 - 09980

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	GC/MS Tuning Specifications: a. BFB Passed		✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4.	GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5.	GC/MS Calibration Requirements: a. Calibration Check Compounds		na
	b. System Performance Check Compounds		na
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
	If not met, were the calculations checked and the results qualified as "estimated"?		na
8.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		na
9.	Internal Standard Area/Retention Time Shift meet criteria		✓
10.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		na
11.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12.	Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

10/12/2010
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS SEMIVOLATILE ANALYSIS

Lab Case Number: E10 - 03980

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. DFTPP Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series.		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
a. B/N Fraction		
b. Acid Fraction		
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
a. B/N Fraction		
b. Acid Fraction		
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
a. B/N Fraction		
b. Acid Fraction		
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
11. Analysis Holding Time Met		✓
If not met, list number of days exceeded for each sample:		
12. Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

10/11/10
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
METAL ANALYSIS

Lab Case Number: E10-09980

		No	Yes
1.	Calibration Summary Meet Criteria.		✓
2.	Interference Check Sample Results Meets Criteria (if applicable)		✓
3.	Serial Dilution/Post Spike Summary Submitted (if applicable) / Meets Criteria		✓
4.	Internal Standards Meet Criteria (if applicable)		✓
5.	Laboratory Control Sample Summary Submitted (if applicable) / Meets Criteria		✓
6.	Blank Contamination: If yes, list compounds and concentrations in each blank:	✓	
7.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).		✓
8.	Extraction Holding Time Met. If not, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not, list number of days exceeded for each sample:		✓

Additional Comments:

Sample(s) used for aqueous metals analyses contained varying levels of sediment. Precautions were taken to use an aqueous representative of the sample. However, our experience has demonstrated that samples of this nature are very difficult to duplicate because the metals numbers are basically tied into the level of sediment present in the original sample. Additionally, as the remainder of the sample is stored under acidic conditions, some of the metals may continue to leach out into the water making any reproduction of the original number impossible. The rough amount of sediment present in the samples is as follows:

09980-009: Trace

Wei Cheng
Inorganic Manager

October 13, 2010
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E10-09980

	Lab ID:	09980-001			09980-002			09980-003			09980-004		
	Client ID:	TRIP			FIELD			MW16			MW15		
	Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
	Sampled Date	10/5/10			10/5/10			10/5/10			10/5/10		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
(Including MTBE & TBA)													
tert-Butyl alcohol (TBA)		ND		1.19	ND		1.19	ND		1.19	ND		1.19
Methyl tert-butyl ether (MTBE)		ND		0.300	ND		0.300	ND		0.300	ND		0.300
1,1-Dichloroethane		ND		0.260	ND		0.260	ND		0.260	0.421	J	0.260
Chloroform		ND		0.210	ND		0.210	ND		0.210	3.36		0.210
1,1,1-Trichloroethane		ND		0.290	ND		0.290	ND		0.290	3.58		0.290
Trichloroethene		ND		0.250	ND		0.250	ND		0.250	0.744		0.250
TOTAL VO's:		ND			ND			ND			8.11	J	
TOTAL TIC's:		ND			ND			ND			ND		
TOTAL VO's & TIC's:		ND			ND			ND			8.11	J	

	Lab ID:	09980-005			09980-006			09980-007			09980-008		
	Client ID:	MW8R			MW17			MW13			MW14		
	Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
	Sampled Date	10/5/10			10/5/10			10/5/10			10/5/10		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
(Including MTBE & TBA)													
tert-Butyl alcohol (TBA)		ND		1.19	ND		1.19	ND		1.19	2.46		1.19
Methyl tert-butyl ether (MTBE)		ND		0.300	ND		0.300	ND		0.300	3.51		0.300
1,1-Dichloroethane		ND		0.260	ND		0.260	ND		0.260	1.68		0.260
cis-1,2-Dichloroethene		0.235	J	0.210	0.433	J	0.210	ND		0.210	0.326	J	0.210
Chloroform		ND		0.210	ND		0.210	ND		0.210	0.740		0.210
1,1,1-Trichloroethane		ND		0.290	ND		0.290	ND		0.290	1.41		0.290
Benzene		ND		0.250	ND		0.250	ND		0.250	2.56		0.250
Trichloroethene		2.14		0.250	0.855		0.250	ND		0.250	ND		0.250
Isopropylbenzene		ND		0.240	ND		0.240	ND		0.240	9.92		0.240
Cyclohexane		ND		0.260	ND		0.260	ND		0.260	3.84		0.260
TOTAL VO's:		2.38	J		1.29	J		ND			26.4	J	
TOTAL TIC's:		ND			ND			4.00			316		
TOTAL VO's & TIC's:		2.38	J		1.29	J		4.00			342	J	

	Lab ID:	09980-009		
	Client ID:	MW12		
	Matrix:	Aqueous		
	Sampled Date	10/5/10		
PARAMETER(Units)		Conc	Q	MDL
Volatiles (Units)		*(ug/L-ppb)*		
(Including MTBE & TBA)				
tert-Butyl alcohol (TBA)		2.72		1.19
Methyl tert-butyl ether (MTBE)		0.533		0.300
Benzene		1.49		0.250
4-Methyl-2-pentanone (MIBK)		0.558		0.200
Chlorobenzene		24.2		0.260
Ethylbenzene		1.36		0.210
Total Xylenes		0.714	J	0.580

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E10-09980

	Lab ID:	09980-009	
	Client ID:	MW12	
	Matrix:	Aqueous	
	Sampled Date	10/5/10	
PARAMETER(Units)	Conc	Q	MDL
Volatiles (Units)	*(ug/L-ppb)*		
(Including MTBE & TBA)			
Isopropylbenzene	4.99		0.240
1,4-Dichlorobenzene	1.72		0.210
1,2-Dichlorobenzene	2.25		0.230
Cyclohexane	1.57		0.260
TOTAL VO's:	42.1	J	
TOTAL TIC's:	329		
TOTAL VO's & TIC's:	371	J	
Semivolatiles - PAH (Units)	*(ug/L-ppb)*		
Naphthalene	ND		0.266
Acenaphthylene	ND		0.222
Acenaphthene	5.72		0.213
Fluorene	ND		0.231
Phenanthrene	5.80		0.321
Anthracene	0.948	J	0.242
Fluoranthene	0.330	J	0.235
Pyrene	0.885	J	0.238
Benzo[a]anthracene	ND		0.230
Chrysene	ND		0.215
Benzo[b]fluoranthene	ND		0.290
Benzo[k]fluoranthene	ND		0.220
Benzo[a]pyrene	ND		0.210
Indeno[1,2,3-cd]pyrene	ND		0.260
Dibenz[a,h]anthracene	ND		0.220
Benzo[g,h,i]perylene	ND		0.218
Metals (Units)	*(ug/L-ppb)*		
Lead	0.712	J	0.500

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-001
Client ID: TRIP_
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6345.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-001
Client ID: TRIP_
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6345.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-001
Client ID: TRIP_
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Date File: G6345.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-002
Client ID: FIELD
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6346.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-002
Client ID: FIELD
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6346.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-002
Client ID: FIELD
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Date File: G6346.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-003
Client ID: MW16
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6347.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-003
Client ID: MW16
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6347.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-003
Client ID: MW16
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Date File: G6347.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-004
Client ID: MW15
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6360.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	0.421	J	0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	3.36		0.500	0.210
1,1,1-Trichloroethane	3.58		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	0.744		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-004
Client ID: MW15
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6360.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410
Total Target Compounds:	8.11	J		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-004
Client ID: MW15
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Date File: G6360.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-005
Client ID: MW8R
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6361.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	0.235	J	0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	2.14		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-005
Client ID: MW8R
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6361.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410
Total Target Compounds:	2.38	J		

0022

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-005
Client ID: MW8R
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Date File: G6361.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-006
Client ID: MW17
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6362.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	0.433	J	0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	0.855		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-006
Client ID: MW17
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6362.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410
Total Target Compounds:	1.29	J		

0025

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-006
Client ID: MW17
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Date File: G6362.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-007
Client ID: MW13
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6363.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-007
Client ID: MW13
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6363.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-007
Client ID: MW13
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Date File: G6363.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	4.00	16.94

Total TICs = 4.00

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-008
Client ID: MW14
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6364.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	2.46		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	3.51		0.500	0.300
1,1-Dichloroethane	1.68		0.500	0.260
cis-1,2-Dichloroethene	0.326	J	0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	0.740		0.500	0.210
1,1,1-Trichloroethane	1.41		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	2.56		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-008
Client ID: MW14
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6364.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	9.92		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	3.84		1.00	0.260
Methylcyclohexane	ND		0.500	0.410
Total Target Compounds:	26.4	J		

0031

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-008
Client ID: MW14
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Date File: G6364.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	15.7	13.06
	Unknown aromatic	24.9	13.31
	Substituted benzene	17.0	13.88
	Unknown aromatic	16.7	14.02
	Substituted benzene	16.3	14.36
	Substituted benzene	28.9	14.91
	Unknown aromatic	25.4	15.11
000091-20-3	Naphthalene	105	15.60
	Unknown aromatic	14.9	16.52
	Unknown aromatic	51.5	16.94

Total TICs = 316

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-009
Client ID: MW12
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6365.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
tert-Butyl alcohol (TBA)	2.72		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	0.533		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	1.49		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	0.558		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-009
Client ID: MW12
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Data file: G6365.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	24.2		0.500	0.260
Ethylbenzene	1.36		0.500	0.210
Total Xylenes	0.714	J	1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	4.99		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	1.72		0.500	0.210
1,2-Dichlorobenzene	2.25		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	1.57		1.00	0.260
Methylcyclohexane	ND		0.500	0.410
Total Target Compounds:	42.1	J		

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-009
Client ID: MW12
Date Received: 10/05/2010
Date Analyzed: 10/08/2010
Date File: G6365.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	39.6	13.31
	Substituted benzene	22.0	13.88
	Unknown aromatic	27.1	14.02
	Unknown aromatic	25.2	14.74
	Unknown aromatic	57.1	14.92
	Unknown aromatic	23.7	15.45
	Unknown aromatic	25.1	16.74
	Unknown aromatic	60.6	16.94
	Unknown aromatic	23.6	17.92
	Unknown aromatic	25.0	18.11

Total TICs = 329

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 09980-009
Client ID: MW12
Date Received: 10/05/2010
Date Extracted: 10/06/2010
Date Analyzed: 10/08/2010
Data file: B7477.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		1.00	0.266
Acenaphthylene	ND		1.00	0.222
Acenaphthene	5.72		1.00	0.213
Fluorene	ND		1.00	0.231
Phenanthrene	5.80		1.00	0.321
Anthracene	0.948	J	1.00	0.242
Fluoranthene	0.330	J	1.00	0.235
Pyrene	0.885	J	1.00	0.238
Benzo[a]anthracene	ND		1.00	0.230
Chrysene	ND		1.00	0.215
Benzo[b]fluoranthene	ND		1.00	0.290
Benzo[k]fluoranthene	ND		1.00	0.220
Benzo[a]pyrene	ND		1.00	0.210
Indeno[1,2,3-cd]pyrene	ND		1.00	0.260
Dibenz[a,h]anthracene	ND		1.00	0.220
Benzo[g,h,i]perylene	ND		1.00	0.218
Total Target Compounds:	13.7	J		

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Lead

Client/Project: PENNJERSEYPALMER

Batch #: 412
Date Received: 10/05/2010
Method: 6020

Lab ID	Client ID	Result	Q	DF	Matrix-Unit	RL	MDL	% Moist	Date Analyzed
09980-009	MW12	0.712	J	1	Aqueous-ug/L	2.00	0.500	100	10/8/10

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G6156.D BFB Injection Date: 10/04/2010

Inst ID: MSD_G BFB Injection Time: 9:48

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.2			
75	30.0 - 60.0% of mass 95	53.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.2			
173	Less than 2.0% of mass 174	0.4	(	0.6	)1
174	Great than 50.0% of mass 95	70.6			
175	5.0 - 9.0% of mass 174	5.3	(	7.5	)1
176	95.0 - 101.0% of mass 174	71.2	(	100.9	)1
177	5.0 - 9.0% of mass 176	4.9	(	6.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G6157.D	10/04/2010	10:38
0.5PPB_STD	0.5PPB_STD	G6158.D	10/04/2010	12:02
1PPB_STD	1PPB_STD	G6159.D	10/04/2010	1:08
100PPB_STD	100PPB_STD	G6160.D	10/04/2010	1:36
5PPB_STD	5PPB_STD	G6161.D	10/04/2010	2:04
METHOD_BLK	METHOD_BLK	G6162.D	10/04/2010	2:31
PZ1	09625-001	G6163.D	10/04/2010	2:59
LFB_20PPB	LFB_20PPB	G6164.D	10/04/2010	3:27
MW7	09787-012	G6165.D	10/04/2010	3:54
9578-002MS	9578-002MS	G6166.D	10/04/2010	4:22
9578-002MSD	9578-002MSD	G6167.D	10/04/2010	4:50
TRIP_BLANK	09598-003	G6168.D	10/04/2010	5:17
SP-2	09578-002	G6169.D	10/04/2010	5:45
MW-1	09662-001	G6170.D	10/04/2010	6:12
TB	09662-002	G6171.D	10/04/2010	6:40
MW_SAMPLE_#2	09666-001	G6172.D	10/04/2010	7:07
MW-1	09667-001	G6173.D	10/04/2010	7:35
INF-21	09678-001	G6174.D	10/04/2010	8:03
9697-002MS	9697-002MS	G6175.D	10/04/2010	8:31
9697-002MSD	9697-002MSD	G6176.D	10/04/2010	8:58

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G6156.D BFB Injection Date : 10/04/201

Inst ID: MSD_G BFB Injection Time: 9:48

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.2			
75	30.0 - 60.0% of mass 95	53.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.2			
173	Less than 2.0% of mass 174	0.4	(	0.6	)1
174	Great than 50.0% of mass 95	70.6			
175	5.0 - 9.0% of mass 174	5.3	(	7.5	)1
176	95.0 - 101.0% of mass 174	71.2	(	100.9	)1
177	5.0 - 9.0% of mass 176	4.9	(	6.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-1/13.75	09679-001	G6177.D	10/04/2010	9:26
PZ1	09624-001	G6178.D	10/04/2010	9:53
TB	09624-002	G6179.D	10/04/2010	10:21
VCR-A670-A01	09832-002	G6180.D	10/04/2010	10:48
MW-6B	09844-001	G6181.D	10/04/2010	11:16
FB	09844-002	G6182.D	10/04/2010	11:43
FB	09697-001	G6183.D	10/05/2010	12:11
TB	09697-003	G6184.D	10/05/2010	12:38
MW-20	09697-002	G6185.D	10/05/2010	1:06
10-194	09693-001	G6186.D	10/05/2010	1:33
BR-TWP5	09703-001	G6187.D	10/05/2010	2:01
BR-TWP6	09703-002	G6188.D	10/05/2010	2:28
BR-TWP7	09703-003	G6189.D	10/05/2010	2:56
BR-TWP8	09703-004	G6190.D	10/05/2010	3:23
VPZ-1	09708-001	G6191.D	10/05/2010	3:51
WPZ-1	09709-001	G6192.D	10/05/2010	4:18
TRIP_BLANK	09743-002	G6194.D	10/05/2010	5:13
MW-1	09760-001	G6195.D	10/05/2010	5:40
MW-2	09760-002	G6196.D	10/05/2010	6:08
JMC-DC_(3R)	09738-001	G6197.D	10/05/2010	6:35
MW-1	09767-001	G6198.D	10/05/2010	7:03

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G6156.D BFB Injection Date : 10/04/201

Inst ID: MSD_G BFB Injection Time: 9:48

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.2			
75	30.0 - 60.0% of mass 95	53.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.2			
173	Less than 2.0% of mass 174	0.4	(	0.6	)1
174	Great than 50.0% of mass 95	70.6			
175	5.0 - 9.0% of mass 174	5.3	(	7.5	)1
176	95.0 - 101.0% of mass 174	71.2	(	100.9	)1
177	5.0 - 9.0% of mass 176	4.9	(	6.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-3	09767-003	G6199.D	10/05/2010	7:30
MW-4	09767-004	G6200.D	10/05/2010	7:58
MW-5	09767-005	G6201.D	10/05/2010	8:25
FB	09767-006	G6202.D	10/05/2010	8:53

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G6307.D

BFB Injection Date: 10/07/2010

Inst ID: MSD_G

BFB Injection Time: 9:19

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.5			
75	30.0 - 60.0% of mass 95	51.1			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.2			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	88.6			
175	5.0 - 9.0% of mass 174	6.8	(	7.7	)1
176	95.0 - 101.0% of mass 174	87.5	(	98.8	)1
177	5.0 - 9.0% of mass 176	5.3	(	6.0	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G6308.D	10/07/2010	9:47
METHOD_BLK	METHOD_BLK	G6309.D	10/07/2010	10:14
LFB_020PPB	LFB_020PPB	G6310.D	10/07/2010	10:41
VR-WP1	09922-001	G6311.D	10/07/2010	11:09
10026-004MS	10026-004MS	G6312.D	10/07/2010	11:37
10026-004MSD	10026-004MSD	G6313.D	10/07/2010	12:04
CR-BS	10037-001	G6314.D	10/07/2010	1:01
MW-29	09824-012	G6315.D	10/07/2010	1:29
MW-3	09845-22DIL	G6316.D	10/07/2010	1:56
INFLUENT	09896-1DIL	G6317.D	10/07/2010	2:24
EFFLUENT_GRAI	09985-002	G6319.D	10/07/2010	3:20
MW-1/27.49	09991-001	G6320.D	10/07/2010	3:48
TWP-1/23	10008-001	G6321.D	10/07/2010	4:15
TRIP_BLANK	09973-001	G6322.D	10/07/2010	4:43
FB10510	09973-002	G6323.D	10/07/2010	5:11
MW-2/8.25	09973-003	G6324.D	10/07/2010	5:38
MW-3/8.99	09973-004	G6325.D	10/07/2010	6:05
MW_#1	10002-001	G6326.D	10/07/2010	6:33
MW_#1	10003-001	G6327.D	10/07/2010	7:01
FB	10026-008	G6328.D	10/07/2010	7:28

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G6307.D

BFB Injection Date : 10/07/201

Inst ID: MSD_G

BFB Injection Time: 9:19

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.5			
75	30.0 - 60.0% of mass 95	51.1			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.2			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	88.6			
175	5.0 - 9.0% of mass 174	6.8	(	7.7	)1
176	95.0 - 101.0% of mass 174	87.5	(	98.8	)1
177	5.0 - 9.0% of mass 176	5.3	(	6.0	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW1	10026-001	G6329.D	10/07/2010	7:56
MW1BB	10026-002	G6330.D	10/07/2010	8:23
MW1D	10026-003	G6331.D	10/07/2010	8:52
MW2	10026-004	G6332.D	10/07/2010	9:19
MW2B	10026-005	G6333.D	10/07/2010	9:47
MW3B	10026-006	G6334.D	10/07/2010	10:15
MW3BB	10026-007	G6335.D	10/07/2010	10:43
MW-1R/18	09949-001	G6336.D	10/07/2010	11:10
MW-2/15	09949-002	G6337.D	10/07/2010	11:38
MW-3/17	09949-003	G6338.D	10/08/2010	12:06
MW-4/16	09949-004	G6339.D	10/08/2010	12:33
MW-5/94	09949-005	G6340.D	10/08/2010	1:01
TRIP_BLANK	09949-006	G6341.D	10/08/2010	1:28
MW-1B	10027-001	G6342.D	10/08/2010	1:56
FIELD_BLANK	10027-002	G6343.D	10/08/2010	2:24
TRIP_BLANK	10027-003	G6344.D	10/08/2010	2:52
TRIP_	09980-001	G6345.D	10/08/2010	3:19
FIELD	09980-002	G6346.D	10/08/2010	3:47
MW16	09980-003	G6347.D	10/08/2010	4:14

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G6348.D

BFB Injection Date: 10/08/2010

Inst ID: MSD_G

BFB Injection Time: 10:41

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.0			
75	30.0 - 60.0% of mass 95	53.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.3			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	66.2			
175	5.0 - 9.0% of mass 174	4.8	(	7.2	)1
176	95.0 - 101.0% of mass 174	64.7	(	97.8	)1
177	5.0 - 9.0% of mass 176	3.8	(	5.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G6349.D	10/08/2010	11:08
0.5PPB_STD	0.5PPB_STD	G6350.D	10/08/2010	11:36
1PPB_STD	1PPB_STD	G6351.D	10/08/2010	12:03
100PPB_STD	100PPB_STD	G6352.D	10/08/2010	12:31
5PPB_STD	5PPB_STD	G6353.D	10/08/2010	12:58
METHOD_BLK	METHOD_BLK	G6354.D	10/08/2010	1:26
LFB_020PPB	LFB_020PPB	G6355.D	10/08/2010	1:56
MW7R	09900-2DIL	G6356.D	10/08/2010	2:23
EFF1-0910	09816-001DIL	G6357.D	10/08/2010	2:50
9980-007MS	9980-007MS	G6358.D	10/08/2010	3:18
9980-007MSD	9980-007MSD	G6359.D	10/08/2010	3:45
MW15	09980-004	G6360.D	10/08/2010	4:13
MW8R	09980-005	G6361.D	10/08/2010	4:41
MW17	09980-006	G6362.D	10/08/2010	5:09
MW13	09980-007	G6363.D	10/08/2010	5:36
MW14	09980-008	G6364.D	10/08/2010	6:03
MW12	09980-009	G6365.D	10/08/2010	6:31
GW-1	10098-001	G6366.D	10/08/2010	6:58
BLANK-MS	BLANK-MS	G6367.D	10/08/2010	7:25
BLANK-MSD	BLANK-MSD	G6368.D	10/08/2010	7:53

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G6348.D

BFB Injection Date : 10/08/201

Inst ID: MSD_G

BFB Injection Time: 10:41

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.0			
75	30.0 - 60.0% of mass 95	53.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.3			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	66.2			
175	5.0 - 9.0% of mass 174	4.8	(	7.2	)1
176	95.0 - 101.0% of mass 174	64.7	(	97.8	)1
177	5.0 - 9.0% of mass 176	3.8	(	5.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-1	09944-001	G6369.D	10/08/2010	8:21
TB	09944-002	G6370.D	10/08/2010	8:49
MW-1/5.71	09936-001	G6371.D	10/08/2010	9:17
12_AIDA_COURT	10060-001	G6372.D	10/08/2010	9:44
SU-20	10060-002	G6373.D	10/08/2010	10:11
SU-35	10060-004	G6374.D	10/08/2010	10:39
SU-24B	10060-006	G6375.D	10/08/2010	11:07
SU-24A	10060-008	G6376.D	10/08/2010	11:34
SU-28	10060-010	G6377.D	10/09/2010	12:02
TB_AQ.	10060-013	G6378.D	10/09/2010	12:29
DSN001_GRAB	10066-002	G6379.D	10/09/2010	12:56
WP-35	10122-001	G6380.D	10/09/2010	1:24
WP-36	10122-002	G6381.D	10/09/2010	1:52
WP-37	10122-003	G6382.D	10/09/2010	2:19
WP-38	10122-004	G6383.D	10/09/2010	2:47

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G6309.D Instrument ID: MSD_G

Date Analyzed: 10/07/2010 Time Analyzed: 10:14

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LFB_020PPB	LFB_020PPB	10/07/2010	10:41
VR-WP1	09922-001	10/07/2010	11:09
10026-004MS	10026-004MS	10/07/2010	11:37
10026-004MSD	10026-004MSD	10/07/2010	12:04
CR-BS	10037-001	10/07/2010	1:01
MW-29	09824-012	10/07/2010	1:29
MW-3	09845-22DIL	10/07/2010	1:56
INFLUENT	09896-1DIL	10/07/2010	2:24
EFFLUENT_GRAB	09985-002	10/07/2010	3:20
MW-1/27.49	09991-001	10/07/2010	3:48
TWP-1/23	10008-001	10/07/2010	4:15
TRIP_BLANK	09973-001	10/07/2010	4:43
FB10510	09973-002	10/07/2010	5:11
MW-2/8.25	09973-003	10/07/2010	5:38
MW-3/8.99	09973-004	10/07/2010	6:05
MW_#1	10002-001	10/07/2010	6:33
MW_#1	10003-001	10/07/2010	7:01
FB	10026-008	10/07/2010	7:28
MW1	10026-001	10/07/2010	7:56
MW1BB	10026-002	10/07/2010	8:23
MW1D	10026-003	10/07/2010	8:52
MW2	10026-004	10/07/2010	9:19
MW2B	10026-005	10/07/2010	9:47
MW3B	10026-006	10/07/2010	10:15
MW3BB	10026-007	10/07/2010	10:43
MW-1R/18	09949-001	10/07/2010	11:10
MW-2/15	09949-002	10/07/2010	11:38
MW-3/17	09949-003	10/08/2010	12:06
MW-4/16	09949-004	10/08/2010	12:33
MW-5/94	09949-005	10/08/2010	1:01
TRIP_BLANK	09949-006	10/08/2010	1:28
MW-1B	10027-001	10/08/2010	1:56

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G6309.D Instrument ID: MSD_G

Date Analyzed: 10/07/2010 Time Analyzed: 10:14

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
FIELD_BLANK	10027-002	10/08/2010	2:24
TRIP_BLANK	10027-003	10/08/2010	2:52
TRIP_	09980-001	10/08/2010	3:19
FIELD	09980-002	10/08/2010	3:47
MW16	09980-003	10/08/2010	4:14

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 10/07/2010
Data file: G6309.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
Acrolein	ND		10.0	2.51
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	2.29
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,1-Dichloropropene	ND		0.500	0.310
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
Dibromomethane	ND		0.500	0.180
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
2-Chloroethyl vinyl ether	ND		0.500	0.210
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 10/07/2010
Data file: G6309.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 10/07/2010
Date File: G6309.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G6354.D

Instrument ID: MSD_G

Date Analyzed: 10/08/2010

Time Analyzed: 01:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LFB_020PPB	LFB_020PPB	10/08/2010	1:56
MW7R	09900-2DIL	10/08/2010	2:23
EFF1-0910	09816-001DIL	10/08/2010	2:50
9980-007MS	9980-007MS	10/08/2010	3:18
9980-007MSD	9980-007MSD	10/08/2010	3:45
MW15	09980-004	10/08/2010	4:13
MW8R	09980-005	10/08/2010	4:41
MW17	09980-006	10/08/2010	5:09
MW13	09980-007	10/08/2010	5:36
MW14	09980-008	10/08/2010	6:03
MW12	09980-009	10/08/2010	6:31
GW-1	10098-001	10/08/2010	6:58
BLANK-MS	BLANK-MS	10/08/2010	7:25
BLANK-MSD	BLANK-MSD	10/08/2010	7:53
MW-1	09944-001	10/08/2010	8:21
TB	09944-002	10/08/2010	8:49
MW-1/5.71	09936-001	10/08/2010	9:17
12_AIDA_COURT	10060-001	10/08/2010	9:44
SU-20	10060-002	10/08/2010	10:11
SU-35	10060-004	10/08/2010	10:39
SU-24B	10060-006	10/08/2010	11:07
SU-24A	10060-008	10/08/2010	11:34
SU-28	10060-010	10/09/2010	12:02
TB_AQ.	10060-013	10/09/2010	12:29
DSN001_GRAB	10066-002	10/09/2010	12:56
WP-35	10122-001	10/09/2010	1:24
WP-36	10122-002	10/09/2010	1:52
WP-37	10122-003	10/09/2010	2:19

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G6354.D

Instrument ID: MSD_G

Date Analyzed: 10/08/2010

Time Analyzed: 01:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
WP-38	10122-004	10/09/2010	2:47

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 10/08/2010
Data file: G6354.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
Acrolein	ND		10.0	2.51
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	2.29
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
Dibromomethane	ND		0.500	0.180
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
2-Chloroethyl vinyl ether	ND		0.500	0.210
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 10/08/2010
Data file: G6354.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

0053

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 10/08/2010
Date File: G6354.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

Response Factor Report MSD_G

Method Path : C:\MSDCHEM\1\METHODS\
Method File : GA100410.M
Title : VOLATILE ORGANICS BY EPA METHOD 624
Last Update : Mon Oct 04 14:40:49 2010
Response Via : Initial Calibration

Calibration Files
0.5 =G6158.D 1 =G6159.D 5 =G6161.D
20 =G6157.D 100 =G6160.D

		Compound	0.5	1	5	20	100	Avg	%RSD
1)	I	Pentafluorobenzene	----------	----------	ISTD	----------	----------		
2)	T	Dichlorodifluoromet	0.306	0.331	0.427	0.305	0.418	0.358	16.87
3)	P	Chloromethane	0.339	0.320	0.282	0.194	0.240	0.275	21.47
4)	C	Vinyl chloride	0.188	0.182	0.236	0.156	0.194	0.191	15.07
5)	T	Bromomethane	0.035	0.079	0.105	0.087	0.088	0.079	32.99
6)	T	Chloroethane	0.073	0.104	0.109	0.069	0.096	0.090	20.04
7)	T	Trichlorofluorometh		0.362	0.464	0.337	0.498	0.415	18.75
8)	T	Acrolein	0.006	0.010	0.009	0.005	0.008	0.008	26.15
9)	MC	1,1-Dichloroethene	0.170	0.187	0.191	0.127	0.175	0.170	14.89
10)	T	Acetone			0.170	0.101	0.134	0.135	25.44
11)	T	Carbon disulfide	0.551	0.493	0.547	0.372	0.532	0.499	15.01
12)	T	Vinyl acetate	1.963	1.669	1.654	1.291	1.689	1.653	14.47
13)	T	Methylene chloride			0.468	0.303	0.366	0.379	22.03
14)	T	Acrylonitrile	0.335	0.247	0.190	0.154	0.186	0.222	32.11
15)	T	tert-Butyl alcohol		0.030	0.056	0.032	0.051	0.043	31.52
16)	T	trans-1,2-Dichloroe	0.541	0.492	0.437	0.305	0.383	0.432	21.34
17)	T	Methyl tert-butyl e	1.792	1.466	1.424	0.986	1.249	1.383	21.43
18)	P	1,1-Dichloroethane	0.921	0.884	0.780	0.563	0.785	0.787	17.68
19)	T	Diisopropyl ether (	2.042	1.759	1.664	1.219	1.644	1.666	17.76
20)	T	cis-1,2-Dichloroeth	0.603	0.527	0.477	0.345	0.454	0.481	19.77
21)	T	2,2-Dichloropropane	0.418	0.416	0.396	0.304	0.402	0.387	12.23
22)	T	2-Butanone (MEK)		0.342	0.322	0.263	0.328	0.314	11.13
23)	T	Bromochloromethane	0.306	0.238	0.241	0.173	0.237	0.239	19.69
25)	C	Chloroform	0.980	0.856	0.792	0.571	0.807	0.801	18.50
26)	T	1,1,1-Trichloroetha	0.650	0.632	0.632	0.459	0.694	0.613	14.70
27)	T	Carbon tetrachlorid	0.476	0.441	0.495	0.365	0.604	0.476	18.31
28)	T	1,1-Dichloropropene	0.681	0.627	0.586	0.412	0.570	0.575	17.51
29)	T	1,2-Dichloroethane	0.884	0.827	0.749	0.533	0.762	0.751	17.74
30)	S	1,2-Dichloroethane-	0.704	0.715	0.703	0.719	0.751	0.718	2.73
31)	I	1,4-Difluorobenzene	----------	----------	ISTD	----------	----------		
32)	M	Benzene	1.285	1.175	1.076	0.747	0.930	1.043	20.20
33)	M	Trichloroethene	0.338	0.306	0.288	0.203	0.277	0.282	17.81
34)	C	1,2-Dichloropropane	0.342	0.280	0.261	0.185	0.242	0.262	21.78
35)	T	Dibromomethane	0.209	0.203	0.184	0.133	0.175	0.181	16.62
36)	T	1,4-Dioxane	0.005	0.003	0.003	0.002	0.003	0.003	27.64
37)	T	Bromodichloromethan	0.349	0.299	0.320	0.239	0.353	0.312	14.86
38)	T	2-Chloroethyl vinyl	0.199	0.149	0.171	0.128	0.178	0.165	16.58
39)	T	cis-1,3-Dichloropro	0.366	0.336	0.349	0.263	0.383	0.339	13.57
40)	T	4-Methyl-2-pentanon	0.487	0.383	0.356	0.276	0.365	0.373	20.29
41)	S	Toluene-d8	1.063	1.057	1.098	1.056	1.094	1.073	1.91
42)	MC	Toluene	0.799	0.720	0.659	0.467	0.601	0.649	19.35
43)	T	trans-1,3-Dichlorop	0.301	0.282	0.317	0.248	0.377	0.305	15.69
44)	T	1,1,2-Trichloroetha	0.264	0.198	0.200	0.138	0.183	0.197	23.09
45)	T	Tetrachloroethene	0.327	0.299	0.273	0.192	0.258	0.270	18.85
46)	T	1,3-Dichloropropane	0.533	0.432	0.405	0.286	0.382	0.408	21.91
47)	T	2-Hexanone	0.362	0.249	0.249	0.187	0.267	0.263	23.97
48)	T	Dibromochloromethan	0.234	0.171	0.213	0.168	0.271	0.211	20.63
49)	T	1,2-Dibromoethane (	0.297	0.262	0.250	0.186	0.254	0.250	16.10
50)	I	Chlorobenzene-d5	----------	----------	ISTD	----------	----------		
51)	MP	Chlorobenzene	1.082	0.898	0.832	0.583	0.738	0.827	22.45
52)	T	1,1,1,2-Tetrachloro	0.262	0.224	0.248	0.193	0.282	0.242	14.32

3)	C	Ethylbenzene	1.674	1.442	1.424	0.987	1.263	1.358	18.70
4)	T	m,p-Xylene	0.628	0.549	0.545	0.372	0.415	0.502	20.99
5)	T	o-Xylene	0.594	0.543	0.535	0.373	0.442	0.497	17.76
6)	T	Styrene	1.026	0.889	0.889	0.613	0.737	0.831	19.13
7)	P	Bromoform	0.145	0.117	0.126	0.111	0.188	0.137	22.61
8)	T	Isopropylbenzene	1.536	1.383	1.380	0.975	1.266	1.308	16.01
9)	S	Bromofluorobenzene	0.496	0.501	0.515	0.502	0.531	0.509	2.83
0)	P	1,1,2,2-Tetrachloro	0.542	0.435	0.368	0.274	0.304	0.385	28.03
1)	T	Bromobenzene	0.468	0.388	0.366	0.248	0.308	0.356	23.33
2)	T	1,2,3-Trichloroprop		0.377	0.277	0.201	0.254	0.277	26.59
3)	T	n-Propylbenzene	1.916	1.700	1.664	1.130	1.463	1.575	18.79
4)	T	2-Chlorotoluene	1.436	1.259	1.214	0.815	1.054	1.156	20.27
5)	T	1,3,5-Trimethylbenz	1.340	1.154	1.201	0.824	1.022	1.108	17.63
6)'	T	4-Chlorotoluene	1.436	1.259	1.214	0.815	1.054	1.156	20.27
7)	T	tert-Butylbenzene	1.138	0.956	1.006	0.693	0.901	0.939	17.36
8)	T	1,2,4-Trimethylbenz	1.431	1.230	1.232	0.851	1.099	1.168	18.28
9)	T	sec-Butylbenzene	1.492	1.339	1.432	0.950	1.251	1.293	16.43
0)	T	1,3-Dichlorobenzene	0.823	0.720	0.692	0.460	0.583	0.656	21.18
1)	T	4-Isopropyltoluene	1.251	1.131	1.216	0.823	1.052	1.095	15.58
2)	T	1,4-Dichlorobenzene	0.869	0.753	0.709	0.471	0.604	0.681	22.16
3)	T	n-Butylbenzene	1.222	1.023	1.106	0.732	0.920	1.001	18.64
4)	T	1,2-Dichlorobenzene	0.837	0.680	0.686	0.458	0.551	0.642	22.49
5)	T	1,2-Dibromo-3-chlor	0.271	0.223	0.230	0.147	0.198	0.214	21.30
6)	T	1,2,4-Trichlorobenz	0.533	0.433	0.467	0.310	0.388	0.426	19.66
7)	T	Hexachlorobutadiene	0.169	0.161	0.168	0.103	0.132	0.147	19.72
8)	T	Naphthalene	1.573	1.163	1.378	0.986	1.200	1.260	17.74
9)	T	1,2,3-Trichlorobenz	0.488	0.419	0.472	0.296	0.366	0.408	19.29
0)	T	1,1,2-Trichloro-1,2		0.161	0.183	0.123	0.149	0.154	16.18
1)	T	Methyl acetate	0.457	0.389	0.298	0.248	0.250	0.329	27.89
2)	T	Cyclohexane		0.771	0.609	0.384	0.475	0.560	30.09
3)	T	Methylcyclohexane	0.388	0.337	0.358	0.270	0.388	0.348	14.02

#) = Out of Range

100410.M Mon Oct 04 14:40:55 2010 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6308.D
Acq On : 7 Oct 2010 9:47 am
Operator : Sylvia
Sample : 20PPB_STD,20PPB_STD,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 07 14:19:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Oct 04 15:27:58 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	58	0.00
2	T	Dichlorodifluoromethane	0.358	0.439	-22.6	83	0.01
3	P	Chloromethane	0.275	0.310	-12.7	93	0.00
4	C	Vinyl chloride	0.191	0.240	-25.7	89	0.02
5	T	Bromomethane	0.079	0.094	-19.0	63	0.00
6	T	Chloroethane	0.090	0.106	-17.8	88	0.00
7	T	Trichlorofluoromethane	0.415	0.527	-27.0	90	0.00
8	T	Acrolein	0.008	0.009	-12.5	93	0.00
9	MC	1,1-Dichloroethene	0.170	0.219	-28.8	100	0.00
10	T	Acetone	0.135	0.175	-29.6	100	0.00
11	T	Carbon disulfide	0.499	0.611	-22.4	95	0.00
12	T	Vinyl acetate	1.653	1.716	-3.8	77	0.00
13	T	Methylene chloride	0.379	0.390	-2.9	75	0.00
14	T	Acrylonitrile	0.222	0.174	21.6	66	0.00
15	T	tert-Butyl alcohol (TBA)	0.043	0.052	-20.9	94	0.00
16	T	trans-1,2-Dichloroethene	0.432	0.401	7.2	76	0.00
17	T	Methyl tert-butyl ether (MT	1.383	1.313	5.1	77	0.00
18	P	1,1-Dichloroethane	0.787	0.774	1.7	80	0.00
19	T	Diisopropyl ether (DIPE)	1.666	1.648	1.1	78	0.00
20	T	cis-1,2-Dichloroethene	0.481	0.454	5.6	76	0.00
21	T	2,2-Dichloropropane	0.387	0.482	-24.5	92	0.01
22	T	2-Butanone (MEK)	0.314	0.309	1.6	68	0.00
23	T	Bromochloromethane	0.239	0.231	3.3	78	0.00
24	T	Tetrahydrofuran	0.000	0.000	0.0	78	0.00
25	C	Chloroform	0.801	0.866	-8.1	88	0.00
26	T	1,1,1-Trichloroethane	0.613	0.774	-26.3	98	0.00
27	T	Carbon tetrachloride	0.476	0.613	-28.8	97	0.00
28	T	1,1-Dichloropropene	0.575	0.598	-4.0	84	0.00
29	T	1,2-Dichloroethane (EDC)	0.751	0.866	-15.3	94	0.00
30	S	1,2-Dichloroethane-d4	0.718	0.836	-16.4	67	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	57	0.00
32	M	Benzene	1.043	0.951	8.8	73	0.00
33	M	Trichloroethene	0.282	0.302	-7.1	85	0.00
34	C	1,2-Dichloropropane	0.262	0.239	8.8	74	0.00
35	T	Dibromomethane	0.181	0.187	-3.3	81	0.00
36	T	1,4-Dioxane	0.003	0.002	33.3	60	0.00
37	T	Bromodichloromethane	0.312	0.365	-17.0	87	0.00
38	T	2-Chloroethyl vinyl ether	0.165	0.157	4.8	70	0.00
39	T	cis-1,3-Dichloropropene	0.339	0.353	-4.1	77	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.373	0.331	11.3	69	0.00
41	S	Toluene-d8	1.073	1.051	2.1	57	0.00
42	MC	Toluene	0.649	0.619	4.6	76	0.00
43	T	trans-1,3-Dichloropropene	0.305	0.348	-14.1	80	0.00
44	T	1,1,2-Trichloroethane	0.197	0.176	10.7	73	0.00
45	T	Tetrachloroethene	0.270	0.275	-1.9	82	0.00

46	T	1,3-Dichloropropane	0.408	0.378	7.4	76	0.00
47	T	2-Hexanone	0.263	0.226	14.1	69	0.00
48	T	Dibromochloromethane	0.211	0.236	-11.8	81	0.00
49	T	1,2-Dibromoethane (EDB)	0.250	0.245	2.0	76	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	58	0.00
51	MP	Chlorobenzene	0.827	0.794	4.0	79	0.00
52	T	1,1,1,2-Tetrachloroethane	0.242	0.294	-21.5	89	0.00
53	C	Ethylbenzene	1.358	1.408	-3.7	83	0.00
54	T	m,p-Xylene	0.502	0.494	1.6	77	0.00
55	T	o-Xylene	0.497	0.502	-1.0	78	0.00
56	T	Styrene	0.831	0.830	0.1	79	0.00
57	P	Bromoform	0.137	0.143	-4.4	75	0.00
58	T	Isopropylbenzene	1.308	1.405	-7.4	84	0.00
59	S	Bromofluorobenzene	0.509	0.541	-6.3	63	0.00
60	P	1,1,2,2-Tetrachloroethane	0.385	0.330	14.3	70	0.00
61	T	Bromobenzene	0.356	0.352	1.1	82	0.00
62	T	1,2,3-Trichloropropane	0.277	0.254	8.3	73	0.00
63	T	n-Propylbenzene	1.575	1.613	-2.4	83	0.00
64	T	2-Chlorotoluene	1.156	1.195	-3.4	85	0.00
65	T	1,3,5-Trimethylbenzene	1.108	1.205	-8.8	85	0.00
66	T	4-Chlorotoluene	1.156	1.195	-3.4	85	0.00
67	T	tert-Butylbenzene	0.939	1.020	-8.6	86	0.00
68	T	1,2,4-Trimethylbenzene	1.168	1.231	-5.4	84	0.00
69	T	sec-Butylbenzene	1.293	1.399	-8.2	86	0.00
70	T	1,3-Dichlorobenzene	0.656	0.645	1.7	81	0.00
71	T	4-Isopropyltoluene	1.095	1.192	-8.9	84	0.00
72	T	1,4-Dichlorobenzene	0.681	0.664	2.5	82	0.00
73	T	n-Butylbenzene	1.001	1.063	-6.2	84	0.00
74	T	1,2-Dichlorobenzene	0.642	0.645	-0.5	82	0.00
75	T	1,2-Dibromo-3-chloropropane	0.214	0.234	-9.3	92	0.00
76	T	1,2,4-Trichlorobenzene	0.426	0.448	-5.2	84	0.00
77	T	Hexachlorobutadiene	0.147	0.167	-13.6	95	0.00
78	T	Naphthalene	1.260	1.256	0.3	74	0.00
79	T	1,2,3-Trichlorobenzene	0.408	0.425	-4.2	83	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.154	0.207	-34.4	97	-0.01
81	T	Methyl acetate	0.329	0.275	16.4	64	0.01
82	T	Cyclohexane	0.560	0.517	7.7	78	0.00
83	T	Methylcyclohexane	0.348	0.406	-16.7	87	0.00

SPCC's out = 0 CCC's out = 2

A100410.M Thu Oct 07 14:20:03 2010

Response Factor Report MSD_G

Method Path : C:\MSDCHEM\1\METHODS\
Method File : GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624
Last Update : Fri Oct 08 15:57:55 2010
Response Via : Initial Calibration

Calibration Files
0.5 =G6350.D 1 =G6351.D 5 =G6353.D
20 =G6349.D 100 =G6352.D

		Compound	0.5	1	5	20	100	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------						
2)	T	Dichlorodifluoromet	0.416	0.472	0.747	0.799	0.677	0.622	27.29
3)	P	Chloromethane	0.275	0.190	0.348	0.354	0.318	0.297	22.69
4)	C	Vinyl chloride	0.358	0.250	0.474	0.483	0.430	0.399	24.25
5)	T	Bromomethane	0.117	0.101	0.236	0.203	0.203	0.172	34.41
6)	T	Chloroethane	0.118	0.164	0.211	0.163	0.253	0.182	28.46
7)	T	Trichlorofluorometh		0.485	1.046	1.098	1.027	0.914	31.43
8)	T	Acrolein	0.005	0.005	0.010	0.011	0.009	0.008	33.91
9)	MC	1,1-Dichloroethene	0.244	0.213	0.417	0.435	0.421	0.346	31.12
10)	T	Acetone			0.256	0.257	0.211	0.241	10.89
11)	T	Carbon disulfide	0.951	0.731	1.330	1.420	1.486	1.184	27.62
12)	T	Vinyl acetate	1.005	0.734	1.336	1.598	1.589	1.252	30.15
13)	T	Methylene chloride			0.499	0.488	0.453	0.480	5.03
14)	T	Acrylonitrile	0.069	0.070	0.133	0.125	0.118	0.103	29.92
15)	T	tert-Butyl alcohol		0.039	0.067	0.071	0.056	0.058	24.27
16)	T	trans-1,2-Dichloroe	0.299	0.258	0.421	0.447	0.432	0.371	23.34
17)	T	Methyl tert-butyl e	1.468	1.208	2.178	2.348	2.291	1.899	27.57
18)	P	1,1-Dichloroethane	0.678	0.603	0.930	1.029	1.009	0.850	23.10
19)	T	Diisopropyl ether (	0.718	0.568	1.092	1.182	1.203	0.953	30.49
20)	T	cis-1,2-Dichloroeth	0.347	0.291	0.470	0.485	0.482	0.415	21.63
21)	T	2,2-Dichloropropane	0.563	0.502	0.888	0.946	0.913	0.762	27.79
22)	T	2-Butanone (MEK)		0.175	0.225	0.254	0.228	0.220	14.96
23)	T	Bromochloromethane	0.125	0.092	0.193	0.201	0.202	0.162	31.31
25)	C	Chloroform	1.053	0.778	1.254	1.385	1.366	1.167	21.79
26)	T	1,1,1-Trichloroetha	0.843	0.674	1.126	1.296	1.302	1.048	26.72
27)	T	Carbon tetrachlorid	0.560	0.504	0.867	1.053	1.107	0.819	33.80
28)	T	1,1-Dichloropropene	0.753	0.511	0.865	0.976	0.929	0.807	22.98
29)	T	1,2-Dichloroethane	1.116	0.858	1.351	1.599	1.549	1.295	23.88
30)	S	1,2-Dichloroethane-	1.565	1.518	1.427	1.535	1.547	1.518	3.53
31)	I	1,4-Difluorobenzene	----------ISTD----------						
32)	M	Benzene	0.886	0.707	1.240	1.321	1.293	1.089	25.34
33)	M	Trichloroethene	0.312	0.198	0.376	0.413	0.404	0.341	26.08
34)	C	1,2-Dichloropropane	0.179	0.139	0.255	0.293	0.287	0.231	29.69
35)	T	Dibromomethane	0.172	0.132	0.241	0.274	0.274	0.219	29.11
36)	T	1,4-Dioxane	0.002	0.002	0.002	0.003	0.003	0.003	15.79
37)	T	Bromodichloromethan	0.406	0.321	0.545	0.674	0.714	0.532	31.69
38)	T	2-Chloroethyl vinyl	0.122	0.110	0.166	0.208	0.210	0.163	28.78
39)	T	cis-1,3-Dichloropro	0.408	0.245	0.485	0.627	0.659	0.485	34.84
40)	T	4-Methyl-2-pentanon	0.247	0.132	0.274	0.314	0.308	0.255	28.97
41)	S	Toluene-d8	1.332	1.335	1.335	1.373	1.416	1.358	2.68
42)	MC	Toluene	0.474	0.381	0.700	0.772	0.778	0.621	29.33
43)	T	trans-1,3-Dichlorop	0.408	0.392	0.521	0.697	0.757	0.555	29.88
44)	T	1,1,2-Trichloroetha	0.122	0.121	0.217	0.245	0.245	0.190	33.44
45)	T	Tetrachloroethene	0.180	0.151	0.280	0.292	0.289	0.238	28.32
46)	T	1,3-Dichloropropane	0.373	0.258	0.527	0.622	0.623	0.481	33.47
47)	T	2-Hexanone	0.159	0.158	0.177	0.228	0.218	0.188	17.53
48)	T	Dibromochloromethan	0.163	0.123	0.260	0.295	0.260	0.220	33.23
49)	T	1,2-Dibromoethane (	0.218	0.137	0.261	0.313	0.316	0.249	30.04
50)	I	Chlorobenzene-d5	----------ISTD----------						
51)	MP	Chlorobenzene	0.599	0.406	0.733	0.817	0.795	0.670	25.39
52)	T	1,1,1,2-Tetrachloro	0.215	0.183	0.299	0.352	0.361	0.282	28.49

53)	C	Ethylbenzene	1.213	0.945	1.773	1.910	1.851	1.538	28.12
54)	T	m,p-Xylene	0.378	0.295	0.552	0.599	0.594	0.483	28.67
55)	T	o-Xylene	0.371	0.288	0.552	0.607	0.596	0.483	29.90
56)	T	Styrene	0.529	0.453	0.859	0.992	0.999	0.766	33.81
57)	P	Bromoform	0.097	0.094	0.170	0.182	0.201	0.149	33.55
58)	T	Isopropylbenzene	1.064	0.818	1.623	1.851	1.804	1.432	32.42
59)	S	Bromofluorobenzene	0.782	0.773	0.763	0.813	0.806	0.787	2.70
60)	P	1,1,2,2-Tetrachloro	0.288	0.197	0.409	0.465	0.434	0.359	31.44
61)	T	Bromobenzene	0.225	0.192	0.333	0.356	0.353	0.292	26.50
62)	T	1,2,3-Trichloroprop		0.255	0.419	0.461	0.428	0.391	23.57
63)	T	n-Propylbenzene	1.464	1.008	2.008	2.235	2.138	1.770	29.39
64)	T	2-Chlorotoluene	0.987	0.766	1.324	1.518	1.474	1.214	26.84
65)	T	1,3,5-Trimethylbenz	1.044	0.751	1.525	1.701	1.642	1.333	31.14
66)	T	4-Chlorotoluene	0.987	0.766	1.324	1.518	1.474	1.214	26.84
67)	T	tert-Butylbenzene	0.742	0.570	1.087	1.267	1.225	0.978	31.44
68)	T	1,2,4-Trimethylbenz	1.058	0.757	1.541	1.730	1.710	1.359	31.78
69)	T	sec-Butylbenzene	1.074	0.780	1.604	1.783	1.712	1.391	31.68
70)	T	1,3-Dichlorobenzene	0.467	0.317	0.610	0.674	0.654	0.545	27.71
71)	T	4-Isopropyltoluene	0.898	0.634	1.323	1.487	1.423	1.153	32.08
72)	T	1,4-Dichlorobenzene	0.454	0.330	0.641	0.707	0.674	0.561	28.88
73)	T	n-Butylbenzene	0.999	0.672	1.377	1.549	1.434	1.206	30.08
74)	T	1,2-Dichlorobenzene	0.462	0.332	0.627	0.671	0.652	0.549	26.76
75)	T	1,2-Dibromo-3-chlor	0.382	0.222	0.426	0.471	0.437	0.387	25.26
76)	T	1,2,4-Trichlorobenz	0.365	0.214	0.473	0.491	0.460	0.401	28.80
77)	T	Hexachlorobutadiene	0.302	0.158	0.267	0.254	0.212	0.239	23.12
78)	T	Naphthalene	0.968	0.479	1.245	1.241	1.212	1.029	31.92
79)	T	1,2,3-Trichlorobenz	0.417	0.245	0.471	0.460	0.427	0.404	22.69
80)	T	1,1,2-Trichloro-1,2		0.201	0.413	0.406	0.330	0.338	29.22
81)	T	Methyl acetate	0.163	0.149	0.243	0.250	0.213	0.204	22.54
82)	T	Cyclohexane		0.792	0.628	0.493	0.381	0.574	30.86
83)	T	Methylcyclohexane	0.459	0.363	0.611	0.730	0.734	0.580	28.44

(#) = Out of Range

GA100810.M Fri Oct 08 15:58:02 2010

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 10/07/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	AQUEOUS	G6309.D	116	97	105
LFB_020PPB	AQUEOUS	G6310.D	117	104	109
09922-001	AQUEOUS	G6311.D	117	97	105
10026-004MS	AQUEOUS	G6312.D	110	98	108
10026-004MSD	AQUEOUS	G6313.D	108	97	105
10037-001	AQUEOUS	G6314.D	104	98	104
09824-012	AQUEOUS	G6315.D	106	98	106
09845-22DIL	AQUEOUS	G6316.D	107	96	103
09896-1DIL	AQUEOUS	G6317.D	109	97	104
09985-002	AQUEOUS	G6319.D	115	96	103
09991-001	AQUEOUS	G6320.D	114	97	104
10008-001	AQUEOUS	G6321.D	115	98	106
09973-001	AQUEOUS	G6322.D	116	98	111
09973-002	AQUEOUS	G6323.D	120	96	104
09973-003	AQUEOUS	G6324.D	123	98	108
09973-004	AQUEOUS	G6325.D	117	97	104
10002-001	AQUEOUS	G6326.D	124	97	106
10003-001	AQUEOUS	G6327.D	115	96	108
10026-008	AQUEOUS	G6328.D	117	98	106
10026-001	AQUEOUS	G6329.D	119	99	107
10026-002	AQUEOUS	G6330.D	121	97	107
10026-003	AQUEOUS	G6331.D	119	97	107
10026-004	AQUEOUS	G6332.D	127	99	108
10026-005	AQUEOUS	G6333.D	126	98	107

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	96-142
SMC2 = Toluene-d8	30 ppb	90-107
SMC3 = Bromofluorobenzene	30 ppb	99-112

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 10/07/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
10026-006	AQUEOUS	G6334.D	122	99	108
10026-007	AQUEOUS	G6335.D	126	97	104
09949-001	AQUEOUS	G6336.D	126	99	106
09949-002	AQUEOUS	G6337.D	123	98	106
09949-003	AQUEOUS	G6338.D	129	99	109
09949-004	AQUEOUS	G6339.D	129	99	107
09949-005	AQUEOUS	G6340.D	126	98	106
09949-006	AQUEOUS	G6341.D	124	98	105
10027-001	AQUEOUS	G6342.D	125	99	106
10027-002	AQUEOUS	G6343.D	126	99	107
10027-003	AQUEOUS	G6344.D	129	100	108
09980-001	AQUEOUS	G6345.D	129	99	108
09980-002	AQUEOUS	G6346.D	129	98	107
09980-003	AQUEOUS	G6347.D	132	99	108

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	96-142
SMC2 = Toluene-d8	30 ppb	90-107
SMC3 = Bromofluorobenzene	30 ppb	99-112

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 10/08/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	AQUEOUS	G6354.D	96	99	100
LFB_020PPB	AQUEOUS	G6355.D	98	99	103
09900-2DIL	AQUEOUS	G6356.D	96	101	99
09816-001DIL	AQUEOUS	G6357.D	95	97	96
9980-007MS	AQUEOUS	G6358.D	96	100	104
9980-007MSD	AQUEOUS	G6359.D	94	100	101
09980-004	AQUEOUS	G6360.D	97	100	100
09980-005	AQUEOUS	G6361.D	95	98	97
09980-006	AQUEOUS	G6362.D	101	102	102
09980-007	AQUEOUS	G6363.D	99	99	98
09980-008	AQUEOUS	G6364.D	98	99	99
09980-009	AQUEOUS	G6365.D	83	95	90
10098-001	AQUEOUS	G6366.D	74	95	89
BLANK-MS	AQUEOUS	G6367.D	71	97	86
BLANK-MSD	AQUEOUS	G6368.D	72	97	84
09944-001	AQUEOUS	G6369.D	71	95	85
09944-002	AQUEOUS	G6370.D	69	97	86
09936-001	AQUEOUS	G6371.D	70	96	87
10060-001	AQUEOUS	G6372.D	70	96	85
10060-002	AQUEOUS	G6373.D	70	95	85

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	48-127
SMC2 = Toluene-d8	30 ppb	92-105
SMC3 = Bromofluorobenzene	30 ppb	73-116

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 10/08/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
10060-004	AQUEOUS	G6374.D	68	97	84
10060-006	AQUEOUS	G6375.D	69	96	88
10060-008	AQUEOUS	G6376.D	68	96	86
10060-010	AQUEOUS	G6377.D	71	96	85
10060-013	AQUEOUS	G6378.D	68	96	85
10066-002	AQUEOUS	G6379.D	72	95	85
10122-001	AQUEOUS	G6380.D	70	96	86
10122-002	AQUEOUS	G6381.D	71	97	88
10122-003	AQUEOUS	G6382.D	73	96	88
10122-004	AQUEOUS	G6383.D	71	95	89

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	48-127
SMC2 = Toluene-d8	30 ppb	92-105
SMC3 = Bromofluorobenzene	30 ppb	73-116

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 10026-004MSD
Client ID: 10026-004MSD
Date Received: NA
Date Analyzed: 10/07/2010
Data file: G6313.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
Chloromethane	20.0	0.0	20.3	102.0	0.0	21.8	109.0
Vinyl chloride	20.0	0.0	24.3	122.0	0.0	23.9	120.0
Bromomethane	20.0	0.0	25.2	126.0	0.0	23.9	120.0
Chloroethane	20.0	0.0	23.8	119.0	0.0	23.7	119.0
Trichlorofluoromethane	20.0	0.0	23.5	118.0	0.0	25.4	127.0
Acrolein	200.0	0.0	149.2	75.0	0.0	150.5	75.0
1,1-Dichloroethene	20.0	0.0	25.6	128.0	0.0	22.4	112.0
Methylene chloride	20.0	0.0	19.7	99.0	0.0	20.3	102.0
Acrylonitrile	200.0	0.0	149.7	75.0	0.0	149.1	75.0
trans-1,2-Dichloroethene	20.0	0.0	17.2	86.0	0.0	18.6	93.0
1,1-Dichloroethane	20.0	0.0	18.5	93.0	0.0	19.6	98.0
Chloroform	20.0	0.0	20.6	103.0	0.0	21.0	105.0
1,1,1-Trichloroethane	20.0	0.0	23.6	118.0	0.0	25.0	125.0
Carbon tetrachloride	20.0	0.0	25.4	127.0	0.0	25.1	126.0
1,2-Dichloroethane (EDC)	20.0	0.0	21.8	109.0	0.0	22.6	113.0
Benzene	20.0	0.0	17.5	88.0	0.0	18.6	93.0
Trichloroethene	20.0	0.0	19.9	100.0	0.0	21.2	106.0
1,2-Dichloropropane	20.0	0.0	18.3	92.0	0.0	19.0	95.0
Bromodichloromethane	20.0	0.0	22.9	115.0	0.0	24.2	121.0
2-Chloroethyl vinyl ether	20.0	0.0	0.0	0.0	0.0	0.0	0.0
cis-1,3-Dichloropropene	20.0	0.0	21.6	108.0	0.0	22.6	113.0
Toluene	20.0	0.0	19.2	96.0	0.0	19.8	99.0
trans-1,3-Dichloropropene	20.0	0.0	23.4	117.0	0.0	24.6	123.0
1,1,2-Trichloroethane	20.0	0.0	18.1	91.0	0.0	18.7	94.0
Tetrachloroethene	20.0	0.0	20.0	100.0	0.0	21.0	105.0
Dibromochloromethane	20.0	0.0	23.6	118.0	0.0	25.2	126.0
Chlorobenzene	20.0	0.0	19.1	96.0	0.0	19.9	100.0
Ethylbenzene	20.0	0.0	20.5	103.0	0.0	21.3	107.0
total-Xylenes	60.0	0.0	59.9	100.0	0.0	62.3	104.0
Bromoform	20.0	0.0	21.9	110.0	0.0	24.3	122.0
1,1,2,2-Tetrachloroethane	20.0	0.0	17.0	85.0	0.0	17.6	88.0
1,3-Dichlorobenzene	20.0	0.0	20.1	101.0	0.0	20.4	102.0
1,4-Dichlorobenzene	20.0	0.0	19.8	99.0	0.0	20.5	103.0
1,2-Dichlorobenzene	20.0	0.0	20.0	100.0	0.0	20.6	103.0

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G6157.D

Date Analyzed: 10/04/2010

Instrument ID: MSD_G

Time Analyzed: 10:38

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	574644	6.00	935296	6.83	828408	10.16
	UPPER LIMIT	1149288	6.50	1870592	7.33	1656816	10.66
	LOWER LIMIT	287322	5.50	467648	6.33	414204	9.66
	LAB SAMPLE ID						
01	0.5PPB_STD	445197	6.00	711448	6.83	638936	10.16
02	1PPB_STD	437977	6.00	710413	6.83	631354	10.16
03	100PPB_STD	437169	6.00	750036	6.83	683613	10.16
04	5PPB_STD	482169	6.00	764954	6.83	684472	10.16
05	METHOD_BLK	461382	6.01	740333	6.83	660220	10.16
06	09625-001	413952	6.01	680309	6.83	595037	10.16
07	LFB_20PPB	549258	6.01	871385	6.83	769109	10.16
08	09787-012	542158	6.00	846275	6.83	729886	10.16
09	9578-002MS	551465	6.00	893585	6.83	787230	10.16
10	9578-002MSD	561821	6.00	894865	6.83	786475	10.16
11	09598-003	539735	6.01	850720	6.83	754104	10.16
12	09578-002	529525	6.01	834616	6.83	737954	10.16
13	09662-001	493169	6.01	786971	6.83	698521	10.16
14	09662-002	493910	6.01	780059	6.83	702918	10.16
15	09666-001	476778	6.01	761611	6.83	672354	10.16
16	09667-001	453424	6.01	733082	6.83	658206	10.16
17	09678-001	433662	6.01	710034	6.83	621230	10.16
18	9697-002MS	471351	6.01	765042	6.83	680835	10.16
19	9697-002MSD	492644	6.01	782354	6.83	703596	10.16
20	09679-001	462380	6.01	730535	6.83	650099	10.16
21	09624-001	434541	6.01	710430	6.83	623361	10.16
22	09624-002	448338	6.00	722496	6.83	646113	10.16

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G6157.D Date Analyzed: 10/04/2010

Instrument ID: MSD_G Time Analyzed: 10:38

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	574644	6.00	935296	6.83	828408	10.16
	UPPER LIMIT	1149288	6.50	1870592	7.33	1656816	10.66
	LOWER LIMIT	287322	5.50	467648	6.33	414204	9.66
	LAB SAMPLE ID						
23	09832-002	414609	6.01	675755	6.83	592136	10.16
24	09844-001	412700	6.00	664921	6.83	582254	10.16
25	09844-002	404247	6.00	654522	6.83	575435	10.16
26	09697-001	393346	6.01	640210	6.83	567096	10.16
27	09697-003	400581	6.01	652001	6.83	575597	10.16
28	09697-002	383095	6.01	615431	6.83	559567	10.16
29	09693-001	361823	6.01	594700	6.83	533218	10.16
30	09703-001	360804	6.00	587499	6.83	530586	10.16
31	09703-002	370083	6.01	607564	6.83	539105	10.16
32	09703-003	353912	6.01	585290	6.83	520395	10.16
33	09703-004	347416	6.01	574687	6.83	519119	10.16
34	09708-001	358203	6.01	582912	6.83	527822	10.16
35	09709-001	436511	6.01	699519	6.83	618199	10.16
36	09743-002	492602	6.01	770081	6.83	682409	10.16
37	09760-001	504287	6.01	786863	6.83	695704	10.16
38	09760-002	473802	6.01	745513	6.83	678080	10.16
39	09738-001	471027	6.00	746601	6.83	668549	10.16
40	09767-001	423822	6.01	690480	6.83	613070	10.16
41	09767-003	411575	6.01	665034	6.83	588754	10.16
42	09767-004	405157	6.00	648349	6.83	580651	10.16
43	09767-005	364178	6.01	591155	6.83	528956	10.16
44	09767-006	372054	6.01	585921	6.83	502838	10.16

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G6308.D

Date Analyzed: 10/07/2010

Instrument ID: MSD_G

Time Analyzed: 9:47

	30UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	332918		6.01		535503		6.83		481294		10.16	
	UPPER LIMIT	665836		6.51		1071006		7.33		962588		10.66	
	LOWER LIMIT	166459		5.51		267751.5		6.33		240647		9.66	
	LAB SAMPLE ID												
01	METHOD_BLK	323572		6.01		509756		6.83		454425		10.16	
02	LFB_020PPB	323800		6.01		526998		6.83		466144		10.16	
03	09922-001	320811		6.01		506088		6.83		463006		10.16	
04	10026-004MS	392304		6.00		623627		6.83		565416		10.16	
05	10026-004MSD	413658		6.01		652568		6.83		583106		10.16	
06	10037-001	414679		6.01		627300		6.83		576993		10.16	
07	09824-012	396882		6.01		603865		6.83		551854		10.16	
08	09845-22DIL	406118		6.01		624727		6.83		558600		10.16	
09	09896-1DIL	386211		6.00		597251		6.83		538081		10.16	
10	09985-002	344874		6.00		543064		6.83		477918		10.16	
11	09991-001	340833		6.01		536140		6.83		487833		10.16	
12	10008-001	326546		6.01		513670		6.83		463816		10.16	
13	09973-001	317769		6.01		502091		6.83		456238		10.16	
14	09973-002	294059		6.01		471827		6.83		417504		10.16	
15	09973-003	278127		6.01		454083		6.83		412235		10.16	
16	09973-004	290041		6.01		461096		6.83		411916		10.16	
17	10002-001	272404		6.01		444008		6.83		398771		10.16	
18	10003-001	333505		6.00		527462		6.83		473028		10.16	
19	10026-008	324152		6.00		511060		6.83		464893		10.16	
20	10026-001	295329		6.01		466569		6.83		426050		10.16	
21	10026-002	281888		6.01		456833		6.83		416305		10.16	
22	10026-003	289266		6.01		464025		6.83		419822		10.16	

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G6308.D

Date Analyzed: 10/07/2010

Instrument ID: MSD_G

Time Analyzed: 9:47

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	332918	6.01	535503	6.83	481294	10.16
	UPPER LIMIT	665836	6.51	1071006	7.33	962588	10.66
	LOWER LIMIT	166459	5.51	267751.5	6.33	240647	9.66
	LAB SAMPLE ID						
23	10026-004	268794	6.01	437651	6.83	399246	10.16
24	10026-005	262429	6.01	428530	6.83	394087	10.16
25	10026-006	267160	6.01	426601	6.83	389075	10.16
26	10026-007	256909	6.01	414027	6.83	367041	10.16
27	09949-001	257774	6.01	418630	6.83	387075	10.16
28	09949-002	262042	6.00	415977	6.83	381167	10.16
29	09949-003	240269	6.01	393487	6.83	360755	10.16
30	09949-004	242554	6.01	397892	6.83	368980	10.16
31	09949-005	244507	6.00	387047	6.83	344720	10.16
32	09949-006	249367	6.01	401976	6.83	360566	10.16
33	10027-001	248795	6.00	396761	6.83	367254	10.16
34	10027-002	243724	6.01	394976	6.83	362922	10.16
35	10027-003	238802	6.01	384624	6.83	353519	10.16
36	09980-001	237165	6.01	384091	6.83	353035	10.16
37	09980-002	241547	6.01	395284	6.83	360840	10.16
38	09980-003	228360	6.01	375141	6.83	345703	10.16
39							
40							
41							
42							
43							
44							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G6349.D

Date Analyzed: 10/08/2010

Instrument ID: MSD_G

Time Analyzed: 11:08

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	323039	6.00	490574	6.83	452923	10.16
	UPPER LIMIT	646078	6.50	981148	7.33	905846	10.66
	LOWER LIMIT	161519.5	5.50	245287	6.33	226461.5	9.66
	LAB SAMPLE ID						
01	0.5PPB_STD	315188	6.01	478754	6.83	422758	10.16
02	1PPB_STD	324687	6.01	494735	6.83	437291	10.16
03	100PPB_STD	342772	6.00	528594	6.83	513731	10.16
04	5PPB_STD	383091	6.01	567967	6.83	506726	10.16
05	METHOD_BLK	354034	6.00	530166	6.83	484192	10.16
06	LFB_020PPB	344540	6.00	523449	6.82	473754	10.16
07	09900-2DIL	345353	6.00	509247	6.83	482055	10.16
08	09816-001DIL	380307	6.01	568858	6.83	492485	10.16
09	9980-007MS	351337	6.01	526586	6.83	484267	10.16
10	9980-007MSD	360541	6.01	531569	6.83	493047	10.16
11	09980-004	340573	6.01	507765	6.83	453550	10.16
12	09980-005	348642	6.00	522844	6.83	469033	10.16
13	09980-006	327153	6.01	495448	6.83	452975	10.16
14	09980-007	325697	6.00	485983	6.83	435853	10.16
15	09980-008	332177	6.00	497631	6.83	451605	10.16
16	09980-009	470092	6.01	724910	6.83	633902	10.16
17	10098-001	559317	6.01	876893	6.83	775609	10.16
18	BLANK-MS	606163	6.01	933896	6.83	834677	10.16
19	BLANK-MSD	607887	6.00	950755	6.83	855524	10.16
20	09944-001	603162	6.01	929352	6.83	826491	10.16
21	09944-002	607131	6.01	934137	6.83	845831	10.16
22	09936-001	615969	6.00	947914	6.83	852780	10.16

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G6349.D

Date Analyzed: 10/08/2010

Instrument ID: MSD_G

Time Analyzed: 11:08

	30UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	323039		6.00		490574		6.83		452923		10.16	
	UPPER LIMIT	646078		6.50		981148		7.33		905846		10.66	
	LOWER LIMIT	161519.5		5.50		245287		6.33		226461.5		9.66	
	LAB SAMPLE ID												
23	10060-001	596082		6.01		926056		6.83		814492		10.16	
24	10060-002	604734		6.01		945005		6.83		821441		10.16	
25	10060-004	640092		6.00		979030		6.82		884763		10.16	
26	10060-006	629405		6.01		969620		6.83		864454		10.16	
27	10060-008	625985		6.01		947419		6.83		853268		10.16	
28	10060-010	601264		6.01		933564		6.83		816824		10.16	
29	10060-013	619158		6.01		941545		6.83		842790		10.16	
30	10066-002	571822		6.01		876408		6.83		752734		10.16	
31	10122-001	593380		6.01		902962		6.83		795567		10.16	
32	10122-002	584654		6.01		896725		6.83		808384		10.16	
33	10122-003	560511		6.01		873540		6.83		787742		10.16	
34	10122-004	569914		6.01		862869		6.83		758224		10.16	
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6345.D
Acq On : 8 Oct 2010 3:19 am
Operator : Sylvia
Sample : TRIP_,09980-001,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 12 09:27:12 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Oct 04 15:27:58 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	237165	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	384091	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	353035	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	220549	38.83	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 129.43%			
41) Toluene-d8	8.48	98	408832	29.75	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 99.17%			
59) Bromofluorobenzene	11.56	95	194426	32.46	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 108.20%			

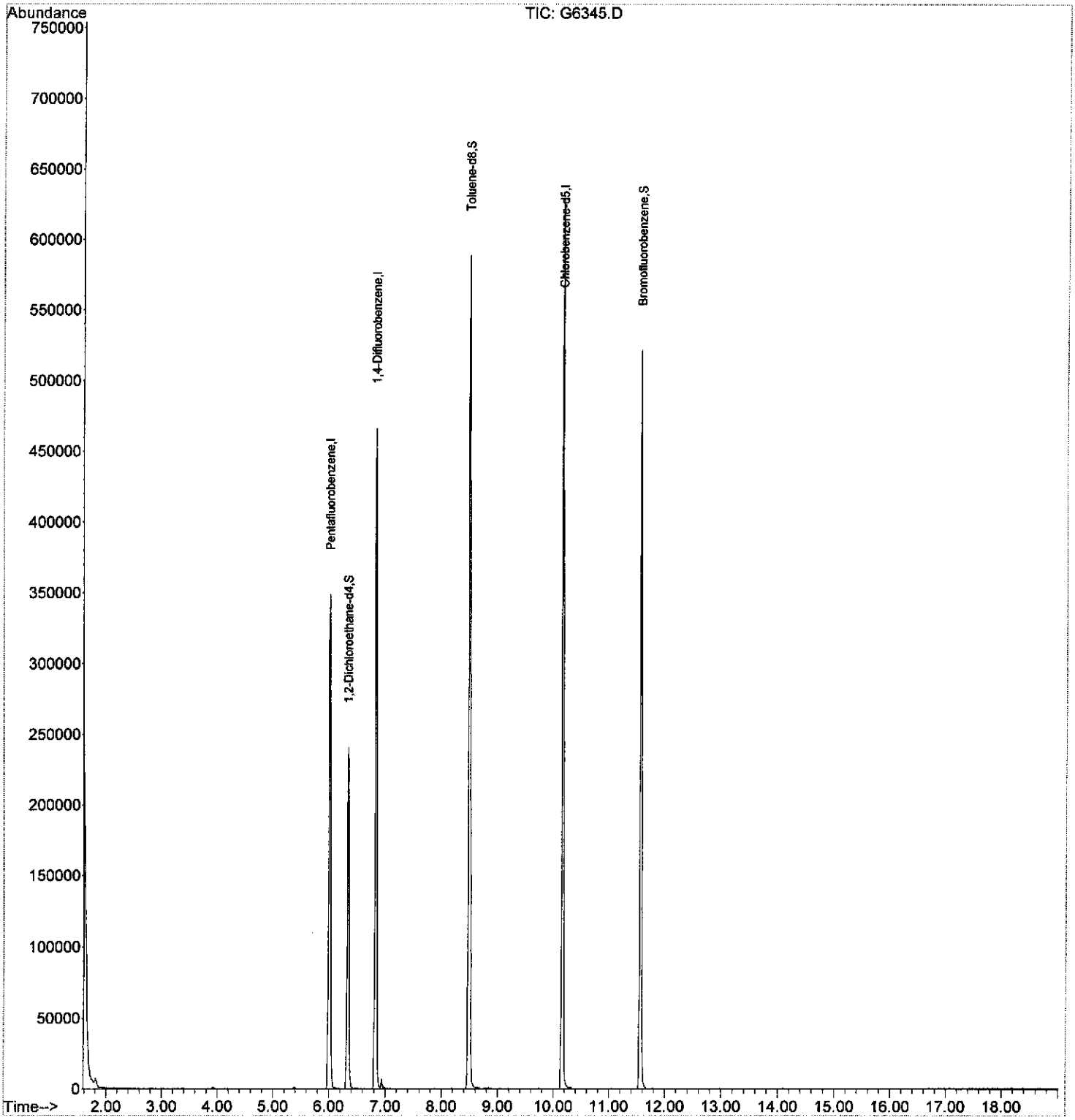
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6345.D
Acq On : 8 Oct 2010 3:19 am
Operator : Sylvia
Sample : TRIP_,09980-001,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 12 09:27:12 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Oct 04 15:27:58 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6345.D
Acq On : 8 Oct 2010 3:19 am
Operator : Sylvia
Sample : TRIP_,09980-001,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 37 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100410.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	835	847	865	rBV	348555	804313	66.79%	14.142%
2	6.334	898	909	927	rBV	240424	525102	43.60%	9.233%
3	6.826	990	1003	1020	rBV	466099	979831	81.36%	17.228%
4	8.484	1310	1320	1349	rBV	588602	1187178	98.58%	20.874%
5	10.157	1629	1640	1671	rBV	628451	1204327	100.00%	21.175%
6	11.564	1894	1909	1931	rBV	521286	986725	81.93%	17.349%

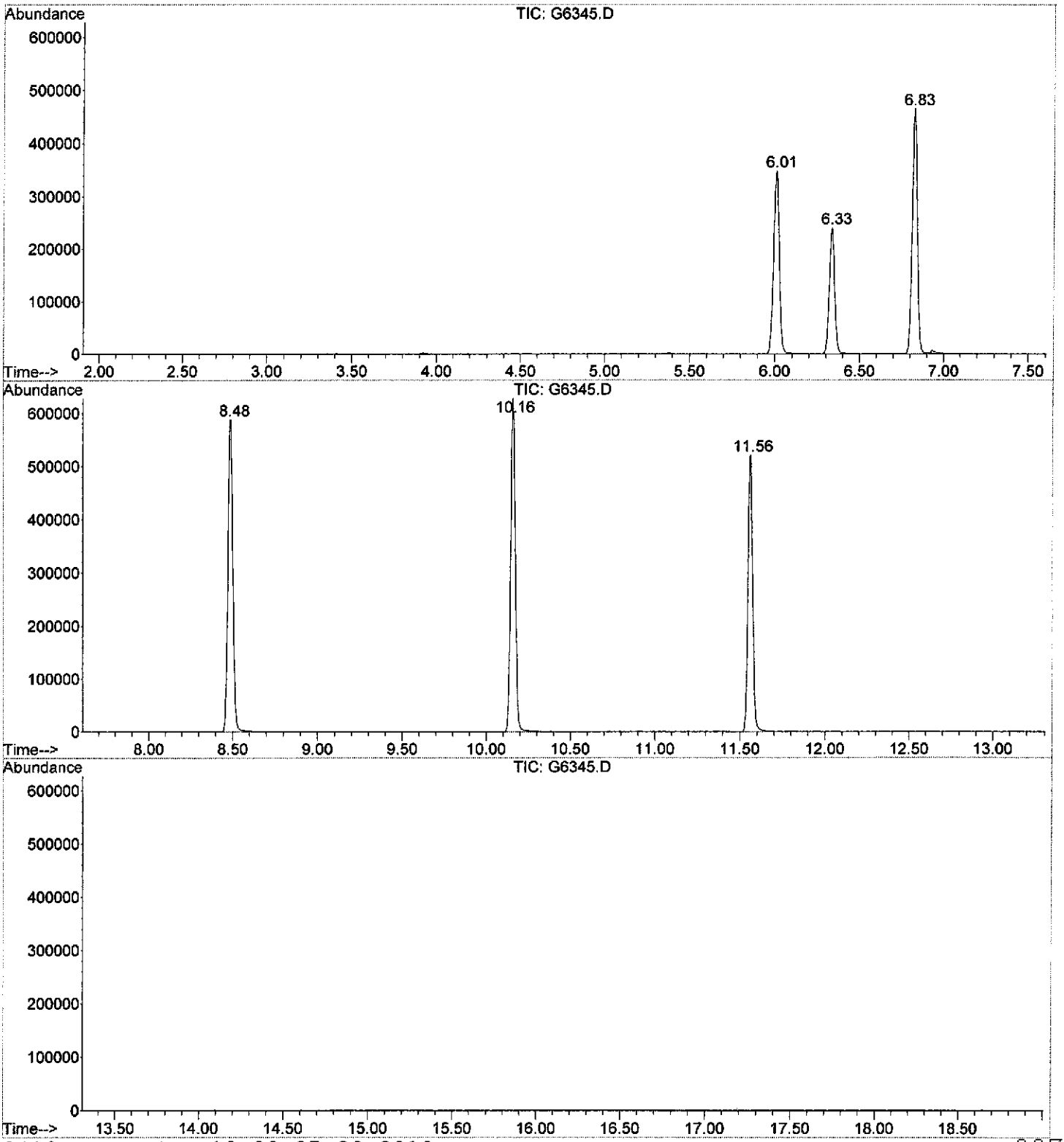
Sum of corrected areas: 5687476

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6345.D
Acq On : 8 Oct 2010 3:19 am
Operator : Sylvia
Sample : TRIP_,09980-001,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6346.D
Acq On : 8 Oct 2010 3:47 am
Operator : Sylvia
Sample : FIELD,09980-002,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 12 09:27:54 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Oct 04 15:27:58 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	241547	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	395284	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	360840	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	223849	38.70	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 129.00%			
41) Toluene-d8	8.48	98	413781	29.26	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 97.53%			
59) Bromofluorobenzene	11.56	95	197204	32.21	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 107.37%			

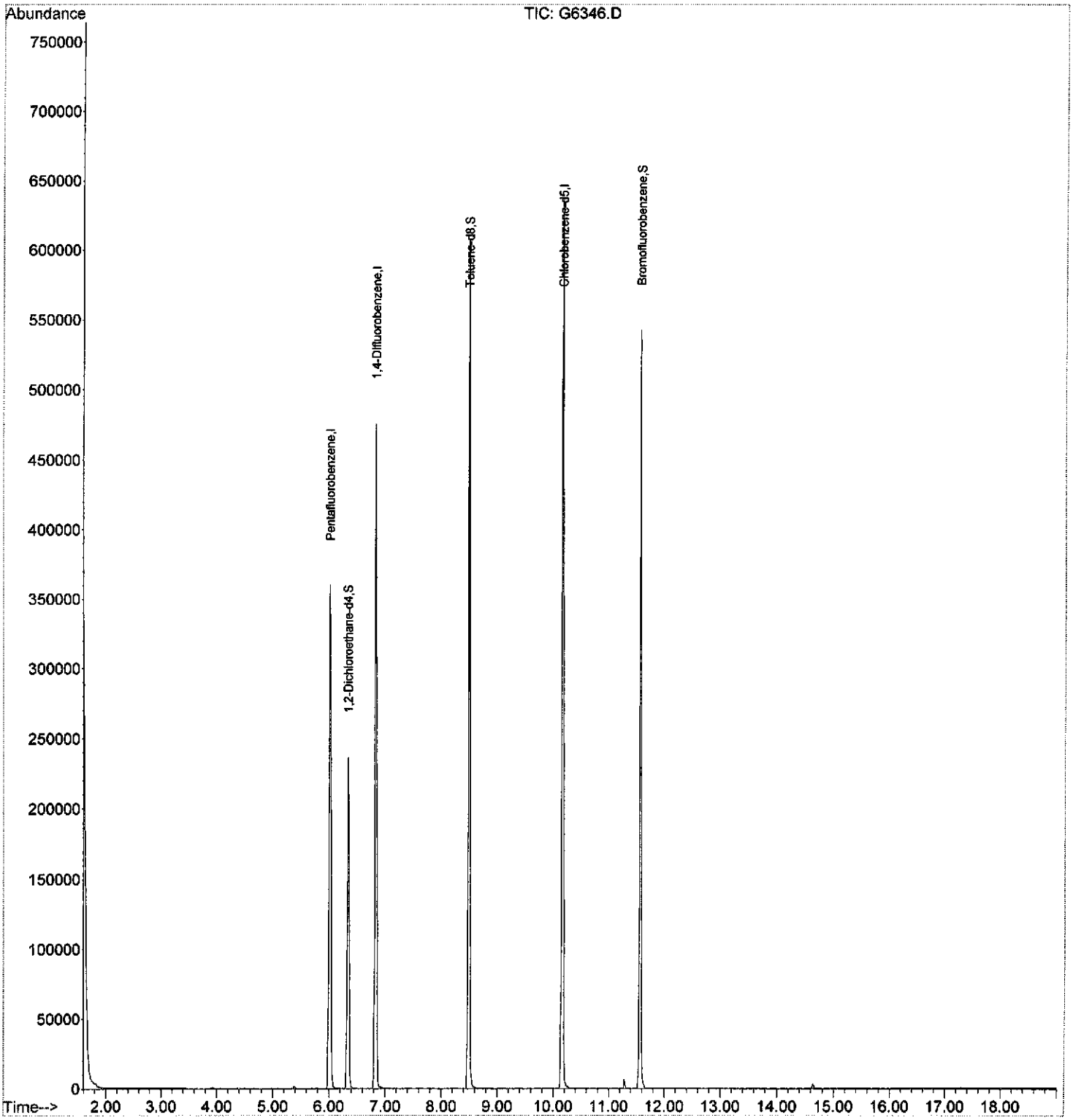
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6346.D
Acq On : 8 Oct 2010 3:47 am
Operator : Sylvia
Sample : FIELD,09980-002,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 12 09:27:54 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Oct 04 15:27:58 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6346.D
Acq On : 8 Oct 2010 3:47 am
Operator : Sylvia
Sample : FIELD,09980-002,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 38 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100410.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	835	847	872	rBV	360128	821539	66.97%	14.185%
2	6.334	897	909	925	rBV	236622	531980	43.37%	9.185%
3	6.826	989	1003	1038	rBB	475521	1005477	81.97%	17.361%
4	8.484	1309	1320	1341	rBV	607760	1204622	98.20%	20.800%
5	10.157	1629	1640	1671	rBV	636628	1226686	100.00%	21.181%
6	11.559	1895	1908	1931	rBV	542425	1001253	81.62%	17.288%

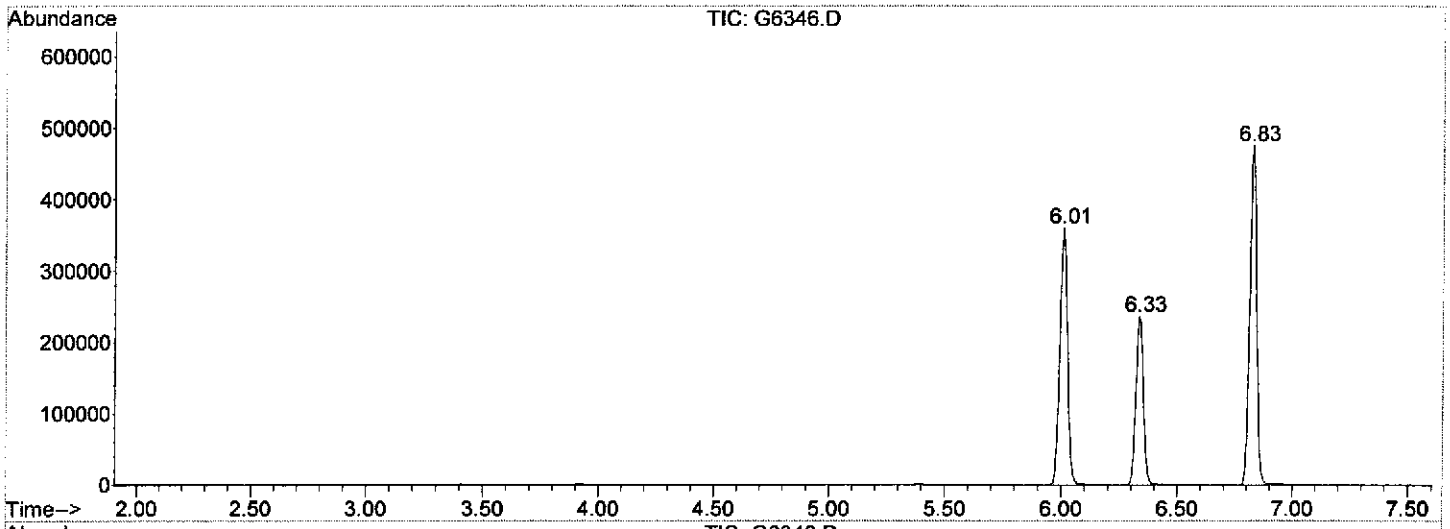
Sum of corrected areas: 5791557

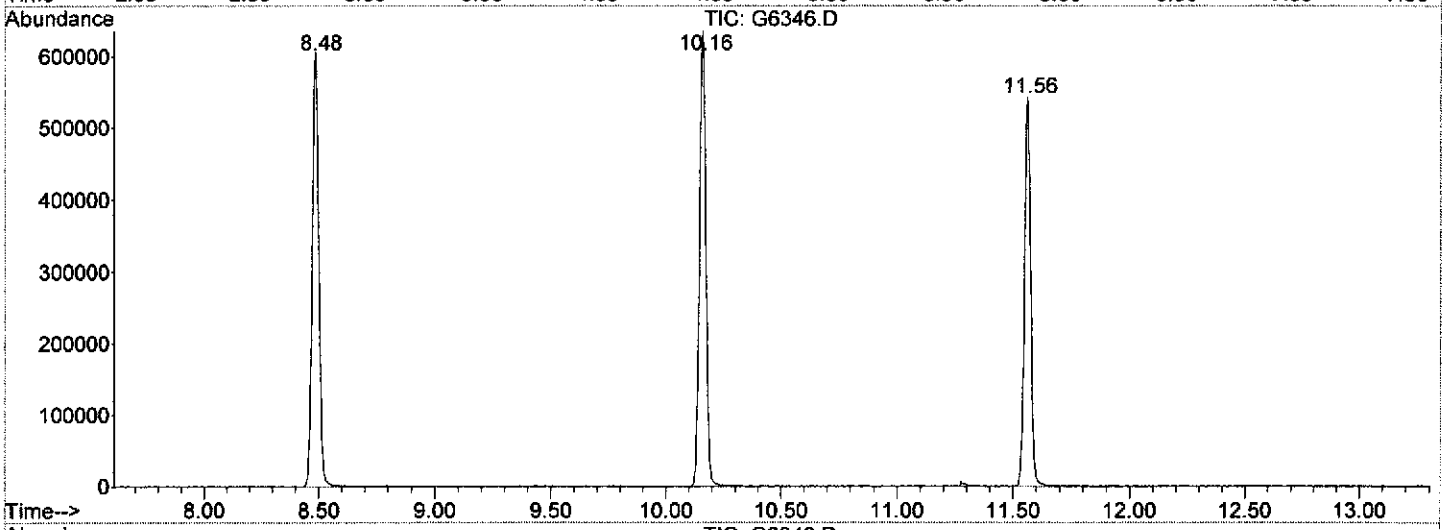
LSC Report - Integrated Chromatogram

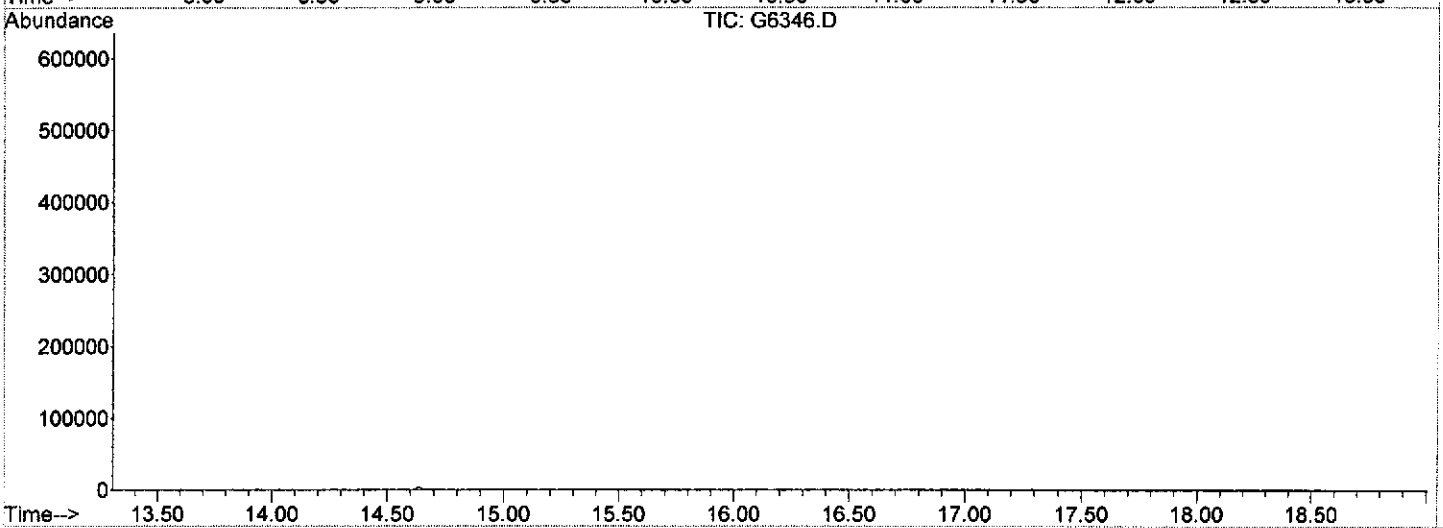
Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6346.D
Acq On : 8 Oct 2010 3:47 am
Operator : Sylvia
Sample : FIELD,09980-002,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6347.D
Acq On : 8 Oct 2010 4:14 am
Operator : Sylvia
Sample : MW16,09980-003,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 12 09:28:43 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Oct 04 15:27:58 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	228360	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	375141	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	345703	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	216116	39.52	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 131.73%			
41) Toluene-d8	8.48	98	397559	29.62	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 98.73%			
59) Bromofluorobenzene	11.56	95	189612	32.32	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 107.73%			

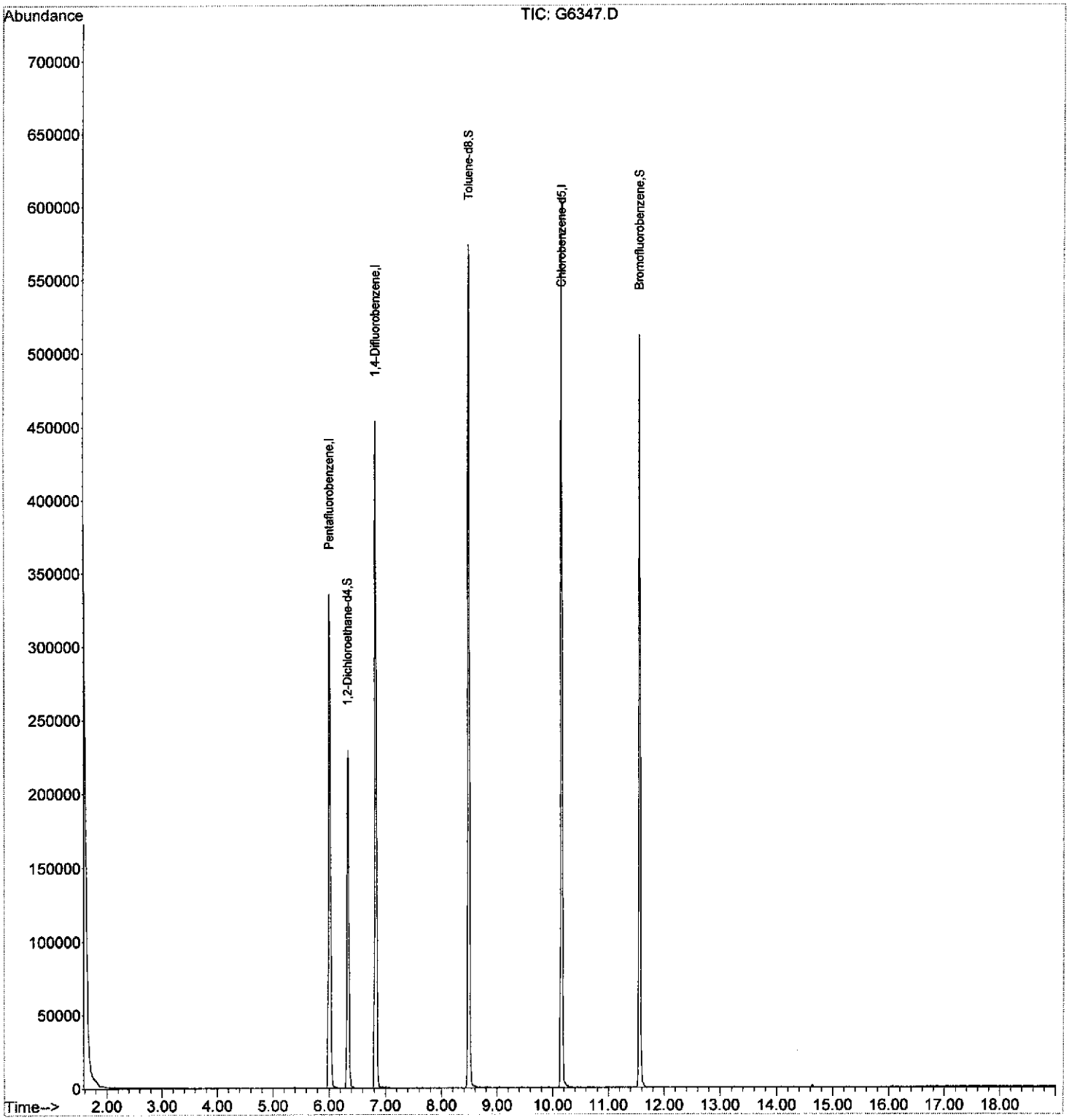
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6347.D
Acq On : 8 Oct 2010 4:14 am
Operator : Sylvia
Sample : MW16,09980-003,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 12 09:28:43 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Oct 04 15:27:58 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6347.D
Acq On : 8 Oct 2010 4:14 am
Operator : Sylvia
Sample : MW16,09980-003,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 39 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100410.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	832	847	870	rBV	335775	789013	67.11%	14.229%
2	6.334	897	909	931	rBV	229179	507545	43.17%	9.153%
3	6.826	992	1003	1023	rBV	453735	957281	81.43%	17.264%
4	8.484	1308	1320	1338	rBV	574153	1157742	98.48%	20.879%
5	10.157	1627	1640	1663	rBV	604992	1175659	100.00%	21.202%
6	11.559	1899	1908	1927	rBV	512176	957702	81.46%	17.272%

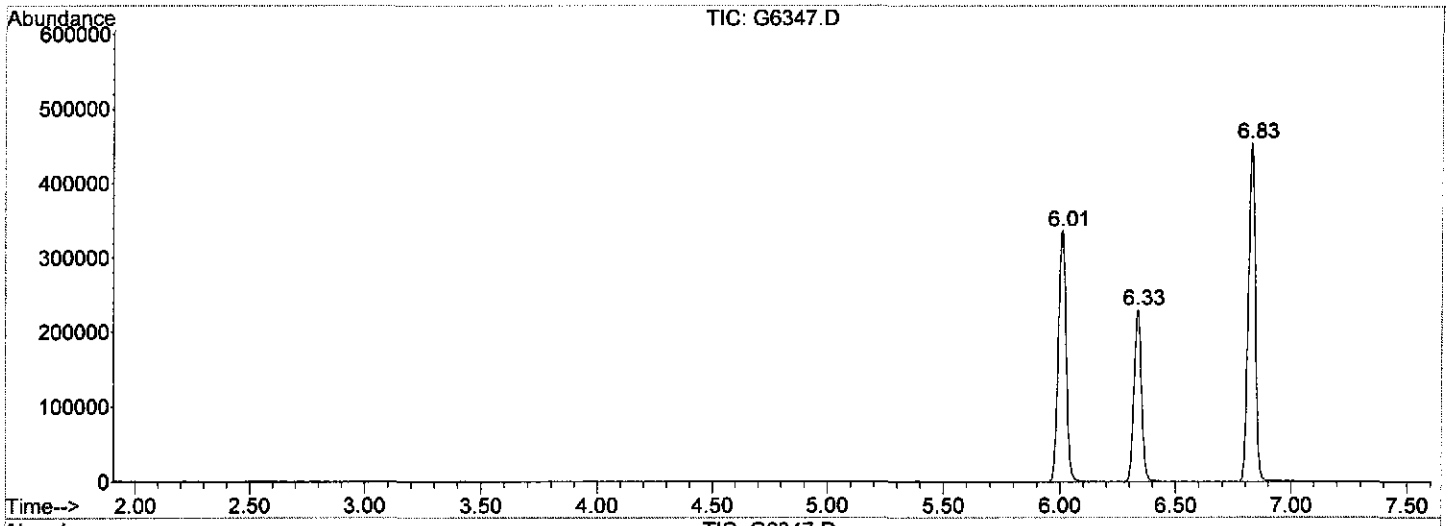
Sum of corrected areas: 5544942

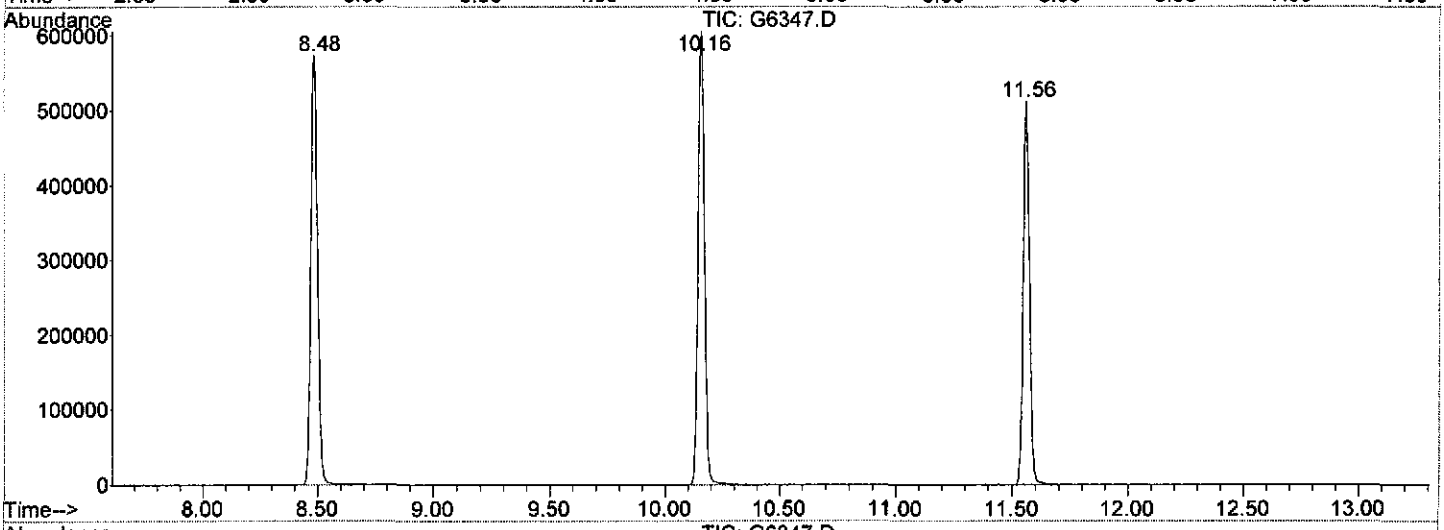
LSC Report - Integrated Chromatogram

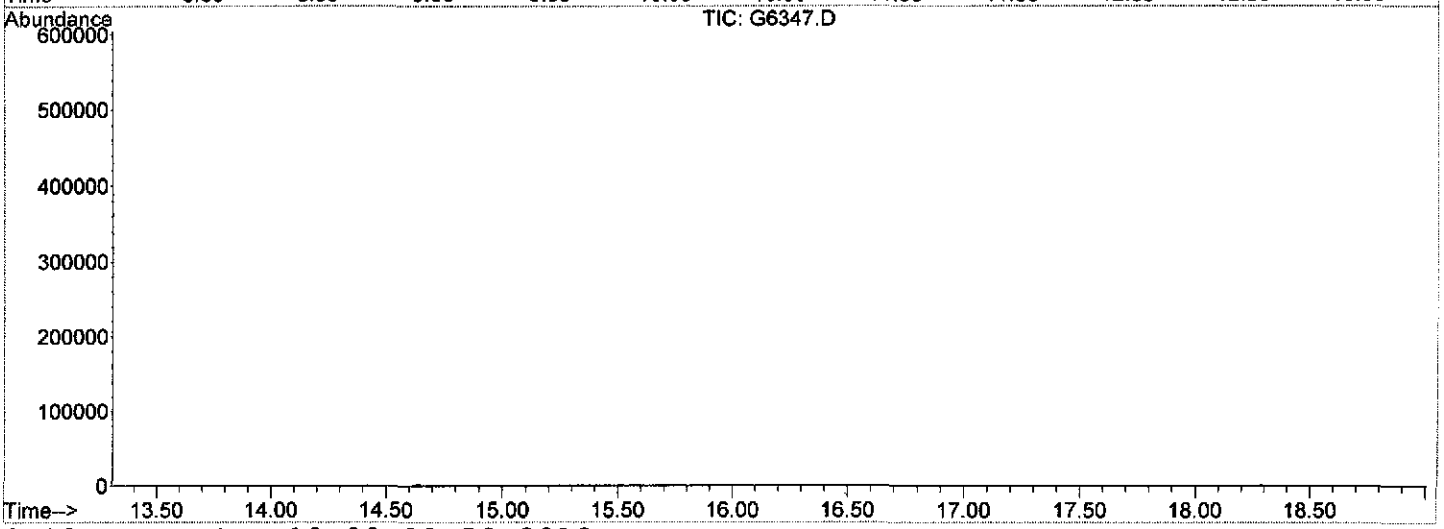
Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6347.D
Acq On : 8 Oct 2010 4:14 am
Operator : Sylvia
Sample : MW16,09980-003,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6360.D
Acq On : 8 Oct 2010 4:13 pm
Operator : Sylvia
Sample : MW15,09980-004,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 12 09:06:25 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration

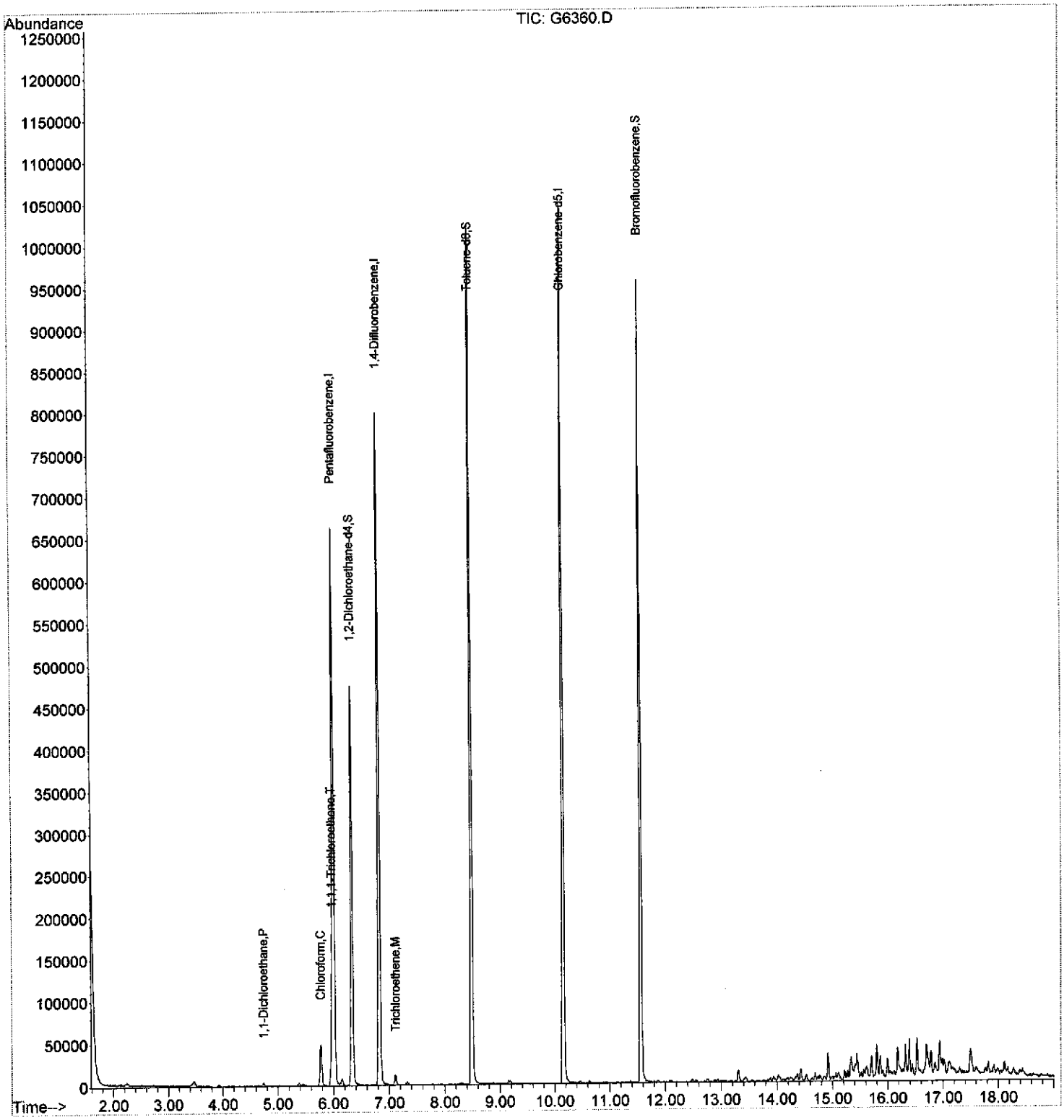
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	340573	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.83	114	507765	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	453550	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	503481	29.21	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 97.37%				
41) Toluene-d8	8.49	98	686812	29.88	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 99.60%				
59) Bromofluorobenzene	11.56	95	356186	29.93	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 99.77%				
Target Compounds							Qvalue
18) 1,1-Dichloroethane	4.73	63	4063	0.42	UG	#	96
25) Chloroform	5.77	83	44518	3.36	UG		99
26) 1,1,1-Trichloroethane	5.97	97	42597	3.58	UG	#	100
33) Trichloroethene	7.12	95	4291	0.74	UG	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6360.D
Acq On : 8 Oct 2010 4:13 pm
Operator : Sylvia
Sample : MW15,09980-004,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 12 09:06:25 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6360.D
Acq On : 8 Oct 2010 4:13 pm
Operator : Sylvia
Sample : MW15,09980-004,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.468	345	361	373	rVB4	5917	22603	1.10%	0.191%
2	5.775	789	802	814	rVB3	48710	118220	5.76%	0.998%
3	6.005	827	846	866	rBV	662623	1646206	80.19%	13.896%
4	6.334	895	909	928	rBV	475117	1074213	52.33%	9.068%
5	6.826	988	1003	1024	rBV2	799370	1697211	82.68%	14.327%
6	7.108	1050	1057	1065	rBV4	12146	24519	1.19%	0.207%
7	8.484	1310	1320	1356	rBV	1019568	2052766	100.00%	17.328%
8	10.158	1626	1640	1665	rBV	1048156	2021014	98.45%	17.060%
9	11.559	1897	1908	1928	rBV	956045	1821745	88.75%	15.378%
10	13.306	2235	2242	2250	rVB4	13671	25658	1.25%	0.217%
11	14.425	2450	2456	2466	rVB4	14771	30767	1.50%	0.260%
12	14.917	2545	2550	2558	rVB4	31119	54610	2.66%	0.461%
13	15.100	2581	2585	2600	rVB8	8601	20694	1.01%	0.175%
14	15.215	2600	2607	2614	rBV5	10979	21422	1.04%	0.181%
15	15.341	2623	2631	2639	rVV8	24213	66755	3.25%	0.563%
16	15.409	2639	2644	2646	rVV5	15367	26298	1.28%	0.222%
17	15.440	2646	2650	2659	rVB4	28036	58107	2.83%	0.490%
18	15.618	2677	2684	2692	rVB5	12086	29185	1.42%	0.246%
19	15.702	2692	2700	2707	rVB3	25099	45241	2.20%	0.382%
20	15.801	2707	2719	2725	rBV5	37894	68812	3.35%	0.581%
21	15.864	2725	2731	2736	rBV5	21162	35480	1.73%	0.299%
22	15.994	2748	2756	2762	rBV5	21974	41125	2.00%	0.347%
23	16.172	2784	2790	2807	rBV6	32382	83547	4.07%	0.705%
24	16.319	2812	2818	2824	rVB2	32467	48025	2.34%	0.405%
25	16.387	2824	2831	2838	rVV	38814	56100	2.73%	0.474%
26	16.439	2838	2841	2850	rVB8	12958	21136	1.03%	0.178%
27	16.528	2850	2858	2877	rBV3	43898	99269	4.84%	0.838%
28	16.701	2884	2891	2901	rBV9	30193	74617	3.63%	0.630%
29	16.779	2901	2906	2913	rVB5	26171	46954	2.29%	0.396%
30	16.852	2913	2920	2929	rBV5	11471	27378	1.33%	0.231%
31	16.936	2929	2936	2941	rBV3	35475	63094	3.07%	0.533%
32	17.014	2949	2951	2960	rVB10	15669	27766	1.35%	0.234%
33	17.108	2960	2969	2977	rBV10	14313	48309	2.35%	0.408%
34	17.501	3036	3044	3055	rBV8	27896	78318	3.82%	0.661%
35	17.595	3055	3062	3077	rVB8	8087	26565	1.29%	0.224%
36	17.820	3099	3105	3118	rVV8	14046	30969	1.51%	0.261%
37	17.919	3118	3124	3131	rVV9	11121	23889	1.16%	0.202%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6360.D
Acq On : 8 Oct 2010 4:13 pm
Operator : Sylvia
Sample : MW15,09980-004,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

38	18.118	3151	3162	3167	rBV8	13844	31225	1.52%	0.264%
39	18.275	3184	3192	3208	rVV8	8803	26546	1.29%	0.224%
40	18.437	3219	3223	3242	rVB8	10118	30176	1.47%	0.255%

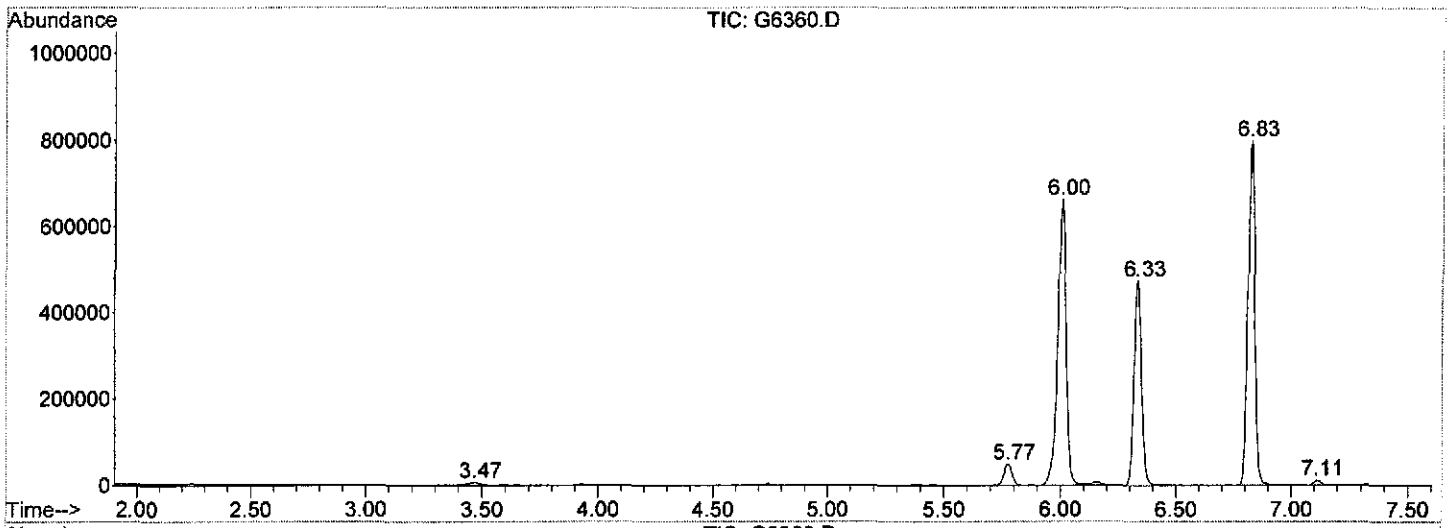
Sum of corrected areas: 11846534

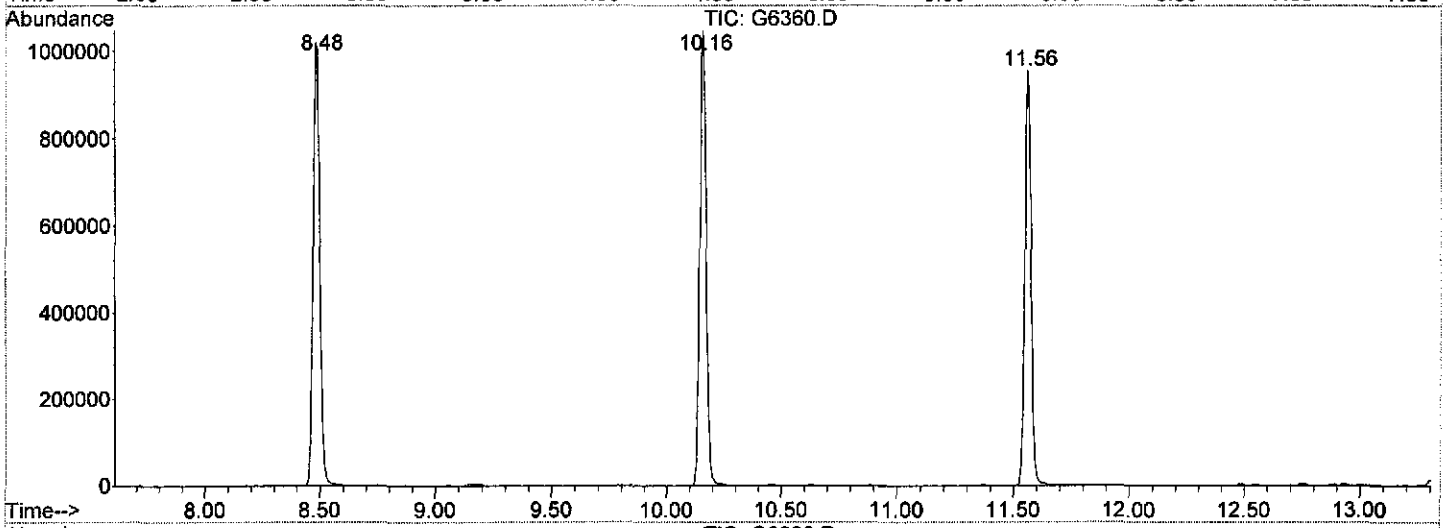
LSC Report - Integrated Chromatogram

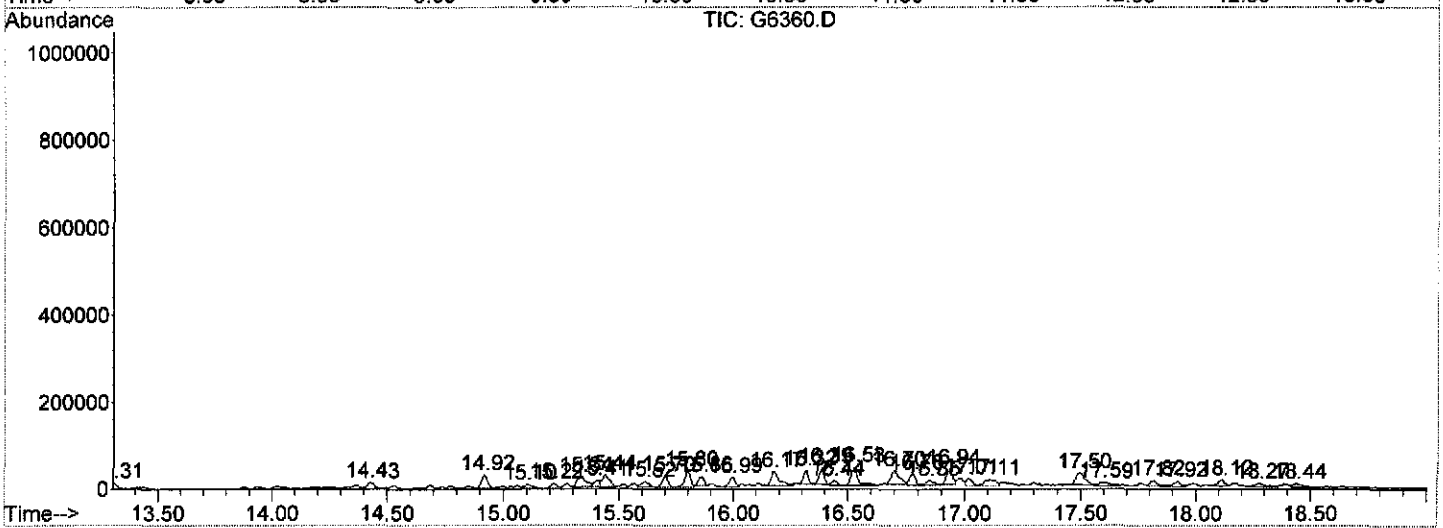
Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6360.D
Acq On : 8 Oct 2010 4:13 pm
Operator : Sylvia
Sample : MW15,09980-004,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6361.D
Acq On : 8 Oct 2010 4:41 pm
Operator : Sylvia
Sample : MW8R,09980-005,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 12 09:06:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration

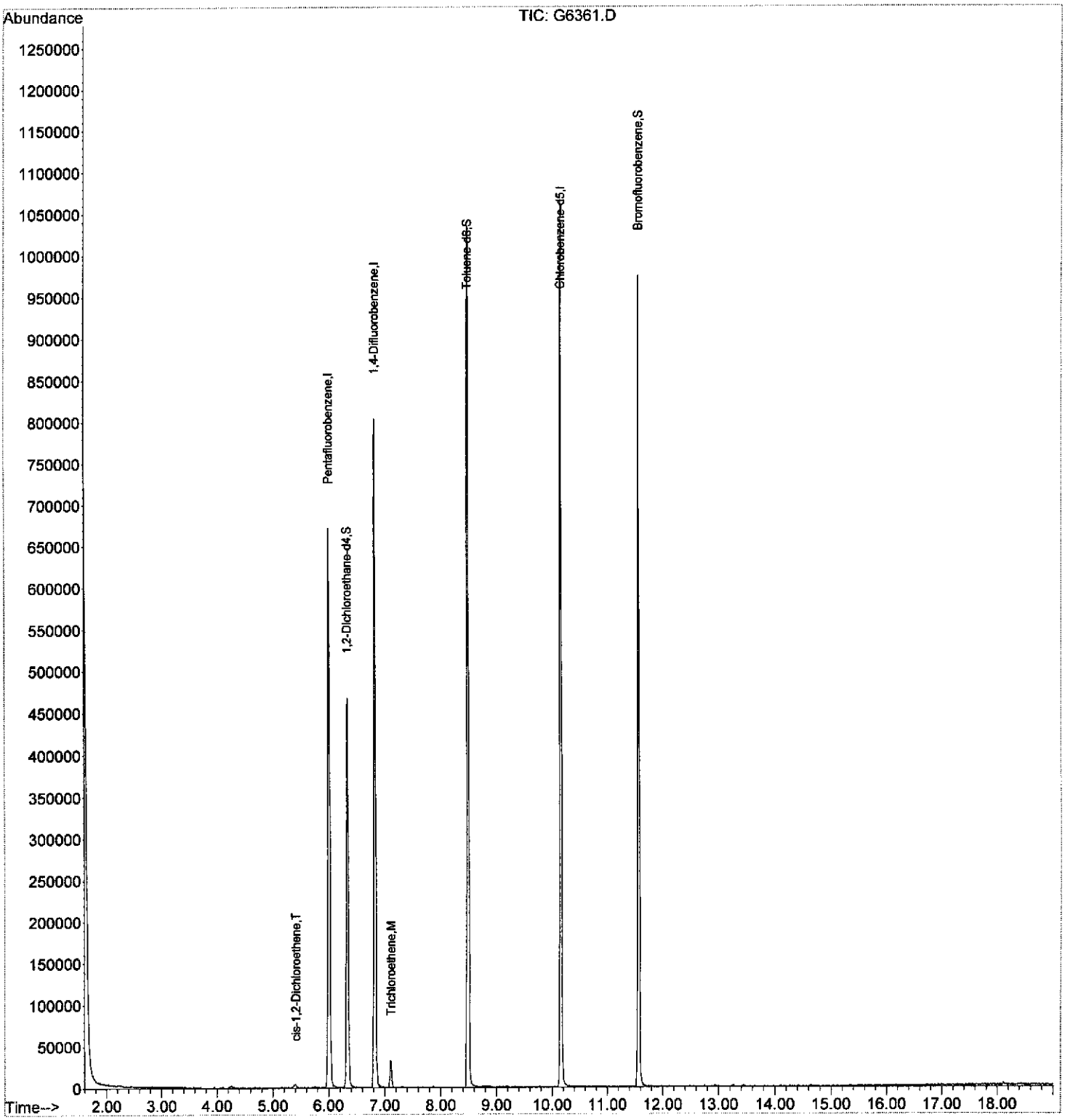
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	348642	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	522844	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	469033	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	501841	28.44	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 94.80%			
41) Toluene-d8	8.48	98	697516	29.47	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 98.23%			
59) Bromofluorobenzene	11.56	95	356862	28.99	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 96.63%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.41	96	1132	0.23	UG	# 69
33) Trichloroethene	7.11	95	12719	2.14	UG	# 64

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6361.D
Acq On : 8 Oct 2010 4:41 pm
Operator : Sylvia
Sample : MW8R,09980-005,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 12 09:06:59 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6361.D
Acq On : 8 Oct 2010 4:41 pm
Operator : Sylvia
Sample : MW8R,09980-005,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	833	846	869	rBV2	671877	1546175	75.00%	14.999%
2	6.334	897	909	923	rBV	467203	1054602	51.15%	10.230%
3	6.826	986	1003	1020	rBV	803910	1711809	83.03%	16.606%
4	7.113	1047	1058	1072	rBV2	33092	69697	3.38%	0.676%
5	8.484	1308	1320	1348	rBV	1035785	2061600	100.00%	19.999%
6	10.157	1624	1640	1667	rBV	1065087	2032645	98.60%	19.718%
7	11.559	1898	1908	1927	rBV	975209	1831889	88.86%	17.771%

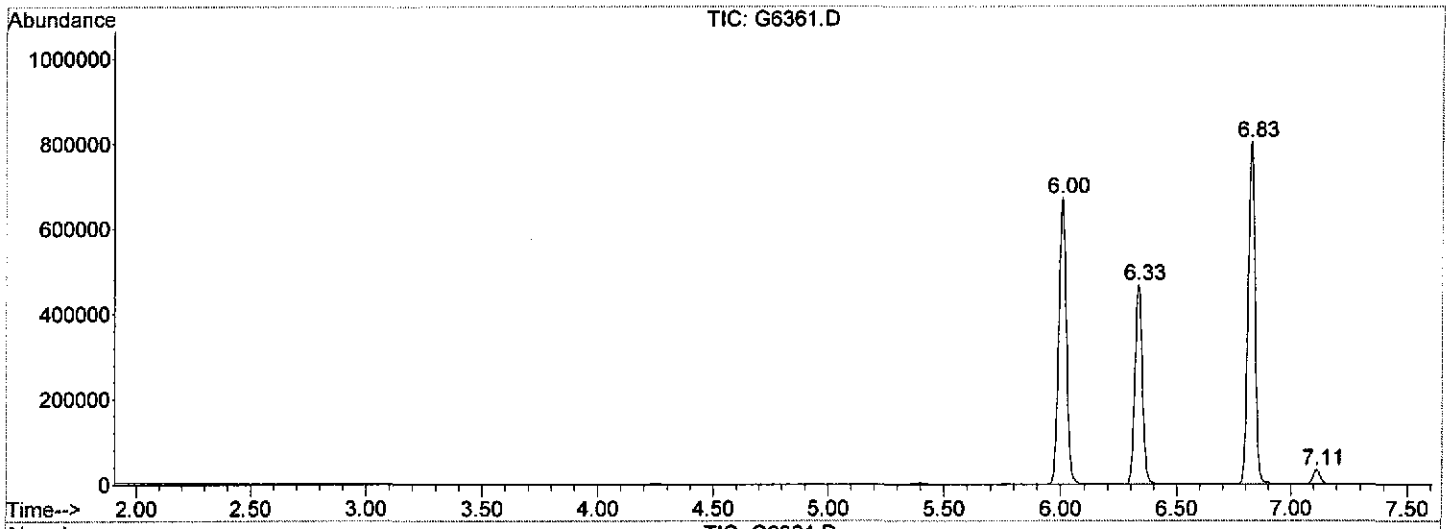
Sum of corrected areas: 10308417

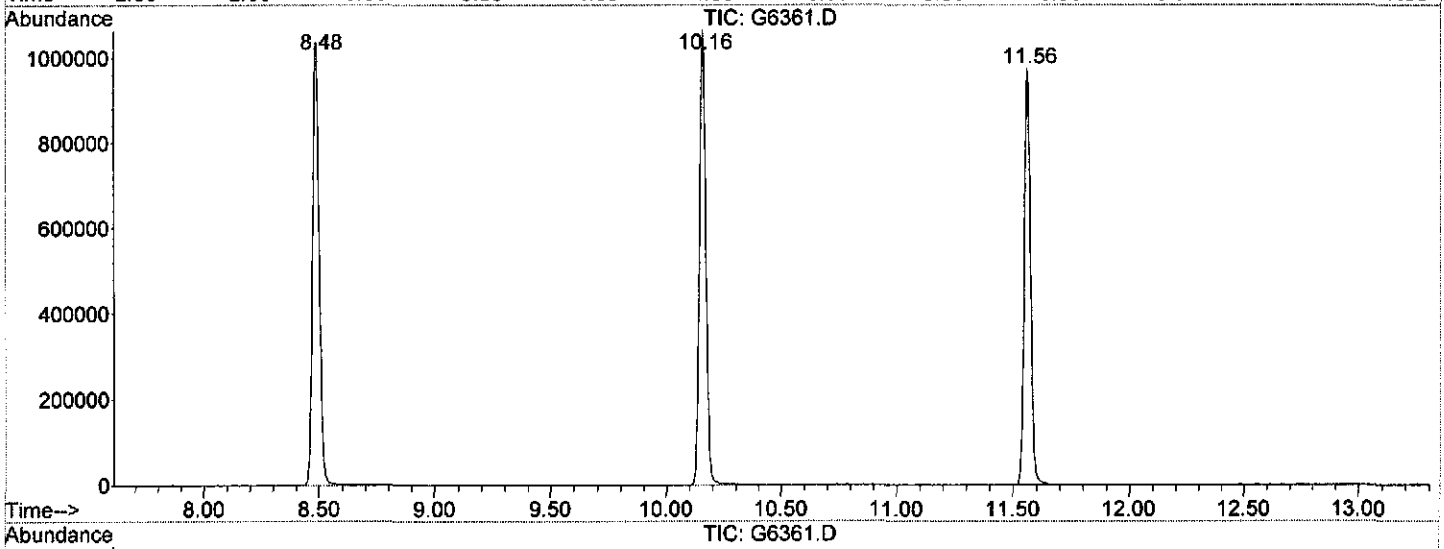
LSC Report - Integrated Chromatogram

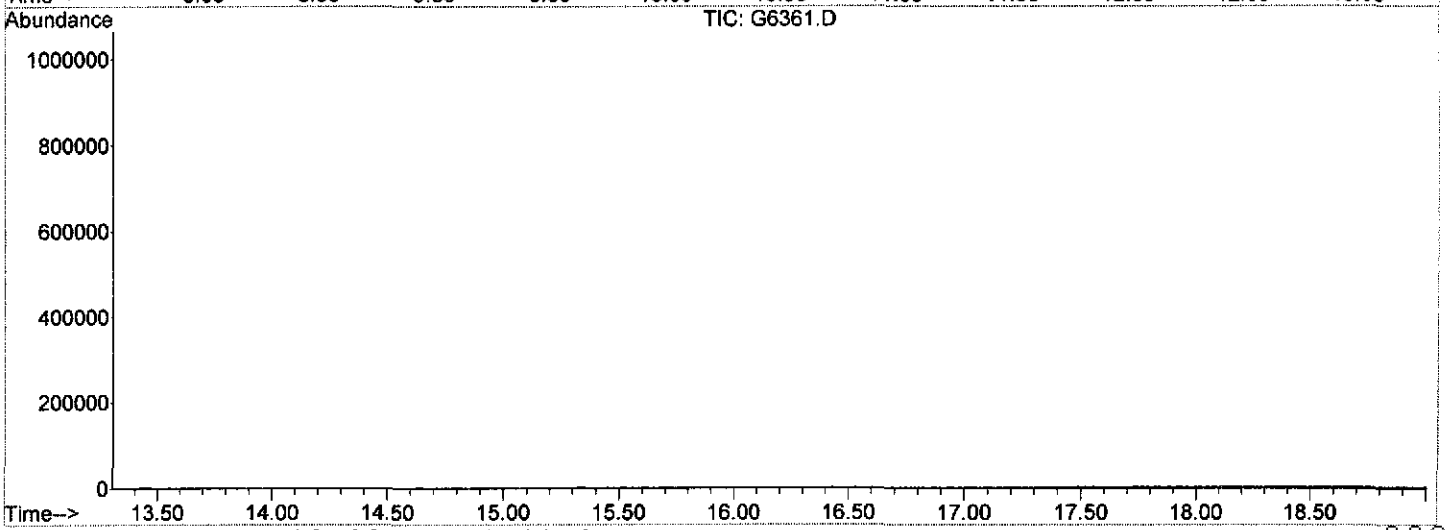
Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6361.D
Acq On : 8 Oct 2010 4:41 pm
Operator : Sylvia
Sample : MW8R,09980-005,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6362.D
Acq On : 8 Oct 2010 5:09 pm
Operator : Sylvia
Sample : MW17,09980-006,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 12 09:07:30 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration

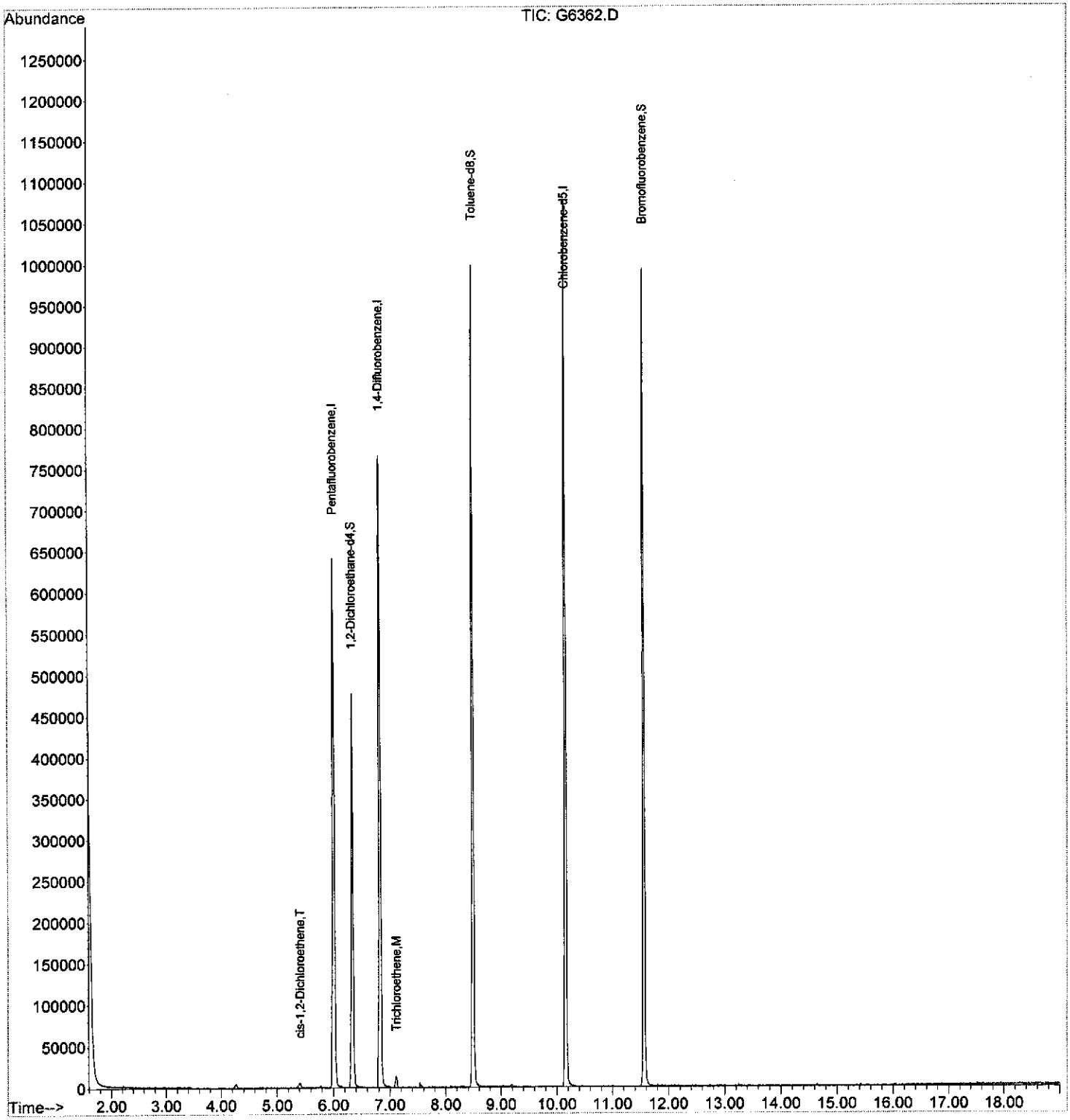
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	327153	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	495448	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	452975	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	500142	30.21	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 100.70%			
41) Toluene-d8	8.49	98	686868	30.62	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 102.07%			
59) Bromofluorobenzene	11.56	95	365085	30.71	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 102.37%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.41	96	1959	0.43	UG	# 91
33) Trichloroethene	7.11	95	4813	0.86	UG	# 51

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6362.D
Acq On : 8 Oct 2010 5:09 pm
Operator : Sylvia
Sample : MW17,09980-006,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 12 09:07:30 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6362.D
Acq On : 8 Oct 2010 5:09 pm
Operator : Sylvia
Sample : MW17,09980-006,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.1
Stop Thrs : 0.1

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	829	847	870	rBV	640965	1488951	73.14%	14.631%
2	6.334	898	909	940	rBV	477179	1054790	51.82%	10.365%
3	6.826	993	1003	1028	rBV2	766545	1661620	81.62%	16.328%
4	7.113	1049	1058	1067	rVB4	13525	29180	1.43%	0.287%
5	8.489	1309	1321	1343	rBV	998328	2035681	100.00%	20.003%
6	10.157	1630	1640	1664	rBV	1075929	2022194	99.34%	19.871%
7	11.559	1898	1908	1930	rBV	992773	1884294	92.56%	18.516%

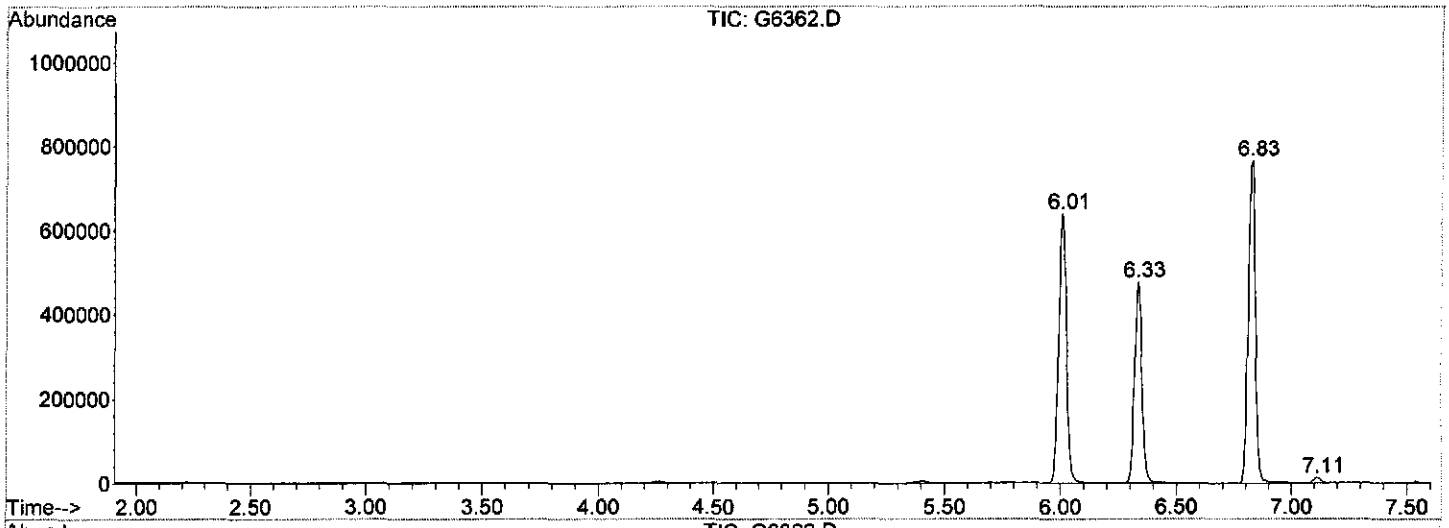
Sum of corrected areas: 10176710

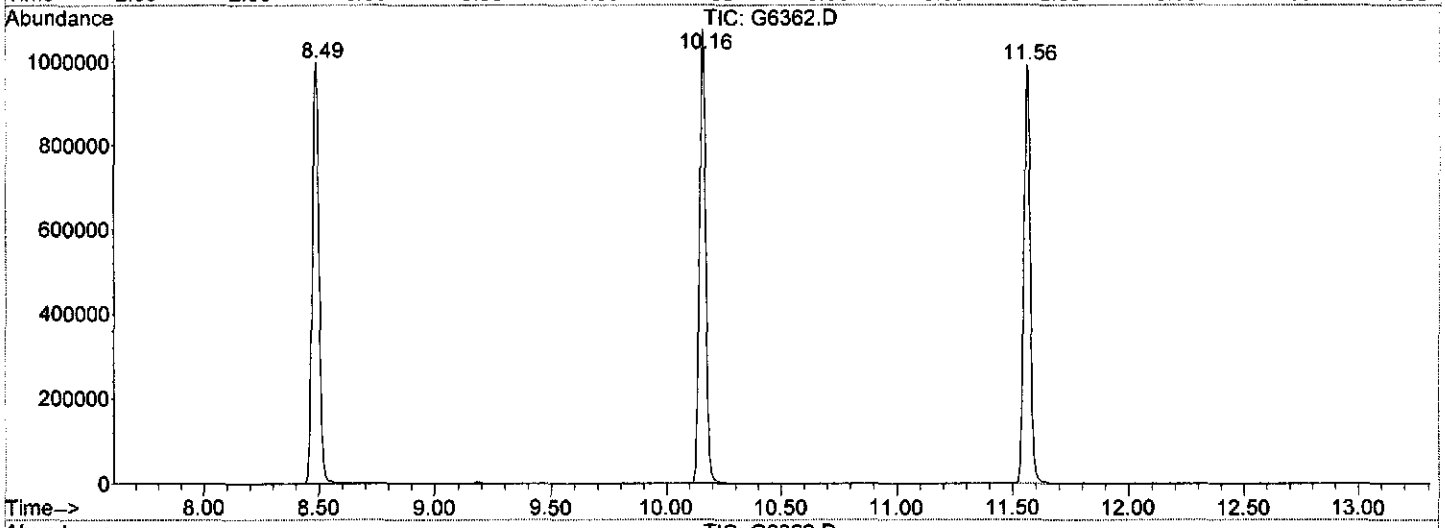
LSC Report - Integrated Chromatogram

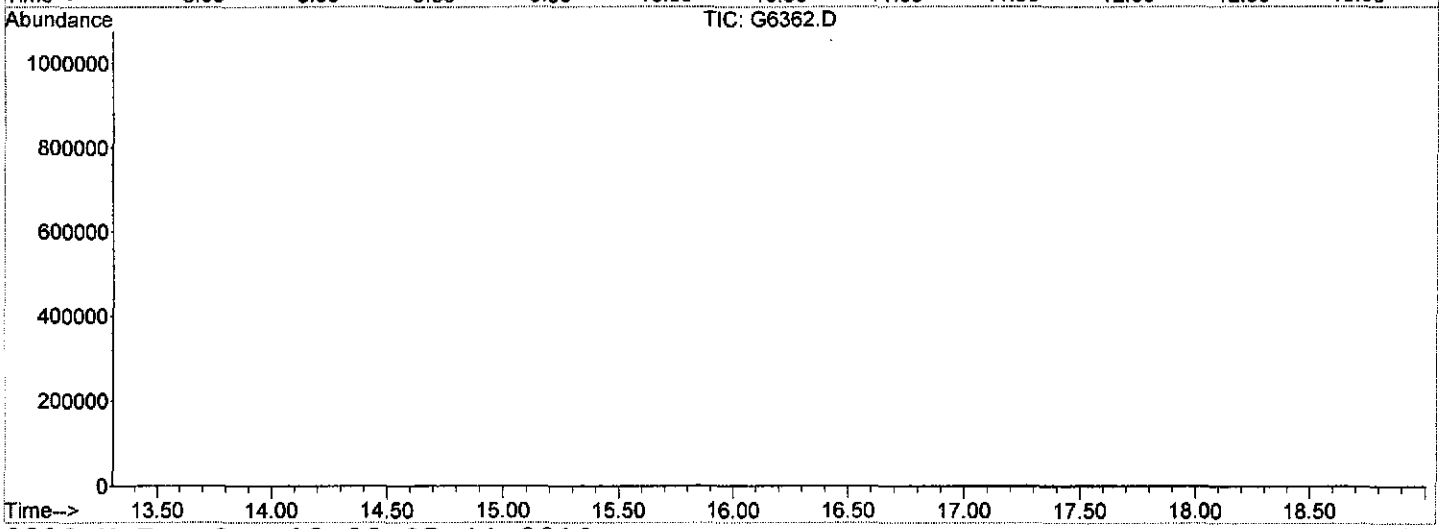
Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6362.D
Acq On : 8 Oct 2010 5:09 pm
Operator : Sylvia
Sample : MW17,09980-006,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6363.D
Acq On : 8 Oct 2010 5:36 pm
Operator : Sylvia
Sample : MW13,09980-007,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 12 09:07:58 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	325697	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	485983	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	435853	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	491499	29.82	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 99.40%			
41) Toluene-d8	8.48	98	656515	29.84	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 99.47%			
59) Bromofluorobenzene	11.56	95	336860	29.45	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 98.17%			

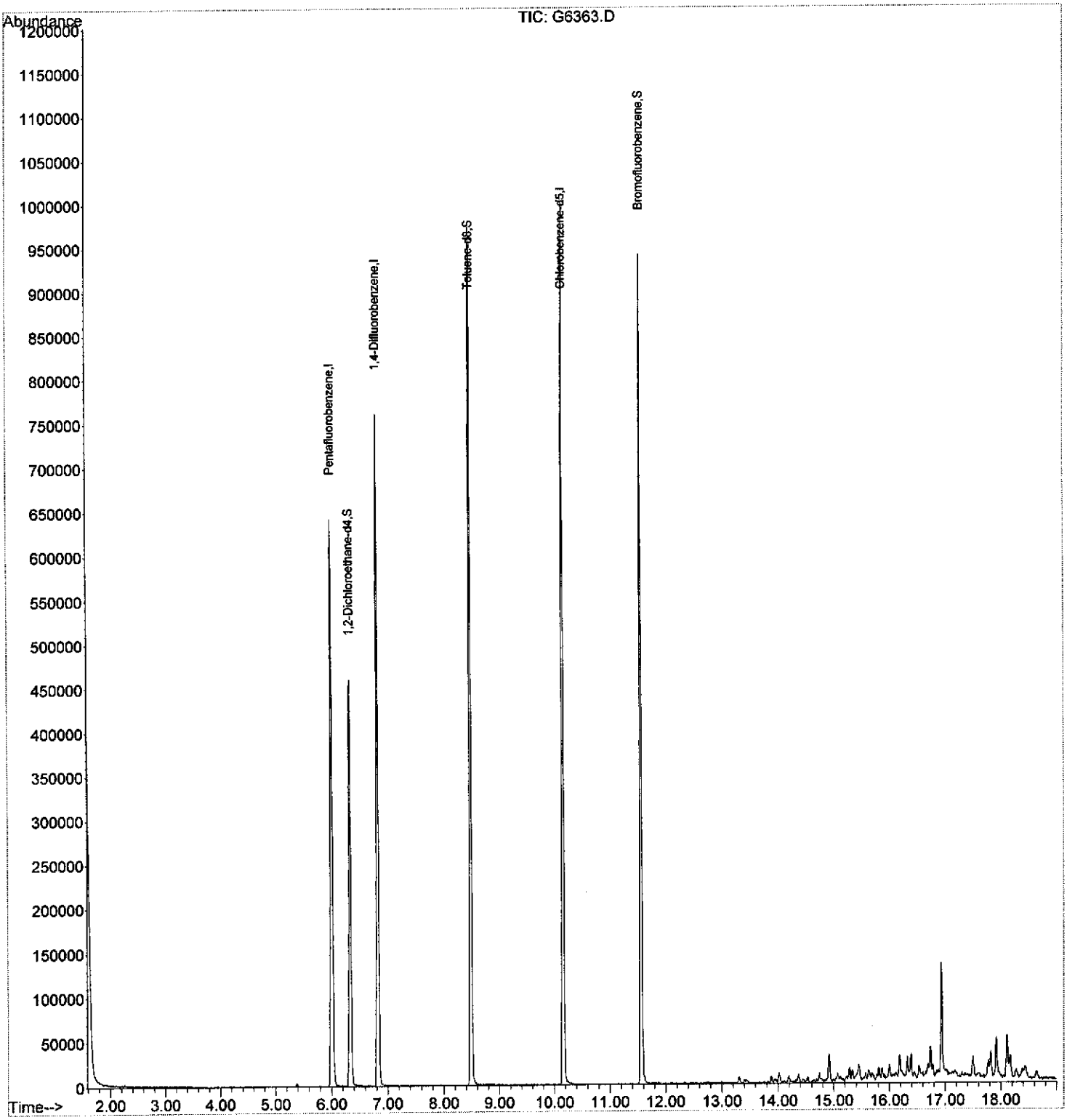
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6363.D
Acq On : 8 Oct 2010 5:36 pm
Operator : Sylvia
Sample : MW13,09980-007,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 12 09:07:58 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6363.D
Acq On : 8 Oct 2010 5:36 pm
Operator : Sylvia
Sample : MW13,09980-007,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	834	846	864	rBV	641928	1469389	75.38%	13.185%
2	6.334	896	909	931	rBV	459393	1030984	52.89%	9.251%
3	6.821	989	1002	1024	rBV	760002	1617964	83.00%	14.519%
4	8.484	1309	1320	1344	rBV	976658	1949363	100.00%	17.492%
5	10.157	1628	1640	1667	rBV2	1001456	1917838	98.38%	17.209%
6	11.559	1896	1908	1930	rBV	940964	1749419	89.74%	15.698%
7	14.023	2372	2379	2391	rVB3	10924	26067	1.34%	0.234%
8	14.363	2432	2444	2452	rVB4	9355	22596	1.16%	0.203%
9	14.917	2542	2550	2560	rVB4	30671	63684	3.27%	0.571%
10	15.121	2585	2589	2603	rVB9	6903	20097	1.03%	0.180%
11	15.278	2613	2619	2624	rBV4	13601	23358	1.20%	0.210%
12	15.330	2624	2629	2636	rBV8	11061	21073	1.08%	0.189%
13	15.435	2640	2649	2662	rVB7	17389	55233	2.83%	0.496%
14	15.628	2679	2686	2692	rBV10	10086	23025	1.18%	0.207%
15	15.675	2692	2695	2707	rVB8	7875	19753	1.01%	0.177%
16	16.000	2743	2757	2766	rBV10	15866	38493	1.97%	0.345%
17	16.183	2786	2792	2812	rBV8	25073	65047	3.34%	0.584%
18	16.319	2812	2818	2826	rVV5	21259	39967	2.05%	0.359%
19	16.387	2826	2831	2837	rVB4	25927	42220	2.17%	0.379%
20	16.523	2850	2857	2866	rBV4	13966	33617	1.72%	0.302%
21	16.690	2883	2889	2892	rBV7	11853	21057	1.08%	0.189%
22	16.737	2892	2898	2903	rVV3	32535	63693	3.27%	0.572%
23	16.779	2903	2906	2912	rVB6	13968	21385	1.10%	0.192%
24	16.936	2929	2936	2958	rVB	126335	252672	12.96%	2.267%
25	17.171	2977	2981	2992	rVB	7300	21281	1.09%	0.191%
26	17.501	3035	3044	3054	rBV4	23061	51461	2.64%	0.462%
27	17.773	3083	3096	3099	rBV6	19729	42548	2.18%	0.382%
28	17.820	3101	3105	3117	rVB9	26831	45396	2.33%	0.407%
29	17.919	3117	3124	3145	rVB4	45433	111455	5.72%	1.000%
30	18.113	3153	3161	3167	rBV3	47616	104402	5.36%	0.937%
31	18.170	3167	3172	3182	rVB10	25468	58893	3.02%	0.528%
32	18.275	3185	3192	3201	rVB9	9804	24962	1.28%	0.224%
33	18.390	3201	3214	3219	rVV10	10997	33993	1.74%	0.305%
34	18.442	3219	3224	3236	rVB9	13862	38116	1.96%	0.342%
35	18.646	3256	3263	3274	rVB10	9037	23586	1.21%	0.212%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6363.D
Acq On : 8 Oct 2010 5:36 pm
Operator : Sylvia
Sample : MW13,09980-007,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.1
Stop Thrs : 0.1

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

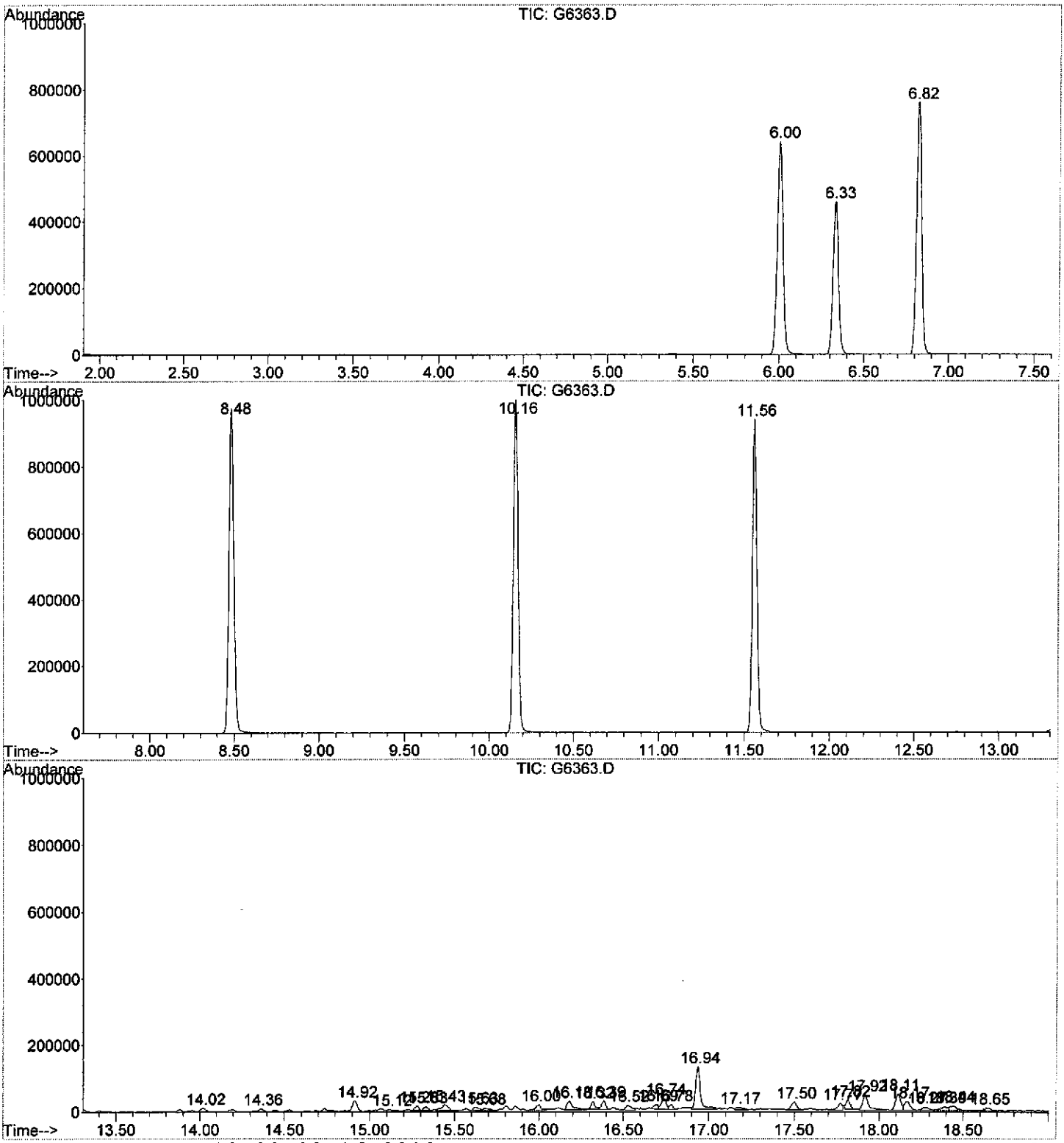
Sum of corrected areas: 11144087

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6363.D
Acq On : 8 Oct 2010 5:36 pm
Operator : Sylvia
Sample : MW13,09980-007,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6363.D
Acq On : 8 Oct 2010 5:36 pm
Operator : Sylvia
Sample : MW13,09980-007,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

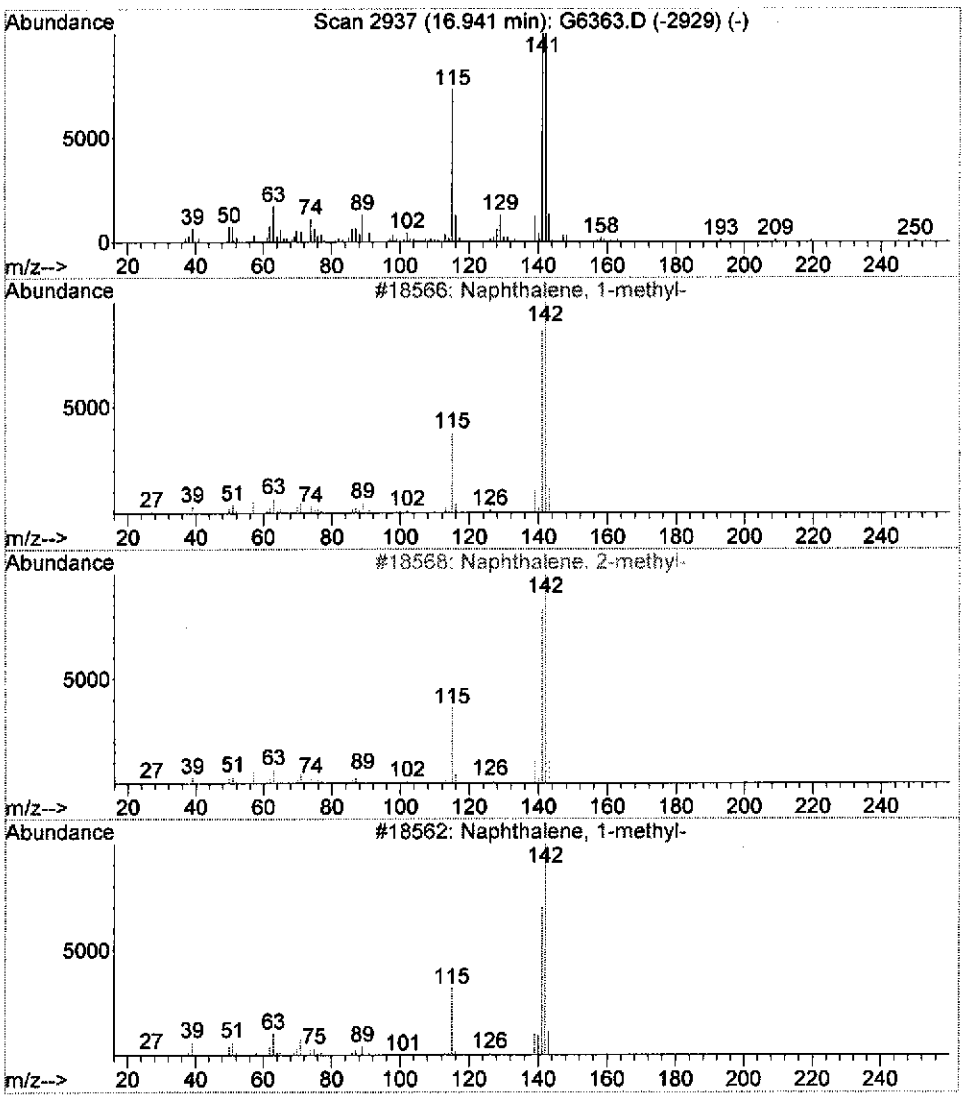
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

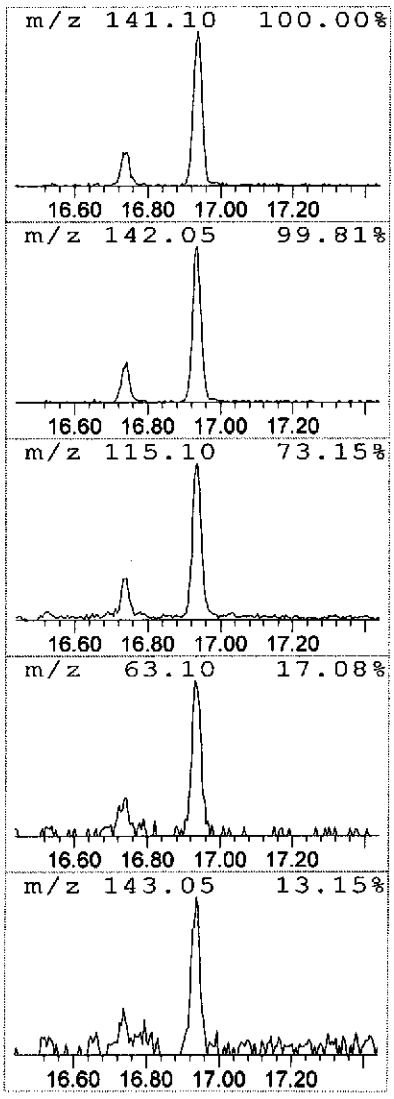
****

Peak Number 1 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.94	3.95 UG	252672	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	97
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	95
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
5	Benzocycloheptatriene	142	C11H10	000264-09-5	91





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 12 09:08:57 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration

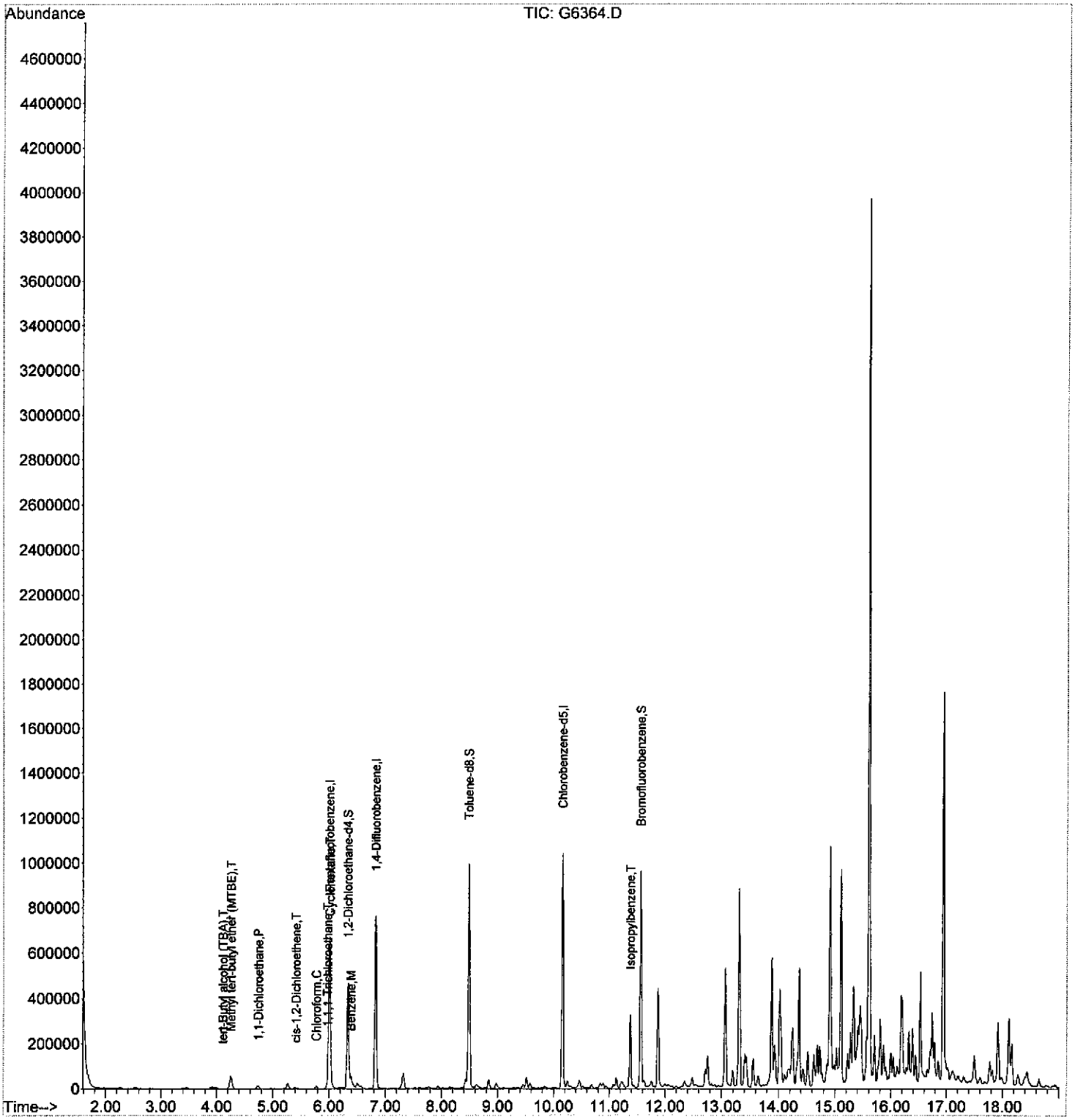
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.00	168	332177	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.83	114	497631	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	451605	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	492143	29.27	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 97.57%				
41) Toluene-d8	8.48	98	669318	29.71	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 99.03%				
59) Bromofluorobenzene	11.56	95	350491	29.57	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 98.57%				
Target Compounds							Qvalue
15) tert-Butyl alcohol (TBA)	4.11	59	1583m	2.46	UG		
17) Methyl tert-butyl ether (M	4.25	73	73765	3.51	UG		100
18) 1,1-Dichloroethane	4.74	63	15767	1.68	UG	#	96
20) cis-1,2-Dichloroethene	5.41	96	1498	0.33	UG	#	69
25) Chloroform	5.77	83	9558	0.74	UG		97
26) 1,1,1-Trichloroethane	5.97	97	16329	1.41	UG	#	100
32) Benzene	6.39	78	46212	2.56	UG		100
58) Isopropylbenzene	11.37	105	213885	9.92	UG		99
82) Cyclohexane	6.02	56	33133	3.84	UG	#	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 12 09:08:57 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.253	495	511	531	rVB3	55705	177669	2.60%	0.372%
2	6.005	826	846	872	rBV	671120	1649693	24.13%	3.454%
3	6.334	899	909	917	rBV	462644	1028548	15.04%	2.153%
4	6.386	917	919	935	rVB4	49977	110255	1.61%	0.231%
5	6.826	991	1003	1022	rBV	762292	1641765	24.01%	3.437%
6	7.323	1081	1098	1108	rBV4	66536	183411	2.68%	0.384%
7	8.484	1311	1320	1334	rVB	988498	1988507	29.08%	4.163%
8	8.845	1379	1389	1398	rVB2	37836	82041	1.20%	0.172%
9	9.514	1512	1517	1524	rVV2	47092	87939	1.29%	0.184%
10	10.158	1630	1640	1651	rBV	1040693	1961903	28.70%	4.107%
11	10.466	1686	1699	1706	rVB6	29822	73165	1.07%	0.153%
12	11.125	1819	1825	1833	rVV3	45274	96887	1.42%	0.203%
13	11.219	1833	1843	1857	rVV3	27303	101156	1.48%	0.212%
14	11.371	1857	1872	1893	rVB	323321	646242	9.45%	1.353%
15	11.559	1893	1908	1917	rBV2	957389	1802372	26.36%	3.773%
16	11.758	1936	1946	1958	rVB10	26394	68810	1.01%	0.144%
17	11.873	1958	1968	1985	rBV	435269	830466	12.15%	1.739%
18	12.344	2047	2058	2073	rBV	26552	75071	1.10%	0.157%
19	12.480	2073	2084	2092	rBV4	41142	94551	1.38%	0.198%
20	12.715	2120	2129	2132	rBV3	77547	162480	2.38%	0.340%
21	12.752	2132	2136	2145	rVB	131715	244162	3.57%	0.511%
22	13.060	2182	2195	2212	rBV	521654	1029579	15.06%	2.156%
23	13.196	2214	2221	2231	rBV2	67157	128947	1.89%	0.270%
24	13.306	2231	2242	2252	rVV	870392	1625457	23.77%	3.403%
25	13.405	2252	2261	2264	rVV4	141232	276040	4.04%	0.578%
26	13.432	2264	2266	2280	rVB	134849	217953	3.19%	0.456%
27	13.552	2280	2289	2299	rBV2	126775	266886	3.90%	0.559%
28	13.641	2299	2306	2318	rVB2	46817	101944	1.49%	0.213%
29	13.881	2336	2352	2358	rBV	560971	1109528	16.23%	2.323%
30	13.934	2358	2362	2371	rVB4	169117	334953	4.90%	0.701%
31	14.017	2371	2378	2391	rBV3	415721	1092866	15.98%	2.288%
32	14.180	2401	2409	2414	rVV6	49947	144287	2.11%	0.302%
33	14.248	2414	2422	2431	rVB4	244449	596787	8.73%	1.249%
34	14.363	2431	2444	2452	rBV	506862	1065876	15.59%	2.232%
35	14.436	2452	2458	2467	rVB5	73103	168240	2.46%	0.352%
36	14.520	2467	2474	2485	rVB2	152369	309993	4.53%	0.649%
37	14.624	2485	2494	2501	rBV2	138157	300737	4.40%	0.630%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

38	14.687	2501	2506	2511	rBV3	137766	216471	3.17%	0.453%
39	14.734	2511	2515	2531	rVB2	158485	323953	4.74%	0.678%
40	14.870	2531	2541	2542	rBV2	85057	163120	2.39%	0.342%
41	14.912	2542	2549	2561	rVB3	981755	1889662	27.64%	3.956%
42	15.027	2567	2571	2579	rBV2	95803	134092	1.96%	0.281%
43	15.105	2579	2586	2601	rVB	939075	1660428	24.29%	3.476%
44	15.220	2601	2608	2613	rBV4	126594	251035	3.67%	0.526%
45	15.278	2613	2619	2623	rVV2	176856	299378	4.38%	0.627%
46	15.330	2623	2629	2636	rVV3	382849	820025	11.99%	1.717%
47	15.414	2636	2645	2647	rVV4	210435	506750	7.41%	1.061%
48	15.445	2647	2651	2664	rVB4	326913	877458	12.83%	1.837%
49	15.602	2664	2681	2693	rBV	3931796	6837006	100.00%	14.314%
50	15.702	2693	2700	2707	rVB2	200171	354336	5.18%	0.742%
51	15.801	2707	2719	2726	rBV5	273547	642411	9.40%	1.345%
52	15.864	2726	2731	2737	rVV4	149151	279989	4.10%	0.586%
53	15.994	2749	2756	2760	rBV2	114292	210256	3.08%	0.440%
54	16.036	2760	2764	2772	rVV3	91335	136397	1.99%	0.286%
55	16.115	2772	2779	2785	rVV7	47071	93884	1.37%	0.197%
56	16.183	2785	2792	2806	rVV3	347883	955155	13.97%	2.000%
57	16.319	2812	2818	2825	rVB2	181676	258760	3.78%	0.542%
58	16.387	2825	2831	2837	rVB2	209587	327419	4.79%	0.685%
59	16.444	2837	2842	2849	rVB3	116873	199745	2.92%	0.418%
60	16.523	2849	2857	2877	rBV2	480175	977276	14.29%	2.046%
61	16.701	2886	2891	2893	rVV3	114578	170601	2.50%	0.357%
62	16.737	2893	2898	2902	rVV	281014	493941	7.22%	1.034%
63	16.779	2902	2906	2913	rVV3	153268	265153	3.88%	0.555%
64	16.847	2913	2919	2926	rVB2	81991	152755	2.23%	0.320%
65	16.936	2926	2936	2958	rBV	1718196	3370656	49.30%	7.057%
66	17.108	2959	2969	2981	rVV10	44780	160150	2.34%	0.335%
67	17.208	2981	2988	3000	rVV10	28794	75618	1.11%	0.158%
68	17.302	3000	3006	3020	rVB10	28618	77907	1.14%	0.163%
69	17.496	3033	3043	3055	rVB5	121005	307933	4.50%	0.645%
70	17.600	3055	3063	3072	rVB9	29465	73935	1.08%	0.155%
71	17.773	3086	3096	3101	rBV2	96887	209241	3.06%	0.438%
72	17.820	3101	3105	3111	rVB2	56505	96645	1.41%	0.202%
73	17.919	3116	3124	3133	rBV2	256491	537379	7.86%	1.125%
74	17.987	3133	3137	3149	rVB9	30236	70463	1.03%	0.148%
75	18.113	3149	3161	3167	rBV2	290208	643371	9.41%	1.347%
76	18.165	3167	3171	3182	rVB2	182766	356041	5.21%	0.745%
77	18.275	3182	3192	3205	rBV4	46024	121859	1.78%	0.255%
78	18.437	3217	3223	3248	rVB5	64261	208612	3.05%	0.437%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

79	18.646	3255	3263	3283	rVB4	33409	79555	1.16%	0.167%

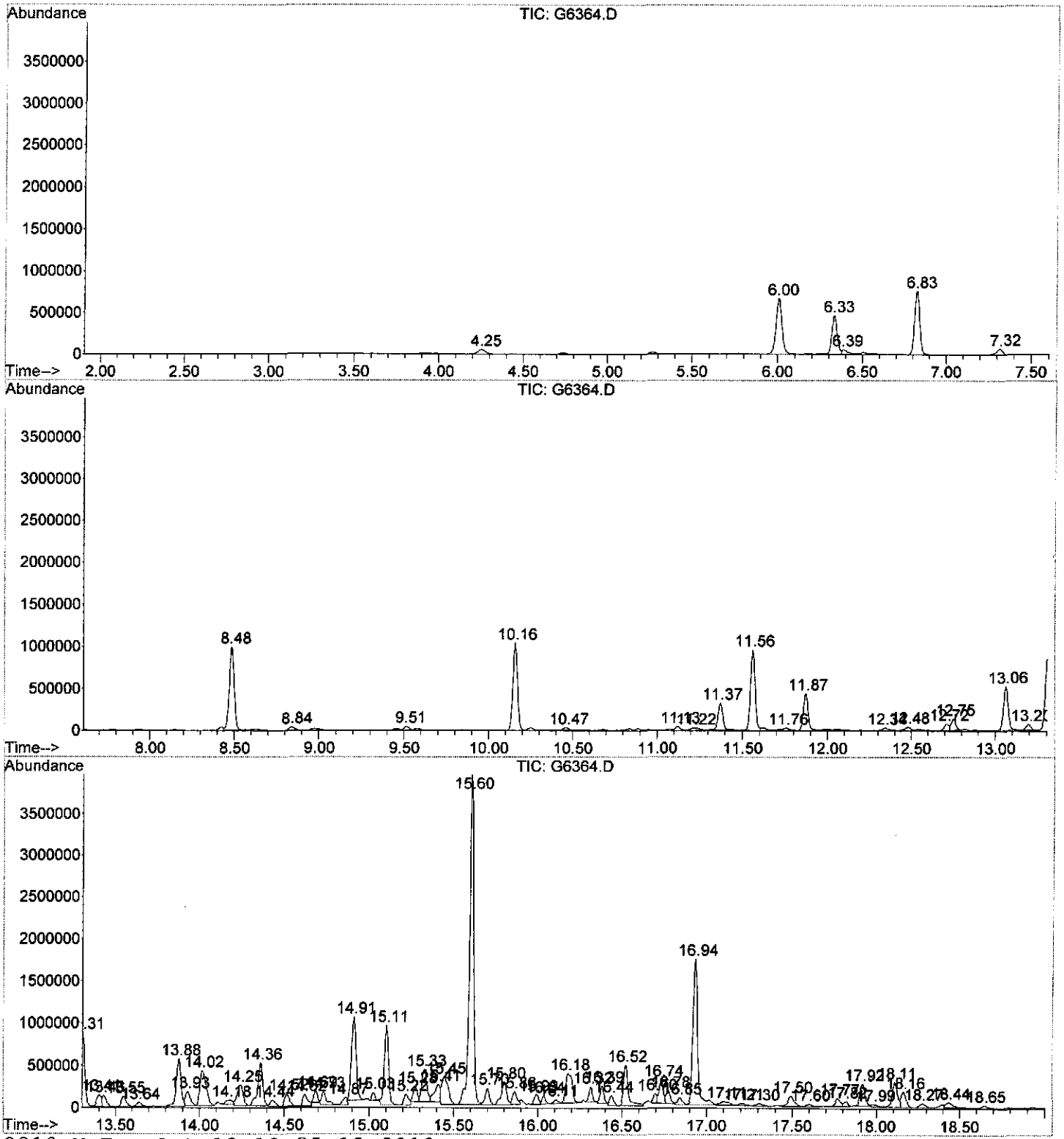
Sum of corrected areas: 47763987

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

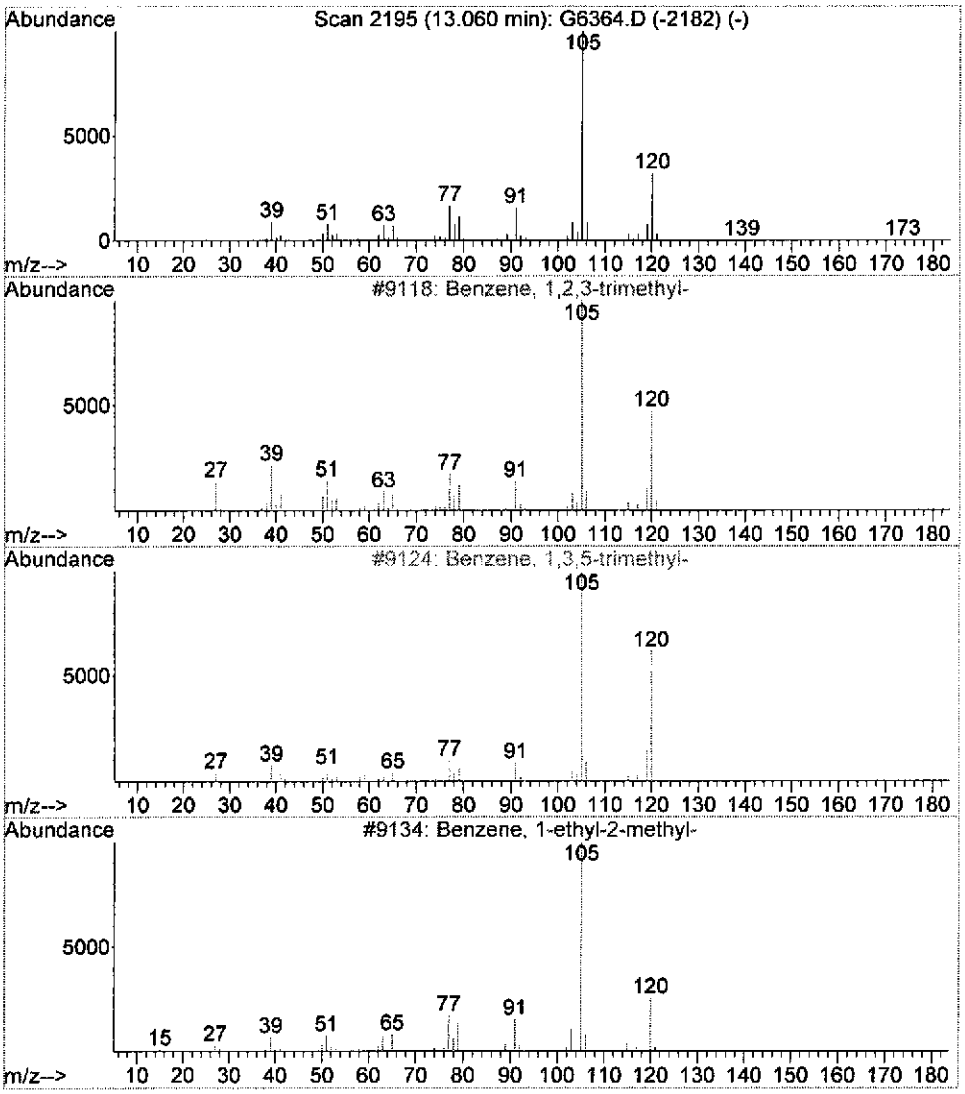
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

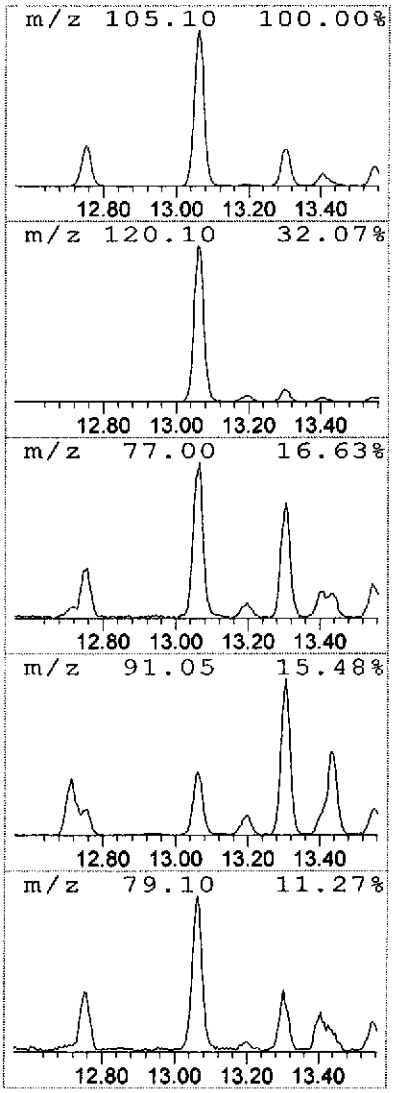
****

Peak Number 1 Substituted benzene Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.06	15.74 UG	1029580	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	94
3	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	93
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	91
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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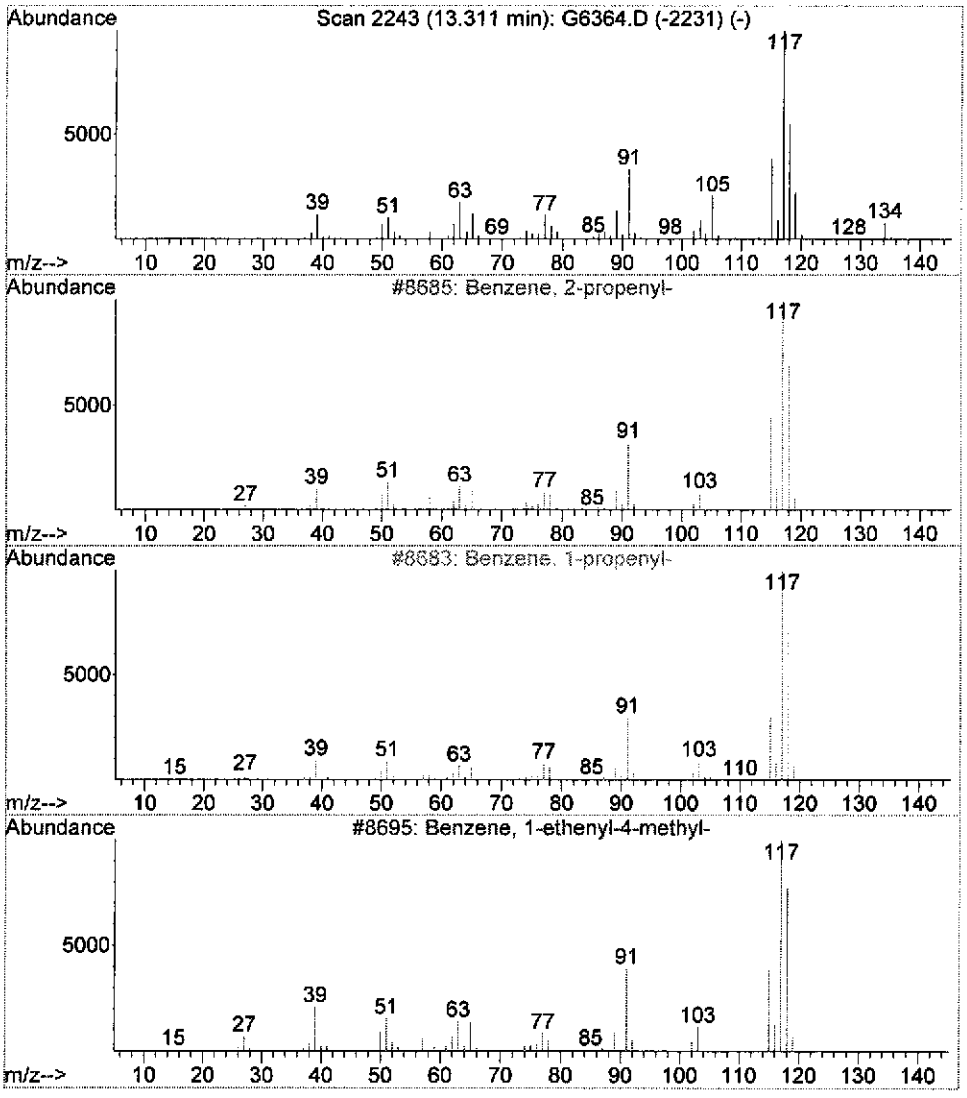
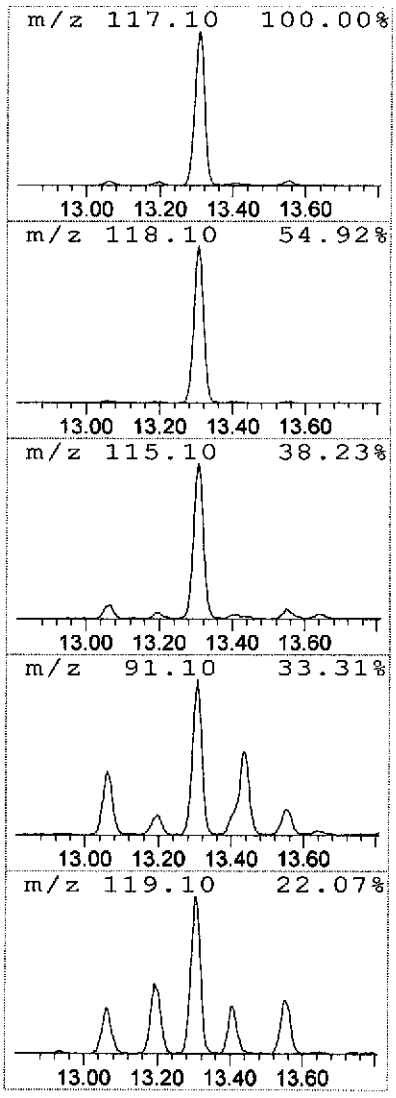
Peak Number 2 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.31	24.86 UG	1625460	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-propenyl-	118	C9H10	000300-57-2	93
2	Benzene, 1-propenyl-	118	C9H10	000637-50-3	90
3	Benzene, 1-ethenyl-4-methyl-	118	C9H10	000622-97-9	83
4	Indane	118	C9H10	000496-11-7	83
5	Benzene, cyclopropyl-	118	C9H10	000873-49-4	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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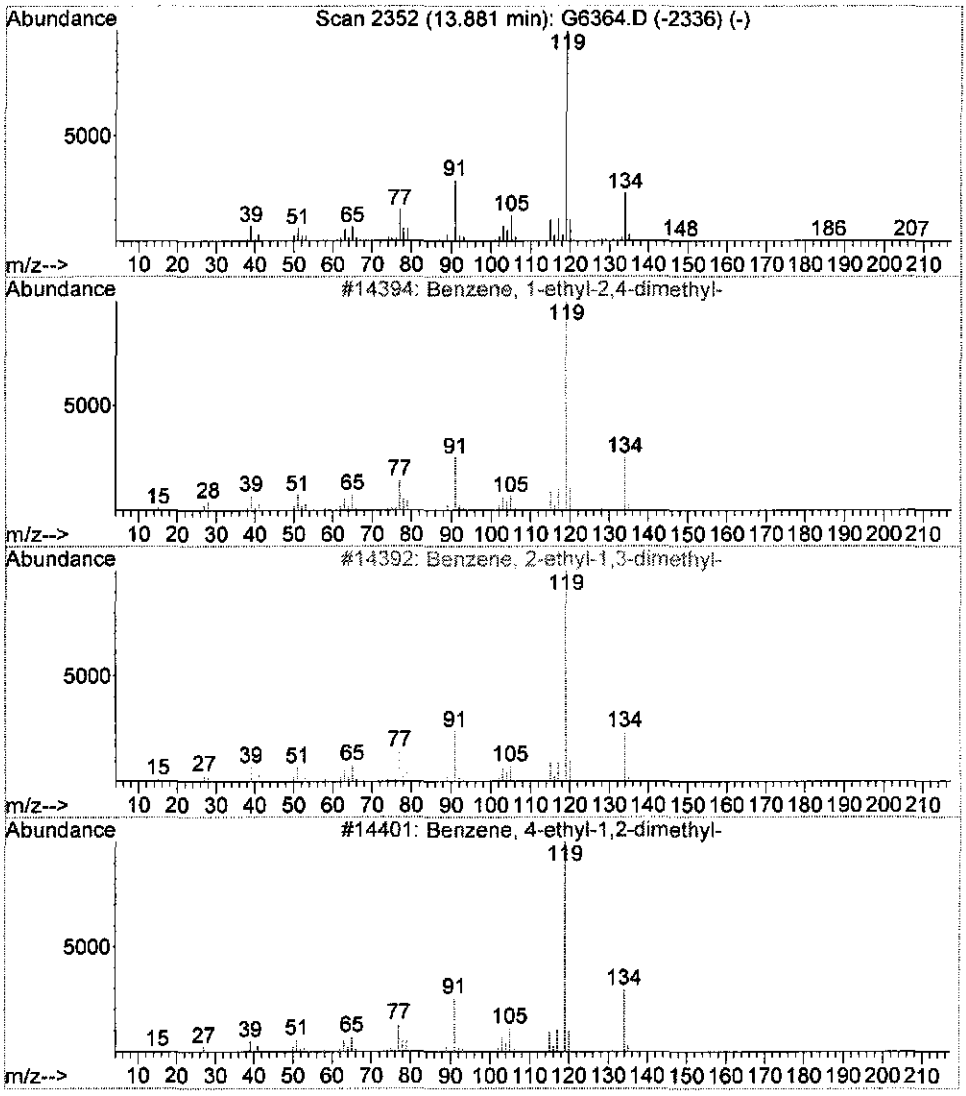
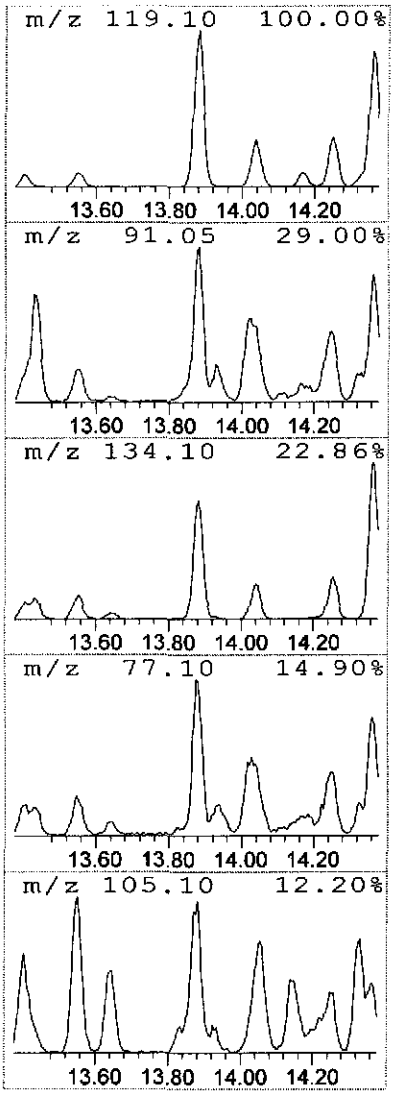
Peak Number 3 Substituted benzene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.88	16.97 UG	1109530	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	97
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	97
3	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	96
4	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	96
5	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	96





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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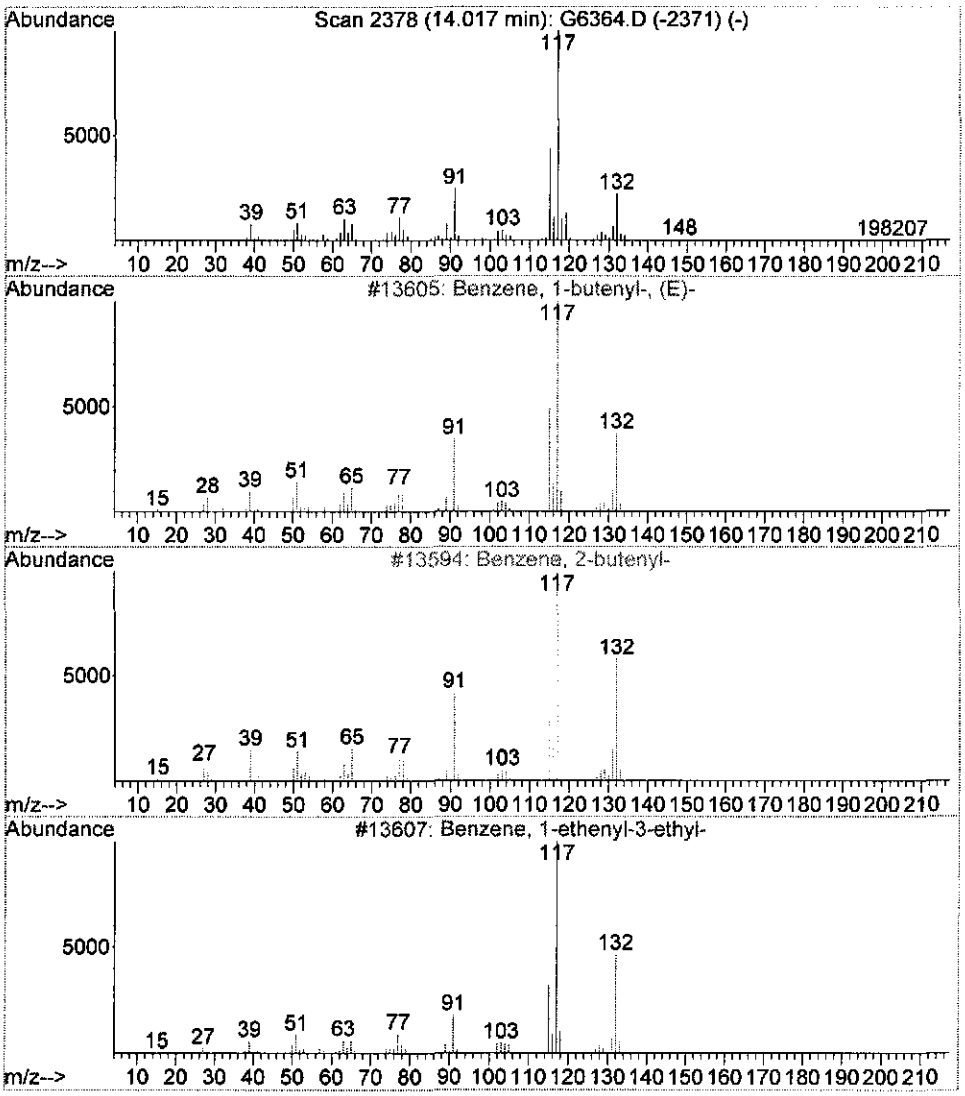
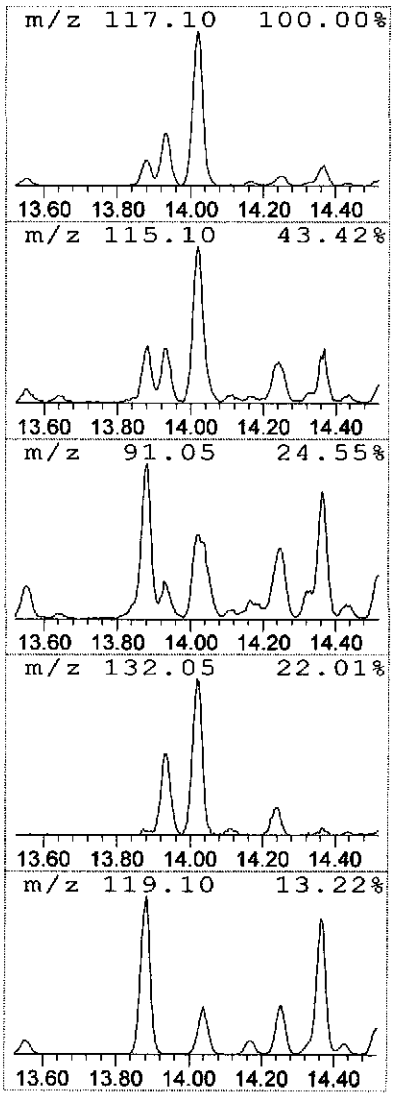
Peak Number 4 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	16.71 UG	1092870	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-butenyl-, (E)-	132	C10H12	001005-64-7	93
2	Benzene, 2-butenyl-	132	C10H12	001560-06-1	87
3	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	87
4	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	83
5	3-Phenylbut-1-ene	132	C10H12	000934-10-1	83





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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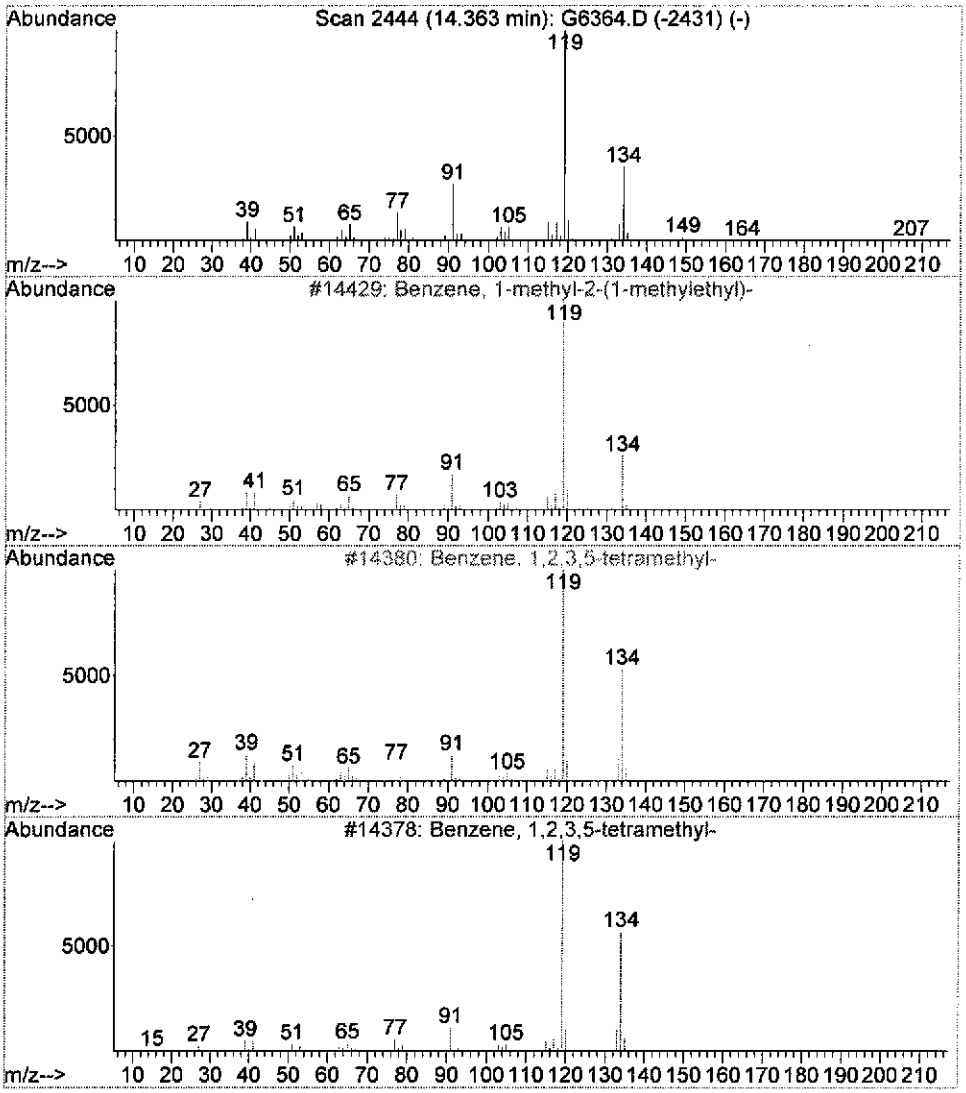
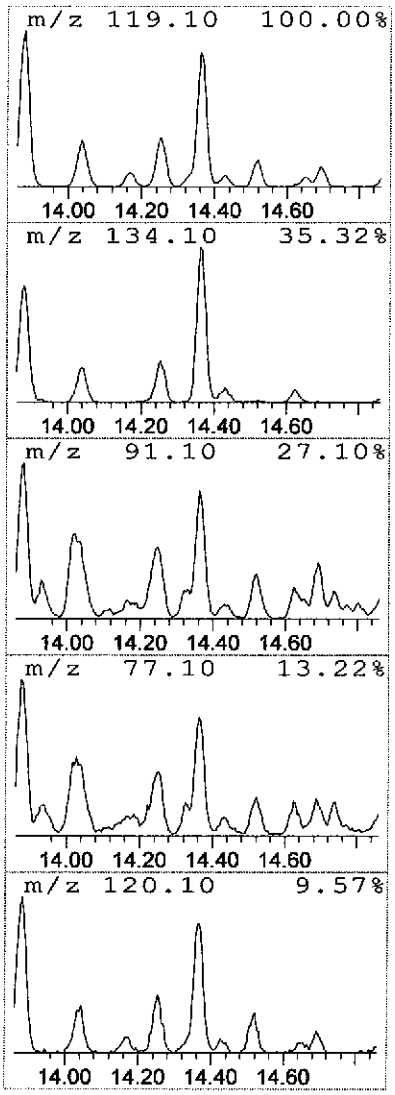
Peak Number 5 Substituted benzene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.36	16.30 UG	1065880	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	96
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	96
3	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	95
4	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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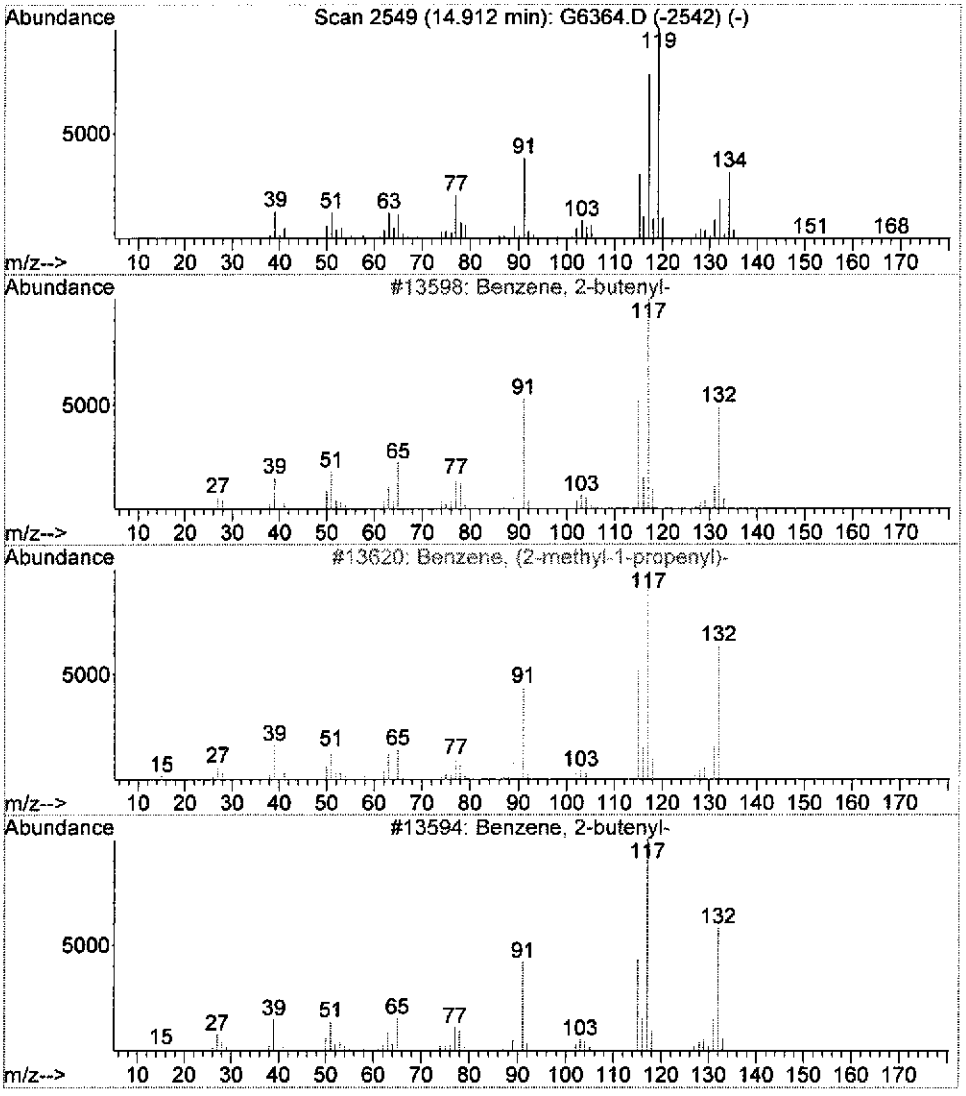
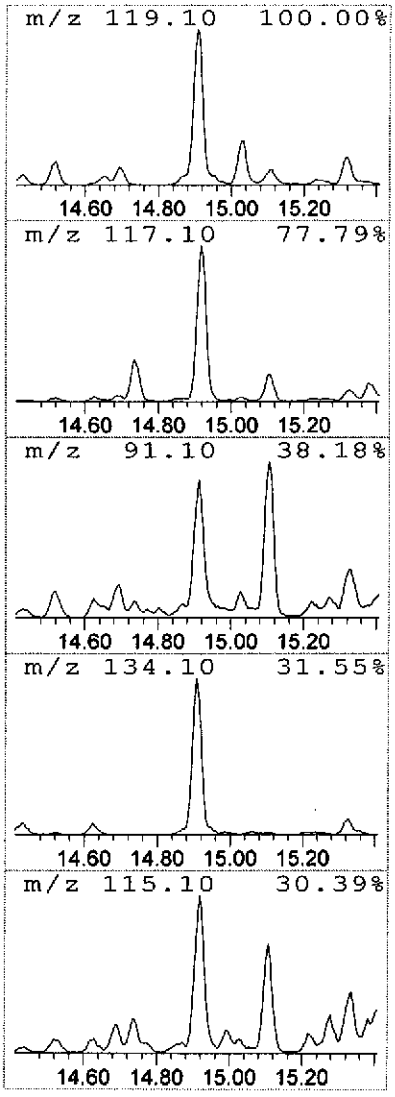
Peak Number 6 Substituted benzene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.91	28.90 UG	1889660	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-butenyl-	132	C10H12	001560-06-1	90
2	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	89
3	Benzene, 2-butenyl-	132	C10H12	001560-06-1	87
4	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000767-99-7	70
5	Benzene, 1-methyl-4-(2-propenyl)-	132	C10H12	003333-13-9	70





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

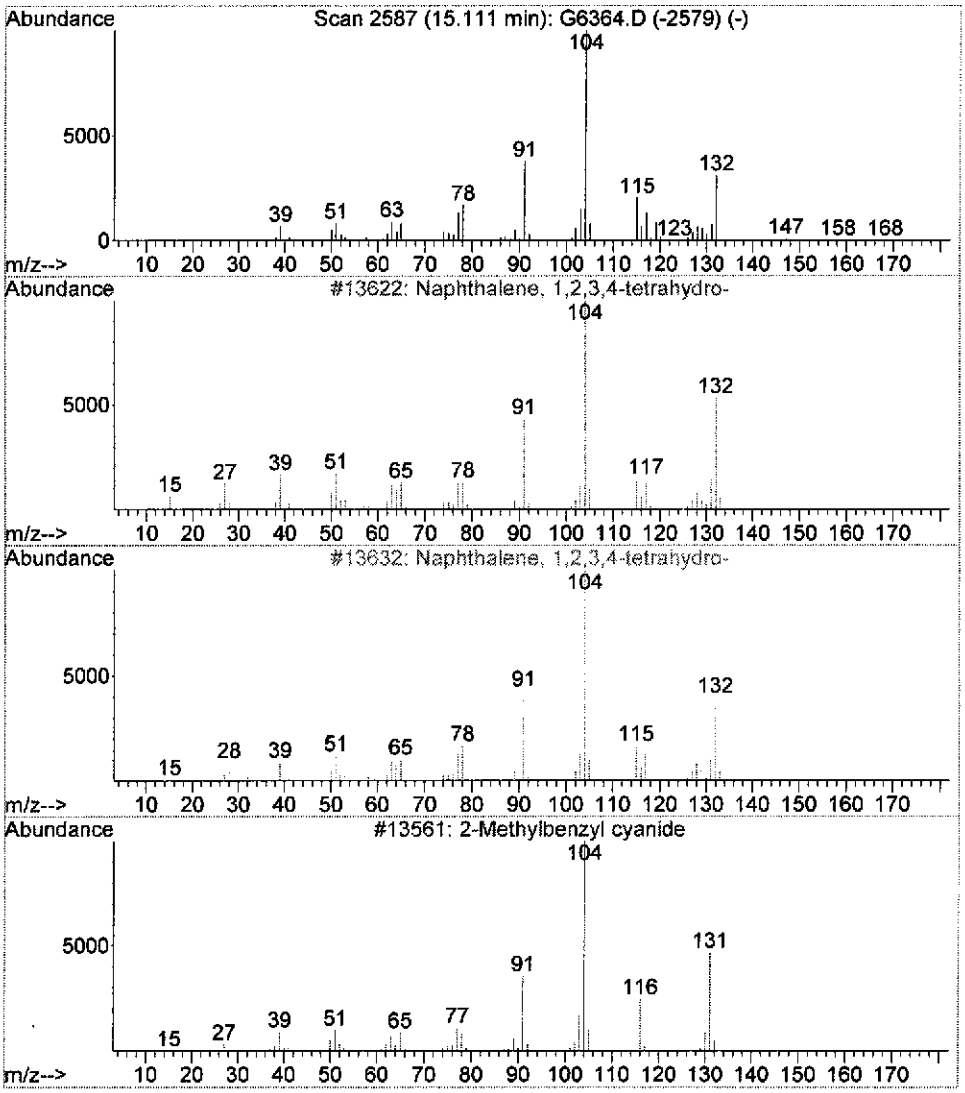
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

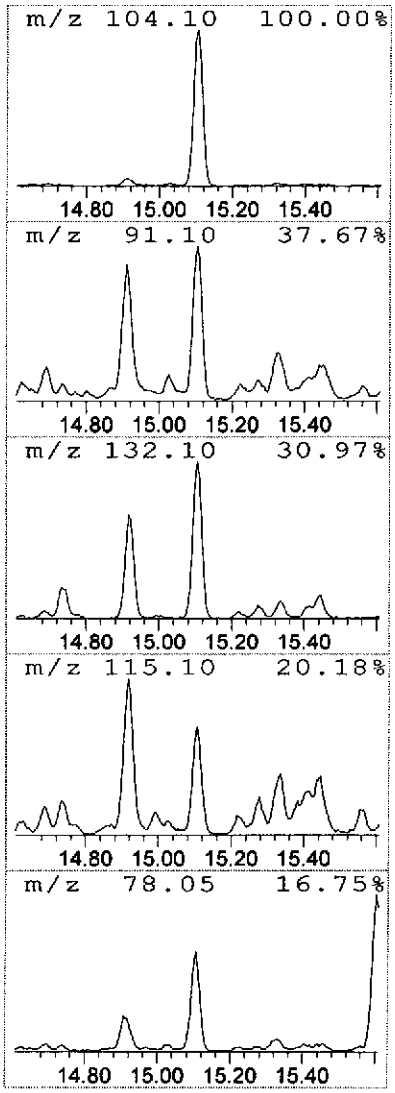
****

Peak Number 7 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.11	25.39 UG	1660430	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	87
2	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	81
3	2-Methylbenzyl cyanide	131	C9H9N	022364-68-7	53
4	Isoquinoline, 1,2,3,4-tetrahydro-	133	C9H11N	000091-21-4	50
5	Isoquinoline, 1,2,3,4-tetrahydro-	133	C9H11N	000091-21-4	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

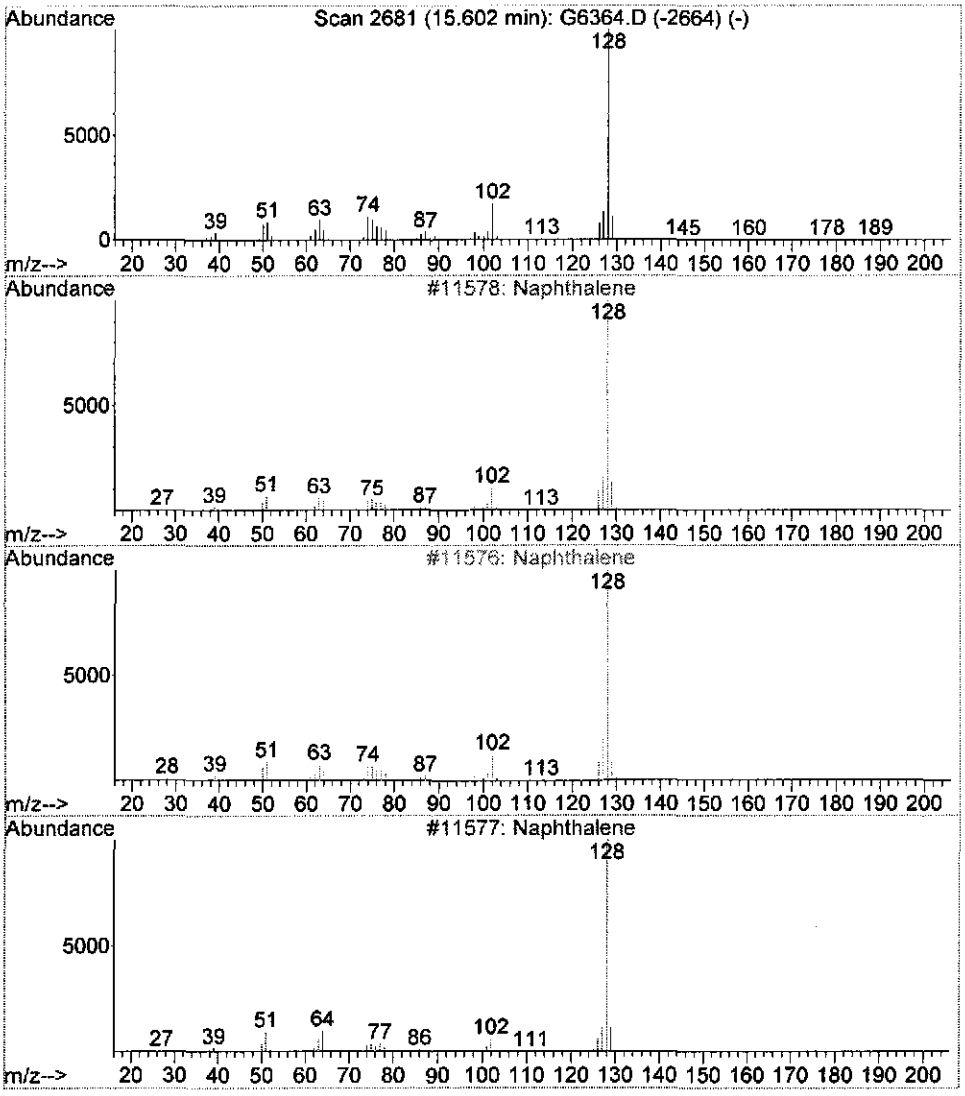
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

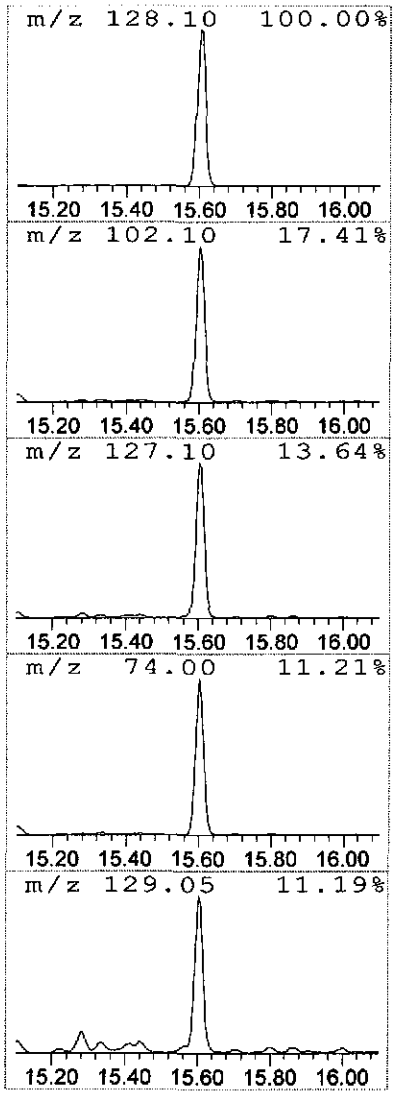
****

Peak Number 8 Naphthalene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.60	104.55 UG	6837010	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	91
2	Naphthalene	128	C10H8	000091-20-3	91
3	Naphthalene	128	C10H8	000091-20-3	90
4	Azulene	128	C10H8	000275-51-4	90
5	Azulene	128	C10H8	000275-51-4	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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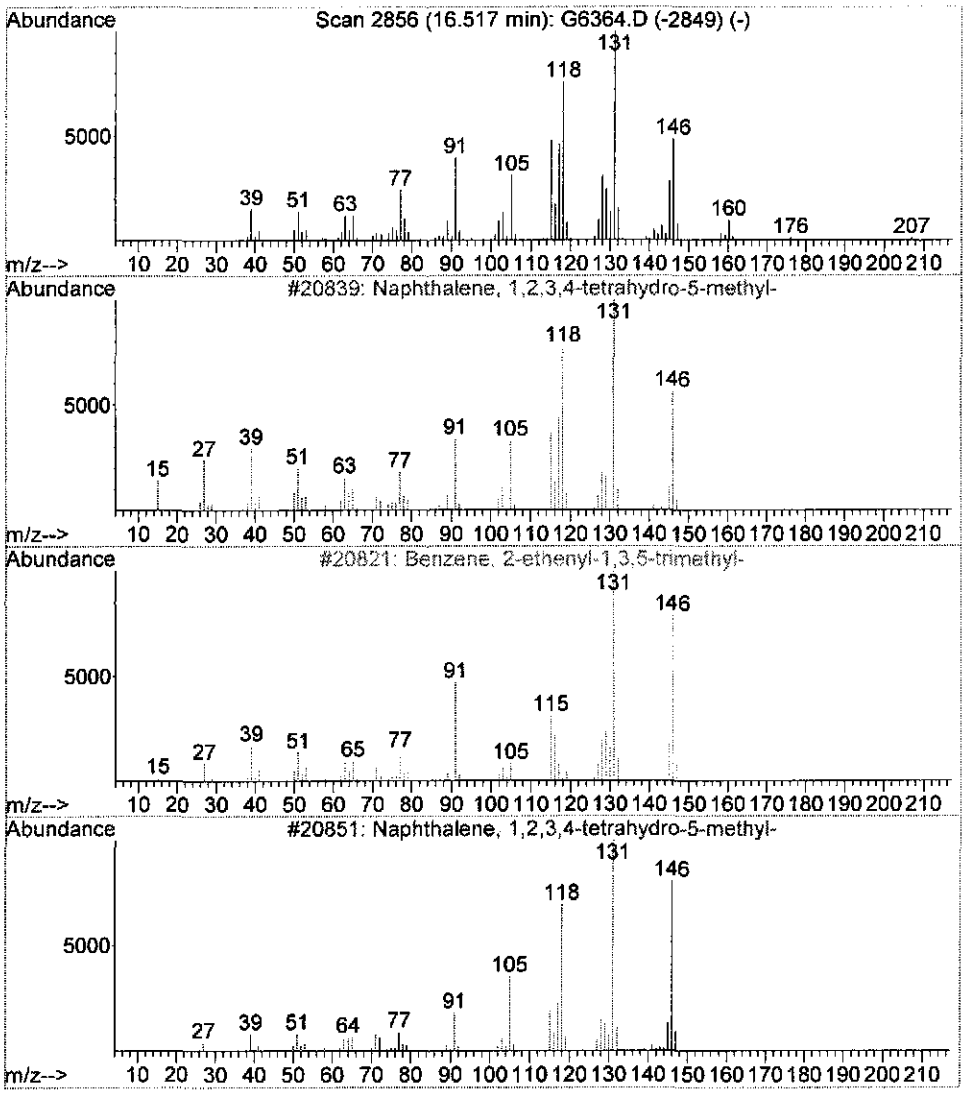
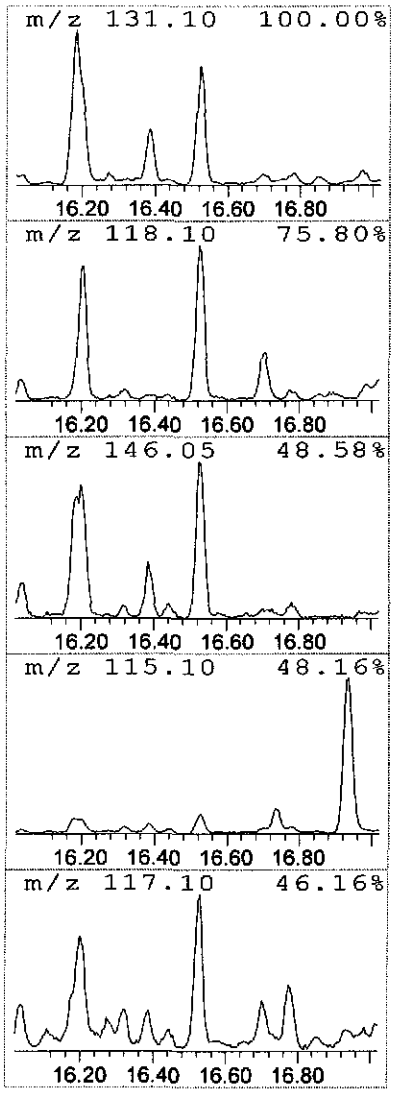
Peak Number 9 Unknown aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.52	14.94 UG	977276	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	90
2	Benzene, 2-ethenyl-1,3,5-trimethyl-	146	C11H14	000769-25-5	83
3	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	002809-64-5	70
4	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	70
5	Naphthalene, 1,2,3,4-tetrahydro-...	146	C11H14	001680-51-9	70





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6364.D
Acq On : 8 Oct 2010 6:03 pm
Operator : Sylvia
Sample : MW14,09980-008,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

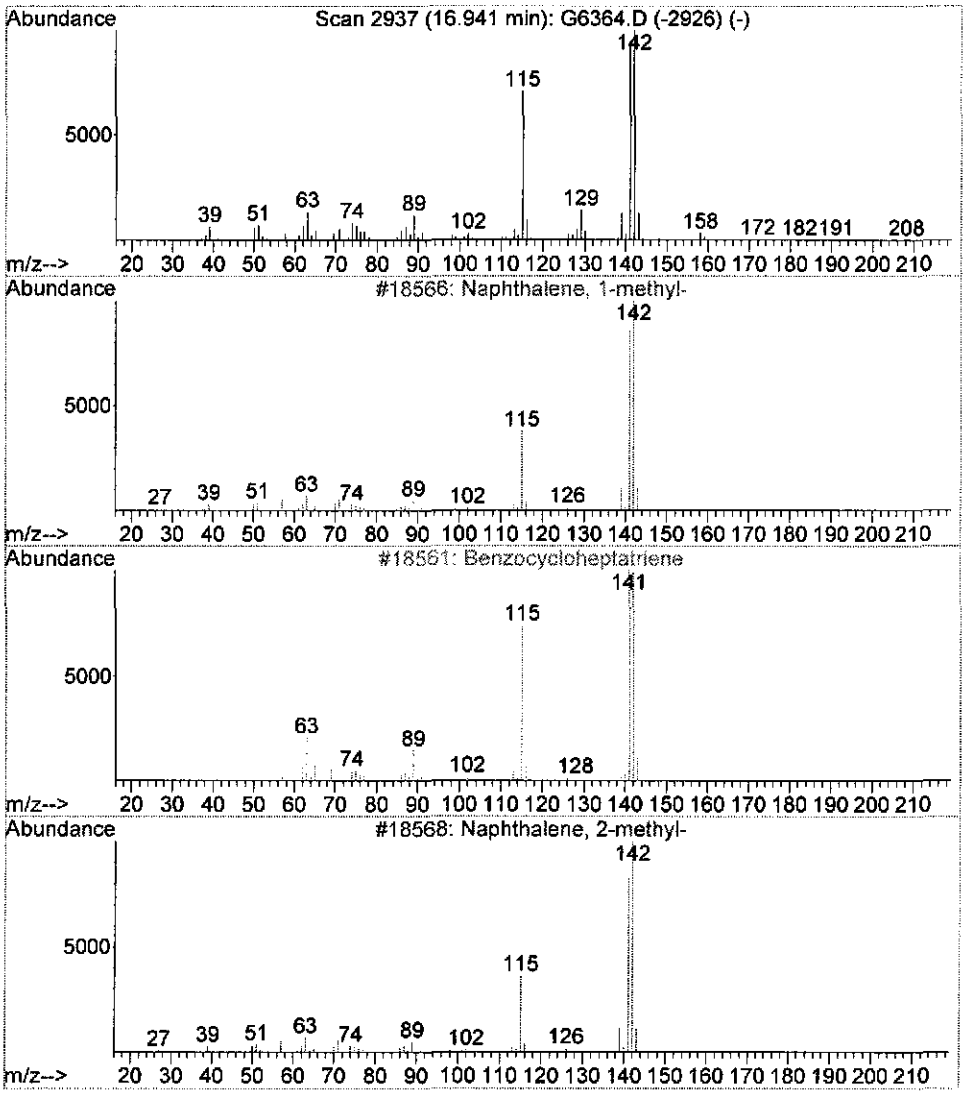
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

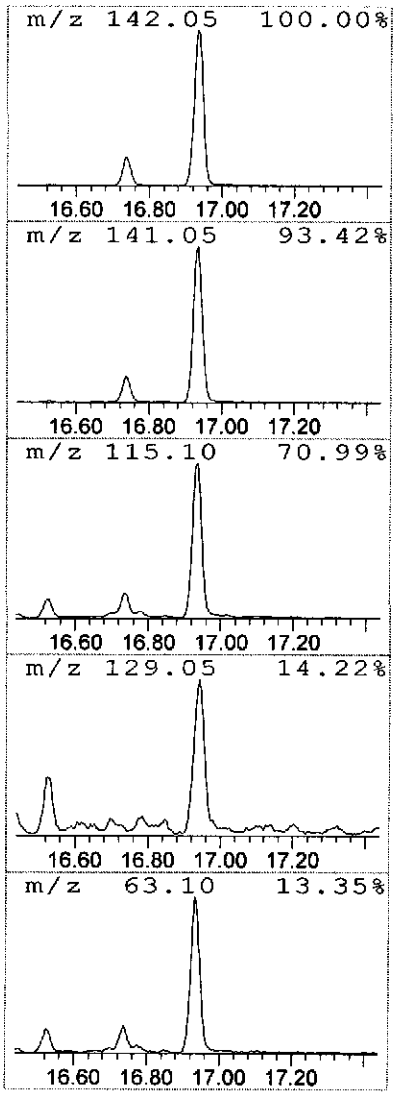
****

Peak Number 10 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.94	51.54 UG	3370660	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	97
2	Benzocycloheptatriene	142	C11H10	000264-09-5	96
3	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	95
4	Bicyclo[4.4.1]undeca-1,3,5,7,9-p...	142	C11H10	002443-46-1	94
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	93





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 12 09:10:20 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration

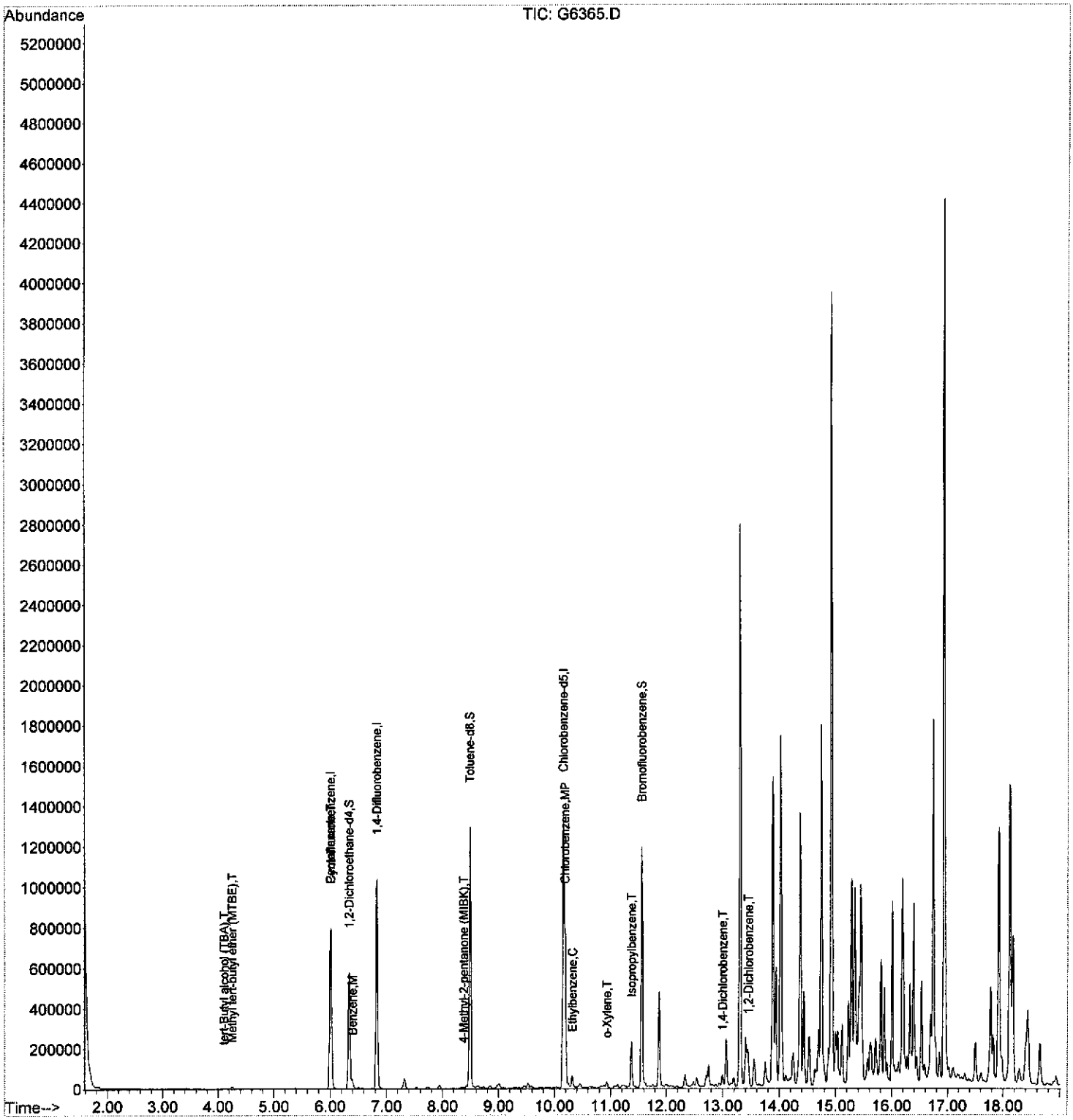
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.01	168	470092	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.83	114	724910	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	633902	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	592923	24.92	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 83.07%				
41) Toluene-d8	8.49	98	931788	28.39	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 94.63%				
59) Bromofluorobenzene	11.56	95	447205	26.88	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 89.60%				
Target Compounds							Qvalue
15) tert-Butyl alcohol (TBA)	4.11	59	2482m	2.72	UG		
17) Methyl tert-butyl ether (M	4.25	73	15845	0.53	UG		100
32) Benzene	6.40	78	39251	1.49	UG		100
40) 4-Methyl-2-pentanone (MIBK	8.37	43	3436	0.56	UG		98
51) Chlorobenzene	10.19	112	341973	24.16	UG	#	87
53) Ethylbenzene	10.32	91	44239	1.36	UG		98
55) o-Xylene	10.93	106	7284	0.71	UG		89
58) Isopropylbenzene	11.38	105	151076	4.99	UG		100
72) 1,4-Dichlorobenzene	12.99	146	20399	1.72	UG		100
74) 1,2-Dichlorobenzene	13.46	146	26095	2.25	UG	#	83
82) Cyclohexane	6.01	56	19043	1.57	UG	#	59

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 12 09:10:20 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.004	831	846	874	rBV	796999	1923552	24.03%	2.049%
2	6.334	895	909	934	rBV	574320	1394216	17.42%	1.485%
3	6.826	992	1003	1029	rVB	1035702	2166500	27.07%	2.307%
4	7.317	1081	1097	1117	rBV3	49311	136854	1.71%	0.146%
5	8.484	1311	1320	1341	rVB	1287152	2605570	32.56%	2.775%
6	9.001	1402	1419	1430	rBV4	23468	86968	1.09%	0.093%
7	10.157	1628	1640	1664	rBV2	1343491	3960107	49.48%	4.218%
8	10.319	1664	1671	1683	rVB	54844	115667	1.45%	0.123%
9	11.371	1863	1872	1893	rVB	226179	445831	5.57%	0.475%
10	11.559	1898	1908	1930	rBV	1188260	2237840	27.96%	2.383%
11	11.873	1958	1968	1981	rBV	472370	887264	11.09%	0.945%
12	12.333	2043	2056	2072	rBV2	65181	167746	2.10%	0.179%
13	12.542	2090	2096	2110	rVB	42590	96825	1.21%	0.103%
14	12.710	2121	2128	2131	rBV	56504	102586	1.28%	0.109%
15	12.751	2131	2136	2146	rVB2	100604	200005	2.50%	0.213%
16	12.997	2177	2183	2188	rBV3	50517	87420	1.09%	0.093%
17	13.060	2188	2195	2207	rVB	228819	432593	5.41%	0.461%
18	13.196	2215	2221	2229	rVB3	42421	86087	1.08%	0.092%
19	13.306	2229	2242	2253	rBV	2787650	5229703	65.34%	5.570%
20	13.405	2253	2261	2265	rBV2	231759	459256	5.74%	0.489%
21	13.552	2281	2289	2303	rBV3	135583	309508	3.87%	0.330%
22	13.750	2316	2327	2340	rBV2	117364	291250	3.64%	0.310%
23	13.881	2340	2352	2358	rVV	1517562	2905378	36.30%	3.094%
24	13.933	2358	2362	2370	rVV	571538	1001644	12.52%	1.067%
25	14.022	2370	2379	2391	rVV2	1714146	3581159	44.75%	3.814%
26	14.242	2414	2421	2430	rVB3	153185	367764	4.60%	0.392%
27	14.362	2430	2444	2451	rBV	1337473	2587505	32.33%	2.756%
28	14.430	2451	2457	2466	rVV	455754	853456	10.66%	0.909%
29	14.524	2466	2475	2487	rVB3	240289	535786	6.69%	0.571%
30	14.629	2487	2495	2501	rBV3	81014	223240	2.79%	0.238%
31	14.687	2501	2506	2510	rVV	266520	484347	6.05%	0.516%
32	14.739	2510	2516	2533	rVV	1773006	3324546	41.54%	3.541%
33	14.870	2533	2541	2543	rVV2	174299	316449	3.95%	0.337%
34	14.917	2543	2550	2560	rVV2	3923075	7534040	94.14%	8.024%
35	14.995	2560	2565	2568	rVV2	253462	451982	5.65%	0.481%
36	15.027	2568	2571	2581	rVV	258932	503815	6.29%	0.537%
37	15.105	2581	2586	2599	rVB2	288539	557336	6.96%	0.594%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

38	15.220	2599	2608	2613	rBV2	405131	768803	9.61%	0.819%
39	15.278	2613	2619	2624	rVV2	1008479	1969886	24.61%	2.098%
40	15.330	2624	2629	2638	rVV4	964674	2217125	27.70%	2.361%
41	15.445	2638	2651	2664	rVV2	980077	3130397	39.11%	3.334%
42	15.560	2664	2673	2677	rVV2	119046	249479	3.12%	0.266%
43	15.618	2677	2684	2693	rVV3	199219	609903	7.62%	0.650%
44	15.707	2693	2701	2710	rVV2	219979	564783	7.06%	0.602%
45	15.801	2710	2719	2725	rVV3	603778	1187013	14.83%	1.264%
46	15.858	2725	2730	2736	rVV	468398	809385	10.11%	0.862%
47	15.905	2736	2739	2750	rVV3	96064	175724	2.20%	0.187%
48	15.999	2750	2757	2774	rVV	893225	1661229	20.76%	1.769%
49	16.114	2774	2779	2784	rVV6	98236	214866	2.68%	0.229%
50	16.182	2784	2792	2806	rVV3	1005246	2539829	31.73%	2.705%
51	16.271	2806	2809	2813	rVV2	124921	199882	2.50%	0.213%
52	16.318	2813	2818	2826	rVV	484049	986924	12.33%	1.051%
53	16.386	2826	2831	2838	rVV	879245	1505225	18.81%	1.603%
54	16.439	2838	2841	2850	rVV2	123241	216179	2.70%	0.230%
55	16.528	2850	2858	2865	rVV3	496061	924098	11.55%	0.984%
56	16.580	2865	2868	2877	rVV4	84692	196038	2.45%	0.209%
57	16.690	2877	2889	2893	rVV3	330877	759020	9.48%	0.808%
58	16.737	2893	2898	2914	rVV	1788303	3320378	41.49%	3.536%
59	16.852	2914	2920	2928	rVV4	144552	304451	3.80%	0.324%
60	16.936	2928	2936	2960	rVV	4379173	8003423	100.00%	8.524%
61	17.098	2960	2967	2979	rVV5	66298	220707	2.76%	0.235%
62	17.187	2979	2984	3001	rVV5	32559	146077	1.83%	0.156%
63	17.307	3001	3007	3019	rVB7	36545	85935	1.07%	0.092%
64	17.500	3034	3044	3055	rBV2	195805	438301	5.48%	0.467%
65	17.605	3055	3064	3083	rVV2	45979	128261	1.60%	0.137%
66	17.772	3083	3096	3102	rVV	471735	1079486	13.49%	1.150%
67	17.820	3102	3105	3114	rVV2	235703	441685	5.52%	0.470%
68	17.919	3114	3124	3147	rVV	1260124	3113898	38.91%	3.316%
69	18.112	3147	3161	3167	rVV	1474571	3300594	41.24%	3.515%
70	18.165	3167	3171	3185	rVV2	727492	1537703	19.21%	1.638%
71	18.285	3185	3194	3205	rVV3	74471	221534	2.77%	0.236%
72	18.431	3205	3222	3252	rVB	366267	1392654	17.40%	1.483%
73	18.646	3252	3263	3282	rVB2	202036	494448	6.18%	0.527%
74	18.934	3303	3318	3326	rVB6	42232	127090	1.59%	0.135%

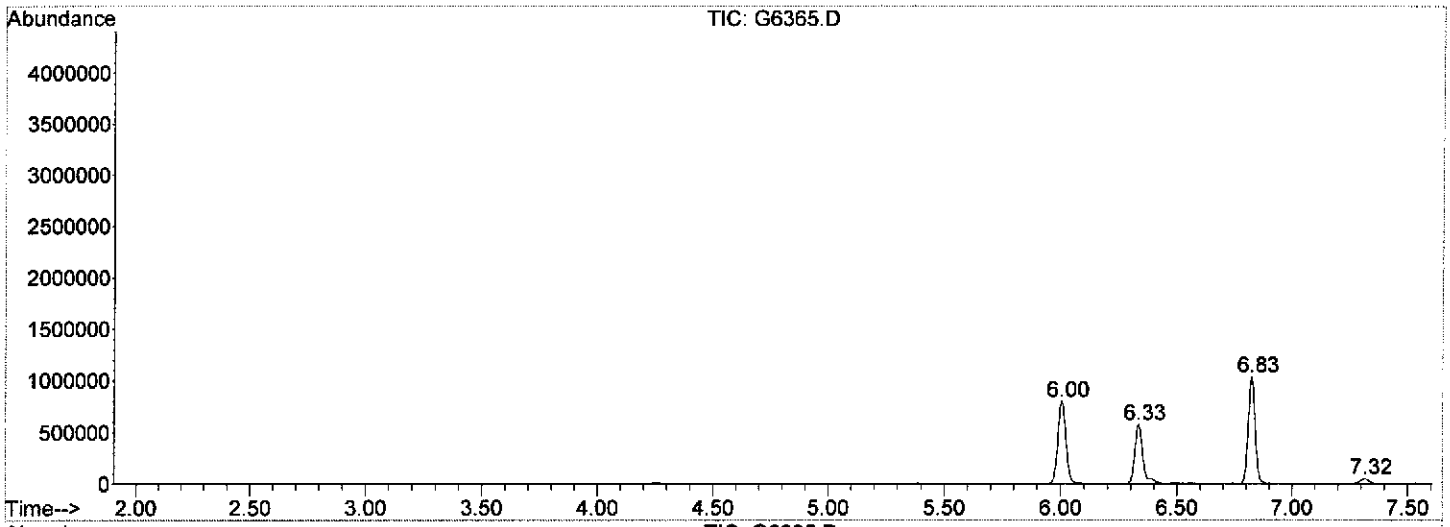
Sum of corrected areas: 93894208

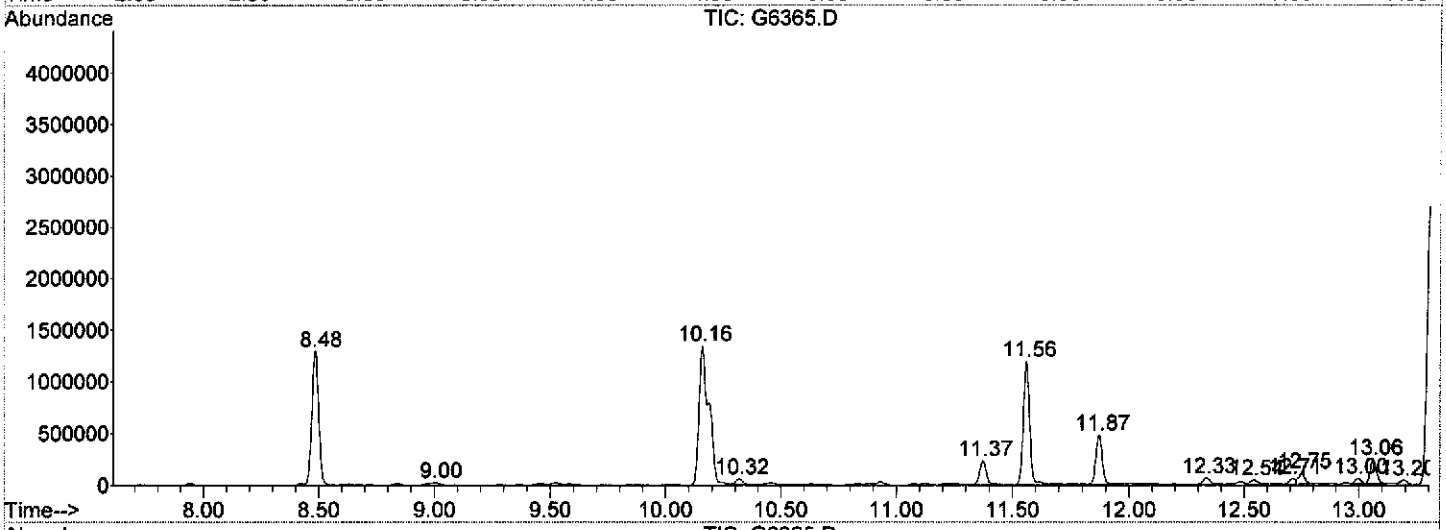
LSC Report - Integrated Chromatogram

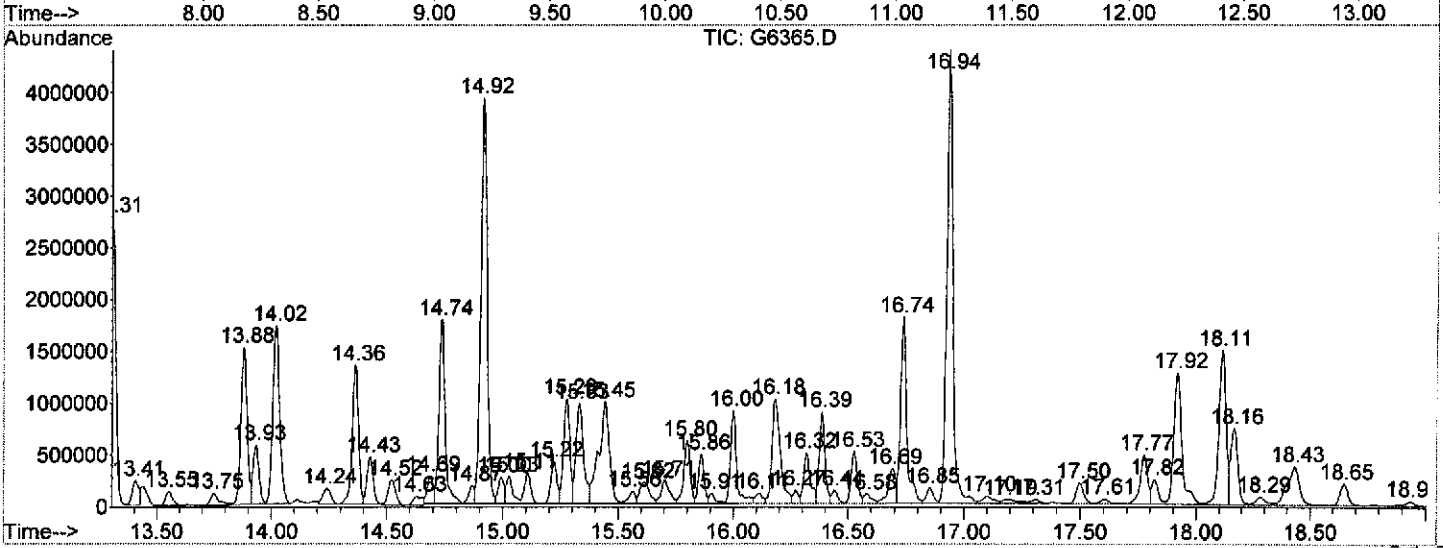
Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

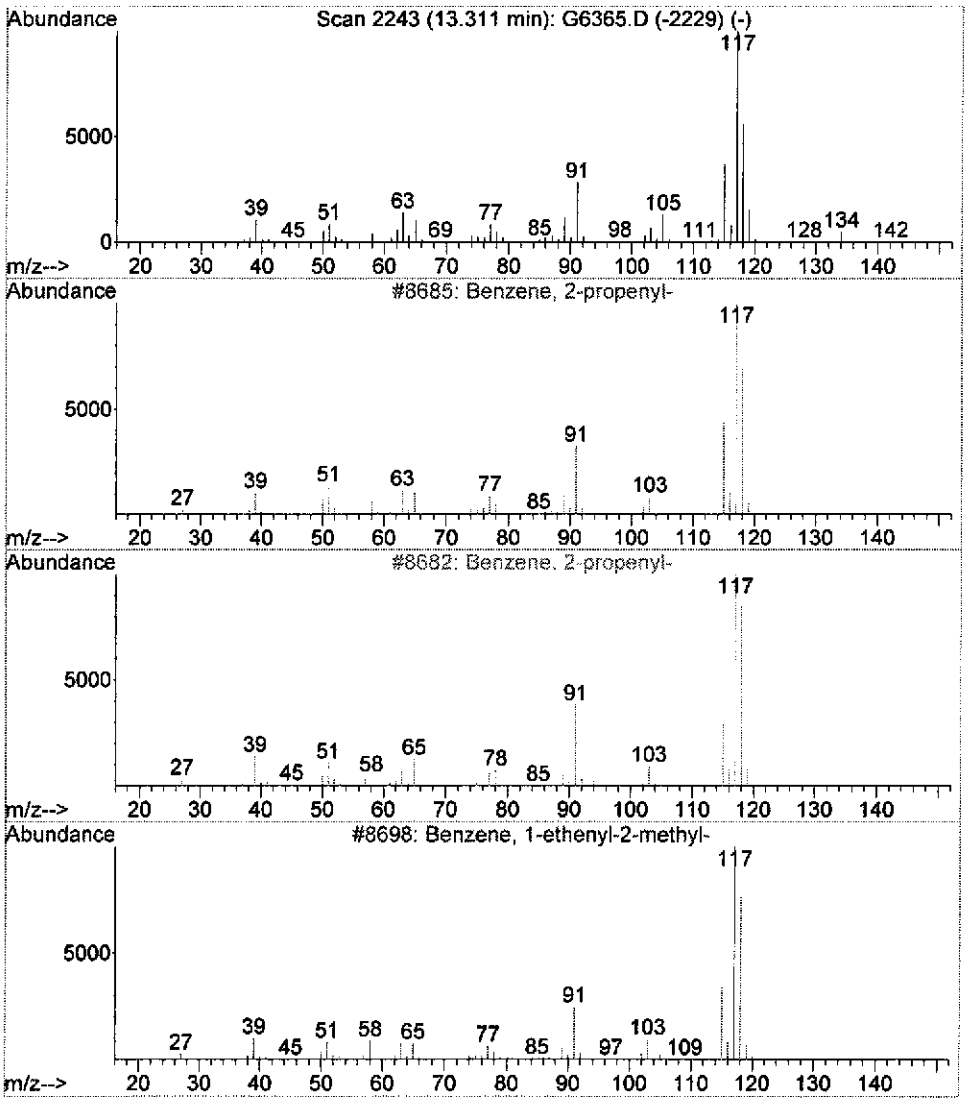
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

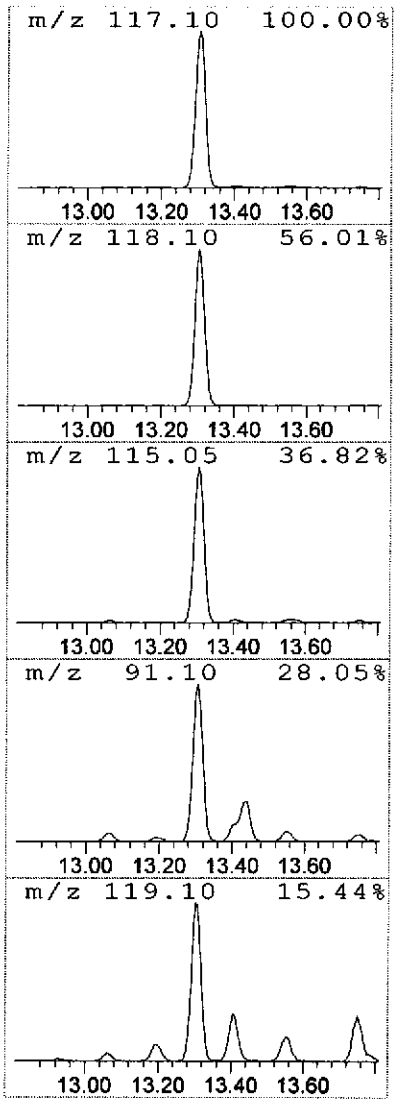
****

Peak Number 1 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.31	39.62 UG	5229700	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-propenyl-	118	C9H10	000300-57-2	87
2	Benzene, 2-propenyl-	118	C9H10	000300-57-2	76
3	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	76
4	Indane	118	C9H10	000496-11-7	76
5	Benzene, 1-propenyl-	118	C9H10	000637-50-3	76





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

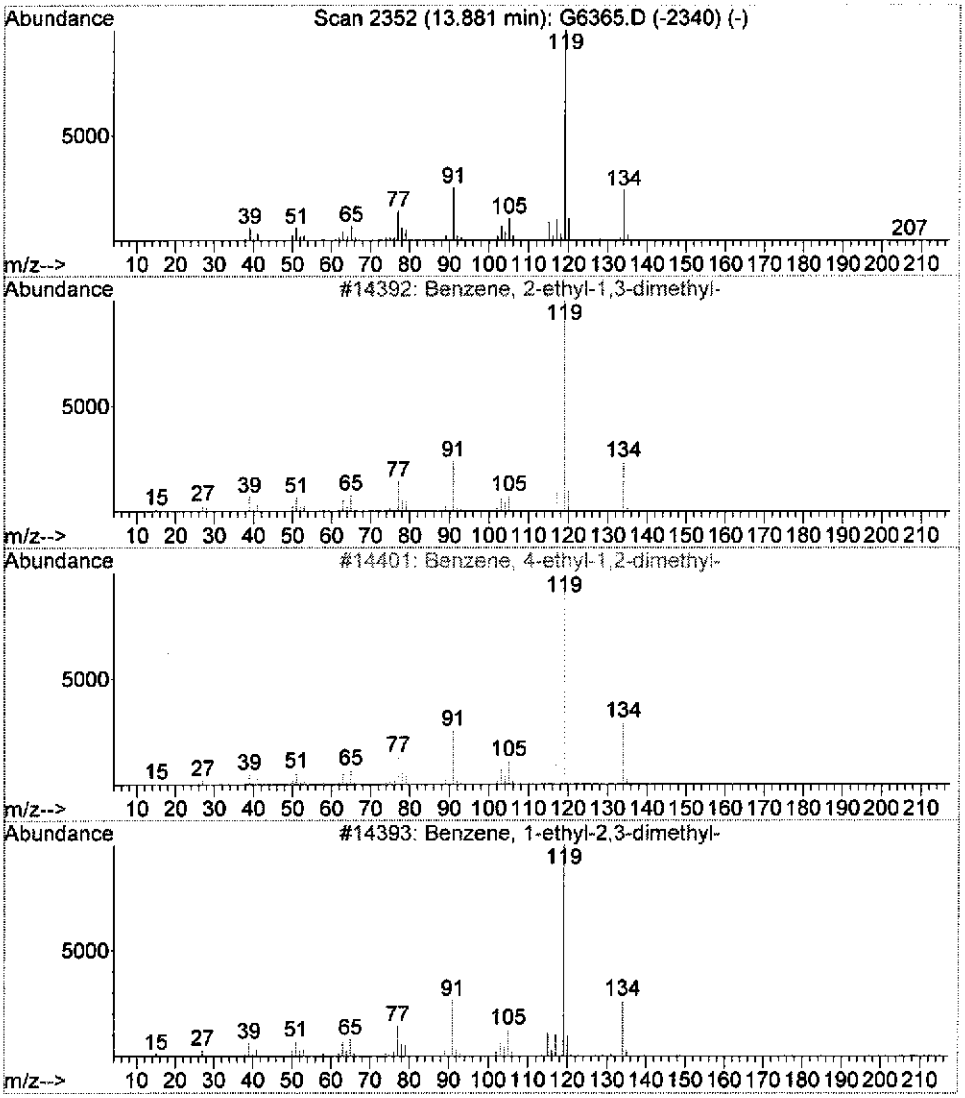
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

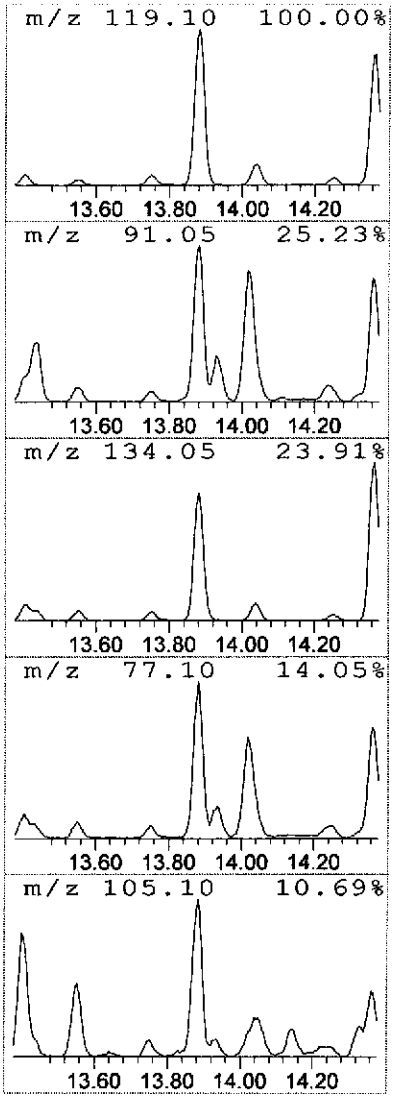
****

Peak Number 2 Substituted benzene Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.88	22.01 UG	2905380	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	97
2	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	96
3	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	96
4	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95
5	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

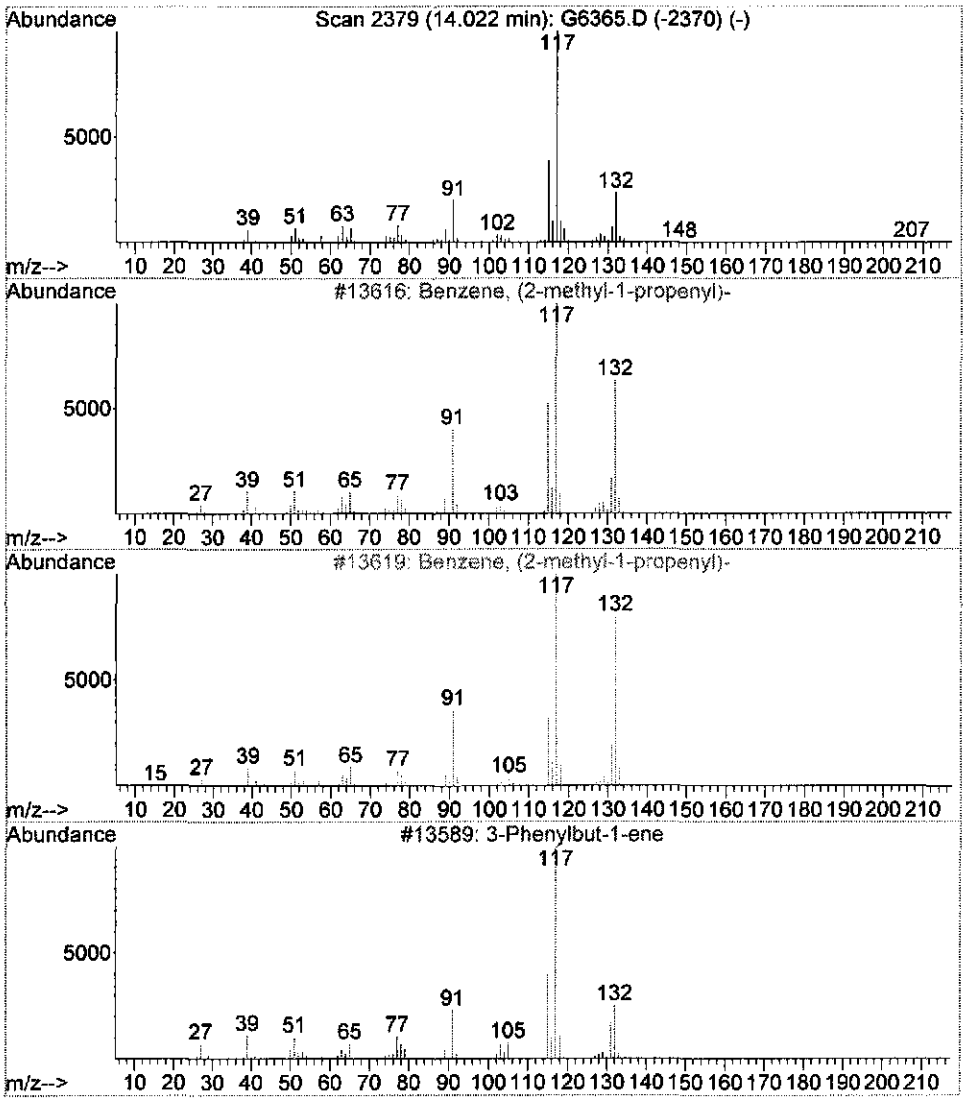
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

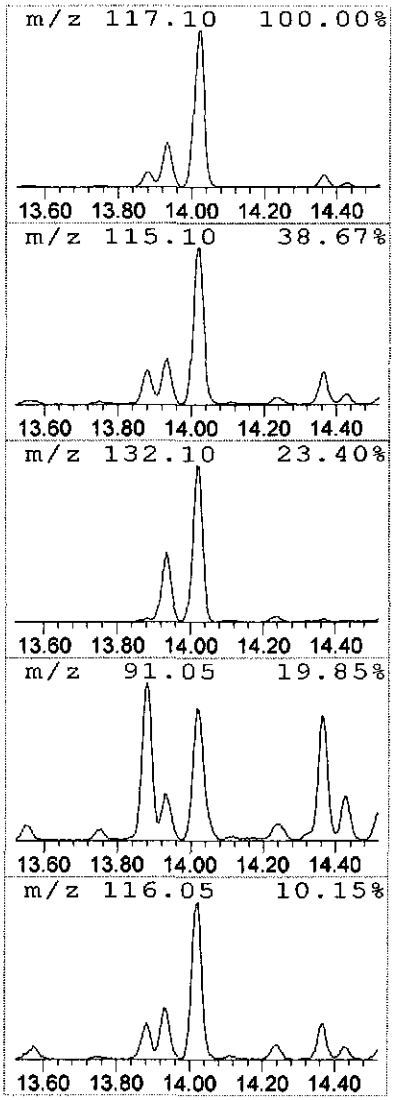
****

Peak Number 3 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	27.13 UG	3581160	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	90
2	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	90
3	3-Phenylbut-1-ene	132	C10H12	000934-10-1	87
4	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	87
5	1-Phenyl-1-butene	132	C10H12	000824-90-8	86





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

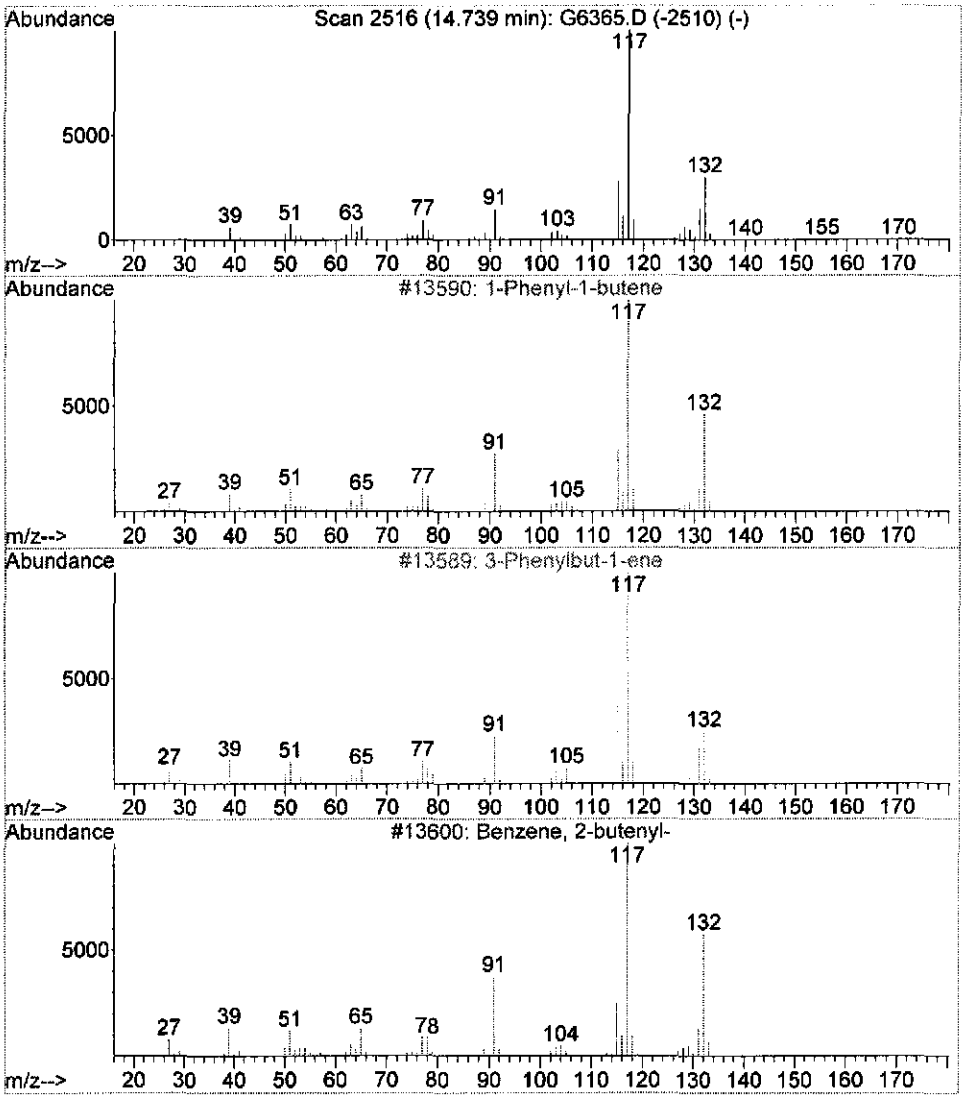
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

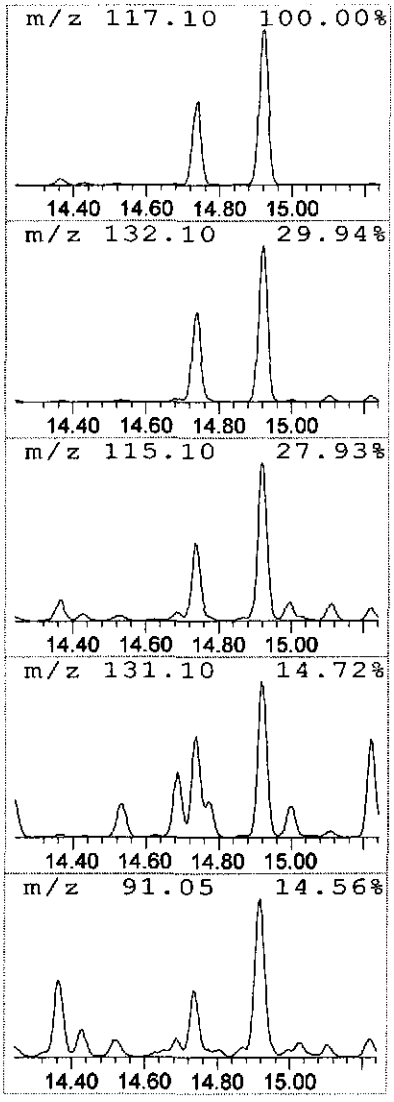
****

Peak Number 4 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.74	25.19 UG	3324550	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Phenyl-1-butene	132	C10H12	000824-90-8	93
2	3-Phenylbut-1-ene	132	C10H12	000934-10-1	91
3	Benzene, 2-butenyl-	132	C10H12	001560-06-1	91
4	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	90
5	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

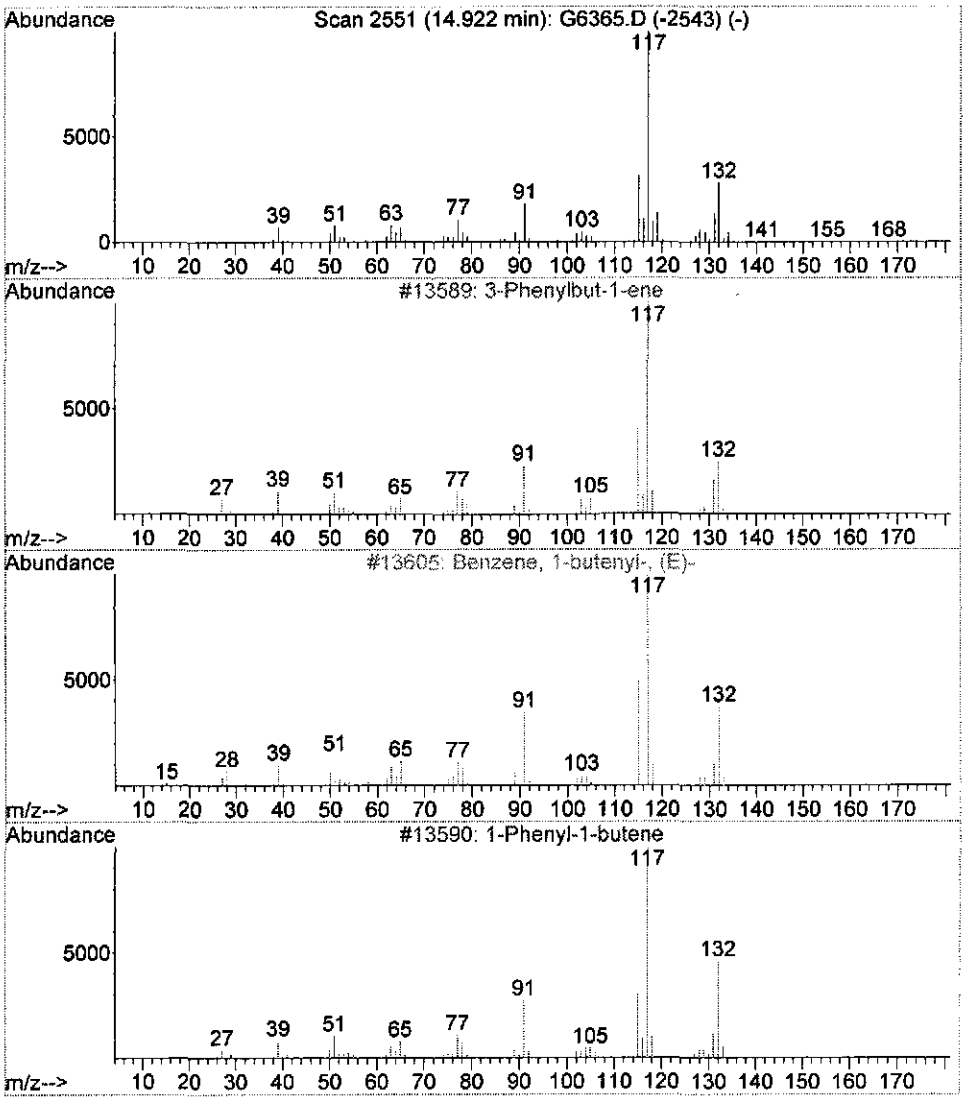
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

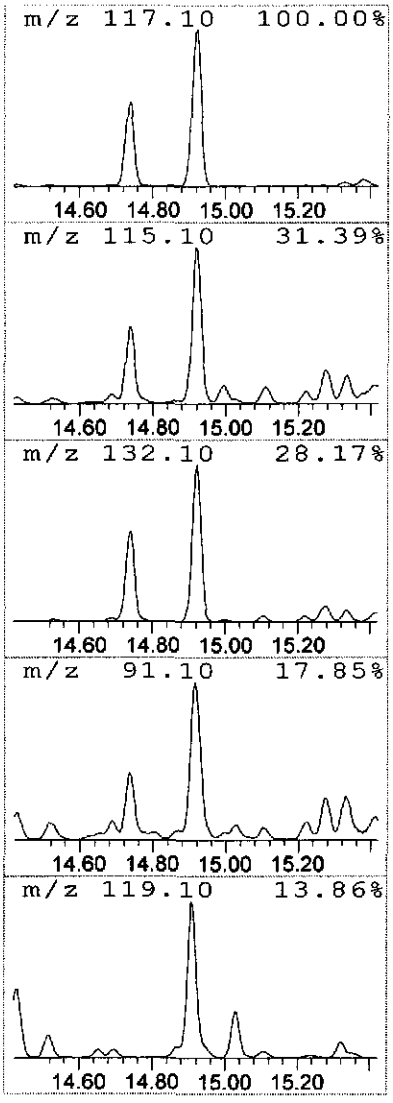
****

Peak Number 5 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.92	57.07 UG	7534040	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Phenylbut-1-ene	132	C10H12	000934-10-1	93
2	Benzene, 1-butenyl-, (E)-	132	C10H12	001005-64-7	91
3	1-Phenyl-1-butene	132	C10H12	000824-90-8	90
4	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	89
5	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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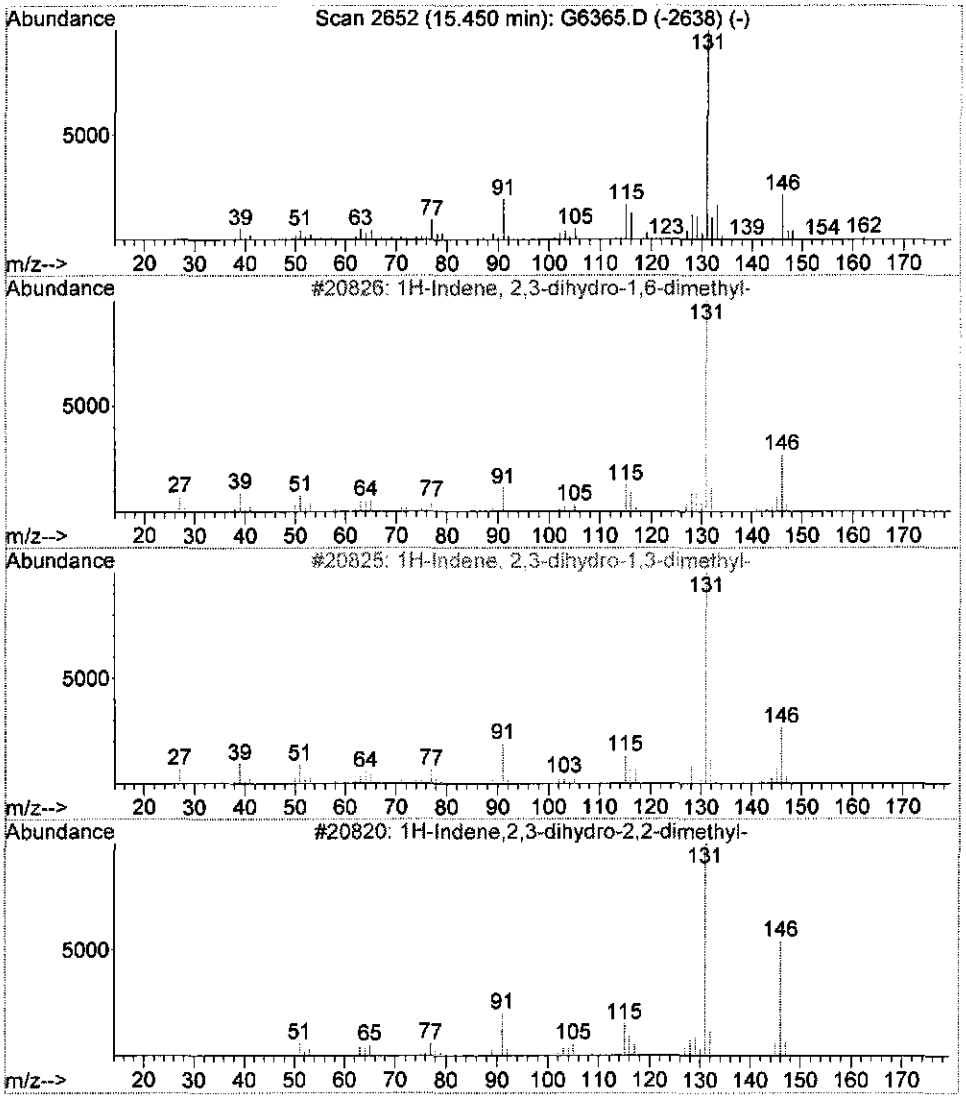
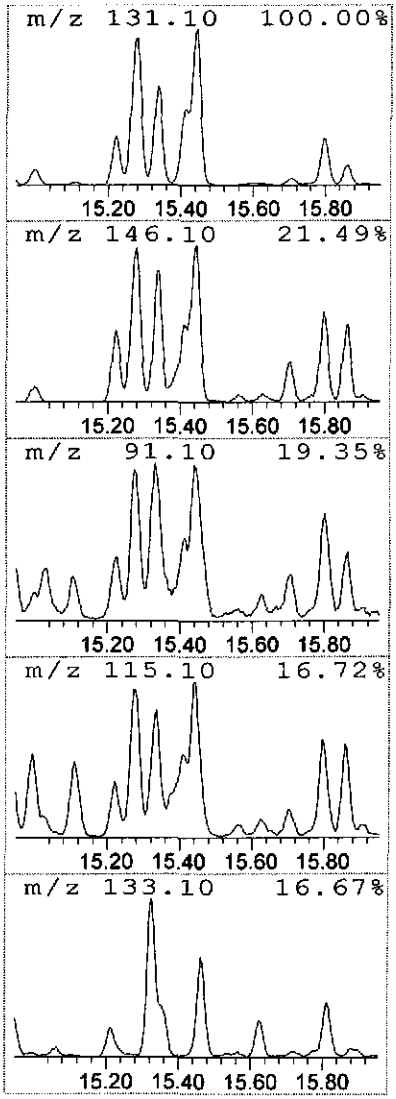
Peak Number 6 Unknown aromatic Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.45	23.71 UG	3130400	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	91
2	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	91
3	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	91
4	Benzene, (2-methyl-1-butenyl)-	146	C11H14	056253-64-6	91
5	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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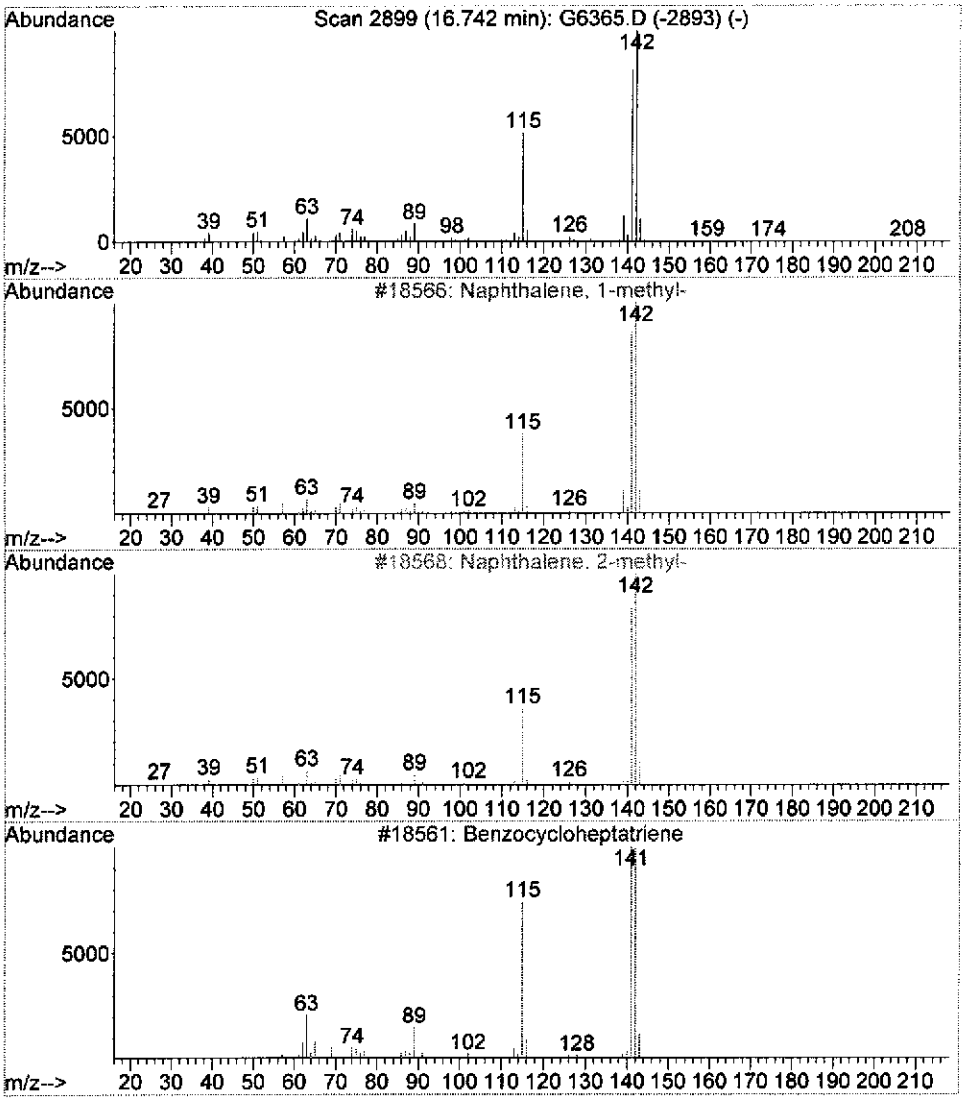
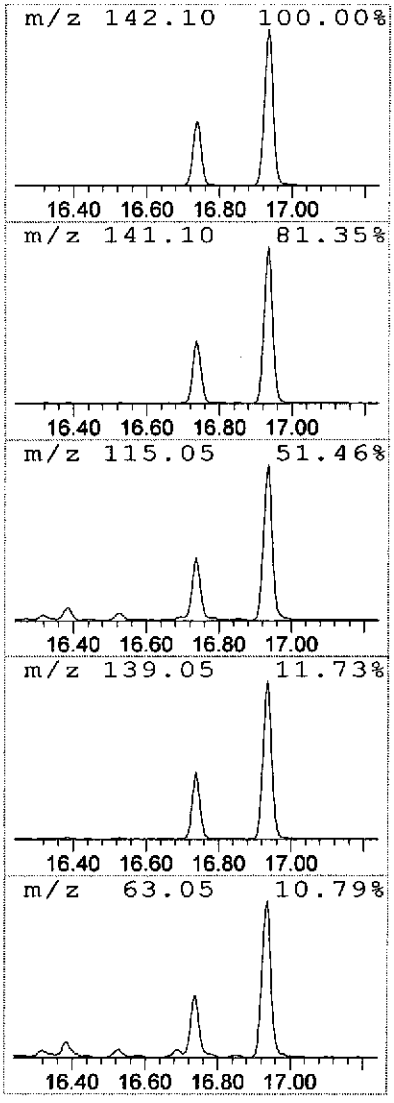
Peak Number 7 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.74	25.15 UG	3320380	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	97
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	95
3	Benzocycloheptatriene	142	C11H10	000264-09-5	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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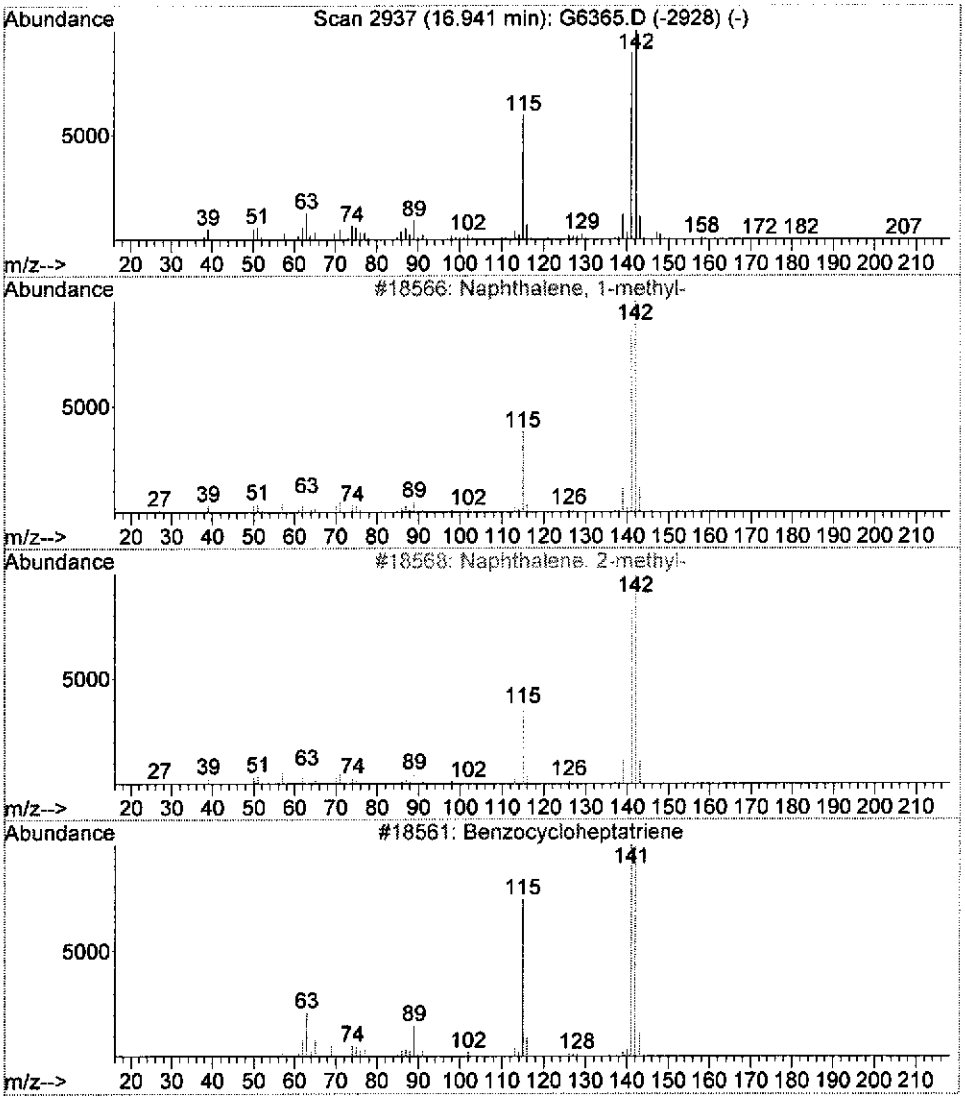
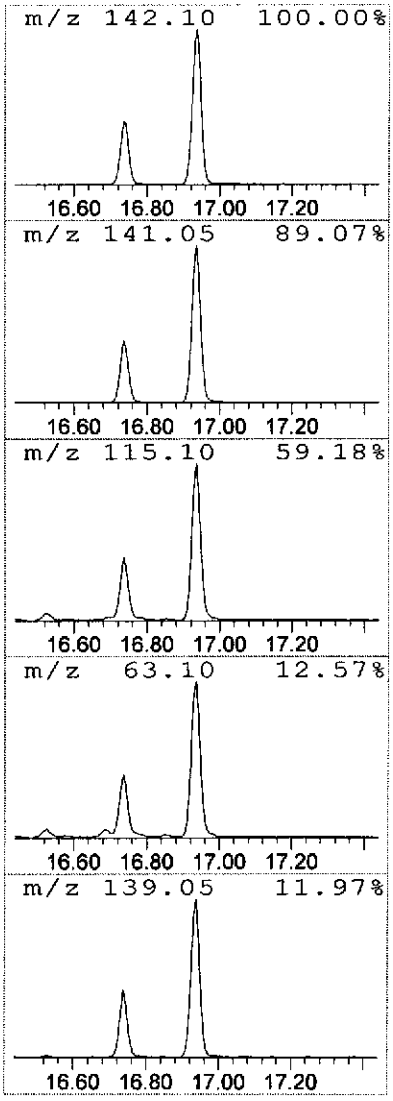
Peak Number 8 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.94	60.63 UG	8003420	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	97
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	95
3	Benzocycloheptatriene	142	C11H10	000264-09-5	94
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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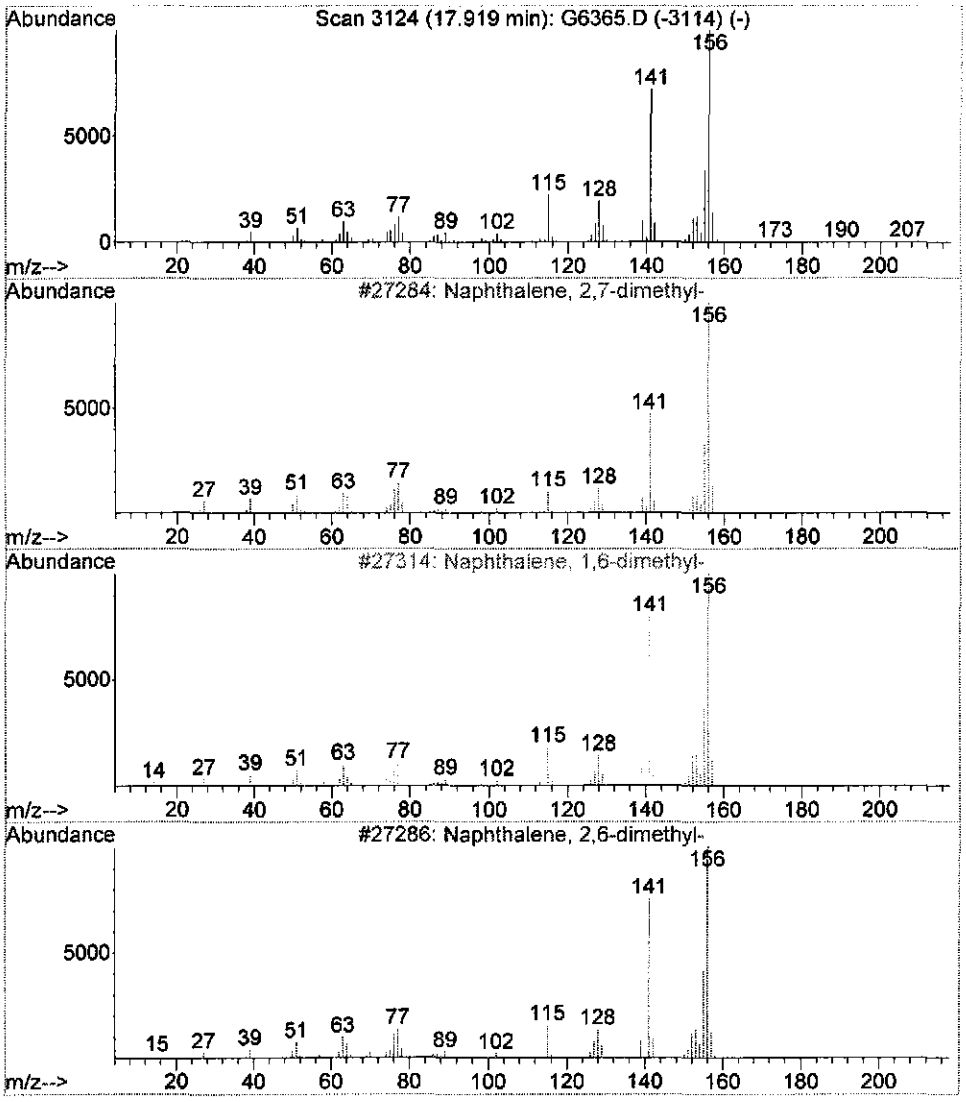
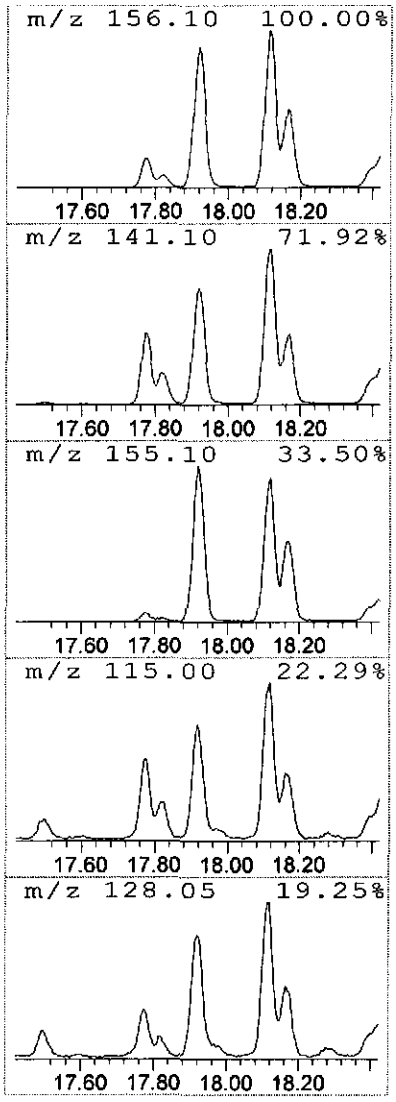
Peak Number 9 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.92	23.59 UG	3113900	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	96
2	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	96
3	Naphthalene, 2,6-dimethyl-	156	C12H12	000581-42-0	96
4	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	96
5	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6365.D
Acq On : 8 Oct 2010 6:31 pm
Operator : Sylvia
Sample : MW12,09980-009,A,5mL,100
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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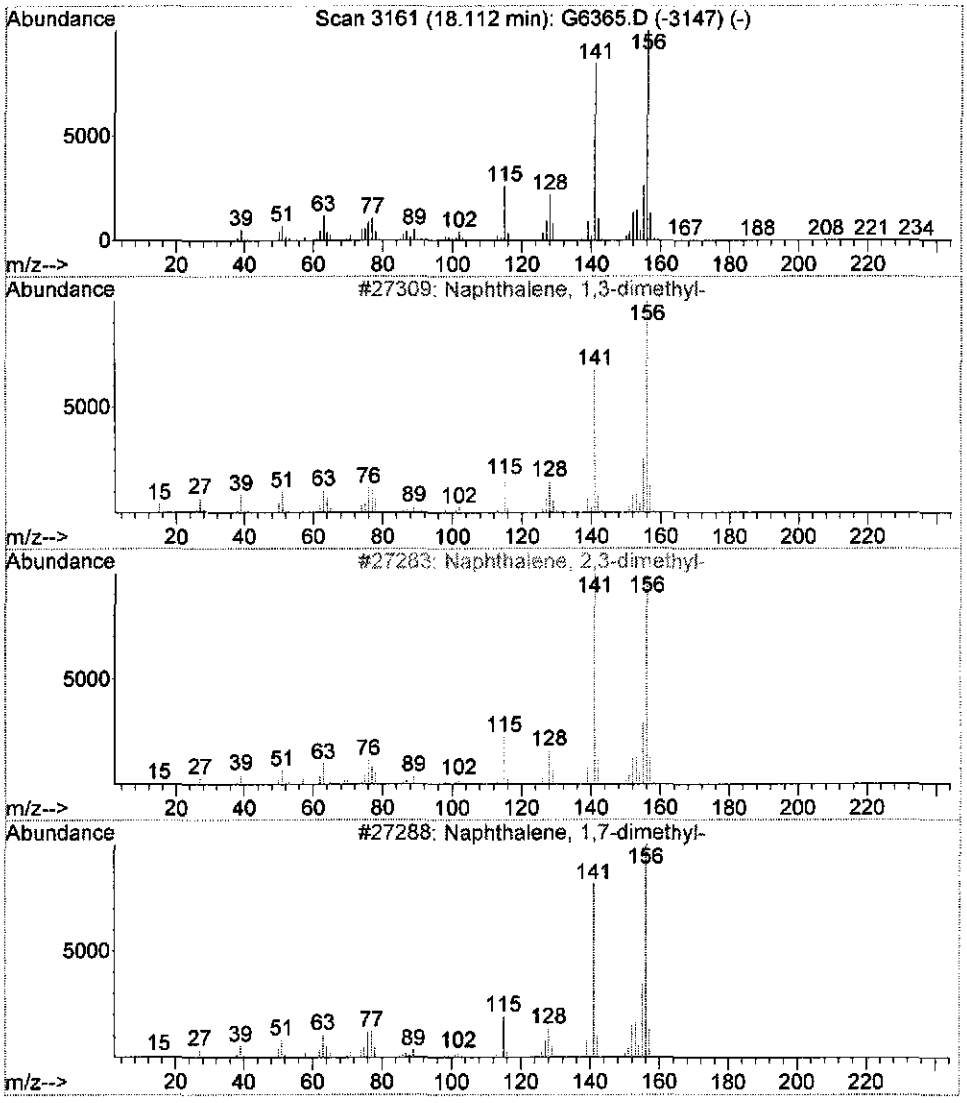
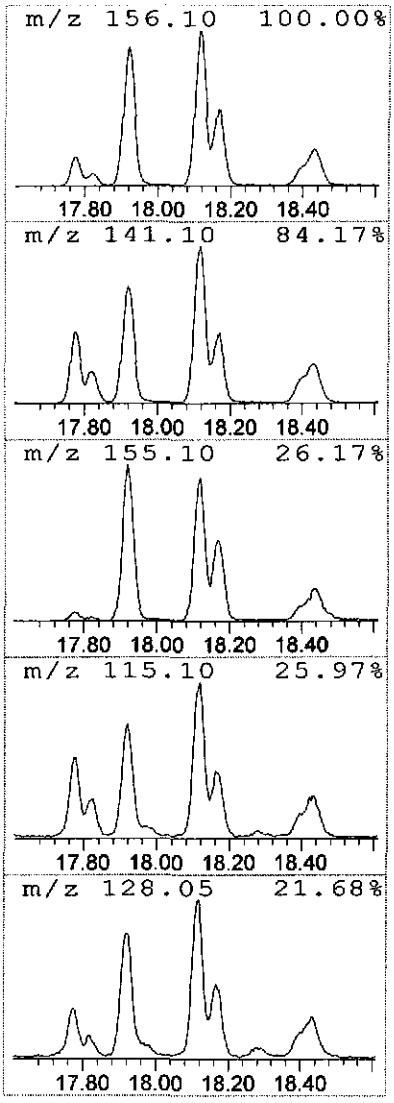
Peak Number 10 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.11	25.00 UG	3300590	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,3-dimethyl-	156	C12H12	000575-41-7	97
2	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	96
3	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	96
4	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	95
5	Naphthalene, 1,4-dimethyl-	156	C12H12	000571-58-4	95





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6309.D
Acq On : 7 Oct 2010 10:14 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 07 14:20:45 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Oct 04 15:27:58 2010
Response via : Initial Calibration

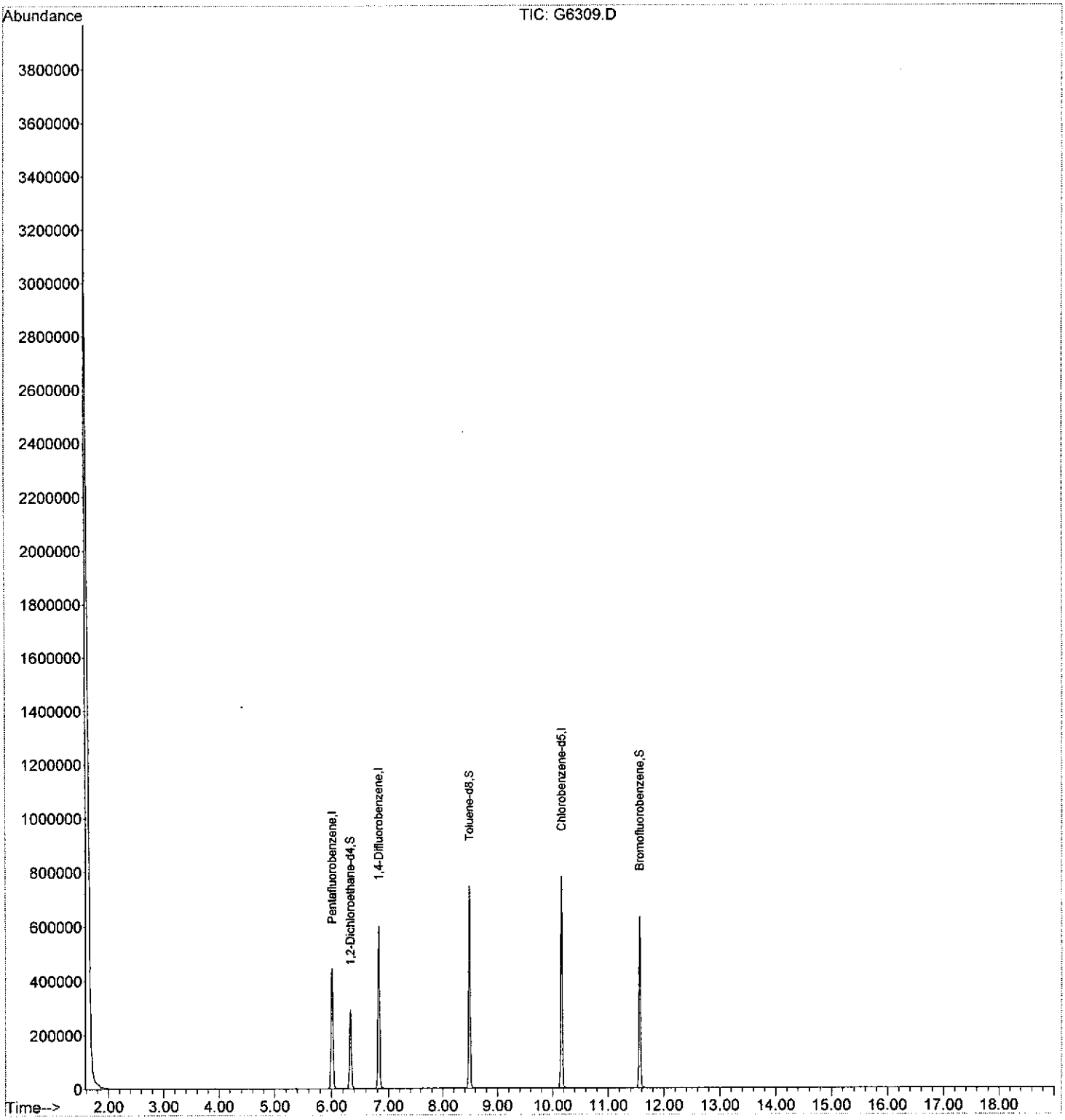
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	323572	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	509756	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	454425	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	270743	34.94	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 116.47%			
41) Toluene-d8	8.48	98	528758	28.99	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 96.63%			
59) Bromofluorobenzene	11.56	95	242194	31.41	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 104.70%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6309.D
Acq On : 7 Oct 2010 10:14 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 07 14:20:45 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Mon Oct 04 15:27:58 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6309.D
Acq On : 7 Oct 2010 10:14 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100410.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.010	835	847	873	rBV	443625	1046947	69.82%	14.695%
2	6.334	896	909	923	rBV	290948	649103	43.29%	9.111%
3	6.826	992	1003	1022	rBV	601690	1258233	83.91%	17.660%
4	8.484	1310	1320	1340	rBV	746889	1499455	100.00%	21.046%
5	10.157	1628	1640	1661	rBV	782307	1482480	98.87%	20.808%
6	11.559	1895	1908	1936	rBV	633833	1188395	79.26%	16.680%

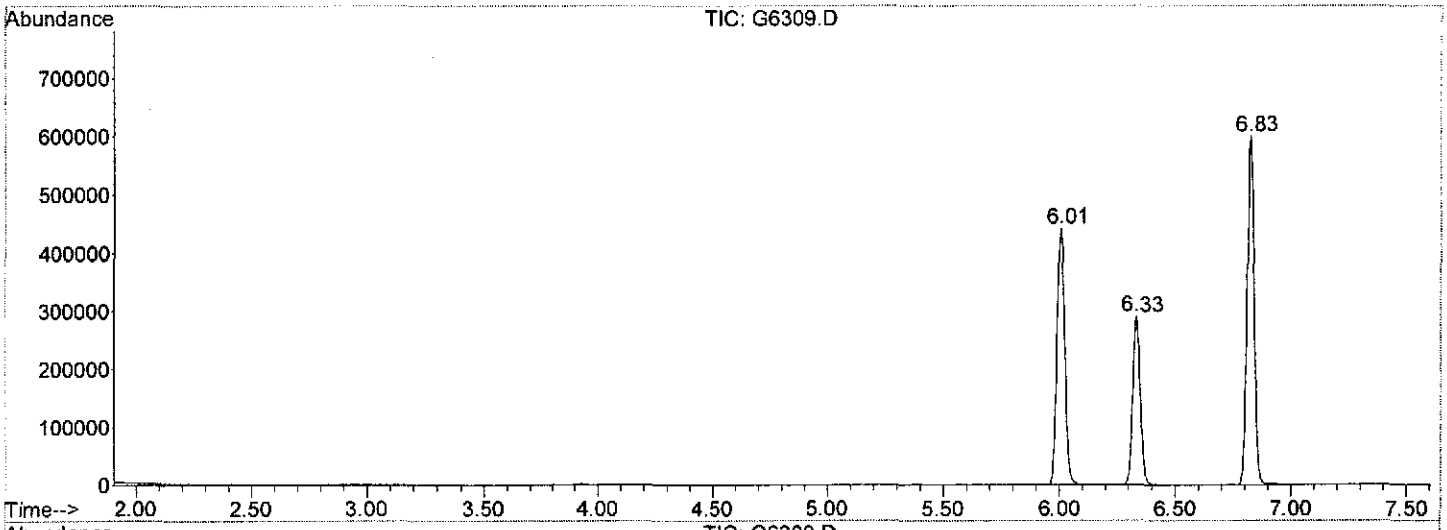
Sum of corrected areas: 7124613

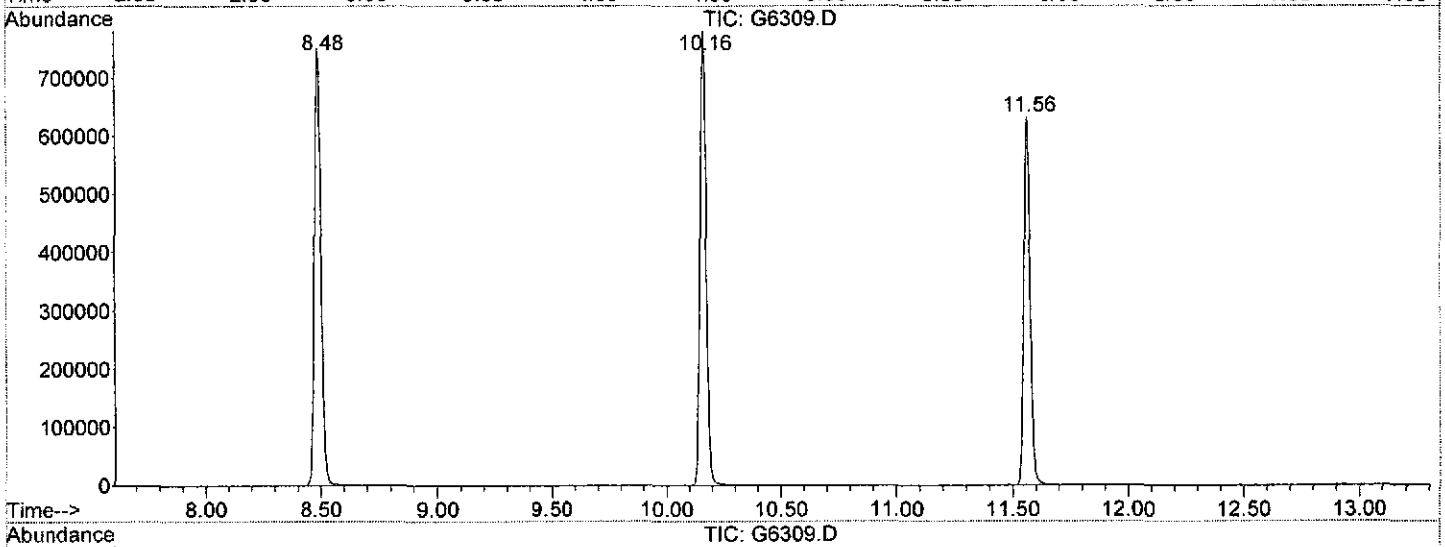
LSC Report - Integrated Chromatogram

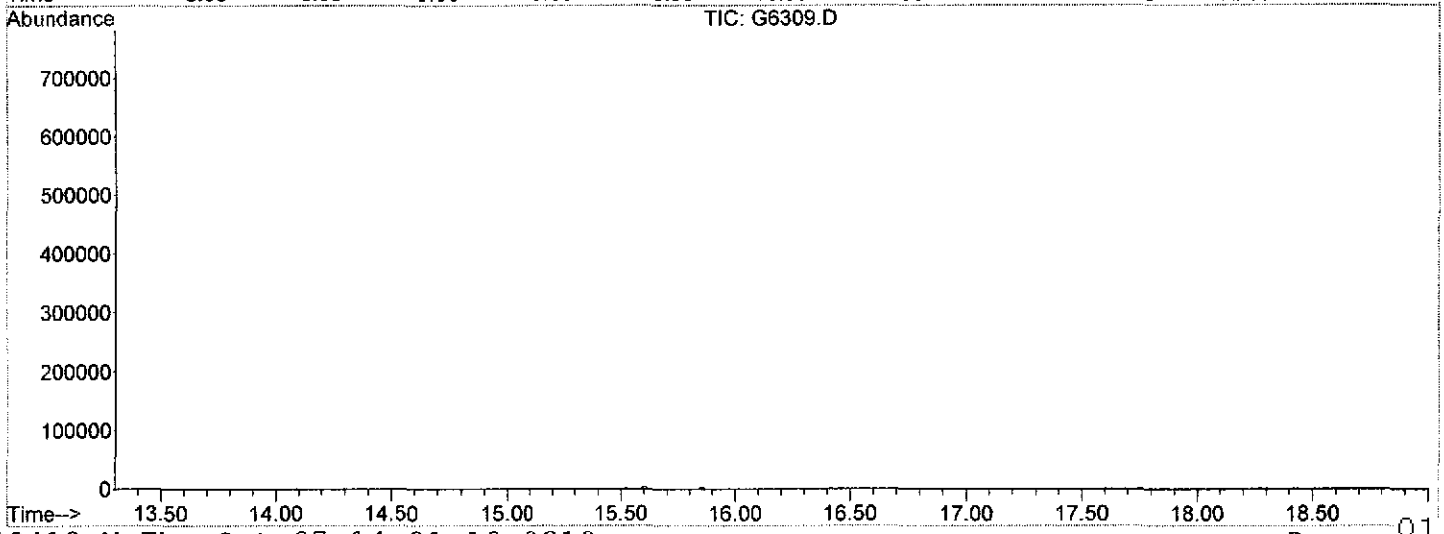
Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : G6309.D
Acq On : 7 Oct 2010 10:14 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100410.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







0137

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6354.D
Acq On : 8 Oct 2010 1:26 pm
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 08 15:59:29 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	354034	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	530166	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	484192	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	513792	28.67	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 95.57%			
41) Toluene-d8	8.49	98	713582	29.73	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 99.10%			
59) Bromofluorobenzene	11.56	95	380453	29.94	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 99.80%			

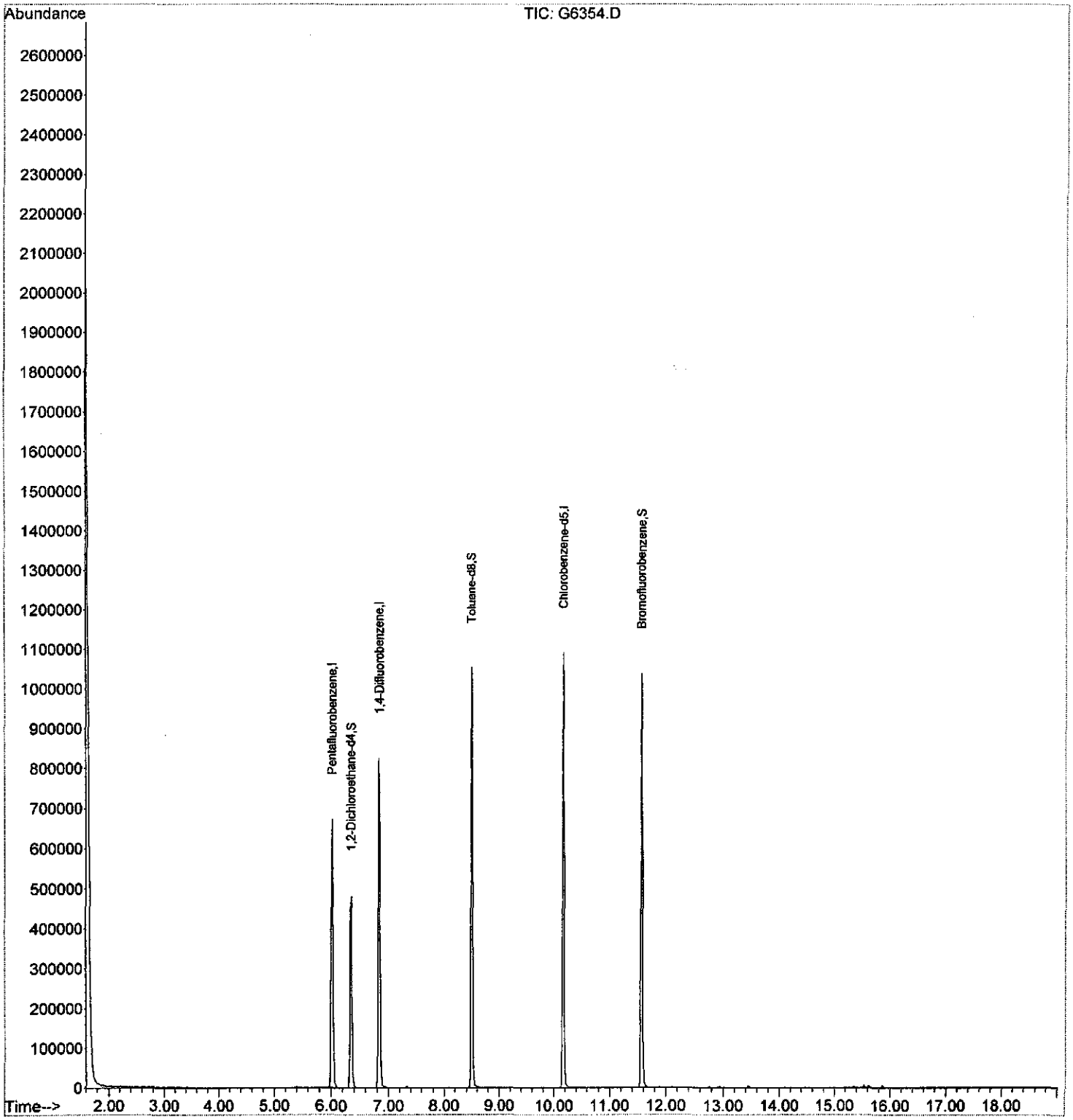
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6354.D
Acq On : 8 Oct 2010 1:26 pm
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 08 15:59:29 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Fri Oct 08 15:57:55 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6354.D
Acq On : 8 Oct 2010 1:26 pm
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA100810.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	832	846	865	rBV	671700	1565117	74.22%	14.822%
2	6.334	897	909	928	rBV	482721	1084007	51.41%	10.266%
3	6.826	990	1003	1024	rBV	825995	1743110	82.67%	16.507%
4	8.484	1308	1320	1342	rBV	1054194	2106853	99.92%	19.952%
5	10.157	1631	1640	1663	rBV2	1090296	2108623	100.00%	19.969%
6	11.559	1897	1908	1933	rBV	1038018	1951966	92.57%	18.485%

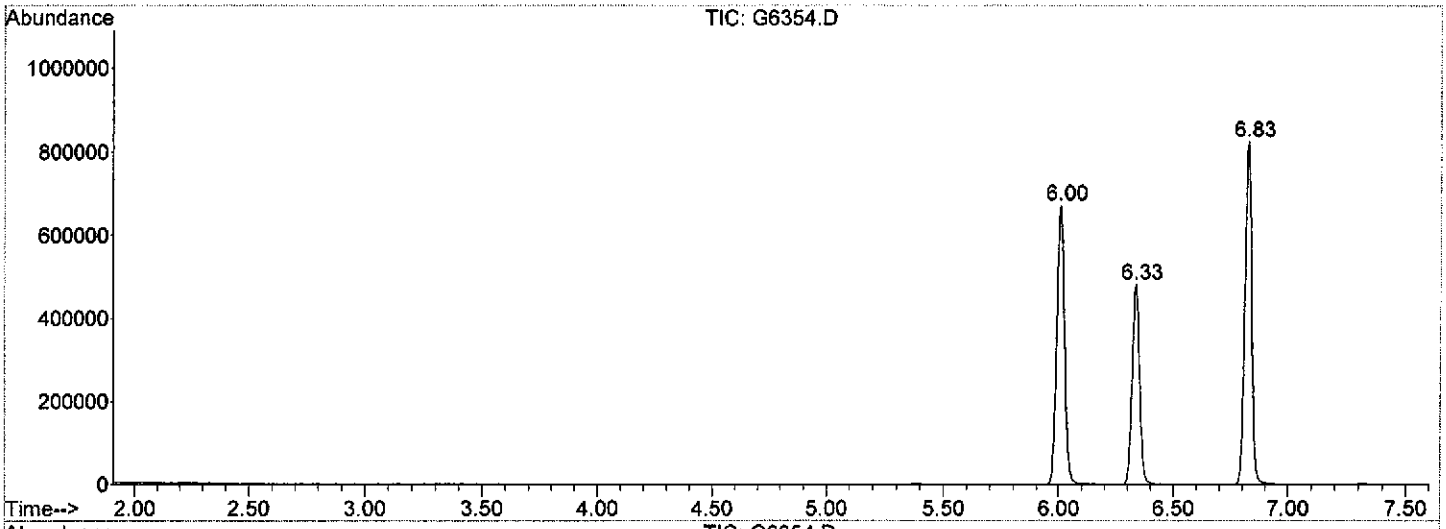
Sum of corrected areas: 10559676

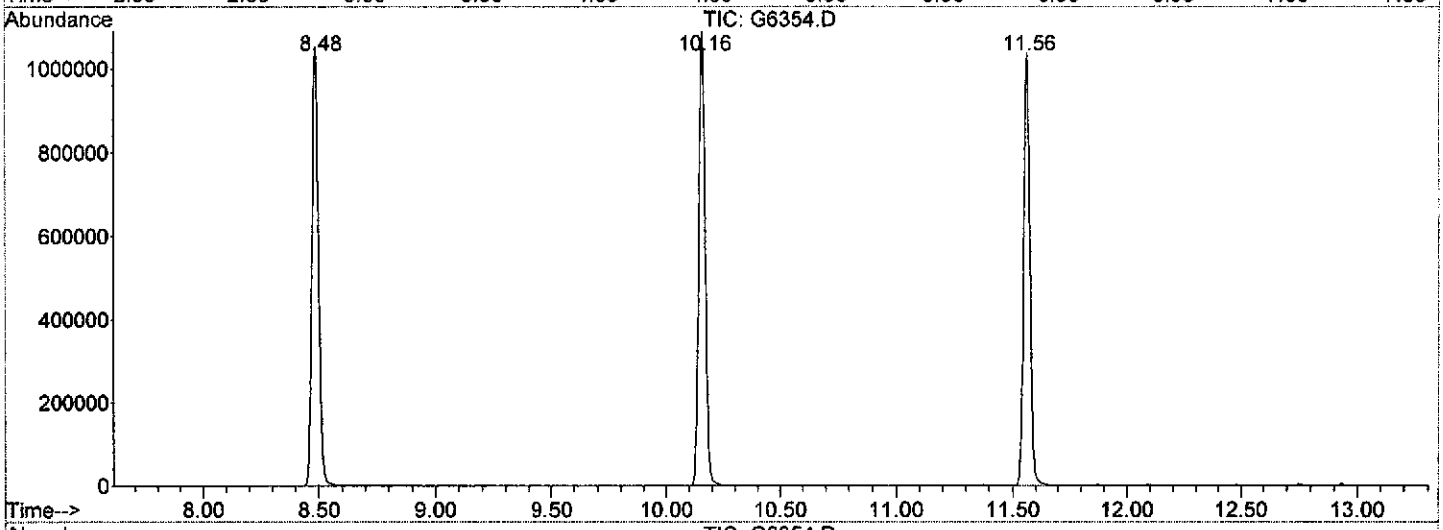
LSC Report - Integrated Chromatogram

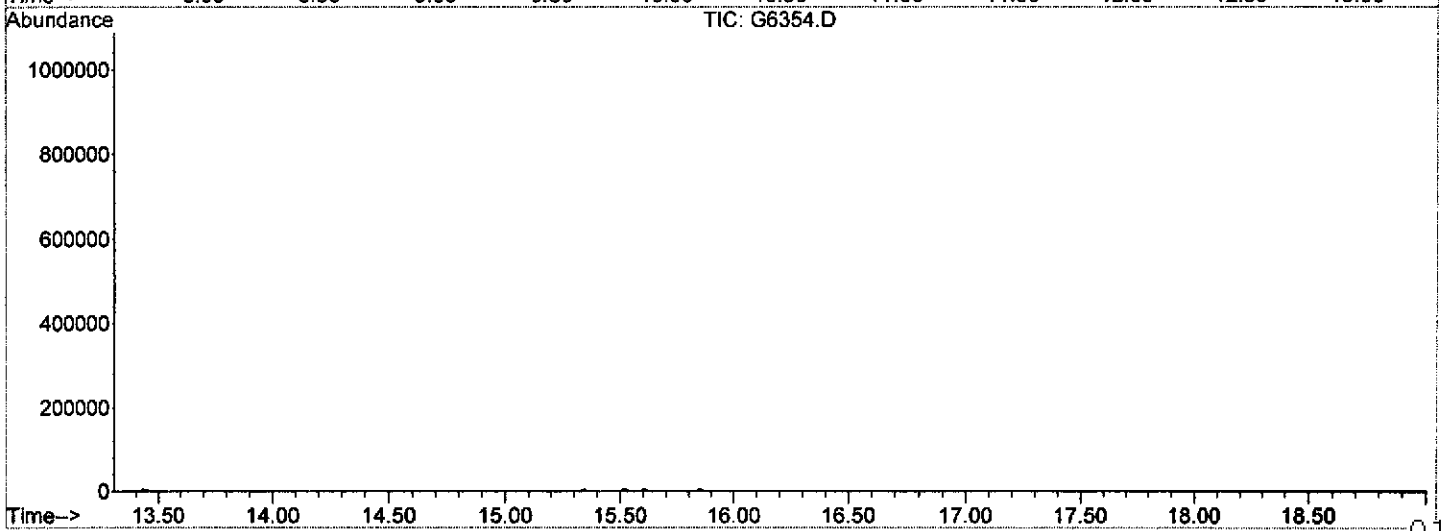
Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : G6354.D
Acq On : 8 Oct 2010 1:26 pm
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA100810.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B6998.D DFTPP Injection Date : 09/22/2010

Inst ID: MSDB DFTPP Injection Time: 9:03

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	46.7			
68	Less than 2.0% of mass 69	0.7	(	1.4	)1
69	Mass 69 relative abundance	46.9			
70	Less than 2.0% of mass 69	0.3	(	0.6	)1
127	40.0 - 60.0% of mass 198	54.4			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.5			
275	10.0 - 30.0% of mass 198	23.7			
365	Greater than 1.0% of mass 198	2.4			
441	Present, but less than mass 443	10.82	(	71.9	)3
442	40.0 - 100.0% of mass 198	74.1			
443	17.0 - 23.0% of mass 442	15.0	(	20.3	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN078-10	1ng-BNA	B6999.D	09/22/2010	9:13
ABN079-10	10ng-BNA	B7000.D	09/22/2010	9:30
ABN080-10	20ng-BNA	B7001.D	09/22/2010	9:47
ABN081-10	40ng-BNA	B7002.D	09/22/2010	10:04
ABN082-10	80ng-BNA	B7003.D	09/22/2010	10:21
ABN083-10	120ng-BNA	B7004.D	09/22/2010	10:38
ABN089-10	120ng-OLMO4	B7005.D	09/22/2010	10:55
ABN088-10	80ng-OLMO5	B7006.D	09/22/2010	11:12
ABN087-10	40ng-OLMO6	B7007.D	09/22/2010	11:29
ABN086-10	20ng-OLMO7	B7008.D	09/22/2010	11:46
ABN085-10	10ng-OLMO8	B7009.D	09/22/2010	12:03
ABN084-10	1ng-OLMO9	B7010.D	09/22/2010	12:20

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B7422.D DFTPP Injection Date : 10/07/2010

Inst ID: MSDB DFTPP Injection Time: 8:32

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	46.5			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	47.5			
70	Less than 2.0% of mass 69	0.0	(	0.0	)1
127	40.0 - 60.0% of mass 198	57.8			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.6			
275	10.0 - 30.0% of mass 198	25.1			
365	Greater than 1.0% of mass 198	2.9			
441	Present, but less than mass 443	10.95	(	70.5	)3
442	40.0 - 100.0% of mass 198	74.3			
443	17.0 - 23.0% of mass 442	15.5	(	20.9	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
40ng-BNA	ABN090-10	B7423.D	10/07/2010	8:58
40ng-OLMO4	ABN091-10	B7424.D	10/07/2010	9:15
.	Method_Blank	B7444.D	10/07/2010	14:07
.	LCS	B7445.D	10/07/2010	14:24
.	MS(09938-001)	B7446.D	10/07/2010	14:41
.	MSD(09938-001)	B7447.D	10/07/2010	14:58
MW-1	09938-001	B7448.D	10/07/2010	15:15
.	Method_blank	B7449.D	10/07/2010	15:32
.	LCS	B7450.D	10/07/2010	15:49
ORDG10-001	09933-001	B7451.D	10/07/2010	16:06
ORDG10-4-001	09933-003	B7452.D	10/07/2010	16:23
CG10-4-002	09931-001	B7453.D	10/07/2010	16:40
OAK10-4-001	09934-001	B7454.D	10/07/2010	16:58
OAK10-4-002	09934-002	B7455.D	10/07/2010	17:15
OAK10-4-006ANTIFRI	09934-004	B7456.D	10/07/2010	17:33
OAK10-4-006OIL	09934-005	B7457.D	10/07/2010	17:49
GILBERT_001	09927-001	B7458.D	10/07/2010	18:06
ORDG10-4-004S	09933-002	B7459.D	10/07/2010	18:23
FIELD_BLANK	09938-002	B7460.D	10/07/2010	18:40
MW-1	09943-001	B7461.D	10/07/2010	18:57
MW-1	09944-001	B7462.D	10/07/2010	19:14
MW-1	09960-001	B7463.D	10/07/2010	19:31
WP-1	09961-001	B7464.D	10/07/2010	19:49

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B7422.D DFTPP Injection Date : 10/07/2010

Inst ID: MSDB DFTPP Injection Time: 8:32

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	46.5			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	47.5			
70	Less than 2.0% of mass 69	0.0	(	0.0	)1
127	40.0 - 60.0% of mass 198	57.8			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.6			
275	10.0 - 30.0% of mass 198	25.1			
365	Greater than 1.0% of mass 198	2.9			
441	Present, but less than mass 443	0.00	(	70.5	)3
442	40.0 - 100.0% of mass 198	74.3			
443	17.0 - 23.0% of mass 442	15.5	(	20.9	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
WP-2	09961-002	B7465.D	10/07/2010	20:06
WP-3	09961-003	B7466.D	10/07/2010	20:23

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B7468.D DFTPP Injection Date : 10/08/2010

Inst ID: MSDB DFTPP Injection Time: 8:11

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	37.6			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	43.4			
70	Less than 2.0% of mass 69	0.5	(	1.1	)1
127	40.0 - 60.0% of mass 198	50.4			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	6.9			
275	10.0 - 30.0% of mass 198	25.2			
365	Greater than 1.0% of mass 198	2.8			
441	Present, but less than mass 443	14.22	(	71.9	)3
442	40.0 - 100.0% of mass 198	96.5			
443	17.0 - 23.0% of mass 442	19.8	(	20.5	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
40ng-BNA	ABN090-10	B7469.D	10/08/2010	8:20
40ng-OLMO	ABN091-10	B7470.D	10/08/2010	8:37
MW-2	09942-002	B7471.D	10/08/2010	8:54
MW-1	09962-001	B7472.D	10/08/2010	9:11
VR-WP1	09922-001	B7473.D	10/08/2010	9:28
FB10510	09973-002	B7474.D	10/08/2010	9:45
MW-2/8.25	09973-003	B7475.D	10/08/2010	10:31
MW-3/8.99	09973-004	B7476.D	10/08/2010	10:48
MW12	09980-009	B7477.D	10/08/2010	11:05
MW-2	09983-001	B7478.D	10/08/2010	11:22
MW-3	09983-002	B7479.D	10/08/2010	11:39
MW-4	09983-003	B7480.D	10/08/2010	11:56
OUT-10-1-10	09905-002	B7481.D	10/08/2010	12:54
02	09948-002	B7482.D	10/08/2010	14:22
.	Method_Blank	B7483.D	10/08/2010	14:56
.	LCS	B7484.D	10/08/2010	15:13
TR-2/7	09635-002	B7485.D	10/08/2010	15:30
SR-2/10-10.5	09542-002	B7486.D	10/08/2010	15:47
SR-3/10-10.5	09542-003	B7487.D	10/08/2010	16:04

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B7444.D

Instrument ID: MSDB

Date Extracted: 10/06/10

Matrix: AQUEOUS

Date Analyzed: 10/07/2010

Time Analyzed: 14:07

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCS	10/07/2010	14:24
.	MS(09938-001)	10/07/2010	14:41
.	MSD(09938-001)	10/07/2010	14:58
MW-1	09938-001	10/07/2010	15:15
FIELD_BLANK	09938-002	10/07/2010	18:40
MW-1	09943-001	10/07/2010	18:57
MW-1	09944-001	10/07/2010	19:14
MW-1	09960-001	10/07/2010	19:31
WP-1	09961-001	10/07/2010	19:49
WP-2	09961-002	10/07/2010	20:06
WP-3	09961-003	10/07/2010	20:23
MW-2	09942-002	10/08/2010	8:54
MW-1	09962-001	10/08/2010	9:11
VR-WP1	09922-001	10/08/2010	9:28
FB10510	09973-002	10/08/2010	9:45
MW-2/8.25	09973-003	10/08/2010	10:31
MW-3/8.99	09973-004	10/08/2010	10:48
MW12	09980-009	10/08/2010	11:05
MW-2	09983-001	10/08/2010	11:22
MW-3	09983-002	10/08/2010	11:39
MW-4	09983-003	10/08/2010	11:56
OUT-10-1-10	09905-002	10/08/2010	12:54
02	09948-002	10/08/2010	14:22

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 10/06/2010
Date Analyzed: 10/07/2010
Data file: B7444.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.500
Pyridine	ND		1.00	0.380
Benzaldehyde	ND		1.00	0.260
Phenol	ND		1.00	0.320
Aniline	ND		1.00	0.220
Bis(2-chloroethyl) ether	ND		1.00	0.220
2-Chlorophenol	ND		1.00	0.480
1,3-Dichlorobenzene	ND		1.00	0.350
1,4-Dichlorobenzene	ND		1.00	0.300
Benzyl alcohol	ND		1.00	0.350
1,2-Dichlorobenzene	ND		1.00	0.280
2-Methylphenol	ND		1.00	0.410
Bis(2-chloroisopropyl) ether	ND		1.00	0.250
4-Methylphenol	ND		1.00	0.260
N-Nitrosodi-n-propylamine	ND		1.00	0.400
Acetophenone	ND		1.00	0.250
3-Methylphenol	ND		1.00	0.260
Hexachloroethane	ND		1.00	0.280
Nitrobenzene	ND		1.00	0.230
Isophorone	ND		1.00	0.310
2-Nitrophenol	ND		1.00	0.250
2,4-Dimethylphenol	ND		1.00	0.230
Bis(2-chloroethoxy) methane	ND		1.00	0.300
Benzoic acid	ND		1.00	0.380
2,4-Dimethylaniline	ND		1.00	0.230
2,4-Dichlorophenol	ND		1.00	0.250
1,2,4-Trichlorobenzene	ND		1.00	0.230
Naphthalene	ND		1.00	0.266
4-Chloroaniline	ND		1.00	0.250
4-Aminotoluene	ND		2.00	0.440
Hexachlorobutadiene	ND		1.00	0.230
Caprolactam	ND		1.00	0.230
2-Aminotoluene	ND		2.00	0.440
4-Chloro-3-methylphenol	ND		1.00	0.220
2-Methylnaphthalene	ND		1.00	0.223
Hexachlorocyclopentadiene	ND		1.00	0.210
2,4,6-Trichlorophenol	ND		1.00	0.210
2,4,5-Trichlorophenol	ND		1.00	0.260
1,1'-Biphenyl	ND		1.00	0.230
2-Chloronaphthalene	ND		1.00	0.340
2-Nitroaniline	ND		1.00	0.220
Dimethyl phthalate	ND		1.00	0.230

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: NA

Lab ID: Method_Blank
Client ID: .
Date Received: NA
Date Extracted: 10/06/2010
Date Analyzed: 10/07/2010
Data file: B7444.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.220
Acenaphthylene	ND		1.00	0.222
3-Nitroaniline	ND		1.00	0.210
Acenaphthene	ND		1.00	0.213
2,4-Dinitrophenol	ND		1.00	0.260
4-Nitrophenol	ND		1.00	0.380
2,4-Dinitrotoluene	ND		1.00	0.220
Dibenzofuran	ND		1.00	0.240
Diethyl phthalate	ND		1.00	0.230
Fluorene	ND		1.00	0.231
4-Chlorophenyl phenyl ether	ND		1.00	0.220
4-Nitroaniline	ND		1.00	0.220
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.210
4,6-Dinitro-2-methylphenol	ND		1.00	0.230
N-Nitrosodiphenylamine	ND		1.00	0.220
1,2-Diphenylhydrazine	ND		1.00	0.230
4-Bromophenyl phenyl ether	ND		1.00	0.220
Hexachlorobenzene	ND		1.00	0.230
Atrazine	ND		1.00	0.230
Pentachlorophenol	ND		1.00	0.240
Phenanthrene	ND		1.00	0.321
Anthracene	ND		1.00	0.242
Carbazole	ND		1.00	0.280
Di-n-butyl phthalate	ND		1.00	0.230
Fluoranthene	ND		1.00	0.235
Benzidine	ND		1.00	0.260
Pyrene	ND		1.00	0.238
3,3'-Dimethylbenzidine	ND		1.00	0.220
Butyl benzyl phthalate	ND		1.00	0.240
3,3'-Dichlorobenzidine	ND		1.00	0.230
Benzo[a]anthracene	ND		1.00	0.230
Chrysene	ND		1.00	0.215
Bis(2-ethylhexyl) phthalate	ND		1.00	0.260
Di-n-octyl phthalate	ND		1.00	0.220
Benzo[b]fluoranthene	ND		1.00	0.290
Benzo[k]fluoranthene	ND		1.00	0.220
Benzo[a]pyrene	ND		1.00	0.210
Indeno[1,2,3-cd]pyrene	ND		1.00	0.260
Dibenz[a,h]anthracene	ND		1.00	0.220
Benzo[g,h,i]perylene	ND		1.00	0.218

Total Target Compounds: 0

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BW1410.M
Title : BNA CALIBRATION METHOD
Last Update : Thu Sep 23 14:41:52 2010
Response Via : Initial Calibration

Calibration Files
1 =B6999.D 10 =B7000.D 20 =B7001.D
40 =B7002.D 80 =B7003.D 120 =B7004.D

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD							
2)	T	N-Nitrosodimethyl	0.648	0.962	0.860	0.909	0.929	0.847	0.859	13.00
3)	T	Pyridine	1.147	1.307	1.253	1.235	1.318	1.263	1.254	4.90
4)	S	2-Fluorophenol	1.230	1.222	1.302	1.348	1.234	1.350	1.281	4.67
5)	T	Benzaldehyde	0.621	0.532	0.546	0.644	0.547	0.419	0.552	14.36
6)	S	Phenol-d5	1.731	1.663	1.677	1.746	1.654	1.728	1.700	2.34
7)	MC	Phenol	1.884	1.830	1.740	1.764	1.682	1.672	1.762	4.71
8)	T	Aniline	0.775	0.838	0.819	0.768	0.770	0.746	0.786	4.43
9)	T	Bis(2-chloroethyl	1.169	1.096	1.096	1.089	1.049	1.055	1.092	3.92
10)	M	2-Chlorophenol	1.376	1.472	1.426	1.461	1.400	1.444	1.430	2.58
11)	T	1,3-Dichlorobenze	1.573	1.713	1.593	1.629	1.571	1.612	1.615	3.28
12)	MC	1,4-Dichlorobenze	1.686	1.760	1.695	1.693	1.666	1.717	1.703	1.92
13)	T	Benzyl alcohol	0.600	0.900	0.848	0.915	0.854	0.844	0.827	13.89
14)	T	1,2-Dichlorobenze	1.400	1.695	1.614	1.624	1.570	1.600	1.584	6.25
15)	T	2-Methylphenol	1.387	1.468	1.369	1.384	1.336	1.351	1.382	3.35
16)	T	Bis(2-chloroisopr	2.074	2.126	2.069	2.039	1.918	1.803	2.005	6.02
17)	T	4-Methylphenol	1.378	1.516	1.400	1.469	1.387	1.290	1.407	5.57
18)	MP	N-Nitrosodi-n-pro	1.048	1.205	1.098	1.020	1.015	0.905	1.048	9.50
19)	T	Acetophenone	1.769	2.072	1.923	1.775	1.840	1.713	1.848	7.09
20)	T	3-Methylphenol	1.378	1.516	1.400	1.469	1.388	1.289	1.407	5.57
21)	T	Hexachloroethane	0.519	0.625	0.596	0.586	0.574	0.567	0.578	6.14
23)	I	Naphthalene-d8	ISTD							
24)	S	Nitrobenzene-d5	0.366	0.381	0.404	0.498	0.442	0.475	0.428	12.30
25)	T	Nitrobenzene	0.432	0.400	0.397	0.473	0.391	0.368	0.410	9.04
26)	T	Isophorone	0.702	0.698	0.750	0.890	0.762	0.700	0.750	9.84
27)	TC	2-Nitrophenol	0.192	0.206	0.219	0.240	0.228	0.189	0.212	9.46
28)	T	2,4-Dimethylpheno	0.329	0.341	0.364	0.362	0.391	0.345	0.355	6.21
29)	T	Bis(2-chloroethox	0.411	0.414	0.453	0.521	0.445	0.430	0.446	9.02
30)	T	Benzoic acid	0.221	0.242	0.272	0.275	0.305	0.308	0.271	12.72
31)	T	2,4-Dimethylanili	0.382	0.413	0.435	0.439	0.447	0.397	0.419	6.15
32)	TC	2,4-Dichloropheno	0.290	0.308	0.316	0.382	0.307	0.325	0.321	9.89
33)	M	1,2,4-Trichlorobe	0.393	0.359	0.366	0.368	0.369	0.360	0.369	3.40
34)	T	Naphthalene	1.214	1.199	1.182	1.130	1.118	1.161	1.168	3.25
35)	T	4-Chloroaniline	0.552	0.586	0.608	0.594	0.601	0.593	0.589	3.29
36)	T	4-Aminotoluene	0.594	0.654	0.654	0.670	0.630	0.553	0.626	7.11
37)	TC	Hexachlorobutadie	0.227	0.215	0.220	0.251	0.233	0.229	0.229	5.42
38)	T	Caprolactam	0.137	0.146	0.147	0.163	0.148	0.145	0.148	5.69
39)	T	2-Aminotoluene	0.594	0.654	0.654	0.670	0.630	0.553	0.626	7.11
40)	MC	4-Chloro-3-methyl	0.294	0.290	0.248	0.355	0.314	0.311	0.302	11.65
41)	T	2-Methylnaphthale	0.650	0.729	0.628	0.866	0.793	0.764	0.738	12.13
43)	I	Acenaphthene-d10	ISTD							
44)	TP	Hexachlorocyclope	0.158	0.233	0.183	0.198	0.192	0.235	0.200	14.80
45)	TC	2,4,6-Trichloroph	0.306	0.358	0.377	0.359	0.382	0.388	0.361	8.27
46)	T	2,4,5-Trichloroph	0.394	0.395	0.410	0.401	0.426	0.436	0.410	4.20
47)	S	2-Fluorobiphenyl	1.373	1.365	1.409	1.395	1.445	1.592	1.430	5.92
48)	T	1,1'-Biphenyl	1.547	1.493	1.469	1.475	1.515	1.573	1.512	2.72
49)	T	2-Chloronaphthale	1.008	1.147	1.142	1.097	1.165	1.044	1.100	5.72
50)	T	2-Nitroaniline	0.240	0.296	0.291	0.296	0.318	0.309	0.292	9.29
51)	T	Dimethyl phthalat	1.324	1.331	1.382	1.300	1.348	1.372	1.343	2.29
52)	T	2,6-Dinitrotoluen	0.225	0.285	0.303	0.293	0.309	0.312	0.288	11.22
53)	T	Acenaphthylene	1.753	1.894	1.853	1.806	1.871	1.950	1.854	3.71

54)	T	3-Nitroaniline	0.262	0.286	0.311	0.308	0.323	0.324	0.302	7.91
55)	MC	Acenaphthene	1.150	1.194	1.119	1.152	1.176	1.157	1.158	2.20
56)	TP	2,4-Dinitrophenol	0.117	0.115	0.114	0.137	0.114	0.151	0.125	12.51
57)	MP	4-Nitrophenol	0.163	0.176	0.177	0.188	0.208	0.200	0.185	9.07
58)	M	2,4-Dinitrotoluen	0.321	0.379	0.409	0.362	0.430	0.420	0.387	10.60
59)	T	Dibenzofuran	1.703	1.749	1.745	1.575	1.746	1.758	1.713	4.09
60)	T	Diethyl phthalate	1.329	1.321	1.355	1.091	1.382	1.240	1.286	8.30
61)	T	Fluorene	1.430	1.422	1.392	1.180	1.452	1.191	1.344	9.28
62)	T	4-Chlorophenyl ph	0.672	0.731	0.727	0.614	0.737	0.638	0.686	7.69
63)	T	4-Nitroaniline	0.317	0.286	0.306	0.277	0.345	0.294	0.304	8.07
64)		1,2,4,5-Tetrachlo	0.539	0.496	0.492	0.479	0.510	0.537	0.509	4.84
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.108	0.132	0.128	0.137	0.146	0.156	0.134	12.29
68)	TC	N-Nitrosodiphenyl	0.544	0.725	0.605	0.610	0.598	0.622	0.617	9.61
69)	T	1,2-Diphenylhydra	0.713	0.939	0.743	0.770	0.757	0.788	0.785	10.13
70)	S	2,4,6-Tribromophe	0.208	0.241	0.206	0.202	0.196	0.210	0.210	7.41
71)	T	4-Bromophenyl phe	0.268	0.333	0.282	0.283	0.284	0.298	0.292	7.71
72)	T	Hexachlorobenzene	0.352	0.338	0.352	0.337	0.337	0.361	0.346	2.92
73)	T	Atrazine	0.201	0.250	0.234	0.177	0.225	0.221	0.218	11.82
74)	MC	Pentachlorophenol	0.149	0.155	0.162	0.174	0.180	0.194	0.169	9.89
75)	T	Phenanthrene	1.111	1.195	1.161	1.194	1.142	1.221	1.171	3.47
76)	T	Anthracene	1.111	1.207	1.184	1.198	1.145	1.238	1.180	3.88
77)	T	Carbazole	1.024	1.067	1.056	1.046	1.054	1.104	1.059	2.52
78)	T	Di-n-butyl phthal	1.007	1.376	1.428	1.390	1.335	1.426	1.327	12.09
79)	TC	Fluoranthene	1.117	1.371	1.387	1.287	1.287	1.306	1.293	7.45
80)	T	Benzidine	0.345	0.429	0.407	0.345	0.480	0.349	0.393	14.29
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.176	1.319	1.243	1.565	1.464	1.346	1.352	10.56
84)	S	Terphenyl-d14	1.076	1.122	1.072	1.369	1.174	1.182	1.166	9.42
85)	T	3,3'-Dimethylbenz	0.312	0.282	0.315	0.241	0.231	0.243	0.270	13.91
86)	T	Butyl benzyl phth	0.483	0.541	0.533	0.669	0.597	0.512	0.556	12.05
87)	T	3,3'-Dichlorobenz	0.373	0.416	0.378	0.496	0.404	0.380	0.408	11.38
88)	T	Benzo[a]anthracen	1.186	1.078	0.994	1.043	1.135	1.048	1.081	6.45
89)	T	Chrysene	1.067	1.024	0.964	1.005	0.881	1.026	0.995	6.52
90)	T	Bis(2-ethylhexyl)	0.767	0.777	0.741	1.039	0.842	0.772	0.823	13.48
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.528	1.795	1.768	1.774	1.520	1.781	1.694	7.82
94)	T	Benzo[b]fluoranth	1.302	1.575	1.604	1.580	1.619	1.658	1.556	8.23
95)	T	Benzo[k]fluoranth	1.672	1.551	1.433	1.474	1.338	1.518	1.498	7.55
96)	TC	Benzo[a]pyrene	1.137	1.305	1.262	1.294	1.271	1.396	1.277	6.57
97)	T	Indeno[1,2,3-cd]p	1.149	1.536	1.560	1.640	1.790	1.619	1.549	13.90
98)	T	Dibenz[a,h]anthra	1.027	1.274	1.315	1.567	1.485	1.529	1.366	14.89
99)	T	Benzo[g,h,i]peryl	1.179	1.293	1.351	1.612	1.515	1.515	1.411	11.57

(#) = Out of Range

BW1410.M Thu Sep 23 14:42:12 2010 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\10-07-10\
Data File : B7423.D
Acq On : 7 Oct 2010 8:58
Operator : DANA
Sample : 40ng-BNA,ABN090-10
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 07 09:13:14 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW1410.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 23 14:41:52 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	63	0.00
2	T	N-Nitrosodimethylamine	0.859	0.758	11.8	52	-0.01
3	T	Pyridine	1.254	1.013	19.2	51	0.00
4	S	2-Fluorophenol	1.281	1.257	1.9	58	0.00
5	T	Benzaldehyde	0.552	0.534	3.3	52	0.00
6	S	Phenol-d5	1.700	1.607	5.5	58	0.00
7	MC	Phenol	1.762	1.699	3.6	60	0.00
8	T	Aniline	0.786	0.766	2.5	63	0.00
9	T	Bis(2-chloroethyl) ether	1.092	1.038	4.9	60	-0.01
10	M	2-Chlorophenol	1.430	1.390	2.8	60	-0.01
11	T	1,3-Dichlorobenzene	1.615	1.569	2.8	60	-0.01
12	MC	1,4-Dichlorobenzene	1.703	1.676	1.6	62	-0.01
13	T	Benzyl alcohol	0.827	0.865	-4.6	59	-0.01
14	T	1,2-Dichlorobenzene	1.584	1.588	-0.3	61	0.00
15	T	2-Methylphenol	1.382	1.371	0.8	62	0.00
16	T	Bis(2-chloroisopropyl) ethe	2.005	1.908	4.8	59	-0.01
17	T	4-Methylphenol	1.407	1.360	3.3	58	-0.01
18	MP	N-Nitrosodi-n-propylamine	1.048	0.960	8.4	59	-0.02
19	T	Acetophenone	1.848	1.766	4.4	62	-0.01
20	T	3-Methylphenol	1.407	1.360	3.3	58	-0.01
21	T	Hexachloroethane	0.578	0.561	2.9	60	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	68	0.00
24	S	Nitrobenzene-d5	0.428	0.431	-0.7	59	-0.01
25	T	Nitrobenzene	0.410	0.414	-1.0	60	-0.01
26	T	Isophorone	0.750	0.687	8.4	53	-0.01
27	TC	2-Nitrophenol	0.212	0.212	0.0	60	-0.01
28	T	2,4-Dimethylphenol	0.355	0.343	3.4	65	-0.01
29	T	Bis(2-chloroethoxy) methane	0.446	0.424	4.9	56	-0.01
30	T	Benzoic acid	0.271	0.250	7.7	62	-0.03
31	T	2,4-Dimethylaniline	0.419	0.387	7.6	60	-0.01
32	TC	2,4-Dichlorophenol	0.321	0.325	-1.2	58	-0.01
33	M	1,2,4-Trichlorobenzene	0.369	0.369	0.0	69	0.00
34	T	Naphthalene	1.168	1.163	0.4	70	-0.01
35	T	4-Chloroaniline	0.589	0.610	-3.6	70	0.00
36	T	4-Aminotoluene	0.626	0.633	-1.1	65	-0.01
37	TC	Hexachlorobutadiene	0.229	0.231	-0.9	63	-0.01
38	T	Caprolactam	0.148	0.156	-5.4	65	-0.03
39	T	2-Aminotoluene	0.626	0.633	-1.1	65	-0.01
40	MC	4-Chloro-3-methylphenol	0.302	0.341	-12.9	66	-0.01
41	T	2-Methylnaphthalene	0.738	0.830	-12.5	66	-0.01
43	I	Acenaphthene-d10	1.000	1.000	0.0	62	0.00
44	TP	Hexachlorocyclopentadiene	0.200	0.236	-18.0	74	-0.01
45	TC	2,4,6-Trichlorophenol	0.361	0.398	-10.2	69	0.00
46	T	2,4,5-Trichlorophenol	0.410	0.433	-5.6	67	-0.01

47	S	2-Fluorobiphenyl	1.430	1.407	1.6	63	-0.01
48	T	1,1'-Biphenyl	1.512	1.460	3.4	61	-0.01
49	T	2-Chloronaphthalene	1.100	1.191	-8.3	67	-0.01
50	T	2-Nitroaniline	0.292	0.311	-6.5	65	-0.01
51	T	Dimethyl phthalate	1.343	1.324	1.4	63	-0.01
52	T	2,6-Dinitrotoluene	0.288	0.317	-10.1	67	-0.01
53	T	Acenaphthylene	1.854	1.941	-4.7	67	-0.01
54	T	3-Nitroaniline	0.302	0.358	-18.5	72	-0.01
55	MC	Acenaphthene	1.158	1.172	-1.2	63	-0.01
56	TP	2,4-Dinitrophenol	0.125	0.125	0.0	57	0.00
57	MP	4-Nitrophenol	0.185	0.206	-11.4	68	0.00
58	M	2,4-Dinitrotoluene	0.387	0.350	9.6	60	-0.01
59	T	Dibenzofuran	1.713	1.449	15.4	57	-0.01
60	T	Diethyl phthalate	1.286	1.116	13.2	64	-0.01
61	T	Fluorene	1.344	1.182	12.1	62	-0.01
62	T	4-Chlorophenyl phenyl ether	0.686	0.627	8.6	63	-0.01
63	T	4-Nitroaniline	0.304	0.298	2.0	67	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.509	0.516	-1.4	67	-0.01
66	I	Phenanthrene-d10	1.000	1.000	0.0	60	-0.01
67	T	4,6-Dinitro-2-methylphenol	0.134	0.122	9.0	53	-0.02
68	TC	N-Nitrosodiphenylamine	0.617	0.604	2.1	59	-0.01
69	T	1,2-Diphenylhydrazine	0.785	0.761	3.1	59	-0.01
70	S	2,4,6-Tribromophenol	0.210	0.218	-3.8	65	0.00
71	T	4-Bromophenyl phenyl ether	0.292	0.291	0.3	62	-0.01
72	T	Hexachlorobenzene	0.346	0.357	-3.2	63	-0.01
73	T	Atrazine	0.218	0.221	-1.4	75	-0.01
74	MC	Pentachlorophenol	0.169	0.162	4.1	56	-0.01
75	T	Phenanthrene	1.171	1.175	-0.3	59	-0.01
76	T	Anthracene	1.180	1.249	-5.8	62	-0.01
77	T	Carbazole	1.059	1.129	-6.6	65	0.00
78	T	Di-n-butyl phthalate	1.327	1.383	-4.2	60	-0.01
79	TC	Fluoranthene	1.293	1.378	-6.6	64	-0.01
80	T	Benzidine	0.393	0.401	-2.0	70	0.00
82	I	Chrysene-d12	1.000	1.000	0.0	87	-0.01
83	M	Pyrene	1.352	1.185	12.4	66	-0.02
84	S	Terphenyl-d14	1.166	1.001	14.2	64	0.00
85	T	3,3'-Dimethylbenzidine	0.270	0.268	0.7	97	0.00
86	T	Butyl benzyl phthalate	0.556	0.522	6.1	68	-0.01
87	T	3,3'-Dichlorobenzidine	0.408	0.385	5.6	68	-0.20
88	T	Benzo[a]anthracene	1.081	1.072	0.8	90	-0.02
89	T	Chrysene	0.995	1.019	-2.4	89	-0.02
90	T	Bis(2-ethylhexyl) phthalate	0.823	0.748	9.1	63	-0.01
92	I	Perylene-d12	1.000	1.000	0.0	80	-0.02
93	TC	Di-n-octyl phthalate	1.694	1.820	-7.4	82	-0.02
94	T	Benzo[b]fluoranthene	1.556	1.646	-5.8	83	-0.02
95	T	Benzo[k]fluoranthene	1.498	1.533	-2.3	83	-0.03
96	TC	Benzo[a]pyrene	1.277	1.332	-4.3	82	-0.02
97	T	Indeno[1,2,3-cd]pyrene	1.549	1.778	-14.8	87	-0.26
98	T	Dibenz[a,h]anthracene	1.366	1.481	-8.4	76	-0.05
99	T	Benzo[g,h,i]perylene	1.411	1.454	-3.0	72	-0.06

(#) = Out of Range

BW1410.M Fri Oct 08 10:38:03 2010 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\10-08-10\
Data File : B7469.D
Acq On : 8 Oct 2010 8:20
Operator : DANA
Sample : 40ng-BNA,ABN090-10
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 08 08:44:12 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW1410.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 23 14:41:52 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	66	0.00
2	T	N-Nitrosodimethylamine	0.859	0.782	9.0	57	-0.02
3	T	Pyridine	1.254	1.185	5.5	64	-0.01
4	S	2-Fluorophenol	1.281	1.350	-5.4	66	0.00
5	T	Benzaldehyde	0.552	0.572	-3.6	59	0.00
6	S	Phenol-d5	1.700	1.643	3.4	62	0.00
7	MC	Phenol	1.762	1.712	2.8	64	0.00
8	T	Aniline	0.786	0.770	2.0	66	0.00
9	T	Bis(2-chloroethyl) ether	1.092	1.055	3.4	64	-0.01
10	M	2-Chlorophenol	1.430	1.565	-9.4	71	-0.01
11	T	1,3-Dichlorobenzene	1.615	1.616	-0.1	66	-0.01
12	MC	1,4-Dichlorobenzene	1.703	1.783	-4.7	70	-0.01
13	T	Benzyl alcohol	0.827	0.819	1.0	59	-0.01
14	T	1,2-Dichlorobenzene	1.584	1.640	-3.5	67	0.00
15	T	2-Methylphenol	1.382	1.443	-4.4	69	0.00
16	T	Bis(2-chloroisopropyl) ethe	2.005	1.941	3.2	63	-0.01
17	T	4-Methylphenol	1.407	1.521	-8.1	69	-0.01
18	MP	N-Nitrosodi-n-propylamine	1.048	1.045	0.3	68	-0.02
19	T	Acetophenone	1.848	1.964	-6.3	73	-0.02
20	T	3-Methylphenol	1.407	1.517	-7.8	69	-0.01
21	T	Hexachloroethane	0.578	0.649	-12.3	73	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	89	0.00
24	S	Nitrobenzene-d5	0.428	0.398	7.0	71	-0.01
25	T	Nitrobenzene	0.410	0.381	7.1	71	-0.01
26	T	Isophorone	0.750	0.707	5.7	70	-0.02
27	TC	2-Nitrophenol	0.212	0.213	-0.5	79	-0.01
28	T	2,4-Dimethylphenol	0.355	0.341	3.9	83	-0.01
29	T	Bis(2-chloroethoxy) methane	0.446	0.428	4.0	73	-0.01
30	T	Benzoic acid	0.271	0.227	16.2	73	-0.03
31	T	2,4-Dimethylaniline	0.419	0.383	8.6	77	-0.02
32	TC	2,4-Dichlorophenol	0.321	0.318	0.9	74	-0.01
33	M	1,2,4-Trichlorobenzene	0.369	0.364	1.4	88	0.00
34	T	Naphthalene	1.168	1.153	1.3	90	-0.01
35	T	4-Chloroaniline	0.589	0.605	-2.7	90	-0.01
36	T	4-Aminotoluene	0.626	0.566	9.6	75	-0.01
37	TC	Hexachlorobutadiene	0.229	0.235	-2.6	83	-0.01
38	T	Caprolactam	0.148	0.158	-6.8	86	-0.03
39	T	2-Aminotoluene	0.626	0.566	9.6	75	-0.01
40	MC	4-Chloro-3-methylphenol	0.302	0.293	3.0	73	-0.01
41	T	2-Methylnaphthalene	0.738	0.778	-5.4	80	-0.01
43	I	Acenaphthene-d10	1.000	1.000	0.0	62	0.00
44	TP	Hexachlorocyclopentadiene	0.200	0.212	-6.0	66	-0.01
45	TC	2,4,6-Trichlorophenol	0.361	0.388	-7.5	67	0.00
46	T	2,4,5-Trichlorophenol	0.410	0.423	-3.2	65	-0.01

47	S	2-Fluorobiphenyl	1.430	1.428	0.1	63	-0.01
48	T	1,1'-Biphenyl	1.512	1.533	-1.4	64	-0.01
49	T	2-Chloronaphthalene	1.100	1.185	-7.7	67	-0.01
50	T	2-Nitroaniline	0.292	0.314	-7.5	66	-0.01
51	T	Dimethyl phthalate	1.343	1.418	-5.6	67	-0.01
52	T	2,6-Dinitrotoluene	0.288	0.338	-17.4	71	-0.01
53	T	Acenaphthylene	1.854	1.905	-2.8	65	-0.01
54	T	3-Nitroaniline	0.302	0.341	-12.9	68	-0.01
55	MC	Acenaphthene	1.158	1.192	-2.9	64	-0.01
56	TP	2,4-Dinitrophenol	0.125	0.113	9.6	51	0.00
57	MP	4-Nitrophenol	0.185	0.195	-5.4	64	0.00
58	M	2,4-Dinitrotoluene	0.387	0.429	-10.9	73	-0.01
59	T	Dibenzofuran	1.713	1.806	-5.4	71	-0.01
60	T	Diethyl phthalate	1.286	1.390	-8.1	79	-0.01
61	T	Fluorene	1.344	1.423	-5.9	75	-0.01
62	T	4-Chlorophenyl phenyl ether	0.686	0.772	-12.5	78	-0.01
63	T	4-Nitroaniline	0.304	0.334	-9.9	75	-0.01
64		1,2,4,5-Tetrachlorobenzene	0.509	0.514	-1.0	66	-0.01
66	I	Phenanthrene-d10	1.000	1.000	0.0	75	0.00
67	T	4,6-Dinitro-2-methylphenol	0.134	0.119	11.2	65	-0.02
68	TC	N-Nitrosodiphenylamine	0.617	0.609	1.3	75	-0.01
69	T	1,2-Diphenylhydrazine	0.785	0.743	5.4	72	-0.01
70	S	2,4,6-Tribromophenol	0.210	0.205	2.4	76	0.00
71	T	4-Bromophenyl phenyl ether	0.292	0.292	0.0	77	-0.01
72	T	Hexachlorobenzene	0.346	0.353	-2.0	78	-0.01
73	T	Atrazine	0.218	0.223	-2.3	94	-0.01
74	MC	Pentachlorophenol	0.169	0.157	7.1	68	0.00
75	T	Phenanthrene	1.171	1.194	-2.0	75	-0.01
76	T	Anthracene	1.180	1.231	-4.3	77	-0.01
77	T	Carbazole	1.059	1.114	-5.2	80	0.00
78	T	Di-n-butyl phthalate	1.327	1.591	-19.9	86	0.00
79	TC	Fluoranthene	1.293	1.220	5.6	71	0.01
80	T	Benzidine	0.393	0.413	-5.1	90	0.02
82	I	Chrysene-d12	1.000	1.000	0.0	81	0.00
83	M	Pyrene	1.352	1.596	-18.0	82	0.00
84	S	Terphenyl-d14	1.166	1.371	-17.6	81	0.02
85	T	3,3'-Dimethylbenzidine	0.270	0.271	-0.4	91	0.01
86	T	Butyl benzyl phthalate	0.556	0.646	-16.2	78	0.01
87	T	3,3'-Dichlorobenzidine	0.408	0.390	4.4	63	-0.18
88	T	Benzo[a]anthracene	1.081	1.036	4.2	80	0.00
89	T	Chrysene	0.995	0.988	0.7	79	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.823	0.757	8.0	59	0.01
91		2-Aminoaniline	0.000	0.000	0.0	52	-0.01
92	I	Perylene-d12	1.000	1.000	0.0	76	0.00
93	TC	Di-n-octyl phthalate	1.694	1.668	1.5	71	0.00
94	T	Benzo[b]fluoranthene	1.556	1.691	-8.7	81	0.00
95	T	Benzo[k]fluoranthene	1.498	1.425	4.9	73	0.00
96	TC	Benzo[a]pyrene	1.277	1.300	-1.8	76	0.00
97	T	Indeno[1,2,3-cd]pyrene	1.549	1.823	-17.7	84	-0.23
98	T	Dibenz[a,h]anthracene	1.366	1.476	-8.1	71	-0.03
99	T	Benzo[g,h,i]perylene	1.411	1.477	-4.7	69	-0.04

(#) = Out of Range

BW1410.M Mon Oct 11 10:11:39 2010 MSD_B

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 10/07/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
ABN091-10		B7424.D	N/A	N/A	N/A	N/A	N/A	N/A
Method_Blank	AQUEOUS	B7444.D	44	43	41	54	43	46
LCS	AQUEOUS	B7445.D	36	39	42	50	38	43
MS(09938-001)	AQUEOUS	B7446.D	19	13	53	61	49	57
MSD(09938-001)	AQUEOUS	B7447.D	19	13	52	63	53	68
09938-001	AQUEOUS	B7448.D	N/A	N/A	35	45	N/A	46
Method_blank	AQUEOUS	B7449.D	58	53	55	75	49	53
LCS	AQUEOUS	B7450.D	56	60	51	69	54	45
09933-001	AQUEOUS	B7451.D	76	68	83	97	79	68
09933-003	AQUEOUS	B7452.D	89	82	78	89	113	75
09931-001	AQUEOUS	B7453.D	32	31	42	48	40	50
09934-001	AQUEOUS	B7454.D	95	82	72	81	88	64
09934-002	AQUEOUS	B7455.D	90	82	71	84	83	66
09934-004	AQUEOUS	B7456.D	20	25	30	45	30	40
09934-005	AQUEOUS	B7457.D	82	81	72	91	82	80
09927-001	AQUEOUS	B7458.D	42	41	39	54	47	49
09933-002	AQUEOUS	B7459.D	35	36	34	40	39	45
09938-002	AQUEOUS	B7460.D	N/A	N/A	43	53	N/A	55
09943-001	AQUEOUS	B7461.D	N/A	N/A	38	63	N/A	54
09944-001	AQUEOUS	B7462.D	N/A	N/A	38	47	N/A	51
09960-001	AQUEOUS	B7463.D	N/A	N/A	33	46	N/A	49
09961-001	AQUEOUS	B7464.D	N/A	N/A	41	42	N/A	54

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 10/07/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
09961-002	AQUEOUS	B7465.D	N/A	N/A	33	41	N/A	44
09961-003	AQUEOUS	B7466.D	N/A	N/A	50	63	N/A	53

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 10/08/2010

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
ABN091-10		B7470.D	N/A	N/A	N/A	N/A	N/A	N/A
09942-002	AQUEOUS	B7471.D	N/A	N/A	34	46	N/A	40
09962-001	AQUEOUS	B7472.D	N/A	N/A	34	45	N/A	36
09922-001	AQUEOUS	B7473.D	N/A	N/A	35	37	N/A	36
09973-002	AQUEOUS	B7474.D	N/A	N/A	34	44	N/A	45
09973-003	AQUEOUS	B7475.D	N/A	N/A	34	42	N/A	42
09973-004	AQUEOUS	B7476.D	N/A	N/A	33	39	N/A	39
09980-009	AQUEOUS	B7477.D	N/A	N/A	57	61	N/A	59
09983-001	AQUEOUS	B7478.D	N/A	N/A	36	46	N/A	42
09983-002	AQUEOUS	B7479.D	N/A	N/A	30	49	N/A	39
09983-003	AQUEOUS	B7480.D	N/A	N/A	42	38	N/A	36
09905-002	AQUEOUS	B7481.D	N/A	N/A	43	53	N/A	52
09948-002	AQUEOUS	B7482.D	N/A	N/A	40	52	N/A	39
Method_Blank	AQUEOUS	B7483.D	37	35	39	51	30	44
LCS	AQUEOUS	B7484.D	36	34	40	49	37	41
09635-002	AQUEOUS	B7485.D	N/A	N/A	33	42	N/A	45
09542-002	AQUEOUS	B7486.D	N/A	N/A	33	40	N/A	48
09542-003	AQUEOUS	B7487.D	N/A	N/A	31	44	N/A	59

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	32-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

AQUEOUS SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 09938-001 Batch No.: B100710

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	40.0	0.0	26.6	67	35 - 116
2-Chlorophenol	40.0	0.0	25.5	64	37 - 112
1,4-Dichlorobenzene	40.0	0.0	25.1	63	29 - 109
N-Nitrosodi-n-propylamine	40.0	0.0	28.0	70	38 - 119
1,2,4-Trichlorobenzene	40.0	0.0	28.2	71	33 - 100
4-Chloro-3-methylphenol	40.0	0.0	36.6	92	42 - 118
Acenaphthene	40.0	0.0	31.4	79	20 - 132
4-Nitrophenol	40.0	0.0	40.1	100	31 - 123
2,4-Dinitrotoluene	40.0	0.0	30.6	77	24 - 130
Pentachlorophenol	40.0	0.0	35.4	89	29 - 123
Pyrene	40.0	0.0	32.7	82	31 - 133

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	0.0	26.6	67	0	14	35 - 116
2-Chlorophenol	0.0	27.2	68	6	13	37 - 112
1,4-Dichlorobenzene	0.0	25.8	65	3	14	29 - 109
N-Nitrosodi-n-propylamine	0.0	29.9	75	7	12	38 - 119
1,2,4-Trichlorobenzene	0.0	26.8	67	6	13	33 - 100
4-Chloro-3-methylphenol	0.0	37.1	93	1	22	42 - 118
Acenaphthene	0.0	31.3	78	1	18	20 - 132
4-Nitrophenol	0.0	40.5	101	1	26	31 - 123
2,4-Dinitrotoluene	0.0	35.4	89	14	19	24 - 130
Pentachlorophenol	0.0	35.5	89	0	19	29 - 123
Pyrene	0.0	35.5	89	8	17	31 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 09938-001
Client ID: MW-1
Date Received: 10/04/2010
Date Extracted: 10/06/2010
Date Analyzed: 10/07/2010
Data file: B7448.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
N-Nitrosodimethylamine	40.0	0.0	21.2	53	0.0	23.8	60
Benzaldehyde	40.0	0.0	17.9	45	0.0	16.5	41
Phenol	40.0	0.0	26.6	67	0.0	26.6	67
Aniline	40.0	0.0	24.5	61	0.0	24.5	61
Bis(2-chloroethyl) ether	40.0	0.0	24.7	62	0.0	23.9	60
2-Chlorophenol	40.0	0.0	25.5	64	0.0	27.2	68
1,3-Dichlorobenzene	40.0	0.0	25.9	65	0.0	26.9	67
1,4-Dichlorobenzene	40.0	0.0	25.1	63	0.0	25.8	65
Benzyl alcohol	40.0	0.0	28.3	71	0.0	29.1	73
1,2-Dichlorobenzene	40.0	0.0	26.2	66	0.0	26.2	66
2-Methylphenol	40.0	0.0	25.9	65	0.0	26.0	65
Bis(2-chloroisopropyl) ether	40.0	0.0	23.7	59	0.0	24.9	62
4-Methylphenol	40.0	0.0	25.9	65	0.0	28.5	71
N-Nitrosodi-n-propylamine	40.0	0.0	28.0	70	0.0	29.9	75
Acetophenone	40.0	0.0	28.9	72	0.0	28.9	72
3-Methylphenol	40.0	0.0	25.9	65	0.0	28.5	71
Hexachloroethane	40.0	0.0	24.9	62	0.0	25.7	64
Nitrobenzene	40.0	0.0	25.5	64	0.0	24.7	62
Isophorone	40.0	0.0	26.2	66	0.0	25.3	63
2-Nitrophenol	40.0	0.0	27.9	70	0.0	27.1	68
2,4-Dimethylphenol	40.0	0.0	31.8	80	0.0	28.7	72
Bis(2-chloroethoxy) methane	40.0	0.0	27.2	68	0.0	25.9	65
Benzoic acid	40.0	0.0	30.8	77	0.0	28.1	70
2,4-Dimethylaniline	40.0	0.0	28.4	71	0.0	25.9	65
2,4-Dichlorophenol	40.0	0.0	32.0	80	0.0	29.6	74
1,2,4-Trichlorobenzene	40.0	0.0	28.2	71	0.0	26.8	67
Naphthalene	40.0	0.0	27.0	68	0.0	26.3	66
4-Chloroaniline	40.0	0.0	30.3	76	0.0	28.7	72
Hexachlorobutadiene	40.0	0.0	27.1	68	0.0	22.9	57
Caprolactam	40.0	0.0	32.3	81	0.0	25.4	64
4-Chloro-3-methylphenol	40.0	0.0	36.6	92	0.0	28.2	71
2-Methylnaphthalene	40.0	0.0	30.9	77	0.0	25.2	63
Hexachlorocyclopentadiene	40.0	0.0	51.4	129	0.0	50.3	126
2,4,6-Trichlorophenol	40.0	0.0	33.4	84	0.0	35.2	88
2,4,5-Trichlorophenol	40.0	0.0	32.1	80	0.0	33.4	84
1,1'-Biphenyl	40.0	0.0	31.0	78	0.0	31.5	79
2-Chloronaphthalene	40.0	0.0	32.6	82	0.0	32.1	80
2-Nitroaniline	40.0	0.0	35.2	88	0.0	34.5	86
Dimethyl phthalate	40.0	0.0	32.6	82	0.0	33.0	83

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 09938-001
Client ID: MW-1
Date Received: 10/04/2010
Date Extracted: 10/06/2010
Date Analyzed: 10/07/2010
Data file: B7448.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
2,6-Dinitrotoluene	40.0	0.0	33.3	83	0.0	35.2	88
Acenaphthylene	40.0	0.0	30.8	77	0.0	30.6	77
3-Nitroaniline	40.0	0.0	36.2	91	0.0	34.4	86
Acenaphthene	40.0	0.0	31.4	79	0.0	31.3	78
2,4-Dinitrophenol	40.0	0.0	43.3	108	0.0	44.7	112
4-Nitrophenol	40.0	0.0	40.1	100	0.0	40.5	101
2,4-Dinitrotoluene	40.0	0.0	30.6	77	0.0	35.4	89
Dibenzofuran	40.0	0.0	26.4	66	0.0	30.6	77
Diethyl phthalate	40.0	0.0	28.5	71	0.0	33.8	85
Fluorene	40.0	0.0	28.1	70	0.0	32.1	80
4-Chlorophenyl phenyl ether	40.0	0.0	29.3	73	0.0	33.6	84
4-Nitroaniline	40.0	0.0	34.1	85	0.0	37.3	93
4,6-Dinitro-2-methylphenol	40.0	0.0	30.8	77	0.0	34.0	85
N-Nitrosodiphenylamine	40.0	0.0	28.3	71	0.0	30.9	77
1,2-Diphenylhydrazine	40.0	0.0	26.0	65	0.0	28.9	72
4-Bromophenyl phenyl ether	40.0	0.0	28.5	71	0.0	30.2	76
Hexachlorobenzene	40.0	0.0	30.6	77	0.0	31.6	79
Atrazine	40.0	0.0	18.6	47	0.0	19.6	49
Pentachlorophenol	40.0	0.0	35.4	89	0.0	35.5	89
Phenanthrene	40.0	0.0	30.9	77	0.0	31.0	78
Anthracene	40.0	0.0	32.6	82	0.0	31.6	79
Carbazole	40.0	0.0	32.2	81	0.0	32.7	82
Di-n-butyl phthalate	40.0	0.0	32.2	81	0.0	33.9	85
Fluoranthene	40.0	0.0	32.2	81	0.0	35.6	89
Benzidine	40.0	0.0	14.9	37	0.0	15.2	38
Pyrene	40.0	0.0	28.8	72	0.0	35.5	89
3,3'-Dimethylbenzidine	40.0	0.0	19.6	49	0.0	22.8	57
Butyl benzyl phthalate	40.0	0.0	31.1	78	0.0	37.5	94
3,3'-Dichlorobenzidine	40.0	0.0	31.1	78	0.0	37.0	93
Benzo[a]anthracene	40.0	0.0	35.2	88	0.0	37.1	93
Chrysene	40.0	0.0	36.3	91	0.0	36.3	91
Bis(2-ethylhexyl) phthalate	40.0	0.0	31.4	79	0.0	36.8	92
Di-n-octyl phthalate	40.0	0.0	47.2	118	0.0	41.7	104
Benzo[b]fluoranthene	40.0	0.0	45.3	113	0.0	37.4	94
Benzo[k]fluoranthene	40.0	0.0	46.7	117	0.0	32.6	82
Benzo[a]pyrene	40.0	0.0	44.9	112	0.0	44.3	111
Indeno[1,2,3-cd]pyrene	40.0	0.0	50.9	127	0.0	40.2	101
Dibenz[a,h]anthracene	40.0	0.0	46.9	117	0.0	37.3	93
Benzo[g,h,i]perylene	40.0	0.0	43.6	109	0.0	38.1	95

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B7002.D

Date Analyzed: 09/22/2010

Instrument ID: MSDB

Time Analyzed: 10:04

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	148515	2.73	475288	3.37	363352	4.32
	UPPER LIMIT	297030	3.23	950576	3.87	726704	4.82
	LOWER LIMIT	74258	2.23	237644	2.87	181676	3.82
	LAB SAMPLE ID						
01	1ng-BNA	113315	2.73	441380	3.37	271415	4.32
02	10ng-BNA	131850	2.73	545563	3.37	336786	4.32
03	20ng-BNA	131194	2.73	504713	3.37	268381	4.32
04	80ng-BNA	112052	2.73	398075	3.37	258042	4.32
05	120ng-BNA	117089	2.73	441713	3.37	273462	4.32
06	120ng-OLMO4	130542	2.73	479243	3.37	316675	4.32
07	80ng-OLMO5	99262	2.73	395286	3.37	257100	4.32
08	40ng-OLMO6	105392	2.73	419195	3.37	254836	4.32
09	20ng-OLMO7	145316	2.73	556588	3.37	334714	4.32
10	10ng-OLMO8	137222	2.73	534385	3.37	292482	4.32
11	1ng-OLMO9	135904	2.73	547895	3.37	332646	4.32
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B7002.D Date Analyzed: 09/22/2010

Instrument ID: MSDB Time Analyzed: 10:04

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	527519	5.14	414996	6.90	299103	8.33
	UPPER LIMIT	1055038	5.64	829992	7.40	598206	8.83
	LOWER LIMIT	263760	4.64	207498	6.40	149552	7.83
	LAB SAMPLE ID						
01	1ng-BNA	481519	5.14	462779	6.91	286317	8.35
02	10ng-BNA	476715	5.14	493546	6.90	328605	8.33
03	20ng-BNA	463696	5.14	503127	6.90	318723	8.32
04	80ng-BNA	447536	5.14	387968	6.89	293081	8.32
05	120ng-BNA	401496	5.15	386669	6.90	279762	8.33
06	120ng-OLMO4	509014	5.14	410790	6.89	399294	8.32
07	80ng-OLMO5	466959	5.14	367299	6.90	326576	8.32
08	40ng-OLMO6	442150	5.14	456940	6.89	398457	8.31
09	20ng-OLMO7	451175	5.14	451815	6.89	387099	8.32
10	10ng-OLMO8	522281	5.14	413702	6.90	385050	8.34
11	1ng-OLMO9	528214	5.14	401375	6.90	364348	8.34
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B7423.D

Date Analyzed: 10/07/2010

Instrument ID: MSDB

Time Analyzed: 8:58

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	93171	2.73	325347	3.37	225746	4.31
	UPPER LIMIT	186342	3.23	650694	3.87	451492	4.81
	LOWER LIMIT	46586	2.23	162674	2.87	112873	3.81
	LAB SAMPLE ID						
01	ABN091-10	86615	2.73	341636	3.37	226083	4.31
02	Method_Blank	127575	2.72	497189	3.37	301722	4.31
03	LCS	101224	2.72	392867	3.37	213324	4.31
04	MS(09938-001)	98778	2.72	359652	3.37	235803	4.31
05	MSD(09938-001)	98389	2.72	388552	3.37	201639	4.31
06	09938-001	119013	2.72	376305	3.36	236961	4.31
07	Method_blank	103260	2.72	365858	3.36	216085	4.31
08	LCS	93618	2.72	374725	3.36	203981	4.31
09	09933-001	96533	2.72	292003	3.36	168720	4.31
10	09933-003	88654	2.73	352540	3.37	223469	4.32
11	09931-001	111082	2.72	398979	3.36	281321	4.31
12	09934-001	92178	2.73	386659	3.37	205378	4.31
13	09934-002	91713	2.73	333053	3.37	228201	4.31
14	09934-004	101124	2.72	527142	3.37	269888	4.33
15	09934-005	106950	2.73	428466	3.37	249212	4.31
16	09927-001	112431	2.72	470637	3.37	270407	4.31
17	09933-002	113204	2.72	486996	3.36	293609	4.31
18	09938-002	122868	2.72	510385	3.36	325304	4.31
19	09943-001	101277	2.72	434655	3.36	237482	4.31
20	09944-001	119437	2.72	475136	3.36	296933	4.31
21	09960-001	126526	2.72	479387	3.36	265018	4.31
22	09961-001	126119	2.72	485257	3.36	313540	4.31

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B7423.D

Date Analyzed: 10/07/2010

Instrument ID: MSDB

Time Analyzed: 8:58

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	315868	5.14	362919	6.89	239063	8.31
	UPPER LIMIT	631736	5.64	725838	7.39	478126	8.81
	LOWER LIMIT	157934	4.64	181460	6.39	119532	7.81
	LAB SAMPLE ID						
01	ABN091-10	407085	5.14	407529	6.89	359056	8.32
02	Method_Blank	576775	5.14	672050	6.89	362883	8.31
03	LCS	379495	5.14	401228	6.89	226134	8.35
04	MS(09938-001)	420059	5.14	391773	6.89	215971	8.31
05	MSD(09938-001)	366445	5.14	354683	6.88	239738	8.30
06	09938-001	440209	5.14	430411	6.89	249026	8.31
07	Method_blank	470257	5.13	495480	6.89	366962	8.30
08	LCS	395501	5.14	443373	6.88	363021	8.31
09	09933-001	283673	5.14	345150	6.89	210398	8.36
10	09933-003	344860	5.15	339488	6.89	217137	8.31
11	09931-001	504380	5.14	393133	6.88	243671	8.30
12	09934-001	377440	5.14	416377	6.89	233887	8.37
13	09934-002	334459	5.14	347275	6.89	222030	8.34
14	09934-004	458319	5.14	444489	6.88	209416	8.30
15	09934-005	403245	5.14	380938	6.90	225602	8.34
16	09927-001	501162	5.14	372406	6.88	231531	8.29
17	09933-002	506429	5.14	385074	6.88	245911	8.30
18	09938-002	570059	5.14	480762	6.88	274590	8.29
19	09943-001	500546	5.14	368770	6.87	224921	8.29
20	09944-001	498443	5.14	423145	6.88	290880	8.29
21	09960-001	525006	5.14	463716	6.88	254640	8.30
22	09961-001	483929	5.14	415995	6.88	269918	8.30

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B7423.D

Date Analyzed: 10/07/2010

Instrument ID: MSDB

Time Analyzed: 8:58

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	93171	2.73	325347	3.37	225746	4.31
	UPPER LIMIT	186342	3.23	650694	3.87	451492	4.81
	LOWER LIMIT	46586	2.23	162674	2.87	112873	3.81
	LAB SAMPLE ID						
01	09961-002	122520	2.72	491913	3.36	265145	4.31
02	09961-003	115689	2.72	445031	3.36	271878	4.31
03							
04							
05							
06							
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17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B7423.D

Date Analyzed: 10/07/2010

Instrument ID: MSDB

Time Analyzed: 8:58

	50UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	315868	5.14	362919	6.89	239063	8.31
	UPPER LIMIT	631736	5.64	725838	7.39	478126	8.81
	LOWER LIMIT	157934	4.64	181460	6.39	119532	7.81
	LAB SAMPLE ID						
01	09961-002	530678	5.14	389602	6.87	262420	8.29
02	09961-003	450164	5.14	425814	6.88	232660	8.33
03							
04							
05							
06							
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20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B7469.D

Date Analyzed: 10/08/2010

Instrument ID: MSDB

Time Analyzed: 8:20

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	98502		2.73		421236		3.37		224566		4.31	
	UPPER LIMIT	197004		3.23		842472		3.87		449132		4.81	
	LOWER LIMIT	49251		2.23		210618		2.87		112283		3.81	
	LAB SAMPLE ID												
01	ABN091-10	105203		2.72		395246		3.36		219914		4.31	
02	09942-002	157399		2.72		631537		3.36		373249		4.31	
03	09962-001	131833		2.72		516308		3.36		319625		4.31	
04	09922-001	169768		2.72		563742		3.37		357178		4.31	
05	09973-002	122649		2.72		487155		3.36		313703		4.31	
06	09973-003	134052		2.72		549337		3.37		361764		4.31	
07	09973-004	156199		2.72		603404		3.36		384446		4.31	
08	09980-009	116343		2.72		377428		3.36		226459		4.31	
09	09983-001	141950		2.72		554152		3.36		354092		4.31	
10	09983-002	135894		2.72		611547		3.36		304816		4.31	
11	09983-003	135095		2.73		543681		3.37		339820		4.32	
12	09905-002	120294		2.72		471961		3.36		275732		4.31	
13	09948-002	127071		2.73		566567		3.38		323436		4.33	
14	Method_Blank	138490		2.72		543656		3.36		341101		4.31	
15	LCS	125829		2.72		498509		3.37		295164		4.31	
16	09635-002	94198		2.72		358939		3.36		217477		4.31	
17	09542-002	88271		2.72		347861		3.36		222402		4.31	
18	09542-003	87639		2.72		363789		3.36		216770		4.31	
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B7469.D

Date Analyzed: 10/08/2010

Instrument ID: MSDB

Time Analyzed: 8:20

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	395541		5.14		334839		6.90		226221		8.34	
	UPPER LIMIT	791082		5.64		669678		7.40		452442		8.84	
	LOWER LIMIT	197771		4.64		167420		6.40		113111		7.84	
	LAB SAMPLE ID												
01	ABN091-10	386442		5.14		414998		6.88		336635		8.30	
02	09942-002	638835		5.14		567619		6.88		294444		8.30	
03	09962-001	585175		5.14		540313		6.88		349331		8.31	
04	09922-001	604638		5.14		523744		6.88		371544		8.30	
05	09973-002	588475		5.14		537632		6.88		356391		8.31	
06	09973-003	588011		5.14		576061		6.91		295277		8.34	
07	09973-004	635546		5.14		591801		6.90		369504		8.32	
08	09980-009	365561		5.14		330692		6.89		215714		8.31	
09	09983-001	622079		5.14		606640		6.89		372757		8.32	
10	09983-002	535959		5.14		492875		6.88		320001		8.31	
11	09983-003	560180		5.15		466914		6.88		299884		8.31	
12	09905-002	401311		5.14		410709		6.89		252517		8.31	
13	09948-002	401722		5.16		559488		6.95		257890		8.39	
14	Method_Blank	595402		5.14		530111		6.88		287167		8.30	
15	LCS	445517		5.14		487462		6.88		308581		8.31	
16	09635-002	354232		5.14		317282		6.88		195614		8.30	
17	09542-002	346045		5.14		270944		6.88		164082		8.30	
18	09542-003	321434		5.14		310185		6.88		169285		8.30	
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : B7477.D
Acq On : 8 Oct 2010 11:05
Operator : DANA
Sample : MW12,09980-009,A,1000ml,100,10/06/10
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 11 11:34:52 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW1410.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 23 14:41:52 2010
Response via : Initial Calibration

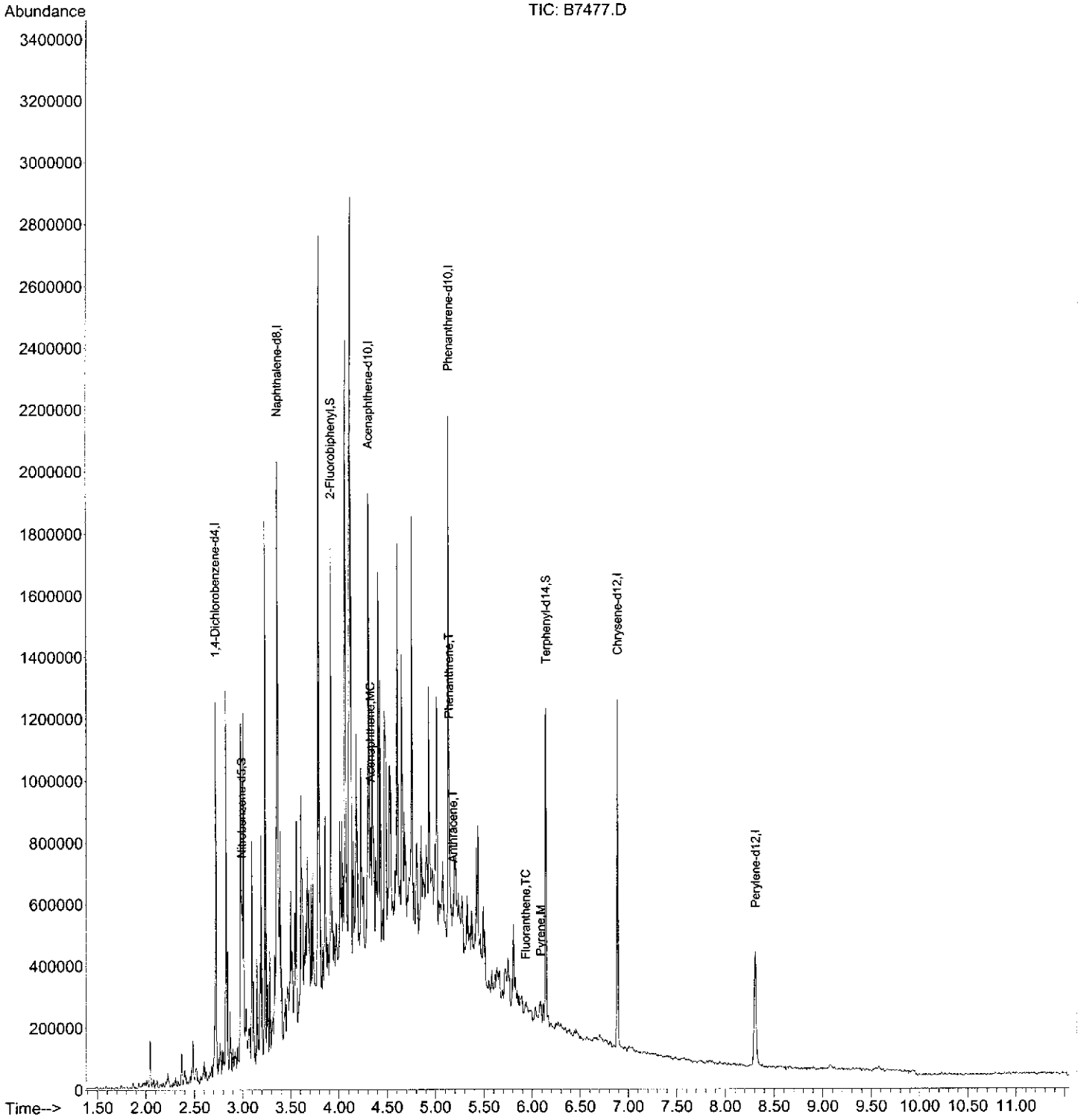
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.72	152	116343	40.00	UG	-0.01
23) Naphthalene-d8	3.36	136	377428	40.00	UG	-0.01
43) Acenaphthene-d10	4.31	164	226459	40.00	UG	-0.01
66) Phenanthrene-d10	5.14	188	365561	40.00	UG	-0.01
82) Chrysene-d12	6.89	240	330692	40.00	UG	-0.01
92) Perylene-d12	8.31	264	215714	40.00	UG	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 10 - 100		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 10 - 102		Recovery =	0.00%#		
24) Nitrobenzene-d5	3.00	82	114816	28.46	UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery =	56.92%		
47) 2-Fluorobiphenyl	3.92	172	244885	30.25	UG	-0.01
Spiked Amount 50.000	Range 26 - 101		Recovery =	60.50%		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 22 - 115		Recovery =	0.00%#		
84) Terphenyl-d14	6.15	244	282829	29.35	UG	0.00
Spiked Amount 50.000	Range 23 - 124		Recovery =	58.70%		
Target Compounds						Qvalue
55) Acenaphthene	4.33	153	37530	5.72	UG	# 92
75) Phenanthrene	5.15	178	62063	5.80	UG	# 83
76) Anthracene	5.18	178	10228	0.95	UG	# 82
79) Fluoranthene	5.93	202	3899m	0.33	UG	
83) Pyrene	6.09	202	9890	0.88	UG	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\10-08-10\
Data File : B7477.D
Acq On : 8 Oct 2010 11:05
Operator : DANA
Sample : MW12,09980-009,A,1000ml,100,10/06/10
Misc : PENNJERSEY/PALMER,10/05/10,10/05/10,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 11 11:34:52 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW1410.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 23 14:41:52 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-07-10\
Data File : B7444.D
Acq On : 7 Oct 2010 14:07
Operator : DANA
Sample : .,Method_Blank,A,1000ml,100,10/06/10
Misc : NA,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:57:14 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW1410.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 23 14:41:52 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.72	152	127575	40.00	UG	-0.01
23) Naphthalene-d8	3.37	136	497189	40.00	UG	0.00
43) Acenaphthene-d10	4.31	164	301722	40.00	UG	-0.01
66) Phenanthrene-d10	5.14	188	576775	40.00	UG	-0.01
82) Chrysene-d12	6.89	240	672050	40.00	UG	-0.01
92) Perylene-d12	8.31	264	362883	40.00	UG	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	2.12	112	179133m	43.84	UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 43.84%			
6) Phenol-d5	2.52	99	234236	43.21	UG	-0.01
Spiked Amount 100.000	Range 10 - 102		Recovery = 43.21%			
24) Nitrobenzene-d5	3.00	82	108261	20.37	UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 40.74%			
47) 2-Fluorobiphenyl	3.92	172	288982	26.80	UG	-0.01
Spiked Amount 50.000	Range 26 - 101		Recovery = 53.60%			
70) 2,4,6-Tribromophenol	4.75	330	130059	42.87	UG	-0.01
Spiked Amount 100.000	Range 22 - 115		Recovery = 42.87%			
84) Terphenyl-d14	6.14	244	452966	23.13	UG	0.00
Spiked Amount 50.000	Range 23 - 124		Recovery = 46.26%			

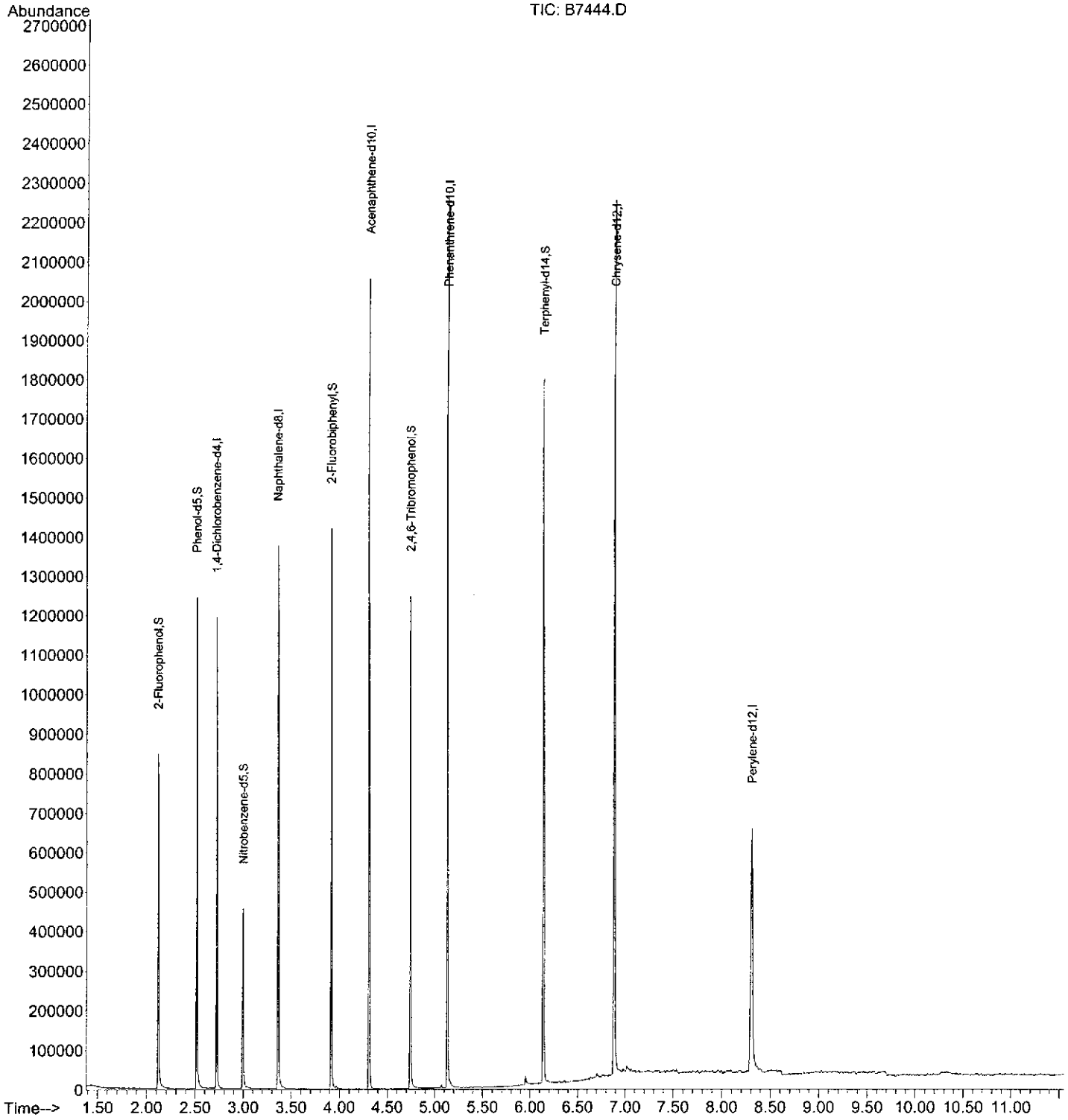
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-07-10\
Data File : B7444.D
Acq On : 7 Oct 2010 14:07
Operator : DANA
Sample : .,Method_Blank,A,1000ml,100,10/06/10
Misc : NA,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:57:14 2010
Quant Method : C:\MSDCHEM\1\METHODS\BW1410.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Sep 23 14:41:52 2010
Response via : Initial Calibration



0172

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 412

Associated Lab Case for Blank 1: 09941, 09942, 09979, 09980, 10022

Matrix: Aqueous Unit: ppb (µg/L) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	20.0	ND
Antimony	1.00	ND
Arsenic	1.00	ND
Barium	10.0	ND
Beryllium	1.00	ND
Cadmium	0.500	ND
Calcium	100	ND
Chromium	2.00	ND
Cobalt	2.00	ND
Copper	2.00	ND
Iron	50.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	2.00	ND
Mercury	0.300	ND
Nickel	1.00	ND
Potassium	50.0	ND
Selenium	4.00	ND
Silver	0.500	ND
Sodium	100	ND
Thallium	0.500	ND
Vanadium	2.00	ND
Zinc	4.00	ND

Associated Sample for Blank 1:

09941-001~005; 09942-001~003; 09979-001~008
09980-009; 10022-001

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 412
Lab Case: 09979, 09942, 10022, 09941, 09980, 09986

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	
Aluminum	5.00	ND	ND	ND	ND	ND	
Antimony	0.250	ND	ND	ND	ND	ND	
Arsenic	0.250	ND	ND	ND	ND	ND	
Barium	2.50	ND	ND	ND	ND	ND	
Beryllium	0.250	ND	ND	ND	ND	ND	
Cadmium	0.125	ND	ND	ND	ND	ND	
Calcium	25.0	ND	ND	ND	ND	ND	
Chromium	0.500	ND	ND	ND	ND	ND	
Cobalt	0.500	ND	ND	ND	ND	ND	
Copper	0.500	ND	ND	ND	ND	ND	
Iron	12.5	ND	ND	ND	ND	ND	
Lead	0.125	ND	ND	ND	ND	ND	
Magnesium	12.5	ND	ND	ND	ND	ND	
Manganese	0.500	ND	ND	ND	ND	ND	
Mercury	0.150	ND	ND	ND			
Nickel	0.250	ND	ND	ND	ND	ND	
Potassium	12.5	ND	ND	ND	ND	ND	
Selenium	1.00	ND	ND	ND	ND	ND	
Silver	0.125	ND	ND	ND	ND	ND	
Sodium	25.0	ND	ND	ND	ND	ND	
Thallium	0.125	ND	ND	ND	ND	ND	
Vanadium	0.500	ND	ND	ND	ND	ND	
Zinc	1.00	ND	ND	ND	ND	ND	

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 412
Lab Case: 09979, 09942, 10022, 09941, 09980, 09986

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	400	361	90.3	367	91.8	365	91.3	369	92.3
Antimony	0.250	120	112	93.3	115	95.8	114	95.0	117	97.5
Arsenic	0.250	20.0	19.7	98.5	19.4	97.0	19.9	99.5	19.3	96.5
Barium	2.50	400	367	91.8	374	93.5	381	95.3	385	96.3
Beryllium	0.250	10.0	9.94	99.4	9.79	97.9	10.2	102	10.3	103
Cadmium	0.125	10.0	9.62	96.2	9.87	98.7	9.93	99.3	9.79	97.9
Calcium	25.0	10000	9190	91.9	9330	93.3	9260	92.6	9250	92.5
Chromium	0.500	20.0	19.1	95.5	18.6	93.0	19.1	95.5	19.0	95.0
Cobalt	0.500	100	96.3	96.3	94.6	94.6	96.6	96.6	94.9	94.9
Copper	0.500	50.0	45.4	90.8	46.3	92.6	45.2	90.4	46.0	92.0
Iron	12.5	200	195	97.5	190	95.0	194	97.0	189	94.5
Lead	0.125	10.0	9.94	99.4	9.93	99.3	10.2	102	10.0	100
Magnesium	12.5	10000	9420	94.2	9370	93.7	9060	90.6	9090	90.9
Manganese	0.500	30.0	27.1	90.3	27.3	91.0	27.8	92.7	27.5	91.7
Mercury	0.150	5.00	5.15	103	4.66	93.2	4.64	92.8		
Nickel	0.250	80.0	73.5	91.9	75.4	94.3	73.3	91.6	75.0	93.8
Potassium	12.5	10000	9350	93.5	9020	90.2	9130	91.3	9040	90.4
Selenium	1.00	10.0	9.64	96.4	9.10	91.0	9.44	94.4	9.00	90.0
Silver	0.125	20.0	19.1	95.5	19.2	96.0	19.6	98.0	19.6	98.0
Sodium	25.0	10000	9190	91.9	9110	91.1	9550	95.5	9500	95.0
Thallium	0.125	20.0	19.2	96.0	19.3	96.5	19.9	99.5	19.9	99.5
Vanadium	0.500	100	103	103	101	101	104	104	102	102
Zinc	1.00	40.0	37.0	92.5	36.6	91.5	37.3	93.3	37.4	93.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 412
Lab Case: 09979, 09942, 10022, 09941, 09980, 09986

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	400	361	90.3						
Antimony	0.250	120	112	93.3						
Arsenic	0.250	20.0	19.4	97.0						
Barium	2.50	400	377	94.3						
Beryllium	0.250	10.0	9.65	96.5						
Cadmium	0.125	10.0	9.65	96.5						
Calcium	25.0	10000	9190	91.9						
Chromium	0.500	20.0	18.4	92.0						
Cobalt	0.500	100	93.1	93.1						
Copper	0.500	50.0	46.9	93.8						
Iron	12.5	200	188	94.0						
Lead	0.125	10.0	9.78	97.8						
Magnesium	12.5	10000	9360	93.6						
Manganese	0.500	30.0	27.2	90.7						
Nickel	0.250	80.0	73.7	92.1						
Potassium	12.5	10000	9020	90.2						
Selenium	1.00	10.0	9.38	93.8						
Silver	0.125	20.0	18.8	94.0						
Sodium	25.0	10000	9310	93.1						
Thallium	0.125	20.0	19.3	96.5						
Vanadium	0.500	100	102	102						
Zinc	1.00	40.0	37.3	93.3						

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 412
Lab Case: 09979, 09942, 10022, 09941, 09980, 09986

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	106000	100000	100	NA
Iron	100000	-	104000	98700	98.7	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2280	2270	114	NA
Titanium	2000	-	2180	2040	102	NA
Silver	-	20.0	-	21.6	108	80-120
Arsenic	-	20.0	-	21.0	105	80-120
Cadmium	-	20.0	-	21.7	109	80-120
Cobalt	-	20.0	-	21.3	107	80-120
Chromium	-	20.0	-	20.6	103	80-120
Copper	-	20.0	-	19.4	97.0	80-120
Manganese	-	20.0	-	23.2	116	80-120
Nickel	-	20.0	-	20.1	101	80-120
Zinc	-	20.0	-	23.4	117	80-120

%R = Percent Recovery

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 412
Lab Case: 09941, 09942, 09979, 09980, 10022

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	393	40.6	88.1	400					75-125
Antimony	335	ND	83.8	400					75-125
Arsenic	357	1.23	88.9	400					75-125
Barium	427	67.1	90.0	400					75-125
Beryllium	344	ND	86.0	400					75-125
Cadmium	349	ND	87.3	400					75-125
Calcium	61000	51300	121	8000					75-125
Chromium	353	ND	88.3	400					75-125
Cobalt	362	ND	90.5	400					75-125
Copper	345	5.00	85.0	400					75-125
Iron	13500	6030	93.4	8000					75-125
Lead	354	1.36	88.2	400					75-125
Magnesium	14500	6880	95.3	8000					75-125
Manganese	804	435	92.3	400					75-125
Mercury	9.28	ND	92.8	10.0					75-125
Nickel	345	ND	86.3	400					75-125
Potassium	10200	2690	93.9	8000					75-125
Selenium	336	ND	84.0	400					75-125
Silver	327	ND	81.8	400					75-125
Sodium	18400	10700	96.3	8000					75-125
Thallium	359	ND	89.8	400					75-125
Vanadium	324	ND	81.0	400					75-125
Zinc	375	15.8	89.8	400					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 09979-001
QC Sample 1 for following samples:
09941-001~005; 09942-001~003; 09979-001~008
09980-009; 10022-001

QC Sample 2
QC Sample 2 for following samples:

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 412
Lab Case: 09941, 09942, 09979, 09980, 10022

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	40.6	36.8	9.82				
Antimony	NA	ND	ND	NC				
Arsenic	20	1.23	1.23	0				
Barium	20	67.1	66.9	0.299				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Calcium	20	51300	52700	2.69				
Chromium	NA	ND	ND	NC				
Cobalt	NA	ND	ND	NC				
Copper	20	5.00	5.08	1.59				
Iron	20	6030	6090	0.990				
Lead	20	1.36	1.40	2.90				
Magnesium	20	6880	7000	1.73				
Manganese	20	435	437	0.459				
Mercury	NA	ND	ND	NC				
Nickel	NA	ND	ND	NC				
Potassium	20	2690	2710	0.741				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	20	10700	11100	3.67				
Thallium	NA	ND	ND	NC				
Vanadium	NA	ND	ND	NC				
Zinc	20	15.8	16.0	1.26				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 09979-001
QC Sample 1 for following samples:
09941-001~005; 09942-001~003; 09979-001~008
09980-009; 10022-001

QC Sample 2
QC Sample 2 for following samples:

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 412
Lab Case: 09941, 09942, 09979, 09980, 10022

Matrix: Aqueous Unit: ppb (µg/L)

ANALYTE	BSW1			BSW2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	400	348	87.0			
Antimony	400	364	91.0			
Arsenic	400	356	89.0			
Barium	400	349	87.3			
Beryllium	400	376	94.0			
Cadmium	400	378	94.5			
Calcium	8000	7330	91.6			
Chromium	400	355	88.8			
Cobalt	400	365	91.3			
Copper	400	342	85.5			
Iron	8000	7460	93.3			
Lead	400	380	95.0			
Magnesium	8000	7520	94.0			
Manganese	400	351	87.8			
Mercury	10.0	9.30	93.0			
Nickel	400	350	87.5			
Potassium	8000	7440	93.0			
Selenium	400	356	89.0			
Silver	400	342	85.5			
Sodium	8000	7830	97.9			
Thallium	400	382	95.5			
Vanadium	400	388	97.0			
Zinc	400	349	87.3			

(1) Control Limits % Recovery = 85-115%

BSW1	BSW2
09941-001~005; 09942-001~003; 09979-001~008	
09980-009; 10022-001	

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 412
Lab Case: 09941, 09942, 09979, 09980, 10022

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	40.6			364	400	80.9
Antimony	ND			352	400	88.0
Arsenic	1.23			339	400	84.4
Barium	67.1			404	400	84.2
Beryllium	ND			354	400	88.5
Cadmium	ND			354	400	88.5
Calcium	51300	51900	1.16			
Chromium	ND			337	400	84.3
Cobalt	ND			343	400	85.8
Copper	5.00			328	400	80.8
Iron	6030	6230	3.26			
Lead	1.36			367	400	91.4
Magnesium	6880	6900	0.290			
Manganese	435	427	1.86			
Nickel	ND			328	400	82.0
Potassium	2690	2640	1.88			
Selenium	ND			327	400	81.8
Silver	ND			336	400	84.0
Sodium	10700	10600	0.939			
Thallium	ND			373	400	93.3
Vanadium	ND			371	400	92.8
Zinc	15.8			353	400	84.3

SR = Sample Result
SDR = Sample Dilution Result

SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 09979-001
QC Sample 1 for following samples:
09941-001~005; 09942-001~003; 09979-001~008
09980-009; 10022-001

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Randolph, NJ 07869

CUSTOMER INFO	
Company:	PEC-PA
Address:	2034 E. WELLINGTON ROAD
	NEWTOWN PA
Telephone #:	215 860 1231
Fax #:	215 860 9988
EMAIL Address:	pecinc@aol.com
Project Manager:	D. KATZ
Sampler:	M. BEGAN
Project Name:	PALMER
Project Location (State):	NJ
Bottle Order #:	
Quote #:	

REPORTING INFO	
REPORT TO:	PEC-PA
Address:	
Attn:	
FAX #	
INVOICE TO:	PEC-PA
Address:	
Attn:	
PO #	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE.

PHC- MUST CHOOSE
DRO (3-5 day TAT) QAM025 (5 day TAT min.)
DRO (8015B) - used for: Fuel Oil #2/Home Heating Oil #1 /#2.
QAM-025 (OQA-QAM025) - used for: all other fuel oil and unknown contaminants.

Verbal/Fax 2 wk/Std
24 hr* 48 hr* 72 hr* 1 wk*
Results needed by: STD
Hard Copy 3 wk/Std
Other *call for price STD

Rush TAT Charge **
24 hr - 100%....
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
Reduced
Regulatory - 15% Surcharge applies
Other (describe)

EDD's
SRP. dbf format
lab approved custom EDD
NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft. only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	TCL VO+10 TBA	TCL PAH	LEAD	# BOTTLES & PRESERVATIVES HCl	NaOH	HNO3	H2SO4	MeOH	Other	None	Encore
TRIP		10/5/10		AQ	2	1	✓			2							
FIELD			10:00	AQ	2	2	✓			2							
MW16			10:30	GW	2	3	✓			2							
MW15			11:05	GW	2	4	✓			2							
MW8R			11:45	GW	2	5	✓			2							
MW17			12:15	GW	2	6	✓			2							
MW13			12:50	GW	2	7	✓			2							
MW14			1:25	GW	2	8	✓			2							
MW12			2:00	GW	3	9	✓	✓	✓	2		1				2	

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by:	10/5/10	1507	Received by:	10/5/10	1507
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 09980

PAGE: 1 of 1

WHITE & YELLOW COPIES - WHITE & YELLOW; CLIENT COPY - PINK

PROJECT INFORMATION

E10-09980

Case No. E10-09980 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Dick Katz	**Received**	10/5/2010 15:07
EMail	pecinc@aol.com;nagorbm@yaho ☑ EMail EDDs	**Verbal Due**	10/19/2010
Phone	(215) 860-1231 **Fax** 1(215) 860-9988	**Report Due**	10/26/2010

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
09980-001	TRIP	n/a	10/5/2010	Aqueous	ug/L	2
09980-002	FIELD	n/a	10/5/2010@10:00	Aqueous	ug/L	2
09980-003	MW16	n/a	10/5/2010@10:30	Aqueous	ug/L	2
09980-004	MW15	n/a	10/5/2010@11:05	Aqueous	ug/L	2
09980-005	MW8R	n/a	10/5/2010@11:45	Aqueous	ug/L	2
09980-006	MW17	n/a	10/5/2010@12:15	Aqueous	ug/L	2
09980-007	MW13	n/a	10/5/2010@12:50	Aqueous	ug/L	2
09980-008	MW14	n/a	10/5/2010@13:25	Aqueous	ug/L	2
09980-009	MW12	n/a	10/5/2010@14:00	Aqueous	ug/L	5

Sample #	Tests	Status	QA Method
001	TCL VOA + 10 + MTBE_TBA	Run	624
002	TCL VOA + 10 + MTBE_TBA	Run	624
003	TCL VOA + 10 + MTBE_TBA	Run	624
004	TCL VOA + 10 + MTBE_TBA	Run	624
005	TCL VOA + 10 + MTBE_TBA	Run	624
006	TCL VOA + 10 + MTBE_TBA	Run	624
007	TCL VOA + 10 + MTBE_TBA	Run	624
008	TCL VOA + 10 + MTBE_TBA	Run	624
009	TCL VOA + 10 + MTBE_TBA	Run	624
"	PAH	Run	625
"	Lead - Pb	Run	6020

10/05/2010 15:36 by Ellen - NOTE 1

AS PER DICK K., 8011 NOT REQUIRED FOR TCL VO.

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **09980** CLIENT: PEC-PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE **Comments**

KEY
✓ = YES/NA
✗ = NO

- ✓ Bottles Intact
- ✓ no-Missing Bottles
- ✓ no-Extra Bottles
- ✓ Sufficient Sample Volume
- ✓ no-headspace/bubbles in VOs
- ✓ Labels intact/correct
- ✓ pH Check (exclude VOs)[1]
- ✓ Correct bottles/preservative
- ✓ Sufficient Holding/Prep Time[1]
- [ ] Sample to be Subcontracted
- ✓ **Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 10/5/10

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KM DATE 10/6/10

Laboratory Custody Chronicle

IAL Case No.

E10-09980

Client PennJersey Environmental Consulting

Project PALMER

Received On 10/ 5/2010@15:07

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VOA + 10 + MTBE & TBA	09980-001	Aqueous	n/a	n/a	10/ 8/10	Barbara
"	-002	"	n/a	n/a	10/ 8/10	Barbara
"	-003	"	n/a	n/a	10/ 8/10	Barbara
"	-004	"	n/a	n/a	10/ 8/10	Barbara
"	-005	"	n/a	n/a	10/ 8/10	Barbara
"	-006	"	n/a	n/a	10/ 8/10	Barbara
"	-007	"	n/a	n/a	10/ 8/10	Barbara
"	-008	"	n/a	n/a	10/ 8/10	Barbara
"	-009	"	n/a	n/a	10/ 8/10	Barbara

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
PAH	-009	Aqueous	10/ 6/10	Kou-Liang	10/ 8/10	JC

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Lead - Pb	-009	Aqueous	10/ 7/10	Lisa	10/ 8/10	Wei

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E10-12342**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E10-12342

Client PennJersey Environmental Consulting

Project PALMER

Received On 12/ 6/2010@10:35

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
12342-001	MW8R	n/a	12/ 4/2010@14:05	Aqueous	2
12342-002	MW12	n/a	12/ 4/2010@14:40	Aqueous	2
12342-003	MW14	n/a	12/ 4/2010@15:00	Aqueous	2
12342-004	TRIP	n/a	12/ 4/2010	Aqueous	2
12342-005	FIELD	n/a	12/ 4/2010	Aqueous	2

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received five (5) aqueous sample(s) from PennJersey Environmental Consulting (Project: PALMER) on December 6, 2010 for the analysis of:

(5) TCL VOA + 10

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

12/20/10
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E10-12342

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E10 - 12342

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	GC/MS Tuning Specifications: a. BFB Passed		✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4.	GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5.	GC/MS Calibration Requirements: a. Calibration Check Compounds		na
	b. System Performance Check Compounds		na
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
	If not met, were the calculations checked and the results qualified as "estimated"?		na
8.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		na
9.	Internal Standard Area/Retention Time Shift meet criteria		✓
10.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		na
11.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12.	Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

12/13/2010
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E10-12342

	Lab ID:	12342-001			12342-002			12342-003			12342-004		
	Client ID:	MW8R			MW12			MW14			TRIP		
	Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
	Sampled Date	12/4/10			12/4/10			12/4/10			12/4/10		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Methyl tert-butyl ether (MTBE)		ND		0.300	1.10		0.300	3.66		0.300	ND		0.300
1,1-Dichloroethane		ND		0.260	ND		0.260	1.01		0.260	ND		0.260
cis-1,2-Dichloroethene		0.241	J	0.210	ND		0.210	0.402	J	0.210	ND		0.210
Benzene		ND		0.250	0.695		0.250	0.790		0.250	ND		0.250
Trichloroethene		2.08		0.250	ND		0.250	ND		0.250	ND		0.250
Chlorobenzene		ND		0.260	15.3		0.260	ND		0.260	ND		0.260
Ethylbenzene		ND		0.210	0.217	J	0.210	ND		0.210	ND		0.210
Total Xylenes		ND		0.580	0.807	J	0.580	ND		0.580	ND		0.580
Isopropylbenzene		ND		0.240	5.60		0.240	3.50		0.240	ND		0.240
1,4-Dichlorobenzene		ND		0.210	1.10		0.210	ND		0.210	ND		0.210
1,2-Dichlorobenzene		ND		0.230	2.23		0.230	ND		0.230	ND		0.230
Cyclohexane		ND		0.260	0.828	J	0.260	0.912	J	0.260	ND		0.260
Methylcyclohexane		ND		0.410	1.65		0.410	ND		0.410	ND		0.410
TOTAL VO's:		2.32	J		29.5	J		10.3	J		ND		
TOTAL TIC's:		ND			279			40.3			ND		
TOTAL VO's & TIC's:		2.32	J		309	J		50.6	J		ND		

	Lab ID:	12342-005		
	Client ID:	FIELD		
	Matrix:	Aqueous		
	Sampled Date	12/4/10		
PARAMETER(Units)		Conc	Q	MDL
Volatiles (Units)		*(ug/L-ppb)*		
TOTAL VO's:		ND		
TOTAL TIC's:		ND		
TOTAL VO's & TIC's:		ND		

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-001
Client ID: MW8R
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Data file: G7891.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
Acrolein	ND		10.0	2.51
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	2.29
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	0.241	J	0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	2.08		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
Dibromomethane	ND		0.500	0.180
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
2-Chloroethyl vinyl ether	ND		0.500	0.210
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-001
Client ID: MW8R
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Data file: G7891.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410
Total Target Compounds:	2.32	J		

0007

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-001
Client ID: MW8R
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Date File: G7891.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-002
Client ID: MW12
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Data file: G7893.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
Acrolein	ND		10.0	2.51
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	2.29
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	1.10		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	0.695		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
Dibromomethane	ND		0.500	0.180
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
2-Chloroethyl vinyl ether	ND		0.500	0.210
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-002
Client ID: MW12
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Data file: G7893.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	15.3		0.500	0.260
Ethylbenzene	0.217	J	0.500	0.210
Total Xylenes	0.807	J	1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	5.60		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	1.10		0.500	0.210
1,2-Dichlorobenzene	2.23		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	0.828	J	1.00	0.260
Methylcyclohexane	1.65		0.500	0.410
Total Target Compounds:	29.5	J		

0010

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-002
Client ID: MW12
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Date File: G7893.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	70.1	13.30
	Substituted benzene	22.7	13.88
	Unknown aromatic	33.4	14.02
	Substituted benzene	21.1	14.36
	Unknown aromatic	23.4	14.73
	Unknown aromatic	37.6	14.92
	Unknown aromatic	18.3	15.33
	Unknown aromatic	19.0	15.44
	Unknown aromatic	16.0	16.18
	Unknown aromatic	17.8	16.93

Total TICs = 279

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-003
Client ID: MW14
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Data file: G7892.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
Acrolein	ND		10.0	2.51
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	2.29
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	3.66		0.500	0.300
1,1-Dichloroethane	1.01		0.500	0.260
cis-1,2-Dichloroethene	0.402	J	0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	0.790		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
Dibromomethane	ND		0.500	0.180
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
2-Chloroethyl vinyl ether	ND		0.500	0.210
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-003
Client ID: MW14
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Data file: G7892.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	3.50		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	0.912	J	1.00	0.260
Methylcyclohexane	ND		0.500	0.410
Total Target Compounds:	10.3	J		

0013

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-003
Client ID: MW14
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Date File: G7892.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	11.1	13.30
	Unknown aromatic	4.10	14.02
	Substituted benzene	4.10	14.36
	Unknown aromatic	4.10	14.91
	Unknown aromatic	4.30	15.11
000091-20-3	Naphthalene	9.40	15.60
	Unknown aromatic	3.20	16.94

Total TICs = 40.3

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-004
Client ID: TRIP
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Data file: G7918.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-004
Client ID: TRIP
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Data file: G7918.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

0016

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-004
Client ID: TRIP
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Date File: G7918.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-005
Client ID: FIELD
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Data file: G7919.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-005
Client ID: FIELD
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Data file: G7919.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

0019

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 12342-005
Client ID: FIELD
Date Received: 12/06/2010
Date Analyzed: 12/10/2010
Date File: G7919.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G7692.D

BFB Injection Date: 12/01/2010

Inst ID: MSD_G

BFB Injection Time: 8:00

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.3			
75	30.0 - 60.0% of mass 95	47.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.2			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	81.1			
175	5.0 - 9.0% of mass 174	6.0	(	7.4	)1
176	95.0 - 101.0% of mass 174	80.4	(	99.1	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.3	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G7693.D	12/01/2010	9:40
0.5PPB_STD	0.5PPB_STD	G7694.D	12/01/2010	10:07
1PPB_STD	1PPB_STD	G7695.D	12/01/2010	10:35
100PPB_STD	100PPB_STD	G7696.D	12/01/2010	11:50
5PPB_STD	5PPB_STD	G7697.D	12/01/2010	12:19
METHOD_BLK	METHOD_BLK	G7699.D	12/01/2010	1:15
LFB_020PPB	LFB_020PPB	G7700.D	12/01/2010	1:42
TMP-1/8.83	12046-1DIL	G7701.D	12/01/2010	2:10
12067-001MS	12067-001MS	G7702.D	12/01/2010	2:38
12067-001MSD	12067-001MSD	G7703.D	12/01/2010	3:05
TRIP_BLANK	12046-002	G7704.D	12/01/2010	3:33
MW14	12052-001	G7705.D	12/01/2010	4:01
K01	12067-001	G7706.D	12/01/2010	4:28
K02	12067-002	G7707.D	12/01/2010	4:56
TP-1	12070-001	G7708.D	12/01/2010	5:24
TB	12090-002	G7709.D	12/01/2010	5:51
PZ1	12090-001	G7710.D	12/01/2010	6:19
TRIP_BLANK	12094-001	G7712.D	12/01/2010	7:15
FB113010	12094-002	G7713.D	12/01/2010	7:43
MS-1/8.86	12094-003	G7714.D	12/01/2010	8:10

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G7692.D BFB Injection Date : 12/01/201

Inst ID: MSD_G BFB Injection Time: 8:00

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.3			
75	30.0 - 60.0% of mass 95	47.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.2			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	81.1			
175	5.0 - 9.0% of mass 174	6.0	(	7.4	)1
176	95.0 - 101.0% of mass 174	80.4	(	99.1	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.3	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
PZ1	12092-001	G7715.D	12/01/2010	8:38
MW-2	12095-002	G7716.D	12/01/2010	9:05
MW-3	12095-003	G7717.D	12/01/2010	9:33
MW-4	12095-004	G7718.D	12/01/2010	10:00
RW-1	12095-005	G7719.D	12/01/2010	10:28
MW-1	12095-001	G7720.D	12/01/2010	10:56

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G7856.D

BFB Injection Date: 12/09/2010

Inst ID: MSD_G

BFB Injection Time: 8:15

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.1			
75	30.0 - 60.0% of mass 95	46.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	8.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	73.1			
175	5.0 - 9.0% of mass 174	5.6	(	7.6	)1
176	95.0 - 101.0% of mass 174	70.5	(	96.4	)1
177	5.0 - 9.0% of mass 176	5.0	(	7.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G7857.D	12/09/2010	8:46
METHOD_BLK	METHOD_BLK	G7859.D	12/09/2010	9:53
LFB_020PPB	LFB_020PPB	G7860.D	12/09/2010	10:21
MW-105	12329-010	G7861.D	12/09/2010	10:48
MW-107	12329-011	G7862.D	12/09/2010	11:16
RS-3	12329-014	G7863.D	12/09/2010	11:43
TWP-1/10	12306-001	G7864.D	12/09/2010	12:11
MW-1	12275-1DIL	G7865.D	12/09/2010	12:39
12329-002MS	12329-002MS	G7866.D	12/09/2010	1:07
12329-002MSD	12329-002MSD	G7867.D	12/09/2010	1:34
MW-113	12329-001	G7868.D	12/09/2010	2:02
MW-112	12329-002	G7869.D	12/09/2010	2:30
MW-111	12329-003	G7870.D	12/09/2010	2:57
MW-108	12329-009	G7871.D	12/09/2010	3:25
OS-5	12329-012	G7872.D	12/09/2010	3:52
BS-4	12329-013	G7873.D	12/09/2010	4:20
CS-1	12329-015	G7874.D	12/09/2010	4:48
HB-13_GW	12309-001	G7875.D	12/09/2010	5:15
GP-16_GW	12309-002	G7876.D	12/09/2010	5:43
TR-WP1	12335-001	G7880.D	12/09/2010	7:34

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G7856.D BFB Injection Date : 12/09/201

Inst ID: MSD_G BFB Injection Time: 8:15

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.1			
75	30.0 - 60.0% of mass 95	46.7			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	8.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	73.1			
175	5.0 - 9.0% of mass 174	5.6	(	7.6	)1
176	95.0 - 101.0% of mass 174	70.5	(	96.4	)1
177	5.0 - 9.0% of mass 176	5.0	(	7.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
INFLUENT	12331-001	G7882.D	12/09/2010	8:30
MW-2/8.24	12343-002	G7885.D	12/09/2010	9:47
MW-1/8.22	12343-001	G7886.D	12/09/2010	10:15
MW_#1	12408-001	G7888.D	12/09/2010	11:09
INFLUENT	12339-001	G7889.D	12/09/2010	11:36
EFFLUENT	12338-001	G7890.D	12/10/2010	12:04
MW8R	12342-001	G7891.D	12/10/2010	12:31
MW14	12342-003	G7892.D	12/10/2010	12:58
MW12	12342-002	G7893.D	12/10/2010	1:25
12329-012MS	12329-012MS	G7894.D	12/10/2010	1:52
12329-012MSD	12329-012MSD	G7895.D	12/10/2010	2:19
FIELD	12340-007	G7898.D	12/10/2010	3:41
TRIP	12340-008	G7899.D	12/10/2010	4:08
MW-3	12340-001	G7900.D	12/10/2010	4:35
MW-4	12340-002	G7901.D	12/10/2010	5:02
MW-5	12340-003	G7902.D	12/10/2010	5:29
MW-6	12340-004	G7903.D	12/10/2010	5:56
MW-7	12340-005	G7904.D	12/10/2010	6:24
MW-8	12340-006	G7905.D	12/10/2010	6:51

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G7907.D BFB Injection Date: 12/10/2010

Inst ID: MSD_G BFB Injection Time: 8:10

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.8			
75	30.0 - 60.0% of mass 95	45.4			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.2			
173	Less than 2.0% of mass 174	0.4	(	0.7	)1
174	Great than 50.0% of mass 95	62.0			
175	5.0 - 9.0% of mass 174	4.9	(	7.9	)1
176	95.0 - 101.0% of mass 174	60.9	(	98.2	)1
177	5.0 - 9.0% of mass 176	4.7	(	7.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G7908.D	12/10/2010	8:37
BLANK	BLANK	G7909.D	12/10/2010	9:28
METHOD_BLK	METHOD_BLK	G7910.D	12/10/2010	9:55
LFB_020PPB	LFB_020PPB	G7911.D	12/10/2010	10:23
RS-3	12329-14DIL	G7912.D	12/10/2010	11:03
INFLUENT	12331-1DIL	G7913.D	12/10/2010	11:31
12489-003MS	12489-003MS	G7914.D	12/10/2010	11:58
12489-003MSD	12489-003MSD	G7915.D	12/10/2010	12:26
TB	12368-003	G7917.D	12/10/2010	1:21
TRIP	12342-004	G7918.D	12/10/2010	1:48
FIELD	12342-005	G7919.D	12/10/2010	2:16
FB121810	12523-003	G7920.D	12/10/2010	2:44
MC-03X	12523-001	G7921.D	12/10/2010	3:12
TRIP_BLANK	12458-002	G7923.D	12/10/2010	4:07
MW-1	12458-001	G7924.D	12/10/2010	4:35
MW-1	12489-001	G7926.D	12/10/2010	5:31
DUP	12489-002	G7927.D	12/10/2010	5:58
MW-2	12489-003	G7929.D	12/10/2010	6:53
MW-3	12489-004	G7930.D	12/10/2010	7:21
MW-4	12489-005	G7931.D	12/10/2010	7:48

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G7907.D

BFB Injection Date : 12/10/201

Inst ID: MSD_G

BFB Injection Time: 8:10

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.8			
75	30.0 - 60.0% of mass 95	45.4			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.2			
173	Less than 2.0% of mass 174	0.4	(	0.7	)1
174	Great than 50.0% of mass 95	62.0			
175	5.0 - 9.0% of mass 174	4.9	(	7.9	)1
176	95.0 - 101.0% of mass 174	60.9	(	98.2	)1
177	5.0 - 9.0% of mass 176	4.7	(	7.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-5	12489-006	G7932.D	12/10/2010	8:16
MW-6	12489-007	G7933.D	12/10/2010	8:43
FB	12489-008	G7934.D	12/10/2010	9:11
TRIP_BLANK	12489-009	G7935.D	12/10/2010	9:39
MW-1	12413-001	G7936.D	12/10/2010	10:07
MW-2	12413-002	G7937.D	12/10/2010	10:35
MW-3	12413-003	G7938.D	12/10/2010	11:03
MW-6	12413-004	G7939.D	12/10/2010	11:31
PZ-1/7.69	12483-001	G7941.D	12/11/2010	12:26
MW-1	12488-001	G7942.D	12/11/2010	12:54
FB	12488-002	G7943.D	12/11/2010	1:21
TB	12488-003	G7944.D	12/11/2010	1:49
FIELD_BLANK	12526-010	G7945.D	12/11/2010	2:16
TRIP_BLANK	12526-011	G7946.D	12/11/2010	2:44
MW-4	12526-001	G7947.D	12/11/2010	3:12
MW-5R	12526-002	G7948.D	12/11/2010	3:40
MW-6R	12526-003	G7949.D	12/11/2010	4:08
MW-16	12526-007	G7951.D	12/11/2010	5:03
MW-18	12526-009	G7952.D	12/11/2010	5:30
MW-17	12526-008	G7953.D	12/11/2010	5:58
MW-15	12526-006	G7954.D	12/11/2010	6:25

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G7907.D BFB Injection Date : 12/10/201

Inst ID: MSD_G BFB Injection Time: 8:10

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	15.8			
75	30.0 - 60.0% of mass 95	45.4			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.2			
173	Less than 2.0% of mass 174	0.4	(	0.7	)1
174	Great than 50.0% of mass 95	62.0			
175	5.0 - 9.0% of mass 174	4.9	(	7.9	)1
176	95.0 - 101.0% of mass 174	60.9	(	98.2	)1
177	5.0 - 9.0% of mass 176	4.7	(	7.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-9	12526-004	G7955.D	12/11/2010	6:53
12489-007MS	12489-007MS	G7956.D	12/11/2010	7:21
12489-007MSD	12489-007MSD	G7957.D	12/11/2010	7:49

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G7859.D Instrument ID: MSD_G

Date Analyzed: 12/09/2010 Time Analyzed: 09:53

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LFB_020PPB	LFB_020PPB	12/09/2010	10:21
MW-105	12329-010	12/09/2010	10:48
MW-107	12329-011	12/09/2010	11:16
RS-3	12329-014	12/09/2010	11:43
TWP-1/10	12306-001	12/09/2010	12:11
MW-1	12275-1DIL	12/09/2010	12:39
12329-002MS	12329-002MS	12/09/2010	1:07
12329-002MSD	12329-002MSD	12/09/2010	1:34
MW-113	12329-001	12/09/2010	2:02
MW-112	12329-002	12/09/2010	2:30
MW-111	12329-003	12/09/2010	2:57
MW-108	12329-009	12/09/2010	3:25
OS-5	12329-012	12/09/2010	3:52
BS-4	12329-013	12/09/2010	4:20
CS-1	12329-015	12/09/2010	4:48
HB-13_GW	12309-001	12/09/2010	5:15
GP-16_GW	12309-002	12/09/2010	5:43
TR-WP1	12335-001	12/09/2010	7:34
INFLUENT	12331-001	12/09/2010	8:30
MW-2/8.24	12343-002	12/09/2010	9:47
MW-1/8.22	12343-001	12/09/2010	10:15
MW_#1	12408-001	12/09/2010	11:09
INFLUENT	12339-001	12/09/2010	11:36
EFFLUENT	12338-001	12/10/2010	12:04
MW8R	12342-001	12/10/2010	12:31
MW14	12342-003	12/10/2010	12:58
MW12	12342-002	12/10/2010	1:25
12329-012MS	12329-012MS	12/10/2010	1:52
12329-012MSD	12329-012MSD	12/10/2010	2:19
FIELD	12340-007	12/10/2010	3:41
TRIP	12340-008	12/10/2010	4:08

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G7859.D Instrument ID: MSD_G

Date Analyzed: 12/09/2010 Time Analyzed: 09:53

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-3	12340-001	12/10/2010	4:35
MW-4	12340-002	12/10/2010	5:02
MW-5	12340-003	12/10/2010	5:29
MW-6	12340-004	12/10/2010	5:56
MW-7	12340-005	12/10/2010	6:24
MW-8	12340-006	12/10/2010	6:51

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 12/09/2010
Data file: G7859.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
Acrolein	ND		10.0	2.51
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	2.29
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
Dibromomethane	ND		0.500	0.180
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
2-Chloroethyl vinyl ether	ND		0.500	0.210
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 12/09/2010
Data file: G7859.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

0031

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 12/09/2010
Date File: G7859.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G7910.D Instrument ID: MSD_G

Date Analyzed: 12/10/2010 Time Analyzed: 09:55

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LFB_020PPB	LFB_020PPB	12/10/2010	10:23
RS-3	12329-14DIL	12/10/2010	11:03
INFLUENT	12331-1DIL	12/10/2010	11:31
12489-003MS	12489-003MS	12/10/2010	11:58
12489-003MSD	12489-003MSD	12/10/2010	12:26
TB	12368-003	12/10/2010	1:21
TRIP	12342-004	12/10/2010	1:48
FIELD	12342-005	12/10/2010	2:16
FB121810	12523-003	12/10/2010	2:44
MC-03X	12523-001	12/10/2010	3:12
TRIP_BLANK	12458-002	12/10/2010	4:07
MW-1	12458-001	12/10/2010	4:35
MW-1	12489-001	12/10/2010	5:31
DUP	12489-002	12/10/2010	5:58
MW-2	12489-003	12/10/2010	6:53
MW-3	12489-004	12/10/2010	7:21
MW-4	12489-005	12/10/2010	7:48
MW-5	12489-006	12/10/2010	8:16
MW-6	12489-007	12/10/2010	8:43
FB	12489-008	12/10/2010	9:11
TRIP_BLANK	12489-009	12/10/2010	9:39
MW-1	12413-001	12/10/2010	10:07
MW-2	12413-002	12/10/2010	10:35
MW-3	12413-003	12/10/2010	11:03
MW-6	12413-004	12/10/2010	11:31
PZ-1/7.69	12483-001	12/11/2010	12:26
MW-1	12488-001	12/11/2010	12:54
FB	12488-002	12/11/2010	1:21
TB	12488-003	12/11/2010	1:49
FIELD_BLANK	12526-010	12/11/2010	2:16
TRIP_BLANK	12526-011	12/11/2010	2:44

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G7910.D Instrument ID: MSD_G

Date Analyzed: 12/10/2010 Time Analyzed: 09:55

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-4	12526-001	12/11/2010	3:12
MW-5R	12526-002	12/11/2010	3:40
MW-6R	12526-003	12/11/2010	4:08
MW-16	12526-007	12/11/2010	5:03
MW-18	12526-009	12/11/2010	5:30
MW-17	12526-008	12/11/2010	5:58
MW-15	12526-006	12/11/2010	6:25
MW-9	12526-004	12/11/2010	6:53
12489-007MS	12489-007MS	12/11/2010	7:21
12489-007MSD	12489-007MSD	12/11/2010	7:49

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 12/10/2010
Data file: G7910.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
Acrolein	ND		10.0	2.51
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	2.29
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
Dibromomethane	ND		0.500	0.180
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
2-Chloroethyl vinyl ether	ND		0.500	0.210
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 12/10/2010
Data file: G7910.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

0036

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 12/10/2010
Date File: G7910.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

Response Factor Report MSD_G

ethod Path : C:\MSDCHEM\1\METHODS\
ethod File : GA120110.M
itle : VOLATILE ORGANICS BY EPA METHOD 624
ast Update : Wed Dec 01 17:28:39 2010
esponse Via : Initial Calibration

alibration Files
.5 =G7694.D 1 =G7695.D 5 =G7697.D
0 =G7693.D 100 =G7696.D

		Compound	0.5	1	5	20	100	Avg	%RSD
)	I	Pentafluorobenzene	----------ISTD----------						
)	T	Dichlorodifluoromet	0.335	0.337	0.370	0.469	0.326	0.367	16.20
)	P	Chloromethane	0.426	0.379	0.299	0.391	0.286	0.356	17.15
)	C	Vinyl chloride	0.365	0.313	0.308	0.375	0.273	0.327	13.00
)	T	Bromomethane	0.175	0.186	0.198	0.219	0.102	0.176	25.37
)	T	Chloroethane	0.214	0.203	0.175	0.198	0.125	0.183	19.45
)	T	Trichlorofluorometh		0.349	0.429	0.553	0.408	0.435	19.68
)	T	Acrolein	0.051	0.062	0.045	0.059	0.037	0.051	20.81
)	MC	1,1-Dichloroethene	0.359	0.343	0.302	0.371	0.264	0.328	13.53
)	T	Acetone			0.142	0.148	0.100	0.130	20.21
)	T	Carbon disulfide	0.755	0.663	0.689	0.914	0.756	0.755	12.94
)	T	Vinyl acetate	1.139	1.219	1.148	1.648	1.231	1.277	16.58
)	T	Methylene chloride			0.511	0.618	0.460	0.530	15.23
)	T	Acrylonitrile	0.202	0.256	0.186	0.250	0.169	0.212	18.08
)	T	tert-Butyl alcohol		0.063	0.041	0.053	0.037	0.048	24.48
)	T	trans-1,2-Dichloroe	0.540	0.537	0.465	0.597	0.448	0.517	11.79
)	T	Methyl tert-butyl e	1.232	1.342	1.147	1.541	1.193	1.291	12.17
)	P	1,1-Dichloroethane	0.791	0.817	0.693	0.907	0.701	0.782	11.34
)	T	Diisopropyl ether (	1.109	1.188	1.175	1.588	1.185	1.249	15.39
)	T	cis-1,2-Dichloroeth	0.515	0.503	0.463	0.632	0.496	0.522	12.41
)	T	2,2-Dichloropropane	0.326	0.302	0.277	0.442	0.328	0.335	18.84
)	T	2-Butanone (MEK)		0.270	0.213	0.312	0.225	0.255	17.85
)	T	Bromochloromethane	0.266	0.276	0.242	0.319	0.253	0.271	10.95
)	C	Chloroform	0.873	0.883	0.743	0.976	0.752	0.846	11.58
)	T	1,1,1-Trichloroetha	0.522	0.526	0.525	0.724	0.592	0.578	15.04
)	T	Carbon tetrachlorid	0.434	0.441	0.466	0.664	0.552	0.511	19.06
)	T	1,1-Dichloropropene	0.636	0.607	0.567	0.745	0.571	0.625	11.61
)	T	1,2-Dichloroethane	0.665	0.723	0.574	0.743	0.559	0.653	12.83
)	S	1,2-Dichloroethane-	0.552	0.560	0.539	0.565	0.500	0.543	4.80
)	I	1,4-Difluorobenzene	----------ISTD----------						
)	M	Benzene	1.252	1.264	1.095	1.272	1.138	1.204	6.81
)	M	Trichloroethene	0.292	0.297	0.264	0.312	0.292	0.291	5.99
)	C	1,2-Dichloropropane	0.249	0.265	0.242	0.287	0.263	0.261	6.69
)	T	Dibromomethane	0.166	0.178	0.159	0.195	0.181	0.176	7.97
)	T	1,4-Dioxane	0.002	0.006	0.004	0.005	0.004	0.004	29.86
)	T	Bromodichloromethan	0.208	0.245	0.241	0.338	0.347	0.276	22.64
)	T	2-Chloroethyl vinyl	0.095	0.115	0.130	0.194	0.194	0.146	31.47
)	T	cis-1,3-Dichloropro	0.303	0.210	0.250	0.386	0.413	0.312	27.80
)	T	4-Methyl-2-pentanon	0.167	0.223	0.204	0.301	0.283	0.236	23.61
)	S	Toluene-d8	0.970	0.995	1.007	1.059	1.037	1.014	3.47
)	MC	Toluene	0.744	0.748	0.664	0.806	0.731	0.739	6.86
)	T	trans-1,3-Dichlorop	0.163	0.171	0.211	0.344	0.309	0.240	34.34
)	T	1,1,2-Trichloroetha	0.187	0.223	0.192	0.234	0.219	0.211	9.69
)	T	Tetrachloroethene	0.276	0.272	0.258	0.307	0.285	0.279	6.58
)	T	1,3-Dichloropropane	0.377	0.427	0.389	0.482	0.450	0.425	10.18
)	T	2-Hexanone	0.089	0.136	0.138	0.212	0.203	0.156	33.18
)	T	Dibromochloromethan	0.162	0.145	0.161	0.254	0.291	0.203	32.32
)	T	1,2-Dibromoethane (	0.209	0.237	0.226	0.295	0.286	0.251	15.09
)	I	Chlorobenzene-d5	----------ISTD----------						
)	MP	Chlorobenzene	1.003	0.989	0.815	0.782	0.834	0.885	11.69
)	T	1,1,1,2-Tetrachloro	0.203	0.220	0.217	0.243	0.284	0.233	13.61

)	C	Ethylbenzene	1.236	1.273	1.280	1.296	1.389	1.295	4.42
)	T	m,p-Xylene	0.457	0.499	0.527	0.526	0.544	0.511	6.64
)	T	o-Xylene	0.373	0.422	0.483	0.514	0.542	0.467	14.71
)	T	Styrene	0.550	0.666	0.795	0.870	0.924	0.761	20.05
)	P	Bromoform	0.056	0.074	0.080	0.114	0.118	0.088	30.34
)	T	Isopropylbenzene	0.852	0.936	1.187	1.268	1.355	1.120	19.33
)	S	Bromofluorobenzene	0.455	0.472	0.480	0.500	0.469	0.475	3.44
)	P	1,1,2,2-Tetrachloro	0.394	0.456	0.359	0.368	0.377	0.391	9.93
)	T	Bromobenzene	0.340	0.363	0.324	0.326	0.351	0.341	4.86
)	T	1,2,3-Trichloroprop		0.335	0.262	0.263	0.265	0.281	12.82
)	T	n-Propylbenzene	1.231	1.256	1.448	1.457	1.512	1.381	9.26
)	T	2-Chlorotoluene	0.949	1.110	1.071	1.057	1.085	1.054	5.88
)	T	1,3,5-Trimethylbenz	0.781	0.910	1.068	1.088	1.122	0.994	14.48
)	T	4-Chlorotoluene	0.949	1.110	1.071	1.057	1.085	1.054	5.88
)	T	tert-Butylbenzene	0.627	0.667	0.871	0.872	0.951	0.798	17.78
)	T	1,2,4-Trimethylbenz	0.777	0.920	1.105	1.112	1.148	1.013	15.66
)	T	sec-Butylbenzene	0.973	0.986	1.275	1.265	1.295	1.159	14.16
)	T	1,3-Dichlorobenzene	0.682	0.696	0.631	0.624	0.651	0.657	4.76
)	T	4-Isopropyltoluene	0.751	0.803	1.095	1.085	1.115	0.970	18.26
)	T	1,4-Dichlorobenzene	0.703	0.742	0.672	0.648	0.675	0.688	5.19
)	T	n-Butylbenzene	0.667	0.623	0.895	0.916	0.921	0.804	18.21
)	T	1,2-Dichlorobenzene	0.664	0.717	0.648	0.626	0.636	0.658	5.44
)	T	1,2-Dibromo-3-chlor	0.025	0.042	0.038	0.045	0.061	0.042	31.30
)	T	1,2,4-Trichlorobenz	0.392	0.303	0.356	0.347	0.385	0.356	9.91
)	T	Hexachlorobutadiene	0.218	0.132	0.154	0.117	0.111	0.146	29.58
)	T	Naphthalene	0.967	0.633	1.428	1.080	1.191	1.060	27.66
)	T	1,2,3-Trichlorobenz	0.522	0.318	0.481	0.328	0.342	0.398	24.00
)	T	1,1,2-Trichloro-1,2		0.216	0.228	0.208	0.190	0.210	7.42
)	T	Methyl acetate	0.330	0.342	0.250	0.228	0.226	0.275	20.49
)	T	Cyclohexane		0.721	0.522	0.423	0.409	0.519	27.73
)	T	Methylcyclohexane	0.421	0.319	0.447	0.420	0.421	0.406	12.27

) = Out of Range

20110.M Wed Dec 01 17:28:47 2010

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7857.D
Acq On : 9 Dec 2010 8:46 am
Operator : Sylvia
Sample : 20PPB_STD,20PPB_STD,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 09 16:36:46 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	110	0.00
2	T	Dichlorodifluoromethane	0.367	0.385	-4.9	90	0.00
3	P	Chloromethane	0.356	0.412	-15.7	116	0.00
4	C	Vinyl chloride	0.327	0.416	-27.2	122	0.00
5	T	Bromomethane	0.176	0.220	-25.0	110	-0.01
6	T	Chloroethane	0.183	0.231	-26.2	128	-0.03
7	T	Trichlorofluoromethane	0.435	0.545	-25.3	108	0.02
8	T	Acrolein	0.051	0.044	13.7	82	0.00
9	MC	1,1-Dichloroethene	0.328	0.398	-21.3	118	0.00
0	T	Acetone	0.130	0.108	16.9	80	0.00
1	T	Carbon disulfide	0.755	0.989	-31.0	119	0.00
2	T	Vinyl acetate	1.277	1.337	-4.7	89	0.00
3	T	Methylene chloride	0.530	0.602	-13.6	107	0.00
4	T	Acrylonitrile	0.212	0.178	16.0	79	0.00
5	T	tert-Butyl alcohol (TBA)	0.048	0.034	29.2	70	-0.02
6	T	trans-1,2-Dichloroethene	0.517	0.576	-11.4	106	0.00
7	T	Methyl tert-butyl ether (MT	1.291	1.346	-4.3	96	0.00
8	P	1,1-Dichloroethane	0.782	0.879	-12.4	106	0.00
9	T	Diisopropyl ether (DIPE)	1.249	1.464	-17.2	101	0.00
0	T	cis-1,2-Dichloroethene	0.522	0.627	-20.1	109	0.00
1	T	2,2-Dichloropropane	0.335	0.387	-15.5	96	0.00
2	T	2-Butanone (MEK)	0.255	0.184	27.8	65	-0.01
3	T	Bromochloromethane	0.271	0.303	-11.8	104	0.00
4	T	Tetrahydrofuran	0.000	0.000	0.0	95	0.00
5	C	Chloroform	0.846	0.940	-11.1	106	0.00
6	T	1,1,1-Trichloroethane	0.578	0.728	-26.0	111	0.00
7	T	Carbon tetrachloride	0.511	0.643	-25.8	107	0.00
8	T	1,1-Dichloropropene	0.625	0.701	-12.2	103	0.00
9	T	1,2-Dichloroethane (EDC)	0.653	0.660	-1.1	98	0.00
0	S	1,2-Dichloroethane-d4	0.543	0.540	0.6	105	0.00
1	I	1,4-Difluorobenzene	1.000	1.000	0.0	108	0.00
2	M	Benzene	1.204	1.219	-1.2	103	0.00
3	M	Trichloroethene	0.291	0.302	-3.8	104	0.00
4	C	1,2-Dichloropropane	0.261	0.269	-3.1	101	0.00
5	T	Dibromomethane	0.176	0.174	1.1	96	0.00
6	T	1,4-Dioxane	0.004	0.005	-25.0	109	0.00
7	T	Bromodichloromethane	0.276	0.329	-19.2	105	0.00
8	T	2-Chloroethyl vinyl ether	0.146	0.143	2.1	80	0.00
9	T	cis-1,3-Dichloropropene	0.312	0.380	-21.8	106	0.00
0	T	4-Methyl-2-pentanone (MIBK)	0.236	0.184	22.0	66	0.00
1	S	Toluene-d8	1.014	1.014	0.0	103	0.00
2	MC	Toluene	0.739	0.755	-2.2	101	0.00
3	T	trans-1,3-Dichloropropene	0.240	0.320	-33.3	101	0.00
4	T	1,1,2-Trichloroethane	0.211	0.203	3.8	94	0.00
5	T	Tetrachloroethene	0.279	0.291	-4.3	102	0.00

6	T	1,3-Dichloropropane	0.425	0.416	2.1	93	0.00
7	T	2-Hexanone	0.156	0.115	26.3	58	0.00
8	T	Dibromochloromethane	0.203	0.242	-19.2	103	0.00
9	T	1,2-Dibromoethane (EDB)	0.251	0.250	0.4	92	0.00
0	I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.00
1	MP	Chlorobenzene	0.885	0.803	9.3	101	0.00
2	T	1,1,1,2-Tetrachloroethane	0.233	0.270	-15.9	110	0.00
3	C	Ethylbenzene	1.295	1.356	-4.7	103	0.00
4	T	m,p-Xylene	0.511	0.543	-6.3	102	0.00
5	T	o-Xylene	0.467	0.538	-15.2	103	0.00
6	T	Styrene	0.761	0.866	-13.8	98	0.00
7	P	Bromoform	0.088	0.117	-33.0	102	0.00
8	T	Isopropylbenzene	1.120	1.336	-19.3	104	0.00
9	S	Bromofluorobenzene	0.475	0.490	-3.2	97	0.00
0	P	1,1,2,2-Tetrachloroethane	0.391	0.300	23.3	81	0.00
1	T	Bromobenzene	0.341	0.338	0.9	102	0.00
2	T	1,2,3-Trichloropropane	0.281	0.211	24.9	79	0.00
3	T	n-Propylbenzene	1.381	1.493	-8.1	101	0.00
4	T	2-Chlorotoluene	1.054	1.069	-1.4	100	0.00
5	T	1,3,5-Trimethylbenzene	0.994	1.118	-12.5	102	0.00
6	T	4-Chlorotoluene	1.054	1.069	-1.4	100	0.00
7	T	tert-Butylbenzene	0.798	0.914	-14.5	103	0.00
8	T	1,2,4-Trimethylbenzene	1.013	1.153	-13.8	102	0.00
9	T	sec-Butylbenzene	1.159	1.285	-10.9	100	0.00
0	T	1,3-Dichlorobenzene	0.657	0.637	3.0	101	0.00
1	T	4-Isopropyltoluene	0.970	1.111	-14.5	101	0.00
2	T	1,4-Dichlorobenzene	0.688	0.659	4.2	100	0.00
3	T	n-Butylbenzene	0.804	0.922	-14.7	99	0.00
4	T	1,2-Dichlorobenzene	0.658	0.629	4.4	99	0.00
5	T	1,2-Dibromo-3-chloropropane	0.042	0.032	23.8	69	0.00
6	T	1,2,4-Trichlorobenzene	0.356	0.335	5.9	95	0.00
7	T	Hexachlorobutadiene	0.146	0.127	13.0	107	0.00
8	T	Naphthalene	1.060	0.714	32.6	65	0.00
9	T	1,2,3-Trichlorobenzene	0.398	0.279	29.9	84	0.00
0	T	1,1,2-Trichloro-1,2,2-trifl	0.210	0.230	-9.5	109	-0.01
1	T	Methyl acetate	0.275	0.236	14.2	102	0.00
2	T	Cyclohexane	0.519	0.414	20.2	97	0.00
3	T	Methylcyclohexane	0.406	0.416	-2.5	98	0.00

(#) = Out of Range

120110.M Thu Dec 09 16:36:51 2010

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\12-10-10\
Data File : G7908.D
Acq On : 10 Dec 2010 8:37 am
Operator : Sylvia
Sample : 20PPB_STD,20PPB_STD,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 10 17:02:14 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	108	0.00
2	T	Dichlorodifluoromethane	0.367	0.449	-22.3	103	0.00
3	P	Chloromethane	0.356	0.413	-16.0	113	0.00
4	C	Vinyl chloride	0.327	0.418	-27.8	120	0.00
5	T	Bromomethane	0.176	0.208	-18.2	102	-0.02
6	T	Chloroethane	0.183	0.228	-24.6	124	-0.02
7	T	Trichlorofluoromethane	0.435	0.542	-24.6	106	0.01
8	T	Acrolein	0.051	0.037	27.5	66	0.00
9	MC	1,1-Dichloroethene	0.328	0.424	-29.3	123	0.00
0	T	Acetone	0.130	0.106	18.5	77	0.00
1	T	Carbon disulfide	0.755	0.991	-31.3	117	0.00
2	T	Vinyl acetate	1.277	1.317	-3.1	86	0.00
3	T	Methylene chloride	0.530	0.612	-15.5	106	0.00
4	T	Acrylonitrile	0.212	0.164	22.6	70	0.00
5	T	tert-Butyl alcohol (TBA)	0.048	0.035	27.1	71	-0.03
6	T	trans-1,2-Dichloroethene	0.517	0.601	-16.2	108	0.00
7	T	Methyl tert-butyl ether (MT	1.291	1.360	-5.3	95	-0.01
8	P	1,1-Dichloroethane	0.782	0.896	-14.6	106	0.00
9	T	Diisopropyl ether (DIPE)	1.249	1.449	-16.0	98	0.00
0	T	cis-1,2-Dichloroethene	0.522	0.650	-24.5	110	0.00
1	T	2,2-Dichloropropane	0.335	0.411	-22.7	100	0.00
2	T	2-Butanone (MEK)	0.255	0.181	29.0	62	-0.01
3	T	Bromochloromethane	0.271	0.319	-17.7	108	0.00
4	T	Tetrahydrofuran	0.000	0.000	0.0	101	0.00
5	C	Chloroform	0.846	0.960	-13.5	106	0.00
6	T	1,1,1-Trichloroethane	0.578	0.780	-34.9	116	0.00
7	T	Carbon tetrachloride	0.511	0.623	-21.9	101	0.00
8	T	1,1-Dichloropropene	0.625	0.742	-18.7	107	0.00
9	T	1,2-Dichloroethane (EDC)	0.653	0.665	-1.8	96	0.00
0	S	1,2-Dichloroethane-d4	0.543	0.514	5.3	98	0.00
1	I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
2	M	Benzene	1.204	1.243	-3.2	104	0.00
3	M	Trichloroethene	0.291	0.317	-8.9	108	0.00
4	C	1,2-Dichloropropane	0.261	0.274	-5.0	101	0.00
5	T	Dibromomethane	0.176	0.179	-1.7	97	0.00
6	T	1,4-Dioxane	0.004	0.005	-25.0	108	0.00
7	T	Bromodichloromethane	0.276	0.334	-21.0	105	0.00
8	T	2-Chloroethyl vinyl ether	0.146	0.150	-2.7	82	0.00
9	T	cis-1,3-Dichloropropene	0.312	0.381	-22.1	105	0.00
0	T	4-Methyl-2-pentanone (MIBK)	0.236	0.182	22.9	64	0.00
1	S	Toluene-d8	1.014	1.012	0.2	101	0.00
2	MC	Toluene	0.739	0.784	-6.1	103	0.00
3	T	trans-1,3-Dichloropropene	0.240	0.323	-34.6	100	0.00
4	T	1,1,2-Trichloroethane	0.211	0.206	2.4	93	0.00
5	T	Tetrachloroethene	0.279	0.316	-13.3	109	0.00

46	T	1,3-Dichloropropane	0.425	0.431	-1.4	95	0.00
47	T	2-Hexanone	0.156	0.119	23.7	59	0.00
48	T	Dibromochloromethane	0.203	0.244	-20.2	102	0.00
49	T	1,2-Dibromoethane (EDB)	0.251	0.262	-4.4	94	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
51	MP	Chlorobenzene	0.885	0.826	6.7	106	0.00
52	T	1,1,1,2-Tetrachloroethane	0.233	0.272	-16.7	112	0.00
53	C	Ethylbenzene	1.295	1.392	-7.5	107	0.00
54	T	m,p-Xylene	0.511	0.570	-11.5	108	0.00
55	T	o-Xylene	0.467	0.553	-18.4	108	0.00
56	T	Styrene	0.761	0.919	-20.8	105	0.00
57	P	Bromoform	0.088	0.109	-23.9	96	0.00
58	T	Isopropylbenzene	1.120	1.391	-24.2	110	0.00
59	S	Bromofluorobenzene	0.475	0.492	-3.6	98	0.00
60	P	1,1,2,2-Tetrachloroethane	0.391	0.301	23.0	82	0.00
61	T	Bromobenzene	0.341	0.354	-3.8	109	0.00
62	T	1,2,3-Trichloropropane	0.281	0.213	24.2	81	0.00
63	T	n-Propylbenzene	1.381	1.558	-12.8	107	0.00
64	T	2-Chlorotoluene	1.054	1.100	-4.4	104	0.00
65	T	1,3,5-Trimethylbenzene	0.994	1.162	-16.9	107	0.00
66	T	4-Chlorotoluene	1.054	1.100	-4.4	104	0.00
67	T	tert-Butylbenzene	0.798	0.998	-25.1	114	0.00
68	T	1,2,4-Trimethylbenzene	1.013	1.188	-17.3	107	0.00
69	T	sec-Butylbenzene	1.159	1.369	-18.1	108	0.00
70	T	1,3-Dichlorobenzene	0.657	0.674	-2.6	108	0.00
71	T	4-Isopropyltoluene	0.970	1.174	-21.0	108	0.00
72	T	1,4-Dichlorobenzene	0.688	0.692	-0.6	107	0.00
73	T	n-Butylbenzene	0.804	0.980	-21.9	107	0.00
74	T	1,2-Dichlorobenzene	0.658	0.654	0.6	104	0.00
75	T	1,2-Dibromo-3-chloropropane	0.042	0.031	26.2	68	0.00
76	T	1,2,4-Trichlorobenzene	0.356	0.347	2.5	100	0.00
77	T	Hexachlorobutadiene	0.146	0.132	9.6	113	0.00
78	T	Naphthalene	1.060	0.709	33.1	66	0.00
79	T	1,2,3-Trichlorobenzene	0.398	0.275	30.9	84	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.210	0.253	-20.5	121	-0.01
81	T	Methyl acetate	0.275	0.223	18.9	97	-0.01
82	T	Cyclohexane	0.519	0.443	14.6	105	0.00
83	T	Methylcyclohexane	0.406	0.462	-13.8	110	0.00

(#) = Out of Range

A120110.M Fri Dec 10 17:02:19 2010

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/09/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	AQUEOUS	G7859.D	100	96	98
LFB_020PPB	AQUEOUS	G7860.D	99	99	102
12329-010	AQUEOUS	G7861.D	102	96	99
12329-011	AQUEOUS	G7862.D	104	96	98
12329-014	AQUEOUS	G7863.D	102	96	97
12306-001	AQUEOUS	G7864.D	106	98	103
12275-1DIL	AQUEOUS	G7865.D	99	97	100
12329-002MS	AQUEOUS	G7866.D	99	100	102
12329-002MSD	AQUEOUS	G7867.D	98	99	101
12329-001	AQUEOUS	G7868.D	100	96	99
12329-002	AQUEOUS	G7869.D	101	96	99
12329-003	AQUEOUS	G7870.D	102	96	99
12329-009	AQUEOUS	G7871.D	103	97	98
12329-012	AQUEOUS	G7872.D	103	97	98
12329-013	AQUEOUS	G7873.D	106	95	98
12329-015	AQUEOUS	G7874.D	106	98	97
12309-001	AQUEOUS	G7875.D	111	96	99
12309-002	AQUEOUS	G7876.D	108	99	103
12335-001	AQUEOUS	G7880.D	100	98	101
12331-001	AQUEOUS	G7882.D	99	99	100
12343-002	AQUEOUS	G7885.D	104	96	105
12343-001	AQUEOUS	G7886.D	100	95	101
12408-001	AQUEOUS	G7888.D	103	97	102

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	93-126
SMC2 = Toluene-d8	30 ppb	91-106
SMC3 = Bromofluorobenzene	30 ppb	88-110

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/09/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
12339-001	AQUEOUS	G7889.D	103	97	100
12338-001	AQUEOUS	G7890.D	105	99	99
12342-001	AQUEOUS	G7891.D	108	96	100
12342-003	AQUEOUS	G7892.D	107	97	105
12342-002	AQUEOUS	G7893.D	104	97	103
12329-012MS	AQUEOUS	G7894.D	95	100	104
12329-012MSD	AQUEOUS	G7895.D	96	102	102
12340-007	AQUEOUS	G7898.D	98	98	100
12340-008	AQUEOUS	G7899.D	101	98	100
12340-001	AQUEOUS	G7900.D	96	101	102
12340-002	AQUEOUS	G7901.D	100	98	101
12340-003	AQUEOUS	G7902.D	97	100	101
12340-004	AQUEOUS	G7903.D	96	99	101
12340-005	AQUEOUS	G7904.D	94	97	100
12340-006	AQUEOUS	G7905.D	97	100	101

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	93-126
SMC2 = Toluene-d8	30 ppb	91-106
SMC3 = Bromofluorobenzene	30 ppb	88-110

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/10/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	AQUEOUS	G7910.D	100	97	98
LFB_020PPB	AQUEOUS	G7911.D	100	102	103
12329-14DIL	AQUEOUS	G7912.D	101	98	100
12331-1DIL	AQUEOUS	G7913.D	103	97	99
12489-003MS	AQUEOUS	G7914.D	99	100	102
12489-003MSD	AQUEOUS	G7915.D	97	101	102
12368-003	AQUEOUS	G7917.D	105	97	99
12342-004	AQUEOUS	G7918.D	109	96	99
12342-005	AQUEOUS	G7919.D	106	96	99
12523-003	AQUEOUS	G7920.D	109	96	98
12523-001	AQUEOUS	G7921.D	106	97	100
12458-002	AQUEOUS	G7923.D	111	96	99
12458-001	AQUEOUS	G7924.D	113	97	103
12489-001	AQUEOUS	G7926.D	102	99	102
12489-002	AQUEOUS	G7927.D	100	99	101
12489-003	AQUEOUS	G7929.D	107	97	100
12489-004	AQUEOUS	G7930.D	100	96	100
12489-005	AQUEOUS	G7931.D	104	98	100
12489-006	AQUEOUS	G7932.D	105	96	100
12489-007	AQUEOUS	G7933.D	106	96	98
12489-008	AQUEOUS	G7934.D	108	96	99
12489-009	AQUEOUS	G7935.D	111	97	99
12413-001	AQUEOUS	G7936.D	108	101	103

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	93-126
SMC2 = Toluene-d8	30 ppb	91-106
SMC3 = Bromofluorobenzene	30 ppb	88-110

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 12/10/2010

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
12413-002	AQUEOUS	G7937.D	98	98	101
12413-003	AQUEOUS	G7938.D	104	98	102
12413-004	AQUEOUS	G7939.D	100	97	100
12483-001	AQUEOUS	G7941.D	101	96	99
12488-001	AQUEOUS	G7942.D	104	95	100
12488-002	AQUEOUS	G7943.D	107	96	100
12488-003	AQUEOUS	G7944.D	107	96	99
12526-010	AQUEOUS	G7945.D	107	96	99
12526-011	AQUEOUS	G7946.D	108	96	99
12526-001	AQUEOUS	G7947.D	112	97	102
12526-002	AQUEOUS	G7948.D	103	96	101
12526-003	AQUEOUS	G7949.D	105	95	103
12526-007	AQUEOUS	G7951.D	103	95	101
12526-009	AQUEOUS	G7952.D	104	97	102
12526-008	AQUEOUS	G7953.D	100	95	102
12526-006	AQUEOUS	G7954.D	102	95	102
12526-004	AQUEOUS	G7955.D	98	98	102
12489-007MS	AQUEOUS	G7956.D	96	98	102
12489-007MSD	AQUEOUS	G7957.D	96	99	102

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	93-126
SMC2 = Toluene-d8	30 ppb	91-106
SMC3 = Bromofluorobenzene	30 ppb	88-110

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 12329-012MSD
Client ID: 12329-012MSD
Date Received:
Date Analyzed: 12/10/2010
Data file: G7895.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
Chloromethane	20.0	0.0	19.9	100.0	0.0	22.2	111.0
Vinyl chloride	20.0	0.0	25.9	130.0	0.0	25.4	127.0
Bromomethane	20.0	0.0	22.1	111.0	0.0	23.4	117.0
Chloroethane	20.0	0.0	25.1	126.0	0.0	24.7	124.0
Trichlorofluoromethane	20.0	0.0	23.1	116.0	0.0	25.0	125.0
Acrolein	200.0	0.0	162.0	81.0	0.0	162.1	81.0
1,1-Dichloroethene	20.0	0.0	23.9	120.0	0.0	25.6	128.0
Methylene chloride	20.0	0.0	23.0	115.0	0.0	23.8	119.0
Acrylonitrile	200.0	0.0	159.3	80.0	0.0	161.3	81.0
trans-1,2-Dichloroethene	20.0	0.0	22.5	113.0	0.0	23.3	117.0
1,1-Dichloroethane	20.0	0.0	22.6	113.0	0.0	23.5	118.0
Chloroform	20.0	0.0	22.4	112.0	0.0	23.2	116.0
1,1,1-Trichloroethane	20.0	0.0	25.6	128.0	0.0	24.3	122.0
Carbon tetrachloride	20.0	0.0	24.5	123.0	0.0	26.0	130.0
1,2-Dichloroethane (EDC)	20.0	0.0	19.6	98.0	0.0	19.9	100.0
Benzene	20.0	0.0	20.2	101.0	0.0	20.8	104.0
Trichloroethene	20.0	0.0	21.2	106.0	0.0	22.0	110.0
1,2-Dichloropropane	20.0	0.0	20.4	102.0	0.0	21.1	106.0
Bromodichloromethane	20.0	0.0	23.1	116.0	0.0	23.9	120.0
2-Chloroethyl vinyl ether	20.0	0.0	0.0	0.0	0.0	0.0	0,0
cis-1,3-Dichloropropene	20.0	0.0	20.3	102.0	0.0	22.4	112.0
Toluene	20.0	0.0	20.1	101.0	0.0	21.1	106.0
trans-1,3-Dichloropropene	20.0	0.0	22.1	111.0	0.0	24.4	122.0
1,1,2-Trichloroethane	20.0	0.0	18.7	94.0	0.0	19.5	98.0
Tetrachloroethene	20.0	0.0	20.4	102.0	0.0	21.7	109.0
Dibromochloromethane	20.0	0.0	22.4	112.0	0.0	23.8	119.0
Chlorobenzene	20.0	0.0	17.9	90.0	0.0	18.2	91.0
Ethylbenzene	20.0	0.0	20.3	102.0	0.0	20.7	104.0
total-Xylenes	60.0	0.0	64.8	108.0	0.0	65.6	109.0
Bromoform	20.0	0.0	22.9	115.0	0.0	23.8	119.0
1,1,2,2-Tetrachloroethane	20.0	0.0	14.5	73.0	0.0	14.4	72.0
1,3-Dichlorobenzene	20.0	0.0	19.4	97.0	0.0	19.4	97.0
1,4-Dichlorobenzene	20.0	0.0	19.1	96.0	0.0	19.0	95.0
1,2-Dichlorobenzene	20.0	0.0	19.4	97.0	0.0	19.3	97.0

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G7693.D Date Analyzed: 12/01/2010

Instrument ID: MSD_G Time Analyzed: 9:40

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	489659	6.00	910503	6.83	1017196	10.16
	UPPER LIMIT	979318	6.50	1821006	7.33	2034392	10.66
	LOWER LIMIT	244829.5	5.50	455251.5	6.33	508598	9.66
	LAB SAMPLE ID						
01	0.5PPB_STD	594992	6.01	1006588	6.83	890167	10.16
02	1PPB_STD	563297	6.00	972526	6.83	889804	10.16
03	100PPB_STD	668321	6.00	1062741	6.83	1025039	10.16
04	5PPB_STD	610531	6.01	1023770	6.83	932469	10.16
05	METHOD_BLK	543570	6.01	941472	6.83	861450	10.16
06	LFB_020PPB	611603	6.00	1000307	6.83	941963	10.16
07	12046-1DIL	592338	6.01	998121	6.83	914507	10.16
08	12067-001MS	640924	6.00	1052211	6.83	994381	10.16
09	12067-001MSD	654440	6.00	1079724	6.83	1008954	10.16
10	12046-002	604698	6.01	1016462	6.83	928389	10.16
11	12052-001	582738	6.01	979640	6.83	898837	10.16
12	12067-001	561091	6.00	951308	6.83	871833	10.16
13	12067-002	548996	6.00	919159	6.83	846436	10.16
14	12070-001	547778	6.01	941101	6.83	862764	10.16
15	12090-002	533856	6.01	930574	6.83	856558	10.16
16	12090-001	524993	6.00	913110	6.83	843564	10.16
17	12094-001	510548	6.01	884784	6.83	809004	10.16
18	12094-002	504605	6.01	891098	6.83	819935	10.16
19	12094-003	488471	6.00	874186	6.83	782215	10.16
20	12092-001	533466	6.01	926786	6.83	838582	10.16
21	12095-002	572371	6.01	980968	6.83	882268	10.16
22	12095-003	539460	6.01	941437	6.83	852619	10.16

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G7693.D

Date Analyzed: 12/01/2010

Instrument ID: MSD_G

Time Analyzed: 9:40

	30UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	489659		6.00		910503		6.83		1017196		10.16	
	UPPER LIMIT	979318		6.50		1821006		7.33		2034392		10.66	
	LOWER LIMIT	244829.5		5.50		455251.5		6.33		508598		9.66	
	LAB SAMPLE ID												
23	12095-004	547266		6.01		935338		6.83		841105		10.16	
24	12095-005	556492		6.01		967350		6.83		873270		10.16	
25	12095-001	622964		6.01		1053512		6.83		974575		10.16	
26												0.00	*
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IS1 = PENTAFLUOROBENZENE
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IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G7857.D Date Analyzed: 12/09/2010

Instrument ID: MSD_G Time Analyzed: 8:46

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	538204	6.00	981672	6.82	1004491	10.16
	UPPER LIMIT	1076408	6.50	1963344	7.32	2008982	10.66
	LOWER LIMIT	269102	5.50	490836	6.32	502245.5	9.66
	LAB SAMPLE ID						
01	METHOD_BLK	524431	6.00	969493	6.83	981381	10.16
02	LFB_020PPB	522644	6.00	949791	6.82	966041	10.16
03	12329-010	504641	6.00	925314	6.83	935923	10.16
04	12329-011	485008	6.01	903271	6.83	918835	10.16
05	12329-014	496266	6.01	908778	6.83	934244	10.16
06	12306-001	456346	6.00	859104	6.83	879877	10.16
07	12275-1DIL	522621	6.00	955361	6.83	974968	10.16
08	12329-002MS	527311	6.00	959853	6.82	993908	10.16
09	12329-002MSD	540627	6.00	980326	6.83	1015520	10.16
10	12329-001	527983	6.00	968911	6.83	991630	10.16
11	12329-002	504440	6.00	934167	6.83	949514	10.16
12	12329-003	495991	6.00	917373	6.83	928322	10.16
13	12329-009	471115	6.00	864467	6.82	892078	10.16
14	12329-012	470377	6.00	871016	6.82	887573	10.16
15	12329-013	452353	6.00	852134	6.82	860715	10.16
16	12329-015	438311	6.00	826006	6.83	859856	10.16
17	12309-001	408669	6.00	788077	6.83	789449	10.16
18	12309-002	416946	6.00	789225	6.83	810333	10.16
19	12335-001	477249	6.00	888312	6.82	938147	10.16
20	12331-001	509100	6.00	924296	6.83	956801	10.16
22	12343-002	461663	6.00	873084	6.82	889260	10.15

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G7857.D Date Analyzed: 12/09/2010

Instrument ID: MSD_G Time Analyzed: 8:46

	30UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	538204		6.00		981672		6.82		1004491		10.16	
	UPPER LIMIT	1076408		6.50		1963344		7.32		2008982		10.66	
	LOWER LIMIT	269102		5.50		490836		6.32		502245.5		9.66	
	LAB SAMPLE ID												
23	12343-001	478362		6.00		891234		6.82		905564		10.16	
24	12408-001	444593		6.00		840696		6.82		866804		10.16	
25	12339-001	456761		6.00		857317		6.82		891066		10.16	
26	12338-001	412597		6.00		784228		6.82		827264		10.16	
27	12342-001	404762		6.00		781378		6.83		802031		10.16	
28	12342-003	406093		6.00		774250		6.82		799397		10.16	
29	12342-002	440730		6.00		835604		6.83		869741		10.16	
30	12329-012MS	509140		6.00		924196		6.82		971408		10.16	
31	12329-012MSD	511583		6.00		933710		6.82		1007479		10.16	
32	12340-007	468690		6.00		881387		6.82		933122		10.16	
33	12340-008	441073		6.00		837217		6.82		880131		10.16	
34	12340-001	470376		6.00		867795		6.82		947717		10.15	
35	12340-002	448243		6.00		845821		6.82		879397		10.16	
36	12340-003	475727		6.00		886783		6.82		949959		10.16	
37	12340-004	479986		6.00		884469		6.82		933777		10.15	
38	12340-005	490771		6.00		897090		6.82		938171		10.16	
39	12340-006	460801		6.00		871133		6.82		928555		10.15	
40													
41													
42													
43													
44													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G7908.D Date Analyzed: 12/10/2010

Instrument ID: MSD_G Time Analyzed: 8:37

	30UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	526396	6.00	965598	6.82	1016441	10.16
	UPPER LIMIT	1052792	6.50	1931196	7.32	2032882	10.66
	LOWER LIMIT	263198	5.50	482799	6.32	508220.5	9.66
	LAB SAMPLE ID						
01	BLANK	494720	6.00	924830	6.82	974086	10.16
02	METHOD_BLK	489057	6.00	918622	6.82	957602	10.16
03	LFB_020PPB	491977	6.00	916401	6.82	983031	10.16
04	12329-14DIL	490678	6.00	921858	6.83	973390	10.16
05	12331-1DIL	478521	6.00	902701	6.83	930147	10.16
06	12489-003MS	499084	6.00	918860	6.83	968161	10.16
07	12489-003MSD	529959	6.00	968533	6.82	1025399	10.16
08	12368-003	459642	6.00	880355	6.83	911490	10.16
09	12342-004	424695	6.01	814712	6.83	853218	10.16
10	12342-005	431630	6.01	826780	6.83	853052	10.16
11	12523-003	416210	6.00	809459	6.83	835341	10.16
12	12523-001	413373	6.00	784445	6.83	813147	10.16
13	12458-002	398442	6.00	778279	6.83	792645	10.16
14	12458-001	382528	6.00	753574	6.83	783276	10.16
15	12489-001	459631	6.00	847956	6.83	885580	10.16
16	12489-002	487287	6.00	899243	6.83	934501	10.16
17	12489-003	420465	6.00	807507	6.83	831014	10.16
18	12489-004	473119	6.00	879998	6.83	895274	10.16
19	12489-005	437689	6.00	827233	6.83	874910	10.16
20	12489-006	427324	6.00	819086	6.83	843931	10.16
21	12489-007	428018	6.01	816319	6.82	848617	10.16
22	12489-008	410693	6.00	791300	6.83	819179	10.16

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G7908.D Date Analyzed: 12/10/2010

Instrument ID: MSD_G Time Analyzed: 8:37

	30UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	526396		6.00		965598		6.82		1016441		10.16	
	UPPER LIMIT	1052792		6.50		1931196		7.32		2032882		10.66	
	LOWER LIMIT	263198		5.50		482799		6.32		508220.5		9.66	
	LAB SAMPLE ID												
23	12489-009	378543		6.00		739418		6.83		780859		10.16	
24	12413-001	401425		6.00		765139		6.83		847369		10.16	
25	12413-002	499457		6.00		914376		6.82		958060		10.16	
26	12413-003	448144		6.00		847070		6.83		884641		10.16	
27	12413-004	483069		6.00		907395		6.83		941064		10.16	
28	12483-001	466958		6.00		887804		6.83		917718		10.16	
29	12488-001	443425		6.00		851056		6.82		876845		10.16	
30	12488-002	417429		6.00		810159		6.83		833120		10.16	
31	12488-003	401646		6.00		784877		6.83		811013		10.16	
32	12526-010	408028		6.00		797828		6.83		827236		10.16	
33	12526-011	404601		6.00		790596		6.83		827940		10.16	
34	12526-001	376220		6.00		745352		6.82		772415		10.16	
35	12526-002	421724		6.00		794651		6.82		830782		10.16	
36	12526-003	420760		6.01		805113		6.83		821799		10.16	
37	12526-007	433897		6.00		833000		6.83		867350		10.16	
38	12526-009	444518		6.00		848381		6.82		882470		10.16	
39	12526-008	460632		6.00		869338		6.83		896382		10.16	
40	12526-006	444004		6.00		840756		6.83		869121		10.16	
41	12526-004	481867		6.00		894499		6.82		937881		10.16	
42	12489-007MS	506696		6.00		942261		6.82		994901		10.16	
43	12489-007MSD	521227		6.00		979717		6.82		1035429		10.16	
44													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7891.D
Acq On : 10 Dec 2010 12:31 am
Operator : Sylvia
Sample : MW8R,12342-001,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Dec 10 15:07:10 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration

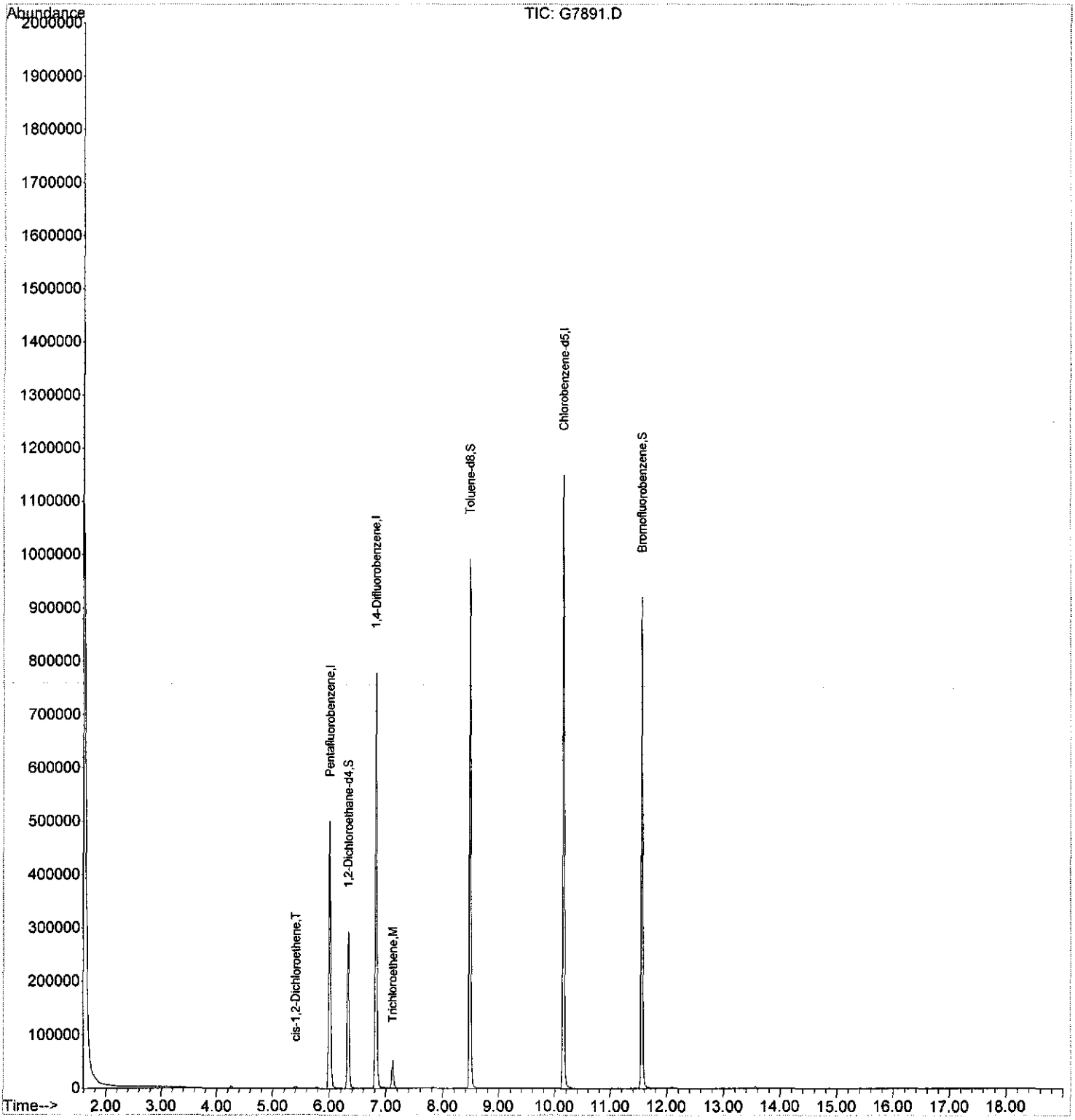
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	404762	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	781378	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	802031	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	236932	32.33	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 107.77%			
41) Toluene-d8	8.48	98	764023	28.93	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 96.43%			
59) Bromofluorobenzene	11.56	95	382200	30.07	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 100.23%			
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.41	96	1694	0.24	UG	# 69
33) Trichloroethene	7.11	95	15745	2.08	UG	# 89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7891.D
Acq On : 10 Dec 2010 12:31 am
Operator : Sylvia
Sample : MW8R,12342-001,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Dec 10 15:07:10 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7891.D
Acq On : 10 Dec 2010 12:31 am
Operator : Sylvia
Sample : MW8R,12342-001,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 34 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA120110.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	832	846	874	rBV	499877	1132863	51.88%	12.151%
2	6.334	896	909	934	rBV	291784	658751	30.17%	7.066%
3	6.821	989	1002	1030	rBV	777708	1637940	75.01%	17.569%
4	7.119	1048	1059	1073	rVB2	52635	109870	5.03%	1.178%
5	8.484	1309	1320	1349	rBV	991958	1922211	88.02%	20.618%
6	10.157	1628	1640	1666	rBV	1149708	2183746	100.00%	23.423%
7	11.559	1892	1908	1946	rBV	919251	1677522	76.82%	17.994%

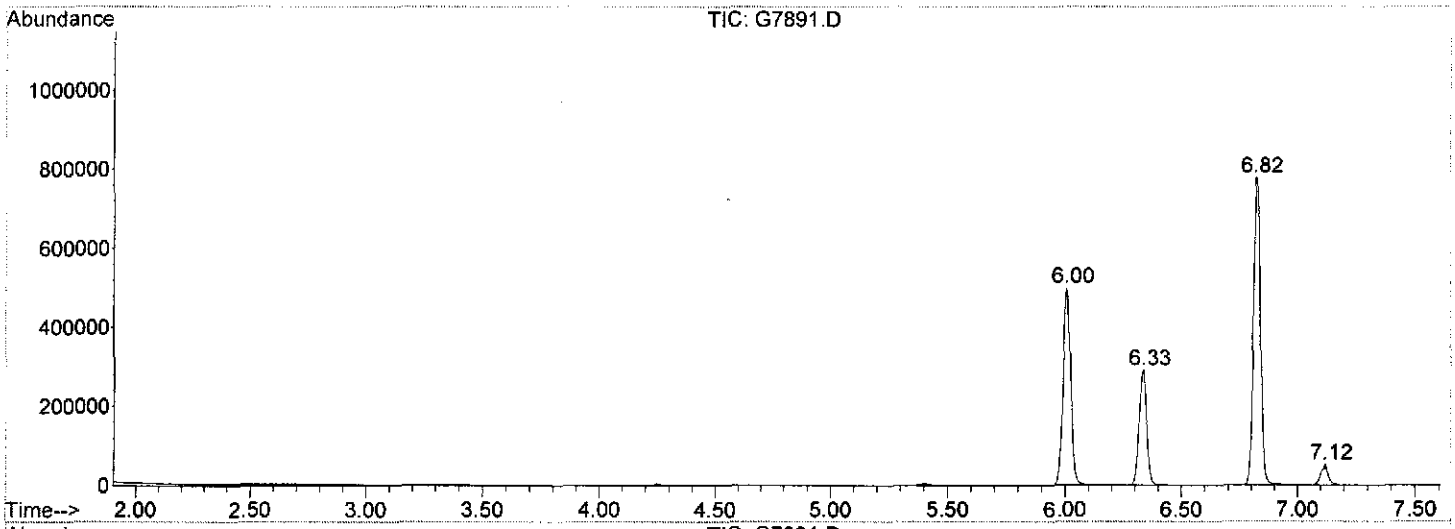
Sum of corrected areas: 9322903

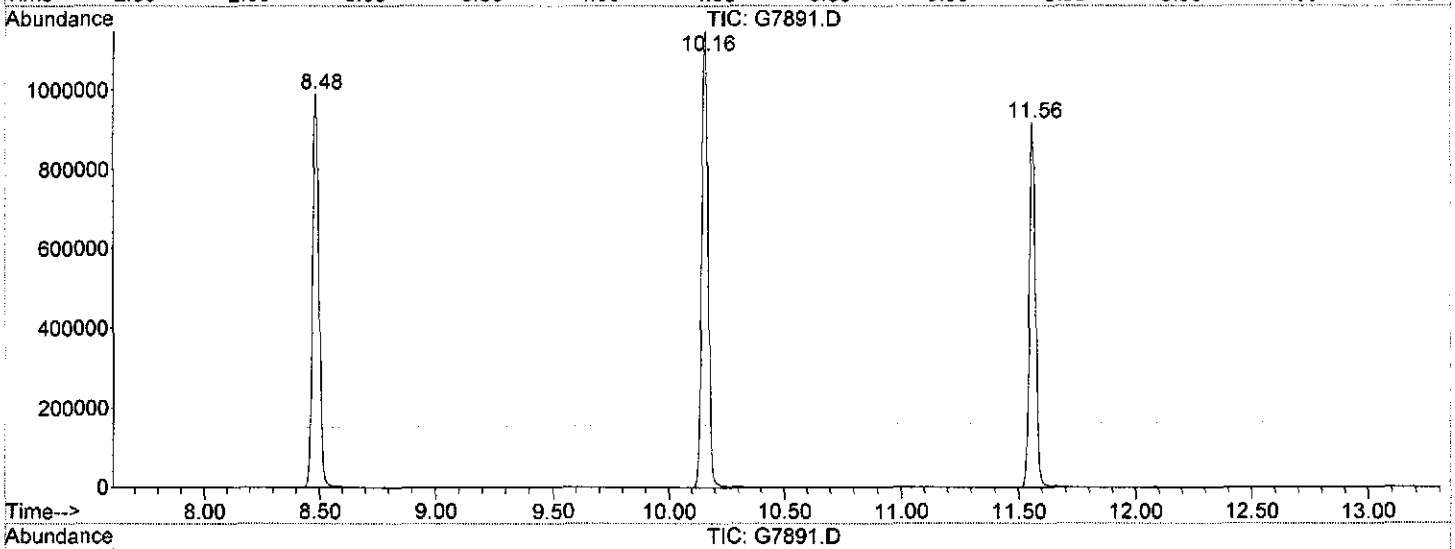
LSC Report - Integrated Chromatogram

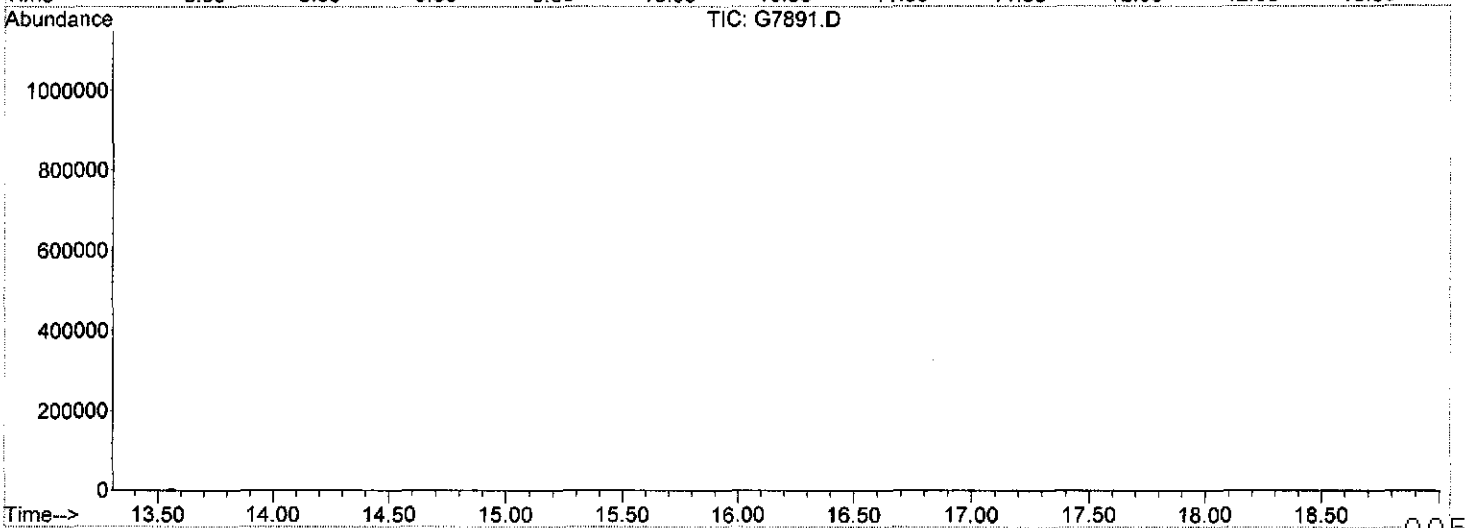
Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7891.D
Acq On : 10 Dec 2010 12:31 am
Operator : Sylvia
Sample : MW8R,12342-001,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Dec 10 15:10:34 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration

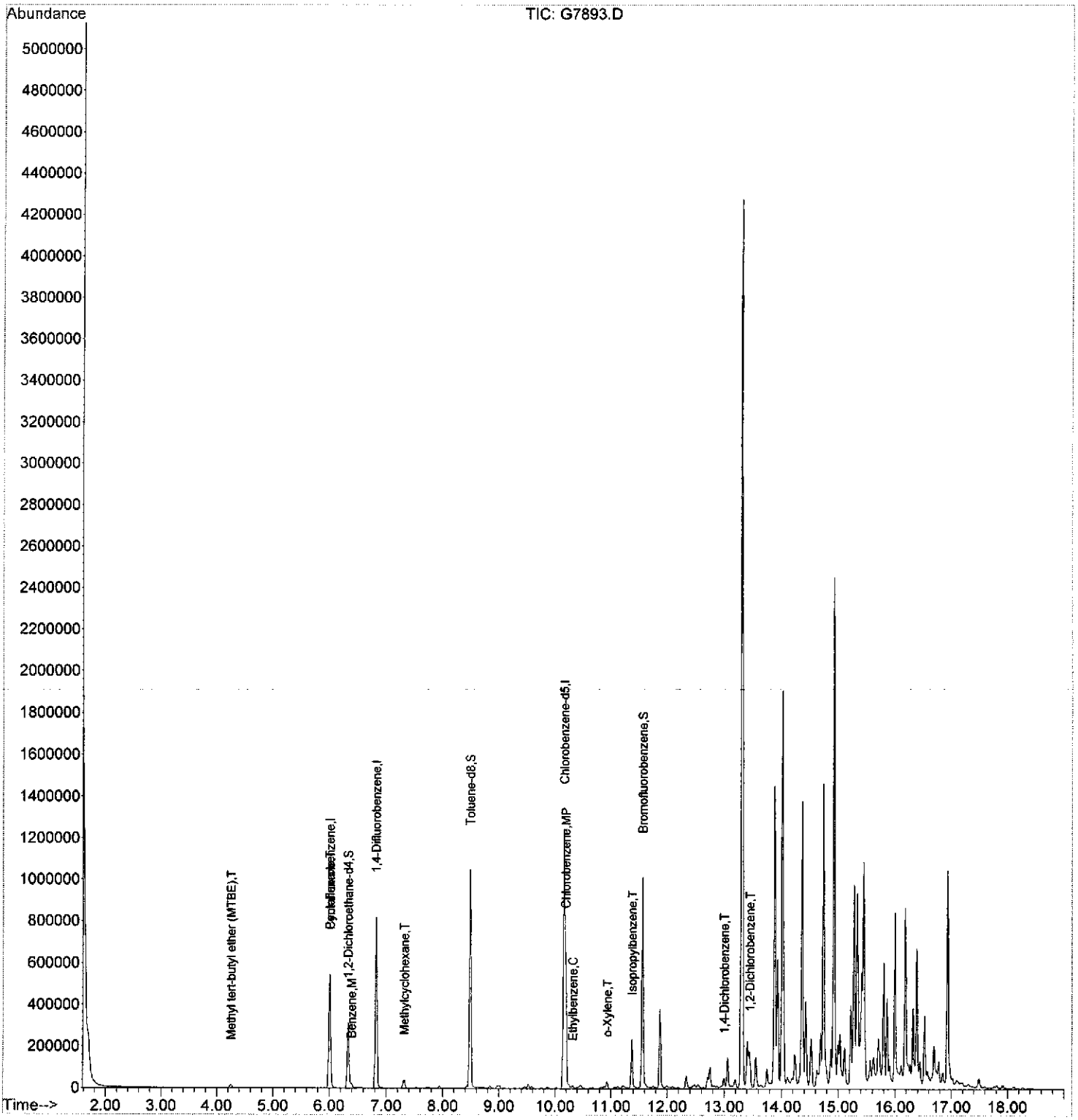
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.00	168	440730	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.83	114	835604	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	869741	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	248972	31.20	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 104.00%				
41) Toluene-d8	8.48	98	825459	29.23	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 97.43%				
59) Bromofluorobenzene	11.56	95	425624	30.88	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 102.93%				
Target Compounds							Qvalue
17) Methyl tert-butyl ether (M	4.25	73	20773	1.10	UG		100
32) Benzene	6.39	78	23300	0.69	UG		100
51) Chlorobenzene	10.19	112	392360	15.30	UG	#	65
53) Ethylbenzene	10.32	91	8140	0.22	UG		98
55) o-Xylene	10.93	106	10924	0.81	UG		84
58) Isopropylbenzene	11.37	105	181759	5.60	UG	#	98
72) 1,4-Dichlorobenzene	13.00	146	21939	1.10	UG		100
74) 1,2-Dichlorobenzene	13.45	146	42546	2.23	UG	#	83
82) Cyclohexane	6.01	56	12462	0.83	UG	#	31
83) Methylcyclohexane	7.32	83	19451	1.65	UG	#	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Dec 10 15:10:34 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA120110.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	831	846	875	rBV	544314	1247798	15.30%	1.914%
2	6.329	897	908	935	rBV	311910	748515	9.18%	1.148%
3	6.821	992	1002	1031	rBV	817783	1745261	21.41%	2.678%
4	7.317	1083	1097	1109	rVB2	40263	105561	1.29%	0.162%
5	8.484	1311	1320	1343	rVB	1042918	2030696	24.91%	3.116%
6	10.157	1627	1640	1664	rBV2	1245627	3488439	42.79%	5.352%
7	11.371	1863	1872	1894	rBV	230287	436976	5.36%	0.670%
8	11.559	1894	1908	1939	rBV	1006568	1911049	23.44%	2.932%
9	11.868	1958	1967	1983	rBV	374006	709148	8.70%	1.088%
10	12.333	2045	2056	2073	rBV	58324	140065	1.72%	0.215%
11	12.710	2119	2128	2131	rBV	49847	96448	1.18%	0.148%
12	12.752	2131	2136	2144	rVB	92065	178944	2.19%	0.275%
13	12.997	2165	2183	2188	rBV	45187	111308	1.37%	0.171%
14	13.060	2188	2195	2211	rVV	141261	279075	3.42%	0.428%
15	13.191	2211	2220	2230	rVB	38233	82421	1.01%	0.126%
16	13.301	2230	2241	2253	rBV	4265235	8153046	100.00%	12.509%
17	13.405	2253	2261	2265	rVV	215646	468833	5.75%	0.719%
18	13.437	2265	2267	2280	rVB2	167428	322172	3.95%	0.494%
19	13.552	2280	2289	2300	rBV3	141060	297563	3.65%	0.457%
20	13.745	2315	2326	2343	rBV	85431	237172	2.91%	0.364%
21	13.876	2343	2351	2357	rVV	1433665	2643394	32.42%	4.056%
22	13.928	2357	2361	2369	rVV	596711	1108835	13.60%	1.701%
23	14.017	2369	2378	2391	rVV2	1880695	3888541	47.69%	5.966%
24	14.237	2413	2420	2429	rVB2	135748	307348	3.77%	0.472%
25	14.363	2429	2444	2451	rVV	1350681	2455361	30.12%	3.767%
26	14.425	2451	2456	2466	rVB	392618	722420	8.86%	1.108%
27	14.519	2466	2474	2486	rVB4	226270	498529	6.11%	0.765%
28	14.624	2486	2494	2500	rBV2	74783	190877	2.34%	0.293%
29	14.687	2500	2506	2509	rVV	242049	431673	5.29%	0.662%
30	14.734	2509	2515	2532	rVV	1437556	2716450	33.32%	4.168%
31	14.865	2532	2540	2543	rVV2	164886	280135	3.44%	0.430%
32	14.917	2543	2550	2560	rVV	2426245	4371306	53.62%	6.707%
33	14.995	2560	2565	2567	rVV2	187486	315275	3.87%	0.484%
34	15.027	2567	2571	2581	rVV	238696	519976	6.38%	0.798%
35	15.105	2581	2586	2599	rVV2	174445	358455	4.40%	0.550%
36	15.220	2599	2608	2612	rVV2	375401	681232	8.36%	1.045%
37	15.273	2612	2618	2623	rVV	951150	1810244	22.20%	2.777%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA120110.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

38	15.330	2623	2629	2637	rVV4	911201	2126083	26.08%	3.262%
39	15.409	2637	2644	2646	rVV2	538160	1036777	12.72%	1.591%
40	15.440	2646	2650	2664	rVV2	1063549	2205057	27.05%	3.383%
41	15.560	2664	2673	2678	rVV	117187	271544	3.33%	0.417%
42	15.618	2678	2684	2693	rVV3	133254	388940	4.77%	0.597%
43	15.701	2693	2700	2710	rVV2	221084	666279	8.17%	1.022%
44	15.796	2710	2718	2725	rVV2	583172	1138869	13.97%	1.747%
45	15.858	2725	2730	2736	rVV	412726	737090	9.04%	1.131%
46	15.900	2736	2738	2749	rVV2	94077	200870	2.46%	0.308%
47	15.994	2749	2756	2773	rVV	819970	1571333	19.27%	2.411%
48	16.109	2773	2778	2784	rVV2	97076	236740	2.90%	0.363%
49	16.177	2784	2791	2806	rVV	846767	1864349	22.87%	2.860%
50	16.272	2806	2809	2812	rVV	103772	159452	1.96%	0.245%
51	16.319	2812	2818	2825	rVV	369242	749387	9.19%	1.150%
52	16.381	2825	2830	2838	rVV	652435	1170308	14.35%	1.796%
53	16.439	2838	2841	2850	rVV	119257	231895	2.84%	0.356%
54	16.523	2850	2857	2865	rVV3	333548	693137	8.50%	1.063%
55	16.580	2865	2868	2877	rVV2	69579	178806	2.19%	0.274%
56	16.690	2877	2889	2901	rVV5	192705	649632	7.97%	0.997%
57	16.779	2901	2906	2914	rVV	119991	259406	3.18%	0.398%
58	16.852	2914	2920	2928	rVV4	65642	166080	2.04%	0.255%
59	16.931	2928	2935	2959	rVV	1031532	2063996	25.32%	3.167%
60	17.098	2959	2967	3000	rVV8	32870	222186	2.73%	0.341%
61	17.495	3029	3043	3055	rVB2	41703	100283	1.23%	0.154%

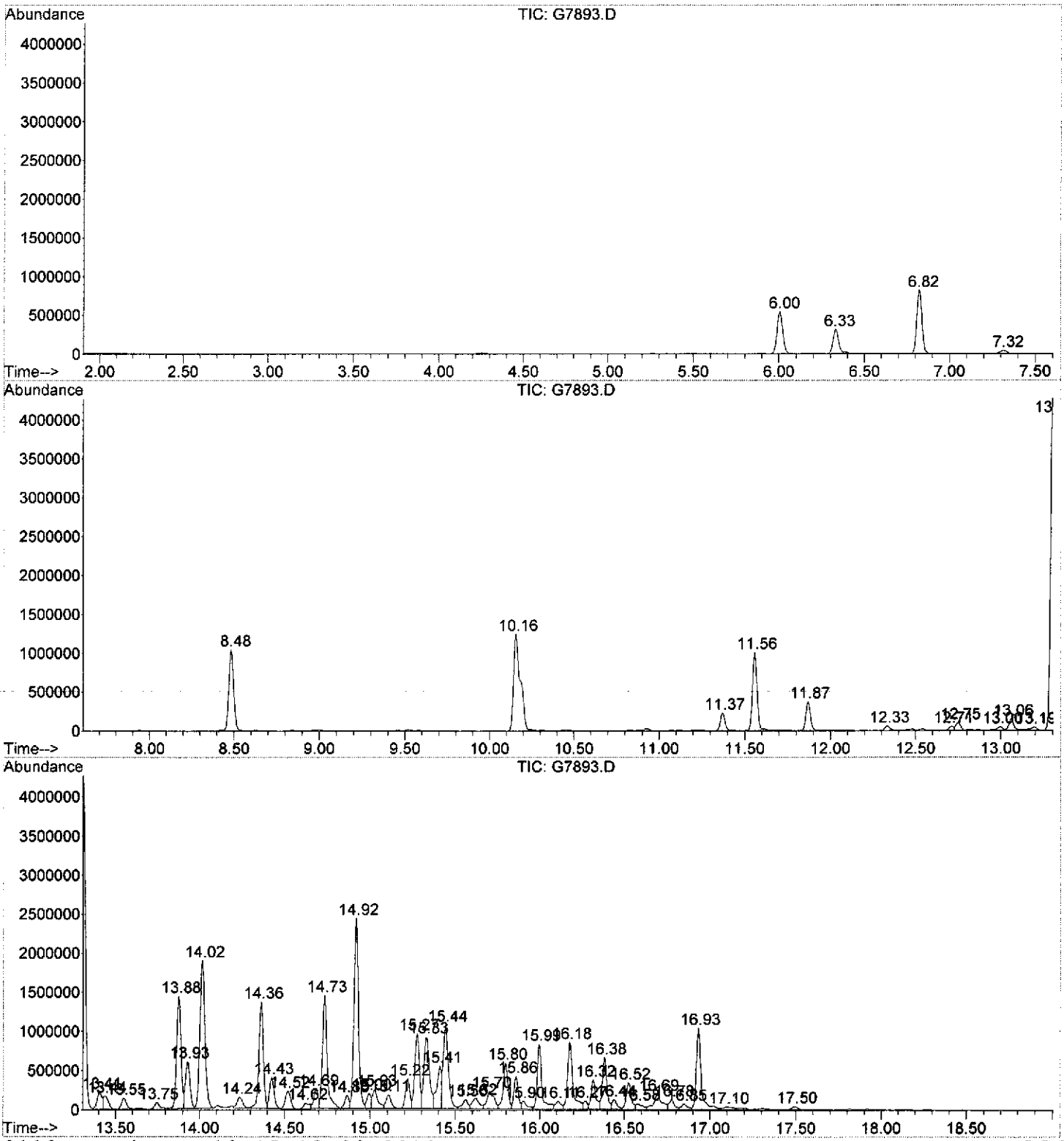
Sum of corrected areas: 65179040

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

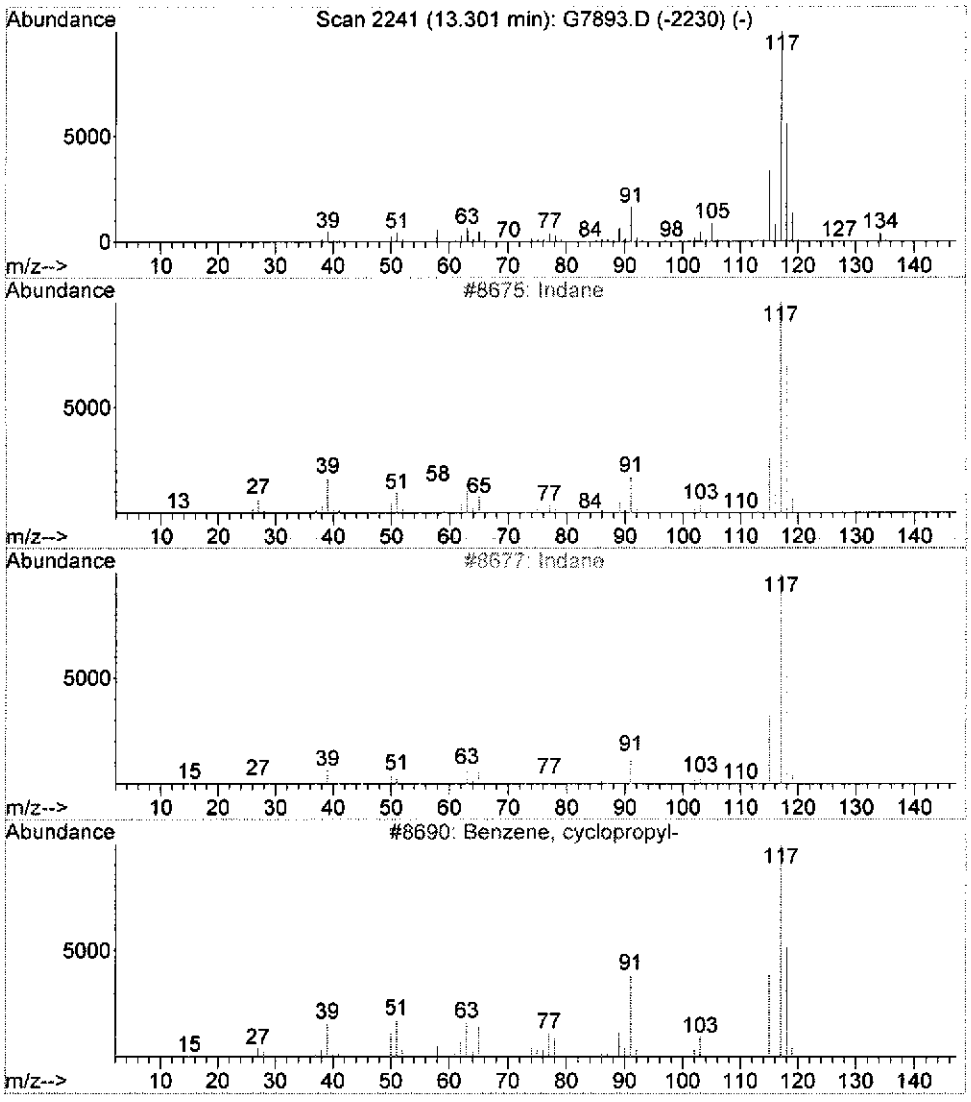
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

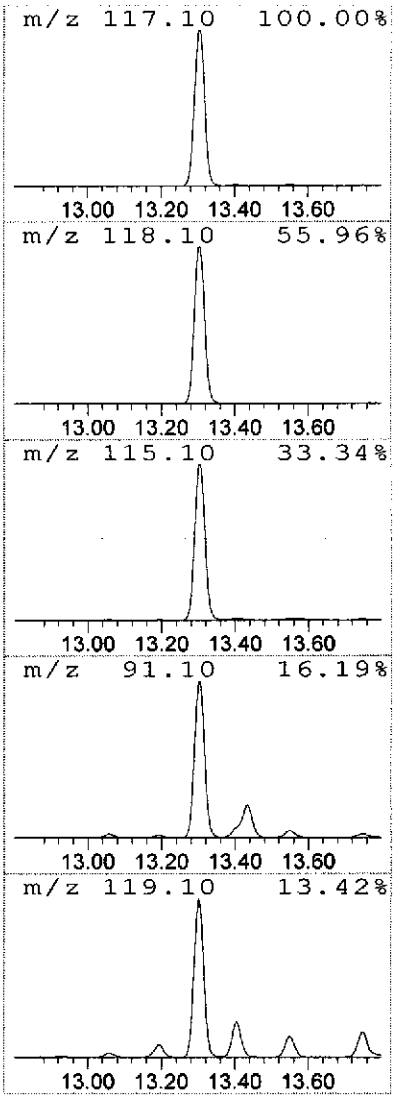
****

Peak Number 1 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.30	70.11 UG	8153050	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	81
2	Indane	118	C9H10	000496-11-7	81
3	Benzene, cyclopropyl-	118	C9H10	000873-49-4	81
4	Indane	118	C9H10	000496-11-7	81
5	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	74





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

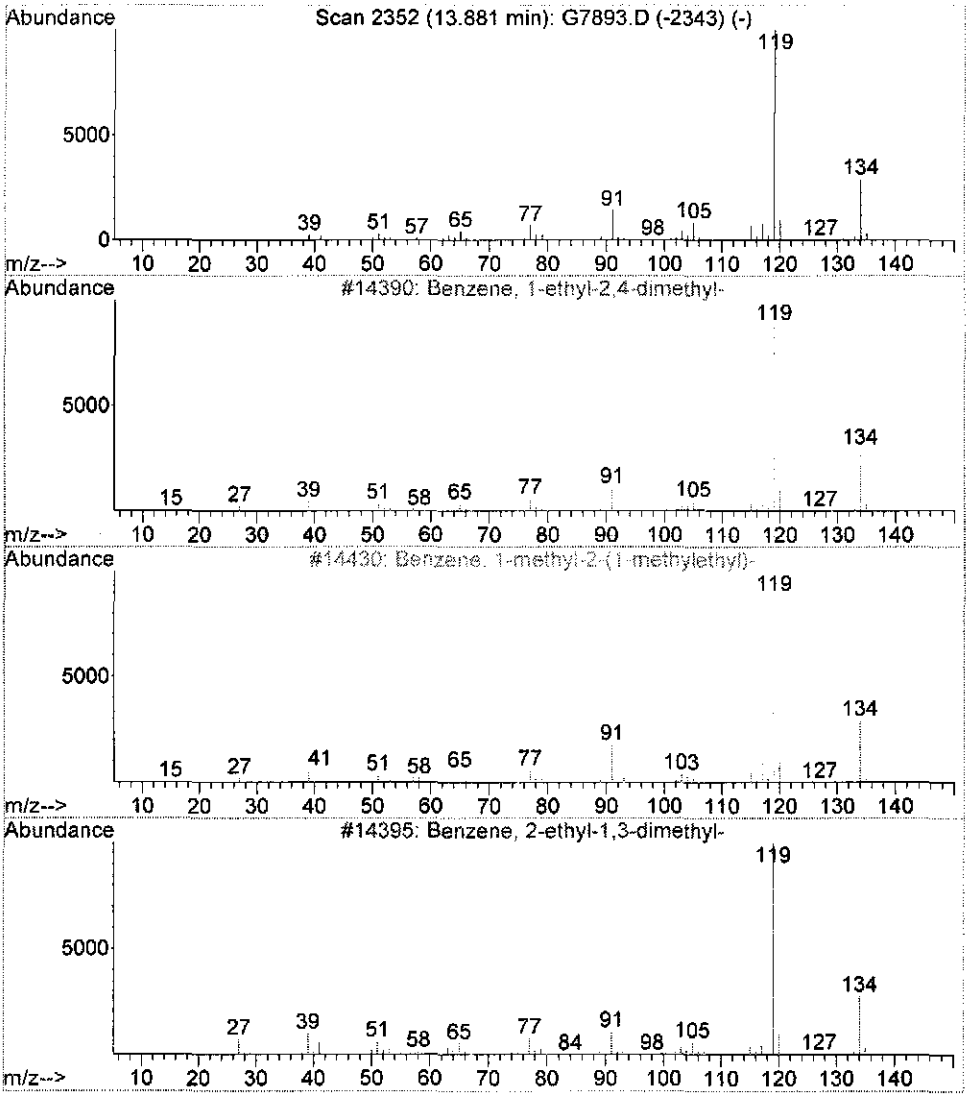
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

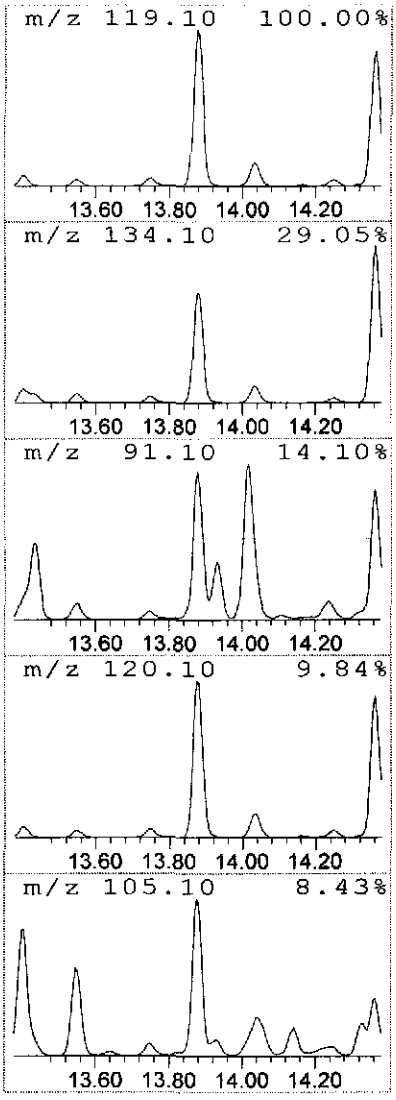
****

Peak Number 2 Substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.88	22.73 UG	2643390	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	97
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	97
3	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	95
4	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	95
5	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

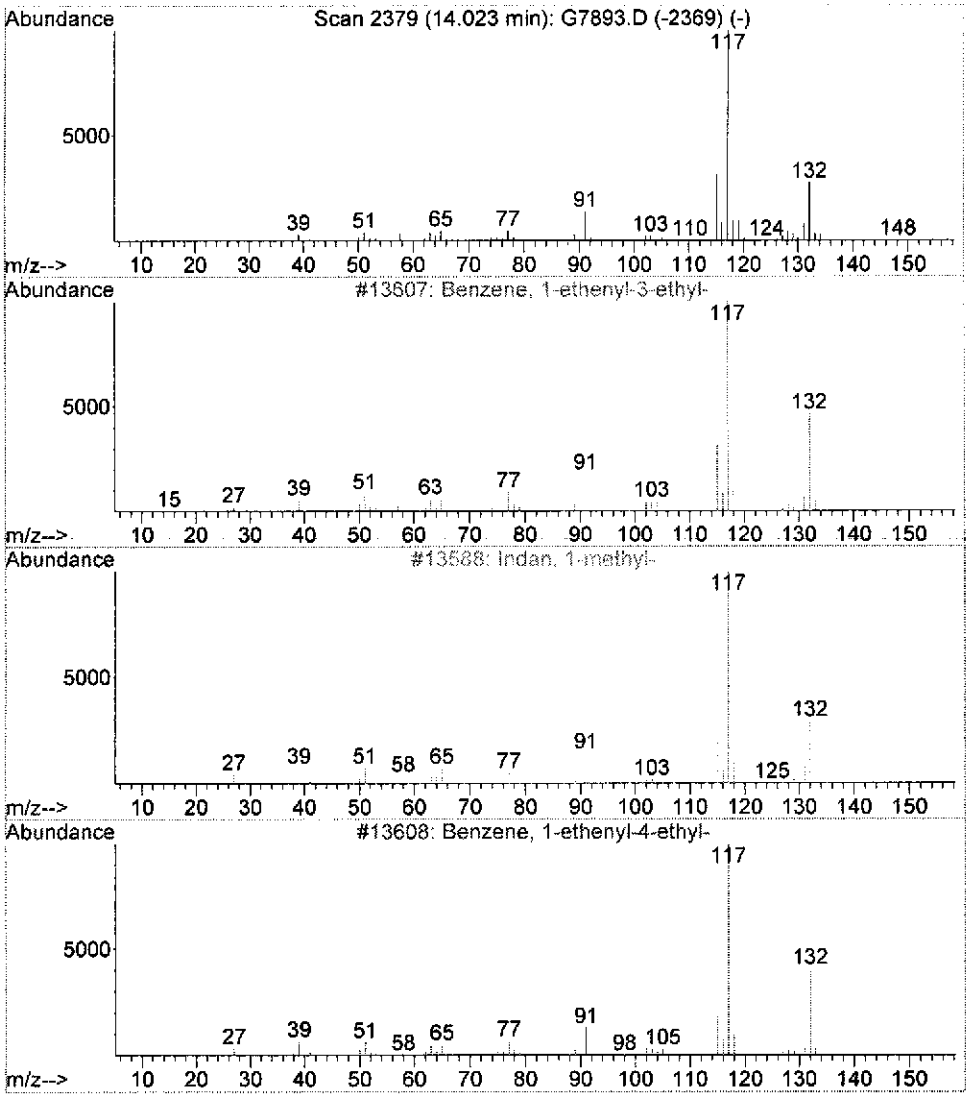
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

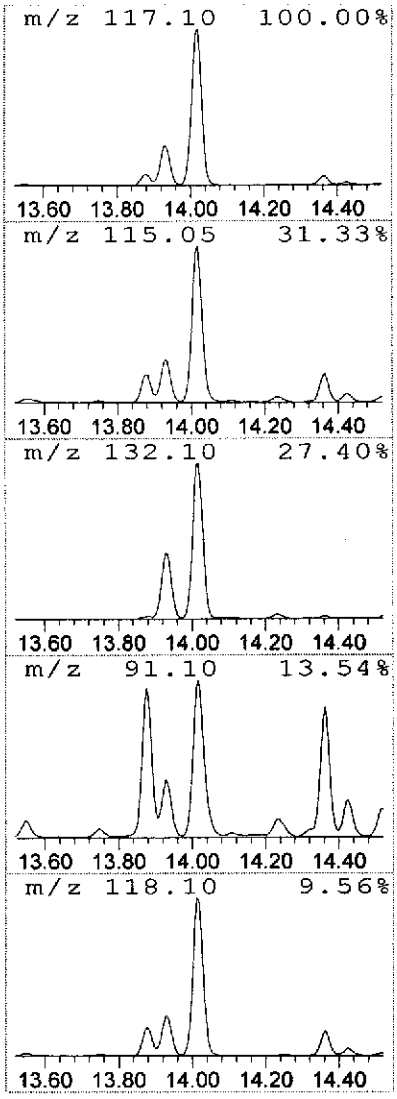
****

Peak Number 3 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	33.44 UG	3888540	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	90
2	Indan, 1-methyl-	132	C10H12	000767-58-8	87
3	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	87
4	1-Phenyl-1-butene	132	C10H12	000824-90-8	83
5	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	83





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

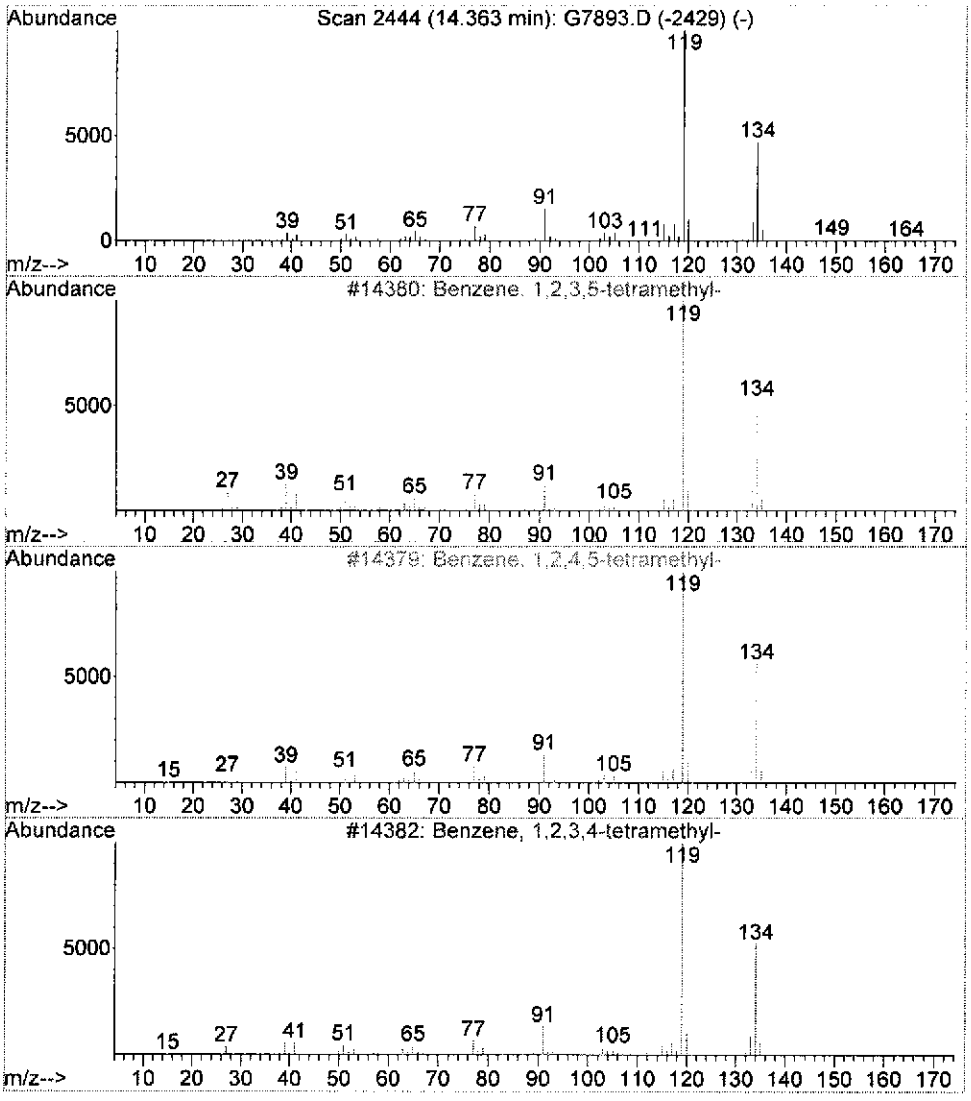
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

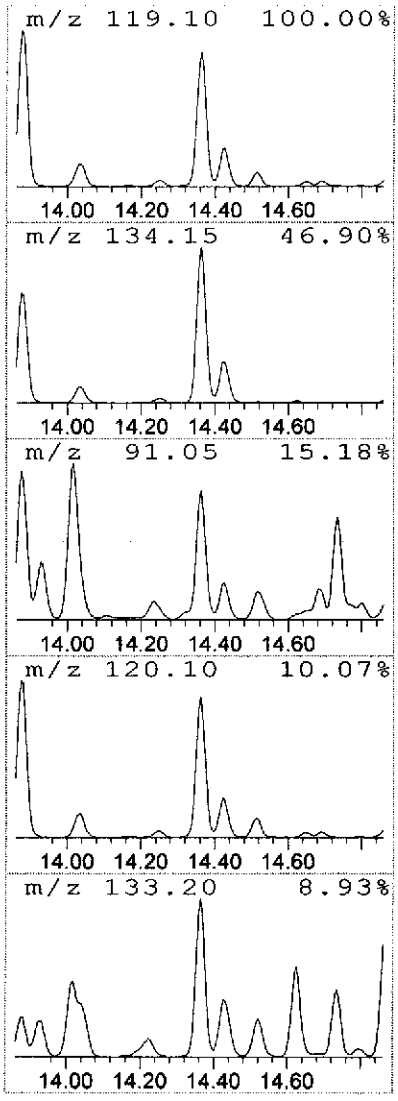
****

Peak Number 4 Substituted benzene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.36	21.12 UG	2455360	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	97
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
5	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

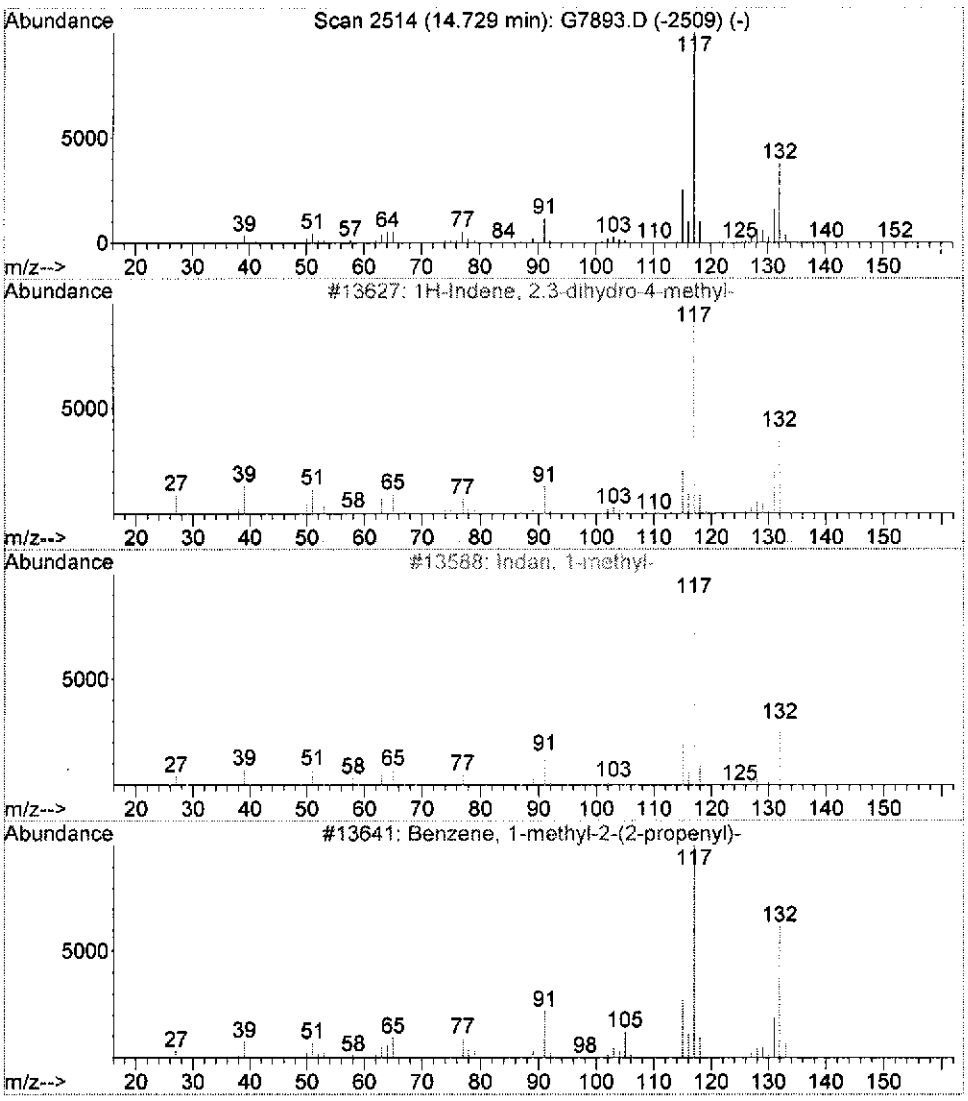
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

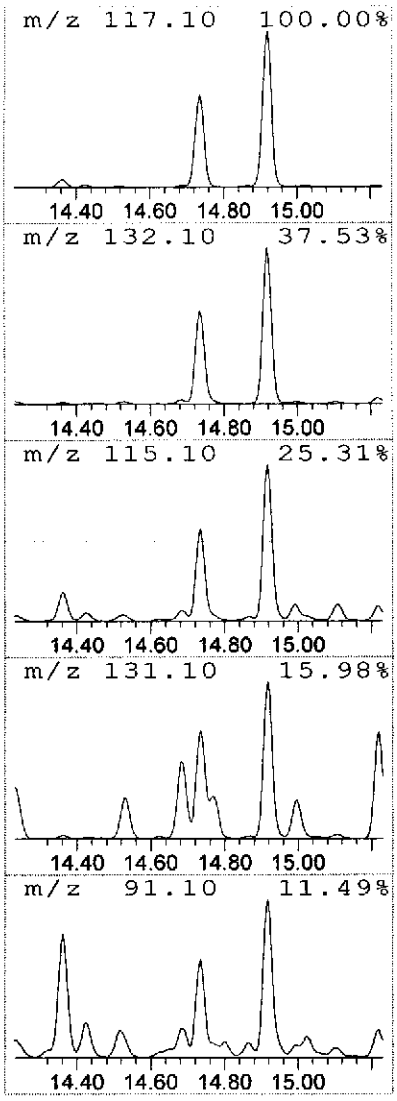
****

Peak Number 5 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.73	23.36 UG	2716450	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	90
2	Indan, 1-methyl-	132	C10H12	000767-58-8	90
3	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	87
4	1H-Indene, 2,3-dihydro-2-methyl-	132	C10H12	000824-63-5	87
5	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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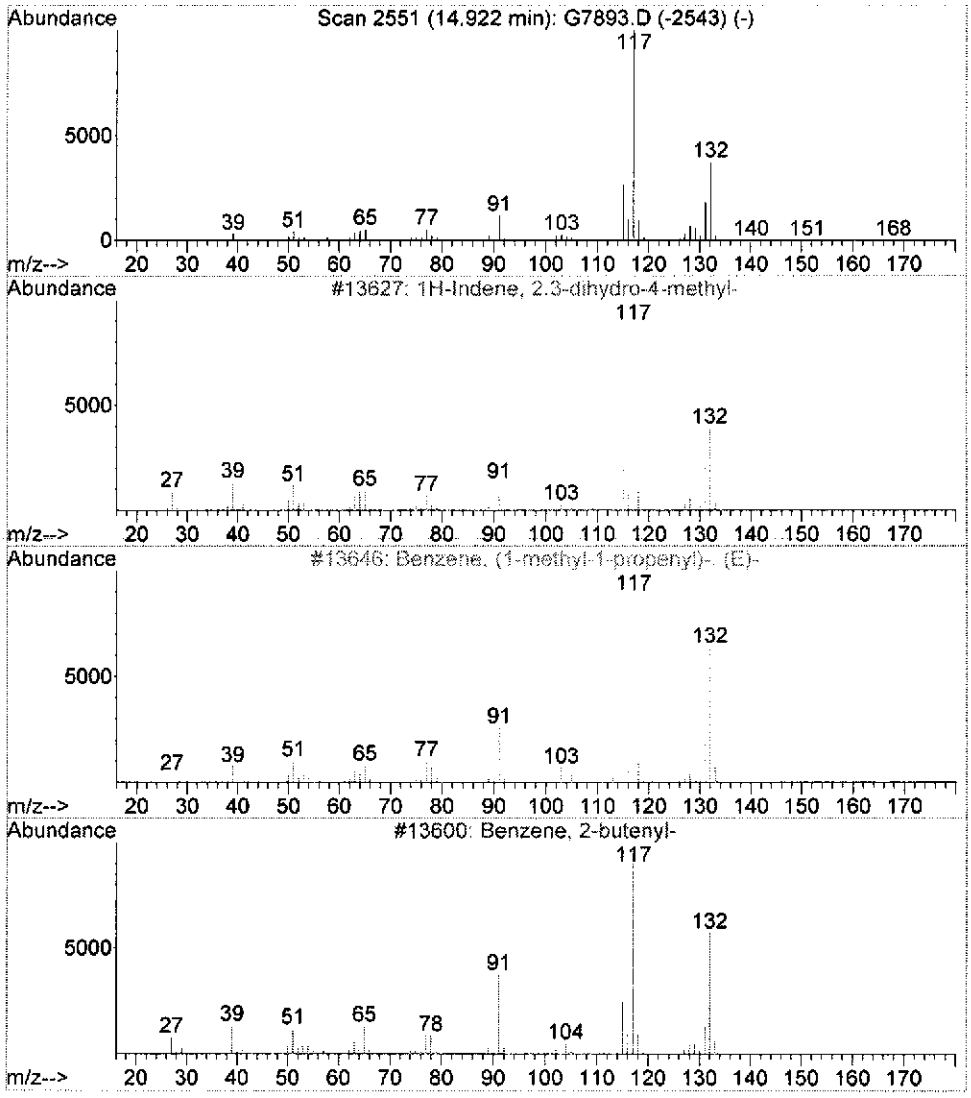
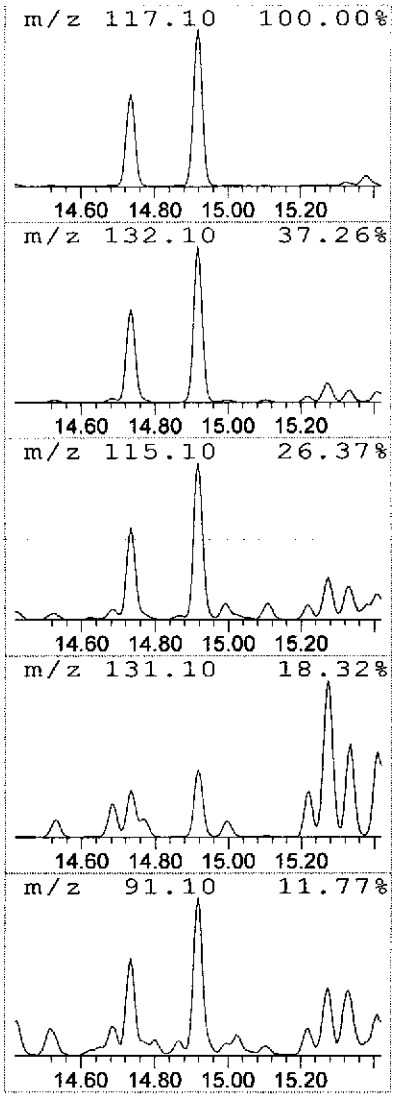
Peak Number 6 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.92	37.59 UG	4371310	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	90
2	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	87
3	Benzene, 2-butenyl-	132	C10H12	001560-06-1	86
4	Benzene, (2-methyl-2-propenyl)-	132	C10H12	003290-53-7	86
5	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	86





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

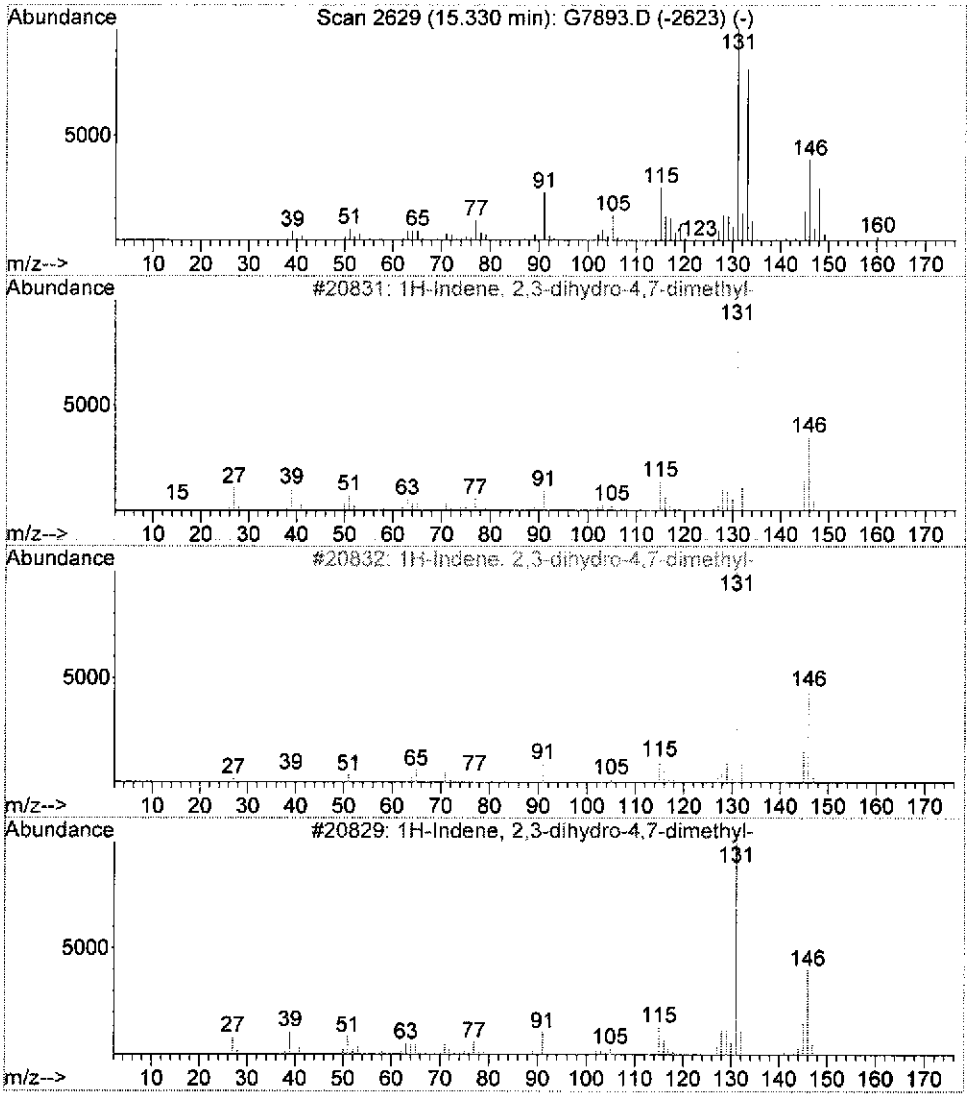
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

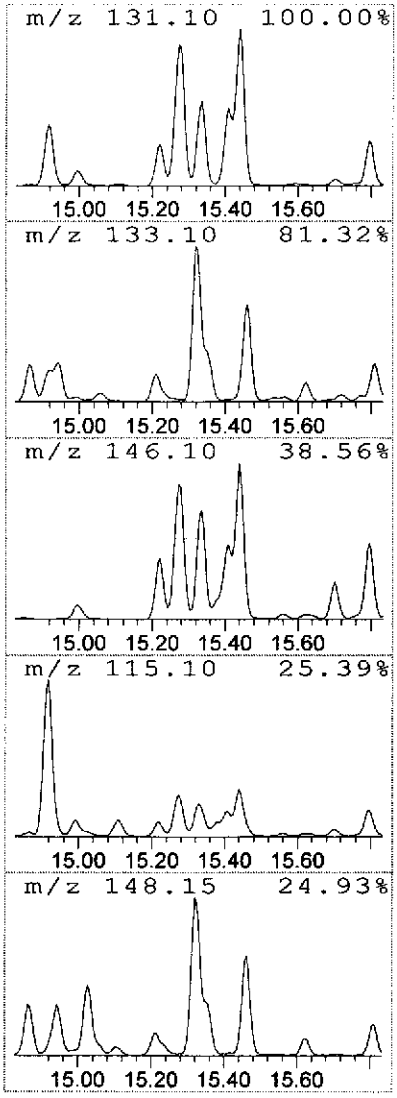
****

Peak Number 7 Unknown aromatic Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.33	18.28 UG	2126080	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90
3	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90
4	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	83
5	Benzene, 1-methyl-4-(1-methyl-2-...	146	C11H14	097664-18-1	78





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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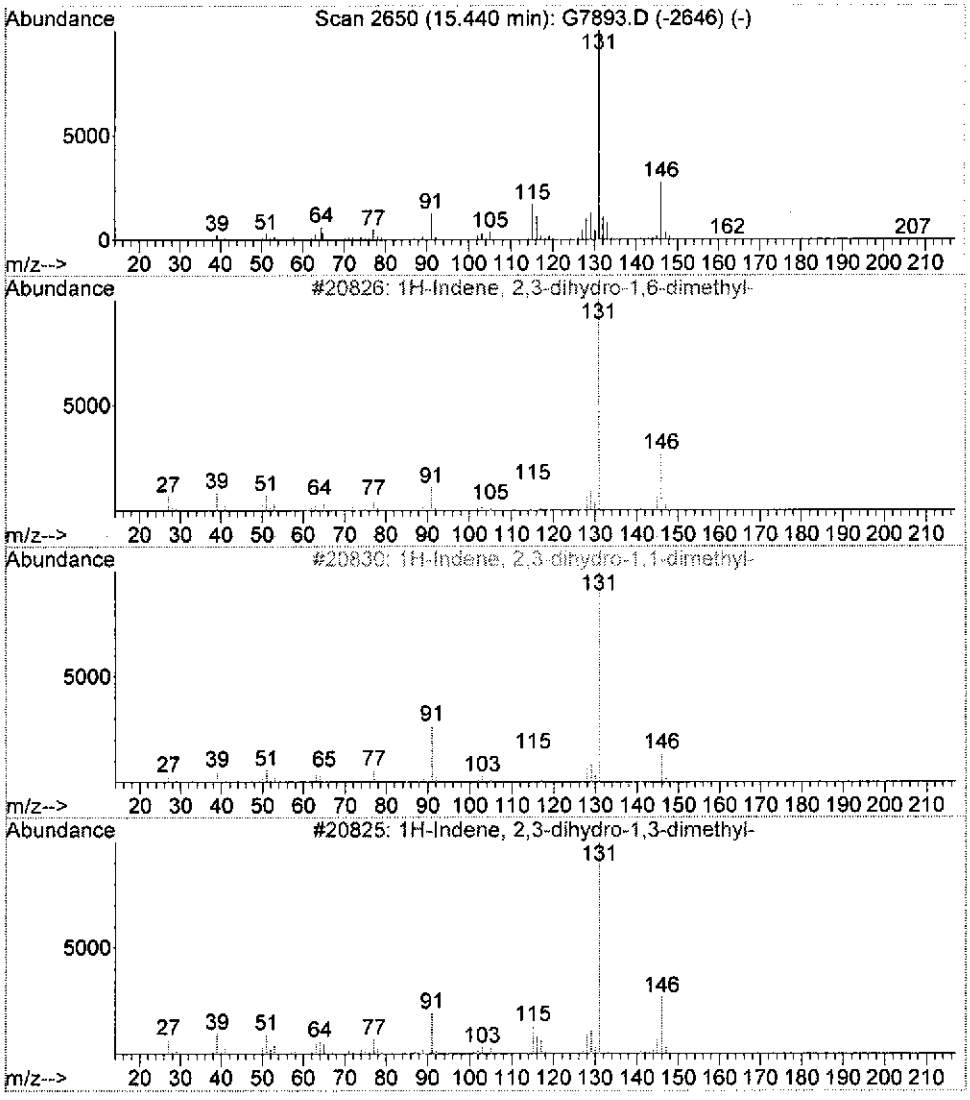
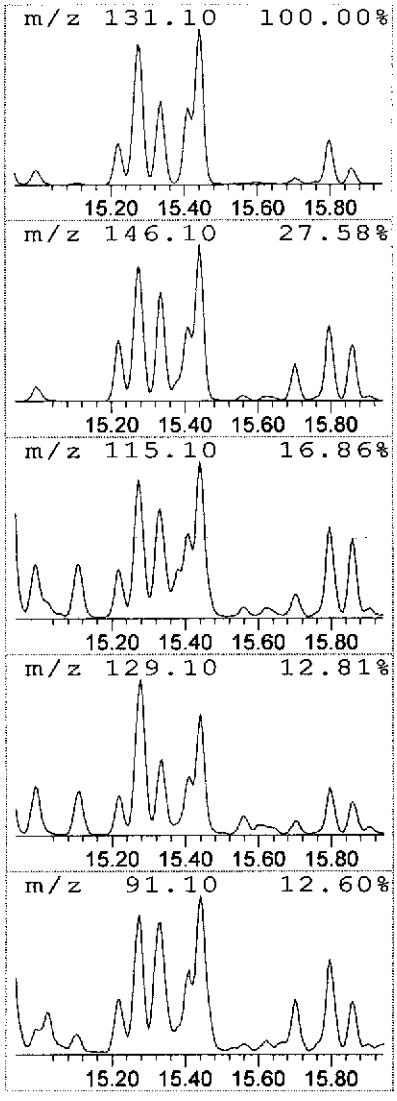
Peak Number 8 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.44	18.96 UG	2205060	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	95
2	1H-Indene, 2,3-dihydro-1,1-dimet...	146	C11H14	004912-92-9	91
3	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	91
4	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	91
5	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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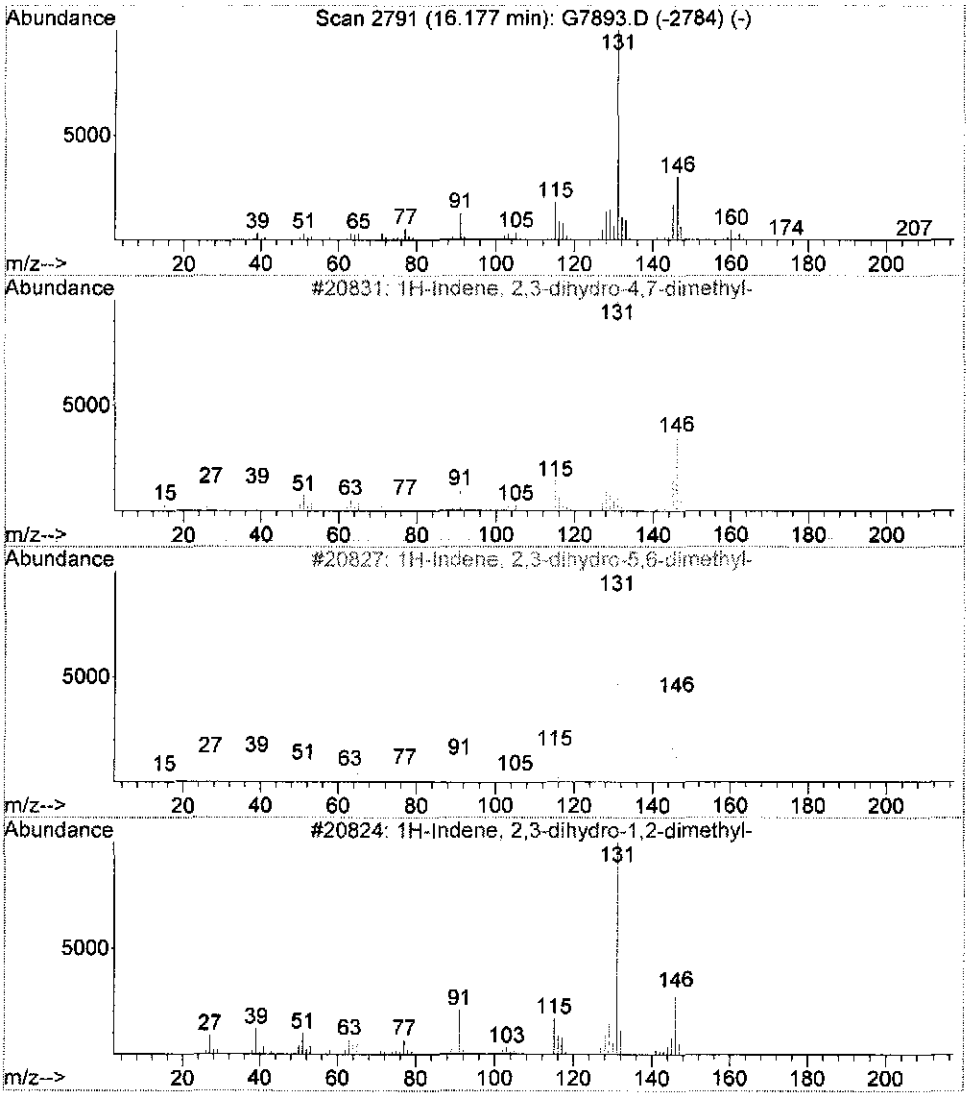
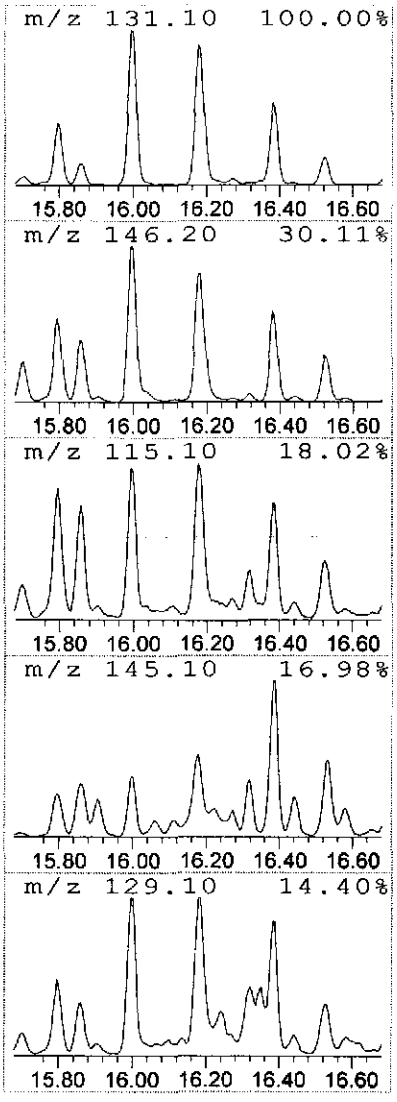
Peak Number 9 Unknown aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.18	16.03 UG	1864350	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	96
2	1H-Indene, 2,3-dihydro-5,6-dimet...	146	C11H14	001075-22-5	93
3	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	91
4	1H-Indene, 2,3-dihydro-4,6-dimet...	146	C11H14	001685-82-1	90
5	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7893.D
Acq On : 10 Dec 2010 1:25 am
Operator : Sylvia
Sample : MW12,12342-002,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

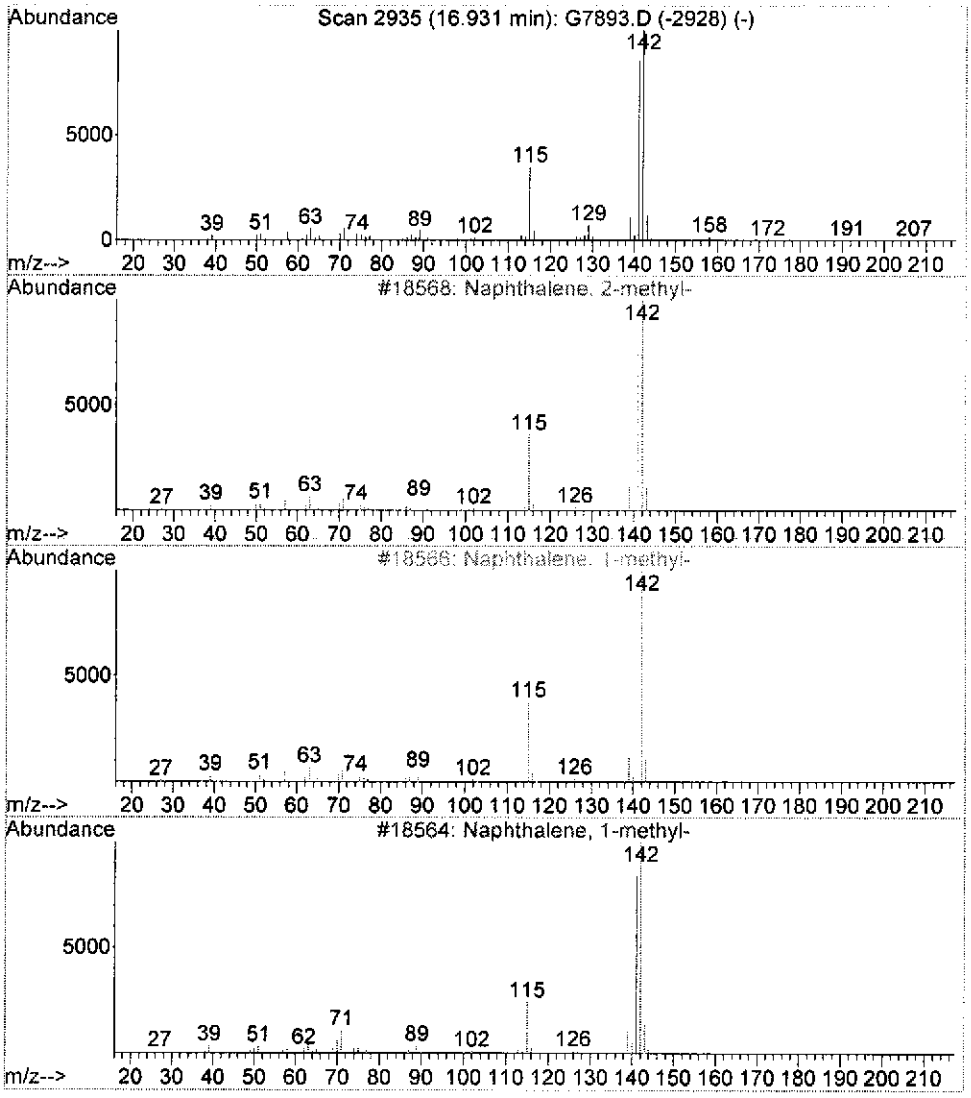
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

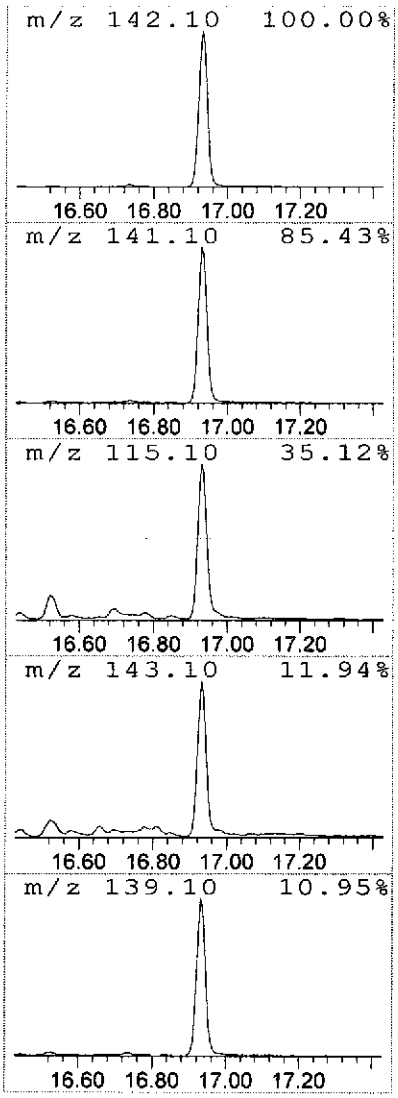
****

Peak Number 10 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.93	17.75 UG	2064000	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Benzocycloheptatriene	142	C11H10	000264-09-5	91
5	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	91





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 10 15:08:57 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration

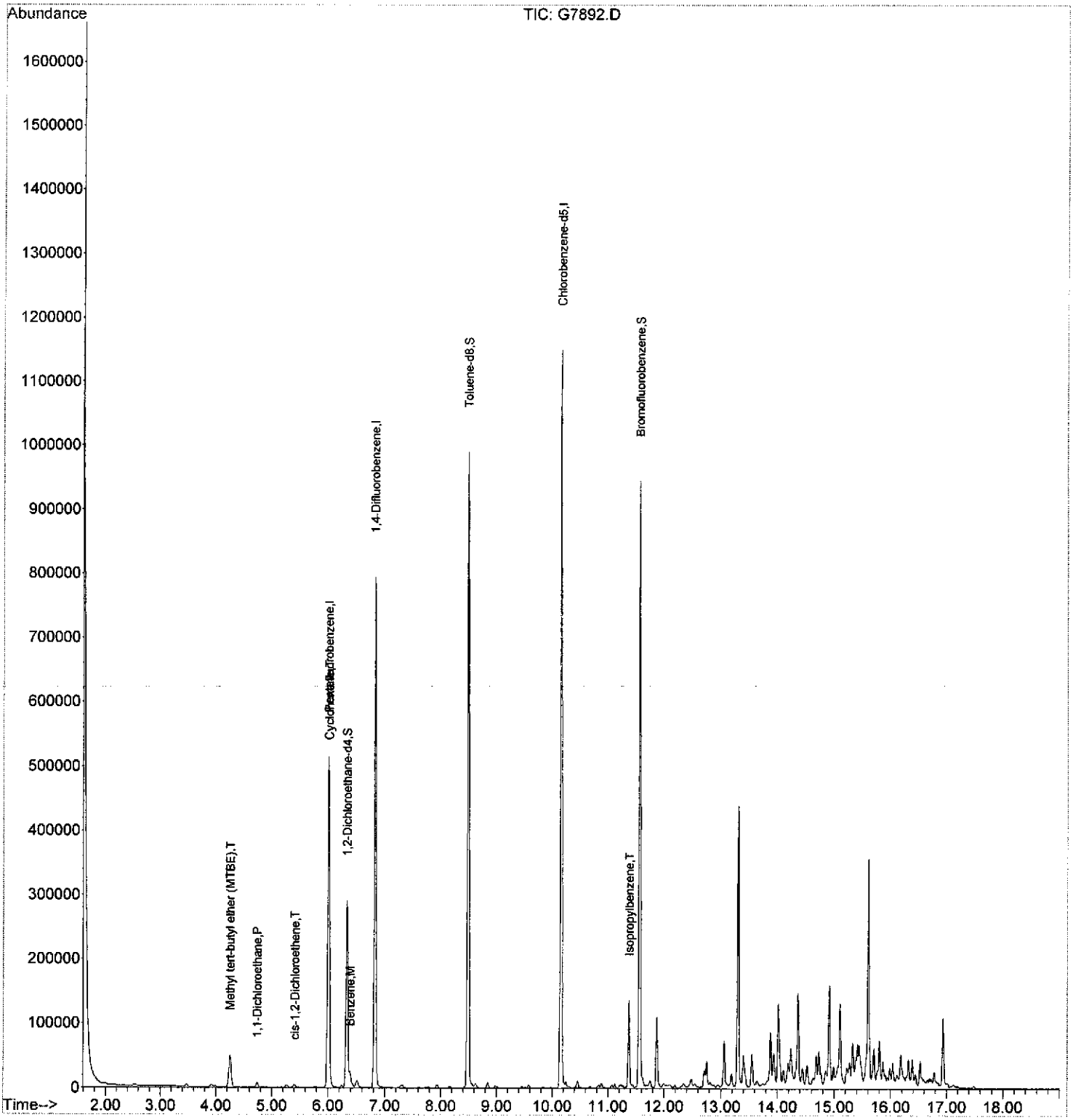
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.00	168	406093	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	774250	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	799397	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	235850	32.07	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 106.90%				
41) Toluene-d8	8.48	98	761662	29.11	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 97.03%				
59) Bromofluorobenzene	11.56	95	397608	31.39	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 104.63%				
Target Compounds							Qvalue
17) Methyl tert-butyl ether (M	4.25	73	64007	3.66	UG		100
18) 1,1-Dichloroethane	4.74	63	10699	1.01	UG		99
20) cis-1,2-Dichloroethene	5.41	96	2836	0.40	UG	#	98
32) Benzene	6.39	78	24547	0.79	UG		100
58) Isopropylbenzene	11.37	105	104546	3.50	UG		99
82) Cyclohexane	6.02	56	12607	0.91	UG	#	41

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 10 15:08:57 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA120110.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.247	495	510	529	rVB2	49605	154763	7.11%	0.972%
2	6.005	831	846	869	rBV	513631	1165595	53.55%	7.319%
3	6.329	898	908	933	rBV	290134	711835	32.71%	4.470%
4	6.512	933	943	951	rVB5	9945	26574	1.22%	0.167%
5	6.820	992	1002	1030	rBV	793414	1632275	74.99%	10.250%
6	8.484	1311	1320	1341	rBV	987923	1915362	88.00%	12.027%
7	10.157	1629	1640	1654	rBV	1148745	2176528	100.00%	13.667%
8	10.461	1684	1698	1706	rBV7	10731	25159	1.16%	0.158%
9	11.235	1832	1846	1858	rBV7	6026	24751	1.14%	0.155%
10	11.371	1864	1872	1881	rBV	133787	244086	11.21%	1.533%
11	11.559	1892	1908	1929	rBV	943105	1761006	80.91%	11.058%
12	11.753	1936	1945	1958	rVB7	11585	33050	1.52%	0.208%
13	11.868	1958	1967	1984	rBV	108912	216582	9.95%	1.360%
14	12.354	2045	2060	2071	rBV	6318	24748	1.14%	0.155%
15	12.485	2072	2085	2091	rVV3	13322	39105	1.80%	0.246%
16	12.710	2118	2128	2131	rBV2	25574	50616	2.33%	0.318%
17	12.752	2131	2136	2144	rVB	36173	68892	3.17%	0.433%
18	13.060	2183	2195	2210	rVV	71653	151815	6.98%	0.953%
19	13.191	2210	2220	2230	rVV	19998	46078	2.12%	0.289%
20	13.301	2230	2241	2254	rVV	435230	804762	36.97%	5.053%
21	13.400	2254	2260	2278	rVB6	48264	134550	6.18%	0.845%
22	13.552	2278	2289	2300	rBV2	50817	110588	5.08%	0.694%
23	13.876	2332	2351	2357	rBV2	80840	175652	8.07%	1.103%
24	13.934	2357	2362	2371	rVV3	47956	111171	5.11%	0.698%
25	14.017	2371	2378	2390	rVV2	123696	298518	13.72%	1.875%
26	14.106	2390	2395	2403	rVV3	21950	44927	2.06%	0.282%
27	14.185	2403	2410	2414	rVV5	32343	69600	3.20%	0.437%
28	14.237	2414	2420	2431	rVV3	55253	144983	6.66%	0.910%
29	14.362	2431	2444	2453	rVV	138811	298020	13.69%	1.871%
30	14.441	2453	2459	2467	rVB7	23523	49986	2.30%	0.314%
31	14.519	2467	2474	2488	rVB4	28439	64041	2.94%	0.402%
32	14.624	2488	2494	2499	rBV3	9939	21897	1.01%	0.137%
33	14.687	2499	2506	2511	rVV3	43371	87696	4.03%	0.551%
34	14.734	2511	2515	2529	rVB2	50776	110695	5.09%	0.695%
35	14.849	2529	2537	2542	rBV3	20400	52252	2.40%	0.328%
36	14.912	2542	2549	2558	rVV3	149340	300421	13.80%	1.886%
37	14.990	2558	2564	2570	rVV5	24969	50215	2.31%	0.315%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA120110.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

38	15.105	2570	2586	2602	rVB3	121912	309078	14.20%	1.941%
39	15.220	2602	2608	2613	rBV7	23790	53945	2.48%	0.339%
40	15.278	2613	2619	2623	rVV3	29648	64326	2.96%	0.404%
41	15.325	2623	2628	2634	rVV4	60302	123472	5.67%	0.775%
42	15.409	2634	2644	2647	rVV3	57726	153193	7.04%	0.962%
43	15.440	2647	2650	2664	rVV4	54618	142798	6.56%	0.897%
44	15.602	2664	2681	2691	rVV	343541	683102	31.38%	4.289%
45	15.701	2691	2700	2707	rVV2	49362	103011	4.73%	0.647%
46	15.796	2707	2718	2726	rVV3	61412	136134	6.25%	0.855%
47	15.864	2726	2731	2743	rVB4	29027	65123	2.99%	0.409%
48	15.984	2750	2754	2759	rBV5	17486	27638	1.27%	0.174%
49	16.036	2759	2764	2772	rVB3	27685	44652	2.05%	0.280%
50	16.177	2785	2791	2806	rVB3	40021	96242	4.42%	0.604%
51	16.319	2806	2818	2825	rBV3	32461	62961	2.89%	0.395%
52	16.381	2825	2830	2838	rVV3	32408	54550	2.51%	0.343%
53	16.444	2838	2842	2850	rVB6	16904	30983	1.42%	0.195%
54	16.523	2850	2857	2868	rBV4	36975	86232	3.96%	0.541%
55	16.774	2900	2905	2927	rVB8	20493	55587	2.55%	0.349%
56	16.936	2927	2936	2959	rVB3	105708	233309	10.72%	1.465%

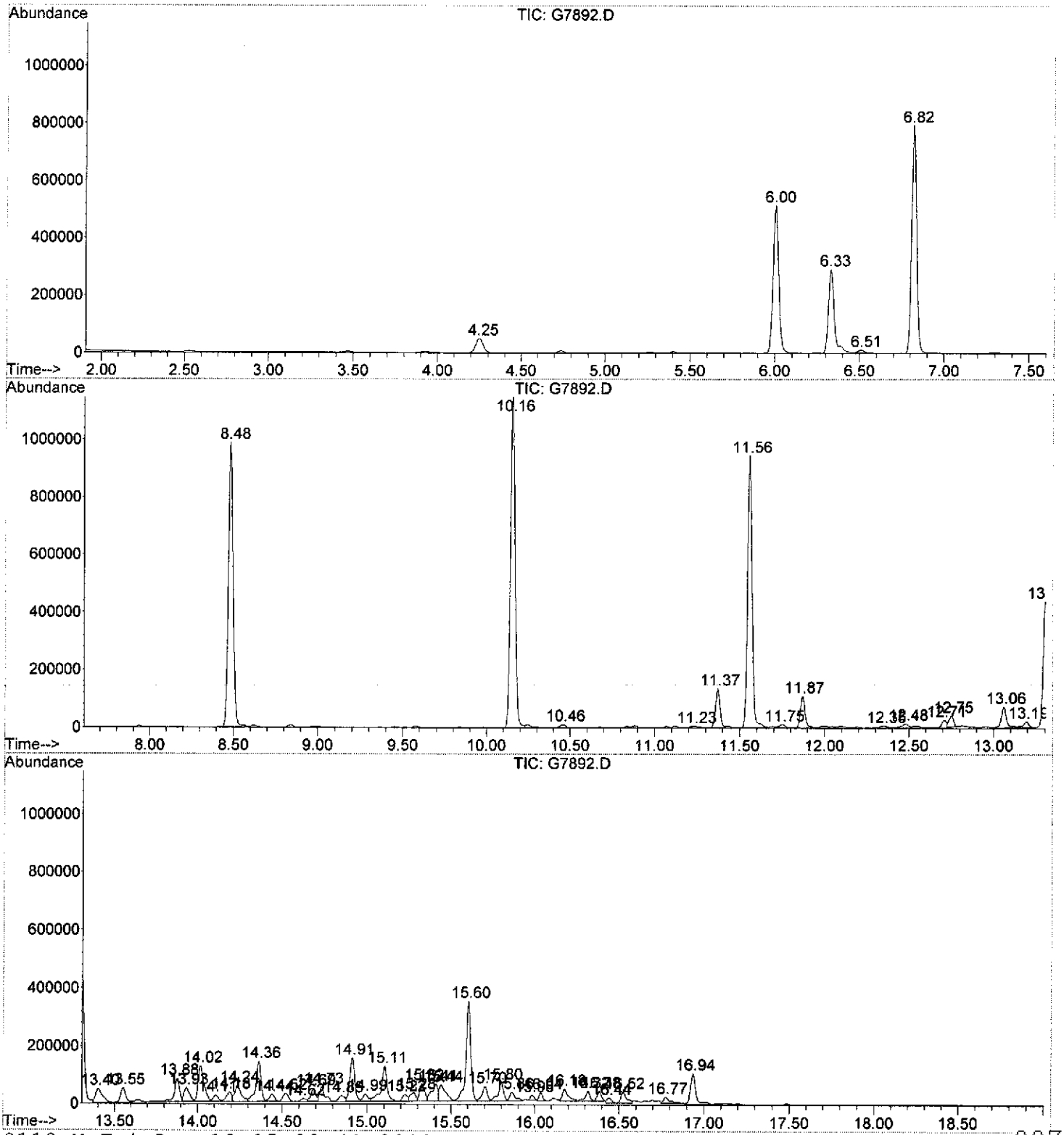
Sum of corrected areas: 15925130

LSC Report - Integrated Chromatogram

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

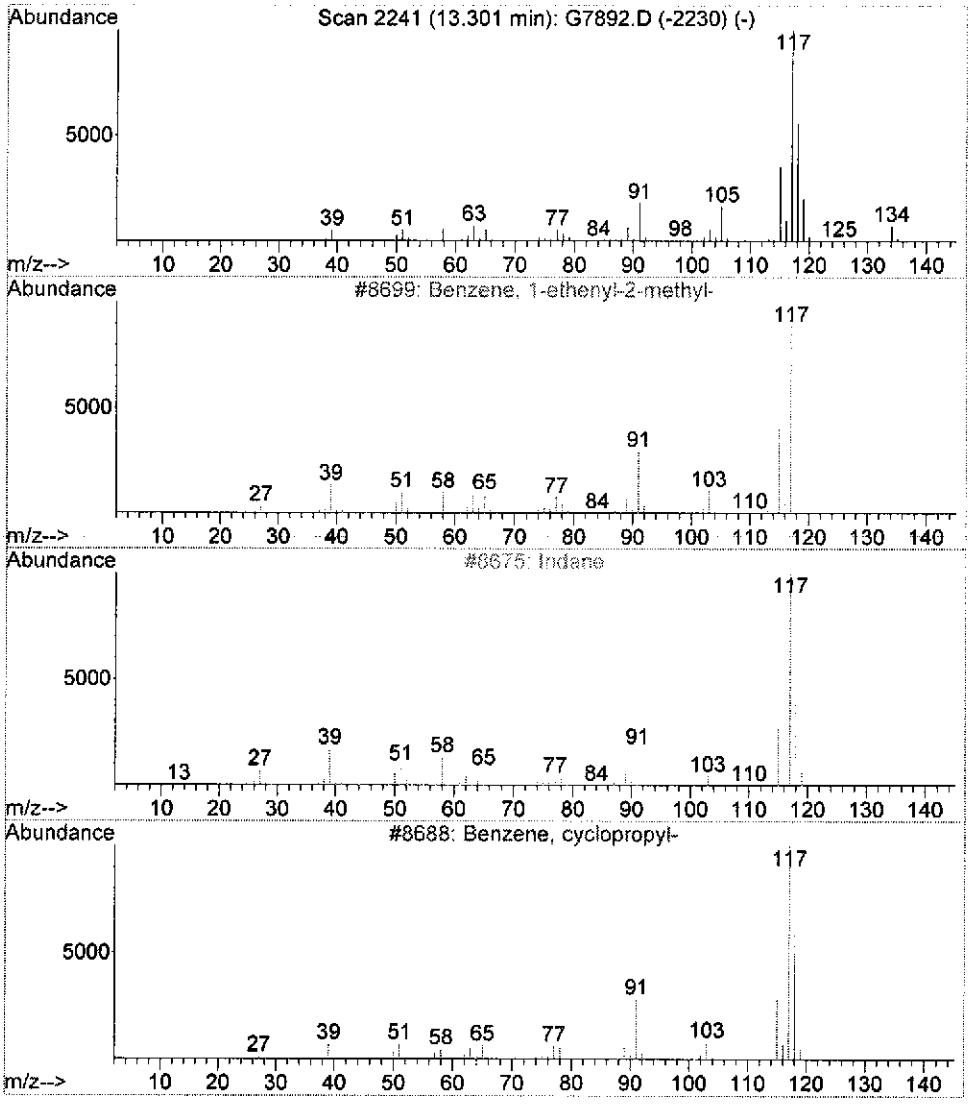
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

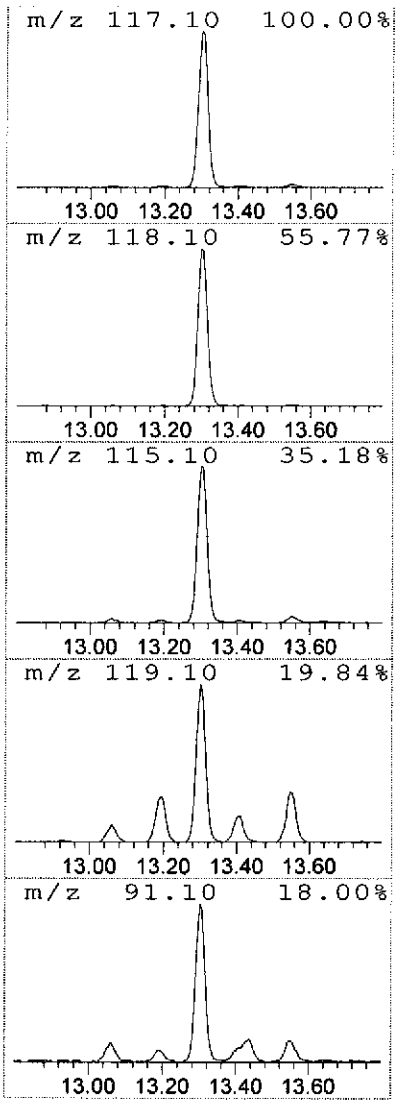
****

Peak Number 1 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.30	11.09 UG	804762	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	87
2	Indane	118	C9H10	000496-11-7	76
3	Benzene, cyclopropyl-	118	C9H10	000873-49-4	76
4	Indane	118	C9H10	000496-11-7	76
5	Indane	118	C9H10	000496-11-7	68





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

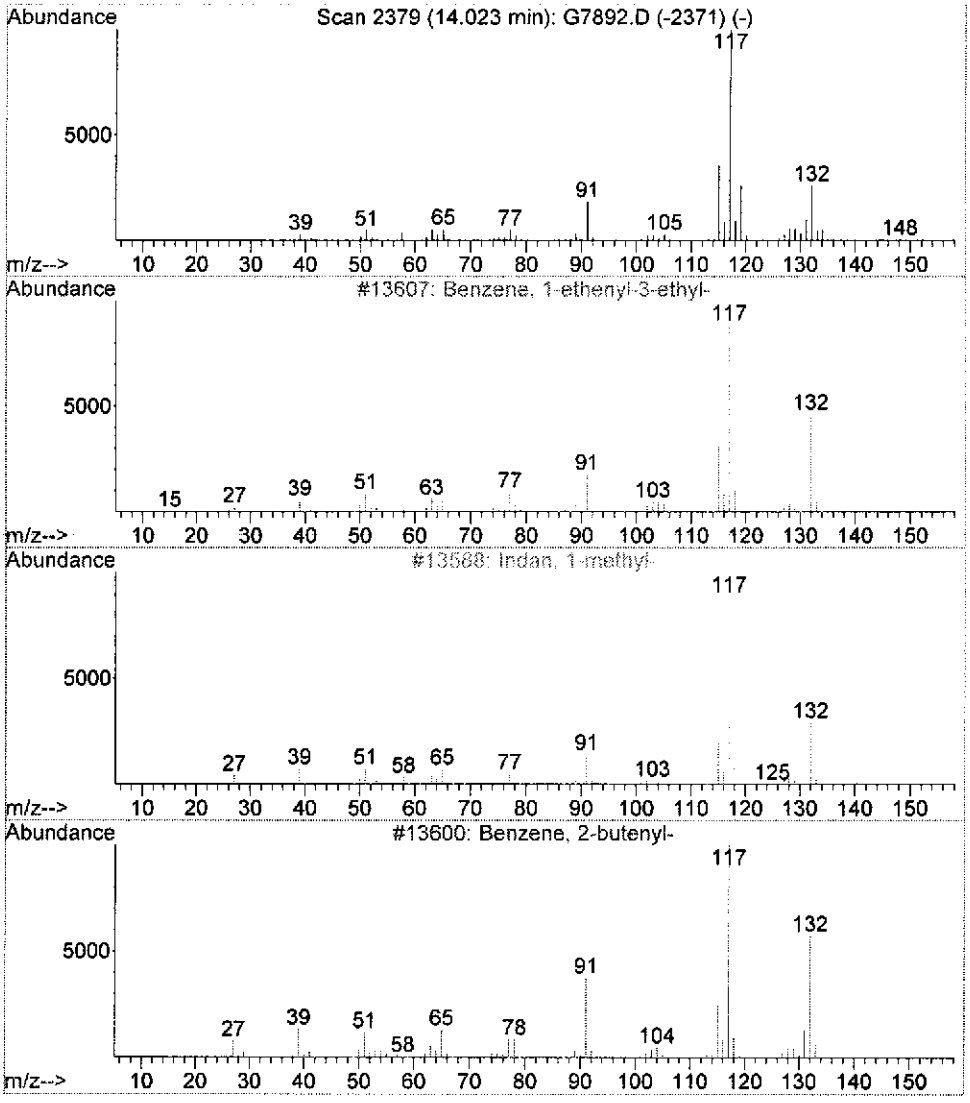
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

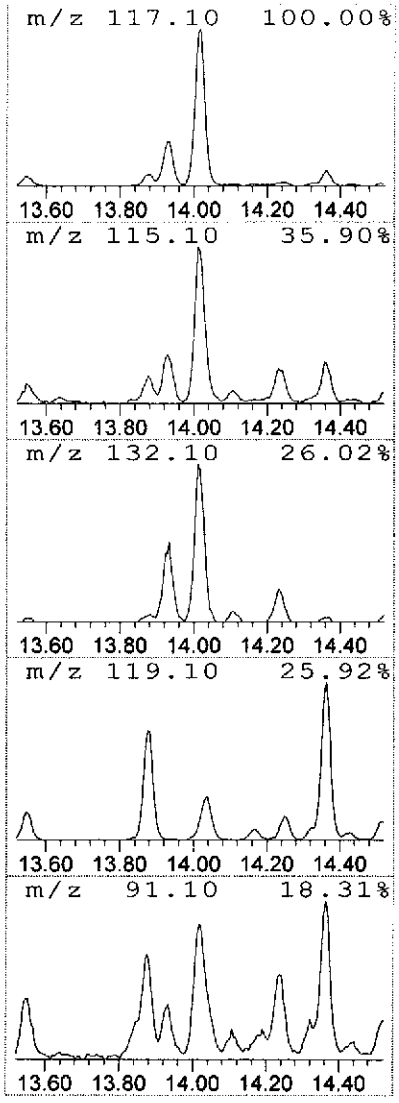
****

Peak Number 2 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	4.11 UG	298518	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	83
2	Indan, 1-methyl-	132	C10H12	000767-58-8	81
3	Benzene, 2-butenyl-	132	C10H12	001560-06-1	80
4	Benzene, 1-methyl-4-(2-propenyl)-	132	C10H12	003333-13-9	80
5	Benzene, 2-ethenyl-1,3-dimethyl-	132	C10H12	002039-90-9	80





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

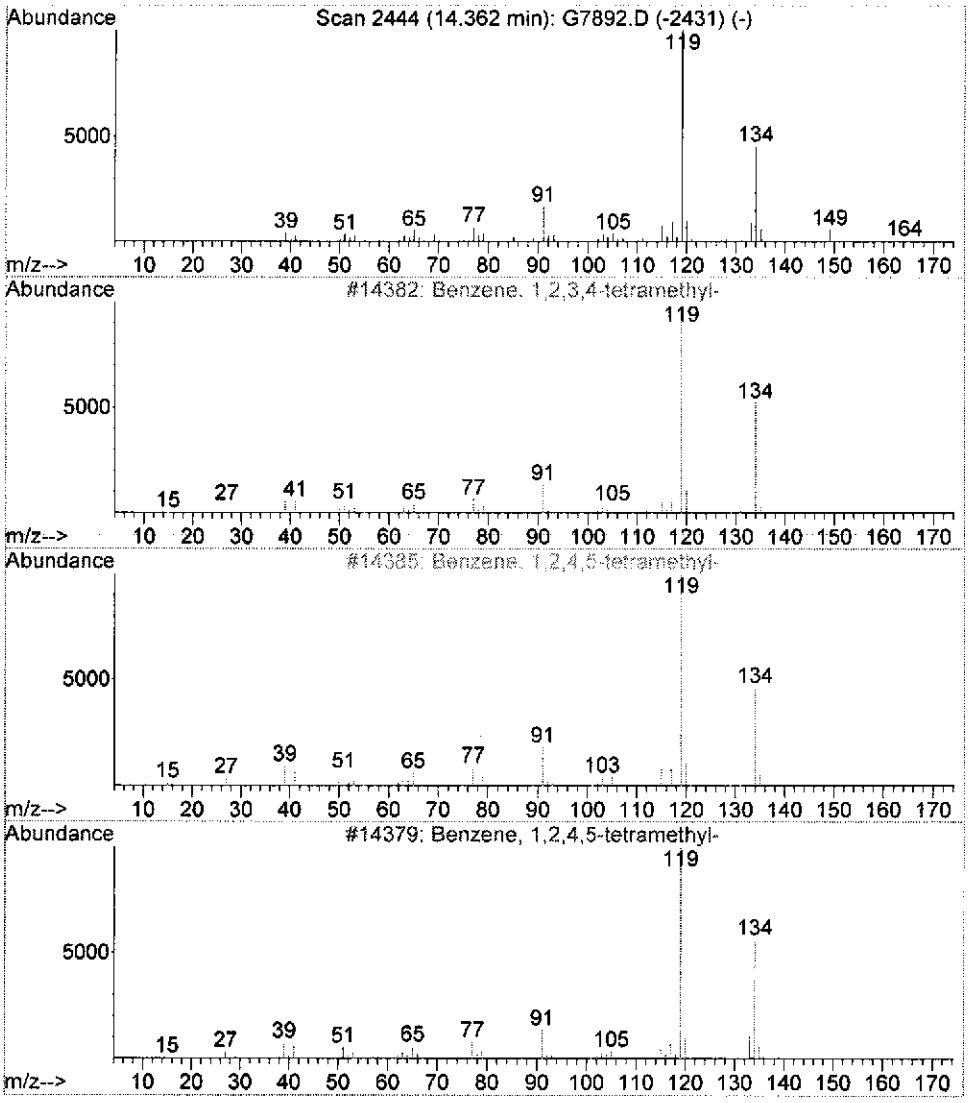
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

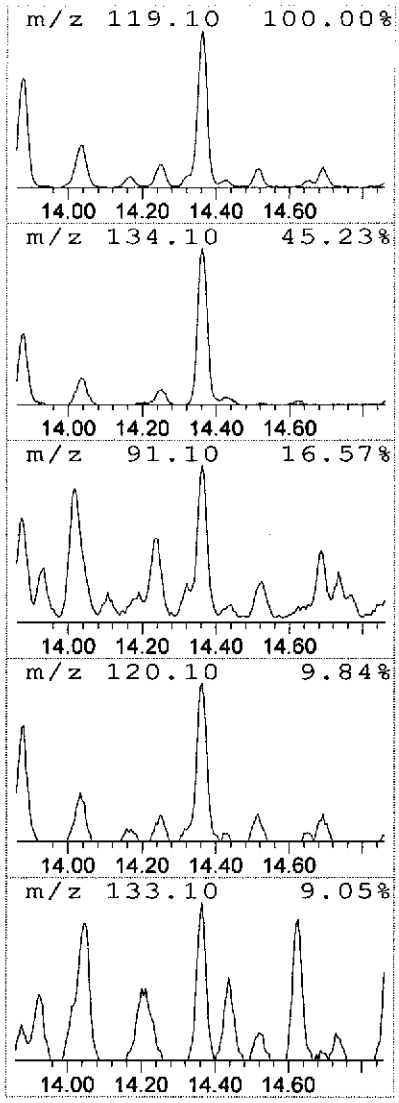
****

Peak Number 3 Substituted benzene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.36	4.11 UG	298020	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	96
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	94
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94
5	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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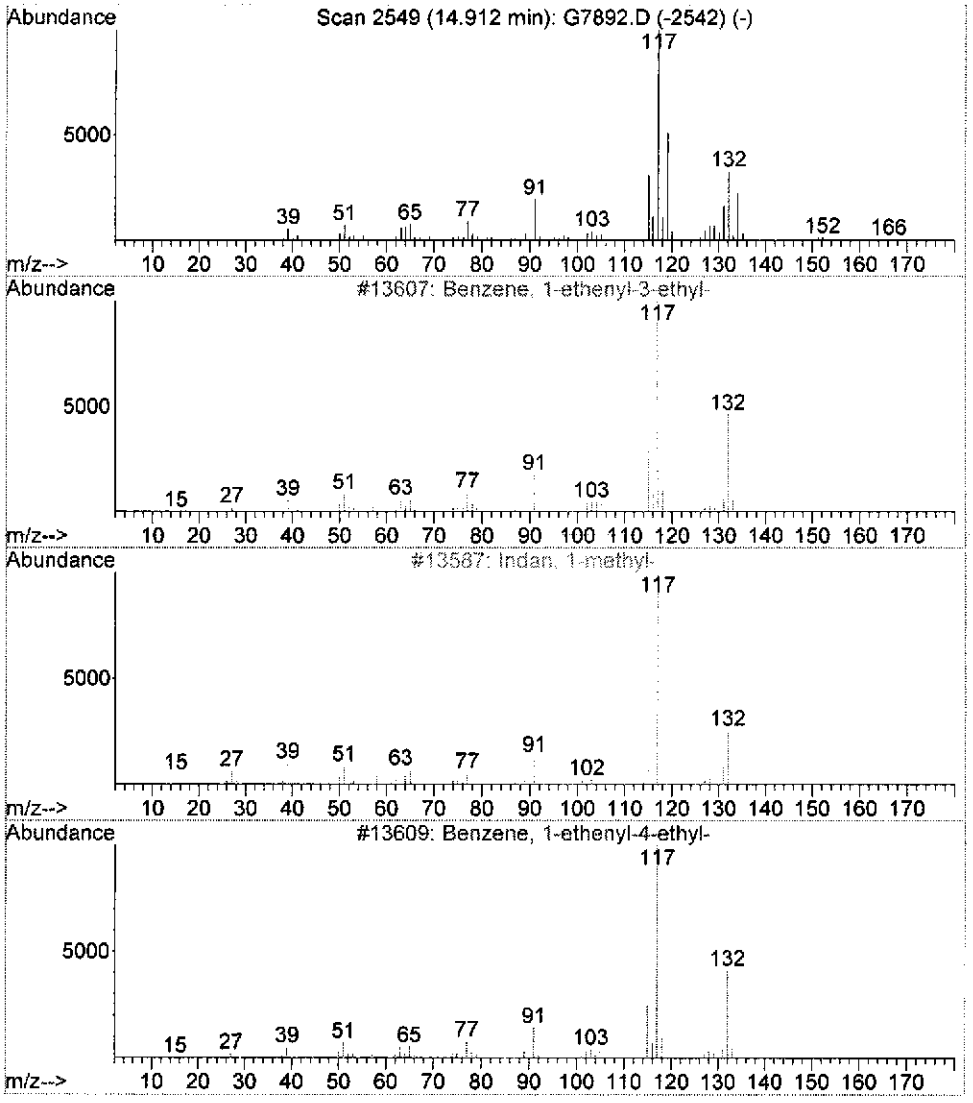
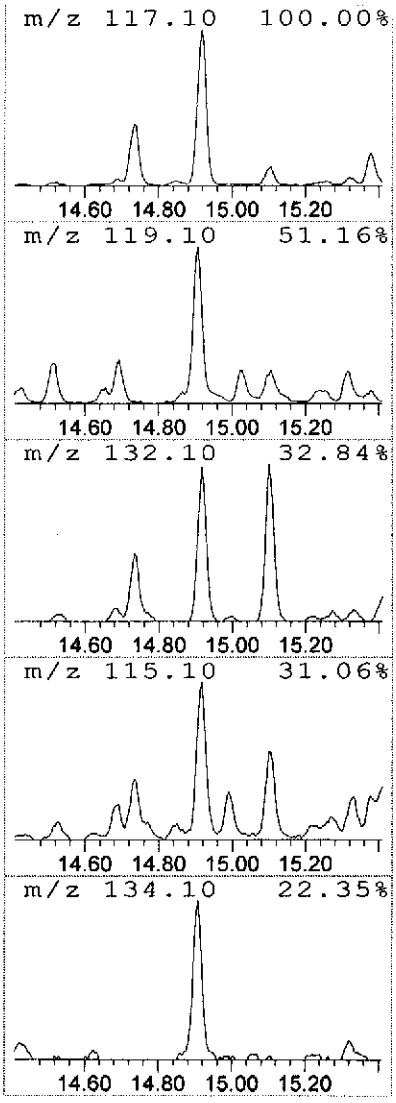
Peak Number 4 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.91	4.14 UG	300421	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	64
2	Indan, 1-methyl-	132	C10H12	000767-58-8	64
3	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	64
4	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	64
5	Indan, 1-methyl-	132	C10H12	000767-58-8	62





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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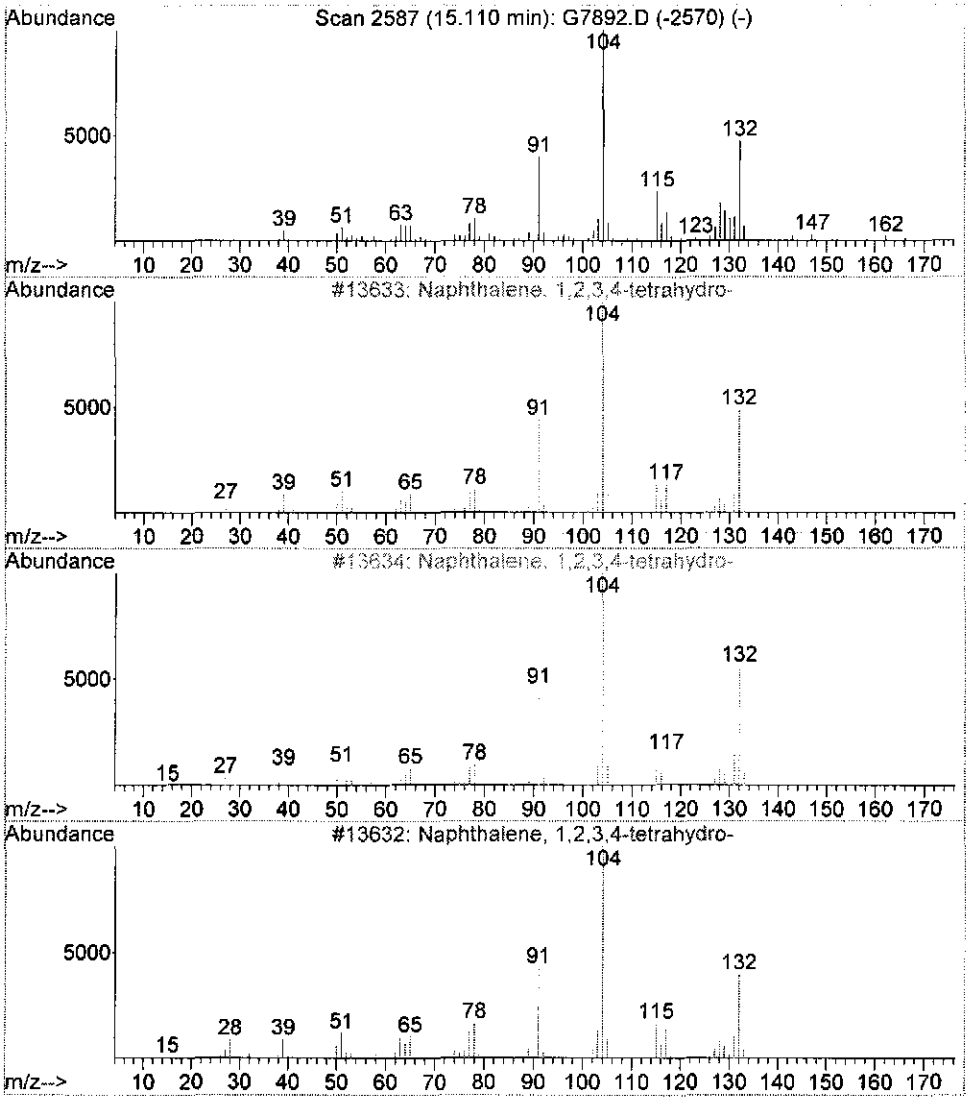
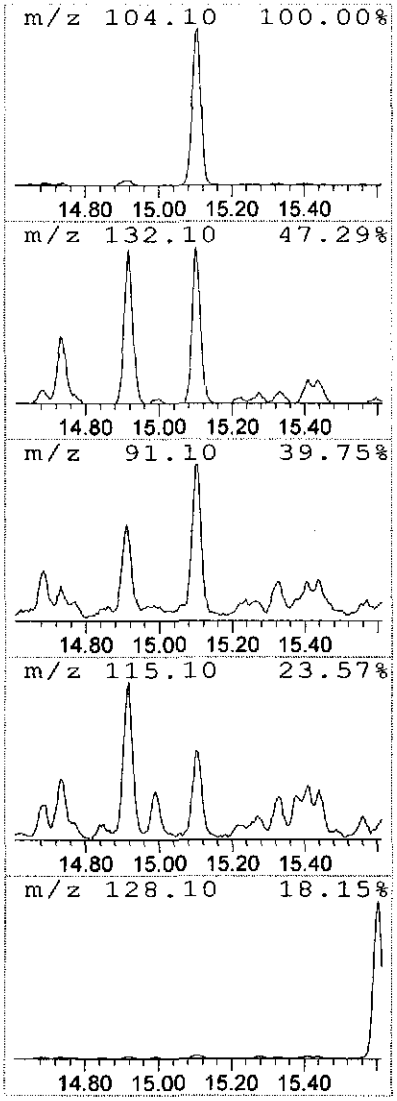
Peak Number 5 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.11	4.26 UG	309078	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	95
2	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	95
3	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	93
4	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	87
5	Benzene, cyclobutyl-	132	C10H12	004392-30-7	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

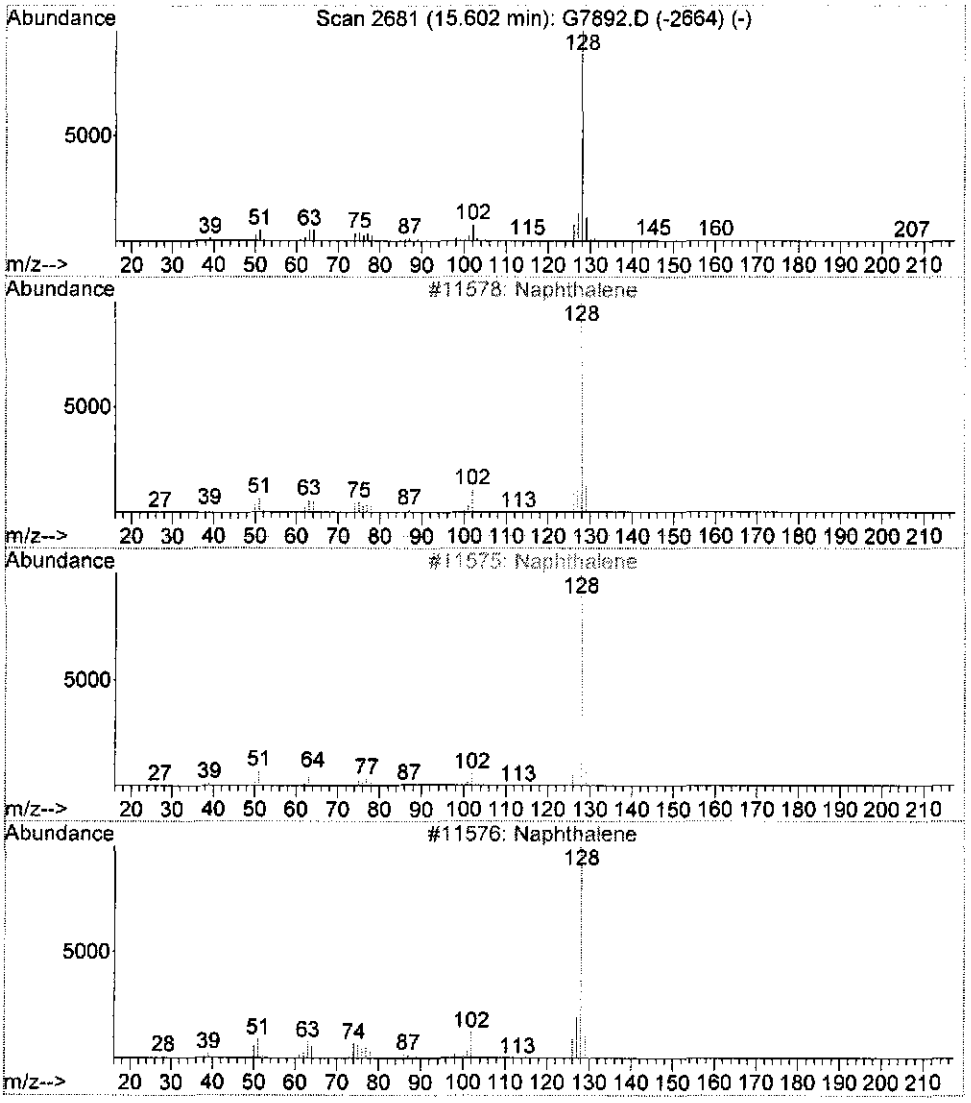
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

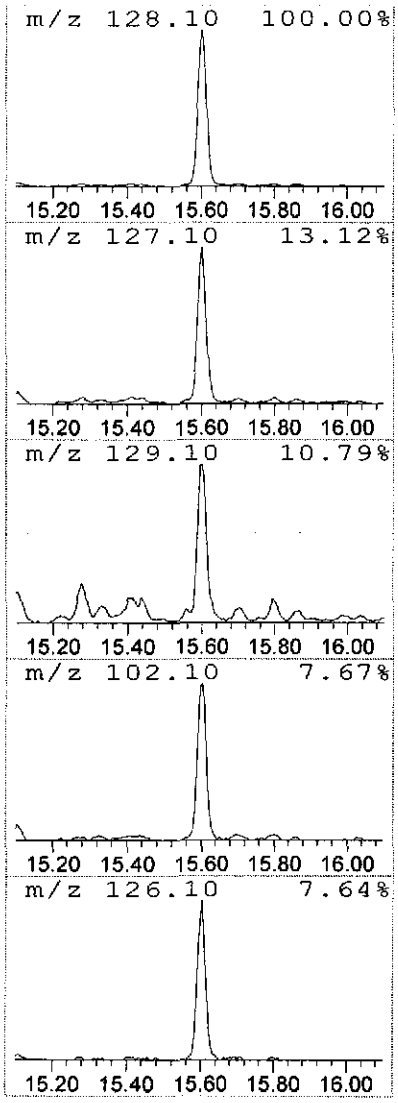
****

Peak Number 6 Naphthalene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.60	9.42 UG	683102	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	97
2	Naphthalene	128	C10H8	000091-20-3	93
3	Naphthalene	128	C10H8	000091-20-3	91
4	Azulene	128	C10H8	000275-51-4	91
5	Azulene	128	C10H8	000275-51-4	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7892.D
Acq On : 10 Dec 2010 12:58 am
Operator : Sylvia
Sample : MW14,12342-003,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

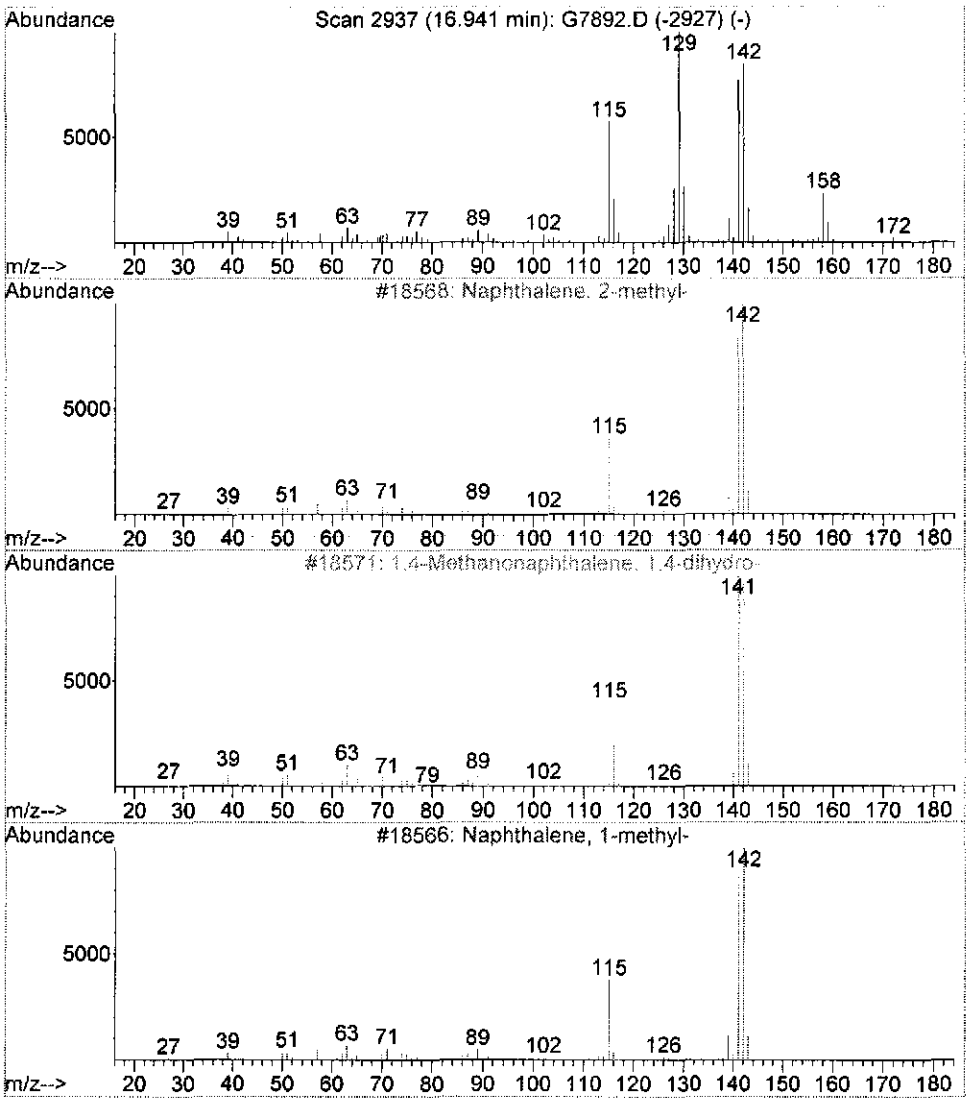
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

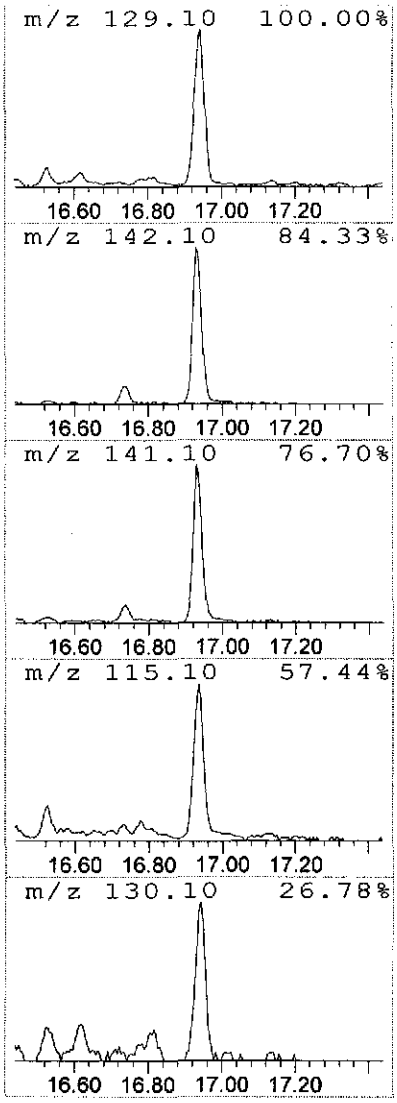
****

Peak Number 7 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.94	3.22 UG	233309	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	55
2	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	55
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	55
4	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	53
5	Spiro(tricyclo[6.2.1.0(2,7)]unde...	186	C13H14O	1000210-02-3	50





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7918.D
Acq On : 10 Dec 2010 1:48 pm
Operator : Sylvia
Sample : TRIP,12342-004,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 13 09:25:39 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	424695	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	814712	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	853218	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	250921	32.63	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 108.77%			
41) Toluene-d8	8.48	98	795629	28.90	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 96.33%			
59) Bromofluorobenzene	11.56	95	401537	29.70	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 99.00%			

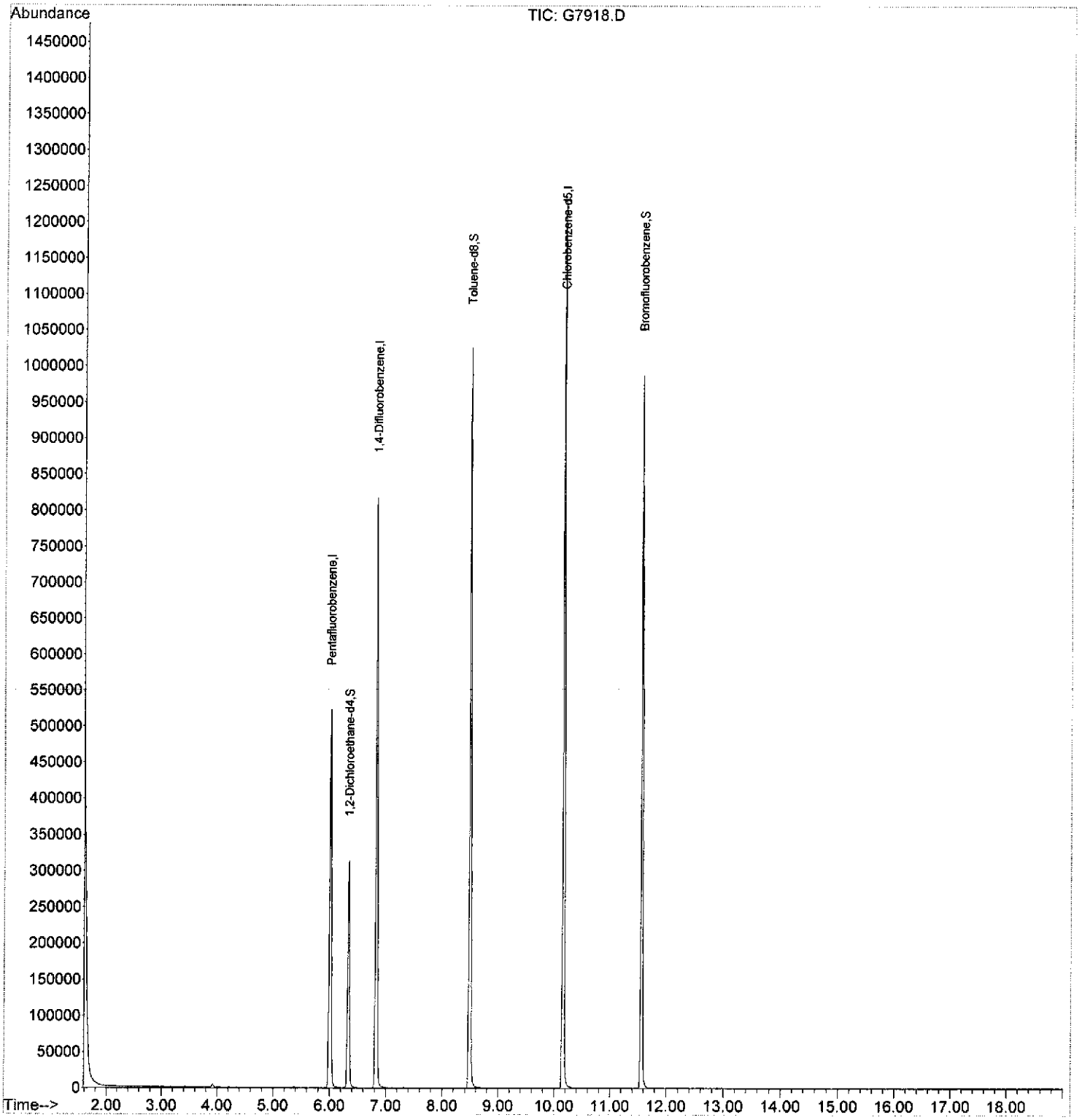
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7918.D
Acq On : 10 Dec 2010 1:48 pm
Operator : Sylvia
Sample : TRIP,12342-004,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 13 09:25:39 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7918.D
Acq On : 10 Dec 2010 1:48 pm
Operator : Sylvia
Sample : TRIP,12342-004,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA120110.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	833	846	877	rBV	522713	1189671	51.05%	12.244%
2	6.334	898	909	933	rBV	313035	703011	30.17%	7.235%
3	6.826	991	1003	1031	rBV	817811	1715606	73.62%	17.656%
4	8.484	1309	1320	1354	rBV	1024677	2010814	86.28%	20.694%
5	10.157	1625	1640	1677	rBV	1230469	2330471	100.00%	23.984%
6	11.559	1897	1908	1933	rBV	987238	1767166	75.83%	18.187%

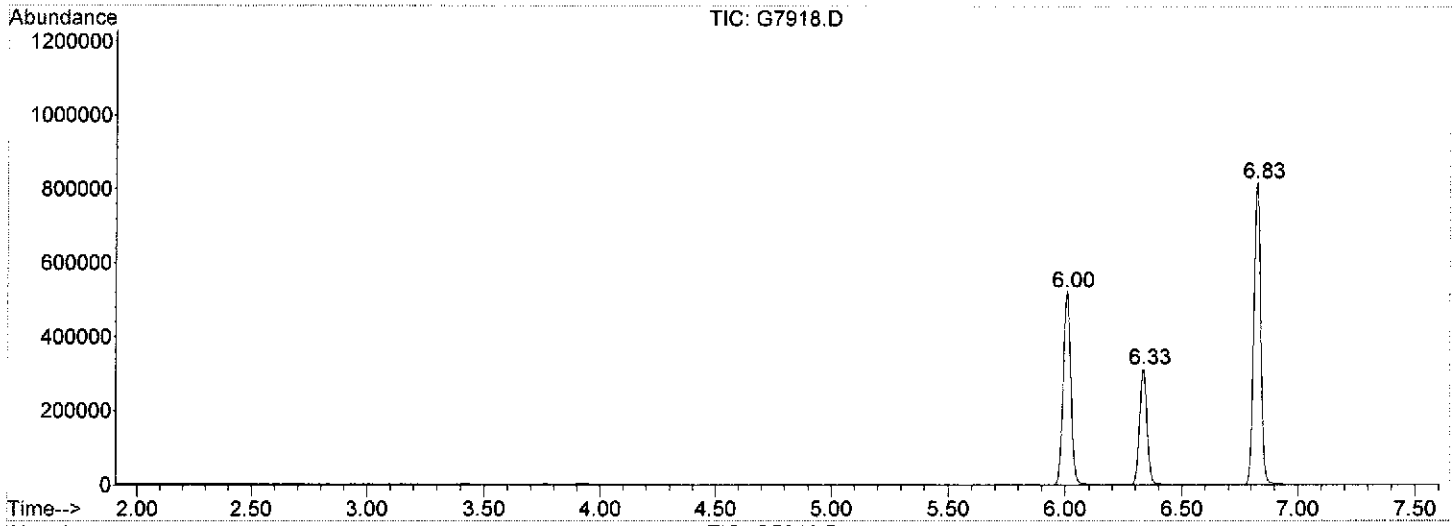
Sum of corrected areas: 9716739

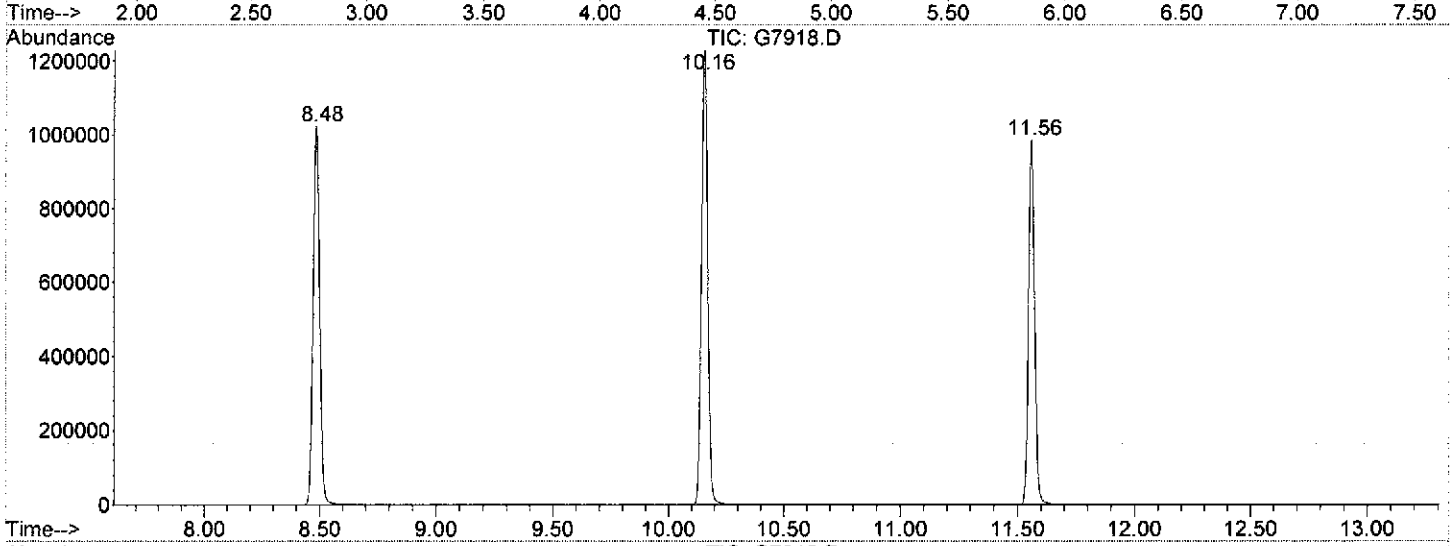
LSC Report - Integrated Chromatogram

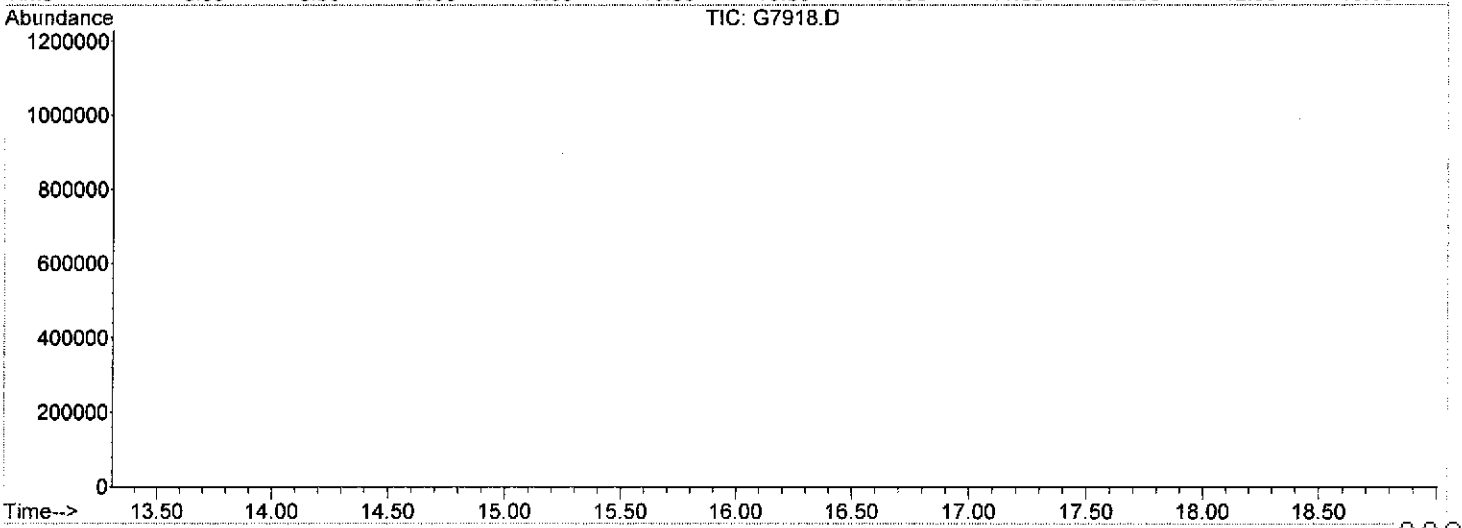
Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7918.D
Acq On : 10 Dec 2010 1:48 pm
Operator : Sylvia
Sample : TRIP,12342-004,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7919.D
Acq On : 10 Dec 2010 2:16 pm
Operator : Sylvia
Sample : FIELD,12342-005,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 13 09:26:50 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.01	168	431630	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	826780	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	853052	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	248279	31.77	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 105.90%			
41) Toluene-d8	8.48	98	803478	28.76	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 95.87%			
59) Bromofluorobenzene	11.56	95	399683	29.57	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 98.57%			

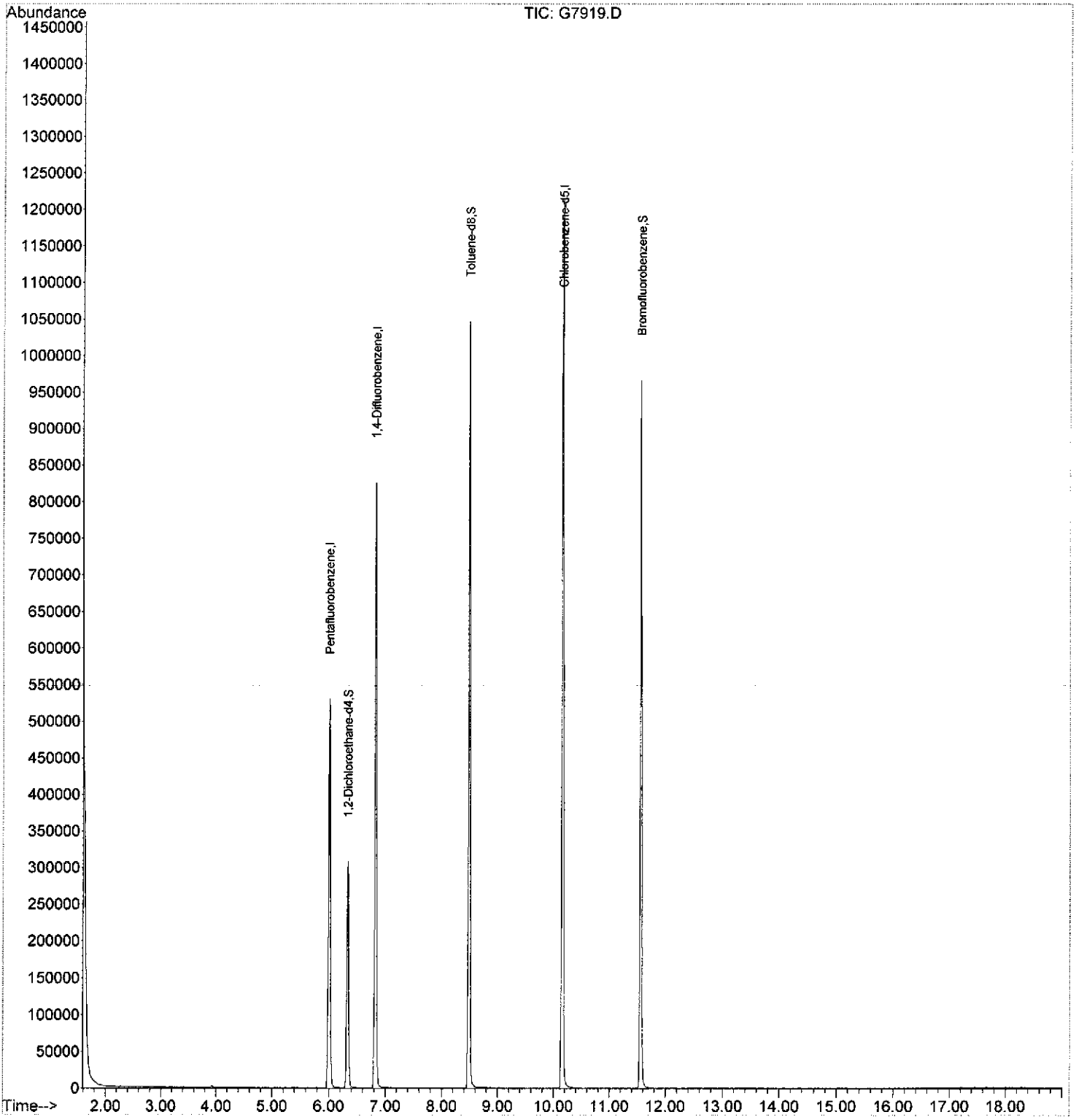
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7919.D
Acq On : 10 Dec 2010 2:16 pm
Operator : Sylvia
Sample : FIELD,12342-005,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 13 09:26:50 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7919.D
Acq On : 10 Dec 2010 2:16 pm
Operator : Sylvia
Sample : FIELD,12342-005,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA120110.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	833	846	872	rBV	530462	1198526	52.03%	12.362%
2	6.334	898	909	931	rBV	307537	693433	30.10%	7.152%
3	6.826	991	1003	1029	rBV	825044	1726434	74.95%	17.807%
4	8.484	1308	1320	1352	rBV	1046585	2016456	87.54%	20.798%
5	10.157	1626	1640	1678	rBV	1214391	2303405	100.00%	23.758%
6	11.559	1896	1908	1941	rVB	966316	1757043	76.28%	18.123%

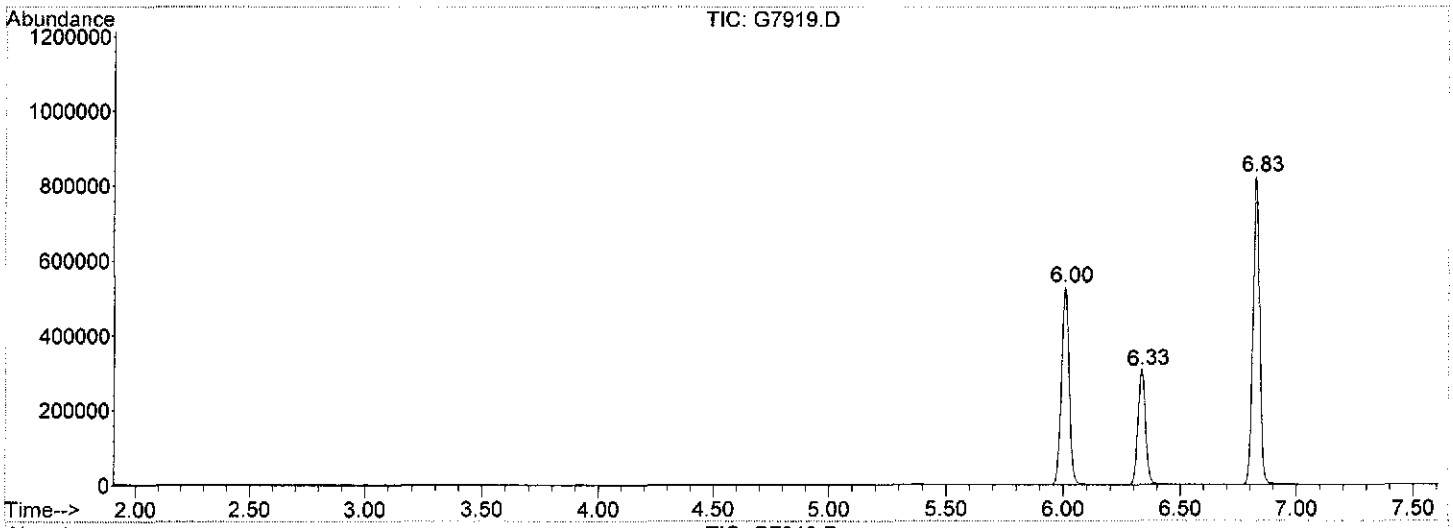
Sum of corrected areas: 9695297

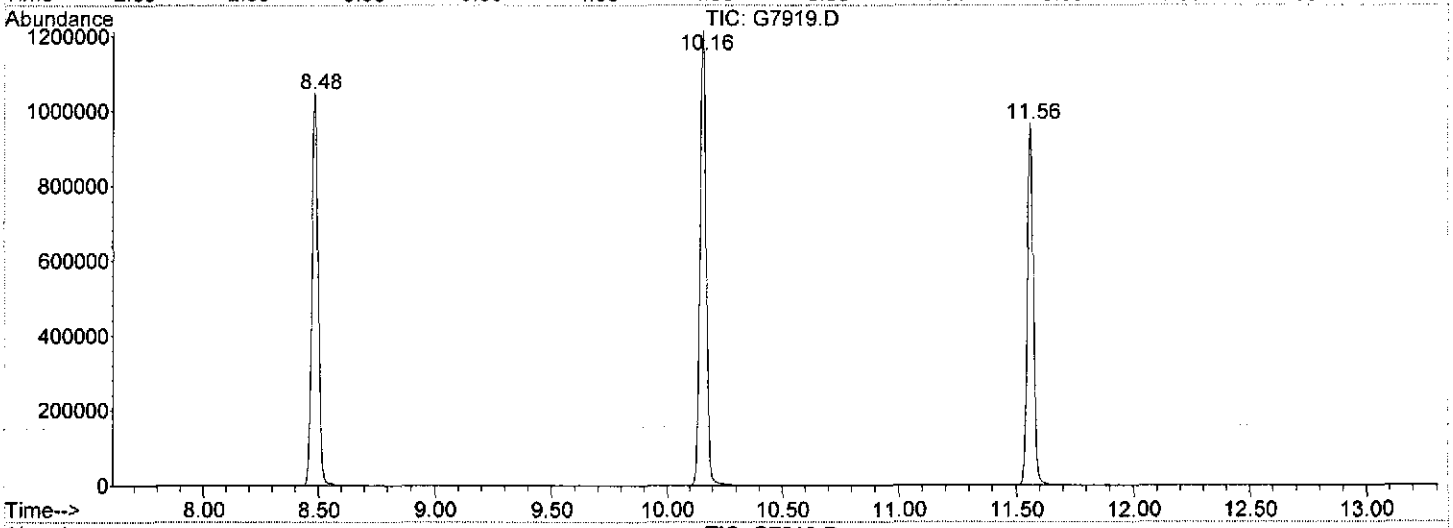
LSC Report - Integrated Chromatogram

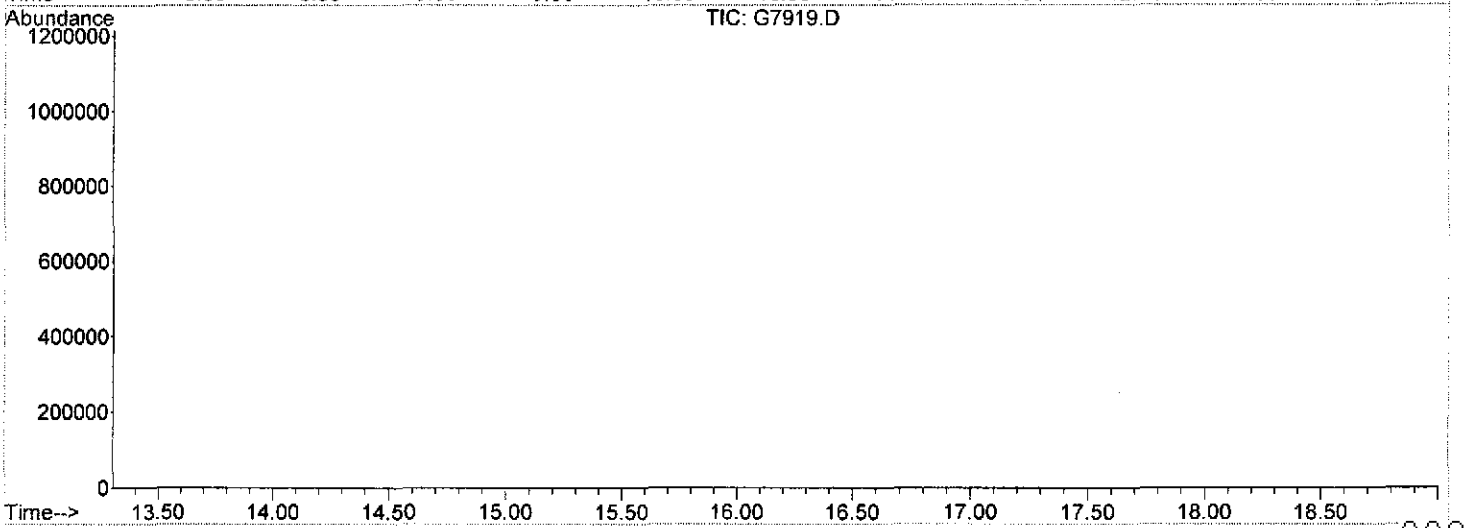
Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7919.D
Acq On : 10 Dec 2010 2:16 pm
Operator : Sylvia
Sample : FIELD,12342-005,A,5mL,100
Misc : PENNJERSEY/PALMER,12/04/10,12/06/10
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7859.D
Acq On : 9 Dec 2010 9:53 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 09 16:44:27 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	524431	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	969493	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	981381	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	285996	30.12	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery =	100.40%		
41) Toluene-d8	8.48	98	948084	28.94	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery =	96.47%		
59) Bromofluorobenzene	11.56	95	457372	29.41	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery =	98.03%		

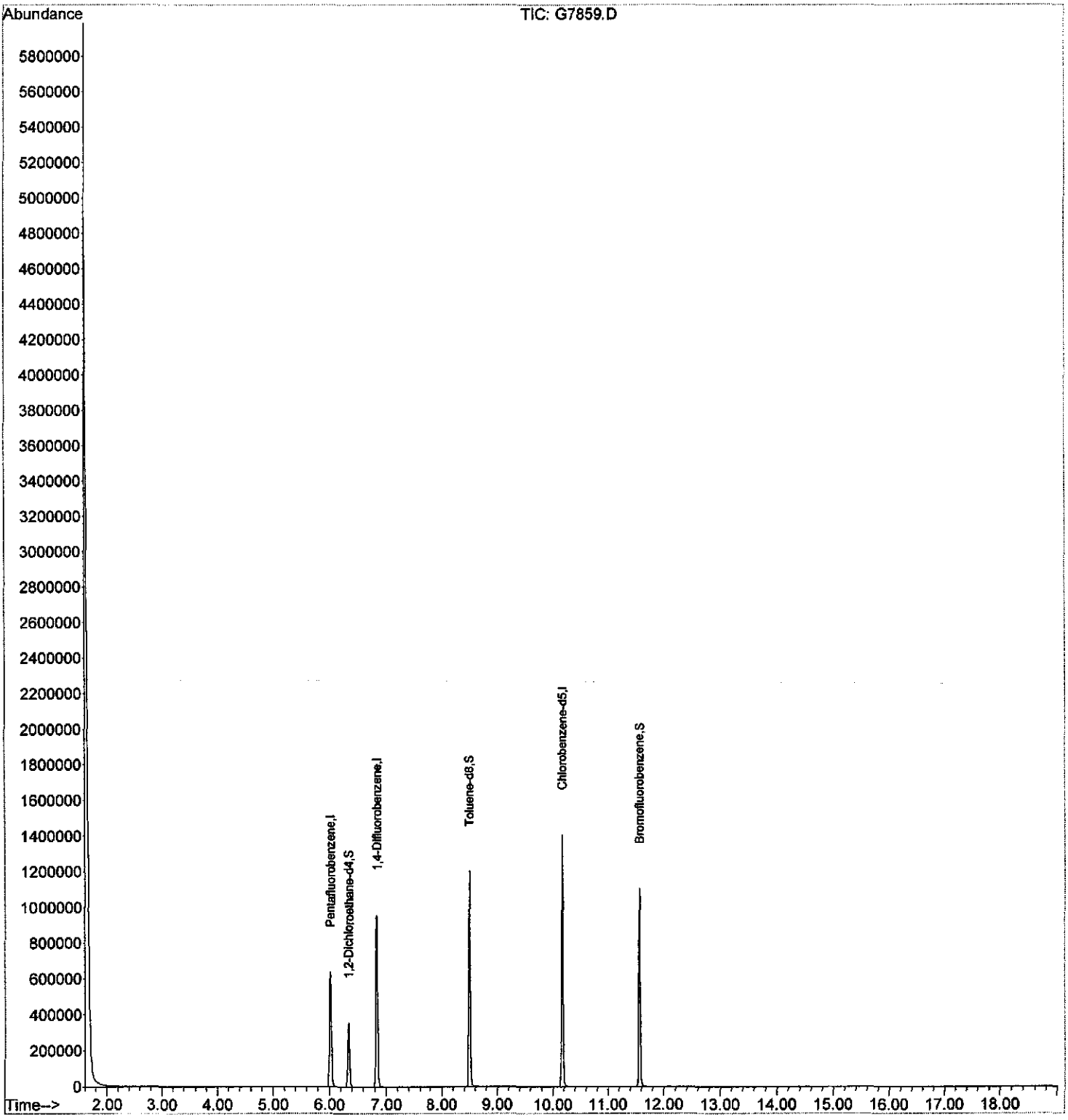
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7859.D
Acq On : 9 Dec 2010 9:53 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 09 16:44:27 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7859.D
Acq On : 9 Dec 2010 9:53 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA120110.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	834	846	872	rBV	639169	1444422	54.43%	12.776%
2	6.334	896	909	935	rBV	355224	803535	30.28%	7.107%
3	6.826	987	1003	1029	rBV	956027	2024872	76.31%	17.909%
4	8.484	1305	1320	1368	rBV	1203614	2370860	89.35%	20.970%
5	10.157	1628	1640	1674	rBV	1408142	2653503	100.00%	23.469%
6	11.559	1897	1908	1938	rBV	1104162	2008995	75.71%	17.769%

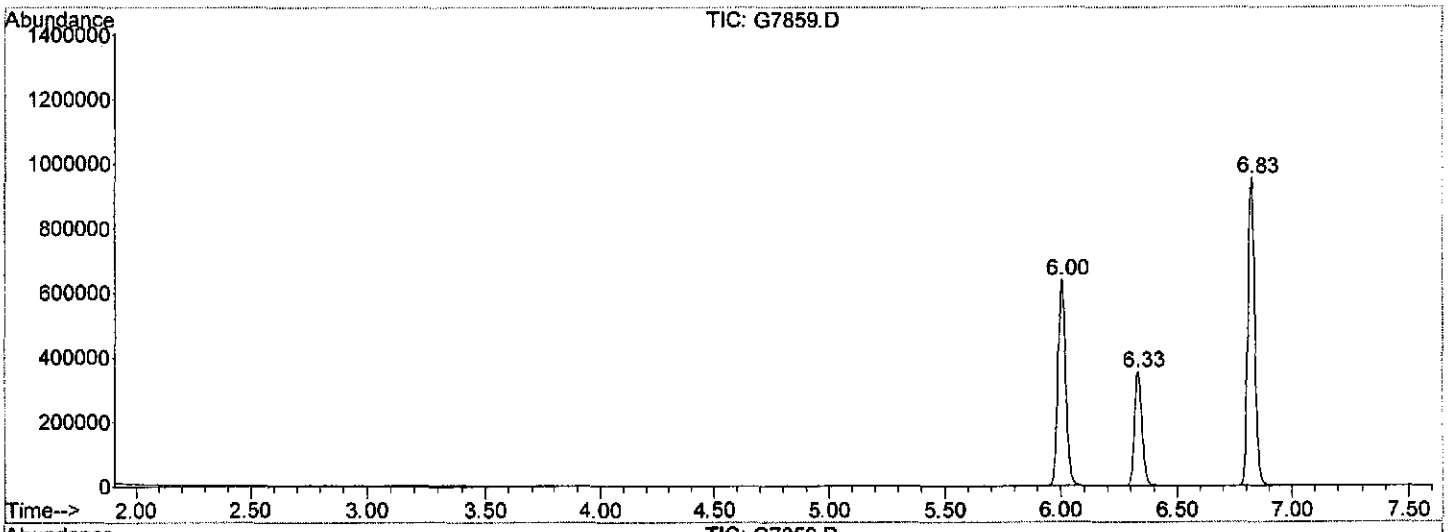
Sum of corrected areas: 11306187

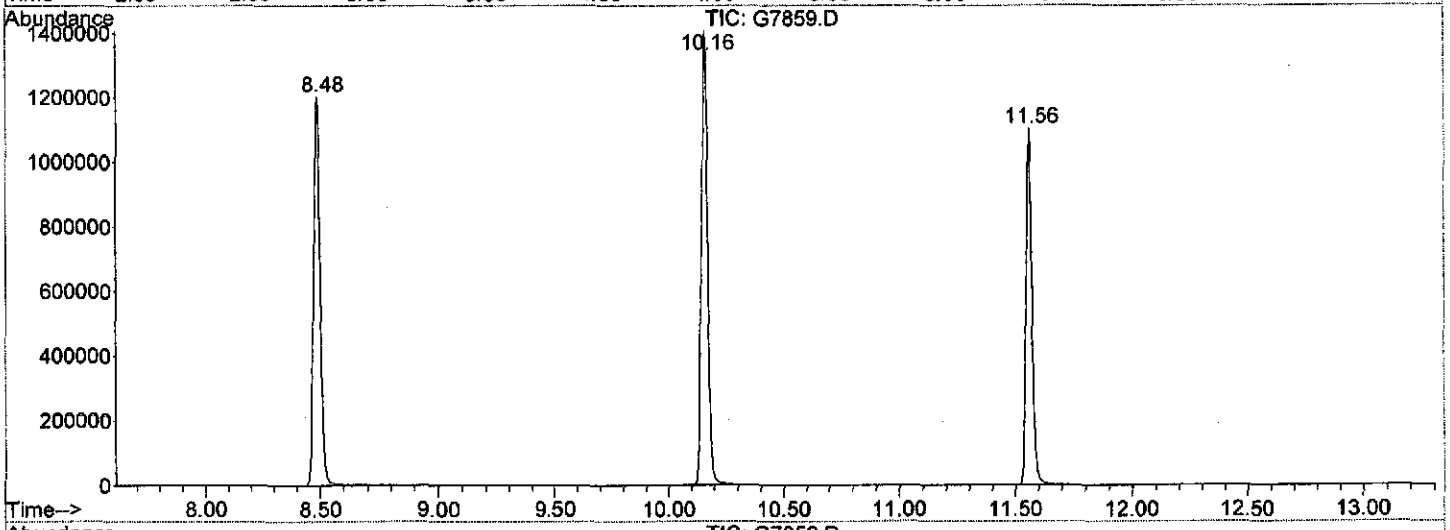
LSC Report - Integrated Chromatogram

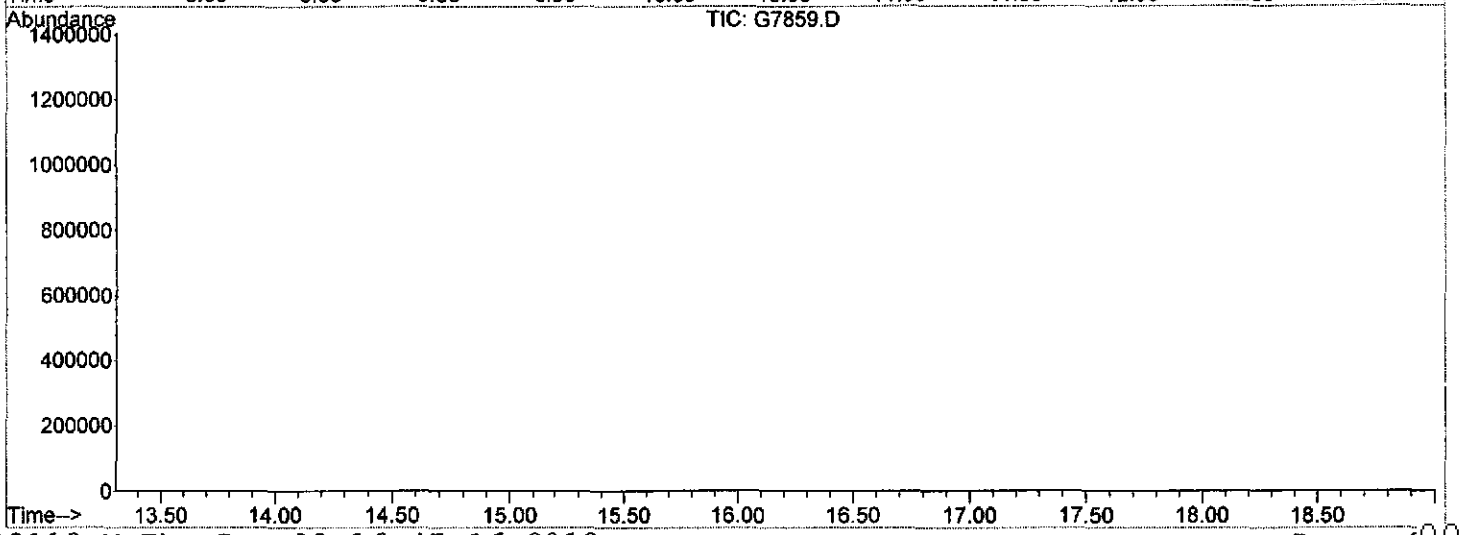
Data Path : C:\MSDChem\1\DATA\12-09-10\
Data File : G7859.D
Acq On : 9 Dec 2010 9:53 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7910.D
Acq On : 10 Dec 2010 9:55 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 12:18:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	489057	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	918622	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	957602	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	265006	29.92	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 99.73%			
41) Toluene-d8	8.48	98	901052	29.03	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 96.77%			
59) Bromofluorobenzene	11.56	95	445037	29.33	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 97.77%			

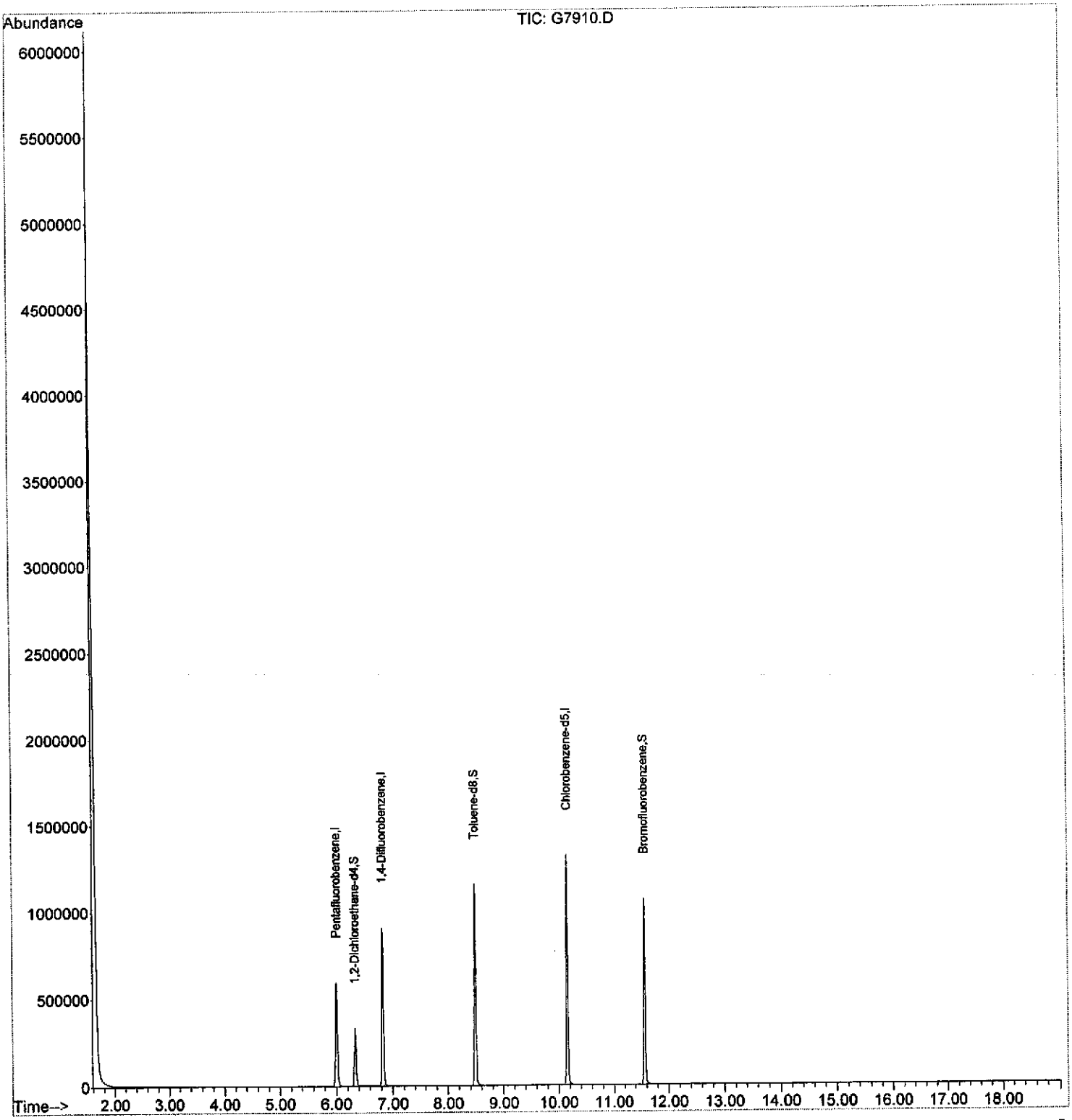
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7910.D
Acq On : 10 Dec 2010 9:55 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 12:18:48 2010
Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Thu Dec 02 10:37:48 2010
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7910.D
Acq On : 10 Dec 2010 9:55 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA120110.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	835	846	871	rBV	593495	1347281	52.37%	12.482%
2	6.329	898	908	925	rBV	329140	742240	28.85%	6.876%
3	6.821	989	1002	1031	rBV	906411	1909204	74.22%	17.688%
4	8.484	1308	1320	1359	rBV	1157139	2262814	87.96%	20.964%
5	10.158	1629	1640	1679	rBV	1321759	2572462	100.00%	23.832%
6	11.559	1897	1908	1936	rBV2	1063479	1959994	76.19%	18.158%

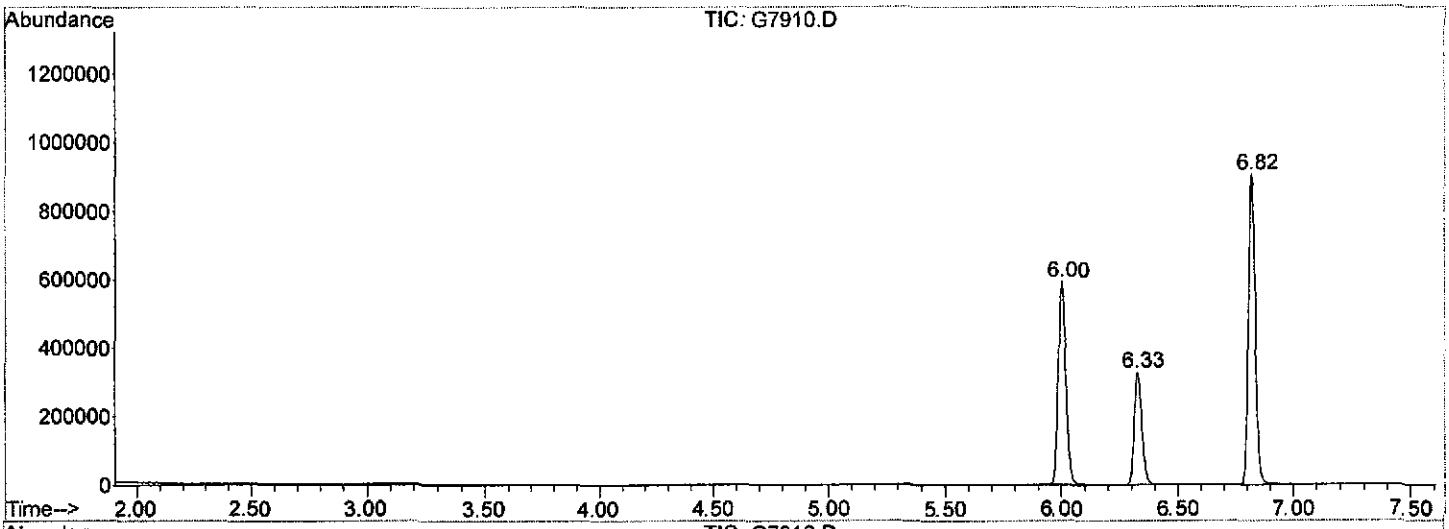
Sum of corrected areas: 10793995

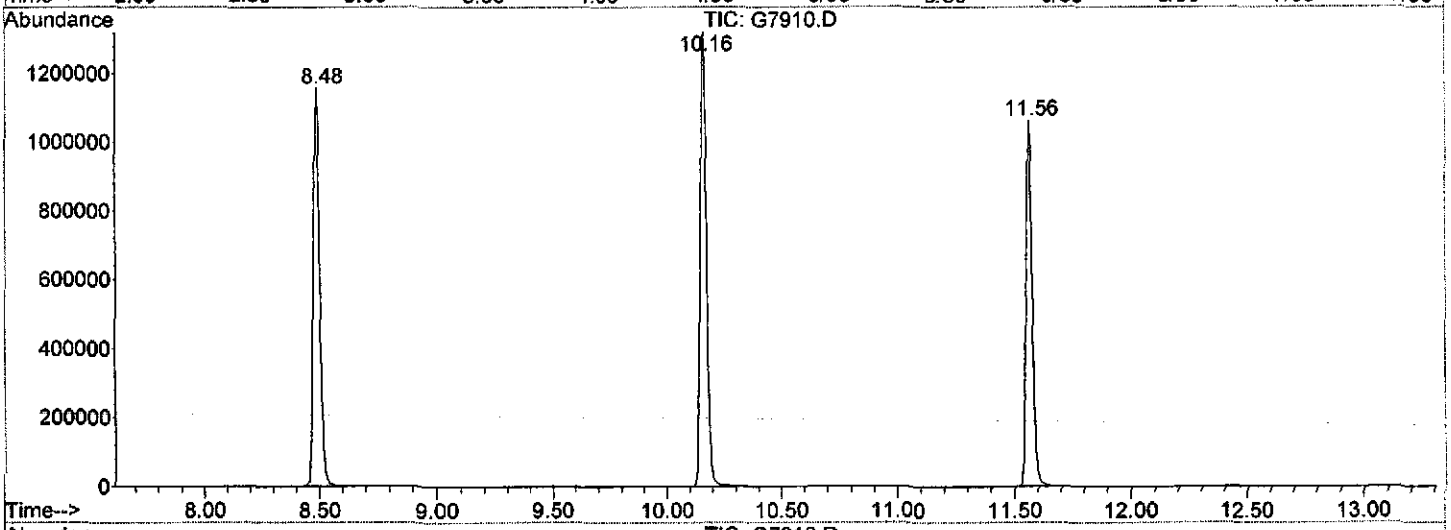
LSC Report - Integrated Chromatogram

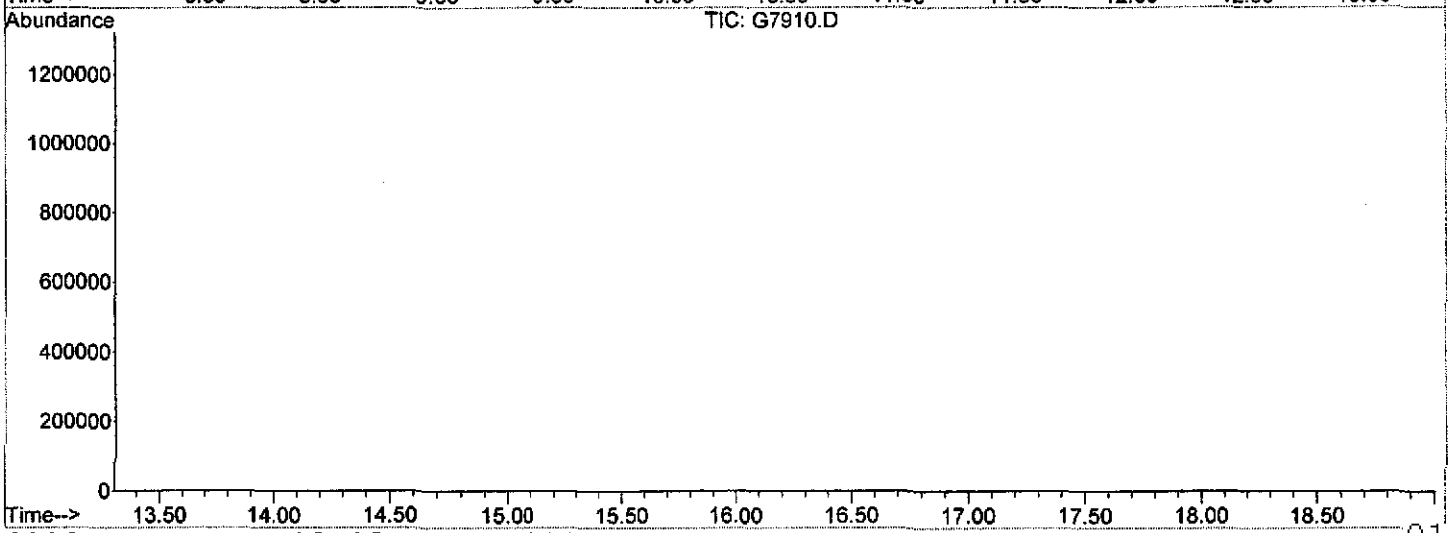
Data Path : C:\MSDCHEM\1\DATA\12-10-10\
Data File : G7910.D
Acq On : 10 Dec 2010 9:55 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA120110.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO		REPORTING INFO	
Company:	PEC/PA	REPORT TO:	PEC
Address:	2034 E. WELLINGTON RD.	Address:	
	NEWTOWN PA		
Telephone #:	215 860 123	Attn:	
Fax #:	215 860 9988	FAX #	
Project Manager:	M D. KATZ	INVOICE TO:	PEC
EMAIL Address:	pecinc@aol.com	Address:	
Sampler:	M. Brogan		
Project Name:	PALMER		
Project Location (State):	NJ	Attn:	
Bottle Order #:		PO #	
Quote # :			

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) NJ EPH Fractionated (5 day TAT)

NJ EPH - C40 (5 day TAT)

DRO-8015 (3-5 day TAT) QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified

24 hr** 48 hr** 72 hr** 96 hr** 1 wk**

Other** (specify): _____

Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **

24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format

Results Only

Reduced

Regulatory - 15% Surcharge applies

Other (describe)

EDDs

SRP format

lab approved custom EDD

NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	ANALYTICAL PARAMETERS: TCLVOA+10	# BOTTLES & PRESERVATIVES: HCL	HNO3	MeOH	Other	None	Encore
MW8R		12/4/10	2:05	GW	2	1	✓	2					
MW12		↓	2:40	↓	2	2	✓	2					
MW14		↓	3:00	↓	2	3	✓	2					

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): ____ IAL Courier ____ Client Courier ____ FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: MD Katz	12/6/10	1033	Received by:	12/7/10	1035
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments: USE TRIP + FIELD FROM 99 CHAPEL ON THIS JOB

Lab Case # 12342

PAGE: 1 of 1

COPIES - WHITE & YELLOW; CLIENT COPY - PINK

10/2010 REV COC

10/2010 rev

PROJECT INFORMATION

E10-12342

Case No. E10-12342 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Dick Katz	**Received**	12/6/2010 10:35
EMail	pecinc@aol.com;nagorbm@yaho ☑ EMail EDDs	**Verbal Due**	12/20/2010
Phone	(215) 860-1231 **Fax** 1(215) 860-9988	**Report Due**	12/28/2010

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
12342-001	MW8R	n/a	12/4/2010@14:05	Aqueous	ug/L	2
12342-002	MW12	n/a	12/4/2010@14:40	Aqueous	ug/L	2
12342-003	MW14	n/a	12/4/2010@15:00	Aqueous	ug/L	2
12342-004	TRIP	n/a	12/4/2010	Aqueous	ug/L	2
12342-005	FIELD	n/a	12/4/2010	Aqueous	ug/L	2

Sample #	Tests	Status	QA Method
001	TCL VOA + 10	Run	624
002	TCL VOA + 10	Run	624
003	TCL VOA + 10	Run	624
004	TCL VOA + 10	Run	624
005	TCL VOA + 10	Run	624

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **12342** CLIENT: PEC / PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE **Comments**

KEY
✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 12/6/16

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE 12/7/16

0104

REV 03/2009

Laboratory Custody Chronicle

IAL Case No.

E10-12342

Client PennJersey Environmental Consulting

Project PALMER

Received On 12/ 6/2010@10:35

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VOA + 10	12342-001	Aqueous	n/a	n/a	12/10/10	Barbara
"	-002	"	n/a	n/a	12/10/10	Barbara
"	-003	"	n/a	n/a	12/10/10	Barbara
"	-004	"	n/a	n/a	12/10/10	Barbara
"	-005	"	n/a	n/a	12/10/10	Barbara

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

IAL
Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

PennJersey Environmental Consulting
2034 E. Wellington Rd.
Newtown, PA 18940

Project Name: **PALMER**
IAL Case Number: **E11-00286**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E11-00286

Client PennJersey Environmental Consulting

Project PALMER

Received On 1/11/2011@14:40

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
00286-001	TRIP	n/a	1/11/2011	Aqueous	2
00286-002	FIELD	n/a	1/11/2011@09:00	Aqueous	2
00286-003	MW17	n/a	1/11/2011@09:21	Aqueous	1
00286-004	MW13	n/a	1/11/2011@10:05	Aqueous	1
00286-005	MW12	n/a	1/11/2011@10:45	Aqueous	3
00286-006	MW14	n/a	1/11/2011@11:25	Aqueous	3
00286-007	MW8R	n/a	1/11/2011@12:05	Aqueous	3

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates the concentration was reported below the RL but above the MDL. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

RL - Reporting Limit.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received seven (7) aqueous sample(s) from PennJersey Environmental Consulting (Project: PALMER) on January 11, 2011 for the analysis of:

(5) TCL VOA + 10
(5) Metal - Sodium

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

1/25/11
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E11-00286

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E11 - 00286

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	GC/MS Tuning Specifications: a. BFB Passed		✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4.	GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5.	GC/MS Calibration Requirements: a. Calibration Check Compounds		na
	b. System Performance Check Compounds		na
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
	If not met, were the calculations checked and the results qualified as "estimated"?		na
8.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		na
9.	Internal Standard Area/Retention Time Shift meet criteria		✓
10.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		na
11.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12.	Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

01/14/2011
Date

rev 01/11

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
METAL ANALYSIS

Lab Case Number: E11-00286

		No	Yes
1.	Calibration Summary Meet Criteria.		✓
2.	Interference Check Sample Results Meets Criteria (if applicable)		✓
3.	Serial Dilution/Post Spike Summary Submitted (if applicable) / Meets Criteria		✓
4.	Internal Standards Meet Criteria (if applicable)		✓
5.	Laboratory Control Sample Summary Submitted (if applicable) / Meets Criteria		✓
6.	Blank Contamination: If yes, list compounds and concentrations in each blank:	✓	
7.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).		✓
8.	Extraction Holding Time Met. If not, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not, list number of days exceeded for each sample:		✓

Additional Comments:

Sample(s) used for aqueous metals analyses contained varying levels of sediment. Precautions were taken to use an aqueous representative of the sample. However, our experience has demonstrated that samples of this nature are very difficult to duplicate because the metals numbers are basically tied into the level of sediment present in the original sample. Additionally, as the remainder of the sample is stored under acidic conditions, some of the metals may continue to leach out into the water making any reproduction of the original number impossible. The rough amount of sediment present in the samples is as follows:

00286-003: 0.2%, 00286-007: Trace

Wei Cheng
Inorganic Manager

January 17, 2011
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: PennJersey Environmental Consulting
Project: PALMER
Lab Case No.: E11-00286

	Lab ID:	00286-001			00286-002			00286-003			00286-004		
	Client ID:	TRIP			FIELD			MW17			MW13		
	Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
	Sampled Date	1/11/11			1/11/11			1/11/11			1/11/11		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
TOTAL VO's:		ND			ND			~		~	~		~
TOTAL TIC's:		ND			ND			~		~	~		~
TOTAL VO's & TIC's:		ND			ND			~		~	~		~
Metals (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Sodium		~		~	~		~	519000		1000	29800		100

	Lab ID:	00286-005			00286-006			00286-007		
	Client ID:	MW12			MW14			MW8R		
	Matrix:	Aqueous			Aqueous			Aqueous		
	Sampled Date	1/11/11			1/11/11			1/11/11		
PARAMETER(Units)		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Methyl tert-butyl ether (MTBE)		0.709		0.300	3.35		0.300	ND		0.300
1,1-Dichloroethane		ND		0.260	0.858		0.260	ND		0.260
cis-1,2-Dichloroethene		ND		0.210	0.491	J	0.210	ND		0.210
1,1,1-Trichloroethane		ND		0.290	0.356	J	0.290	ND		0.290
Benzene		1.67		0.250	0.319	J	0.250	ND		0.250
Trichloroethene		ND		0.250	ND		0.250	2.45		0.250
Chlorobenzene		23.9		0.260	ND		0.260	ND		0.260
Total Xylenes		1.42		0.580	ND		0.580	ND		0.580
Isopropylbenzene		7.60		0.240	1.31		0.240	ND		0.240
1,4-Dichlorobenzene		1.18		0.210	ND		0.210	ND		0.210
1,2-Dichlorobenzene		3.33		0.230	ND		0.230	ND		0.230
Cyclohexane		1.04		0.260	0.847	J	0.260	ND		0.260
Methylcyclohexane		1.82		0.410	ND		0.410	ND		0.410
TOTAL VO's:		42.7			7.53	J		2.45		
TOTAL TIC's:		231			11.8			ND		
TOTAL VO's & TIC's:		274			19.3	J		2.45		
Metals (Units)		*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Sodium		43800		100	43700		100	18400		100

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-001
Client ID: TRIP
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Data file: G8810.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-001
Client ID: TRIP
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Data file: G8810.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

E11-00286 0008

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-001
Client ID: TRIP
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Date File: G8810.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-002
Client ID: FIELD
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Data file: G8811.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-002
Client ID: FIELD
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Data file: G8811.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-002
Client ID: FIELD
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Date File: G8811.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-005
Client ID: MW12
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Data file: G8807.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	0.709		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	1.67		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-005
Client ID: MW12
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Data file: G8807.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	23.9		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	1.42		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	7.60		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	1.18		0.500	0.210
1,2-Dichlorobenzene	3.33		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	1.04		1.00	0.260
Methylcyclohexane	1.82		0.500	0.410

Total Target Compounds: 42.7

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-005
Client ID: MW12
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Date File: G8807.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	69.5	13.30
	Substituted benzene	16.1	13.88
	Unknown aromatic	28.4	14.02
	Substituted benzene	17.5	14.36
	Unknown aromatic	16.9	14.73
	Unknown aromatic	22.8	14.92
	Unknown aromatic	10.8	15.27
	Unknown aromatic	12.4	15.33
	Unknown aromatic	13.4	15.44
	Unknown aromatic	23.2	16.93

Total TICs = 231

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-006
Client ID: MW14
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Data file: G8806.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	3.35		0.500	0.300
1,1-Dichloroethane	0.858		0.500	0.260
cis-1,2-Dichloroethene	0.491	J	0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	0.356	J	0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	0.319	J	0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-006
Client ID: MW14
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Data file: G8806.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	1.31		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	0.847	J	1.00	0.260
Methylcyclohexane	ND		0.500	0.410
Total Target Compounds:	7.53	J		

E11-00286 0017

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-006
Client ID: MW14
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Date File: G8806.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	4.70	13.30
000091-20-3	Naphthalene	3.10	15.60
	Unknown aromatic	4.00	16.94

Total TICs = 11.8

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-007
Client ID: MW8R
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Data file: G8805.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	2.45		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-007
Client ID: MW8R
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Data file: G8805.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 2.45

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: PENNJERSEY/PALMER

Lab ID: 00286-007
Client ID: MW8R
Date Received: 01/11/2011
Date Analyzed: 01/13/2011
Date File: G8805.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Sodium

Client/Project: PENNJERSEYPALMER

Batch #: 018
Date Received: 01/11/2011
Method: 6020

Lab ID	Client ID	Result	Q	DF	Matrix-Unit	RL	MDL	% Moist	Date Analyzed
00286-003	MW17	519000		10	Aqueous-ug/L	4000	1000	100	1/14/11
00286-004	MW13	29800		1	Aqueous-ug/L	400	100	100	1/14/11
00286-005	MW12	43800		1	Aqueous-ug/L	400	100	100	1/14/11
00286-006	MW14	43700		1	Aqueous-ug/L	400	100	100	1/14/11
00286-007	MW8R	18400		1	Aqueous-ug/L	400	100	100	1/14/11

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G8584.D

BFB Injection Date: 01/04/2011

Inst ID: MSD_G

BFB Injection Time: 8:18

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.9			
75	30.0 - 60.0% of mass 95	51.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.6			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	59.5			
175	5.0 - 9.0% of mass 174	4.8	(	8.0	)1
176	95.0 - 101.0% of mass 174	58.4	(	98.1	)1
177	5.0 - 9.0% of mass 176	4.1	(	7.0	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G8588.D	01/04/2011	10:13
5PPB_STD	5PPB_STD	G8585.D	01/04/2011	8:46
1PPB_STD	1PPB_STD	G8586.D	01/04/2011	9:14
0.5PPB_STD	0.5PPB_STD	G8587.D	01/04/2011	9:44
100PPB_STD	100PPB_STD	G8589.D	01/04/2011	10:40
METHOD_BLK	METHOD_BLK	G8591.D	01/04/2011	11:35
MW-2	13204-1DIL	G8592.D	01/04/2011	12:03
MW-1	13180-7DIL	G8593.D	01/04/2011	12:30
MW-3	13180-004	G8594.D	01/04/2011	12:58
LFB_020PPB	LFB_020PPB	G8595.D	01/04/2011	1:26
13219-002MS	13219-002MS	G8596.D	01/04/2011	1:53
13219-002MSD	13219-002MSD	G8597.D	01/04/2011	2:21
FIELD_BLANK	13219-010	G8599.D	01/04/2011	3:16
TRIP_BLANK	13219-011	G8600.D	01/04/2011	3:44
MW-4	13219-002	G8601.D	01/04/2011	4:11
MW-5	13219-003	G8602.D	01/04/2011	4:39
MW-6	13219-004	G8603.D	01/04/2011	5:07
MW-7	13219-005	G8604.D	01/04/2011	5:35
MW-8	13219-006	G8605.D	01/04/2011	6:02
RW-2	13219-008	G8606.D	01/04/2011	6:30

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G8584.D

BFB Injection Date : 01/04/201

Inst ID: MSD_G

BFB Injection Time: 8:18

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.9			
75	30.0 - 60.0% of mass 95	51.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.6			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	59.5			
175	5.0 - 9.0% of mass 174	4.8	(	8.0	)1
176	95.0 - 101.0% of mass 174	58.4	(	98.1	)1
177	5.0 - 9.0% of mass 176	4.1	(	7.0	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
RW-1	13219-007	G8607.D	01/04/2011	6:58
RW-3	13219-009	G8608.D	01/04/2011	7:25
MW-1	13219-001	G8609.D	01/04/2011	7:53

EQM-05286 0024

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G8793.D

BFB Injection Date: 01/13/2011

Inst ID: MSD_G

BFB Injection Time: 7:59

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.5			
75	30.0 - 60.0% of mass 95	52.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.2			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	74.9			
175	5.0 - 9.0% of mass 174	5.4	(	7.2	)1
176	95.0 - 101.0% of mass 174	72.1	(	96.3	)1
177	5.0 - 9.0% of mass 176	5.1	(	7.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB_STD	20PPB_STD	G8794.D	01/13/2011	9:57
METHOD_BLK	METHOD_BLK	G8796.D	01/13/2011	10:55
LFB_020PPB	LFB_020PPB	G8797.D	01/13/2011	11:23
MW-12	00243-006	G8798.D	01/13/2011	11:50
MW-9	00243-002	G8799.D	01/13/2011	12:18
FR-WP2	00319-002	G8800.D	01/13/2011	12:46
287-003MS	287-003MS	G8801.D	01/13/2011	1:14
287-003MSD	287-003MSD	G8802.D	01/13/2011	1:41
FR-WP1	00319-001	G8803.D	01/13/2011	2:09
MW8R	00286-007	G8805.D	01/13/2011	3:05
MW14	00286-006	G8806.D	01/13/2011	3:33
MW12	00286-005	G8807.D	01/13/2011	4:00
TRIP	00286-001	G8810.D	01/13/2011	5:23
FIELD	00286-002	G8811.D	01/13/2011	5:51
FB	00287-002	G8813.D	01/13/2011	6:46
TW-1/20.24	00287-003	G8814.D	01/13/2011	7:14
DIS0111	00305-001	G8815.D	01/13/2011	7:42
PZ-1/0.72	00285-003	G8816.D	01/13/2011	8:10
PZ-2/0.71	00285-004	G8817.D	01/13/2011	8:37
MW1	00290-001	G8818.D	01/13/2011	9:05

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: G8793.D

BFB Injection Date : 01/13/201

Inst ID: MSD_G

BFB Injection Time: 7:59

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.5			
75	30.0 - 60.0% of mass 95	52.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.2			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	74.9			
175	5.0 - 9.0% of mass 174	5.4	(	7.2	)1
176	95.0 - 101.0% of mass 174	72.1	(	96.3	)1
177	5.0 - 9.0% of mass 176	5.1	(	7.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW2	00290-002	G8821.D	01/13/2011	10:28
MW3	00290-003	G8822.D	01/13/2011	10:56
MW6	00290-006	G8823.D	01/13/2011	11:23
MW8	00290-008	G8824.D	01/13/2011	11:51
MW4	00290-004	G8825.D	01/14/2011	12:18
MW5	00290-005	G8826.D	01/14/2011	12:45
MW9	00290-009	G8827.D	01/14/2011	1:13
BR-1	00290-010	G8828.D	01/14/2011	1:41
MW7	00290-007	G8829.D	01/14/2011	2:09
BLANK-MS	BLANK-MS	G8830.D	01/14/2011	2:36
BLANK-MSD	BLANK-MSD	G8831.D	01/14/2011	3:04
TB	00290-011	G8833.D	01/14/2011	3:59

VOLATILE METHOD BLANK SUMMARY

Lab File ID: G8796.D

Instrument ID: MSD_G

Date Analyzed: 01/13/2011

Time Analyzed: 10:55

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LFB_020PPB	LFB_020PPB	01/13/2011	11:23
MW-12	00243-006	01/13/2011	11:50
MW-9	00243-002	01/13/2011	12:18
FR-WP2	00319-002	01/13/2011	12:46
287-003MS	287-003MS	01/13/2011	1:14
287-003MSD	287-003MSD	01/13/2011	1:41
FR-WP1	00319-001	01/13/2011	2:09
MW8R	00286-007	01/13/2011	3:05
MW14	00286-006	01/13/2011	3:33
MW12	00286-005	01/13/2011	4:00
TRIP	00286-001	01/13/2011	5:23
FIELD	00286-002	01/13/2011	5:51
FB	00287-002	01/13/2011	6:46
TW-1/20.24	00287-003	01/13/2011	7:14
DIS0111	00305-001	01/13/2011	7:42
PZ-1/0.72	00285-003	01/13/2011	8:10
PZ-2/0.71	00285-004	01/13/2011	8:37
MW1	00290-001	01/13/2011	9:05
MW2	00290-002	01/13/2011	10:28
MW3	00290-003	01/13/2011	10:56
MW6	00290-006	01/13/2011	11:23
MW8	00290-008	01/13/2011	11:51
MW4	00290-004	01/14/2011	12:18
MW5	00290-005	01/14/2011	12:45
MW9	00290-009	01/14/2011	1:13
BR-1	00290-010	01/14/2011	1:41
MW7	00290-007	01/14/2011	2:09
BLANK-MS	BLANK-MS	01/14/2011	2:36
BLANK-MSD	BLANK-MSD	01/14/2011	3:04
TB	00290-011	01/14/2011	3:59

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 01/13/2011
Data file: G8796.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.500	0.400
Chloromethane	ND		0.500	0.300
Vinyl chloride	ND		0.500	0.330
Bromomethane	ND		0.500	0.350
Chloroethane	ND		0.500	0.360
Trichlorofluoromethane	ND		1.00	0.660
Acrolein	ND		10.0	2.51
1,1-Dichloroethene	ND		0.500	0.360
Acetone	ND		5.00	1.26
Carbon disulfide	ND		0.500	0.340
Methylene chloride	ND		2.00	1.99
Acrylonitrile	ND		10.0	2.29
tert-Butyl alcohol (TBA)	ND		2.00	1.19
trans-1,2-Dichloroethene	ND		0.500	0.300
Methyl tert-butyl ether (MTBE)	ND		0.500	0.300
1,1-Dichloroethane	ND		0.500	0.260
cis-1,2-Dichloroethene	ND		0.500	0.210
2-Butanone (MEK)	ND		1.00	0.730
Bromochloromethane	ND		0.500	0.180
Chloroform	ND		0.500	0.210
1,1,1-Trichloroethane	ND		0.500	0.290
Carbon tetrachloride	ND		0.500	0.300
1,2-Dichloroethane (EDC)	ND		0.500	0.320
Benzene	ND		0.500	0.250
Trichloroethene	ND		0.500	0.250
1,2-Dichloropropane	ND		0.500	0.210
Dibromomethane	ND		0.500	0.180
1,4-Dioxane	ND		200	62.9
Bromodichloromethane	ND		0.500	0.190
2-Chloroethyl vinyl ether	ND		0.500	0.210
cis-1,3-Dichloropropene	ND		0.500	0.210
4-Methyl-2-pentanone (MIBK)	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 01/13/2011
Data file: G8796.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.190
trans-1,3-Dichloropropene	ND		0.500	0.220
1,1,2-Trichloroethane	ND		0.500	0.190
Tetrachloroethene	ND		0.500	0.230
2-Hexanone	ND		0.500	0.360
Dibromochloromethane	ND		0.500	0.190
1,2-Dibromoethane (EDB)	ND		0.500	0.210
Chlorobenzene	ND		0.500	0.260
Ethylbenzene	ND		0.500	0.210
Total Xylenes	ND		1.00	0.580
Styrene	ND		0.500	0.180
Bromoform	ND		0.500	0.270
Isopropylbenzene	ND		0.500	0.240
1,1,2,2-Tetrachloroethane	ND		0.500	0.220
1,3-Dichlorobenzene	ND		0.500	0.210
1,4-Dichlorobenzene	ND		0.500	0.210
1,2-Dichlorobenzene	ND		0.500	0.230
1,2-Dibromo-3-chloropropane	ND		0.500	0.200
1,2,4-Trichlorobenzene	ND		0.500	0.260
1,2,3-Trichlorobenzene	ND		0.500	0.270
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.730
Methyl acetate	ND		0.500	0.280
Cyclohexane	ND		1.00	0.260
Methylcyclohexane	ND		0.500	0.410

Total Target Compounds: 0

E11-00286 0029

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: NA

Lab ID: METHOD_BLK
Client ID: METHOD_BLK
Date Received: NA
Date Analyzed: 01/13/2011
Date File: G8796.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Response Factor Report MSD_G

Method Path : C:\MSDCHEM\1\METHODS\
Method File : GA010411.M
Title : VOLATILE ORGANICS BY EPA METHOD 624
Last Update : Tue Jan 04 15:24:55 2011
Response Via : Initial Calibration

Calibration Files
0.5 =G8587.D 1 =G8586.D 5 =G8585.D
20 =G8588.D 100 =G8589.D

		Compound	0.5	1	5	20	100	Avg	%RSD
1)	I	Pentafluorobenzene	ISTD						
2)	T	Dichlorodifluoromet	0.384	0.493	0.431	0.519	0.391	0.444	13.65
3)	P	Chloromethane	0.469	0.505	0.396	0.447	0.330	0.430	15.85
4)	C	Vinyl chloride	0.351	0.426	0.370	0.399	0.317	0.373	11.23
5)	T	Bromomethane	0.173	0.234	0.207	0.222	0.158	0.199	16.36
6)	T	Chloroethane	0.164	0.230	0.195	0.201	0.162	0.190	15.07
7)	T	Trichlorofluorometh		0.473	0.463	0.530	0.432	0.475	8.63
8)	T	Acrolein	0.039	0.034	0.028	0.029	0.026	0.031	17.24
9)	MC	1,1-Dichloroethene	0.259	0.340	0.295	0.308	0.279	0.296	10.38
10)	T	Acetone			0.125	0.130	0.110	0.121	8.29
11)	T	Carbon disulfide	0.650	0.785	0.782	0.899	0.897	0.803	12.84
12)	T	Vinyl acetate	1.086	1.439	1.278	1.355	1.438	1.319	11.12
13)	T	Methylene chloride			0.527	0.484	0.469	0.493	6.13
14)	T	Acrylonitrile	0.255	0.238	0.167	0.169	0.167	0.199	21.81
15)	T	tert-Butyl alcohol		0.036	0.032	0.041	0.039	0.037	10.78
16)	T	trans-1,2-Dichloroe	0.426	0.568	0.492	0.466	0.450	0.480	11.37
17)	T	Methyl tert-butyl e	1.088	1.452	1.203	1.267	1.298	1.262	10.58
18)	P	1,1-Dichloroethane	0.771	0.958	0.811	0.807	0.826	0.834	8.59
19)	T	Diisopropyl ether (	0.998	1.352	1.362	1.370	1.423	1.301	13.18
20)	T	cis-1,2-Dichloroeth	0.446	0.526	0.482	0.487	0.495	0.487	5.87
21)	T	2,2-Dichloropropane	0.363	0.434	0.418	0.459	0.452	0.425	8.99
22)	T	2-Butanone (MEK)		0.281	0.196	0.212	0.228	0.229	16.11
23)	T	Bromochloromethane	0.231	0.288	0.241	0.237	0.237	0.247	9.40
25)	C	Chloroform	0.791	0.970	0.844	0.853	0.833	0.858	7.82
26)	T	1,1,1-Trichloroetha	0.550	0.685	0.634	0.699	0.696	0.653	9.69
27)	T	Carbon tetrachlorid	0.477	0.578	0.554	0.627	0.613	0.570	10.47
28)	T	1,1-Dichloropropene	0.522	0.637	0.587	0.612	0.615	0.595	7.44
29)	T	1,2-Dichloroethane	0.697	0.869	0.693	0.732	0.684	0.735	10.48
30)	S	1,2-Dichloroethane-	0.681	0.672	0.773	0.696	0.652	0.695	6.73
31)	I	1,4-Difluorobenzene	ISTD						
32)	M	Benzene	1.035	1.278	1.072	1.089	1.074	1.109	8.67
33)	M	Trichloroethene	0.255	0.310	0.259	0.281	0.283	0.278	8.05
34)	C	1,2-Dichloropropane	0.223	0.286	0.253	0.262	0.267	0.258	9.00
35)	T	Dibromomethane	0.140	0.191	0.156	0.173	0.172	0.167	11.66
36)	T	1,4-Dioxane	0.003	0.004	0.002	0.003	0.003	0.003	13.13
37)	T	Bromodichloromethan	0.250	0.319	0.296	0.357	0.363	0.317	14.66
38)	T	2-Chloroethyl vinyl	0.125	0.113	0.105	0.154	0.185	0.137	24.28
39)	T	cis-1,3-Dichloropro	0.186	0.261	0.284	0.370	0.421	0.305	30.44
40)	T	4-Methyl-2-pentanon	0.153	0.199	0.152	0.230	0.264	0.200	24.54
41)	S	Toluene-d8	1.088	1.089	1.099	1.149	1.150	1.115	2.85
42)	MC	Toluene	0.628	0.740	0.634	0.686	0.686	0.675	6.79
43)	T	trans-1,3-Dichlorop	0.170	0.230	0.241	0.344	0.402	0.277	33.78
44)	T	1,1,2-Trichloroetha	0.170	0.229	0.170	0.193	0.194	0.191	12.62
45)	T	Tetrachloroethene	0.232	0.289	0.246	0.269	0.265	0.260	8.47
46)	T	1,3-Dichloropropane	0.317	0.436	0.349	0.416	0.425	0.389	13.53
47)	T	2-Hexanone	0.088	0.125	0.092	0.148	0.179	0.126	30.32
48)	T	Dibromochloromethan	0.147	0.199	0.181	0.247	0.268	0.208	23.52
49)	T	1,2-Dibromoethane (	0.171	0.244	0.190	0.237	0.249	0.218	16.20
50)	I	Chlorobenzene-d5	ISTD						
51)	MP	Chlorobenzene	0.765	0.977	0.769	0.776	0.761	0.810	11.50
52)	T	1,1,1,2-Tetrachloro	0.199	0.289	0.255	0.286	0.278	0.261	14.31

3)	C	Ethylbenzene	0.984	1.291	1.263	1.379	1.356	1.255	12.63
4)	T	m,p-Xylene	0.331	0.474	0.484	0.510	0.472	0.454	15.52
5)	T	o-Xylene	0.272	0.375	0.433	0.498	0.469	0.409	21.80
6)	T	Styrene	0.373	0.597	0.709	0.832	0.807	0.664	28.15
7)	P	Bromoform	0.087	0.123	0.101	0.143	0.168	0.124	26.23
8)	T	Isopropylbenzene	0.594	0.876	1.073	1.318	1.287	1.029	29.31
9)	S	Bromofluorobenzene	0.514	0.521	0.524	0.541	0.524	0.525	1.89
0)	P	1,1,2,2-Tetrachloro	0.322	0.444	0.295	0.332	0.314	0.342	17.32
1)	T	Bromobenzene	0.265	0.374	0.302	0.328	0.305	0.314	12.76
2)	T	1,2,3-Trichloroprop		0.311	0.221	0.251	0.243	0.256	15.08
3)	T	n-Propylbenzene	0.926	1.314	1.380	1.554	1.440	1.323	18.05
4)	T	2-Chlorotoluene	0.703	1.138	1.087	1.156	1.070	1.031	18.10
5)	T	1,3,5-Trimethylbenz	0.575	0.877	1.000	1.152	1.060	0.933	23.93
6)	T	4-Chlorotoluene	0.703	1.138	1.087	1.156	1.070	1.031	18.10
7)	T	tert-Butylbenzene	0.413	0.617	0.732	0.931	0.896	0.718	29.58
8)	T	1,2,4-Trimethylbenz	0.533	0.872	1.041	1.180	1.101	0.945	27.20
9)	T	sec-Butylbenzene	0.616	0.956	1.083	1.302	1.251	1.041	26.40
0)	T	1,3-Dichlorobenzene	0.483	0.676	0.604	0.635	0.589	0.597	12.08
1)	T	4-Isopropyltoluene	0.458	0.771	0.939	1.144	1.071	0.877	31.20
2)	T	1,4-Dichlorobenzene	0.481	0.707	0.619	0.662	0.607	0.615	13.76
3)	T	n-Butylbenzene	0.396	0.647	0.787	0.983	0.923	0.747	31.48
4)	T	1,2-Dichlorobenzene	0.434	0.698	0.602	0.636	0.561	0.586	16.87
5)	T	1,2-Dibromo-3-chlor	0.038	0.050	0.032	0.049	0.057	0.045	21.72
6)	T	1,2,4-Trichlorobenz	0.211	0.320	0.250	0.361	0.350	0.299	21.84
7)	T	Hexachlorobutadiene	0.120	0.160	0.123	0.138	0.121	0.132	13.11
8)	T	Naphthalene	0.412	0.808	0.459	0.901	0.861	0.688	33.92
9)	T	1,2,3-Trichlorobenz	0.269	0.466	0.212	0.307	0.289	0.308	30.80
0)	T	1,1,2-Trichloro-1,2		0.232	0.213	0.223	0.179	0.212	10.98
1)	T	Methyl acetate	0.220	0.298	0.193	0.218	0.233	0.232	16.92
2)	T	Cyclohexane		0.653	0.558	0.474	0.448	0.533	17.31
3)	T	Methylcyclohexane	0.274	0.354	0.383	0.412	0.406	0.366	15.28

#) = Out of Range

010411.M Tue Jan 04 15:25:00 2011

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8794.D
Acq On : 13 Jan 2011 9:57 am
Operator : Sylvia
Sample : 20PPB_STD,20PPB_STD,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 13 15:24:49 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	54	0.00
2	T	Dichlorodifluoromethane	0.444	0.499	-12.4	52	0.00
3	P	Chloromethane	0.430	0.415	3.5	50	0.00
4	C	Vinyl chloride	0.373	0.424	-13.7	58	0.00
5	T	Bromomethane	0.199	0.234	-17.6	57	0.01
6	T	Chloroethane	0.190	0.238	-25.3	64	0.00
7	T	Trichlorofluoromethane	0.475	0.640	-34.7	66	0.00
8	T	Acrolein	0.031	0.033	-6.5	63	0.00
9	MC	1,1-Dichloroethene	0.296	0.396	-33.8	70	0.01
10	T	Acetone	0.121	0.146	-20.7	61	0.00
11	T	Carbon disulfide	0.803	1.049	-30.6	63	0.01
12	T	Vinyl acetate	1.319	1.565	-18.7	63	0.00
13	T	Methylene chloride	0.493	0.560	-13.6	63	0.00
14	T	Acrylonitrile	0.199	0.194	2.5	62	0.00
15	T	tert-Butyl alcohol (TBA)	0.037	0.045	-21.6	60	-0.02
16	T	trans-1,2-Dichloroethene	0.480	0.549	-14.4	64	0.00
17	T	Methyl tert-butyl ether (MT	1.262	1.572	-24.6	67	0.00
18	P	1,1-Dichloroethane	0.834	0.948	-13.7	64	0.00
19	T	Diisopropyl ether (DIPE)	1.301	1.546	-18.8	61	0.00
20	T	cis-1,2-Dichloroethene	0.487	0.566	-16.2	63	0.00
21	T	2,2-Dichloropropane	0.425	0.534	-25.6	63	0.00
22	T	2-Butanone (MEK)	0.229	0.224	2.2	57	0.00
23	T	Bromochloromethane	0.247	0.279	-13.0	64	0.00
24	T	Tetrahydrofuran	0.000	0.000	0.0	61	0.00
25	C	Chloroform	0.858	1.071	-24.8	68	0.00
26	T	1,1,1-Trichloroethane	0.653	0.842	-28.9	65	0.00
27	T	Carbon tetrachloride	0.570	0.762	-33.7	66	0.00
28	T	1,1-Dichloropropene	0.595	0.757	-27.2	67	0.00
29	T	1,2-Dichloroethane (EDC)	0.735	0.929	-26.4	69	0.00
30	S	1,2-Dichloroethane-d4	0.695	0.799	-15.0	62	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	57	0.00
32	M	Benzene	1.109	1.159	-4.5	61	0.00
33	M	Trichloroethene	0.278	0.331	-19.1	67	0.00
34	C	1,2-Dichloropropane	0.258	0.272	-5.4	59	0.00
35	T	Dibromomethane	0.167	0.193	-15.6	64	0.00
36	T	1,4-Dioxane	0.003	0.003	0.0	55	0.00
37	T	Bromodichloromethane	0.317	0.414	-30.6	66	0.00
38	T	2-Chloroethyl vinyl ether	0.137	0.160	-16.8	59	0.00
39	T	cis-1,3-Dichloropropene	0.305	0.397	-30.2	61	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.200	0.245	-22.5	61	0.00
41	S	Toluene-d8	1.115	1.164	-4.4	58	0.00
42	MC	Toluene	0.675	0.752	-11.4	63	0.00
43	T	trans-1,3-Dichloropropene	0.277	0.359	-29.6	60	0.00
44	T	1,1,2-Trichloroethane	0.191	0.203	-6.3	60	0.00
45	T	Tetrachloroethene	0.260	0.311	-19.6	66	0.00

46	T	1,3-Dichloropropane	0.389	0.449	-15.4	62	0.00
47	T	2-Hexanone	0.126	0.165	-31.0	64	0.00
48	T	Dibromochloromethane	0.208	0.266	-27.9	61	0.00
49	T	1,2-Dibromoethane (EDB)	0.218	0.260	-19.3	63	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	64	0.00
51	MP	Chlorobenzene	0.810	0.764	5.7	63	0.00
52	T	1,1,1,2-Tetrachloroethane	0.261	0.305	-16.9	68	0.00
53	C	Ethylbenzene	1.255	1.436	-14.4	67	0.00
54	T	m,p-Xylene	0.454	0.517	-13.9	65	0.00
55	T	o-Xylene	0.409	0.498	-21.8	64	0.00
56	T	Styrene	0.664	0.849	-27.9	65	0.00
57	P	Bromoform	0.124	0.159	-28.2	71	0.00
58	T	Isopropylbenzene	1.029	1.386	-34.7	67	0.00
59	S	Bromofluorobenzene	0.525	0.595	-13.3	70	0.00
60	P	1,1,2,2-Tetrachloroethane	0.342	0.308	9.9	59	0.00
61	T	Bromobenzene	0.314	0.338	-7.6	66	0.00
62	T	1,2,3-Trichloropropane	0.256	0.237	7.4	60	0.00
63	T	n-Propylbenzene	1.323	1.641	-24.0	67	0.00
64	T	2-Chlorotoluene	1.031	1.266	-22.8	70	0.00
65	T	1,3,5-Trimethylbenzene	0.933	1.231	-31.9	68	0.00
66	T	4-Chlorotoluene	1.031	1.266	-22.8	70	0.00
67	T	tert-Butylbenzene	0.718	0.923	-28.6	63	0.00
68	T	1,2,4-Trimethylbenzene	0.945	1.258	-33.1	68	0.00
69	T	sec-Butylbenzene	1.041	1.379	-32.5	68	0.00
70	T	1,3-Dichlorobenzene	0.597	0.663	-11.1	67	0.00
71	T	4-Isopropyltoluene	0.877	1.144	-30.4	64	0.00
72	T	1,4-Dichlorobenzene	0.615	0.685	-11.4	66	0.00
73	T	n-Butylbenzene	0.747	0.982	-31.5	64	0.00
74	T	1,2-Dichlorobenzene	0.586	0.647	-10.4	65	0.00
75	T	1,2-Dibromo-3-chloropropane	0.045	0.049	-8.9	64	0.00
76	T	1,2,4-Trichlorobenzene	0.299	0.353	-18.1	62	0.00
77	T	Hexachlorobutadiene	0.132	0.164	-24.2	76	0.00
78	T	Naphthalene	0.688	0.825	-19.9	58	0.00
79	T	1,2,3-Trichlorobenzene	0.308	0.311	-1.0	65	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.212	0.251	-18.4	72	-0.01
81	T	Methyl acetate	0.232	0.181	22.0	53	0.00
82	T	Cyclohexane	0.533	0.462	13.3	62	0.00
83	T	Methylcyclohexane	0.366	0.421	-15.0	65	0.00

(#) = Out of Range

A010411.M Thu Jan 13 15:24:59 2011

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/13/2011

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	AQUEOUS	G8796.D	124	101	110
LFB_020PPB	AQUEOUS	G8797.D	121	107	117
00243-006	AQUEOUS	G8798.D	114	101	115
00243-002	AQUEOUS	G8799.D	114	101	109
00319-002	AQUEOUS	G8800.D	116	99	113
287-003MS	AQUEOUS	G8801.D	108	104	110
287-003MSD	AQUEOUS	G8802.D	104	103	109
00319-001	AQUEOUS	G8803.D	107	99	109
00286-007	AQUEOUS	G8805.D	105	99	106
00286-006	AQUEOUS	G8806.D	107	100	109
00286-005	AQUEOUS	G8807.D	106	101	107
00286-001	AQUEOUS	G8810.D	104	99	106
00286-002	AQUEOUS	G8811.D	105	99	106
00287-002	AQUEOUS	G8813.D	106	98	106
00287-003	AQUEOUS	G8814.D	106	100	106
00305-001	AQUEOUS	G8815.D	108	99	106
00285-003	AQUEOUS	G8816.D	107	99	107
00285-004	AQUEOUS	G8817.D	108	99	109
00290-001	AQUEOUS	G8818.D	103	99	110
00290-002	AQUEOUS	G8821.D	105	102	107
00290-003	AQUEOUS	G8822.D	103	99	106
00290-006	AQUEOUS	G8823.D	102	100	104
00290-008	AQUEOUS	G8824.D	108	101	106
00290-004	AQUEOUS	G8825.D	110	100	108

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	91-126
SMC2 = Toluene-d8	30 ppb	94-107
SMC3 = Bromofluorobenzene	30 ppb	98-122

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 01/13/2011

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
00290-005	AQUEOUS	G8826.D	110	101	108
00290-009	AQUEOUS	G8827.D	108	101	108
00290-010	AQUEOUS	G8828.D	114	102	108
00290-007	AQUEOUS	G8829.D	110	99	107
BLANK-MS	AQUEOUS	G8830.D	107	105	111
BLANK-MSD	AQUEOUS	G8831.D	106	103	112
00290-011	AQUEOUS	G8833.D	114	100	110

	Concentration	Aqueous
SMC1 = 1,2-Dichloroethane-d4	30 ppb	91-126
SMC2 = Toluene-d8	30 ppb	94-107
SMC3 = Bromofluorobenzene	30 ppb	98-122

Column to be used to flag recovery values

FOIE11-00286 0036

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: BLANK-MSD
Client ID: BLANK-MSD
Date Received: NA
Date Analyzed: 01/14/2011
Data file: G8831.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	Sample	Conc. MSD	%Rec. MSD
Chloromethane	20.0	0.0	16.6	83.0	0.0	15.2	76.0
Vinyl chloride	20.0	0.0	18.3	92.0	0.0	17.1	86.0
Bromomethane	20.0	0.0	23.3	117.0	0.0	22.0	110.0
Chloroethane	20.0	0.0	20.6	103.0	0.0	19.8	99.0
Trichlorofluoromethane	20.0	0.0	20.4	102.0	0.0	19.7	99.0
Acrolein	200.0	0.0	178.1	89.0	0.0	156.1	78.0
1,1-Dichloroethene	20.0	0.0	21.8	109.0	0.0	20.9	105.0
Methylene chloride	20.0	0.0	22.9	115.0	0.0	22.3	112.0
Acrylonitrile	200.0	0.0	159.8	80.0	0.0	150.3	75.0
trans-1,2-Dichloroethene	20.0	0.0	21.6	108.0	0.0	20.9	105.0
1,1-Dichloroethane	20.0	0.0	21.8	109.0	0.0	21.3	107.0
Chloroform	20.0	0.0	24.4	122.0	0.0	23.5	118.0
1,1,1-Trichloroethane	20.0	0.0	25.5	128.0	0.0	24.5	123.0
Carbon tetrachloride	20.0	0.0	23.9	120.0	0.0	23.0	115.0
1,2-Dichloroethane (EDC)	20.0	0.0	24.9	125.0	0.0	23.8	119.0
Benzene	20.0	0.0	20.5	103.0	0.0	19.6	98.0
Trichloroethene	20.0	0.0	22.8	114.0	0.0	21.6	108.0
1,2-Dichloropropane	20.0	0.0	21.4	107.0	0.0	20.8	104.0
Bromodichloromethane	20.0	0.0	24.7	124.0	0.0	24.7	124.0
2-Chloroethyl vinyl ether	20.0	0.0	0.0	0.0	0.0	0.0	0.0
cis-1,3-Dichloropropene	20.0	0.0	25.1	126.0	0.0	24.3	122.0
Toluene	20.0	0.0	21.6	108.0	0.0	20.6	103.0
trans-1,3-Dichloropropene	20.0	0.0	23.0	115.0	0.0	25.1	126.0
1,1,2-Trichloroethane	20.0	0.0	21.4	107.0	0.0	20.7	104.0
Tetrachloroethene	20.0	0.0	20.7	104.0	0.0	20.0	100.0
Dibromochloromethane	20.0	0.0	24.3	122.0	0.0	25.5	128.0
Chlorobenzene	20.0	0.0	18.8	94.0	0.0	17.9	90.0
Ethylbenzene	20.0	0.0	21.2	106.0	0.0	20.4	102.0
total-Xylenes	60.0	0.0	66.7	111.0	0.0	64.6	108.0
Bromoform	20.0	0.0	21.9	110.0	0.0	21.6	108.0
1,1,2,2-Tetrachloroethane	20.0	0.0	17.7	89.0	0.0	16.6	83.0
1,3-Dichlorobenzene	20.0	0.0	21.6	108.0	0.0	20.9	105.0
1,4-Dichlorobenzene	20.0	0.0	21.8	109.0	0.0	21.2	106.0
1,2-Dichlorobenzene	20.0	0.0	22.3	112.0	0.0	21.6	108.0

2-Chloroethyl vinyl ether has zero spike recovery in the MS/MSD. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G8588.D

Date Analyzed: 01/04/2011

Instrument ID: MSD_G

Time Analyzed: 10:13

	30UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	1831075		6.00		3013262		6.83		2856997		10.16	
	UPPER LIMIT	3662150		6.50		6026524		7.33		5713994		10.66	
	LOWER LIMIT	915537.5		5.50		1506631		6.33		1428498.5		9.66	
	LAB SAMPLE ID												
01	5PPB_STD	2268947		6.00		3972110		6.83		3551923		10.16	
02	1PPB_STD	2101905		6.00		3570829		6.83		3201798		10.16	
03	0.5PPB_STD	2027037		6.00		3480280		6.82		3156338		10.16	
04	100PPB_STD	2243784		6.00		3788096		6.82		3606534		10.16	
05	METHOD_BLK	1975958		6.00		3458318		6.83		3108686		10.16	
06	13204-1DIL	1553887		6.01		2595984		6.83		2959003		10.16	
07	13180-7DIL	1927624		6.01		3327451		6.83		3028159		10.16	
08	13180-004	2227187		6.00		3626139		6.83		3416594		10.16	
09	LFB_020PPB	2175655		6.00		3654701		6.83		3371803		10.16	
10	13219-002MS	2348967		6.00		3899417		6.83		3577211		10.16	
11	13219-002MSD	2286469		6.00		3800933		6.83		3499489		10.16	
12	13219-010	1485932		6.00		2524470		6.83		2290044		10.16	
13	13219-011	1929455		6.01		3340299		6.83		3021949		10.16	
14	13219-002	1815847		6.01		3157253		6.83		2845324		10.16	
15	13219-003	1679007		6.00		2953029		6.82		2638742		10.16	
16	13219-004	1635820		6.01		2896289		6.83		2720170		10.16	
17	13219-005	1798182		6.00		3148803		6.83		2817314		10.16	
18	13219-006	1805051		6.00		3148279		6.83		2836087		10.16	
19	13219-008	1669446		6.01		3007485		6.83		2738654		10.16	
20	13219-007	1848213		6.00		3116834		6.83		2978573		10.16	
21	13219-009	2075815		6.00		3479995		6.83		3160652		10.16	
22	13219-001	1958630		6.00		3427562		6.83		3147469		10.16	

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G8794.D Date Analyzed: 01/13/2011

Instrument ID: MSD_G Time Analyzed: 9:57

	30UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	992815		6.00		1720715		6.82		1825094		10.16	
	UPPER LIMIT	1985630		6.50		3441430		7.32		3650188		10.66	
	LOWER LIMIT	496407.5		5.50		860357.5		6.32		912547		9.66	
	LAB SAMPLE ID												
01	METHOD_BLK	837354		6.00		1487946		6.82		1575114		10.16	
02	LFB_020PPB	878043		6.00		1513106		6.82		1618610		10.15	
03	00243-006	950167		6.00		1636284		6.82		1689771		10.16	
04	00243-002	957497		6.00		1655767		6.83		1775509		10.16	
05	00319-002	959473		6.00		1711987		6.83		1814589		10.16	
06	287-003MS	1050105		6.00		1821203		6.82		1911104		10.16	
07	287-003MSD	1106097		6.00		1923497		6.82		2016840		10.16	
08	00319-001	1046966		6.00		1835213		6.82		1922640		10.16	
09	00286-007	1080551		6.00		1904152		6.83		1982477		10.16	
10	00286-006	1043805		6.00		1865401		6.82		1958124		10.16	
11	00286-005	1064218		6.00		1889286		6.82		1992797		10.16	
12	00286-001	1084538		6.00		1912780		6.82		1989488		10.16	
13	00286-002	1055534		6.00		1897878		6.83		1974617		10.16	
14	00287-002	1050234		6.00		1875375		6.82		1957538		10.16	
15	00287-003	1009971		6.00		1802763		6.83		1899648		10.16	
16	00305-001	1020725		6.00		1806255		6.83		1898374		10.16	
17	00285-003	1021932		6.00		1803987		6.82		1902989		10.15	
18	00285-004	982792		6.00		1769081		6.82		1866836		10.16	
19	00290-001	1052706		6.01		1837380		6.83		1921581		10.16	
20	00290-002	1025376		6.00		1810180		6.82		1935631		10.15	
21	00290-003	1035513		6.00		1829973		6.82		1927485		10.16	
22	00290-006	1065292		6.00		1844123		6.82		2001690		10.16	

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): G8794.D Date Analyzed: 01/13/2011

Instrument ID: MSD_G Time Analyzed: 9:57

	30UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	992815		6.00		1720715		6.82		1825094		10.16	
	UPPER LIMIT	1985630		6.50		3441430		7.32		3650188		10.66	
	LOWER LIMIT	496407.5		5.50		860357.5		6.32		912547		9.66	
	LAB SAMPLE ID												
23	00290-008	959834		6.01		1697316		6.82		1826790		10.15	
24	00290-004	948961		6.00		1713861		6.82		1795688		10.15	
25	00290-005	926236		6.00		1661632		6.82		1791937		10.16	
26	00290-009	958345		6.00		1704982		6.82		1820087		10.16	
27	00290-010	879494		6.00		1597391		6.82		1714881		10.15	
28	00290-007	928030		6.00		1666063		6.82		1779106		10.16	
29	BLANK-MS	953881		6.00		1644366		6.82		1767397		10.15	
30	BLANK-MSD	992335		6.00		1735546		6.82		1843645		10.15	
31	00290-011	875753		6.00		1586174		6.83		1669830		10.16	
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8810.D
Acq On : 13 Jan 2011 5:23 pm
Operator : Sylvia
Sample : TRIP,00286-001,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 14 12:17:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	1084538	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	1912780	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	1989488	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	784158	31.23	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 104.10%			
41) Toluene-d8	8.48	98	2112893	29.72	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 99.07%			
59) Bromofluorobenzene	11.56	95	1109639	31.88	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 106.27%			

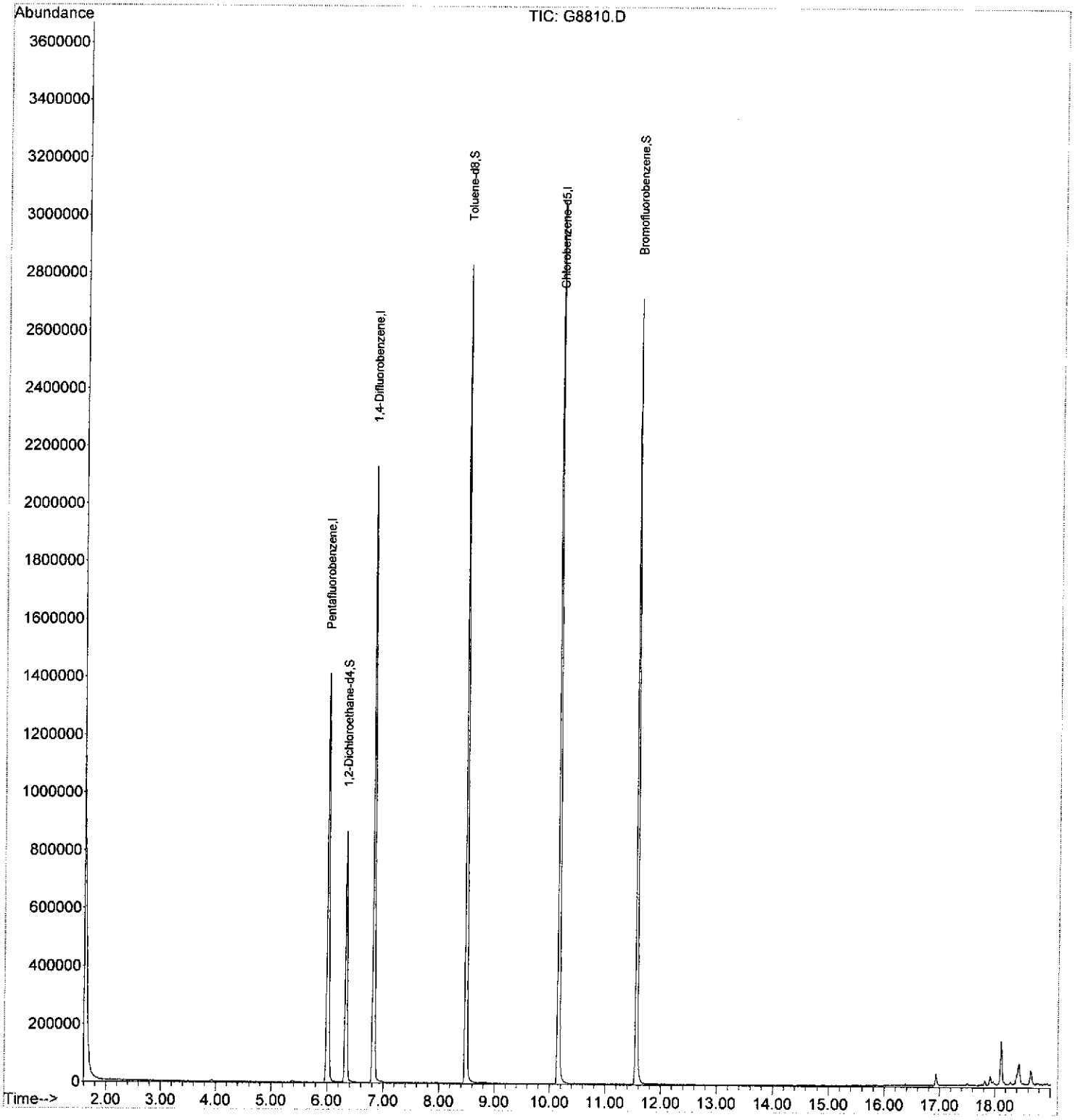
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8810.D
Acq On : 13 Jan 2011 5:23 pm
Operator : Sylvia
Sample : TRIP,00286-001,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 14 12:17:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8810.D
Acq On : 13 Jan 2011 5:23 pm
Operator : Sylvia
Sample : TRIP,00286-001,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA010411.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	832	846	875	rBV	1411478	3250130	54.82%	12.048%
2	6.334	896	909	925	rBV	865520	1992252	33.60%	7.385%
3	6.821	987	1002	1028	rBV	2130032	4431561	74.75%	16.428%
4	8.484	1308	1320	1361	rBV	2831977	5463321	92.15%	20.252%
5	10.152	1628	1639	1681	rBV	3056115	5928462	100.00%	21.977%
6	11.559	1892	1908	1932	rBV	2715429	5028691	84.82%	18.641%
7	16.931	2925	2935	2950	rBV2	40546	83927	1.42%	0.311%
8	17.919	3116	3124	3131	rBV2	30694	71154	1.20%	0.264%
9	18.113	3151	3161	3185	rVB2	150624	342327	5.77%	1.269%
10	18.432	3207	3222	3245	rBV2	71526	250262	4.22%	0.928%
11	18.646	3253	3263	3280	rBV2	49591	134244	2.26%	0.498%

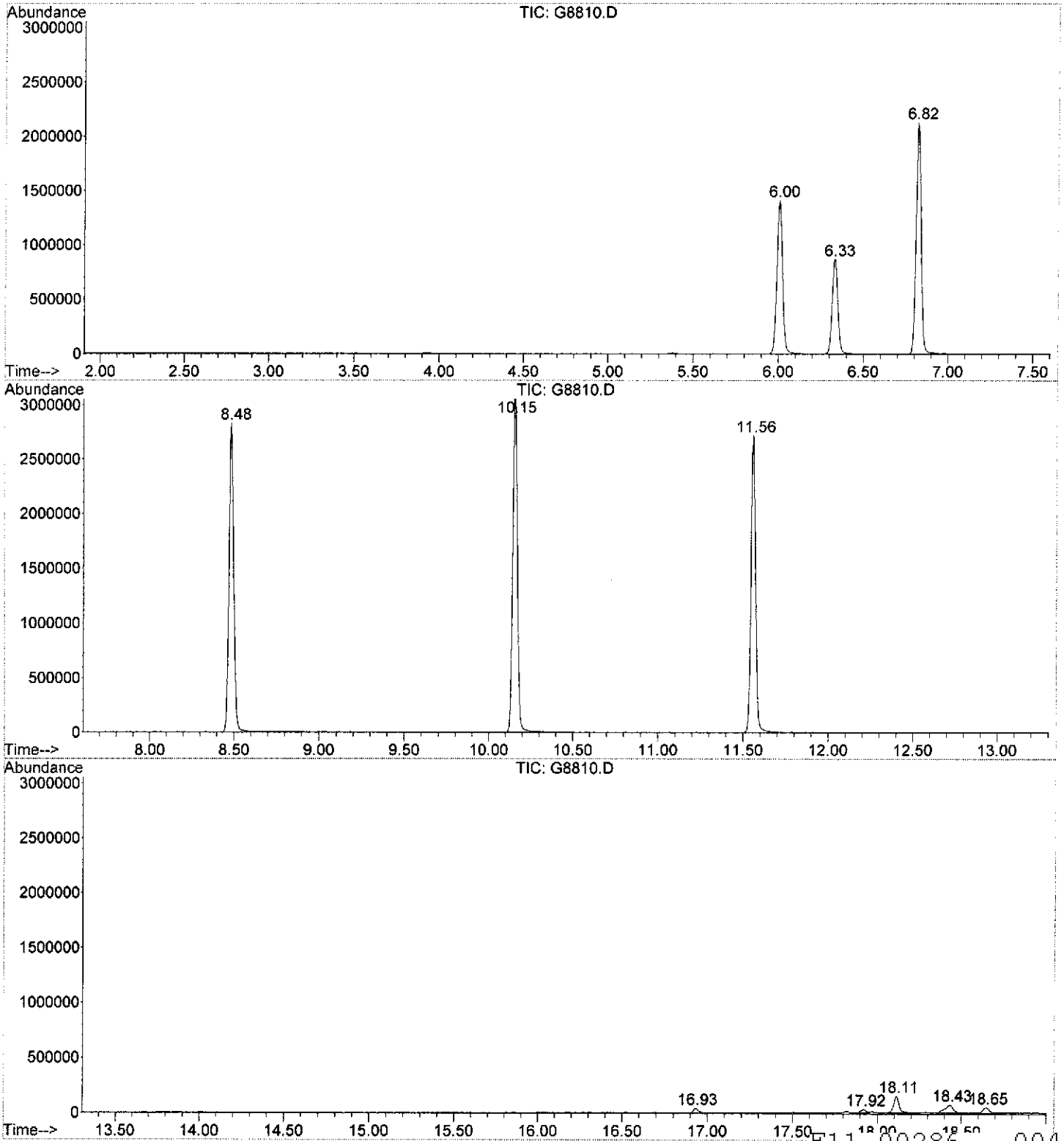
Sum of corrected areas: 26976331

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8810.D
Acq On : 13 Jan 2011 5:23 pm
Operator : Sylvia
Sample : TRIP,00286-001,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8811.D
Acq On : 13 Jan 2011 5:51 pm
Operator : Sylvia
Sample : FIELD,00286-002,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 14 12:18:48 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	1055534	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	1897878	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	1974617	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	770686	31.53	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 105.10%			
41) Toluene-d8	8.48	98	2086624	29.58	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 98.60%			
59) Bromofluorobenzene	11.56	95	1101831	31.90	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 106.33%			

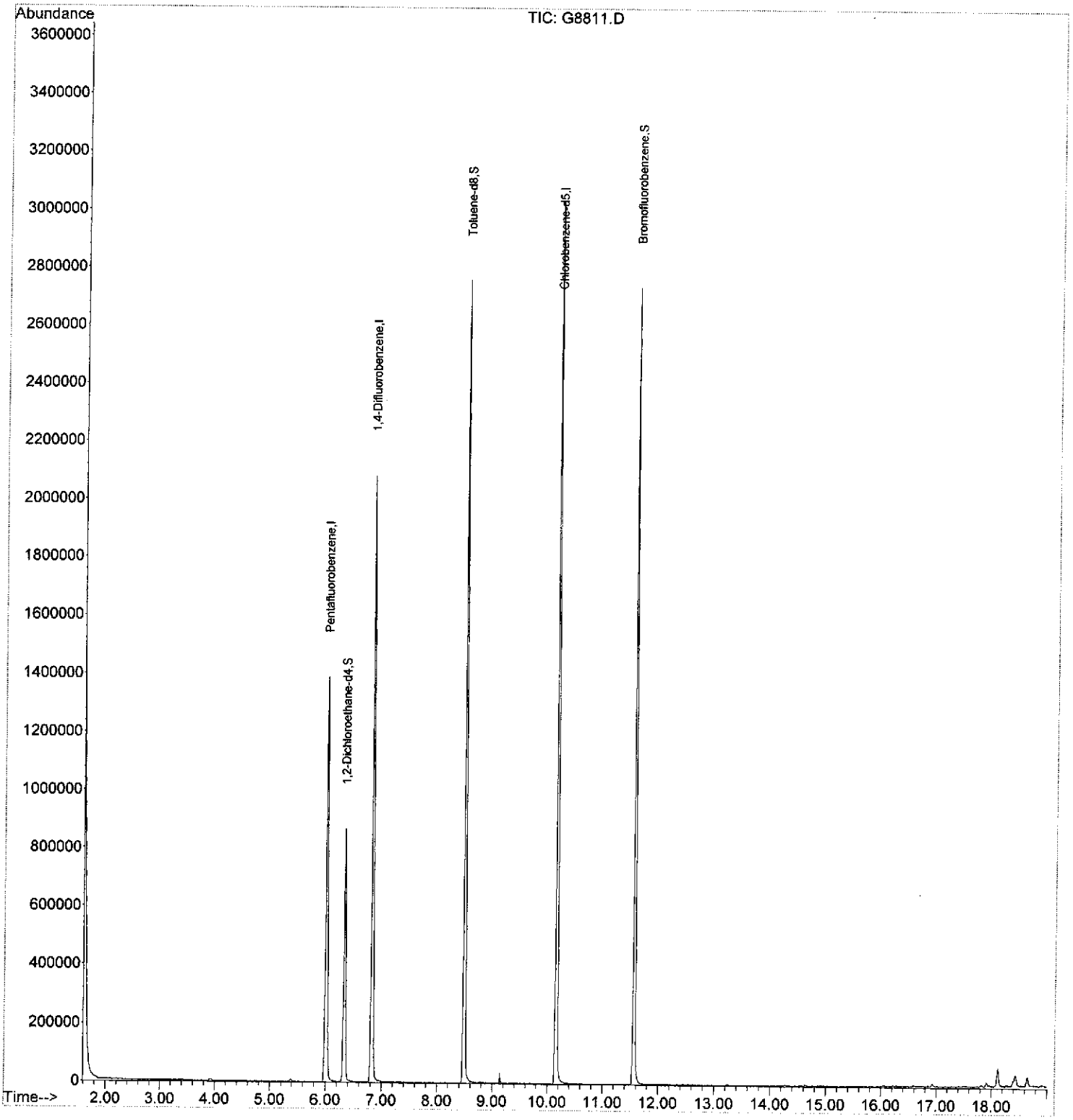
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8811.D
Acq On : 13 Jan 2011 5:51 pm
Operator : Sylvia
Sample : FIELD,00286-002,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 14 12:18:48 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8811.D
Acq On : 13 Jan 2011 5:51 pm
Operator : Sylvia
Sample : FIELD,00286-002,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA010411.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.004	831	846	872	rBV	1389218	3197073	54.11%	12.162%
2	6.329	897	908	944	rVB	866744	1990875	33.69%	7.574%
3	6.820	989	1002	1046	rBV	2082512	4416205	74.74%	16.800%
4	8.484	1307	1320	1344	rBV	2758805	5387102	91.17%	20.493%
5	10.152	1627	1639	1677	rBV	3032263	5908783	100.00%	22.478%
6	11.559	1893	1908	1930	rBV	2737662	5013278	84.84%	19.071%
7	18.118	3151	3162	3171	rBV2	60697	140940	2.39%	0.536%
8	18.426	3207	3221	3237	rBV4	37966	136106	2.30%	0.518%
9	18.651	3250	3264	3286	rBV3	32618	96610	1.64%	0.368%

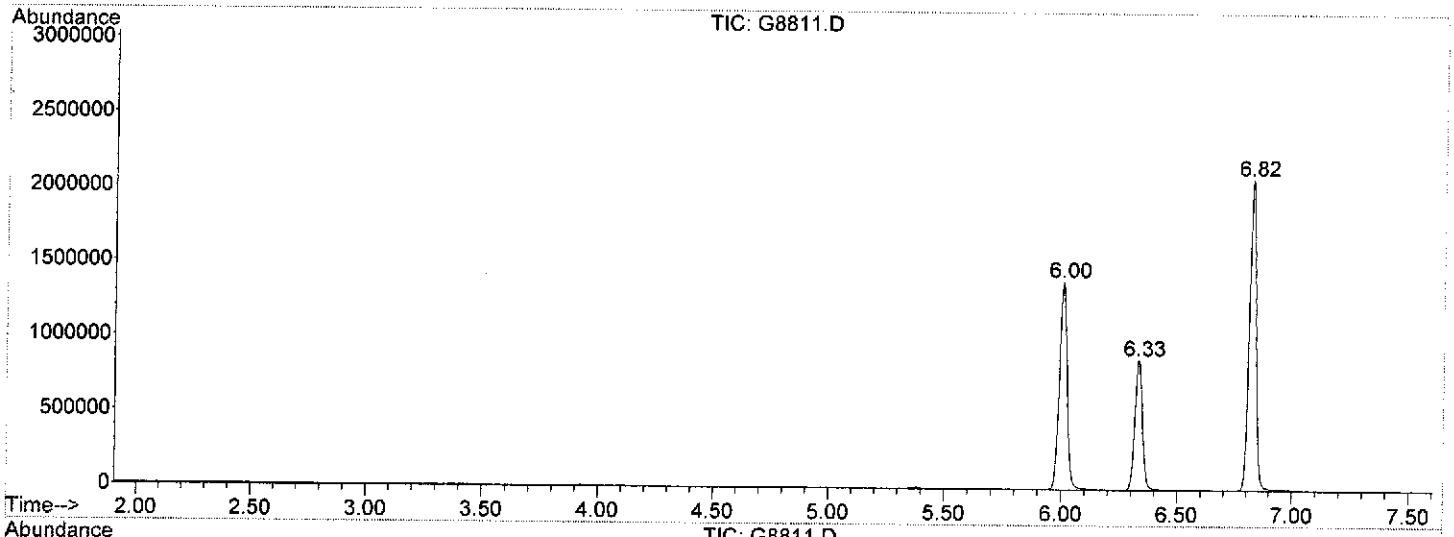
Sum of corrected areas: 26286972

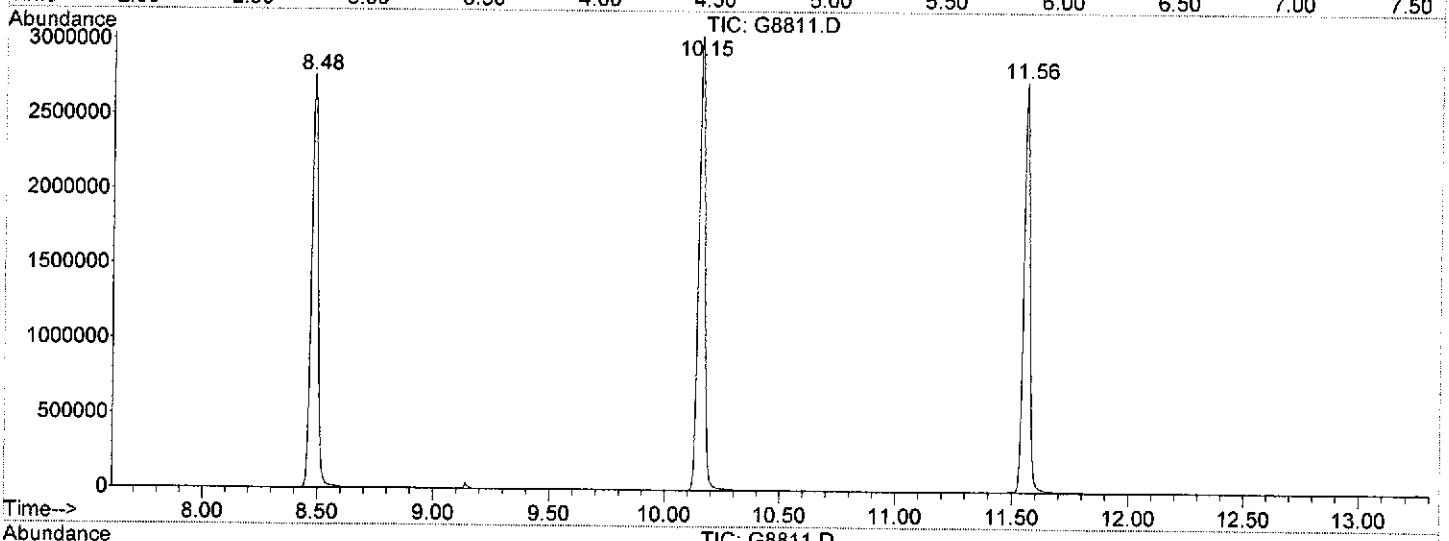
LSC Report - Integrated Chromatogram

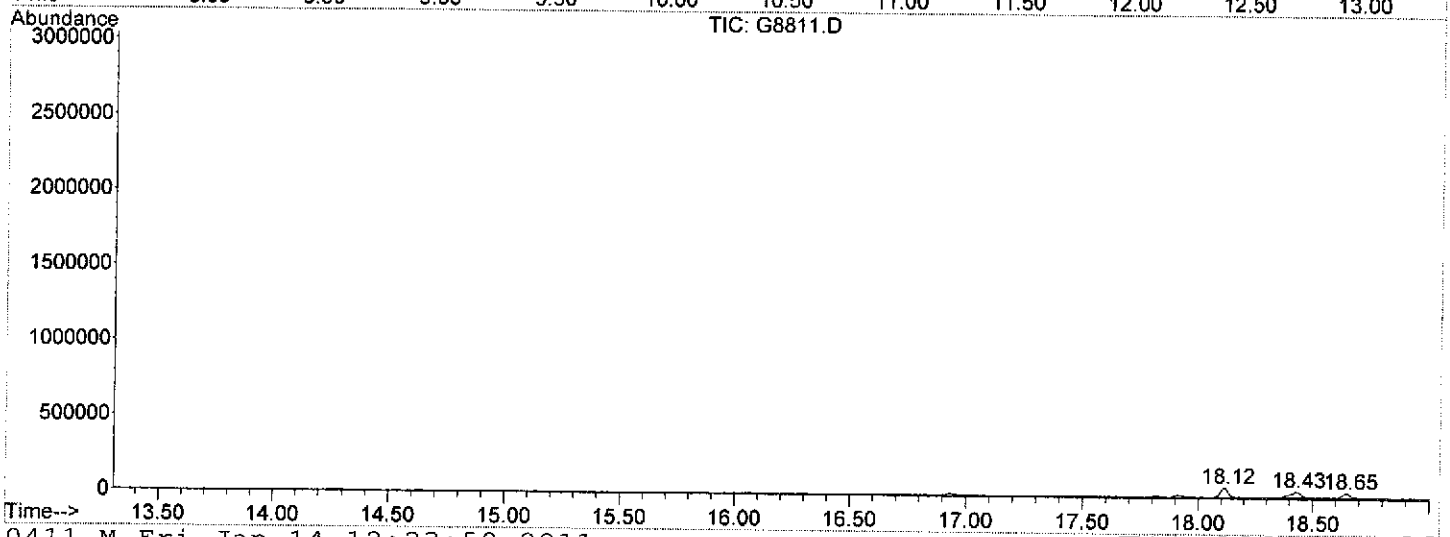
Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8811.D
Acq On : 13 Jan 2011 5:51 pm
Operator : Sylvia
Sample : FIELD,00286-002,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 14 12:12:12 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration

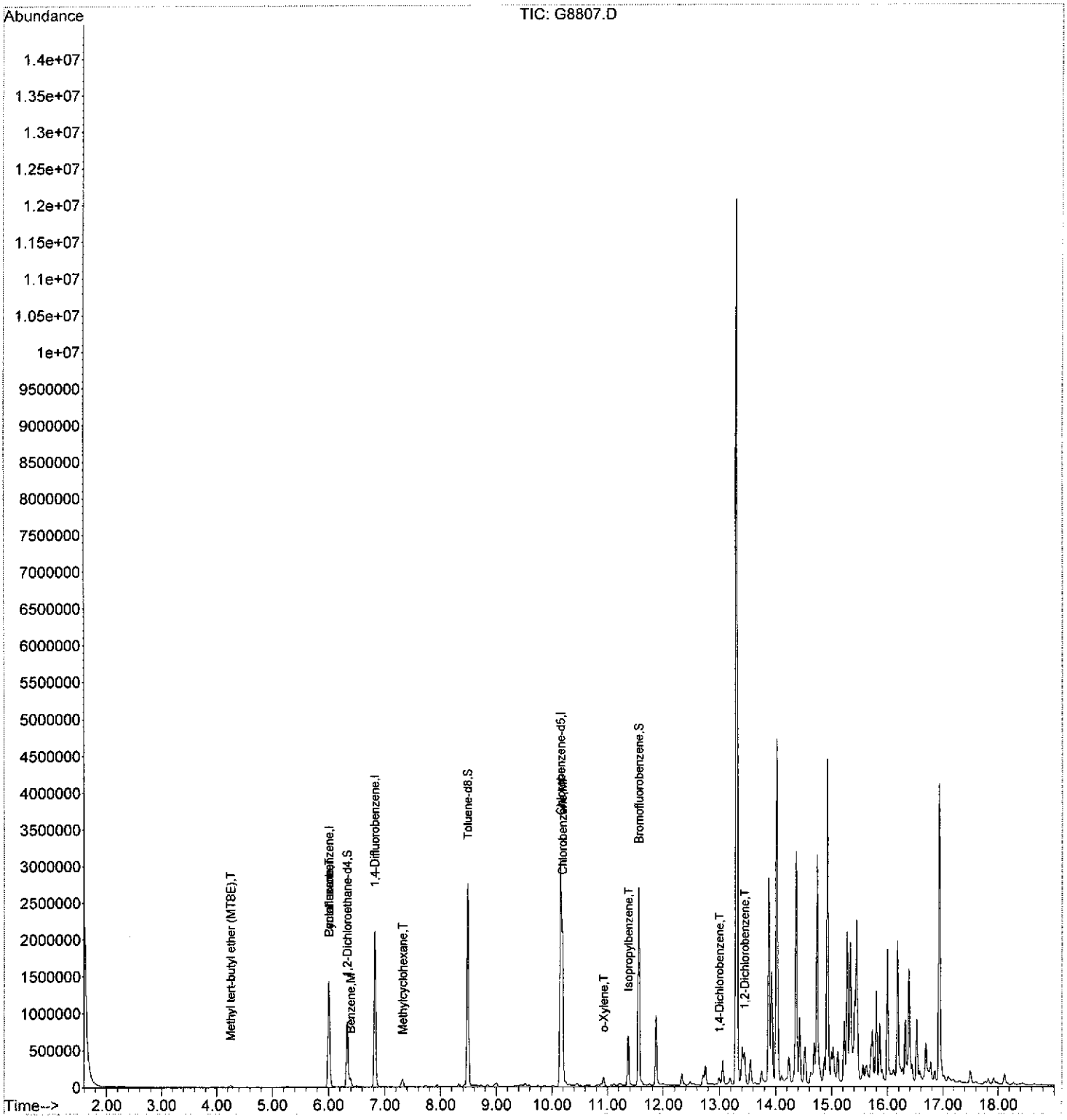
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.00	168	1064218	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	1889286	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	1992797	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	783848	31.81	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 106.03%				
41) Toluene-d8	8.48	98	2121475	30.21	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 100.70%				
59) Bromofluorobenzene	11.56	95	1117614	32.06	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 106.87%				
Target Compounds							Qvalue
17) Methyl tert-butyl ether (M	4.25	73	31738	0.71	UG		100
32) Benzene	6.39	78	116499	1.67	UG		100
51) Chlorobenzene	10.19	112	1283687	23.87	UG	#	65
55) o-Xylene	10.93	106	38739	1.42	UG		97
58) Isopropylbenzene	11.37	105	519430	7.60	UG		99
72) 1,4-Dichlorobenzene	13.00	146	48289	1.18	UG		100
74) 1,2-Dichlorobenzene	13.45	146	129542	3.33	UG	#	83
82) Cyclohexane	6.00	56	37015	1.04	UG	#	75
83) Methylcyclohexane	7.32	83	44297	1.82	UG		90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 14 12:12:12 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA010411.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	832	846	873	rBV	1426228	3305532	14.18%	2.193%
2	6.329	894	908	917	rBV	878878	2044868	8.77%	1.357%
3	6.820	991	1002	1020	rBV	2103162	4414843	18.93%	2.929%
4	7.317	1082	1097	1109	rBV3	108064	293958	1.26%	0.195%
5	8.484	1311	1320	1344	rVB	2731103	5346608	22.93%	3.547%
6	10.157	1629	1640	1665	rBV2	3073287	10065535	43.17%	6.678%
7	10.931	1781	1788	1801	rVB	126135	281733	1.21%	0.187%
8	11.371	1864	1872	1895	rBV	667075	1307396	5.61%	0.867%
9	11.559	1895	1908	1939	rBV	2671661	5150533	22.09%	3.417%
10	11.868	1958	1967	1985	rBV	943060	1830246	7.85%	1.214%
11	12.333	2047	2056	2073	rBV2	155976	358781	1.54%	0.238%
12	12.710	2120	2128	2131	rBV	135594	258156	1.11%	0.171%
13	12.752	2131	2136	2154	rVB	255085	544946	2.34%	0.362%
14	13.060	2188	2195	2210	rVV	322423	608832	2.61%	0.404%
15	13.301	2231	2241	2254	rBV	12034632	23318717	100.00%	15.470%
16	13.405	2254	2261	2265	rVV	495612	1091845	4.68%	0.724%
17	13.442	2265	2268	2280	rVB2	426440	887063	3.80%	0.589%
18	13.552	2280	2289	2302	rBV3	329600	712700	3.06%	0.473%
19	13.745	2318	2326	2342	rBV	171196	449015	1.93%	0.298%
20	13.876	2342	2351	2357	rVV	2766707	5386053	23.10%	3.573%
21	13.928	2357	2361	2369	rVV	1487576	2774322	11.90%	1.841%
22	14.017	2369	2378	2391	rVV	4648088	9536316	40.90%	6.327%
23	14.237	2413	2420	2430	rVB2	332940	720645	3.09%	0.478%
24	14.362	2430	2444	2451	rBV	3118370	5865392	25.15%	3.891%
25	14.425	2451	2456	2467	rVB	865487	1582308	6.79%	1.050%
26	14.519	2467	2474	2486	rVB4	491323	1123794	4.82%	0.746%
27	14.624	2486	2494	2499	rBV2	156491	381421	1.64%	0.253%
28	14.682	2499	2505	2509	rVV	504418	921310	3.95%	0.611%
29	14.734	2509	2515	2532	rVB	3056909	5677433	24.35%	3.767%
30	14.865	2532	2540	2544	rBV2	326369	600518	2.58%	0.398%
31	14.917	2544	2550	2560	rVV	4333378	7639647	32.76%	5.068%
32	14.990	2560	2564	2568	rVV2	365895	675425	2.90%	0.448%
33	15.027	2568	2571	2581	rVV	429467	714904	3.07%	0.474%
34	15.105	2581	2586	2600	rVB3	409457	783101	3.36%	0.520%
35	15.220	2600	2608	2612	rBV2	811172	1448093	6.21%	0.961%
36	15.273	2612	2618	2623	rVV	1958958	3605378	15.46%	2.392%
37	15.330	2623	2629	2637	rVV3	1815777	4151808	17.80%	2.754%

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA010411.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

38	15.409	2637	2644	2646	rVV2	1065329	2035185	8.73%	1.350%
39	15.440	2646	2650	2664	rVB2	2144507	4480431	19.21%	2.972%
40	15.560	2664	2673	2678	rBV2	201641	369345	1.58%	0.245%
41	15.618	2678	2684	2694	rVB8	161798	366651	1.57%	0.243%
42	15.728	2694	2705	2711	rBV2	639395	1595205	6.84%	1.058%
43	15.796	2711	2718	2725	rVV2	1141636	1945031	8.34%	1.290%
44	15.858	2725	2730	2736	rVV	698798	1076966	4.62%	0.714%
45	15.900	2736	2738	2749	rVB2	149481	254681	1.09%	0.169%
46	15.994	2749	2756	2773	rBV	1760360	3170735	13.60%	2.104%
47	16.177	2784	2791	2806	rBV	1806747	3402326	14.59%	2.257%
48	16.319	2812	2818	2825	rBV2	732389	1280712	5.49%	0.850%
49	16.381	2825	2830	2839	rVV2	1419036	2595464	11.13%	1.722%
50	16.439	2839	2841	2850	rVB2	222212	313790	1.35%	0.208%
51	16.523	2850	2857	2865	rBV2	818387	1547101	6.63%	1.026%
52	16.690	2878	2889	2901	rBV3	478725	1230204	5.28%	0.816%
53	16.779	2901	2906	2914	rVB2	234158	420675	1.80%	0.279%
54	16.931	2927	2935	2961	rVB	4009819	7791455	33.41%	5.169%
55	17.495	3035	3043	3056	rVB2	168331	364822	1.56%	0.242%
56	17.919	3116	3124	3152	rVV3	86714	266625	1.14%	0.177%
57	18.113	3152	3161	3184	rVB2	140894	366146	1.57%	0.243%

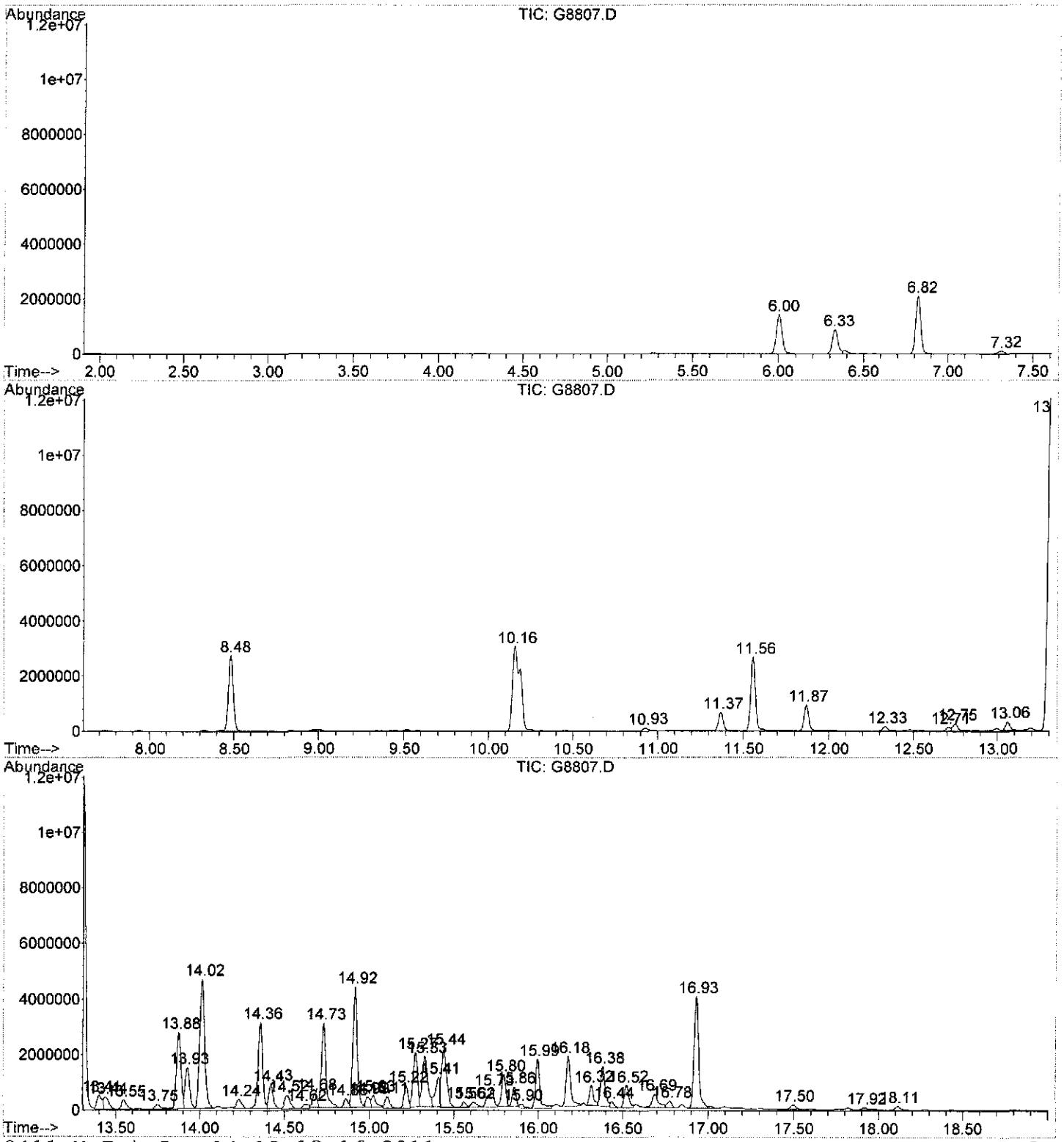
Sum of corrected areas: 150732725

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

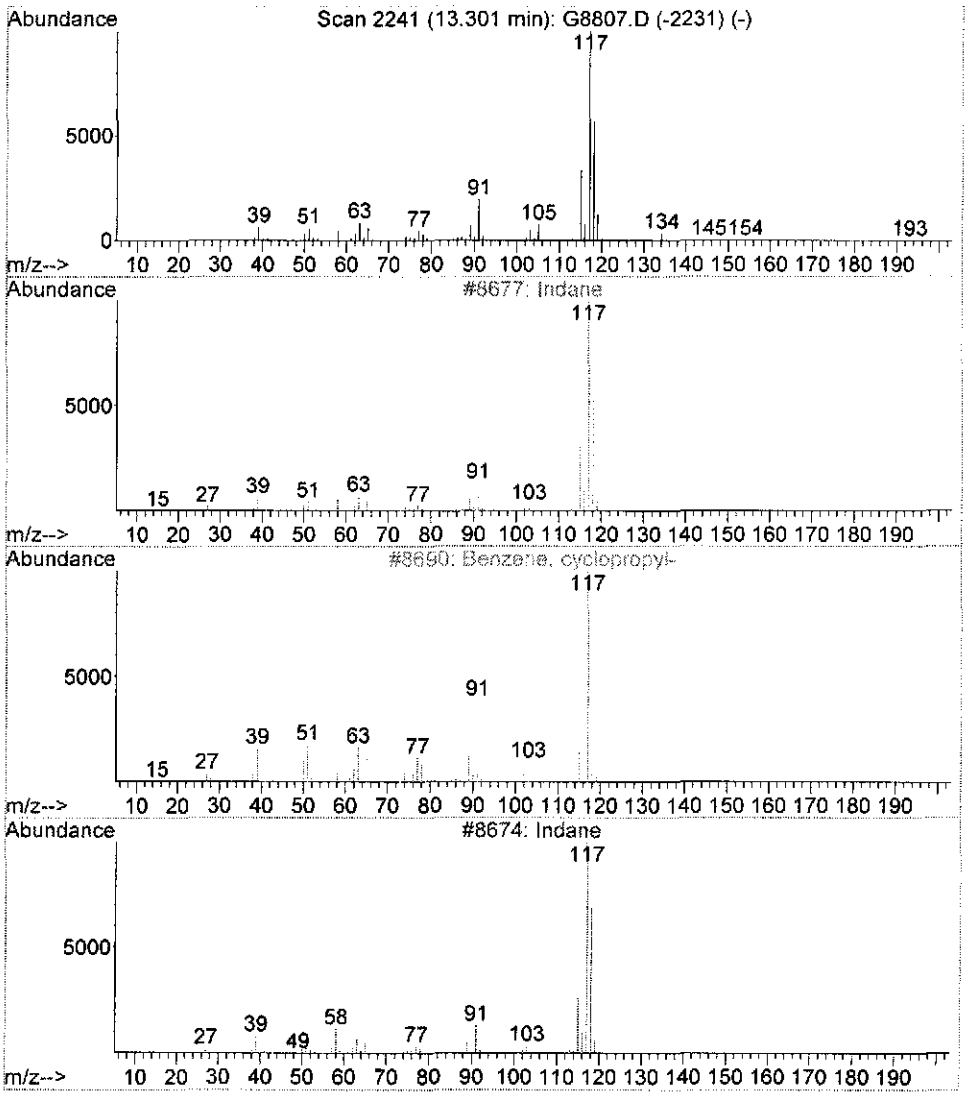
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

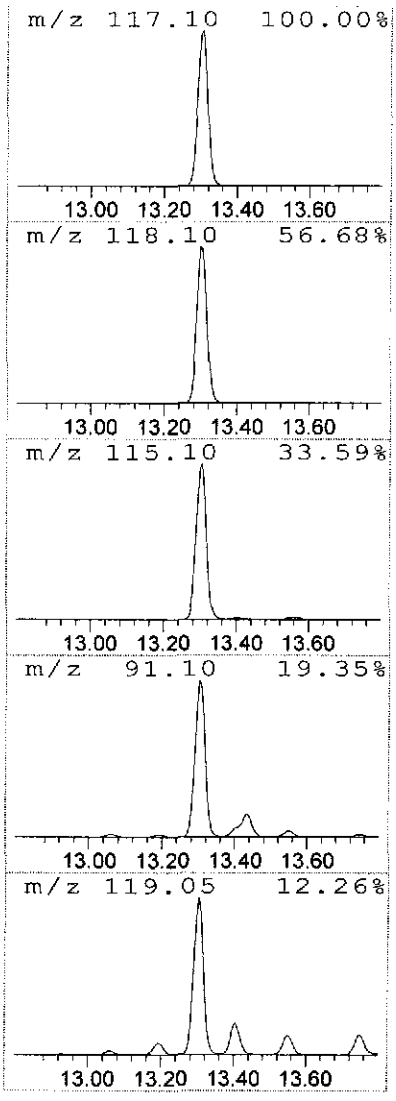
****

Peak Number 1 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.30	69.50 UG	23318700	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	76
2	Benzene, cyclopropyl-	118	C9H10	000873-49-4	76
3	Indane	118	C9H10	000496-11-7	68
4	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	68
5	Indane	118	C9H10	000496-11-7	68





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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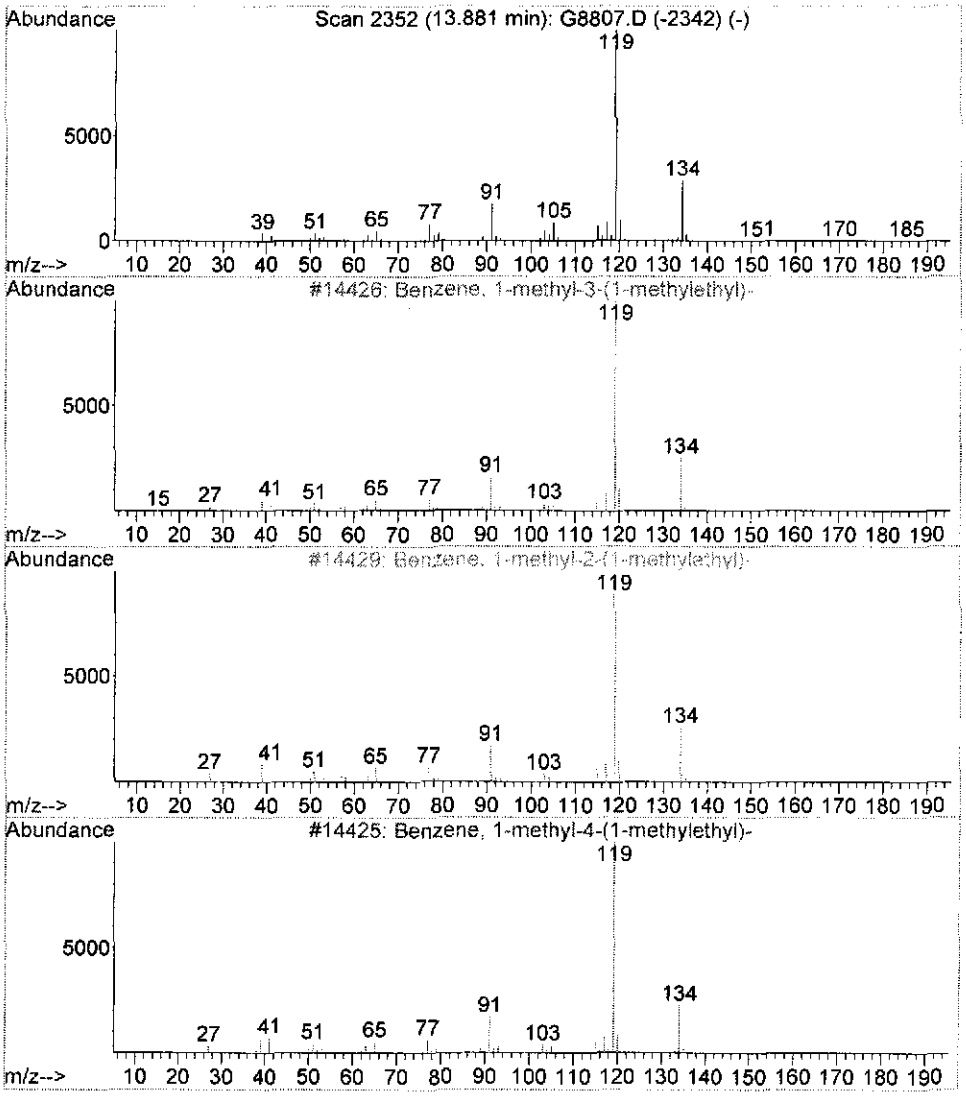
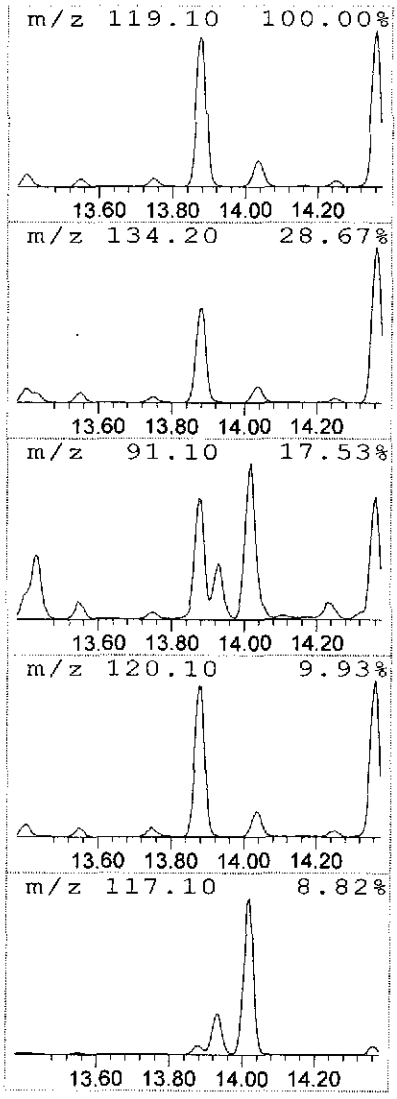
Peak Number 2 Substituted benzene Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.88	16.05 UG	5386050	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	97
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	97
3	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	97
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	97
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	97





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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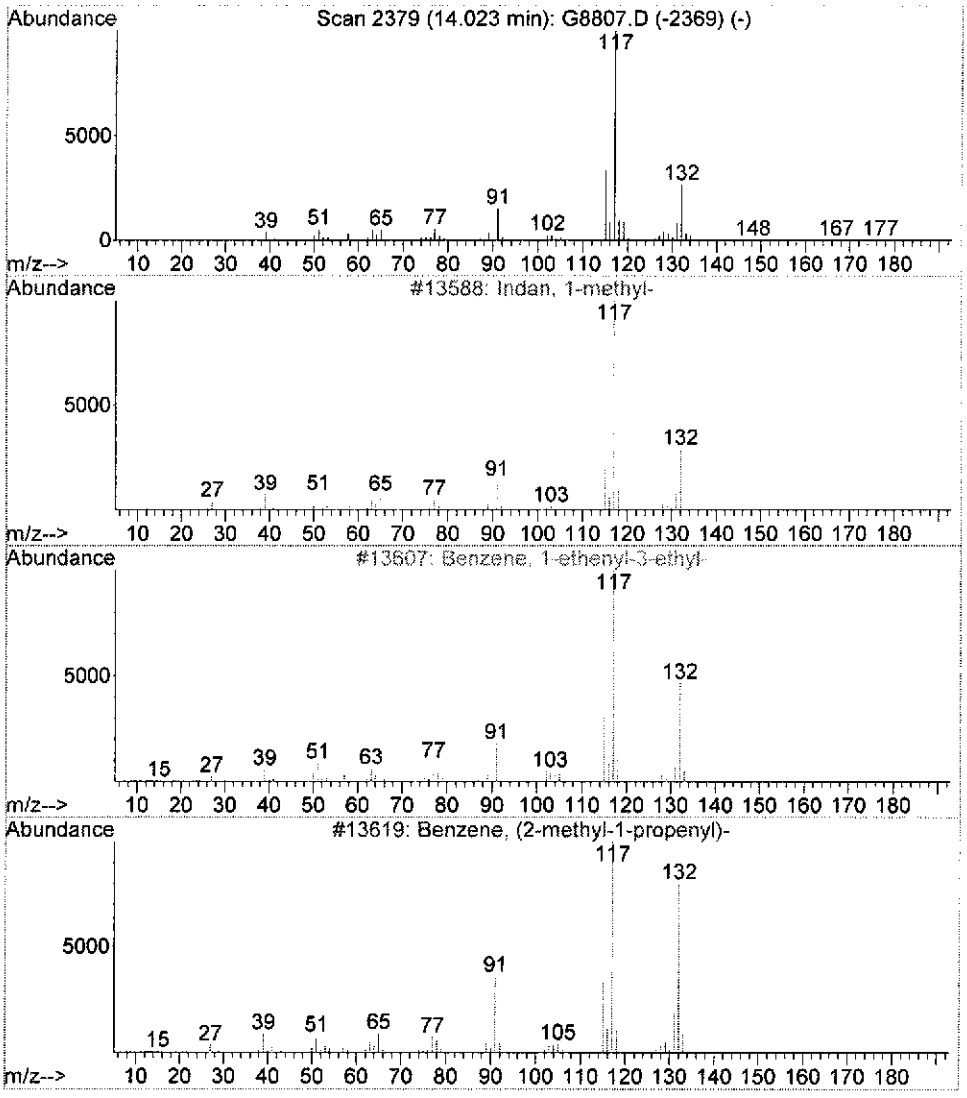
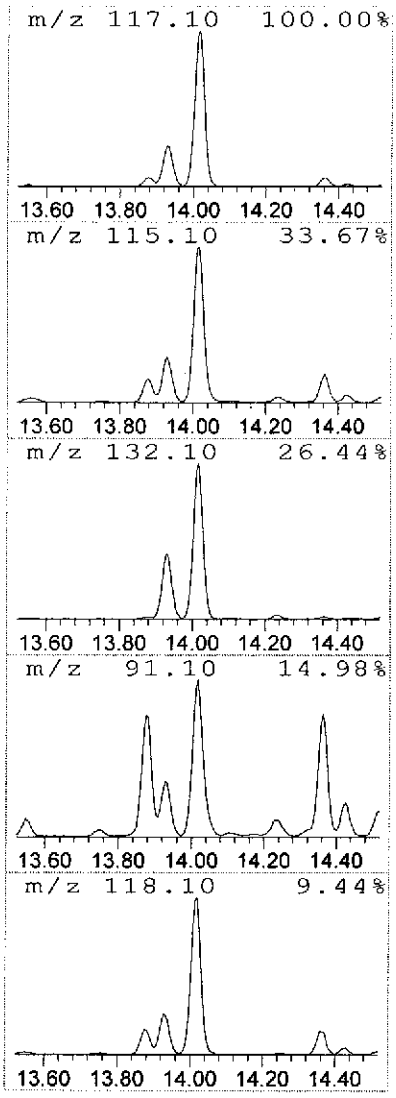
Peak Number 3 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	28.42 UG	9536320	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	93
2	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	91
3	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	87
4	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	86
5	Benzene, 2-butenyl-	132	C10H12	001560-06-1	83





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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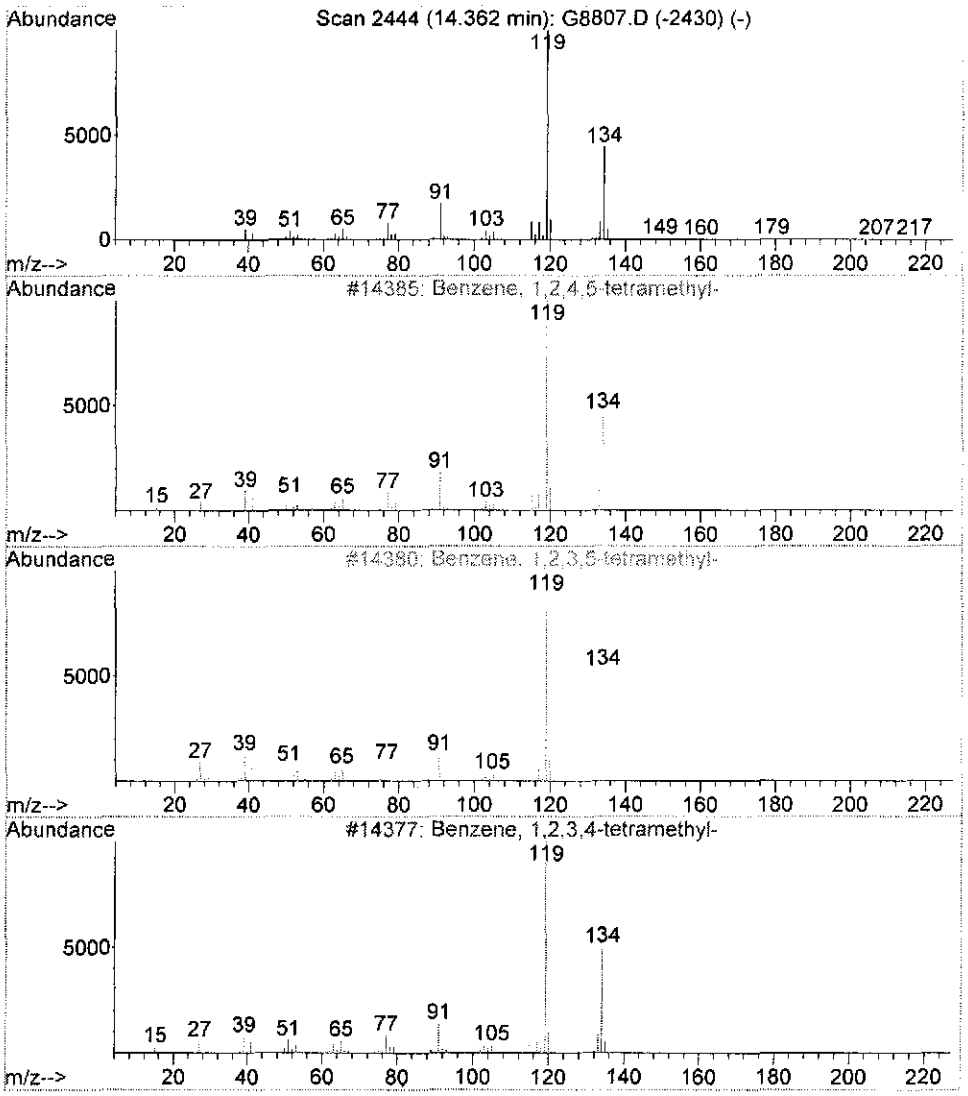
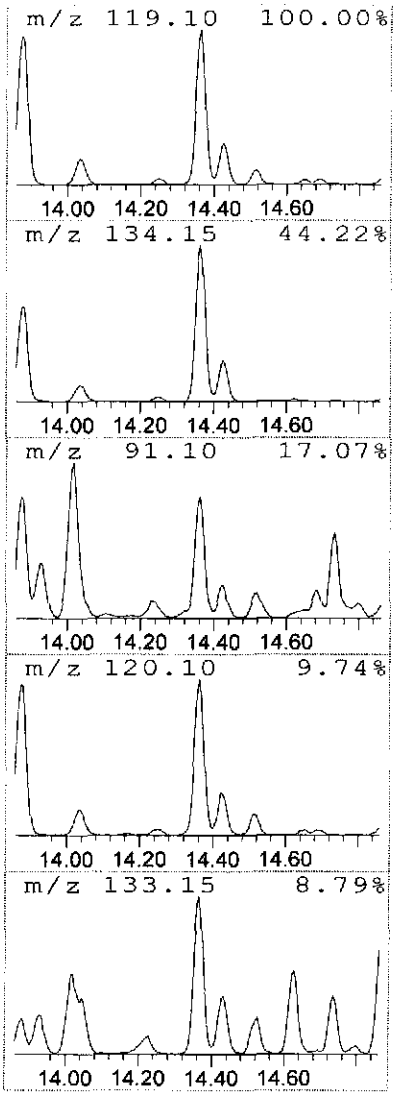
Peak Number 4 Substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.36	17.48 UG	5865390	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	95
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
4	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	95
5	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

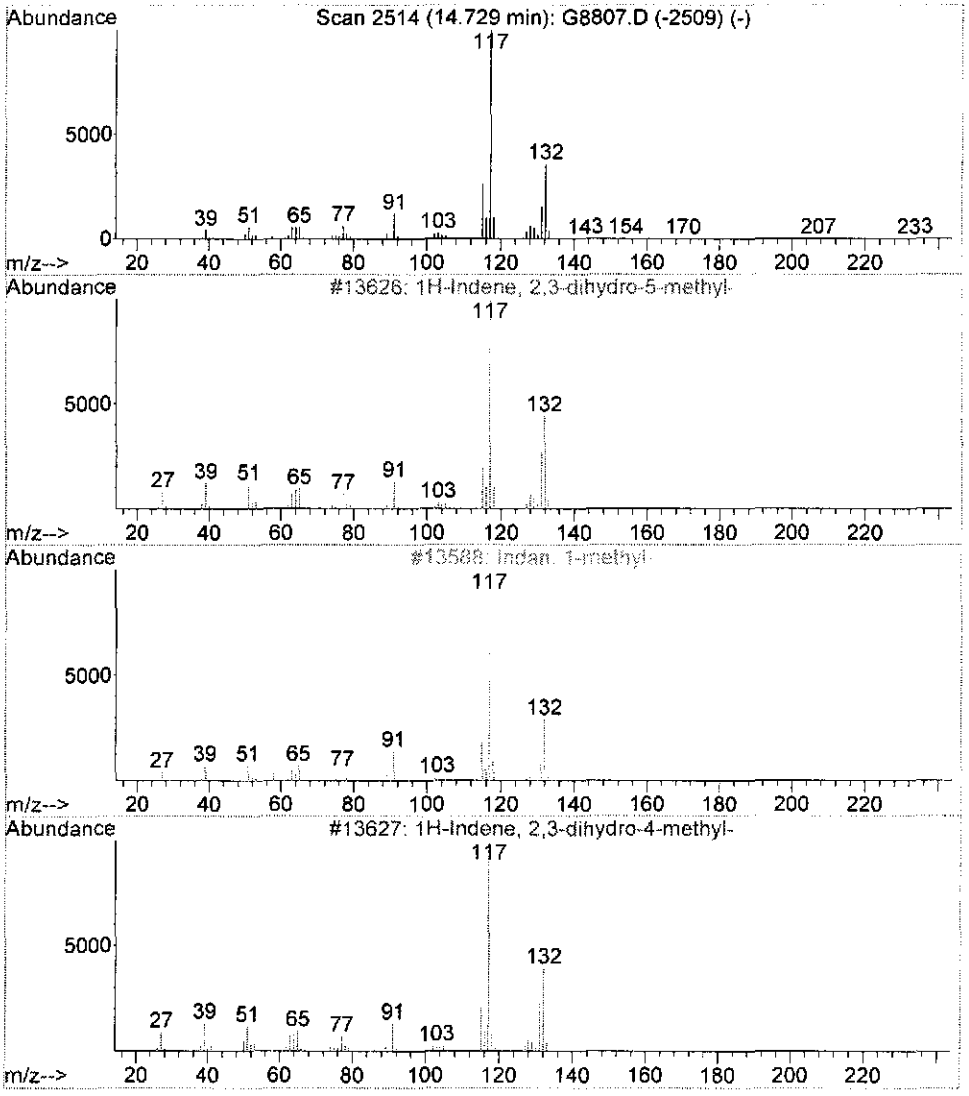
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

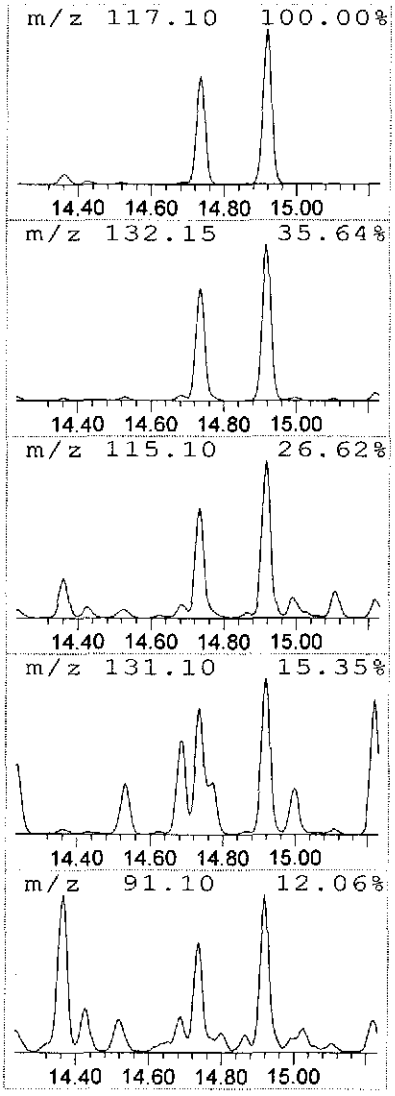
****

Peak Number 5 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.73	16.92 UG	5677430	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	90
2	Indan, 1-methyl-	132	C10H12	000767-58-8	90
3	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	90
4	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	87
5	1-Phenyl-1-butene	132	C10H12	000824-90-8	87





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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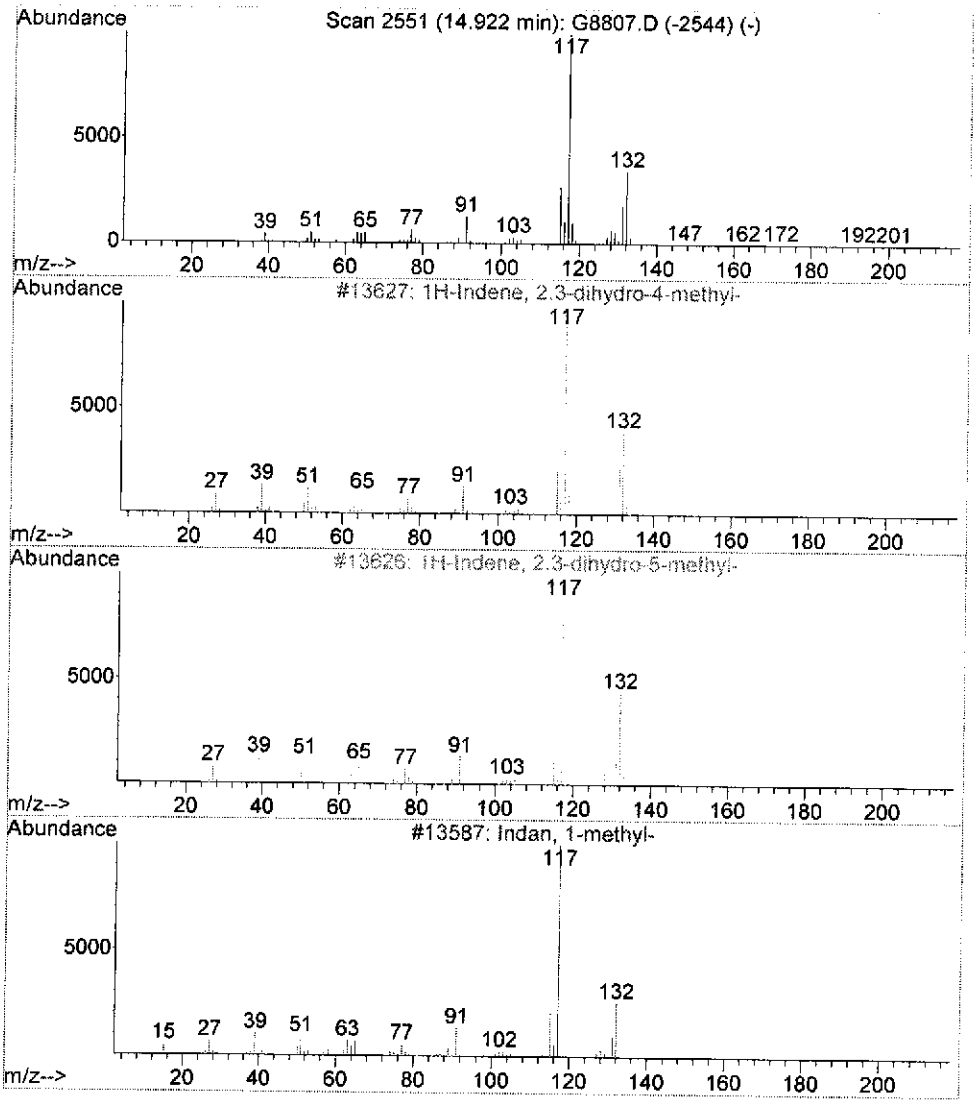
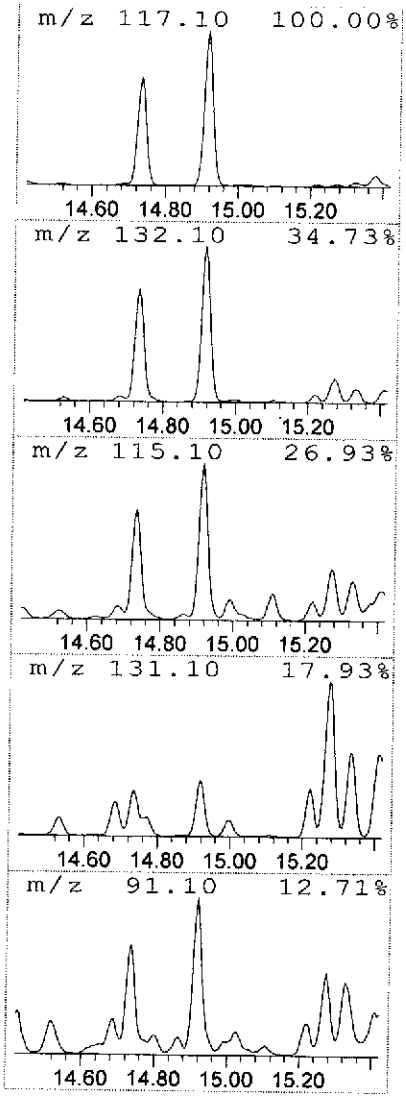
Peak Number 6 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.92	22.77 UG	7639650	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	93
2	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	93
3	Indan, 1-methyl-	132	C10H12	000767-58-8	90
4	Indan, 1-methyl-	132	C10H12	000767-58-8	87
5	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	81





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

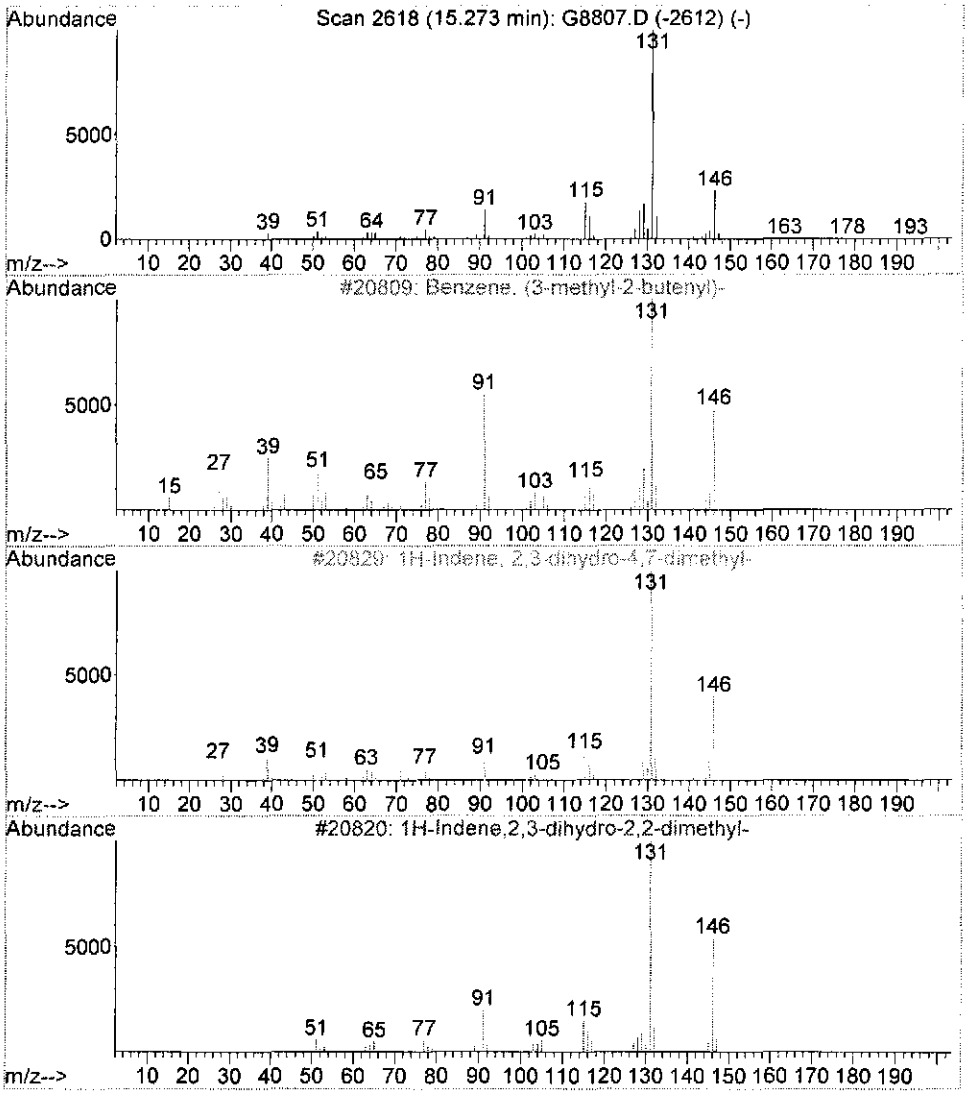
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

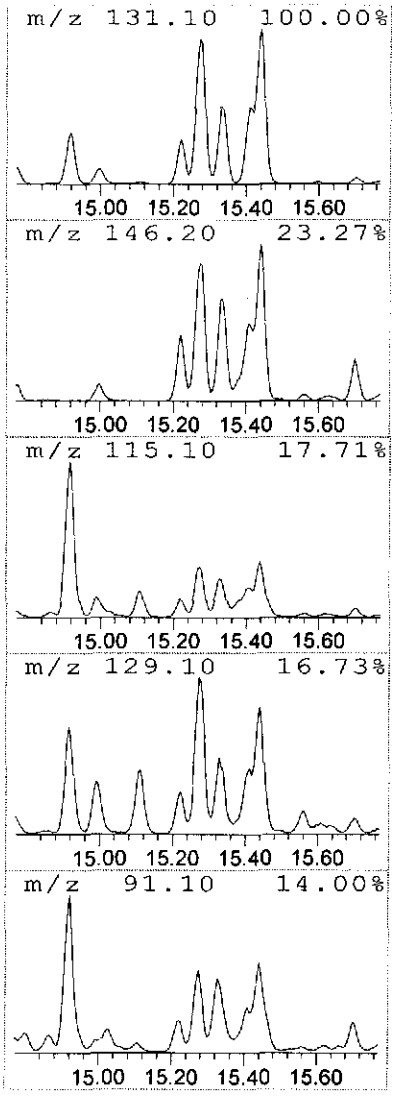
****

Peak Number 7 Unknown aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.27	10.75 UG	3605380	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (3-methyl-2-butenyl)-	146	C11H14	004489-84-3	94
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	93
3	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	91
4	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	91
5	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	91





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

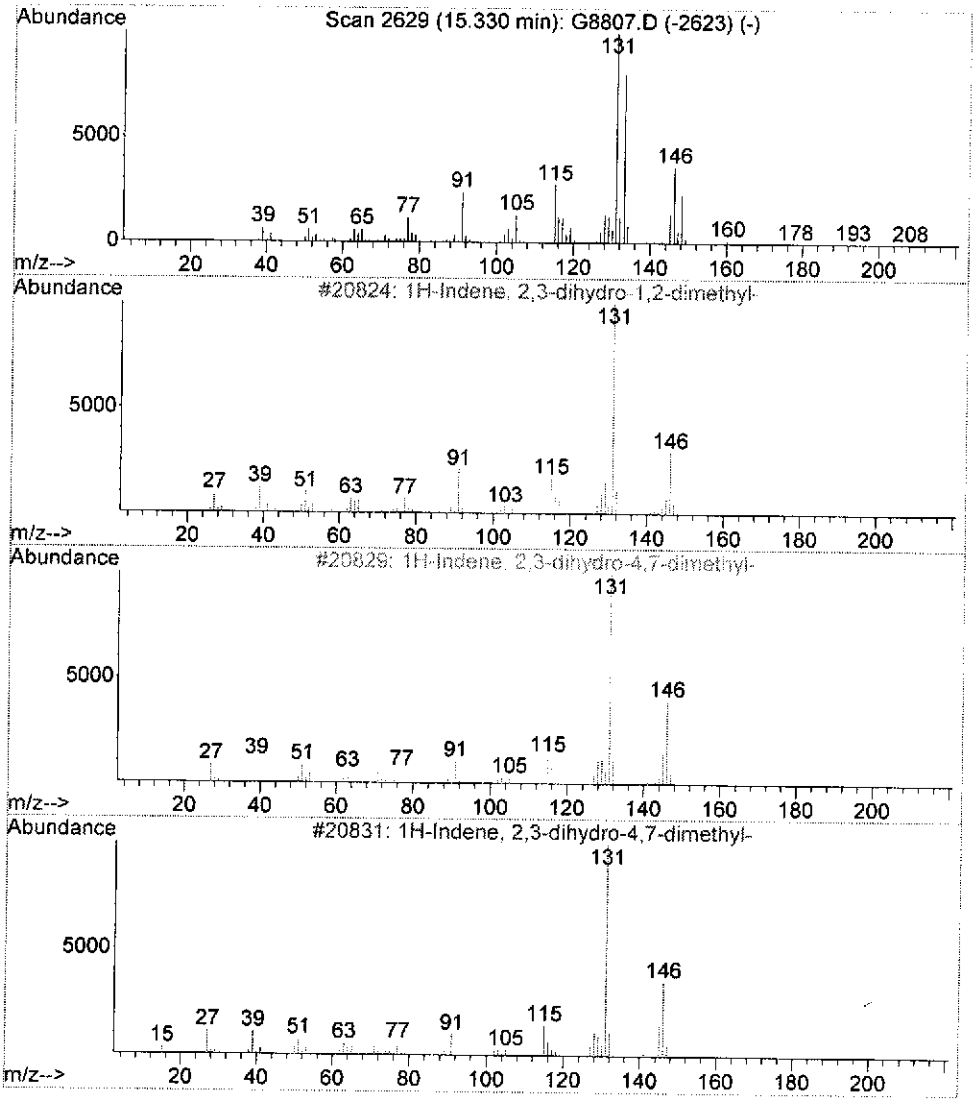
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

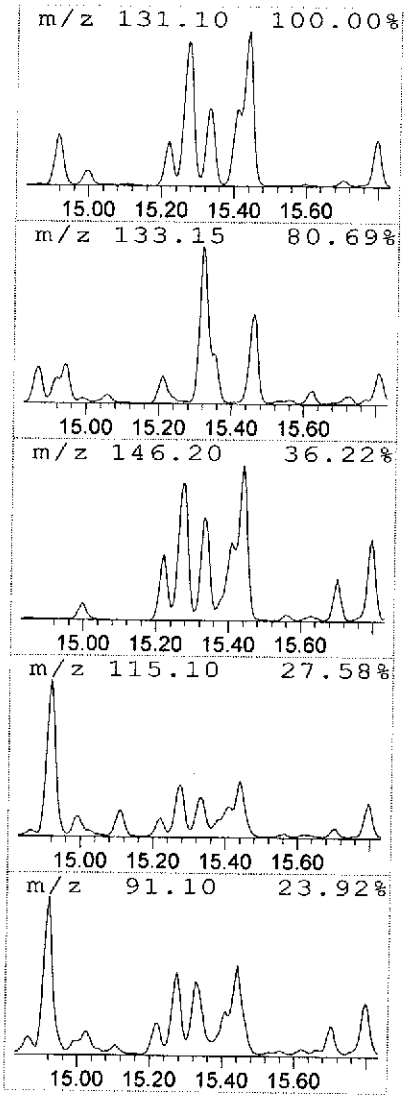
****

Peak Number 8 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.33	12.37 UG	4151810	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	90
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	90
3	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	87
4	Benzene, (3-methyl-2-butenyl)-	146	C11H14	004489-84-3	78
5	Benzene, (1-methyl-1-butenyl)-	146	C11H14	053172-84-2	78





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

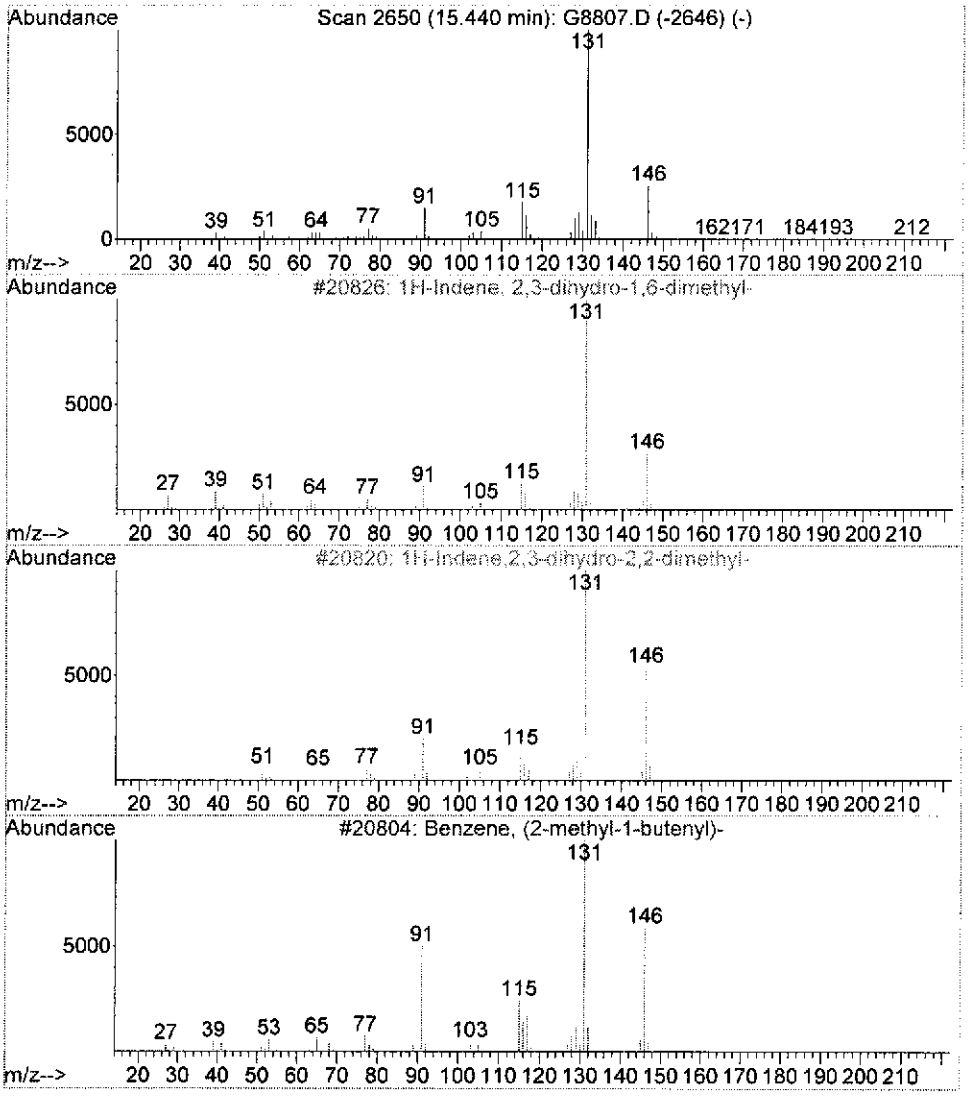
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

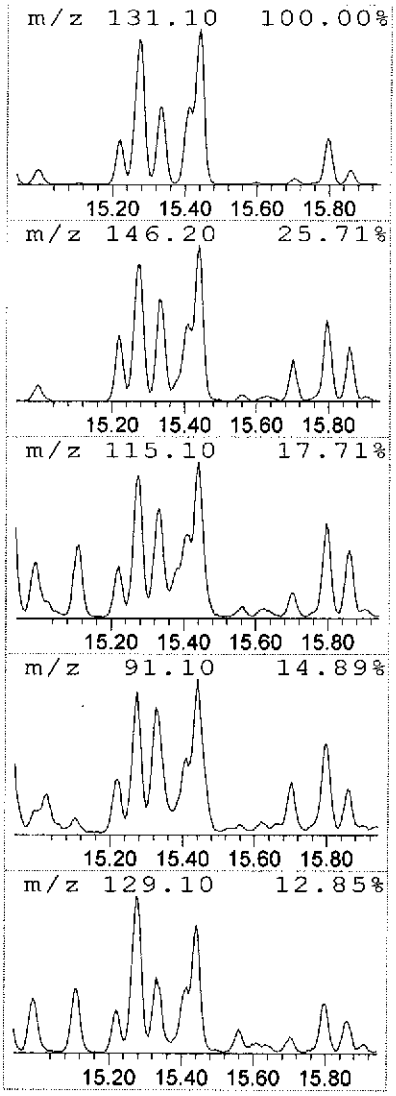
****

Peak Number 9 Unknown aromatic Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.44	13.35 UG	4480430	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2	94
2	1H-Indene,2,3-dihydro-2,2-dimethyl-	146	C11H14	020836-11-7	91
3	Benzene, (2-methyl-1-butenyl)-	146	C11H14	056253-64-6	91
4	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	91
5	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	91





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8807.D
Acq On : 13 Jan 2011 4:00 pm
Operator : Sylvia
Sample : MW12,00286-005,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

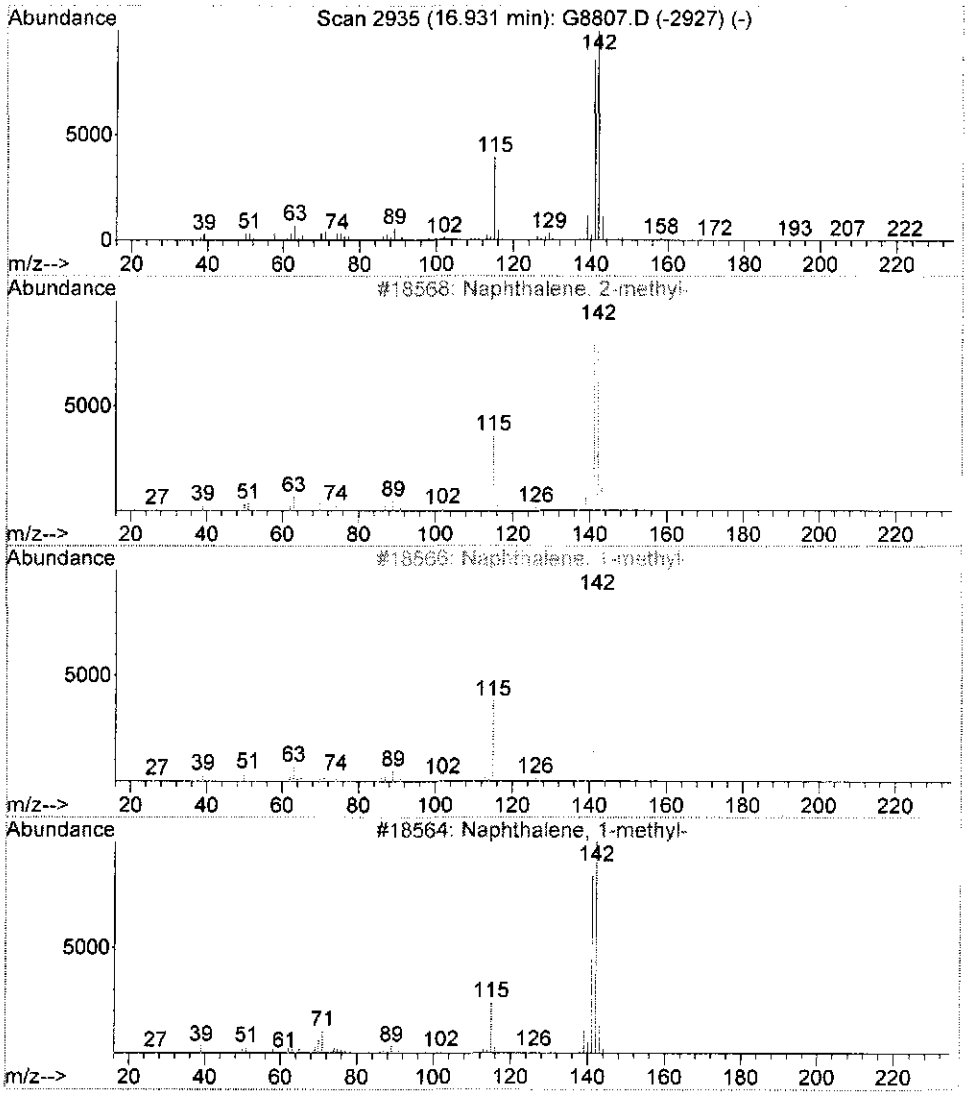
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

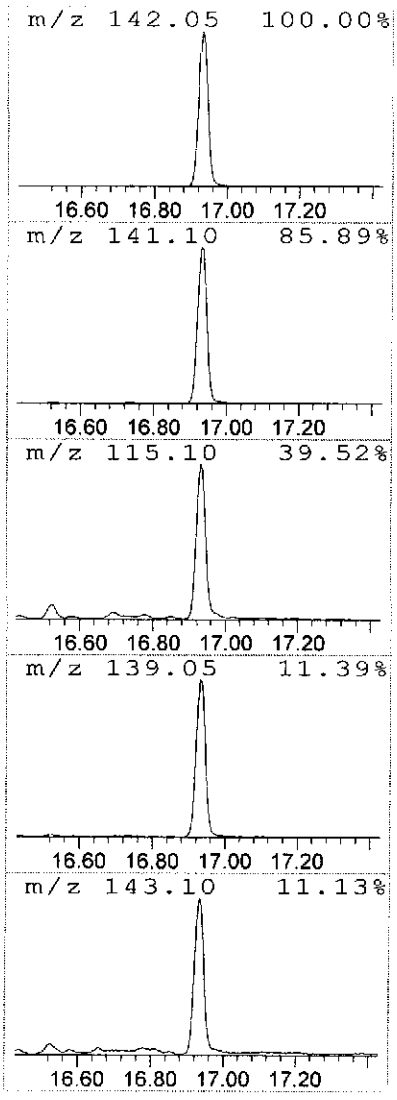
****

Peak Number 10 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.93	23.22 UG	7791460	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
4	Benzocycloheptatriene	142	C11H10	000264-09-5	91
5	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8806.D
Acq On : 13 Jan 2011 3:33 pm
Operator : Sylvia
Sample : MW14,00286-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 14 12:10:37 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration

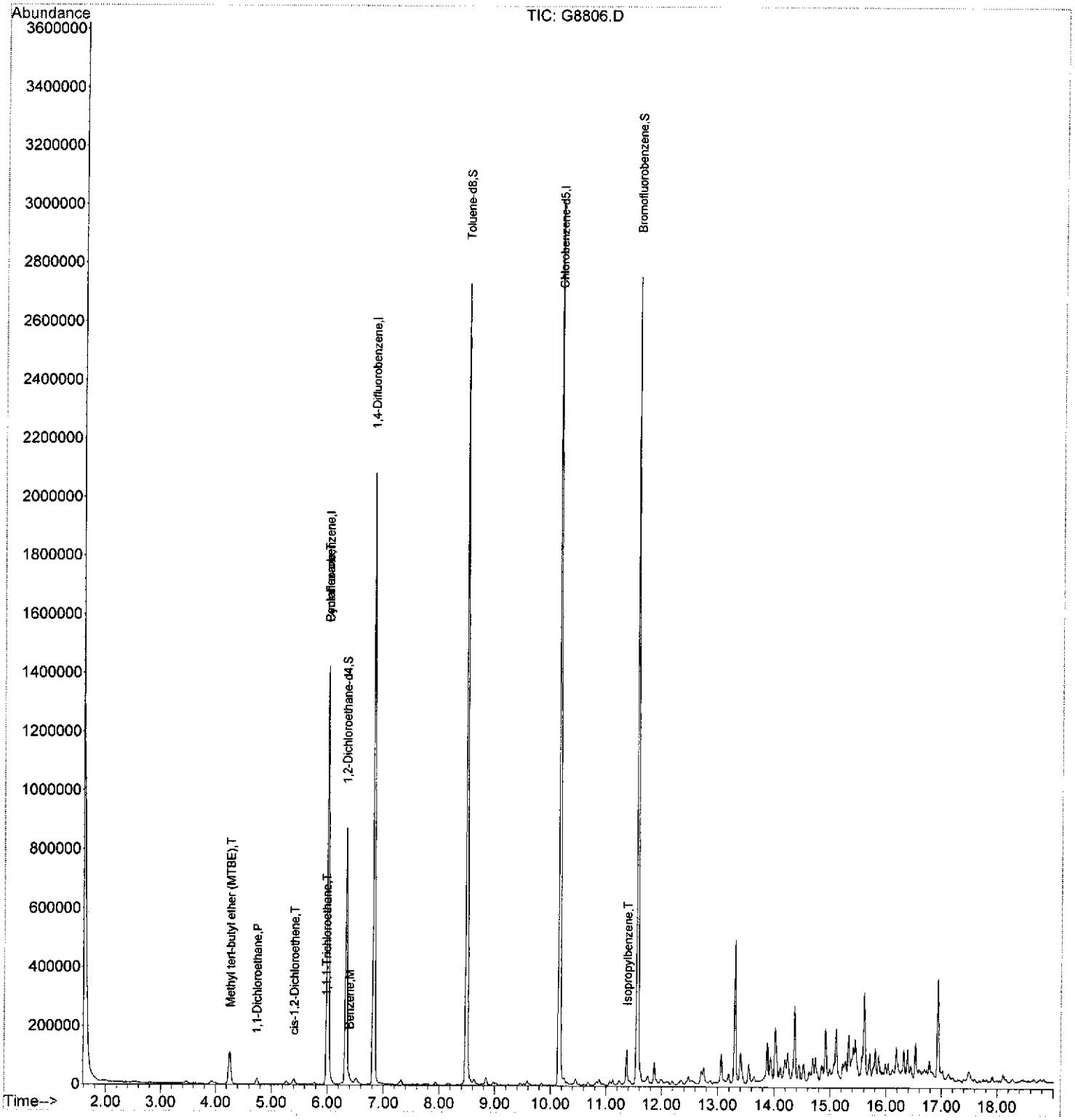
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.00	168	1043805	30.00	UG		0.00
31) 1,4-Difluorobenzene	6.82	114	1865401	30.00	UG		0.00
50) Chlorobenzene-d5	10.16	117	1958124	30.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.33	65	774357	32.04	UG		0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 106.80%				
41) Toluene-d8	8.48	98	2073776	29.91	UG		0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 99.70%				
59) Bromofluorobenzene	11.56	95	1121792	32.75	UG		0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 109.17%				
Target Compounds							Qvalue
17) Methyl tert-butyl ether (M	4.26	73	147098	3.35	UG		100
18) 1,1-Dichloroethane	4.73	63	24920	0.86	UG	#	87
20) cis-1,2-Dichloroethene	5.41	96	8322	0.49	UG	#	69
26) 1,1,1-Trichloroethane	5.97	97	8084	0.36	UG	#	100
32) Benzene	6.39	78	22018	0.32	UG		100
58) Isopropylbenzene	11.37	105	87734	1.31	UG		99
82) Cyclohexane	6.01	56	29491	0.85	UG	#	51

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8806.D
Acq On : 13 Jan 2011 3:33 pm
Operator : Sylvia
Sample : MW14,00286-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 14 12:10:37 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8806.D
Acq On : 13 Jan 2011 3:33 pm
Operator : Sylvia
Sample : MW14,00286-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA010411.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.258	494	512	527	rBV3	112101	354913	6.06%	0.968%
2	6.005	829	846	872	rBV2	1421997	3291403	56.16%	8.979%
3	6.329	897	908	933	rBV	866100	2019936	34.46%	5.510%
4	6.517	933	944	967	rVB7	23146	90801	1.55%	0.248%
5	6.821	991	1002	1023	rBV	2080836	4349146	74.21%	11.865%
6	8.484	1302	1320	1342	rBV	2728135	5396241	92.07%	14.721%
7	10.157	1629	1640	1654	rBV	3016016	5860836	100.00%	15.988%
8	11.371	1864	1872	1891	rVB	119073	261541	4.46%	0.713%
9	11.559	1897	1908	1927	rBV	2746526	5100565	87.03%	13.914%
10	11.747	1933	1944	1959	rVB	26043	86594	1.48%	0.236%
11	11.868	1959	1967	1982	rBV	73046	162016	2.76%	0.442%
12	12.480	2069	2084	2091	rBV3	25706	74013	1.26%	0.202%
13	12.710	2116	2128	2131	rBV2	44019	91977	1.57%	0.251%
14	12.752	2131	2136	2151	rVB	50572	110871	1.89%	0.302%
15	13.060	2184	2195	2210	rBV	98682	222946	3.80%	0.608%
16	13.191	2210	2220	2231	rVB2	31445	68586	1.17%	0.187%
17	13.301	2231	2241	2253	rBV2	483034	924415	15.77%	2.522%
18	13.400	2253	2260	2280	rVB5	103365	282378	4.82%	0.770%
19	13.547	2280	2288	2300	rBV2	65293	155395	2.65%	0.424%
20	13.876	2335	2351	2357	rBV2	130002	285842	4.88%	0.780%
21	13.928	2357	2361	2371	rVV3	77990	176432	3.01%	0.481%
22	14.017	2371	2378	2390	rVV5	176945	462289	7.89%	1.261%
23	14.106	2390	2395	2403	rVV4	43137	82212	1.40%	0.224%
24	14.190	2403	2411	2415	rVV5	66422	151045	2.58%	0.412%
25	14.237	2415	2420	2431	rVB3	86795	192373	3.28%	0.525%
26	14.363	2431	2444	2452	rVB	247165	478517	8.16%	1.305%
27	14.441	2452	2459	2468	rVB	49141	101153	1.73%	0.276%
28	14.525	2468	2475	2487	rVB6	55070	121972	2.08%	0.333%
29	14.624	2487	2494	2501	rBV4	29500	80046	1.37%	0.218%
30	14.687	2501	2506	2511	rVV2	61087	107995	1.84%	0.295%
31	14.734	2511	2515	2528	rVB3	78443	177543	3.03%	0.484%
32	14.844	2528	2536	2542	rBV2	52991	130950	2.23%	0.357%
33	14.912	2542	2549	2559	rVV4	158854	315586	5.38%	0.861%
34	15.063	2569	2578	2580	rVV5	49596	103350	1.76%	0.282%
35	15.105	2580	2586	2602	rVB	170179	379257	6.47%	1.035%
36	15.220	2602	2608	2613	rBV6	53578	124842	2.13%	0.341%
37	15.273	2613	2618	2622	rVV4	54895	118928	2.03%	0.324%

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8806.D
Acq On : 13 Jan 2011 3:33 pm
Operator : Sylvia
Sample : MW14,00286-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA010411.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

38	15.330	2622	2629	2635	rVV3	142704	323190	5.51%	0.882%
39	15.409	2635	2644	2647	rVV3	100568	270266	4.61%	0.737%
40	15.440	2647	2650	2667	rVV3	127606	316766	5.40%	0.864%
41	15.566	2667	2674	2675	rVV3	71402	107959	1.84%	0.295%
42	15.602	2675	2681	2691	rVV	282977	604156	10.31%	1.648%
43	15.702	2691	2700	2706	rVB3	77447	154004	2.63%	0.420%
44	15.796	2714	2718	2726	rVV4	90398	156439	2.67%	0.427%
45	15.864	2726	2731	2743	rVB3	65077	125893	2.15%	0.343%
46	15.984	2749	2754	2760	rBV5	35405	66763	1.14%	0.182%
47	16.177	2785	2791	2808	rVV4	88688	194164	3.31%	0.530%
48	16.313	2812	2817	2824	rVB3	81311	134094	2.29%	0.366%
49	16.381	2824	2830	2837	rVV4	82770	142822	2.44%	0.390%
50	16.444	2837	2842	2851	rVB8	40737	83341	1.42%	0.227%
51	16.523	2851	2857	2867	rBV4	121896	255510	4.36%	0.697%
52	16.779	2901	2906	2928	rVB10	56392	150510	2.57%	0.411%
53	16.936	2928	2936	2963	rVV2	338975	776860	13.26%	2.119%
54	17.129	2963	2973	2982	rVV2	20413	59442	1.01%	0.162%
55	17.490	3034	3042	3058	rVV2	35492	145369	2.48%	0.397%
56	18.107	3152	3160	3186	rBV8	27432	94264	1.61%	0.257%

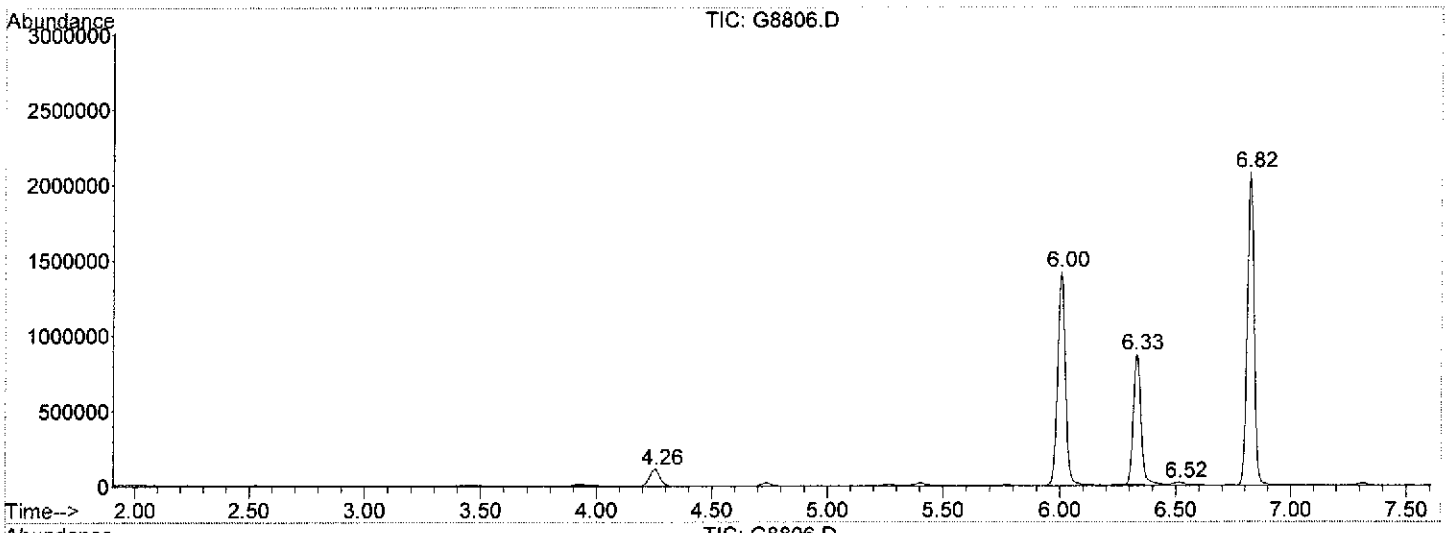
Sum of corrected areas: 36656717

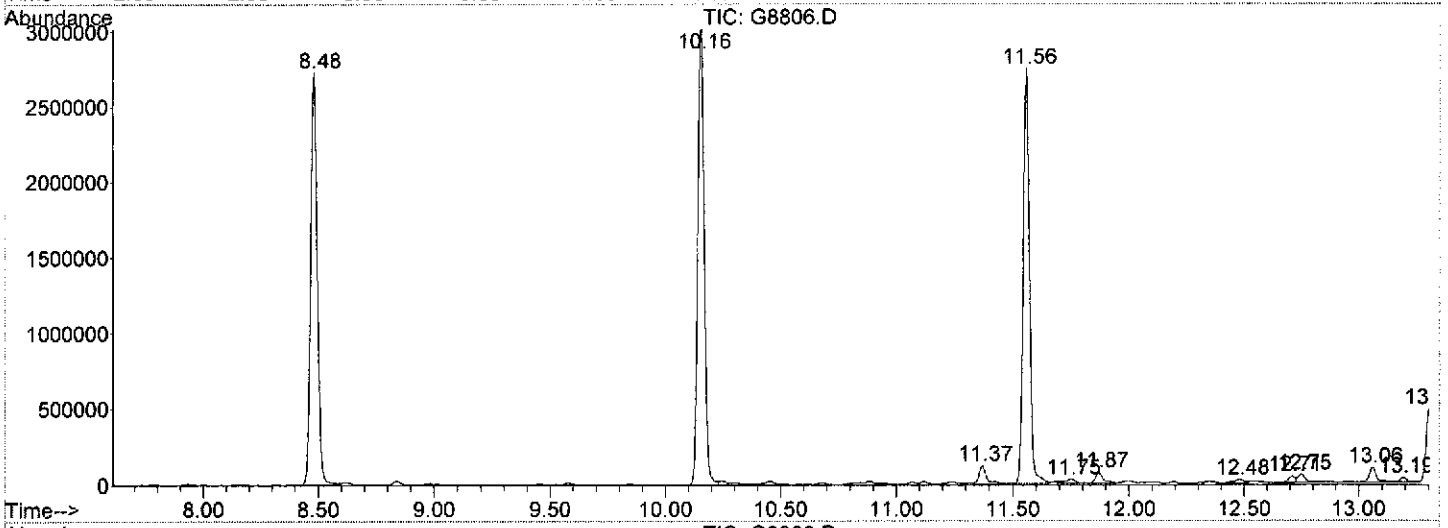
LSC Report - Integrated Chromatogram

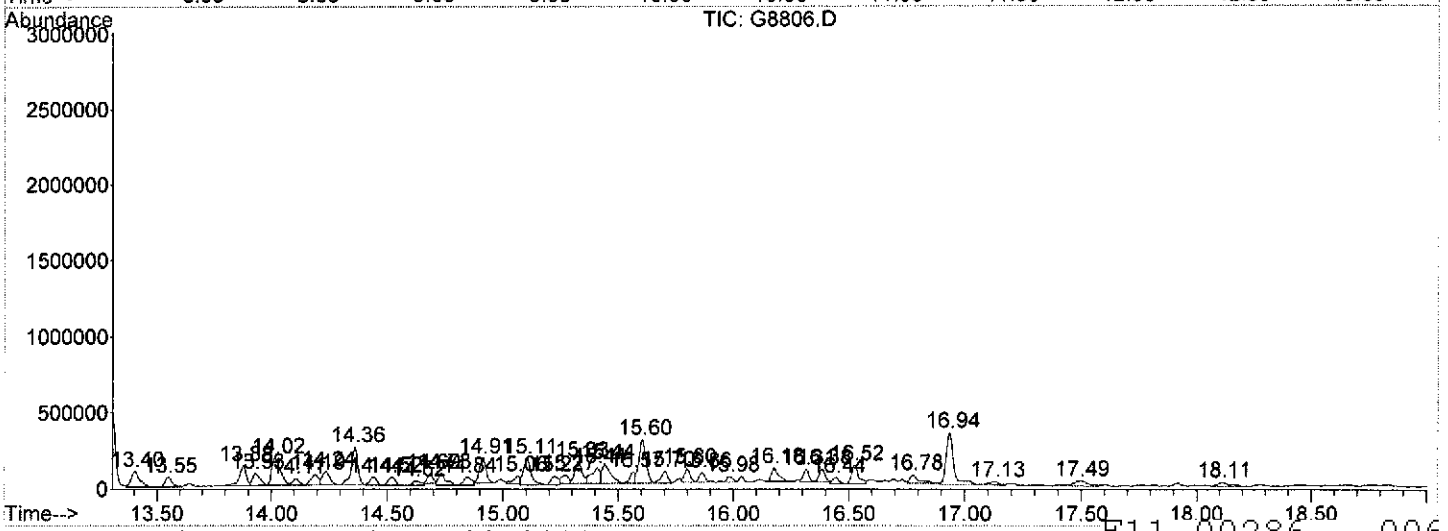
Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8806.D
Acq On : 13 Jan 2011 3:33 pm
Operator : Sylvia
Sample : MW14,00286-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8806.D
Acq On : 13 Jan 2011 3:33 pm
Operator : Sylvia
Sample : MW14,00286-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

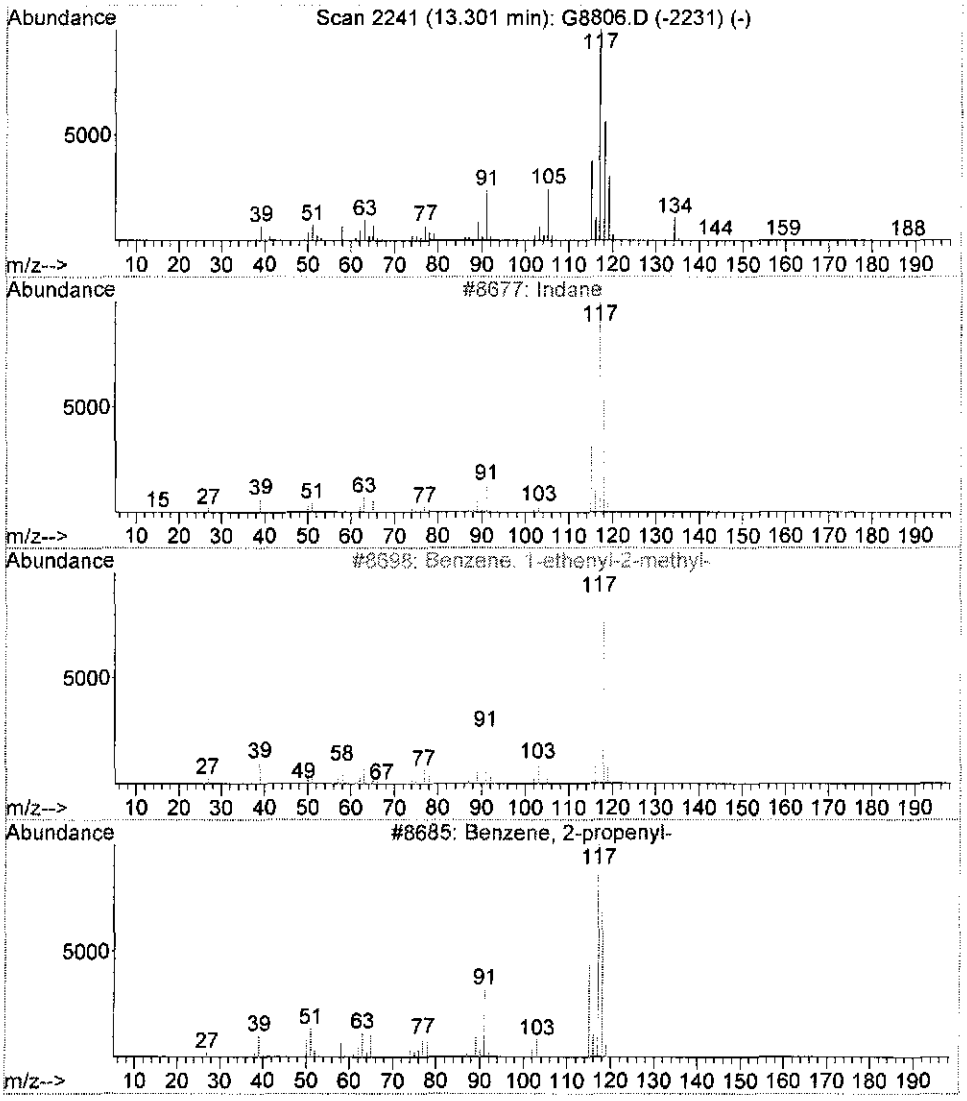
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

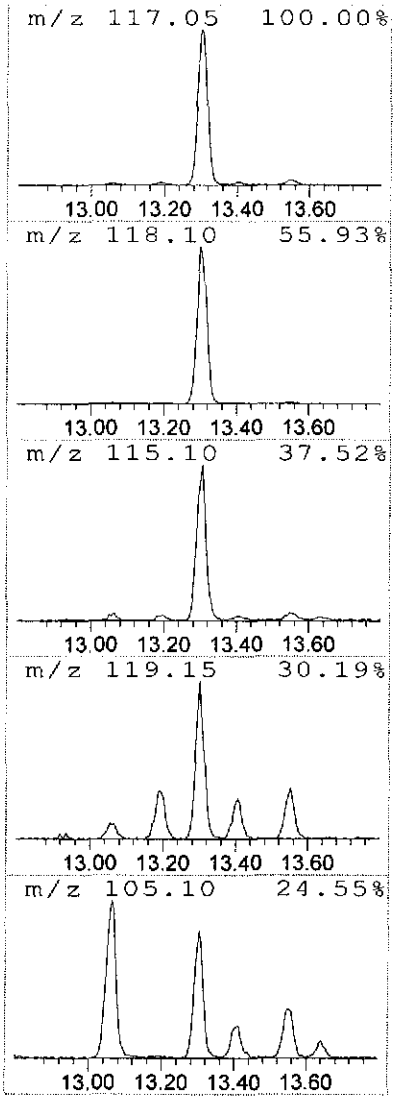
****

Peak Number 1 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.30	4.73 UG	924415	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	70
2	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	64
3	Benzene, 2-propenyl-	118	C9H10	000300-57-2	62
4	Tetracyclo[3.3.1.0(2,8).0(4,6)]-...	118	C9H10	1000191-13-7	58
5	Benzene, cyclopropyl-	118	C9H10	000873-49-4	58





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8806.D
Acq On : 13 Jan 2011 3:33 pm
Operator : Sylvia
Sample : MW14,00286-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

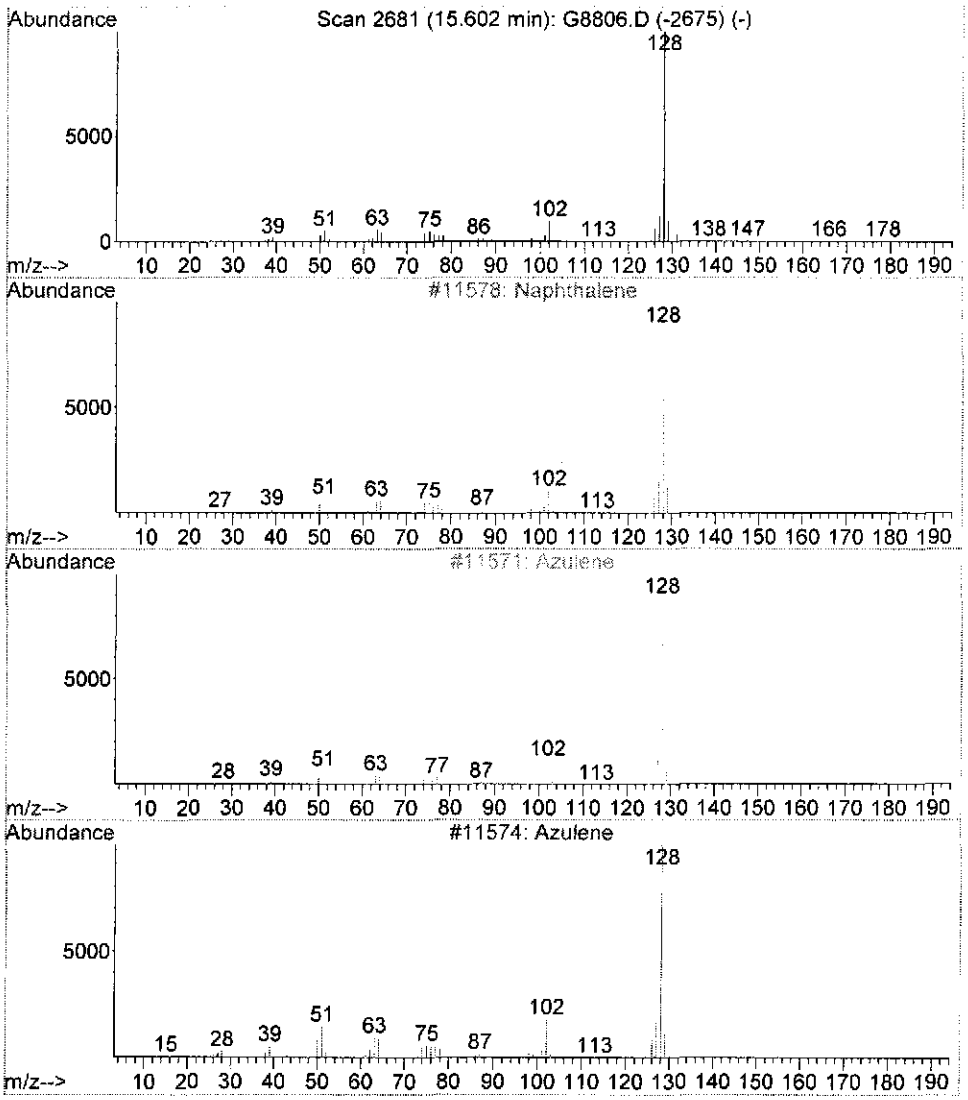
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

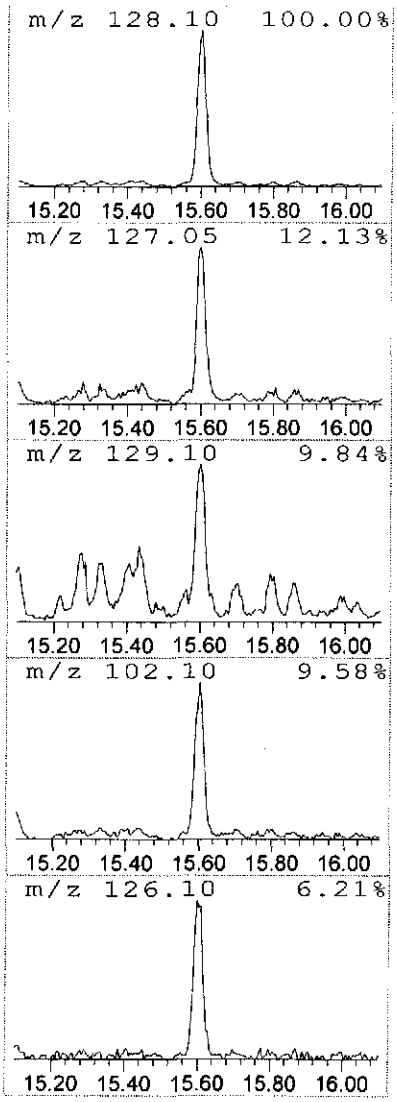
****

Peak Number 2 Naphthalene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.60	3.09 UG	604156	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	97
2	Azulene	128	C10H8	000275-51-4	94
3	Azulene	128	C10H8	000275-51-4	91
4	Naphthalene	128	C10H8	000091-20-3	87
5	Naphthalene	128	C10H8	000091-20-3	87





Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8806.D
Acq On : 13 Jan 2011 3:33 pm
Operator : Sylvia
Sample : MW14,00286-006,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

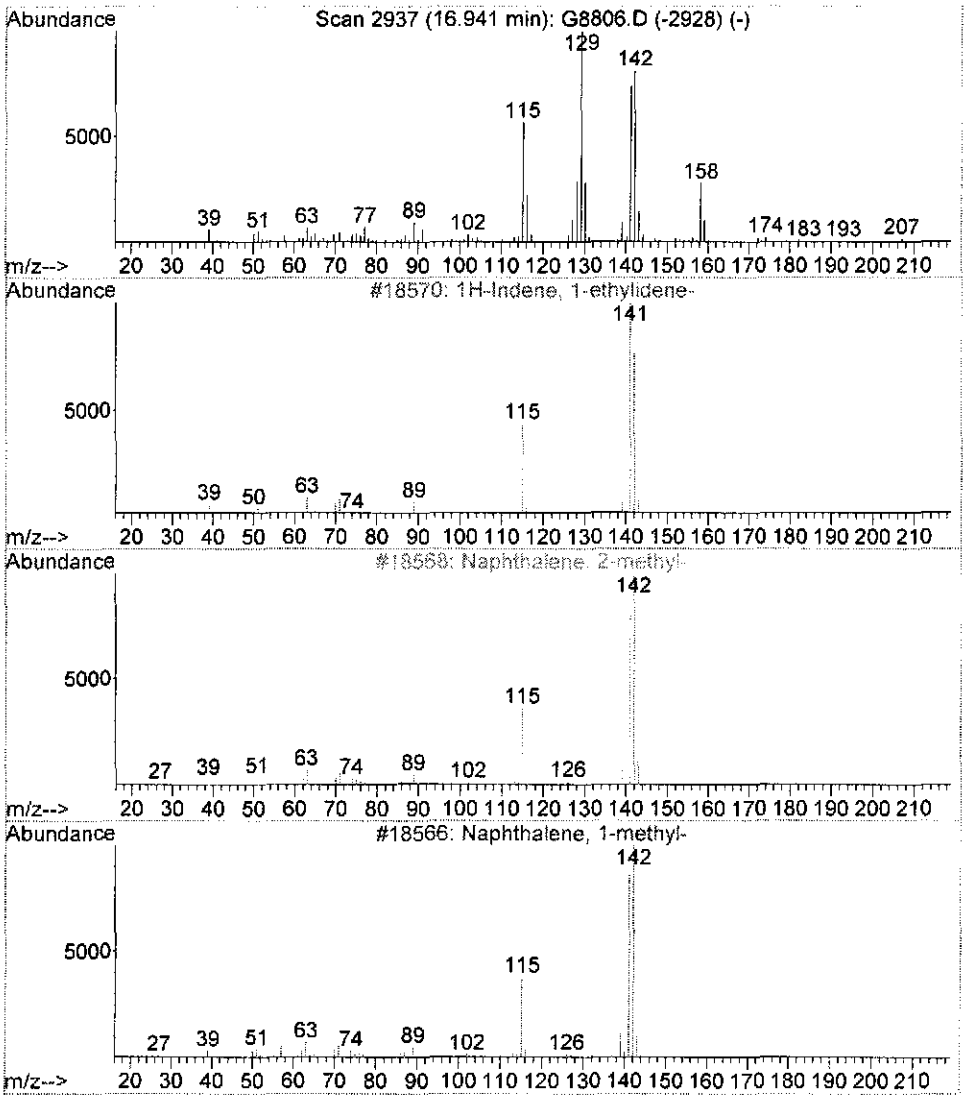
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

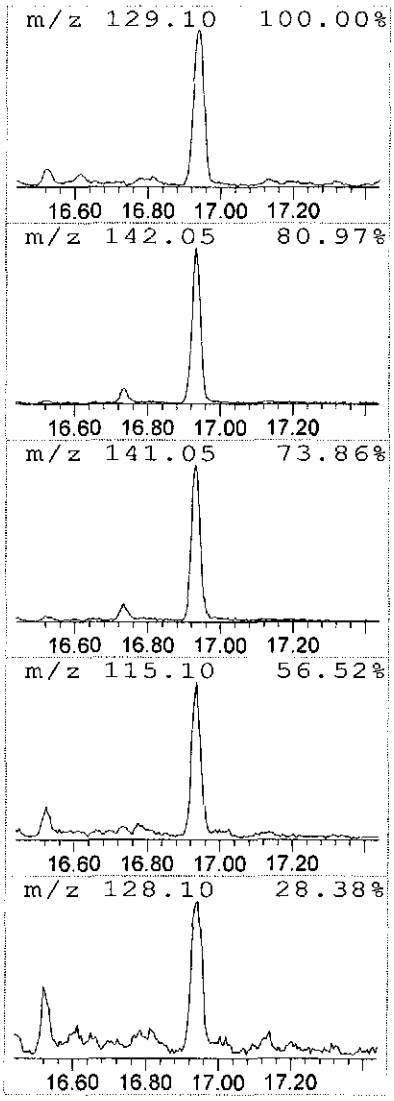
****

Peak Number 3 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.94	3.98 UG	776860	Chlorobenzene-d5	10.16

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 1-ethylidene-	142	C11H10	002471-83-2	55
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	55
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	55
4	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	50
5	Bicyclo[4.4.1]undeca-1,3,5,7,9-p...	142	C11H10	002443-46-1	49





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8805.D
Acq On : 13 Jan 2011 3:05 pm
Operator : Sylvia
Sample : MW8R,00286-007,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 14 12:09:45 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration

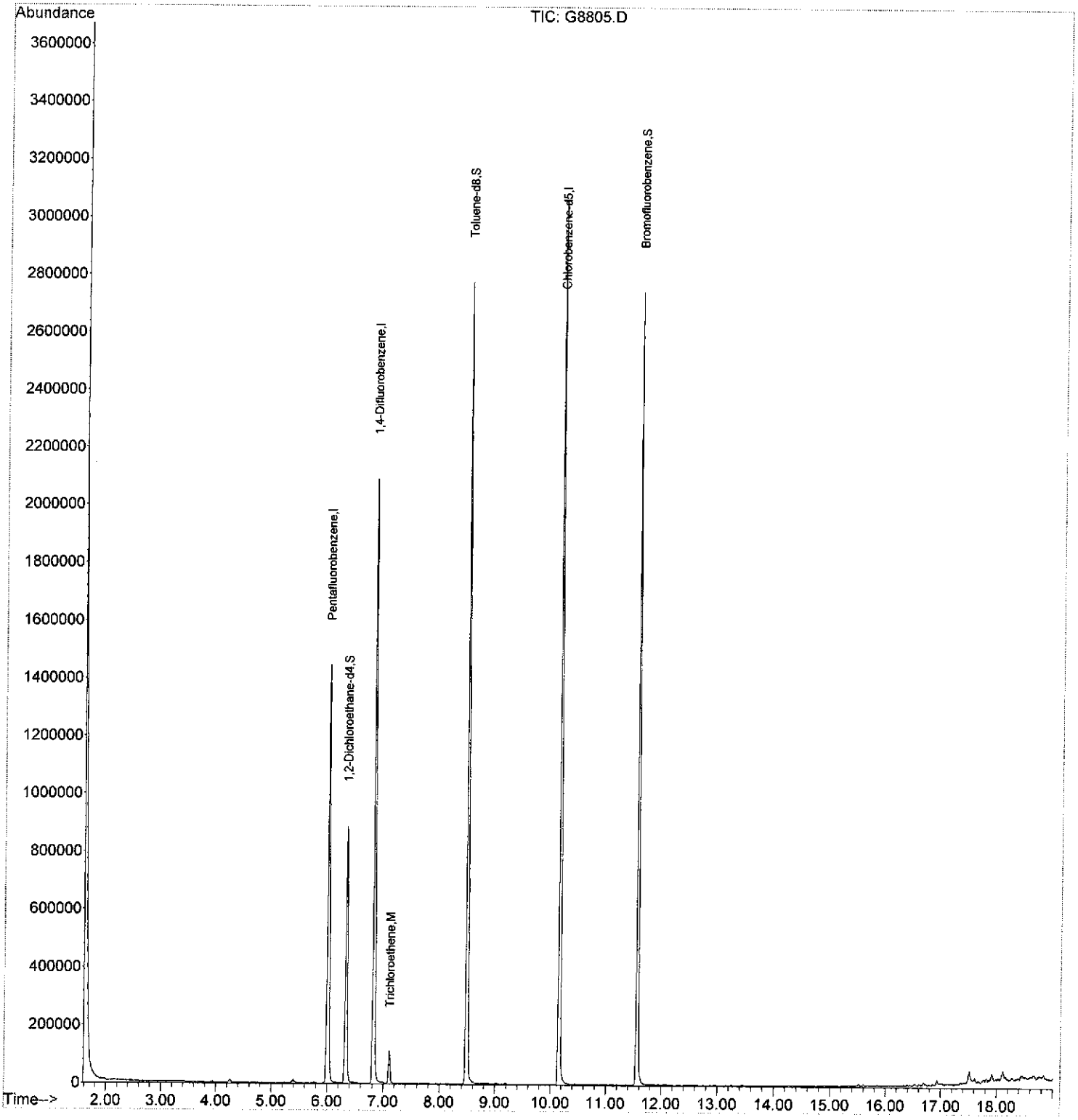
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	1080551	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.83	114	1904152	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	1982477	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	790543	31.60	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 105.33%			
41) Toluene-d8	8.48	98	2111995	29.84	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 99.47%			
59) Bromofluorobenzene	11.56	95	1106204	31.89	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 106.30%			
Target Compounds						Qvalue
33) Trichloroethene	7.11	95	43196	2.45	UG	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8805.D
Acq On : 13 Jan 2011 3:05 pm
Operator : Sylvia
Sample : MW8R,00286-007,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 14 12:09:45 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8805.D
Acq On : 13 Jan 2011 3:05 pm
Operator : Sylvia
Sample : MW8R,00286-007,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA010411.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	832	846	871	rBV	1447952	3271866	55.20%	12.179%
2	6.329	896	908	941	rVB	884903	2024514	34.15%	7.536%
3	6.821	990	1002	1028	rBV	2090128	4423602	74.63%	16.466%
4	7.108	1047	1057	1073	rVB2	109319	241976	4.08%	0.901%
5	8.484	1304	1320	1357	rBV	2777330	5460328	92.12%	20.325%
6	10.152	1625	1639	1672	rBV	3058657	5927446	100.00%	22.064%
7	11.559	1898	1908	1933	rBV	2742757	5040351	85.03%	18.762%
8	17.511	3034	3046	3060	rBV10	41760	135159	2.28%	0.503%
9	18.107	3151	3160	3184	rVB9	32877	114535	1.93%	0.426%
10	18.458	3218	3227	3279	rBV9	15860	165456	2.79%	0.616%
11	18.772	3279	3287	3297	rVV9	13352	59293	1.00%	0.221%

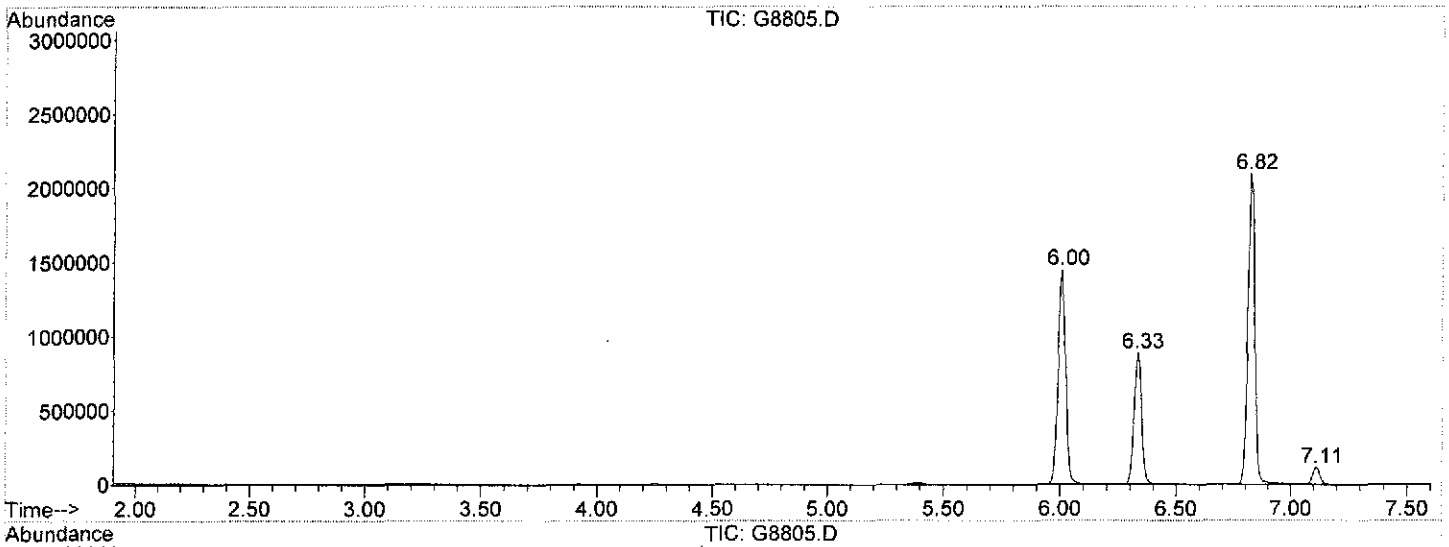
Sum of corrected areas: 26864526

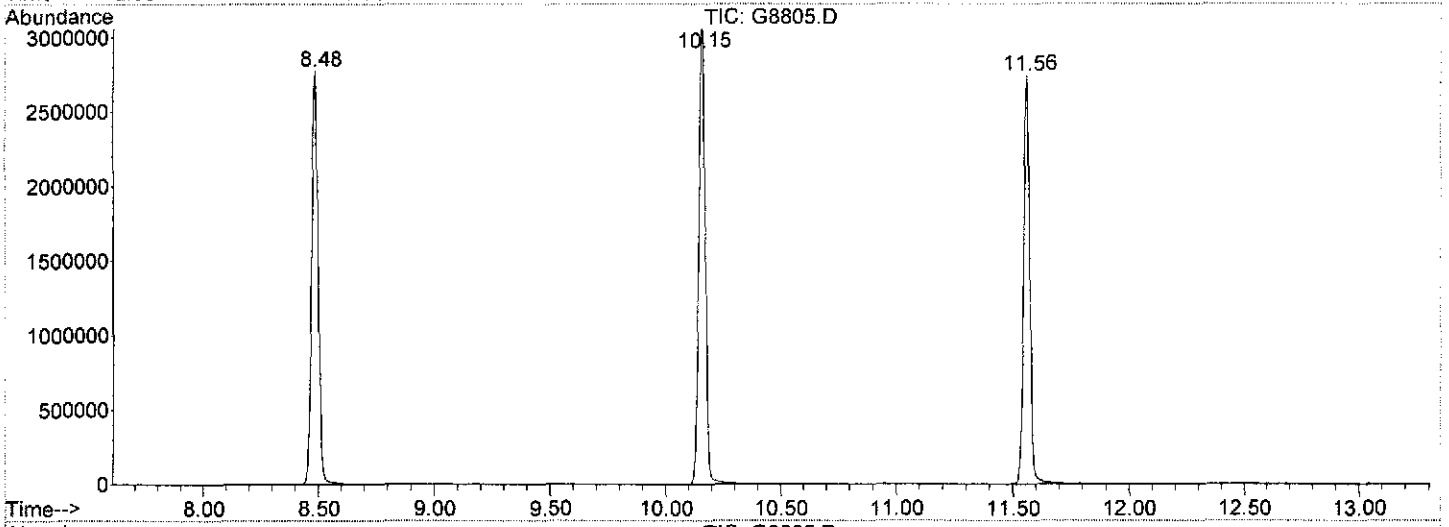
LSC Report - Integrated Chromatogram

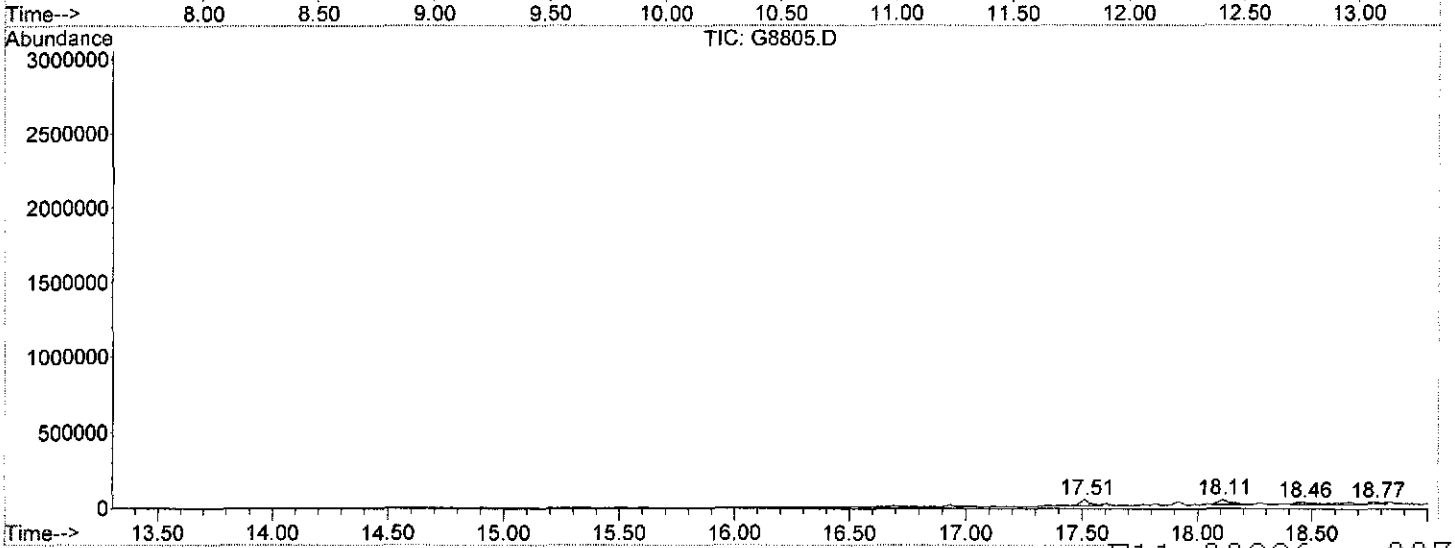
Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8805.D
Acq On : 13 Jan 2011 3:05 pm
Operator : Sylvia
Sample : MW8R,00286-007,A,5mL,100
Misc : PENNJERSEY/PALMER,01/11/11,01/11/11
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8796.D
Acq On : 13 Jan 2011 10:55 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 13 15:27:13 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration

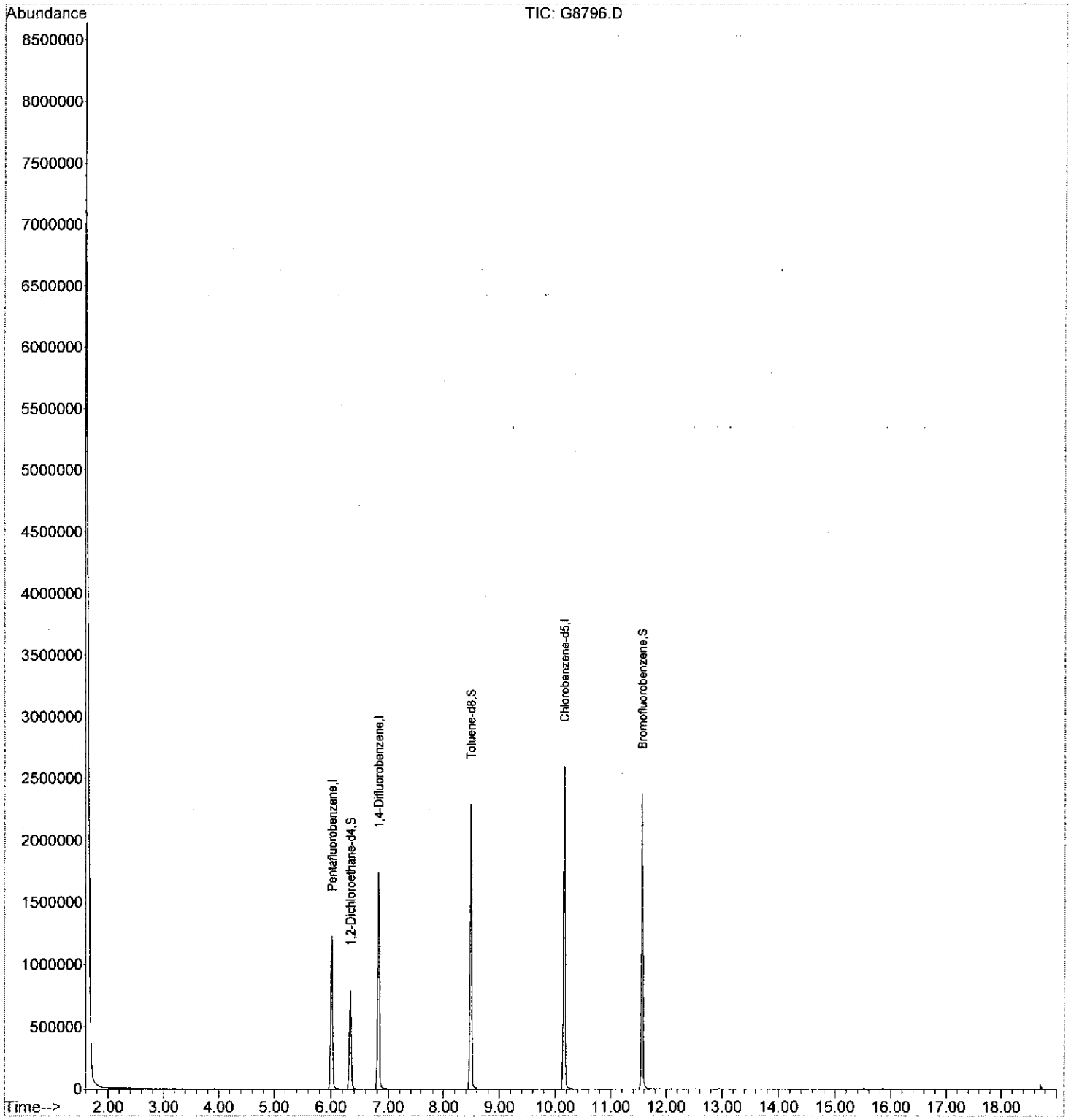
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.00	168	837354	30.00	UG	0.00
31) 1,4-Difluorobenzene	6.82	114	1487946	30.00	UG	0.00
50) Chlorobenzene-d5	10.16	117	1575114	30.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.33	65	720855	37.18	UG	0.00
Spiked Amount 30.000	Range 69 - 166		Recovery = 123.93%			
41) Toluene-d8	8.48	98	1670454	30.20	UG	0.00
Spiked Amount 30.000	Range 80 - 120		Recovery = 100.67%			
59) Bromofluorobenzene	11.56	95	911686	33.08	UG	0.00
Spiked Amount 30.000	Range 66 - 120		Recovery = 110.27%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8796.D
Acq On : 13 Jan 2011 10:55 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 13 15:27:13 2011
Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624
QLast Update : Tue Jan 04 15:28:07 2011
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8796.D
Acq On : 13 Jan 2011 10:55 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.1 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\GA010411.M
Title : VOLATILE ORGANICS BY EPA METHOD 624

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.005	834	846	876	rBV	1224860	2727878	55.25%	12.510%
2	6.329	896	908	940	rVB	788199	1784444	36.14%	8.183%
3	6.821	990	1002	1040	rBV	1735143	3685520	74.65%	16.901%
4	8.484	1308	1320	1347	rBV	2290664	4454147	90.22%	20.426%
5	10.157	1630	1640	1671	rBV	2592483	4937032	100.00%	22.640%
6	11.559	1895	1908	1937	rBV	2370861	4217261	85.42%	19.340%

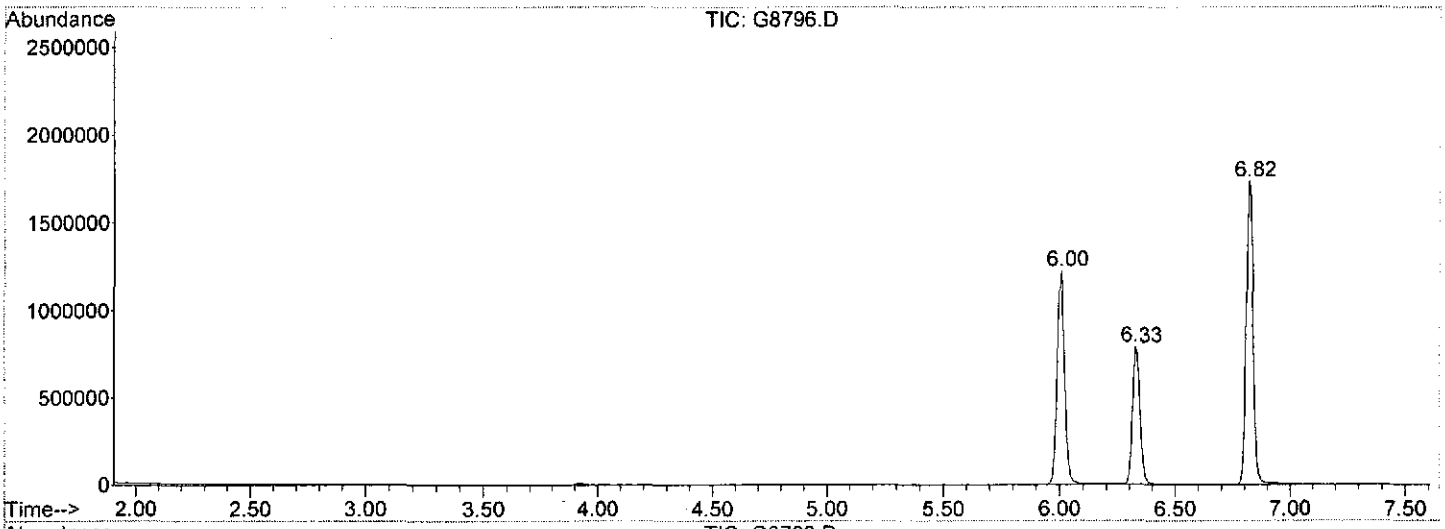
Sum of corrected areas: 21806282

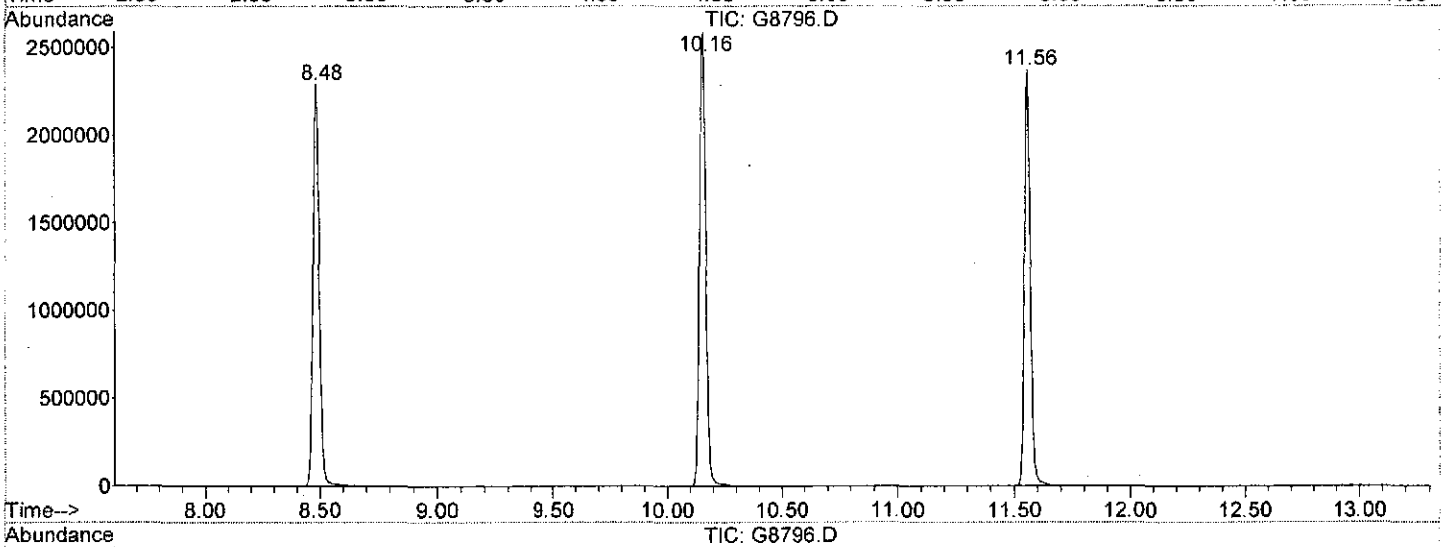
LSC Report - Integrated Chromatogram

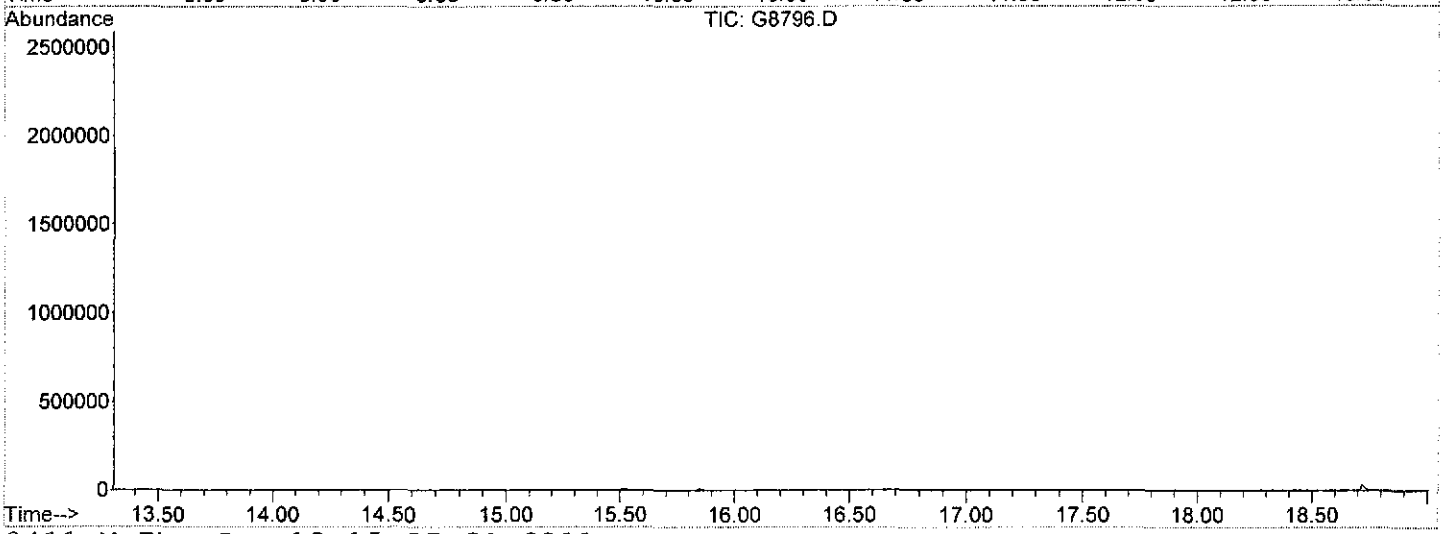
Data Path : C:\MSDCHEM\1\DATA\01-13-11\
Data File : G8796.D
Acq On : 13 Jan 2011 10:55 am
Operator : Sylvia
Sample : METHOD_BLK,METHOD_BLK,A,5mL, 100
Misc : NA,NA,NA
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\GA010411.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 624

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 018

Associated Lab Case for Blank 1: 00286, 00293, 00301, 00318, 00330, 00332, 12764

Matrix: Aqueous Unit: ppb (µg/L) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Arsenic	1.00	ND
Barium	10.0	ND
Cadmium	0.500	ND
Calcium	100	ND
Chromium	2.00	ND
Copper	2.00	ND
Lead	0.500	ND
Mercury	0.300	ND
Selenium	4.00	ND
Silver	0.500	ND
Sodium	100	ND

Associated Sample for Blank 1:

00286-003~007; 00293-001,015; 00301-001; 00318-001~002
00330-001~005; 00332-010~012,014; 12764-004

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 018
Lab Case: 00286, 00301, 00286, 00293, 00318, 00330, 00332, 12764

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Arsenic	0.250	ND	ND	ND	ND	ND	ND
Barium	2.50	ND	ND	ND	ND	ND	ND
Cadmium	0.125	ND	ND	ND	ND	ND	ND
Calcium	25.0	ND	ND	ND	ND	ND	ND
Chromium	0.500	ND	ND	ND	ND	ND	ND
Copper	0.500	ND	ND	ND	ND	ND	ND
Lead	0.125	ND	ND	ND	ND	ND	ND
Mercury	0.150	ND	ND	ND			
Selenium	1.00	ND	ND	ND	ND	ND	ND
Silver	0.125	ND	ND	ND	ND	ND	ND
Sodium	25.0	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 018
Lab Case: 00286, 00301, 00286, 00293, 00318, 00330, 00332, 12764

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	CCB					
Arsenic	0.250	ND					
Barium	2.50	ND					
Cadmium	0.125	ND					
Calcium	25.0	ND					
Chromium	0.500	ND					
Copper	0.500	ND					
Lead	0.125	ND					
Selenium	1.00	ND					
Silver	0.125	ND					
Sodium	25.0	ND					

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 018
Lab Case: 00286, 00301, 00286, 00293, 00318, 00330, 00332, 12764

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Arsenic	0.250	20.0	20.7	104	21.2	106	20.3	102	21.8	109
Barium	2.50	400	385	96.3	385	96.3	373	93.3	373	93.3
Cadmium	0.125	10.0	9.60	96.0	9.74	97.4	9.48	94.8	11.0	110
Calcium	25.0	10000	10000	100	10800	108	10000	100	9860	98.6
Chromium	0.500	20.0	18.3	91.5	19.1	95.5	19.0	95.0	18.4	92.0
Copper	0.500	50.0	45.9	91.8	47.0	94.0	45.4	90.8	47.1	94.2
Lead	0.125	10.0	9.06	90.6	9.08	90.8	9.27	92.7	9.13	91.3
Mercury	0.150	5.00	5.36	107	5.31	106	5.37	107		
Selenium	1.00	10.0	9.94	99.4	10.4	104	10.1	101	10.9	109
Silver	0.125	20.0	18.9	94.5	18.1	90.5	18.1	90.5	18.6	93.0
Sodium	25.0	10000	10000	100	10800	108	10200	102	10200	102

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 018
Lab Case: 00286, 00301, 00286, 00293, 00318, 00330, 00332, 12764

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	FOUND	% R
Arsenic	0.250	20.0	21.3	107	20.8	104	20.8	104		
Barium	2.50	400	372	93.0	365	91.3	374	93.5		
Cadmium	0.125	10.0	10.5	105	11.0	110	10.9	109		
Calcium	25.0	10000	9310	93.1	9050	90.5	9120	91.2		
Chromium	0.500	20.0	18.6	93.0	18.3	91.5	18.5	92.5		
Copper	0.500	50.0	45.7	91.4	45.1	90.2	46.8	93.6		
Lead	0.125	10.0	9.13	91.3	9.06	90.6	9.40	94.0		
Selenium	1.00	10.0	11.0	110	10.6	106	10.6	106		
Silver	0.125	20.0	18.6	93.0	18.3	91.5	18.1	90.5		
Sodium	25.0	10000	9860	98.6	9250	92.5	9750	97.5		

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 018
Lab Case: 00286, 00301, 00286, 00293, 00318, 00330, 00332, 12764

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	> LRG	> LRG	NA	NA
Calcium	100000	-	97600	96300	96.3	NA
Iron	100000	-	91500	92700	92.7	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	-	-	-	NA
Titanium	2000	-	2210	2240	112	NA
Silver	-	20.0	-	19.2	96.0	80-120
Arsenic	-	20.0	-	19.4	97.0	80-120
Cadmium	-	20.0	-	22.8	114	80-120
Cobalt	-	20.0	-	18.7	93.5	80-120
Chromium	-	20.0	-	19.2	96.0	80-120
Copper	-	20.0	-	20.1	101	80-120
Manganese	-	20.0	-	23.8	119	80-120
Nickel	-	20.0	-	19.6	98.0	80-120
Zinc	-	20.0	-	23.3	117	80-120

%R = Percent Recovery

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 018
Lab Case: 00286, 00293, 00301, 00318, 00330, 00332, 12764

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Arsenic	447	ND	112	400					75-125
Barium	450	63.1	96.7	400					75-125
Cadmium	411	ND	103	400					75-125
Calcium	132000	116000	NC	8000					75-125
Chromium	445	ND	111	400					75-125
Copper	402	ND	101	400					75-125
Lead	404	ND	101	400					75-125
Mercury	9.99	ND	99.9	10.0					75-125
Selenium	450	ND	113	400					75-125
Silver	404	ND	101	400					75-125
Sodium	40500	29800	NC	8000					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 00286-004
QC Sample 1 for following samples:
00286-003~007; 00293-001,015; 00301-001; 00318-001~002
00330-001~005; 00332-010~012,014; 12764-004

QC Sample 2 _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 018
Lab Case: 00286, 00293, 00301, 00318, 00330, 00332, 12764

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Arsenic	NA	ND	ND	NC				
Barium	20	63.1	63.6	0.789				
Cadmium	NA	ND	ND	NC				
Calcium	20	116000	122000	5.04				
Chromium	NA	ND	ND	NC				
Copper	NA	ND	ND	NC				
Lead	NA	ND	ND	NC				
Mercury	NA	ND	ND	NC				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	20	29800	31900	6.81				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 00286-004
QC Sample 1 for following samples:
00286-003~007; 00293-001,015; 00301-001; 00318-001~002
00330-001~005; 00332-010~012,014; 12764-004

QC Sample 2 _____
QC Sample 2 for following samples:

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 018

Lab Case: 00286, 00293, 00301, 00318, 00330, 00332, 12764

Matrix: Aqueous

Unit: ppb (µg/L)

ANALYTE	BSW1			BSW2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Arsenic	400	423	106			
Barium	400	368	92.0			
Cadmium	400	395	98.8			
Calcium	8000	7900	98.8			
Chromium	400	407	102			
Copper	400	398	99.5			
Lead	400	383	95.8			
Mercury	10.0	10.7	107			
Selenium	400	423	106			
Silver	400	397	99.3			
Sodium	8000	8050	101			

(1) Control Limits % Recovery = 85-115%

BSW1

00286-003~007; 00293-001,015; 00301-001; 00318-001~002
00330-001~005; 00332-010~012,014; 12764-004

BSW2

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 018
Lab Case: 00286, 00293, 00301, 00318, 00330, 00332, 12764

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SERIAL DILUTION SR	SERIAL DILUTION SDR	% Difference	POST SPIKE SPR	POST SPIKE SA	% Recovery
Arsenic	ND			428	400	107
Barium	63.1			413	400	87.5
Cadmium	ND			392	400	98.0
Calcium	116000	108000	7.14			
Chromium	ND			415	400	104
Copper	ND			384	400	96.0
Lead	ND			380	400	95.0
Selenium	ND			428	400	107
Silver	ND			387	400	96.8
Sodium	29800	28600	4.11			

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 00286-004
QC Sample 1 for following samples:
00286-003~007; 00293-001,015; 00301-001; 00318-001~002
00330-001~005; 00332-010~012,014; 12764-004

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO		REPORTING INFO	
Company:	PEC/PA	REPORT TO:	PEC/PA
Address:	2034 E. WELLINGTON RD.	Address:	
	NEWTOWN PA		
Telephone #:	215 860 1231	Attn:	
Fax #:	215 860 9988	FAX #	
Project Manager:	D. KATZ	INVOICE TO:	PEC/PA
EMAIL Address:	pecinc@aol.com	Address:	
Sampler:	M. BROGAN		
Project Name:	PALMER		
Project Location (State):	NJ	Attn:	
Bottle Order #:		PO #	
Quote # :			

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) | NJ EPH Fractionated (5 day TAT)
NJ EPH - C40 (5 day TAT)
DRO-8015 (3-5 day TAT) | QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified
24 hr** | 48 hr** | 72 hr** | 96 hr** | 1 wk**
Other** (specify):

Hard Copy: Std 3 week * | Other - call for price

Rush TAT Charge **
24 hr - 100%...
48 hr - 75%....
72 hr - 50%....
96 hr - 35%....
5 day - 25%....
6-9 day 10%

Report Format
Results Only
(Reduced)
Regulatory - 15% Surcharge applies
Other (describe)

EDDs
(SRP format)
lab approved custom EDD
NO EDD/CD REQ'D

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix
DW - Drinking Water | AQ - Aqueous | WW - Waste Water
OI - Oil | LIQ - Liquid (Specify) | OT - Other (Specify)
S - Soil | SL - Sludge | SOL - Solid | W - Wipe

ANALYTICAL PARAMETERS

BOTTLES & PRESERVATIVES

	Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	VOA+10 TCL	Sodium	HCL	HNO3	MeOH	Other	None	Encore
1	TRIP		1/11/11		AQ		2	✓							
2	FIELD			9:00	AQ		2	✓							
3	MW17			9:21	GW		1		✓						
4	MW13			10:05	GW		1		✓						
5	MW12			10:45	GW		3	✓	✓						
6	MW14			11:25	GW		3	✓	✓						
7	MW8R			12:05	GW		3	✓	✓						

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): _____ IAL Courier ____ Client Courier _____ FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by:	1/11/11	2:40	Received by:	1/11/11	14 40
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 00286

PAGE: 1 of 1

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

I:\2010 REV COC

10/2010 rev

PROJECT INFORMATION

E11-00286

Case No. E11-00286 **Project** PALMER

Customer	PennJersey Environmental Consulting	**P.O. #**	
Contact	Dick Katz	**Received**	1/11/2011 14:40
EMail	pecinc@aol.com;nagorbm@yaho ☑ EMail EDDs	**Verbal Due**	1/25/2011
Phone	(215) 860-1231 **Fax** 1(215) 860-9988	**Report Due**	2/1/2011

Report To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Bill To

2034 E. Wellington Rd.
Newtown, PA 18940

Attn: Dick Katz

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
00286-001	TRIP	n/a	1/11/2011	Aqueous	ug/L	2
00286-002	FIELD	n/a	1/11/2011@09:00	Aqueous	ug/L	2
00286-003	MW17	n/a	1/11/2011@09:21	Aqueous	ug/L	1
00286-004	MW13	n/a	1/11/2011@10:05	Aqueous	ug/L	1
00286-005	MW12	n/a	1/11/2011@10:45	Aqueous	ug/L	3
00286-006	MW14	n/a	1/11/2011@11:25	Aqueous	ug/L	3
00286-007	MW8R	n/a	1/11/2011@12:05	Aqueous	ug/L	3

Sample #	Tests	Status	QA Method
001	TCL VOA + 10	Run	624
002	TCL VOA + 10	Run	624
003	Sodium - Na	Run	6020
004	Sodium - Na	Run	6020
005	TCL VOA + 10	Run	624
"	Sodium - Na	Run	6020
006	TCL VOA + 10	Run	624
"	Sodium - Na	Run	6020
007	TCL VOA + 10	Run	624
"	Sodium - Na	Run	6020

01/11/2011 15:47 by Ellen - NOTE 1

AS PER PREVIOUS CONVERSATION W/ DICK K. RE: PALMER PROJECT, 8011 NOT REQUIRED FOR TCL VO.

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 10** **00286** CLIENT: REC / PA

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

✓	Bottles Intact
✓	no-Missing Bottles
✓	no-Extra Bottles
✓	Sufficient Sample Volume
✓	no-headspace/bubbles in VOs
✓	Labels intact/correct
✓	pH Check (exclude VOs)[1]
✓	Correct bottles/preservative
✓	Sufficient Holding/Prep Time[1]
	Sample to be Subcontracted
✓	**Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 1/11/11

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL KN DATE 1/11/11

Laboratory Custody Chronicle

IAL Case No.

E11-00286

Client PennJersey Environmental Consulting

Project PALMER

Received On 1/11/2011@14:40

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VOA + 10	00286-001	Aqueous	n/a	n/a	1/13/11	Barbara
"	-002	"	n/a	n/a	1/13/11	Barbara
"	-005	"	n/a	n/a	1/13/11	Barbara
"	-006	"	n/a	n/a	1/13/11	Barbara
"	-007	"	n/a	n/a	1/13/11	Barbara

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Sodium - Na	-003	Aqueous	1/13/11	Lisa	1/14/11	Wei
"	-004	"	1/13/11	Lisa	1/14/11	Wei
"	-005	"	1/13/11	Lisa	1/14/11	Wei
"	-006	"	1/13/11	Lisa	1/14/11	Wei
"	-007	"	1/13/11	Lisa	1/14/11	Wei

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

SRP PI# 510630
PALMER INDUSTRIES, INC., 59-97 CHAPEL STREET REAR
NEWARK CITY, ESSEX COUNTY, NEW JERSEY
MAY 2011

REMEDIAL INVESTIGATION REPORT

INTRODUCTION

This report details the remedial activities conducted at an undeveloped piece of property along the Passaic River in Newark City, Essex County, New Jersey. The site – known as Palmer Industries, Inc. – is identified on the tax rolls of Newark as Lot 3 in Block 2442 and as 59-97 Chapel Street Rear. The environmental investigation was triggered initially as a matter of general due diligence on the part of the property owner but was since modified based on a taking of the property by Essex County under eminent domain. This is one of three contiguous sites being taken by the County for conversion to a park and recreation area. The agreement regarding compensation was recently completed and, upon submittal of this set of documents, the project will be taken over by a Licensed Site Remediation Professional (LSRP) retained by the County.

Roughly triangular, the site is 3.421 acres and is located behind an apartment complex and is accessible through a small gate on Brill Street, with primary access through a neighboring property at 99 Chapel Street and then by an easement running along the Passaic River. The conjoined properties are full fenced or secured by the river. Although the site saw long-term use as an industrial facility, it has been undeveloped since purchase by the current owner in 1982. During that time, the only operation conducted was the storage of empty shipping containers and trailers.

During the course of this investigation, a number of subsurface anomalies were identified and eliminated as environmental concerns. These included innocuous matters such as buried chunks of concrete as well as five large Underground Storage Tanks (USTs). The only soil issue remaining at the site is the presence of historic fill, which is ubiquitous to the local area. Minor ground water contamination remains in isolated locations within the site in the form of benzene and trichloroethene with minor contamination in the form of heavy metals found related to historic fill that underlies the entire site. No structures lie within 100' of the known or presumed ground water contamination; no vapor intrusion investigation was needed. A tidal study showed that the flow beneath the site reverses completely with each change of tides and the water is adversely affected by salt-water intrusion.

The culmination of this work will involve imposition of a deed notice and either establishment of a Classification Exception Area (CEA) or a reclassification of the ground water due to the salt-water intrusion. Decisions regarding these matters and the ultimate details will be determined by the next LSRP retained.

The sections of this overall package contain the PAR, this RIR, 15 appendices related to the various reports, background LSRP forms and notices and complete laboratory reports for all sampling events in both hard copy and Electronic Data Interchange (EDI) format.

Case Inventory Document

SRP PI # 510630, Palmer Industries, Inc.

I. Area(s) of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Receptors		Current Status/Outcome
				Existing	Potential	
AOC A- ASTs	None	None	None	None	None	Existence of such tanks postulated from the 90-year industrial history of the property prior to Palmer Industries ownership that commenced in 1982. PA found no evidence of supporting structures No specific information on the locations of ASTs was found but the presence of such units can be safely postulated. No visible evidence was identifiable onsite and no anomalies found by a ground penetrating radar survey indicate the former presence of such tanks. No further investigation of this matter is proposed.
AOC B - USTs	Soil, ground water	Benzene, VO TICs	Direct contact	None	None	GPR survey identified a series of anomalies throughout the site. Three of them proved to contain a total of 5 ancient underground tanks - 7,500-gallon #4 oil, 7,500-gallon #6 oil, 1,000-gallon gasoline and two 10,000-gallon #6 oil. All tanks were registered with the UST Billing and Registration Unit, local permits were obtained, the tanks, contents, piping and all affected soil were removed for off-site disposal and final UST Facility Certification Questionnair submitted. Residual ground water contamination in the form of benzene (max 2.49 ug/l) and VO TICs (max 1584 ug/l) remain in the vicinity. This issue is addressed under AOC H, below. No further investigation directly related to the USTs is proposed.
AOC C - Loading-unloading areas	None	None	None	None	None	As in the case of the presumed ASTs discussed above, the 90-year history of industrial operations naturally would have involved these areas. No specific information could be derived from historic sources and none of the GPR anomalies showed any relationship to such activities. No further investigation of this matter is proposed.
AOC D - Sumps and Pits	None	None	None	None	None	The original GPR survey identified 13 subsurface anomalies. Two were excavated and found to be former pits, purpose unknown. TAL/TCL sampling detected elevated levels of only those compounds commonly associated with historic fill. The species and levels were similar to those found in ten test pits installed throughout the site to evaluate the presence of historic fill and these results are attributed to the fill material, rather than the former pits. No further investigation of these pits is proposed.
AOC E - Surface water body	Surface water	Sodium	None	None	Unknown	The Passaic River forms the northern border of the site. It is a tidal marine body at this reach. A tidal study determined that the river causes a diurnal reversal of ground water flow and salt-water intrusion into the underlying ground water. As this matter is outside the control of the party responsible for conducting remediation, no further investigation is proposed.
AOC F - Historic fill	Soil	PAHs, metals	Direct contact	None	Unknown	Historic fill was identified throughout the site during installatino of ten trenches dug for that purpose. Contamination in the form of PAHs and various metals was confirmed through laboratory analysis. Under the most recent appraisal, the highest and best use of the site is for the most recent commercial operation conducted - that is, storage of empty shipping containers. On that basis the current cap, consisting of casual placement of asphalt and gravel, combined with the complete enclosure of the property by fencing would be sufficient for an engineering control to be combined with an institutional control in the form of a deed notice. However, the property has been taken by Essex County through eminent domain and the County plans to convert this property and the two contiguous sites to the west into a recreational facility. Thereofre, compliance with presumptive remedy requirements will be required. As the County is now the property owner, any decisions regarding this matter will be handled by the LSRP retained by the County. No further discussion of this matter is offered.
AOC G - Subsurface anomalies	None	None	None	None	None	The initial GPR survey identified 13 subsurface anomalies. Three were found to be USTs (AOC B), two were pits (AOC E) and the remaining eight were innocuous matters such as buried metal and concrete. No further investigation of this matter is proposed.

Case Inventory Document

SRP PI # 510630, Palmer Industries, Inc.

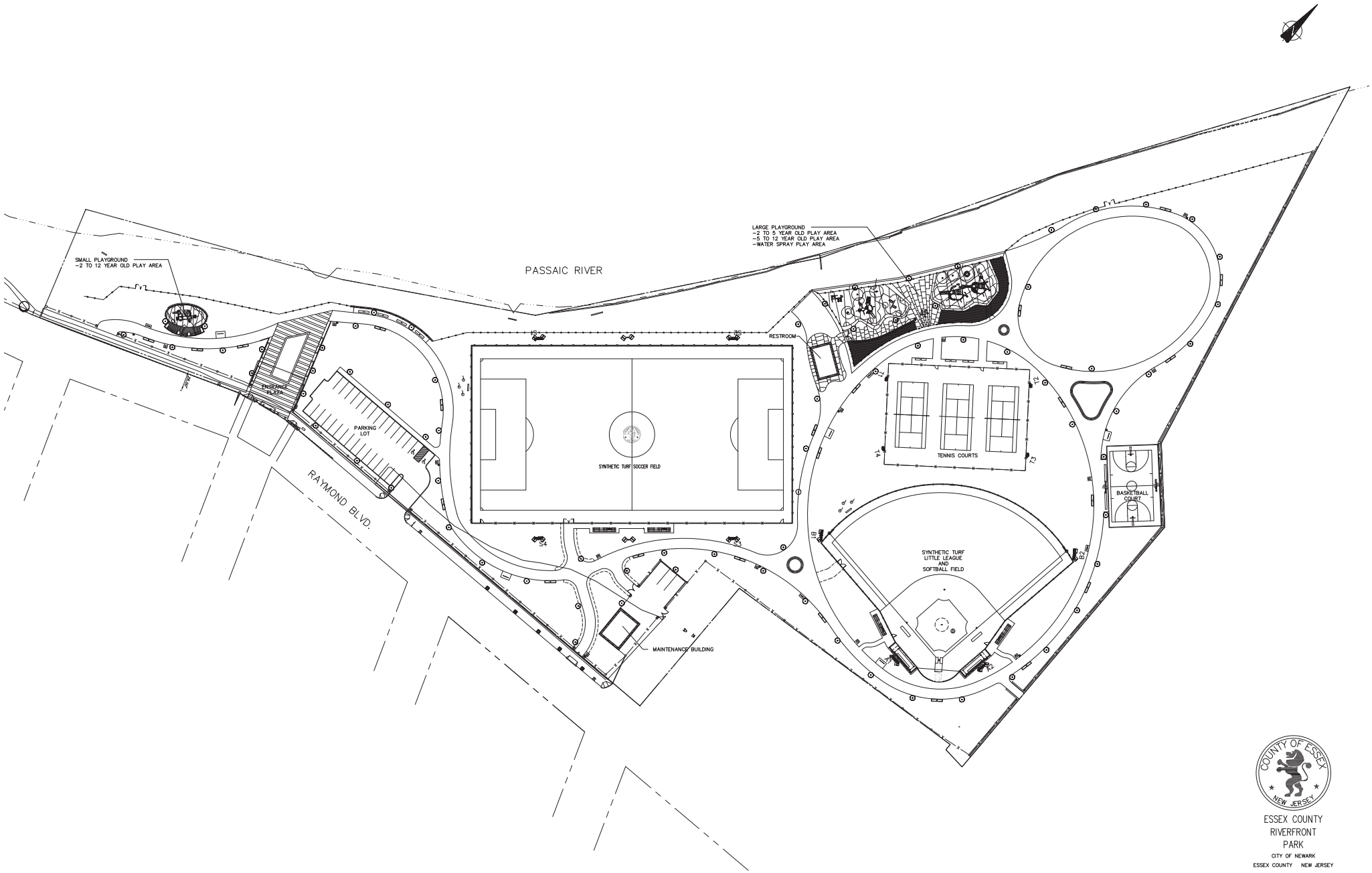
I. Area(s) of Concern, Receptor and Emergency Response Tracking	*Impacted Media*	*Contaminants of Concern*	*Exposure Route*	*Receptors*		*Current Status/Outcome*
				Existing	*Potential*	
AOC H - Ground water contamination	Ground wat	Benzene, VO TICs, TCE	Direct contact	None	Unknown	The Passic River forms the northern border of the subject site and causes a diurnal reversal of ground water flow. The river has also caused salt-water intrusion through a significant portion of the site. Low residual levels of benzene and VO TICs were identified in the vicinity of former USTs and a low level of TCE from an unknown source was observed on in one well on the eastern side of the site. Given the physical situation, this matter could be addressed through reclassification of the ground water to Class III-B. Alternatively, additional investigation could be conducted to develop a CEA. Since the property has been taken by Essex County, this determination will be made and implemented by the LSRP to be retained by the County.

					11-4-09 Version 1.0

Case Inventory Document

SRP PI # 510630, Palmer Industries, Inc.

II. Other Issues Tracked	*Impacted Media*	*Contaminants of Concern*	*Current Status/Outcome*



ESSEX COUNTY
RIVERFRONT
PARK

CITY OF NEWARK
ESSEX COUNTY NEW JERSEY

40 0 40 80
SCALE IN FEET