Reference 38

9532660

TNRCC FY2000 RCRIS Compliance Monitoring and Enforcement Log

Site Information: If no EPA ID#, Permit#, or WDW# leave blank

TNRCC ID#: 31288 EPA ID: TXD086278058 Permit #: WDW #:

Facility Name: NATIONAL OIL RECOVERY CORPORATION

Facility physical address: FM 2725 AND BISHOP ROAD, INGLESIDE, TX

Facility mailing address: 37-17 BOWNE ST., FLUSHING, NEW YORK, 113 County: 205 SAN PATRICIO

Region/Inspector Info:

Region: 14 Corpus Christi

Inspector: DHARVEY

Inspection/Activity Information:

Facility Type: TSD Inspection/Activity Type: CEI

Insp begin date: 01/07/2000 Insp end date: 01/07/2000 Super Sign: 03/07/2000

Areas of Evaluation:

- [x] DGW - TSD - Groundwater
- [x] SWR - TNRCC ISW State Rule Only
- [x] GMR Generator - Manifest
- [x] DCL - TSD - Closure
- [x] SMR - TNRCC State Manifest Requirement Only
- [x] GOR - Generator - Other
- [x] DFR - TSD - Financial
- [x] SGW - TNRCC ISW State Groundwater Contamination
- [x] FEA - Penalties
- [x] GLB - Generator - Land Ban
- [x] DMR - TSD Manifest
- [x] UIC - Underground Injection Control
- [x] WFS - Waste Fees
- [x] TMR - Transporter - Manifest
- [x] DOR - TSD - Other
- [x] PER - TNRCC Permit Provisions
- [x] TOR - Transporter - Other
- [x] DLB - TSD - Land Ban
- [x] CAS - Permit or Order Schedules

[x] Change Form Attached?

Comments:

For RCRIS Data Personnel Only

Sequence No.

TNRCC ID	Prev Vio Seq	Prev Insp Type	Prev Insp Date	Vio Area	Vio Class	Rule Type	Rule Citation State	Rule Citation Fed	SNC/SV	ESC	Enf Action	Date Action Taken	Final Schedule	Compliance Date	Cat
31288				SWR	3	S	327.3(a)(1)				NOE	03/07/2000			A
31288				SWR	3	S	327.5(a)				NOE	03/07/2000			A
31288				DOR	1	F	335.152(a)(8)	264, Subchapter J			NOE	03/07/2000			A
31288				GOR	2	F	335.2/335.43	270			NOE	03/07/2000			B
31288				GOR	3	S	335.4/26.121				NOE	03/07/2000			A
31288				SWR	3	S	335.6(c)				NOE	03/07/2000			C
31288				GOR	2	F	335.62	262.11			NOE	03/07/2000			C

ENFORCEMENT REQUEST

RECEIVED
MAR - 9 2000
SITE ASSESSMENT & MANAGEMENT SECTION

TNRCC FY2000 RCRIS Compliance Monitoring and Enforcement Log

Site Information: If no EPA ID#, Permit#, or WDW# leave blank

TNRCC ID#: 31288 EPA ID: TXD086278058 Permit #: WDW #:

Facility Name: NATIONAL OIL RECOVERY CORPORATION

Facility physical address: FM 2725 AND BISHOP ROAD, INGLESIDE, TX

Facility mailing address: 37-17 BOWNE ST., FLUSHING, NEW YORK, 113 County: 205 SAN PATRICIO

Region/Inspector Info:

Region: 14 Corpus Christi

Inspector: DHARVEY

Inspection/Activity Information:

Facility Type: TSD Inspection/Activity Type: CEI

Insp begin date: 01/07/2000 Insp end date: 01/07/2000 Super Sign: 03/07/2000

Areas of Evaluation:

- [ ] GMR Generator - Manifest
- [x] GOR - Generator - Other
- [ ] GLB - Generator - Land Ban
- [ ] TMR - Transporter - Manifest
- [ ] TOR - Transporter - Other
- [ ] DGW - TSD - Groundwater
- [ ] DCL - TSD - Closure
- [ ] DFR - TSD - Financial
- [ ] DMR - TSD Manifest
- [x] DOR - TSD - Other
- [ ] DLB - TSD - Land Ban
- [x] SWR - TNRCC ISW State Rule Only
- [ ] SMR - TNRCC State Manifest Requirement Only
- [ ] SGW - TNRCC ISW State Groundwater Contamination
- [ ] UIC - Underground Injection Control
- [ ] PER - TNRCC Permit Provisions
- [ ] CAS - Permit or Order Schedules
- [ ] FEA - Penalties
- [ ] WFS - Waste Fees

[ ] Change Form Attached?

Comments:

For RCRIS Data Personnel Only

Sequence No.

TNRCC ID	Prev Vol Seq	Prev Insp Type	Prev Insp Date	Vol Area	Vol Class	Rule Type	Rule Citation State	Rule Citation Fed	SNC/SV	ESC	Enf action	Date Action	Final schedule	Compliance date	Cat
31288				SWR	3	S	327.3(a)(1)				NOE	03/07/2000			A
31288				SWR	3	S	327.5(a)				NOE	03/07/2000			A
31288				DOR	1	F	335.152(a)(8)	264, Subchapter J			NOE	03/07/2000			A
31288				GOR	2	F	335.2/335.43	270			NOE	03/07/2000			B
31288				GOR	3	S	335.4/26.121				NOE	03/07/2000			A
31288				SWR	3	S	335.6(c)				NOE	03/07/2000			C
31288				GOR	2	F	335.62	262.11			NOE	03/07/2000			C

ENFORCEMENT REQUEST

2000 08 30

TNRCC FY2000 RCRIS Compliance Monitoring and Enforcement Log

Site Information: If no EPA ID#, Permit#, or WDW# leave blank

TNRCC ID#: 31288 EPA ID: TXD086278058 Permit #: WDW #:

Facility Name: NATIONAL OIL RECOVERY CORPORATION

Facility physical address: FM 2725 AND BISHOP ROAD, INGLESIDE, TX

Facility mailing address: 37-17 BOWNE ST., FLUSHING, NEW YORK, 113 County: 205 SAN PATRICIO

Region/Inspector Info:

Region: 14 Corpus Christi

Inspector: DHARVEY

Inspection/Activity Information:

Facility Type: TSD Inspection/Activity Type: SPL

Insp begin date: 01/07/2000 Insp end date: 01/07/2000 Super Sign: 03/07/2000

Areas of Evaluation:

- [ ] GMR Generator - Manifest
- [x] GOR - Generator - Other
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- [ ] TMR - Transporter - Manifest
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[ ] Change Form Attached?

Comments:

For RCRIS Data Personnel Only

Sequence No.

TNRCC ID	Prev Viol Seq	Prev Insp Type	Previous Date	Viol Area	Viol Class	Rule Type	Rule Citation State	Rule Citation Fed	SNC (SV)	ESC	Enf Action	Date Action	Final Schedule	Compliance date	Cat
31288				SWR	3	S	327.3(a)(1)				NOE	03/07/2000			A
31288				SWR	3	S	327.5(a)				NOE	03/07/2000			A
31288				DOR	1	F	335.152(a)(8)	264, Subchapter J			NOE	03/07/2000			A
31288				GOR	2	F	335.2/335.43	270			NOE	03/07/2000			B
31288				GOR	3	S	335.4/26.121				NOE	03/07/2000			A
31288				SWR	3	S	335.6(c)				NOE	03/07/2000			C
31288				GOR	2	F	335.62	262.11			NOE	03/07/2000			C

ENFORCEMENT REQUEST

03 00 00 03

TNRCC FY2000 RCRIS Compliance Monitoring and Enforcement Log

Site Information: If no EPA ID#, Permit#, or WDW# leave blank

TNRCC ID#: 31288 EPA ID: TXD086278058 Permit #: WDW #:

Facility Name: NATIONAL OIL RECOVERY CORPORATION

Facility physical address: FM 2725 AND BISHOP ROAD, INGLESIDE, TX

Facility mailing address: 37-17 BOWNE ST., FLUSHING, NEW YORK, 113 County: 205 SAN PATRICIO

Region/Inspector Info:

Region: 14 Corpus Christi

Inspector: DHARVEY

Inspection/Activity Information:

Facility Type: TSD Inspection/Activity Type: SPL

Insp begin date: 01/07/2000 Insp end date: 01/07/2000 Super Sign: 03/07/2000

Areas of Evaluation:

- [ ] GMR Generator - Manifest
- [x] GOR - Generator - Other
- [ ] GLB - Generator - Land Ban
- [ ] TMR - Transporter - Manifest
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Comments:

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Sequence No.

TNRCC ID#	Prev Viol Seq	Prev Insp Type	Prev Insp Date	Viol Area	Viol Class	Rule Type	Rule Citation State	Rule Citation Fed	SNC/SV	ESC	Enf Action	Date Action	Final Schedule	Compliance date	Cat
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31288				SWR	3	S	327.5(a)				NOE	03/07/2000			A
31288				DOR	1	F	335.152(a)(8)	264, Subchapter J			NOE	03/07/2000			A
31288				GOR	2	F	335.2/335.43	270			NOE	03/07/2000			B
31288				GOR	3	S	335.4/26.121				NOE	03/07/2000			A
31288				SWR	3	S	335.6(c)				NOE	03/07/2000			C
31288				GOR	2	F	335.62	262.11			NOE	03/07/2000			C

ENFORCEMENT REQUEST

Enforcement Action Referral
Rev. 03/06/2000

Norcear2.wpd

See Note: Who Fills out the EAR? ➤

Enf ID	
Case Seq	

Media code	MM20
Initiated by: Region, LP, Central	Region
Name of initiating office	14

SECTION 1: RESPONDENT

Name	National Oil Recovery Corporation		Role	Owner
Mailing Address	Street/PO Box	37 - 17 Bowne Street		
	City/State/Zip	Flushing, New York 11354		
Primary Contact	Name	Mr. Solfred Maizus	Title	President
	Phone	(718) 539-0006	Fax	(718) 539-0005

SECTION 2: FACILITY/OPERATION (F/O)

F/O Name	National Oil Recovery Corporation - Ingleside Facility		
I.D. Number(s)	TNRCC Air Account Number SD-0054-N, TNRCC Industrial Solid Waste Registration Number 31288, EPA ID Number TXD086278058		
F/O Physical Address	Intersection of FM 2725 and Bishop Road		
Location City	Ingleside	Location Zip Code	78362
Location County	San Patricio	Operational Status	active
F/O Type	partially shutdown petroleum refining and storage facility	Type of Small Entity	none of the above
Primary Business Activity	storage of unknown chemical liquids	SIC Code	4226
Potentially Affected Area	subdivision near this facility, Chicot Aquifer	Complaints closed	14000156
RIO or CO ? (explain)	CO, because this is a complex multi-media case and settlement is not expected within 60 days		
SNC or HPV? (explain)	No		
List any NOVs/Orders for same or similar violations at this F/O in the past 5 Years	A Notice of Violation for nuisance odors was issued to the facility on February 24, 2000. This violation has been incorporated into this enforcement case (violation #22).		

SECTION 3: SUMMARY OF VIOLATIONS

See note: Inclusion of Resolved or Verbal Violations ➤

V	Requirements Cited / Violation Description	Violation Date(s)	Inspection / File Review Date	Inspection / File Review Type	Date of... NOV	Date of... NOE	Cat
1	TEX. WATER CODE § 26.121/30 TEX. ADMIN. CODE § 335.4	January 4 - 11, 2000	January 7, 2000	02CEI		March 7, 2000	A10
	Failure to prevent the unauthorized discharge of industrial solid waste from a tank located in the "naphtha stabilizer unit" of the NORCO Ingleside Facility.						
2	30 TEX. ADMIN. CODE § 327.3(a)(1)	January 4 - 11, 2000	January 7, 2000	02CEI		March 7, 2000	A7
	Failure to notify the TNRCC of a spill of a reportable quantity a hazardous substance.						
3	30 TEX. ADMIN. CODE § 327.5(a)	January 4 - 11, 2000	January 7, 2000	02CEI		March 7, 2000	A7
	Failure to immediately abate and contain the leak from the tank.						
4	30 TEX. ADMIN. CODE § 335.62/40 Code of Federal Regulations (CFR) § 262.11	January 7, 2000	January 7, 2000	02CEI		March 7, 2000	C2
	Failure to determine if the liquid waste stored in the tank which leaked was a hazardous waste.						
5	30 TEX. ADMIN. CODE § 335.2 & 335.43/40 CFR § 270	approx. 1985 thru January 11, 2000	January 7, 2000	02CEI		March 7, 2000	B18
	Failure to obtain a permit for the storage of hazardous waste in the tank which leaked.						
6	30 TEX. ADMIN. CODE § 335.152(a)(8)/40 CFR § 264, Subpart J		January 7, 2000	02CEI		March 7, 2000	A11 e.1
	Failure to comply with hazardous waste tank requirements.						
7	30 TEX. ADMIN. CODE § 335.6(c)		January 7, 2000	02CEI		March 7, 2000	C3
	Failure to notify the Executive Director of facility changes with regard to industrial solid waste management activities.						
8	30 TEX. ADMIN. CODE § 101.6	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	B3
	Failure to create or maintain a record of upset emissions associated with a leaking vessel.						
9	30 TEX. ADMIN. CODE § 101.11(a)	January 4, 2000	January 4, 2000	02CEI		March 7, 2000	B3
	Failure to establish criteria necessary to exempt unauthorized emissions from regulatory requirements.						
10	30 TEX. ADMIN. CODE § 101.24	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	B3
	Failure to submit an inspection fee.						
11	30 TEX. ADMIN. CODE § 115.112(c)	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	B22 g(1)
	Failure to demonstrate that the internal floating roof on tank number 7 was properly maintained and operated.						

SECTION 3: SUMMARY OF VIOLATIONS

See note: Inclusion of Resolved or Verbal Violations ➤

V	Requirements Cited / Violation Description	Violation Date(s)	Inspection / File Review Date	Inspection / File Review Type	Date of... NOV	Date of... NOE	Cat
12	30 TEX. ADMIN. CODE § 115.212(c)	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	B3
	Failure to provide the required information related to the loading and unloading of Volatile Organic Compounds (VOCs) stored in tank number 7.						
13	30 TEX. ADMIN. CODE § 116.110(a)	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	A2.a
	Failure to gain authorization for the VOC emissions associated with a leaking vessel.						
14	30 TEX. ADMIN. CODE § 116.115(b)(2)(F) and TNRCC Air Permit No. 5879A, General Condition Number 7	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	B3
	Failure to provide information and data sufficient to demonstrate compliance with the permit requirements.						
15	30 TEX. ADMIN. CODE § 116.115(c) and TNRCC Air Permit No. 5879A, Special Condition Number 1	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	B22 g(1)
	Failure to maintain the floating roof seal of tank number 7 to minimize vapor loss.						
16	30 TEX. ADMIN. CODE § 116.115(c) and TNRCC Air Permit No. 5879A, Special Condition Number 2	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	B3
	Failure to prove the ability to maintain a vapor pressure of less than 11.0 psia at actual storage conditions.						
17	30 TEX. ADMIN. CODE §§ 101.20 and 116.115(c)/40 CFR Part 60, Subpart K, § 60.113(a) and TNRCC Air Permit No. 5879A, Special Condition Number 3	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	B3
	Failure to maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.						
18	30 TEX. ADMIN. CODE § 116.115(c) and TNRCC Air Permit No. 5879A, Special Condition Number 4	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	B3
	Failure to verify that the material stored in tank number 7 is gasoline or any other approved material.						
19	30 TEX. ADMIN. CODE § 116.115(c) and TNRCC Air Permit No. 5879A, Special Condition Number 5	January 4, 2000 - present	January 4, 2000	02CEI		March 7, 2000	B3
	Failure to provide calculations of controlled and uncontrolled emissions of carbon compounds stored in tank number 7.						
20	30 TEX. ADMIN. CODE § 101.4	January 10,2000	January 10, 2000	05CMPL	February 24, 2000	March 7, 2000	B21
	Failure to prevent an air pollution condition from interfering with the normal use and enjoyment of property.						

SECTION 4: ADDITIONAL DISCUSSION

SECTION 5: OTHER AREAS OF CONCERN

SECTION 6: INFORMATION ABOUT INITIATING OFFICE

Case Contact	Name	David Harvey, Clint Roitsch		
	Signature	David Harvey, Clint Roitsch	Date	3/7/00 3/7/00
	Telephone	(361) 825-3105, 3118	Fax	(361) 825-3101
Section Manager	Name	C. Russell Lewis, James W. Bowman	Phone	(361) 825-3105
	Signature	C. Russell Lewis James W. Bowman	Date	3/7/00 3/7/00

SECTION 7: CASE SCREENING RECOMMENDATIONS

Case Screening Recommendations should be completed only by the Enforcement Coordinator for the case. If the case will be a RIO, it should be done in the region with the designated regional EC.

a Enforcement Action Lead

Mark the one appropriate choice with an x, and provide an explanation if needed.

	x	Explain Criteria/Reason	Go to
TNRCC RIO		This case qualifies as a RIO because... (refer to RIO criteria).	c
TNRCC Central		This case does not qualify as a RIO because... (refer to RIO criteria).	b
EPA		[See SOP for criteria. Explain recommendation in this box..]	g
AG		[See SOP for criteria. Explain recommendation in this box..]	g
Other		[Explain recommendation in this box.]	g

b Type of Enforcement Action

Mark the appropriate choice with an x, and provide an explanation if needed.

	x	Explain Criteria/Reason	Go to
Expedited			c
EDPRP			c
CA			e
Revocation			e
Other			e

c Type of Order

Mark the *one* appropriate choice with an x, and provide a case-specific explanation that is based on the findings order policy . *For example*, "Meets findings criteria 1 (violation is a gross deviation from a standard of conduct common in a given industry) based on criteria 1(a): the facility has consistently failed to comply with its permits and the rules, unlike the majority of companies in this industry."

	x	Explain Criteria/Reason	Go to
1660			d
Findings			e

d Penalty Deferral?

For 1660 orders only Mark the *one* appropriate choice with an x, and provide an explanation of why the entity should or should not receive a penalty deferral.

	x	Explain Criteria/Reason
Deferral		
No deferral		

e Outstanding fees

List fee amounts, fee type, rule cites

f Case Priority

For TNRCC-Lead cases only. Enter the priority as a number from 1 to 8, and provide a brief case-specific explanation.

3	Explain Criteria/Reason

g Violation Documentation

Mark each item with an x to verify that you have reviewed the case's violations for adequate documentation and validity.

x	Documentation Items
	Each alleged violation addresses the basic issue (e.g., did they fail to keep monitoring records, or also fail to do the monitoring itself?)
	Proper cites (cites match the alleged violations, not cascading)
	Parallel cites are included if applicable (e.g., statutes or CFR)
	The cites are specific (paragraph or subparagraph as needed)
	Violations have good evidence (reports, samples, photos, etc.)
	The documentation describes what actually occurred; doesn't just quote the rule.

h Respondent Verification

Verify the name of the respondent and then mark the *one* appropriate choice with an x (see SOP).

x	The respondent is...
	a government entity (only name verification needed)
	a corporation in good standing.
	a corporation not in good standing (see SOP).
	a partnership.
	neither a partnership nor a corporation--use DBA.

i Changes to EAR

Describe any changes or corrections that you recommend for the EAR (Sections a through h above)-- for example, changes to respondent's name, violation rule cites, etc.

j Due Dates

TNRCC Case Priority Due Date for Order/EDPRP Mailout	
EPA deadline (for HPV or SNC)	
Enter the *earlier* of the two above dates. This is your actual mailout due date	
If an NOE needs to be sent, what is the due date?	
If TRs and PCW need to be sent to Litigation Div., what is due date?	
If this is an EPA or AG referral, what is due date?	

k Signature

The Enforcement Coordinator (EC) and supervisor sign to verify that the screening recommendations have been reviewed in light of the applicable screening guidelines. The approving supervisor's signature date is considered the date of screening (case initiation). After signing the original paper copy, the supervisor, using the electronic copy of the EAR, (1) types his or her name and signature date below; and (2) e-mails it to the appropriate database coordinator in the Enforcement Division (as listed in the SOP).

EC	Name		Date	
	Signature		E-Mail	
	Telephone		Fax	
EC's Supervisor	Name		Phone	
	Signature		Date	

Robert J. Huston, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
John M. Baker, *Commissioner*
Jeffrey A. Saitas, *Executive Director*

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

March 7, 2000

CERTIFIED MAIL - Z 262 569 389
RETURN RECEIPT REQUESTED

Mr. Solfred Maizus
President
National Oil Recovery Corporation
37 - 17 Bowne Street
Flushing, New York 11354

Re: Notice of Enforcement for the Air and Waste Compliance Evaluation Inspections, Sampling Inspection, and Complaint Investigation at:
National Oil Recovery Corporation - Ingleside Facility, Intersection of FM 2725 and Bishop Road, Ingleside (San Patricio County), Texas
TNRCC Air Account Number SD-0054-N, TNRCC Industrial Solid Waste Registration Number 31288, EPA ID Number TXD086278058

Dear Mr. Maizus:

On January 4, 7, and 10, 2000, Mr. David Harvey and Mr. Clint Roitsch of the Texas Natural Resource Conservation Commission (TNRCC) Corpus Christi Region Office conducted inspections of the above-referenced facility to evaluate compliance with applicable air quality and industrial solid waste requirements. During the inspection, certain outstanding alleged violations were identified. Enclosed is a summary which lists the inspection findings.

In the listing of alleged violations, we have cited applicable requirements, including any TNRCC rules. If you would like to obtain a copy of the applicable TNRCC rules, you may contact any of the sources listed in the enclosed brochure entitled "Obtaining TNRCC Rules." Copies of applicable federal regulations may be obtained from either of the following offices:

U.S. Government Printing Office
Texas Crude Building
801 Travis Street
Houston, Texas 77002
713/228-1187 (phone)

U.S. Government Printing Office
Room 1C-50
Federal Building
1100 Commerce Street
Dallas, Texas 75242
214/767-0076 (phone)

38 012

Please be advised that the Legislature has granted the TNRCC enforcement powers to carry out its mission to protect human health and the environment. Because of the apparent seriousness of these violations, enforcement action has been initiated. Additional violations may be cited upon further review. We encourage you to immediately begin taking actions to address the outstanding alleged violations.

If you or members of your staff have any questions regarding these matters, please feel free to contact either Mr. Harvey or Mr. Roitsch in the Corpus Christi Region Office at (361) 825-3100.

Sincerely,

C. Russell Lewis

C. Russell Lewis
Manager
Corpus Christi Region Office

CRL/DDH/LCR

cc: Mr. Richard F. Bergner

Enclosures: Summary of Inspection Findings
Obtaining TNRCC Rules

SUMMARY OF INSPECTION FINDINGS

Entity	TNRCC Air Account Number	Inspection Dates
National Oil Recovery Corporation - Ingleside Facility	SD-0054-N TNRCC Industrial Solid Waste Registration Number 31288 EPA ID Number TXD086278058	January 4, 7, and 10, 2000

OUTSTANDING ALLEGED VIOLATIONS		
#	Requirement(s) Cited	Description of Alleged Violation
1	TEX. WATER CODE § 26.121 30 TEX. ADMIN. CODE § 335.4	Failure to prevent the unauthorized discharge of industrial solid waste from a tank located in the "naphtha stabilizer unit" of the NORCO Ingleside Facility
2	30 TEX. ADMIN. CODE § 327.3(a)(1)	Failure to notify the TNRCC of a spill of a reportable quantity a hazardous substance
3	30 TEX. ADMIN. CODE § 327.5(a)	Failure to immediately abate and contain the leak from the tank
4	30 TEX. ADMIN. CODE § 335.62 40 Code of Federal Regulations (CFR) § 262.11	Failure to determine if the liquid waste stored in the tank which leaked was a hazardous waste
5	30 TEX. ADMIN. CODE § 335.2 & 335.43 40 CFR § 270	Failure to obtain a permit for the storage of hazardous waste in the tank which leaked
6	30 TEX. ADMIN. CODE § 335.152(a)(8) 40 CFR § 264, Subpart J	Failure to comply with hazardous waste tank requirements
7	30 TEX. ADMIN. CODE § 335.6(c)	Failure to notify the Executive Director of facility changes with regard to industrial solid waste management activities
8	30 TEX. ADMIN. CODE § 101.6	Failure to create or maintain a record of upset emissions associated with a leaking vessel
9	30 TEX. ADMIN. CODE § 101.11(a)	Failure to establish criteria necessary to exempt unauthorized emissions from regulatory requirements
10	30 TEX. ADMIN. CODE § 101.24	Failure to submit an inspection fee
11	30 TEX. ADMIN. CODE § 115.112(c)	Failure to demonstrate that the internal floating roof on tank number 7 was properly maintained and operated
12	30 TEX. ADMIN. CODE § 115.212(c)	Failure to provide the required information related to the loading and unloading of Volatile Organic Compounds (VOCs) stored in tank number 7

SUMMARY OF INSPECTION FINDINGS

Entity	TNRCC Air Account Number SD-0054-N TNRCC Industrial Solid Waste Registration Number 31288 EPA ID Number TXD086278058	Inspection Dates
National Oil Recovery Corporation - Ingleside Facility		January 4, 7, and 10, 2000

OUTSTANDING ALLEGED VIOLATIONS		
#	Requirement(s) Cited	Description of Alleged Violation
13	30 TEX. ADMIN. CODE § 116.110(a)	Failure to gain authorization for the VOC emissions associated with a leaking vessel
14	30 TEX. ADMIN. CODE § 116.115(b)(2)(F) TNRCC Air Permit No. 5879A, General Condition Number 7	Failure to provide information and data sufficient to demonstrate compliance with the permit requirements
15	30 TEX. ADMIN. CODE § 116.115(c) TNRCC Air Permit No. 5879A, Special Condition Number 1	Failure to maintain the floating roof seal of tank number 7 to minimize vapor loss
16	30 TEX. ADMIN. CODE § 116.115(c) TNRCC Air Permit No. 5879A, Special Condition Number 2	Failure to prove the ability to maintain a vapor pressure of less than 11.0 pounds per square inch (absolute) at actual storage conditions
17	30 TEX. ADMIN. CODE §§ 101.20 and 116.115(c) 40 CFR § 60.113(a) TNRCC Air Permit No. 5879A, Special Condition Number 3	Failure to maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period
18	30 TEX. ADMIN. CODE § 116.115(c) TNRCC Air Permit No. 5879A, Special Condition Number 4	Failure to verify that the material stored in tank number 7 is gasoline or any other approved material
19	30 TEX. ADMIN. CODE § 116.115(c) TNRCC Air Permit No. 5879A, Special Condition Number 5	Failure to provide calculations of controlled and uncontrolled emissions of carbon compounds stored in tank number 7

SUMMARY OF INSPECTION FINDINGS

Entity	TNRCC Air Account Number	Inspection Dates
National Oil Recovery Corporation - Ingleside Facility	SD-0054-N TNRCC Industrial Solid Waste Registration Number 31288 EPA ID Number TXD086278058	January 4, 7, and 10, 2000

OUTSTANDING ALLEGED VIOLATIONS		
#	Requirement(s) Cited	Description of Alleged Violation
20	30 TEX. ADMIN. CODE § 101.4	Failure to prevent an air pollution condition from interfering with the normal use and enjoyment of property Note: This violation was previously cited in a Notice of Violation dated February 24, 2000.

bcc: Mr. David Henrichs, Enforcement Division, TNRCC Austin

Texas Natural Resource Conservation Commission
Inspection Report

National Oil Recovery Corporation - Ingleside Refinery
TNRCC ID #31288; EPA ID # TXD086278058
IHW-CEI and SPL Inspection; Conducted 1/7/00

INTRODUCTION

On January 7, 2000, I conducted an Industrial and Hazardous Waste Compliance Evaluation Inspection (CEI) and Sampling Inspection (SPL) at the above-named facility. During the inspection I was accompanied by Michael R. Ward, representing National Oil Recovery Corporation, and Clint Roitsch, Environmental Investigator with the Texas Natural Resource Conservation Commission (TNRCC) Region 14 Office.

GENERAL FACILITY AND WASTE PROCESS INFORMATION

The National Oil Recovery Corporation - Ingleside Refinery (NORCO) is an inactive petroleum refinery located at the intersection of FM 2725 and Bishop Road in San Patricio County (see facility diagrams - Attachment "B"). The facility is located approximately one mile east of Ingleside, Texas and three miles southwest of Aransas Pass, Texas. Commercial, industrial, and residential properties exist to the north, west, and south of the facility. Wetlands and Redfish Bay lie to the east.

TNRCC records and interviews with NORCO representatives reveal an extensive list of former owners and operators of the refinery. During the 1970's and early 1980's the facility was owned and operated by UNI Refining Inc., although there is a reference in TNRCC records of a "previous owner". The initial notification of industrial solid waste activities at the facility was received by the former Texas Dept. of Water Resources on September 21, 1978. The facility, under UNI Refining Inc., operated at a 40,000 bbl per day capacity with primary products consisting of naphtha, jet fuel, kerosene, diesel, and fuel oil. Production at the facility ceased in November of 1981, apparently due to market conditions. In 1984, UNI Refining Inc. filed for bankruptcy and the facility was purchased by Midgulf Energy Inc. In 1985, records indicate that the facility was "purchased by the original owners" and began operations under the name of Falcon Refining, Inc. Sometime during the mid 1980's production once again ceased, Falcon Refining, Inc. declared bankruptcy, and the facility came under the ownership of American Energy Leasing, Inc. Apparently NORCO attained ownership of the facility sometime in the early 1990's. Records obtained from the San Patricio County Appraisal District indicate that the property is currently owned by NORCO (see Attachment "E").

TNRCC records indicate that industrial waste streams generated at the facility during its active life included spent caustic, process wastewater, wastewater sludges, and crude oil tank bottoms (see TNRCC Notice of Registration - Attachment "A").

INVESTIGATION SUMMARY

The TNRCC Region 14 investigation of the NORCO facility actually encompassed several days during January of 2000.

January 4, 2000

During a routine air quality state implementation plan (SIP) inspection at the NORCO refinery, TNRCC Environmental Investigator Clint Roitsch noticed a strong hydrocarbon odor. The source of the odor was determined to be a leaking tank in the "naphtha stabilizer unit"(see facility diagram - Attachment "B"). At approximately 1100 hours, Mr. Roitsch observed a stream of fluid spraying from a valve separating a sight glass from the tank. Mr. Mathew Ward, who was accompanying Mr. Roitsch during the inspection, notified Mr. Michael R. Ward, representing NORCO, of the leak by cellular telephone. Mr. Michael Ward conveyed through Mr. Mathew Ward that someone would be out to repair the leak later that afternoon. Mr. Roitsch left the facility at approximately 1230. Mr. Roitsch contacted Mr. Michael Ward by telephone that afternoon. Mr. Ward stated that he was busy that afternoon and unable to evaluate or fix the leak until the following day.

January 5, 2000

In the early afternoon, Mr. Roitsch contacted Mr. Michael Ward's office by telephone and his spouse stated that he was busy but would return the call shortly. Mr. Ward returned the phone call and said that he was unable to meet Mr. Roitsch at the facility due to prior business commitments but that he would be able to meet the following afternoon around 1600 hours for sample collection and to repair the leak.

January 6, 2000

Mr. Roitsch arrived at the NORCO facility at 1600 hours and met Mr. Mike Ward when he arrived at 1630 hours. No attempt was made by Mr. Ward to repair the leaking tank or stop the leak, which was ongoing. Mr. Ward and could not determine what the material was that was leaking but guessed that it was "old naphtha". Both he and Mr. Roitsch noted a strong hydrocarbon odor.

January 7, 2000

On January 7, 2000, I accompanied Mr. Roitsch to the NORCO facility. Upon arrival at 0955 we immediately noticed a strong hydrocarbon odor. We then met with Michael F. Ward, who had arrived at the site prior to myself and Mr. Roitsch. The tank in the naphtha stabilizer unit was observed to be leaking from a valve between the sight glass and the tank (see photos - Attachment "D"). This valve was approximately 20 feet high and the wind was blowing a shower of leaking fluid onto an area of soil and vegetation surrounding the tank. Mr. Ward stated that, prior to our arrival, he had closed two other valves associated with the sight glass, in order to isolate the leaking valve and sight glass from the tank. The leak, however, was continuing. Mr. Roitsch then collected two 8-ounce glass jars of the fluid as it leaked from the valve in order to determine the characteristics

and composition of the leaking fluid. It took five minutes to fill each 8-ounce glass jar. I collected one 8-ounce glass jar of soil adjacent to the tank, located in an area of dead vegetation, in order to determine if the adjacent soil was contaminated. Mr. Ward stated that he would return to the NORCO facility that evening to see if the tank was still leaking. Mr. Roitsch and I left the facility at 1100.

Mr. Roitsch and I delivered the samples to Severn Trent Laboratories at 1127 under chain of custody record no. 002789. Requested analyses for the fluid sample were volatile organic compounds, toxicity characteristic leaching procedure (TCLP) volatile organic compounds, and flash point. Requested analyses for the soil sample were volatile organic compounds and TCLP volatile organic compounds.

January10, 2000

At 0820 hours, Mr. Roitsch telephoned Mr. Mike Ward to question if the vessel had indeed ceased leaking. Mr. Ward stated that he returned to the NORCO facility on Sunday, January 9, 2000 and that it had stopped leaking.

It was 1320 hours when a complaint (Complaint No. 1400-00156) was received by the TNRCC Region 14, Complaint Coordinator regarding odors in the vicinity of the NORCO facility. The complainant was contacted by phone at approximately 1400 hours and the complainant stated that these odors had started around January 1, 2000. Alleged health effects experienced by the complainant and the complainant's family members (attributed to the odors) included nausea, nasal congestion, and headaches.

Mr. Roitsch arrived at the intersection of FM 2725 and Bishop Road at 1520 hours, accompanied by Mr. Jeff Lewellin, TNRCC Region 14, Emergency Response Coordinator. The odor associated with the fluid leak within the NORCO facility was observed and noted to be sufficient enough to be considered a off property nuisance condition. The wind direction during this observation was from the Southeast. The investigators positioned themselves along the NORCO fence line in order to view the tank that was observed leaking on January 4, 6, and 7, 2000 and verified that the leak was still ongoing from the same location and had not ceased.

At 1652 hours, Mr. Mike Ward was informed by telephone that the tank leak was still ongoing. He stated that he would be unable to attempt repair of the leak until the next day. Mr. Roitsch arranged to meet with him at 0700 hours the next morning.

At 1417 hours, the TNRCC Region 14 office received a fax from Severn Trent Laboratories indicating the preliminary laboratory analysis of the fluid sample (see Attachment "C").

January 11, 2000

Mr. Roitsch met with Mr. Ward at the NORCO facility at 700 hours and noted the same strong hydrocarbon odor. Mr. Ward repeatedly attempted to plug the leak with a small band clamp and a rubberized section of "high pressure (500# oil and gas) hose". It was 0730 hours when Mr. Roitsch confirmed that the fluid leak was finally abated.

That afternoon, at 1140, I spoke by telephone to Mr. Richard Bergner, an attorney representing the NORCO facility owners, and informed him of the situation regarding the leaking tank at the NORCO facility. I asked Mr. Bergner to please inform the NORCO facility owners that they need to properly dispose of the remaining fluid in the tank which had leaked, as well as assess and remediate any resulting soil and ground water contamination resulting from the tank leak. He stated that he would need a copy of the TNRCC sample analyses prior to the refinery owners addressing these requests. At 1505 I faxed him a copy of preliminary laboratory analysis of the fluid sample collected on January 7, 2000.

January 14, 2000

On January 14, 2000 at 1120, I again spoke by telephone to Mr. Richard F. Bergner, the attorney representing the NORCO owners (see telephone memo - Attachment "F"). I asked Mr. Bergner if assessment and remediation of the spill which had occurred at the subject facility during the week of January 4 -11, 2000 had begun. Mr. Bergner stated that it had not, and that he considered the spill to be insignificant. I informed Mr. Bergner that the spill was a violation of the Texas Water Code and corrective action was required under Commission rules. I also informed Mr. Bergner that our office had received an odor complaint from an adjacent resident during the week of the spill. This resident had alleged health effects. I then asked Mr. Bergner to inform his clients (NORCO owners) to please begin assessing the vertical and horizontal extent of contamination. Mr. Bergner stated that he didn't understand. I then asked Mr. Bergner to inform his clients to collect soil and ground water samples indicating the size of the contamination. Mr. Bergner then understood and requested that we provide this to him in writing. I stated that our office would be notifying the NORCO owners via correspondence, and that Commission rules were available via the internet. He then stated that he didn't know who could perform the site assessment and remediation since his "man on the ground", Mike Ward, was out of town. I then told him that the yellow pages were full of environmental consulting firms who would, for a fee, be glad to conduct a remedial investigation. I then reiterated the TNRCC Region14 requests for the NORCO owners: define the horizontal and vertical extent of contamination, and remove and properly dispose of the remaining fluid in the vessel which had leaked. I then offered my technical assistance if the owners, Mr. Bergner, or their consultants had any questions. Mr. Bergner stated that he would "find his own answers" and then hung up on me.

January 18, 2000
On January 18, 2000, the TNRCC Region 14 office received the analytical results of the samples collected on January 7, 2000 (see analytical report - Attachment "C"). The analyses revealed that the leaking fluid sample consisted of a blend of different volatile organic compounds and had a flash point of less than 70 degrees Fahrenheit. The analyses also revealed that the fluid sample exceeded the maximum concentration of benzene for toxicity characteristic using the TCLP. In addition, the analyses revealed that the soil sample contained volatile organic compounds similar to those in the fluid sample.

February 25, 2000
On February 25, 2000, the TNRCC Region 14 office received the analytical results of a ground water sample collected adjacent to the tank which leaked (see analytical report - Attachment "G"). This analysis reveals the following concentrations of contaminants in the sample:

- 1,2-Dichloroethane - 805 μg/L;
- 4-Methyl-2-pentanone (MIBK) - 5910 μg/L;
- Benzene - 6910 μg/L;
- Ethylbenzene - 8260 μg/L;
- m,p-Xylenes - 2640 μg/L;
- o-Xylene - 2340 μg/L;
- Styrene - 12800 μg/L; and
- Toluene - 8560 μg/L;

SUMMARY OF ALLEGED VIOLATIONS

1. <u>30 TAC Chapter 335.4/Chapter 26, Texas Water Code - General Prohibitions</u>; which prohibits unauthorized discharges of industrial waste into or adjacent to waters in the state;

   NORCO failed to prevent the unauthorized discharge of industrial solid waste from a tank located in the "naphtha stabilizer unit" of the NORCO Refinery. Based upon the leak flow rate observed on January 7, 2000, and the site inspections conducted on January 4, 6, 7, 10, and 11, 2000, it appears that a total volume of at least 220 gallons of industrial solid waste leaked from the tank. Laboratory Analyses received by the TNRCC Region 14 Office on 2/25/00 reveal that ground water at the NORCO facility has been contaminated as a result of the release.

2. **30 TAC Chapter 327.3(a)(1) - Notification Requirements**; which requires a responsible person to notify the TNRCC within 24 hours of a spill or discharge onto land of a reportable quantity of a hazardous substance;

   NORCO failed to notify the TNRCC of a reportable quantity spill of a hazardous substance. Based upon the leak flow rate observed on January 7, 2000 and the laboratory analysis of the fluid sample collected on January 7, 2000, it was determined that 228 pounds of fluid was released in a twenty-four hour period. The reportable quantities (found in Table 302.4 in 40 CFR §302.4) for spills of industrial solid wastes characteristically hazardous for benzene (EPA waste code no. D018) and ignitability (EPA waste code no. D001) are 10 pounds and 100 pounds respectively.

3. **30 TAC Chapter 327.5(a) - Actions Required**; which requires the responsible person to immediately abate and contain the spill or discharge and cooperate fully with the executive director and the local incident command system. The responsible person shall also begin reasonable response actions which may include, but are not limited to, the following actions:

   - initiating efforts to stop the discharge or spill;
   - minimizing the impact to the public health and the environment;
   - neutralizing the effects of the incident; and
   - removing the discharged or spilled substances.

   NORCO failed to immediately abate and contain the leak from the tank and take required actions regarding spill response. Based on the inspections conducted on January 4, 6, 7, 10 and 11, 2000, NORCO failed to:

   - initiate efforts to stop the discharge or spill;
   - minimize the impact to the public health and the environment;
   - neutralize the effects of the incident; and
   - remove the discharged or spilled substance.

4. **30 TAC Chapters 335.62/40 CFR 262.11 - Hazardous Waste Determination**; which states that any person who generates a solid waste, must determine if that waste is a hazardous waste.

   NORCO failed to determine if the liquid waste stored in the tank which leaked was a hazardous waste. Based upon conversations with NORCO representatives, this fluid had been stored in this tank since the refinery became inactive - since approximately 1984 (see telephone memo - Attachment "F").

5. **30 TAC Chapter 335.2 & 335.43/40 CFR 270 - Permit Required**; which states no person may cause, suffer, allow, or permit any activity of storage, processing, or disposal of any industrial solid waste or municipal hazardous waste unless such activity is authorized by a permit, amended permit, or other authorization from the TNRCC or its predecessor agencies, the Texas Department of Health, or other valid authorization from a Texas state agency.

   NORCO failed to obtain a permit for the storage of hazardous waste in the tank which leaked. Based upon conversations with NORCO representatives, this fluid had been stored in this tank since the refinery became inactive - since approximately 1984 (see telephone memo - Attachment "F"). According to TNRCC sample analyses, the stored fluid met the definition of a characteristically hazardous waste for the benzene toxicity characteristic (EPA waste code no. D018) and ignitability (EPA waste code no. D001). See the TNRCC analytical report - Attachment "C").

6. **30 TAC Chapter 335.152(a)(8)/40 CFR 264, Subpart J**; which describes requirements for existing hazardous waste tank systems. This subpart requires owners and operators of an existing hazardous waste tank system to (this list is not all-inclusive):

   - obtain a written assessment of the tank system's integrity by an independent, qualified, registered professional engineer;
   - equip the tank with a secondary containment system;
   - conduct daily inspections; and
   - respond to releases from the tank system in accordance with 40 CFR 264.196.

   NORCO failed to comply with the hazardous waste tank requirements.

7. **30 TAC Chapter 335.6(c) - Notification**; which states that any person who provides notification to the TNRCC of industrial solid waste activity shall have the continuing obligation to immediately document any changes or additional information with respect to such notification and within 90 days of the occurrence of such change or of becoming aware of such additional information provide notice to the executive director in writing or using electronic notification software provided by the executive director, of any such changes or additional information to that reported previously.

NORCO failed to notify the executive director of facility changes in regard to industrial solid waste activity. The current TNRCC notice of registration reflects an incorrect owner, incorrect owner's mailing address and phone no., and is missing a waste stream (the tank fluid which leaked) and waste management unit (the tank which leaked).

Signed David D. Harvey — 3/7/00
Environmental Investigator — Date
Region 14 - Corpus Christi

Approved C. Russell Lewis — 3/7/00
Waste Section Manager — Date

Attachments:

- √ Data Entry Form/CMEL
- √ Enforcement Action Request (EAR)
- √ Letter to Facility: NOE
- Inspection Report
- ___ Summary of Inspection Findings table
- ___ CME Checklist
- ___ UIC Self Reported Data Records Review
- √ Sample Analysis Results - Attachment "C"
- ___ Manifests
- √ NOR - Attachment "A"
- √ Maps, Plans, Sketches - Attachment "B"
- √ Photographs - Attachment "D"
- ___ Container Storage Area Table
- ___ Tanks Table
- ___ Correspondence from the facility
- ___ Other (specify): Property Records - Attachment "E"; Telephone Memos - Attachment "F"; Laboratory Analyses - Attachment "G"
- ___ Waste Minimization Checklist
- ___ Multi-media Tracking Form
- ___ IHW Change Form

rev. 01/99

ATTACHMENT "A"

TNRCC NOTICE OF REGISTRATION

31288 FalCon RefriingCompany

Solid Waste Registration Number: 31288 EPA Id: TXD086278050

Company Name: FalCon RefriingCompany
Site Name: FalCon RefriingCompany
Site Location: FM 2725 & Bishop, Houston, TX
Contact: Schlechter

Region: 12
County: 101 Harris
Title:

Initial Registration Date: 09/21/1978
Last Amendment Date: 11/06/1998
Last Date NOR Computer update: 11/09/1998
Phone: 512-776-3115

Mailing Address: 7322 Southwest Freeway
Houston, TX 77074-

Site Street Address: FM 2725 & Bishop
Houston, TX

Registration Status: Inactive
Registration Type: Generator Transporter
Generator Type: Industrial

Hazardous Waste Generation Status: Large Quantity Generator

Primary SIC Code: 2911 Petroleum Refining
Handler Status:

Operator Information
Name:
Phone:
Address:

Owner Information
Name:
Phone:
Address:

As of 11/06/1998 - the next unassigned sequence number for WASTES is 0001 and
the next unassigned sequence number for UNITS is 002.

31288 ValCon RefriingCompany

**** WASTE INFORMATION ****

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
** No Longer Generated Wastes **						
108910	1	Inactive	11/06/98	NA		No
Description from Generator: CAUSTIC, HYDROCARBON TREATING, SPENT (CONTAINS NA2S)						
Form Code:						
Current Management Units: None						
* Origin Codes:						
179750	1	Inactive	11/06/98	NA		No
Description from Generator: BIOLOGICAL SLUDGE, DRIED						
Form Code:						
Current Management Units: None						
* Origin Codes:						
250810	2	Inactive	11/06/98	NA		No
Description from Generator: TANK BOTTOMS, CRUDE OIL						
Form Code:						
Current Management Units: None						
* Origin Codes:						

* The first value is considered the primary value (e.g. primary origin code).
As of 11/06/1998, the next unassigned sequence number for WASTES is 0001.

31288 FalCon RefriingCompany

**** UNITS AT THIS SITE MANAGING WASTE ****

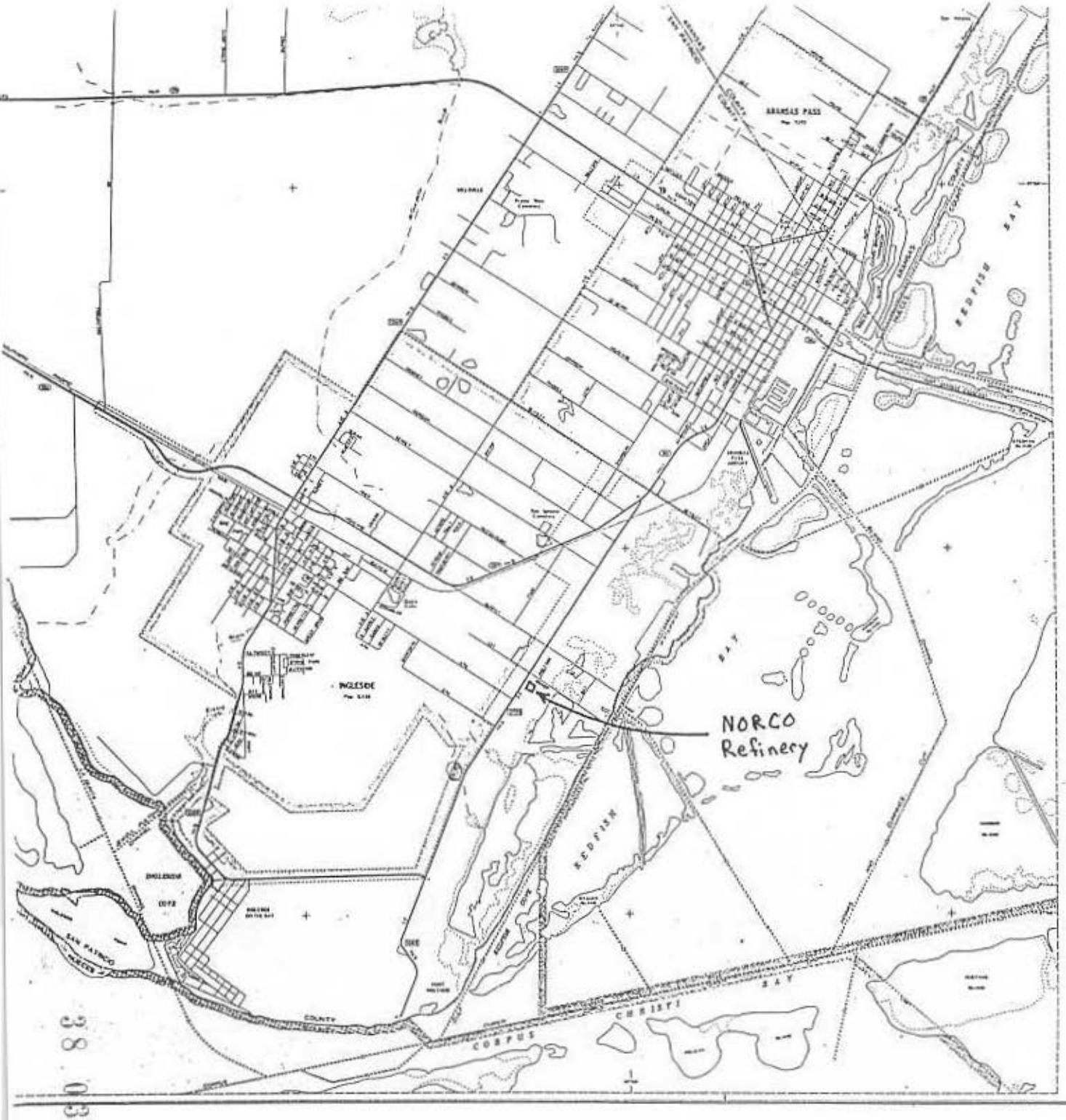
Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
** 'Active' & 'Closure Pending' Units **								
001	Tank	Active	09/01/78	/ NA	NA	NA		NA /

System Types: 141 Storage
Wastes Currently Managed in Unit:
Wastes Previously Managed in Unit: 108910

As of 11/06/1998, the next unassigned sequence number for UNITS is 002.

ATTACHMENT "B"

FACILITY DIAGRAMS



LEGEND

GENERAL HIGHWAY MAP

SUPPLEMENTARY SHEET

DETAIL OF CITIES AND TOWNS

SAN PATRICIO COUNTY TEXAS

PREPARED BY THE

STATE DEPARTMENT OF HIGHWAYS
AND PUBLIC TRANSPORTATION

TRANSPORTATION PLANNING DIVISION

IN COOPERATION WITH THE

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

SCALE IN MILES

1985

CENSUS FIGURES

HIGHWAYS REVISED TO NOVEMBER 1, 1985

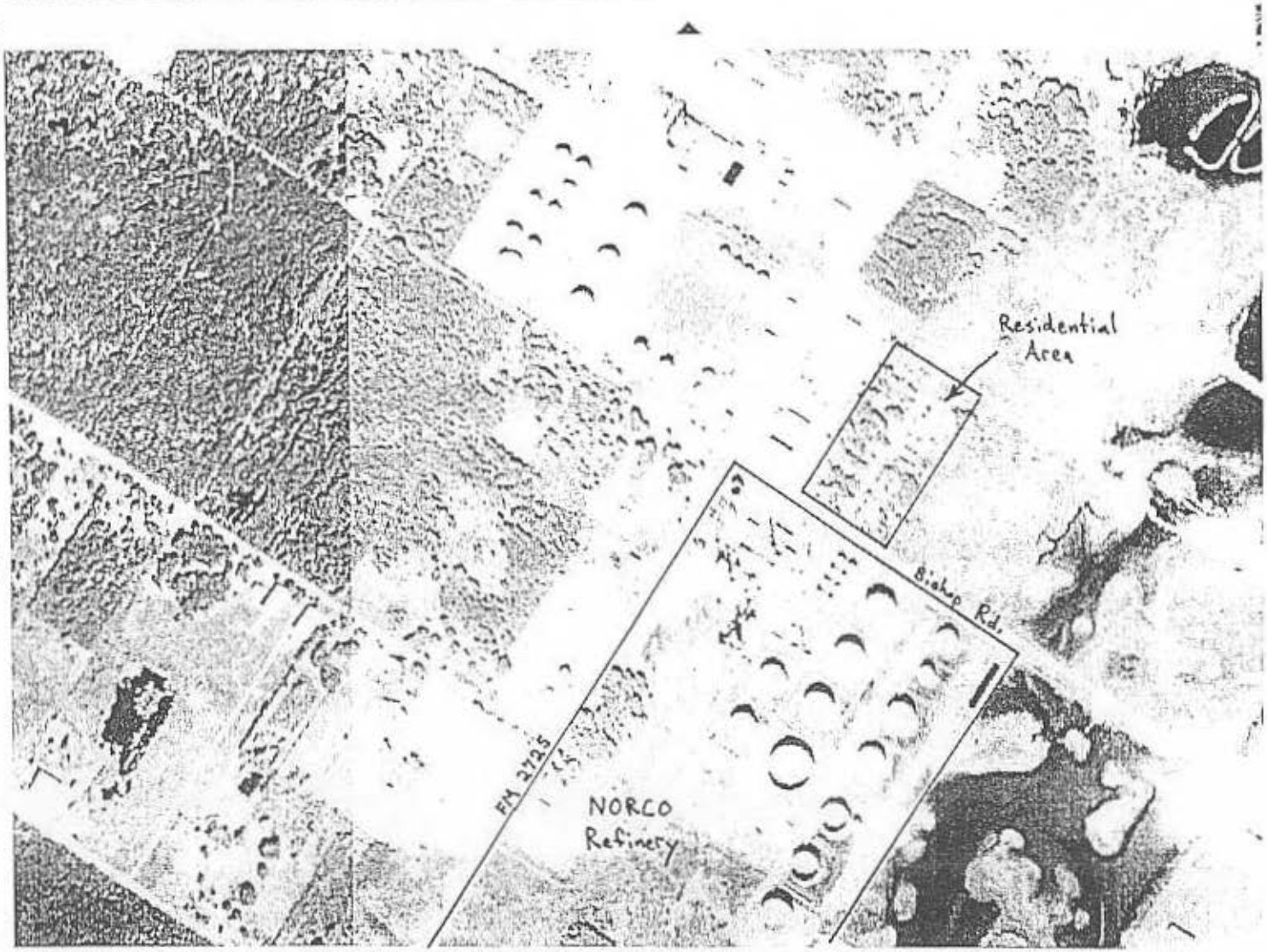
msn Microsoft

terraserver

Home About Famous Places Advanced Find Find Go

Locator

24 km NE of Corpus Christi, Texas, United States 21 Jul 1995



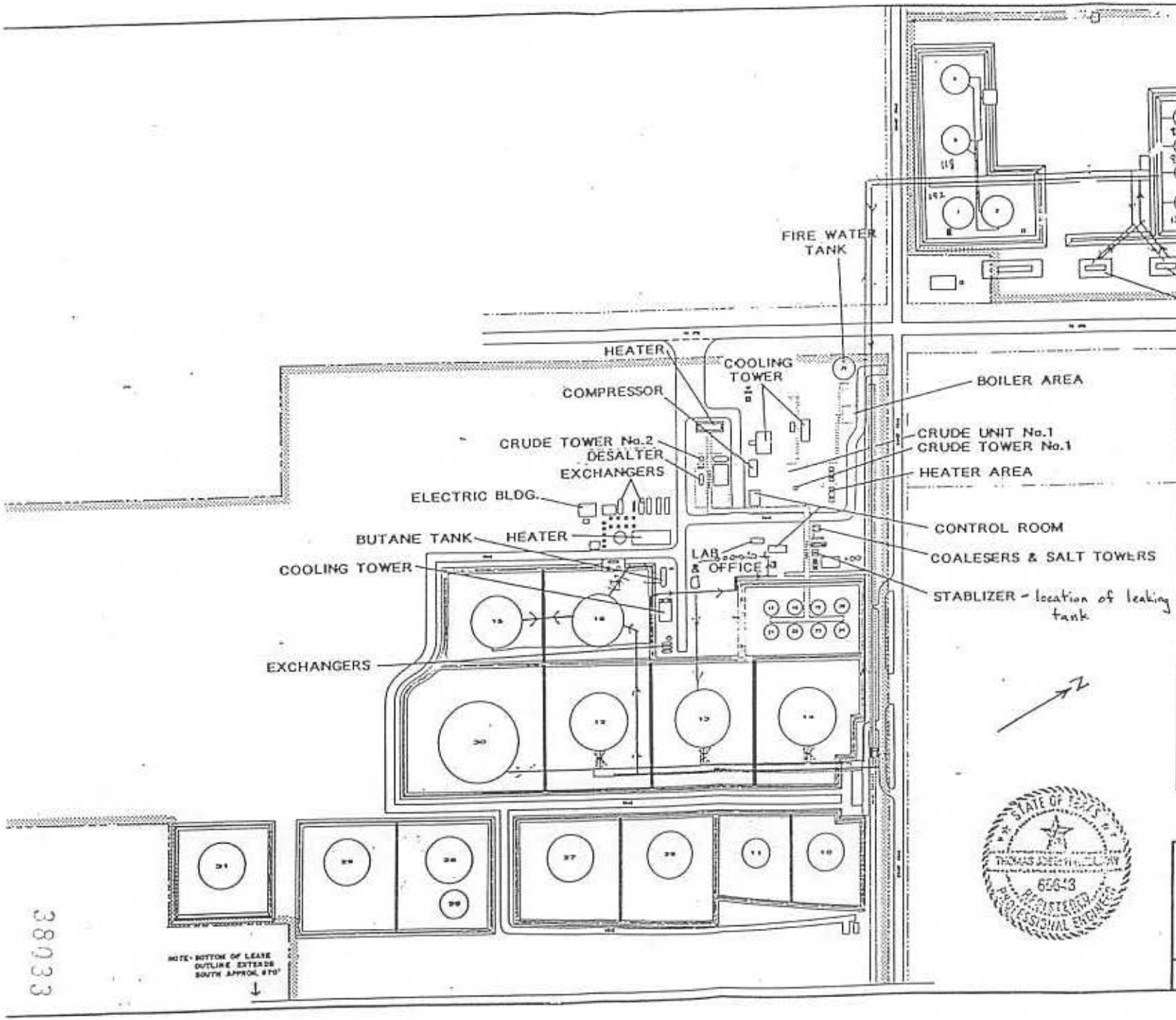
2m

Other Dates:

USGS Topo Map 01 Jul 1984

3/6/2000 10:04 AM

038 032



SCHEDULED AND EXISTING TANKAGE					
TANK NO.	CAPACITY BBL	PRODUCT	DIA.	HT.	COMMENTS
1	19,000 Bbls	WATER	70	24	CONE
2	10,000 Bbls	KEROSENE	70	24	CONE
3	-500 Bbls	B&S/W			CONE
4	10,000 Bbls	DIESEL			CONE
5	5,000 Bbls	KEROSENE	34	32	CONE
6	5,000 Bbls	KEROSENE	34	32	INT. FLOAT
7	19,000 Bbls	NAPHTHA			INT. FLOAT
8	20,000 Bbls	KEROSENE	60	40	INT. FLOAT
9	20,000 Bbls	KEROSENE	60	40	INT. FLOAT
10	40,000 Bbls	#6 OIL	85	40	INSULATED
11	20,000 Bbls	#4 OIL	60	40	INSULATED
12	100,000 Bbls	CRUDE	122	48	INT. FLOAT
13	100,000 Bbls	DIESEL	122	48	INT. FLOAT
14	100,000 Bbls	CRUDE	122	48	INT. FLOAT
15	55,000 Bbls	CRUDE	100	40	INT. FLOAT
16	55,000 Bbls	CRUDE	100	40	INT. FLOAT
17	5,000 Bbls	SLOP	34	32	INT. FLOAT
18	5,000 Bbls	KEROSENE	34	32	CONE
19	5,000 Bbls	L NAPHTHA	34	32	INT. FLOAT
20	5,000 Bbls	#6 OIL	34	32	INSULATED
21	5,000 Bbls	DIESEL	34	32	CONE
22	5,000 Bbls	KEROSENE	34	32	INT. FLOAT
23	5,000 Bbls	H. NAPHTHA	34	32	INT. FLOAT
24	5,000 Bbls	#4 OIL	34	32	INSULATED
25	15,000 Bbls	WATER	32		OPEN
26	67,000 Bbls	FUEL OIL	187	40	INSULATED
27	67,000 Bbls	GASOIL	109	40	CONE
28	67,000 Bbls	NAPHTHA	109	42	EXT. FLOAT
29	67,000 Bbls	NAPHTHA	109	42	EXT. FLOAT
30	290,000 Bbls	CRUDE	173	54	EXT. FLOAT
31	100,000 Bbls	NAPHTHA	125	48	EXT. FLOAT

STATE OF TEXAS
THOMAS JOSEPH MCCLURY
65643
REGISTERED PROFESSIONAL ENGINEER

NORCO FACILITY PLOT PLAN AND SCHEDULE OF TANKAGE

Approx. Scale: 1"=200'

Monitor Environmental Consultants

38033

ATTACHMENT "C"

LABORATORY ANALYSES OF SAMPLES COLLECTED ON 1/7/00

Committed To *Your* Success

Severn Trent Laboratories
1733 North Padre Island Drive
Corpus Christi, TX 78408

Tel: (361) 289-2673
Fax: (361) 289-2471

FACSIMILE COVER SHEET

For: David Harvey Date: 1-10-00

Company: TNRCC Fax #: 825-3101

From: Debbie Jimenez # of Pages: 3

Message: Quant Report for

002789-01

Confidentiality Notice: The information contained in the Facsimile message is privileged and confidential information intended only for the use of the addressee. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and please return the original message to us at the above address via the U.S. Postal Service.

a part of
Severn Trent Services Inc

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\JAN2000\01072000\B200A710.D Vial: 19
Acq On : 8 Jan 00 1:40 Operator: QCP
Sample : 200069-01 Q Inst : GC/MS Ins
Misc : 50uL[20uL(5g/10mL)/1mL]/ Multiplr: 100000.00
Quant Time: Jan 10 8:54 19100 Quant Results File: 8260A.RES

Quant Method : C:\HPCHEM\1\METHODS\8260A.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 10 16:08:07 1999
Response via : Initial Calibration
DataAcq Meth : 8260A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	11.27	168	301931	50.00 ug/l	-0.03
39) 1,4-Difluorobenzene	12.77	114	435473	50.00 ug/l	-0.03
64) Chlorobenzene-d5	18.13	117	364553m	50.00 ug/l	-0.02
78) 1,4-Dichlorobenzene-d4	22.11	152	197947	50.00 ug/l	-0.01
System Monitoring Compounds					
37) Dibromofluoromethane	11.08	113	193384m	49.86 ug/l	-0.03
Surrogate Spike 50.000	Range 43 - 58		Recovery =	99.72%#	
42) 1,2-Dichloroethane-d4	11.82	65	229483m	49.08 ug/l	-0.03
Surrogate Spike 50.000	Range 40 - 60		Recovery =	98.16%#	
46) Fluorobenzene(Methanol Ext	12.45	96	243	0.02 ug/l	0.04
58) Toluene-d8	15.52	98	474476	48.51 ug/l	-0.01
Surrogate Spike 50.000	Range 44 - 55		Recovery =	97.02%#	
77) Bromofluorobenzene	20.16	95	234783	44.88 ug/l	0.00
Surrogate Spike 50.000	Range 43 - 58		Recovery =	89.76%#	

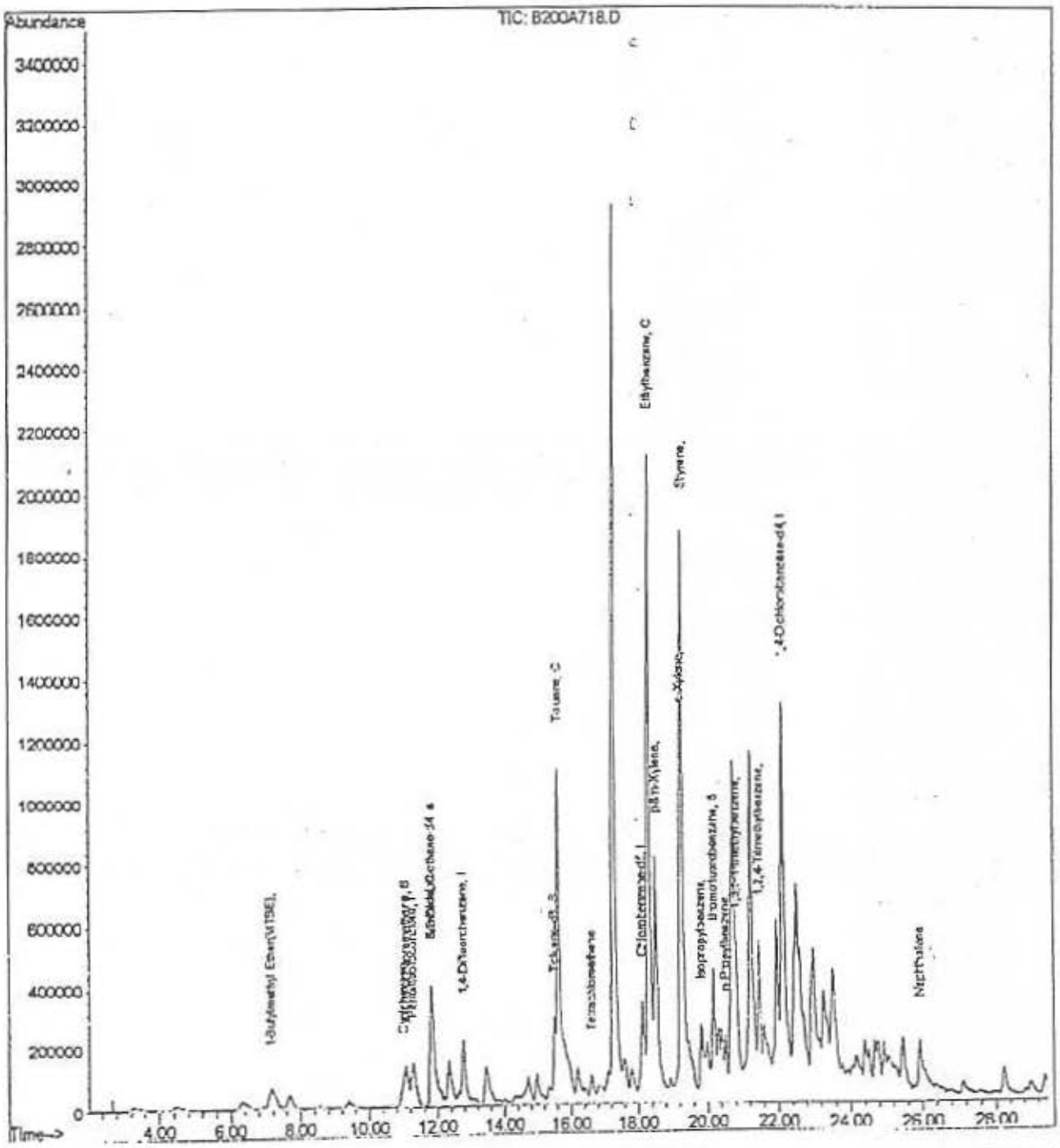
Target Compounds					Qvalue
22) t-Butylmethyl Ether(MTBE)	7.15	73	302001m	36.78 ug/l	84
35) Cyclohexane	11.01	56	137854m	65.27 ug/l	48
41) Benzene	11.82	78	816155m	100.19 ug/l	93
59) Toluene	15.63	91	1774617	154.83 ug/l	96
66) Tetrachloroethene	16.61	166	13072	2.32 ug/l	65
72) Ethylbenzene	18.30	91	4062766	324.94 ug/l	96
73) p&m-Xylene	18.51	91	1107519	105.97 ug/l	94
74) o-Xylene	19.21	91	839123	76.64 ug/l #	76
75) Styrene	19.25	104	2079844	296.57 ug/l	92
79) Isopropylbenzene	19.81	105	289251	24.64 ug/l	92
84) n-Propylbenzene	20.51	91	245868	19.34 ug/l	94
87) 1,3,5-Trimethylbenzene	20.82	105	318115	33.66 ug/l	92
89) 1,2,4-Trimethylbenzene	21.47	105	643581	71.96 ug/l	93
101) Naphthalene	25.94	128	337449	44.22 ug/l	83

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01072000\B200A718.D Vial: 19
Acq On : 8 Jan 00 1:40 Operator: QCP
Sample : 200069-01 Q Inst : GC/MS Ins
Misc : 50uL[20uL(5g/10mL)/1mL]/ Multiplr: 100000.00
Quant Time: Jan 10 8:54 19100 Quant Results File: 8260A.RES

Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Last Update : Sat Dec 11 10:30:21 1999
Response via : Initial Calibration



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1733 North Padre Island Drive
Corpus Christi, TX 78408

Tel: (361) 289-2673
Fax: (361) 289-2471

FACSIMILE COVER SHEET

For: David Harvel / Date: 1-11-00

Company: TNRCC Fax #: 825-3101

From: Debbie Jimenez # of Pages: 3

Message: 000069 #1 Vols, Flash

PRELIMINARY REPORT

PRELIMINARY REPORT

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 01/11/2000

CUSTOMER: TNRCC PROJECT: DAVID HARVEY ATTN: Cecily Uncrm

Customer Sample ID: 002/89-01
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:20
Sample Matrix.....: Org. Waste

Laboratory Sample ID: 200069-1
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 1010	Ignitability (Flashpoint)	<70.0	1	degrees F	01/10/00	tlm
SW-846 8260B	Volatile Organics					
	Acetone, Org. Waste	ND	20000	mg/Kg	01/10/00	qcp
	Acetonitrile, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Acrolein, Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	Acrylonitrile, Org. Waste	ND	6000	mg/Kg	01/10/00	qcp
	Benzene, Org. Waste	9000	1000	mg/Kg	01/10/00	qcp
	Bromodichloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromoform, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromomethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Carbon Disulfide, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Carbon Tetrachloride, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2-Chloroethylvinyl Ether, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chloroform, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Dibromochloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Dibromomethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dibromoethane (EDB), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Dichlorodifluoromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1-Dichloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dichloroethane (EDC), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1-Dichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	cis-1,2-Dichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	trans-1,2-Dichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,3-Dichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2,2-Dichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1-Dichloropropene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	cis-1,3-Dichloropropene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	trans-1,3-Dichloropropene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,4-Dioxane, Org. Waste	ND	20000	mg/Kg	01/10/00	qcp
	Ethyl Acetate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Ethylbenzene, Org. Waste	33000	1000	mg/Kg	01/10/00	qcp
	Ethyl Ether (Diethyl Ether), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Ethyl Methacrylate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2-Hexanone, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Iodomethane (Methyl Iodide), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Methylene Chloride (Dichloromethane), Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	Methyl Ethyl Ketone (2-Butanone), Org. Waste	ND	2000	mg/Kg	01/10/00	qcp
	4-Methyl-2-Pentanone (MIBK), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Methyl Methacrylate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	tert-Butyl Methyl Ether (MTBE), Org. Waste	3000	1000	mg/Kg	01/10/00	qcp
	2-Nitropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Styrene, Org. Waste	30000	1000	mg/Kg	01/10/00	qcp
	1,1,2,2-Tetrachloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp

LABORATORY TEST RESULTS

Job Number: 200069

Date: 01/11/2000

CUSTOMER: TNRCC PROJECT: DAVID HARVEY ATTN: Cecily Warren

Customer Sample ID: 002789-01
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:20
Sample Matrix.....: Org. Waste

Laboratory Sample ID: 200069-1
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	Tetrachloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Toluene, Org. Waste	14000	1000	mg/Kg	01/10/00	qcp
	1,2,3-Trichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,1-Trichloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,2 Trichloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Trichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Trichlorofluoromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,2-Trichloro-1,2,2-Trifluoroethane, Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	1,2,4-Trimethylbenzene, Org. Waste	7000	1000	mg/Kg	01/10/00	qcp
	1,3,5-Trimethylbenzene, Org. Waste	3000	1000	mg/Kg	01/10/00	qcp
	1,2,3-Trichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Vinyl Acetate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Vinyl Chloride (Chloroethene), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Xylenes (total), Org. Waste	19000	1000	mg/Kg	01/10/00	qcp
SW-846 8260D	Volatile Organics, TCLP					
	Benzene	Not Analyzed	25	ug/L		
	Carbon Tetrachloride	Not Analyzed	25	ug/L		
	Chlorobenzene	Not Analyzed	25	ug/L		
	Chloroform	Not Analyzed	25	ug/L		
	1,2-Dichloroethane (EDC)	Not Analyzed	25	ug/L		
	1,1-Dichloroethene	Not Analyzed	25	ug/L		
	Methyl Ethyl Ketone (2-Butanone)	Not Analyzed	250	ug/L		
	Tetrachloroethene	Not Analyzed	25	ug/L		
	Trichloroethene	Not Analyzed	25	ug/L		
	Vinyl Chloride (Chloroethene)	Not Analyzed	25	ug/L		
SW-846 1311	TCLP Physical Characterization					
	% Solids	Not Analyzed	0.5	%		
	% Liquid	Not Analyzed	0.5	%		
	% Aqueous - Extract	Not Analyzed	0.5	%		
	% Non-aqueous - Extract	Not Analyzed	0.5	%		
SW-846 1311	Toxic Characteristic Leaching Procedure Zero Head Space (ZHE) Extraction	Complete			01/10/00	rh

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ANALYTICAL REPORT

JOB NUMBER: 200069

Prepared For:

TNRCC
P. O. Box 13087 Capitol Station
Field Operations Division
Austin, TX 78711-3087

Attention: Cecily Warren

Date: 01/12/2000

RECEIVED
JAN 18 2000

Signature

Date 1/14/00

Name: Chip Meador

Title: Laboratory Director

Severn Trent Laboratories
1733 N. Padre Island Drive
Corpus Christi, TX 78408

PHONE: 512/289-2673
FAX..: 512/289-2471

38 041

CASE NARRATIVE

Job Number 200069

January 12, 2000

Volatile Organics Analysis

Sample 200069-2 was analyzed for volatile organics using EPA Method 8260B. The percent recovery result for 1,2-dichloroethane-d14 surrogate was below the acceptance criteria. Reanalysis yielded similar results. All other quality control analyses were within acceptable limits and it appears the out of control data are due to the sample matrix.

Please call if you have any questions regarding this report or if we can be of further assistance.

Olga Verónica McDonald

Olga Verónica McDonald
QA/QC Coordinator

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SAMPLE INFORMATION
Date: 01/12/2000

Job Number.: 200069
Customer...: TNRCC
Attn.....: Cecily Warren

Project Number.....: 99999995
Customer Project ID....: DAVID HARVEY
Project Description....: Walk in Projects

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200069-1	002789-01	Org. Waste	01/07/2000	10:20	01/07/2000	11:27
200069-2	002789-02	Soil	01/07/2000	10:30	01/07/2000	11:27

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 01/12/2000

CUSTOMER: TNRCC PROJECT: DAVID HARVEY ATTN: Cecily Warren

Customer Sample ID: 002789-01
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:20
Sample Matrix.....: Org. Waste

Laboratory Sample ID: 200069-1
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	GCMS Scan for Volatile Organics	Complete			01/10/00	qcp
SW-846 1010	Ignitability (Flashpoint)	<70.0	1	degrees F	01/10/00	tlm
SW-846 8260B	Volatile Organics (Client List)					
	Acrolein, Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	Acrylonitrile, Org. Waste	ND	4000	mg/Kg	01/10/00	qcp
	Acetone, Org. Waste	ND	20000	mg/Kg	01/10/00	qcp
	Acetonitrile, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Allyl Chloride (3-Chloro-1-Propene), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Benzene, Org. Waste	9000	1000	mg/Kg	01/10/00	qcp
	Benzyl Chloride, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromochloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromodichloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromoform, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromomethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,3-Butadiene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	n-Butyl Alcohol (1-Butanol), Org. Waste	ND	200000	mg/Kg	01/10/00	qcp
	tert-Butyl Methyl Ether (MTBE), Org. Waste	3000	1000	mg/Kg	01/10/00	qcp
	Methyl Ethyl Ketone (2-Butanone), Org. Waste	ND	2000	mg/Kg	01/10/00	qcp
	n-Butylbenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	sec-Butylbenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	tert-Butylbenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Carbon Disulfide, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Carbon Tetrachloride, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2-Chloroethylvinyl Ether, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chloroform, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1-Chlorohexane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2-Chloro-1,3-Butadiene (Chloroprene), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2-Chlorotoluene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	4-Chlorotoluene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Cyclohexanone, Org. Waste	ND	4000	mg/Kg	01/10/00	qcp
	Cyclohexane, Org. Waste	5000	1000	mg/Kg	01/10/00	qcp
	Dibromochloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dibromoethane (EDB), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dibromo-3-Chloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Dibromomethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,3-Dichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,4-Dichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	trans-1,4-Dichloro-2-Butene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	cis-1,4-Dichloro-2-Butene, Org. Waste	ND	2000	mg/Kg	01/10/00	qcp
	Dichlorodifluoromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1-Dichloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 01/12/2000

CUSTOMER: TNRCC

PROJECT: DAVID HARVEY

ATTN: Cecily Warren

Customer Sample ID: 002789-01
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:20
Sample Matrix.....: Org. Waste

Laboratory Sample ID: 200069-1
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	1,2-Dichloroethane (EDC), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1-Dichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	cis-1,2-Dichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	trans-1,2-Dichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	cis-1,3-Dichloropropene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	trans-1,3-Dichloropropene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,3-Dichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2,2-Dichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1-Dichloropropene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,4-Dioxane, Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	Ethyl Acetate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Ethylbenzene, Org. Waste	33000	1000	mg/Kg	01/10/00	qcp
	Ethyl Ether (Diethyl Ether), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Ethyl Methacrylate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Hexachlorobutadiene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Hexane, Org. Waste	3000	1000	mg/Kg	01/10/00	qcp
	2-Hexanone, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Iodomethane (Methyl Iodide), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Isobutyl Alcohol, Org. Waste	ND	200000	mg/Kg	01/10/00	qcp
	Isopropyl Alcohol (2-Propanol), Org. Waste	ND	20000	mg/Kg	01/10/00	qcp
	Isopropylbenzene (Cumene), Org. Waste	2000	1000	mg/Kg	01/10/00	qcp
	p-Isopropyltoluene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Methylacrylonitrile, Org. Waste	ND	2000	mg/Kg	01/10/00	qcp
	Methylene Chloride (Dichloromethane), Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	4-Methyl-2-Pentanone (MIBK), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Methyl Methacrylate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Naphthalene, Org. Waste	5000	1000	mg/Kg	01/10/00	qcp
	2-Nitropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Propionitrile, Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	n-Propylbenzene, Org. Waste	2000	1000	mg/Kg	01/10/00	qcp
	Styrene, Org. Waste	30000	1000	mg/Kg	01/10/00	qcp
	1,1,1,2-Tetrachloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,2,2-Tetrachloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Tetrachloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Toluene, Org. Waste	14000	1000	mg/Kg	01/10/00	qcp
	1,2,3-Trichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2,4-Trichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,1-Trichloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,2-Trichloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Trichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Trichlorofluoromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,2-Trichloro-1,2,2-Trifluoroethane, Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	1,2,3-Trichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2,4-Trimethylbenzene, Org. Waste	7000	1000	mg/Kg	01/10/00	qcp
	1,3,5-Trimethylbenzene, Org. Waste	3000	1000	mg/Kg	01/10/00	qcp
	Vinyl Acetate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Vinyl Chloride (Chloroethene), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	o-Xylene, Org. Waste	8000	1000	mg/Kg	01/10/00	qcp

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 01/12/2000

CUSTOMER: TNRCC PROJECT: DAVID HARVEY ATTN: Cecily Warren

Customer Sample ID: 002789-01
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:20
Sample Matrix.....: Org. Waste

Laboratory Sample ID: 200069-1
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	m&p-Xylenes, Org. Waste	11000	1000	mg/Kg	01/10/00	qcp
SW-846 8260B	Volatile Organics, TCLP					
	Benzene	6800	500	mg/L	01/11/00	qcp
	Carbon Tetrachloride	ND	500	mg/L	01/11/00	qcp
	Chlorobenzene	ND	500	mg/L	01/11/00	qcp
	Chloroform	ND	500	mg/L	01/11/00	qcp
	1,2-Dichloroethane (EDC)	ND	500	mg/L	01/11/00	qcp
	1,1-Dichloroethene	ND	500	mg/L	01/11/00	qcp
	Methyl Ethyl Ketone (2-Butanone)	ND	5000	mg/L	01/11/00	qcp
	Tetrachloroethene	ND	500	mg/L	01/11/00	qcp
	Trichloroethene	ND	500	mg/L	01/11/00	qcp
	Vinyl Chloride (Chloroethene)	ND	500	mg/L	01/11/00	qcp
SW-846 1311	TCLP Physical Characterization					
	% Solids	<0.5	0.5	%	01/10/00	rh
	% Liquid	100	0.5	%	01/10/00	rh
	% Aqueous - Extract	<0.5	0.5	%	01/10/00	rh
	% Non-aqueous - Extract	100	0.5	%	01/10/00	rh
SW-846 1311	Toxic Characteristic Leaching Procedure					
	Zero Head Space (ZHE) Extraction	Complete			01/10/00	rh

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Job Number	200069	Customer Name	TNRCC
COC Number	2789	Customer Description	002789-01

SAMPLE ANALYSIS SUMMARY

Tentatively Identified Compounds

INDIVIDUAL CONSTITUENTS	CAS NO.	METHOD	ESTIMATED CONCENTRATION	UNITS
$C_{10}H_{22}$		SW-846 8260B	9100	mg/Kg
Butanoic Acid, butyl ester	109-21-7	SW-846 8260B	7300	mg/Kg
2-Hexenal, 2-ethyl-	645-62-5	SW-846 8260B	2600	ug/Kg
C_9H_{10}		SW-846 8260B	4600	ug/Kg
$C_{10}H_{14}$		SW-846 8260B	1700	ug/Kg
$C_{10}H_{16}$		SW-846 8260B	2600	ug/Kg
$C_{12}H_{180}$		SW-846 8260B	6100	mg/Kg
Unknown Hydrocarbon		SW-846 8260B	9000	mg/Kg
Cyclohexene, 4-ethenyl-	100-40-3	SW-846 8260B	52000	mg/Kg

awk - 1/12/00

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 01/12/2000

CUSTOMER: TNRCC

PROJECT: DAVID HARVEY

ATTN: Cecily Warren

Customer Sample ID: 002789-02
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200069-2
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	GCMS Scan for Volatile Organics	Complete			01/11/00	qcp
SW-846 8260B	Volatile Organics (Client List)					
	Acrolein, Solid	ND	120	ug/Kg	01/11/00	qcp
	Acrylonitrile, Solid	ND	50	ug/Kg	01/11/00	qcp
	Acetone, Solid	ND	250	ug/Kg	01/11/00	qcp
	Acetonitrile, Solid	ND	10	ug/Kg	01/11/00	qcp
	Allyl Chloride (3-Chloro-1-Propene), Solid	ND	10	ug/Kg	01/11/00	qcp
	Benzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Benzyl Chloride, Solid	ND	10	ug/Kg	01/11/00	qcp
	Bromobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Bromochloromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Bromodichloromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Bromoform, Solid	ND	10	ug/Kg	01/11/00	qcp
	Bromomethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,3-Butadiene, Solid	ND	10	ug/Kg	01/11/00	qcp
	n-Butyl Alcohol (1-Butanol), Solid	ND	2500	ug/Kg	01/11/00	qcp
	tert-Butyl Methyl Ether (MTBE), Solid	ND	10	ug/Kg	01/11/00	qcp
	Methyl Ethyl Ketone (2-Butanone), Solid	ND	25	ug/Kg	01/11/00	qcp
	n-Butylbenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	sec-Butylbenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	tert-Butylbenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Carbon Disulfide, Solid	ND	10	ug/Kg	01/11/00	qcp
	Carbon Tetrachloride, Solid	ND	10	ug/Kg	01/11/00	qcp
	Chlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Chloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	2-Chloroethylvinyl Ether, Solid	ND	10	ug/Kg	01/11/00	qcp
	Chloroform, Solid	ND	10	ug/Kg	01/11/00	qcp
	1-Chlorohexane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Chloromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	2-Chloro-1,3-Butadiene (Chloroprene), Solid	ND	10	ug/Kg	01/11/00	qcp
	2-Chlorotoluene, Solid	ND	10	ug/Kg	01/11/00	qcp
	4-Chlorotoluene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Cyclohexanone, Solid	ND	50	ug/Kg	01/11/00	qcp
	Cyclohexane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Dibromochloromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dibromoethane (EDB), Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dibromo-3-Chloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Dibromomethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,3-Dichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,4-Dichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	trans-1,4-Dichloro-2-Butene, Solid	ND	10	ug/Kg	01/11/00	qcp
	cis-1,4-Dichloro-2-Butene, Solid	ND	25	ug/Kg	01/11/00	qcp
	Dichlorodifluoromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1-Dichloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dichloroethane (EDC), Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1-Dichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 01/12/2000

CUSTOMER: TNRCC

PROJECT: DAVID HARVEY

ATTN: Cecily Warren

Customer Sample ID: 002789-02
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200069-2
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	cis-1,2-Dichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	trans-1,2-Dichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	cis-1,3-Dichloropropene, Solid	ND	10	ug/Kg	01/11/00	qcp
	trans-1,3-Dichloropropene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,3-Dichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	2,2-Dichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1-Dichloropropene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,4-Dioxane, Solid	ND	120	ug/Kg	01/11/00	qcp
	Ethyl Acetate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Ethylbenzene, Solid	500	10	ug/Kg	01/11/00	qcp
	Ethyl Ether (Diethyl Ether), Solid	ND	10	ug/Kg	01/11/00	qcp
	Ethyl Methacrylate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Hexachlorobutadiene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Hexane, Solid	ND	10	ug/Kg	01/11/00	qcp
	2-Hexanone, Solid	ND	10	ug/Kg	01/11/00	qcp
	Iodomethane (Methyl Iodide), Solid	ND	10	ug/Kg	01/11/00	qcp
	Isobutyl Alcohol, Solid	ND	2500	ug/Kg	01/11/00	qcp
	Isopropyl Alcohol (2-Propanol), Solid	ND	250	ug/Kg	01/11/00	qcp
	Isopropylbenzene (Cumene), Solid	60	10	ug/Kg	01/11/00	qcp
	p-Isopropyltoluene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Methylacrylonitrile, Solid	ND	25	ug/Kg	01/11/00	qcp
	Methylene Chloride (Dichloromethane), Solid	ND	120	ug/Kg	01/11/00	qcp
	4-Methyl-2-Pentanone (MIBK), Solid	ND	10	ug/Kg	01/11/00	qcp
	Methyl Methacrylate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Naphthalene, Solid	1200	10	ug/Kg	01/11/00	qcp
	2-Nitropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Propionitrile, Solid	ND	120	ug/Kg	01/11/00	qcp
	n-Propylbenzene, Solid	50	10	ug/Kg	01/11/00	qcp
	Styrene, Solid	670	10	ug/Kg	01/11/00	qcp
	1,1,1,2-Tetrachloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,2,2-Tetrachloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Tetrachloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Toluene, Solid	90	10	ug/Kg	01/11/00	qcp
	1,2,3-Trichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2,4-Trichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,1-Trichloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,2-Trichloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Trichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Trichlorofluoromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,2-Trichloro-1,2,2-Trifluoroethane, Solid	ND	120	ug/Kg	01/11/00	qcp
	1,2,3-Trichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2,4-Trimethylbenzene, Solid	260	10	ug/Kg	01/11/00	qcp
	1,3,5-Trimethylbenzene, Solid	120	10	ug/Kg	01/11/00	qcp
	Vinyl Acetate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Vinyl Chloride (Chloroethene), Solid	ND	10	ug/Kg	01/11/00	qcp
	o-Xylene, Solid	200	10	ug/Kg	01/11/00	qcp
	m&p-Xylenes, Solid	200	10	ug/Kg	01/11/00	qcp

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 01/12/2000

CUSTOMER: TNRCC | PROJECT: DAVID HARVEY | ATTN: Cecily Warren

Customer Sample ID: 002789-02
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200069-2
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8260B	Volatile Organics, TCLP					
	Benzene	ND	25	ug/L	01/11/00	qcp
	Carbon Tetrachloride	ND	25	ug/L	01/11/00	qcp
	Chlorobenzene	ND	25	ug/L	01/11/00	qcp
	Chloroform	ND	25	ug/L	01/11/00	qcp
	1,2-Dichloroethane (EDC)	ND	25	ug/L	01/11/00	qcp
	1,1-Dichloroethene	ND	25	ug/L	01/11/00	qcp
	Methyl Ethyl Ketone (2-Butanone)	ND	250	ug/L	01/11/00	qcp
	Tetrachloroethene	ND	25	ug/L	01/11/00	qcp
	Trichloroethene	ND	25	ug/L	01/11/00	qcp
	Vinyl Chloride (Chloroethene)	ND	25	ug/L	01/11/00	qcp
SW-846 1311	TCLP Physical Characterization					
	% Solids	100	0.5	%	01/10/00	rh
	% Liquid	<0.5	0.5	%	01/10/00	rh
	% Aqueous - Extract	100	0.5	%	01/10/00	rh
	% Non-aqueous - Extract	<0.5	0.5	%	01/10/00	rh
SW-846 1311	Toxic Characteristic Leaching Procedure					
	Zero Head Space (ZHE) Extraction	Complete			01/10/00	rh

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Job Number	200069	Customer Name	TNRCC
COC Number	2789	Customer Description	002789-02

SAMPLE ANALYSIS SUMMARY

Tentatively Identified Compounds

INDIVIDUAL CONSTITUENTS	CAS NO.	METHOD	ESTIMATED CONCENTRATION	UNITS
Cyclohexene, 4-ethenyl	100-40-3	SW-846 8260B	420	ug/Kg
$C_8H_{16}O_2$		SW-846 8260B	150	ug/Kg
$C_7H_{14}O$		SW-846 8260B	87	ug/Kg
$C_{10}H_{16}$		SW-846 8260B	70	ug/Kg
C_8H_{12}		SW-846 8260B	36	ug/Kg
C_9H_{12}		SW-846 8260B	31	ug/Kg
Limonene	138-86-3	SW-846 8260B	31	ug/Kg
Indane	496-11-7	SW-846 8260B	100	ug/Kg
Indene	95-13-6	SW-846 8260B	76	ug/Kg
$C_{10}H_{14}$		SW-846 8260B	34	ug/Kg
$C_{10}H_{12}$		SW-846 8260B	20	ug/Kg
$C_{12}H_{18}$		SW-846 8260B	45	ug/Kg
$C_{13}H_{14}$		SW-846 8260B	46	ug/Kg
Unknown Hydrocarbons		SW-846 8260B	156	ug/Kg

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QUALITY CONTROL RESULTS

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC

PROJECT: Walk in Projects

ATTN: Cecily Warren

Test Method.....: SW-846 1010
Method Description.: Ignitability (Pensky-Martens Closed-Cup)
Parameter.....: Ignitability (Flashpoint)

Batch.....: 42637
Units.....: degrees F

Analyst...: tlm
Test Code.: IGNPMC

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date	Time
LCS		C80724A	79.5		81		98.1	%	90-110	01/10/2000	0915
MD	200069-1		<70.0			<70.0	0.0	R	20	01/10/2000	1015

38 052

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QUALITY CONTROL RESULTS

Job Number.: 200069 | Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: SW-846 8260B
Method Description.: Volatile Organics (Client List)
Batch.....: 42690
Units.....: ug/L
Analyst...: qcp

CCV	Continuing Calibration Verification	V912038			01/10/2000	1001

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	101.94		100.000000		101.9	%	80-120
Bromoform	113.88		100.000000		113.9	%	80-120
Chlorobenzene	108.11		100.000000		108.1	%	80-120
Chloroform	100.36		100.000000		100.4	%	80-120
Chloromethane	80.01		100.000000		80.0	%	80-120
1,1-Dichloroethane	100.75		100.000000		100.8	%	80-120
1,1-Dichloroethene	90.55		100.000000		90.5	%	80-120
1,2-Dichloropropane	95.15		100.000000		95.2	%	80-120
Ethylbenzene	104.18		100.000000		104.2	%	80-120
1,1,2,2-Tetrachloroethane	115.44		100.000000		115.4	%	80-120
Toluene	96.15		100.000000		96.2	%	80-120
Trichloroethene	94.12		100.000000		94.1	%	80-120
Vinyl Chloride (Chloroethene)	92.16		100.000000		92.2	%	80-120

LCS	Laboratory Control Sample	V91211A			01/10/2000	1036

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	47.96		50.000000		95.9	%	80-120
Chlorobenzene	49.68		50.000000		99.4	%	80-120
1,1-Dichloroethene	40.22		50.000000		80.4	%	80-120
Toluene	44.95		50.000000		89.9	%	80-120
Trichloroethene	46.03		50.000000		92.1	%	80-120

MB	Method Blank	01102000			01/10/2000	1110

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Acrolein	ND						
Acrylonitrile	ND						
Acetone	ND						
Acetonitrile	ND						
Allyl Chloride (3-Chloro-1-Propene)	ND						
Benzene	ND						
Benzyl Chloride	ND						
Bromobenzene	ND						
Bromochloromethane	ND						
Bromodichloromethane	ND						
Bromoform	ND						
Bromomethane	ND						
1,3-Butadiene	ND						
n-Butyl Alcohol (1-Butanol)	ND						
tert-Butyl Methyl Ether (MTBE)	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
n-Butylbenzene	ND						
sec-Butylbenzene	ND						
tert-Butylbenzene	ND						
Carbon Disulfide	ND						

38 053

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QUALITY CONTROL RESULTS

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk In Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	1110

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroethane	ND						
2-Chloroethylvinyl Ether	ND						
Chloroform	ND						
1-Chlorohexane	ND						
Chloromethane	ND						
2-Chloro-1,3-Butadiene (Chloroprene)	ND						
2-Chlorotoluene	ND						
4-Chlorotoluene	ND						
Cyclohexanone	ND						
Cyclohexane	ND						
Dibromochloromethane	ND						
1,2-Dibromoethane (EDB)	ND						
1,2-Dibromo-3-Chloropropane	ND						
Dibromomethane	ND						
1,2-Dichlorobenzene	ND						
1,3-Dichlorobenzene	ND						
1,4-Dichlorobenzene	ND						
trans-1,4-Dichloro-2-Butene	ND						
cis-1,4-Dichloro-2-Butene	ND						
Dichlorodifluoromethane	ND						
1,1-Dichloroethane	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
cis-1,2-Dichloroethene	ND						
trans-1,2-Dichloroethene	ND						
1,2-Dichloropropane	ND						
cis-1,3-Dichloropropene	ND						
trans-1,3-Dichloropropene	ND						
1,3-Dichloropropane	ND						
2,2-Dichloropropane	ND						
1,1-Dichloropropene	ND						
1,4-Dioxane	ND						
Ethyl Acetate	ND						
Ethylbenzene	ND						
Ethyl Ether (Diethyl Ether)	ND						
Ethyl Methacrylate	ND						
Hexachlorobutadiene	ND						
Hexane	ND						
2-Hexanone	ND						
Iodomethane (Methyl Iodide)	ND						
Isobutyl Alcohol	ND						
Isopropyl Alcohol (2-Propanol)	ND						
Isopropylbenzene (Cumene)	ND						
p-Isopropyltoluene	ND						
Methylacrylonitrile	ND						
Methylene Chloride (Dichloromethane)	ND						
4-Methyl-2-Pentanone (MIBK)	ND						
Methyl Methacrylate	ND						
1-Methylpyrrolidine (NMP)	ND						
Naphthalene	ND						
2-Nitropropane	ND						
Propionitrile	ND						

38 054

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QUALITY CONTROL RESULTS

Job Number.: 200069 | Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	1110

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
n-Propylbenzene	ND						
Styrene	ND						
1,1,1,2-Tetrachloroethane	ND						
1,1,2,2-Tetrachloroethane	ND						
Tetrachloroethene	ND						
Toluene	ND						
1,2,3-Trichlorobenzene	ND						
1,2,4-Trichlorobenzene	ND						
1,1,1-Trichloroethane	ND						
1,1,2-Trichloroethane	ND						
Trichloroethene	ND						
Trichlorofluoromethane	ND						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND						
1,2,3-Trichloropropane	ND						
1,2,4-Trimethylbenzene	ND						
1,3,5-Trimethylbenzene	ND						
Vinyl Acetate	ND						
Vinyl Chloride (Chloroethene)	ND						
Xylenes (total)	ND						
o-Xylene	ND						
m&p-Xylenes	ND						

MS	Matrix Spike	V91211A	200053-1	500	01/10/2000	1507

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	49.71		50.000000	ND	99.4	%	80-120
Chlorobenzene	54.10		50.000000	ND	108.2	%	80-120
1,1-Dichloroethene	38.17		50.000000	ND	76.3	%	80-120
Toluene	51.18		50.000000	ND	102.4	%	80-120
Trichloroethene	48.91		50.000000	ND	97.8	%	80-120

MSD	Matrix Spike Duplicate	V91211A	200053-1	500	01/10/2000	1541

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	47.71	49.71	50.000000	ND	95.4	%	80-120
					4.1	R	21
Chlorobenzene	51.96	54.10	50.000000	ND	103.9	%	80-120
					4.0	R	21
1,1-Dichloroethene	34.62	38.17	50.000000	ND	69.2	%	80-120
					9.8	R	22
Toluene	47.83	51.18	50.000000	ND	95.7	%	80-120
					6.8	R	21
Trichloroethene	49.25	48.91	50.000000	ND	98.5	%	80-120
					0.7	R	24

38 055

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MS	Matrix Spike	V91110A	200065-1	0.98	01/10/2000	1806

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	50.72		50.000000	ND	101.4	%	80-120
Chlorobenzene	56.47		50.000000	ND	112.9	%	80-120
1,1-Dichloroethene	48.88		50.000000	ND	97.8	%	80-120
Toluene	55.08		50.000000	ND	110.2	%	80-120
Trichloroethene	57.24		50.000000	ND	114.5	%	80-120

MSD	Matrix Spike Duplicate	V91110A	200065-1	0.99	01/10/2000	1844

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	47.43	50.72	50.000000	ND	94.9	%	80-120
					6.7	R	21
Chlorobenzene	50.83	56.47	50.000000	ND	101.7	%	80-120
					10.5	R	21
1,1-Dichloroethene	47.72	48.88	50.000000	ND	95.4	%	80-120
					2.4	R	22
Toluene	52.17	55.08	50.000000	ND	104.3	%	80-120
					5.4	R	21
Trichloroethene	52.98	57.24	50.000000	ND	106.0	%	80-120
					7.7	R	24

CCV	Continuing Calibration Verification	V91203B			01/10/2000	2153

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	91.81		100.000000		91.8	%	80-120
Bromoform	119.62		100.000000		119.6	%	80-120
Chlorobenzene	112.46		100.000000		112.5	%	80-120
Chloroform	99.40		100.000000		99.4	%	80-120
Chloromethane	80.60		100.000000		80.6	%	80-120
1,1-Dichloroethane	97.76		100.000000		97.8	%	80-120
1,1-Dichloroethene	85.55		100.000000		85.5	%	80-120
1,2-Dichloropropane	102.04		100.000000		102.0	%	80-120
Ethylbenzene	110.89		100.000000		110.9	%	80-120
1,1,2,2-Tetrachloroethane	108.00		100.000000		108.0	%	80-120
Toluene	116.31		100.000000		116.3	%	80-120
Trichloroethene	109.84		100.000000		109.8	%	80-120
Vinyl Chloride (Chloroethene)	84.56		100.000000		84.6	%	80-120

LCS	Laboratory Control Sample	V91211A			01/10/2000	2231

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	49.31		50.000000		98.6	%	80-120
Chlorobenzene	49.17		50.000000		98.3	%	80-120
1,1-Dichloroethene	40.48		50.000000		81.0	%	80-120
Toluene	49.96		50.000000		99.9	%	80-120
Trichloroethene	47.84		50.000000		95.7	%	80-120

38 056

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	2309

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Acrolein	ND						
Acrylonitrile	ND						
Acetone	ND						
Acetonitrile	ND						
Allyl Chloride (3-Chloro-1-Propene)	ND						
Benzene	ND						
Benzyl Chloride	ND						
Bromobenzene	ND						
Bromochloromethane	ND						
Bromodichloromethane	ND						
Bromoform	ND						
Bromomethane	ND						
1,3-Butadiene	ND						
n-Butyl Alcohol (1-Butanol)	ND						
tert-Butyl Methyl Ether (MTBE)	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
n-Butylbenzene	ND						
sec-Butylbenzene	ND						
tert-Butylbenzene	ND						
Carbon Disulfide	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroethane	ND						
2-Chloroethylvinyl Ether	ND						
Chloroform	ND						
1-Chlorohexane	ND						
Chloromethane	ND						
2-Chloro-1,3-Butadiene (Chloroprene)	ND						
2-Chlorotoluene	ND						
4-Chlorotoluene	ND						
Cyclohexanone	ND						
Cyclohexane	ND						
Dibromochloromethane	ND						
1,2-Dibromoethane (EDB)	ND						
1,2-Dibromo-3-Chloropropane	ND						
Dibromomethane	ND						
1,2-Dichlorobenzene	ND						
1,3-Dichlorobenzene	ND						
1,4-Dichlorobenzene	ND						
trans-1,4-Dichloro-2-Butene	ND						
cis-1,4-Dichloro-2-Butene	ND						
Dichlorodifluoromethane	ND						
1,1-Dichloroethane	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
cis-1,2-Dichloroethene	ND						
trans-1,2-Dichloroethene	ND						
1,2-Dichloropropane	ND						
cis-1,3-Dichloropropene	ND						
trans-1,3-Dichloropropene	ND						
1,3-Dichloropropane	ND						
2,2-Dichloropropane	ND						
1,1-Dichloropropene	ND						
1,4-Dioxane	ND						

38 057

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	2309

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Ethyl Acetate	ND						
Ethylbenzene	ND						
Ethyl Ether (Diethyl Ether)	ND						
Ethyl Methacrylate	ND						
Hexachlorobutadiene	ND						
Hexane	ND						
2-Hexanone	ND						
Iodomethane (Methyl Iodide)	ND						
Isobutyl Alcohol	ND						
Isopropyl Alcohol (2-Propanol)	ND						
Isopropylbenzene (Cumene)	ND						
p-Isopropyltoluene	ND						
Methylacrylonitrile	ND						
Methylene Chloride (Dichloromethane)	ND						
4-Methyl-2-Pentanone (MIBK)	ND						
Methyl Methacrylate	ND						
1-Methylpyrrolidine (NMP)	ND						
Naphthalene	ND						
2-Nitropropane	ND						
Propionitrile	ND						
n-Propylbenzene	ND						
Styrene	ND						
1,1,1,2-Tetrachloroethane	ND						
1,1,2,2-Tetrachloroethane	ND						
Tetrachloroethene	ND						
Toluene	ND						
1,2,3-Trichlorobenzene	ND						
1,2,4-Trichlorobenzene	ND						
1,1,1-Trichloroethane	ND						
1,1,2-Trichloroethane	ND						
Trichloroethene	ND						
Trichlorofluoromethane	ND						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND						
1,2,3-Trichloropropane	ND						
1,2,4-Trimethylbenzene	ND						
1,3,5-Trimethylbenzene	ND						
Vinyl Acetate	ND						
Vinyl Chloride (Chloroethene)	ND						
Xylenes (total)	ND						
o-Xylene	ND						
m&p-Xylenes	ND						

Test Method.....: SW-846 8260B
Method Description.: Volatile Organics (Client List)

Batch.....: 42726
Units.....: ug/L

Analyst...: qcp

CCV	Continuing Calibration Verification	V91203B			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	94.40		100.000000		94.4	%	80-120
Bromoform	118.12		100.000000		118.1	%	80-120
Chlorobenzene	112.98		100.000000		113.0	%	80-120

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
CCV	Continuing Calibration Verification	V912038			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Chloroform	94.49		100.000000		94.5	%	80-120
Chloromethane	80.82		100.000000		80.8	%	80-120
1,1-Dichloroethane	97.34		100.000000		97.3	%	80-120
1,1-Dichloroethene	91.58		100.000000		91.6	%	80-120
1,2-Dichloropropane	98.97		100.000000		99.0	%	80-120
Ethylbenzene	112.31		100.000000		112.3	%	80-120
1,1,2,2-Tetrachloroethane	105.04		100.000000		105.0	%	80-120
Toluene	106.73		100.000000		106.7	%	80-120
Trichloroethene	100.23		100.000000		100.2	%	80-120
Vinyl Chloride (Chloroethene)	90.73		100.000000		90.7	%	80-120

LCS	Laboratory Control Sample	V91211A			01/11/2000	1203

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	46.49		50.000000		93.0	%	80-120
Chlorobenzene	53.02		50.000000		106.0	%	80-120
1,1-Dichloroethene	42.71		50.000000		85.4	%	80-120
Toluene	54.94		50.000000		109.9	%	80-120
Trichloroethene	50.07		50.000000		100.1	%	80-120

MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Acrolein	ND						
Acrylonitrile	ND						
Acetone	ND						
Acetonitrile	ND						
Allyl Chloride (3-Chloro-1-Propene)	ND						
Benzene	ND						
Benzyl Chloride	ND						
Bromobenzene	ND						
Bromochloromethane	ND						
Bromodichloromethane	ND						
Bromoform	ND						
Bromomethane	ND						
1,3-Butadiene	ND						
n-Butyl Alcohol (1-Butanol)	ND						
tert-Butyl Methyl Ether (MTBE)	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
n-Butylbenzene	ND						
sec-Butylbenzene	ND						
tert-Butylbenzene	ND						
Carbon Disulfide	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroethane	ND						
2-Chloroethylvinyl Ether	ND						
Chloroform	ND						
1-Chlorohexane	ND						
Chloromethane	ND						

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
2-Chloro-1,3-Butadiene (Chloroprene)	ND						
2-Chlorotoluene	ND						
4-Chlorotoluene	ND						
Cyclohexanone	ND						
Cyclohexane	ND						
Dibromochloromethane	ND						
1,2-Dibromoethane (EDB)	ND						
1,2-Dibromo-3-Chloropropane	ND						
Dibromomethane	ND						
1,2-Dichlorobenzene	ND						
1,3-Dichlorobenzene	ND						
1,4-Dichlorobenzene	ND						
trans-1,4-Dichloro-2-Butene	ND						
cis-1,4-Dichloro-2-Butene	ND						
Dichlorodifluoromethane	ND						
1,1-Dichloroethane	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
cis-1,2-Dichloroethene	ND						
trans-1,2-Dichloroethene	ND						
1,2-Dichloropropane	ND						
cis-1,3-Dichloropropene	ND						
trans-1,3-Dichloropropene	ND						
1,3-Dichloropropane	ND						
2,2-Dichloropropane	ND						
1,1-Dichloropropene	ND						
1,4-Dioxane	ND						
Ethyl Acetate	ND						
Ethylbenzene	ND						
Ethyl Ether (Diethyl Ether)	ND						
Ethyl Methacrylate	ND						
Hexachlorobutadiene	ND						
Hexane	ND						
2-Hexanone	ND						
Iodomethane (Methyl Iodide)	ND						
Isobutyl Alcohol	ND						
Isopropyl Alcohol (2-Propanol)	ND						
Isopropylbenzene (Cumene)	ND						
p-Isopropyltoluene	ND						
Methylacrylonitrile	ND						
Methylene Chloride (Dichloromethane)	ND						
4-Methyl-2-Pentanone (MIBK)	ND						
Methyl Methacrylate	ND						
1-Methylpyrrolidine (NMP)	ND						
Naphthalene	ND						
2-Nitropropane	ND						
Propionitrile	ND						
n-Propylbenzene	ND						
Styrene	ND						
1,1,1,2-Tetrachloroethane	ND						
1,1,2,2-Tetrachloroethane	ND						
Tetrachloroethene	ND						
Toluene	ND						
1,2,3-Trichlorobenzene	ND						

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
1,2,4-Trichlorobenzene	ND						
1,1,1-Trichloroethane	ND						
1,1,2-Trichloroethane	ND						
Trichloroethene	ND						
Trichlorofluoromethane	ND						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND						
1,2,3-Trichloropropane	ND						
1,2,4-Trimethylbenzene	ND						
1,3,5-Trimethylbenzene	ND						
Vinyl Acetate	ND						
Vinyl Chloride (Chloroethene)	ND						
Xylenes (total)	ND						
o-Xylene	ND						
m&p-Xylenes	ND						

MS	Matrix Spike	V91211A	200022-1	2.00	01/11/2000	1727

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	59.36		50.000000	12.15	94.4	%	80-120
Chlorobenzene	54.54		50.000000	ND	109.1	%	80-120
1,1-Dichloroethene	43.38		50.000000	ND	86.8	%	80-120
Toluene	59.35		50.000000	5.80	107.1	%	80-120
Trichloroethene	53.09		50.000000	ND	106.2	%	80-120

MSD	Matrix Spike Duplicate	V91211A	200022-1	2.00	01/11/2000	1805

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	55.76	59.36	50.000000	12.15	87.2	%	80-120
					6.3	R	21
Chlorobenzene	52.33	54.54	50.000000	ND	104.7	%	80-120
					4.1	R	21
1,1-Dichloroethene	44.67	43.38	50.000000	ND	89.3	%	80-120
					2.9	R	22
Toluene	54.18	59.35	50.000000	5.80	96.8	%	80-120
					9.1	R	21
Trichloroethene	51.70	53.09	50.000000	ND	103.4	%	80-120
					2.7	R	24

Test Method.....: SW-846 8260B
Method Description.: Volatile Organics, TCLP

Batch.....: 42729
Units.....: ug/L

Analyst...: qcp

CCV	Continuing Calibration Verification	V912038			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	94.40		100.000000		94.4	%	80-120
Carbon Tetrachloride	93.48		100.000000		93.5	%	80-120
Chlorobenzene	112.98		100.000000		113.0	%	80-120

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
CCV	Continuing Calibration Verification	V912038			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Chloroform	94.49		100.000000		94.5	%	80-120
1,2-Dichloroethane (EDC)	88.35		100.000000		88.3	%	80-120
1,1-Dichloroethene	91.58		100.000000		91.6	%	80-120
Methyl Ethyl Ketone (2-Butanone)	103.57		100.000000		103.6	%	80-120
Tetrachloroethene	81.43		100.000000		81.4	%	80-120
Trichloroethene	100.23		100.000000		100.2	%	80-120
Vinyl Chloride (Chloroethene)	90.73		100.000000		90.7	%	80-120

LCS	Laboratory Control Sample	V91211A			01/11/2000	1203

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	46.49		50.000000		93.0	%	80-120
Chlorobenzene	53.02		50.000000		106.0	%	80-120
1,1-Dichloroethene	42.71		50.000000		85.4	%	80-120
Trichloroethene	50.07		50.000000		100.1	%	80-120

MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroform	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
Tetrachloroethene	ND						
Trichloroethene	ND						
Vinyl Chloride (Chloroethene)	ND						

MS	Matrix Spike	V91211A	200022-1	2.00	01/11/2000	1727

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	59.36		50.000000	12.15	94.4	%	80-120
Chlorobenzene	54.54		50.000000	ND	109.1	%	80-120
1,1-Dichloroethene	43.38		50.000000	ND	86.8	%	80-120
Trichloroethene	53.09		50.000000	ND	106.2	%	80-120

MSD	Matrix Spike Duplicate	V91211A	200022-1	2.00	01/11/2000	1805

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	55.76	59.36	50.000000	12.15	87.2	%	80-120
					6.3	R	20
Chlorobenzene	52.33	54.54	50.000000	ND	104.7	%	80-120
					4.1	R	20
1,1-Dichloroethene	44.67	43.38	50.000000	ND	89.3	%	80-120
					2.9	R	20

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MSD	Matrix Spike Duplicate	V91211A	200022-1	2.00	01/11/2000	1805

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Trichloroethene	51.70	53.09	50.000000	ND	103.4	%	80-120
					2.7	R	20

MB	Method Blank	01102000			01/11/2000	1920

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroform	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
Tetrachloroethene	ND						
Trichloroethene	ND						
Vinyl Chloride (Chloroethene)	ND						

MB	Method Blank	01102000			01/11/2000	2034

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroform	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
Tetrachloroethene	ND						
Trichloroethene	ND						
Vinyl Chloride (Chloroethene)	ND						

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk In Projects | ATTN: Cecily Warren

Method.....: Volatile Organics (Client List)
Method Code.....: 8260C

Batch.....: 42690
Analyst.....: qcp

Surrogate	Units
1,2-Dichloroethane-d4	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	41.12	50.00000	82.2	80-120		01/10/2000	1001
		LCS	1.00	40.69	50.00000	81.4	80-120		01/10/2000	1036
		MB	1.00	41.30	50.00000	82.6	80-120		01/10/2000	1110
200069-1	Org. Waste		200.00	46.54	50.00000	93.1	80-120		01/10/2000	1251
200053-1	Solid	MS	500	44.07	50.00000	88.1	80-120		01/10/2000	1507
200053-1	Solid	MSD	500	45.01	50.00000	90.0	80-120		01/10/2000	1541
200065-1	Solid	MS	0.98	40.03	50.00000	80.1	80-120		01/10/2000	1806
200065-1	Solid	MSD	0.99	41.94	50.00000	83.9	80-120		01/10/2000	1844
		CCV	1.00	40.08	50.00000	80.2	80-120		01/10/2000	2153
		LCS	1.00	42.01	50.00000	84.0	80-120		01/10/2000	2231
		MB	1.00	45.24	50.00000	90.5	80-120		01/10/2000	2309
200057-4			1.00	42.60	50.00000	85.2	80-120		01/11/2000	0024
200057-5			1.00	43.60	50.00000	87.2	80-120		01/11/2000	0102
200057-2			1.00	40.14	50.00000	80.3	80-120		01/11/2000	0139
200058-1			1.00	49.38	50.00000	98.8	80-120		01/11/2000	0217
200058-2			1.00	40.64	50.00000	81.3	80-120		01/11/2000	0255
200058-3			1.00	49.96	50.00000	99.9	80-120		01/11/2000	0333
200058-4			1.00	56.18	50.00000	112.4	80-120		01/11/2000	0410
200058-5			1.00	45.24	50.00000	90.5	80-120		01/11/2000	0448
200058-6			1.00	48.36	50.00000	96.7	80-120		01/11/2000	0525
200058-7			1.00	46.00	50.00000	92.0	80-120		01/11/2000	0604
200058-8			1.00	45.59	50.00000	91.2	80-120		01/11/2000	0642
200067-1			1.00	46.58	50.00000	93.2	80-120		01/11/2000	0719
200067-2			1.00	44.57	50.00000	89.1	80-120		01/11/2000	0756
200067-3			1.00	50.66	50.00000	101.3	80-120		01/11/2000	0830

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	46.24	50.00000	92.5	86-115		01/10/2000	1001
		LCS	1.00	48.20	50.00000	96.4	86-115		01/10/2000	1036
		MB	1.00	49.70	50.00000	99.4	86-115		01/10/2000	1110
200069-1	Org. Waste		200.00	50.08	50.00000	100.2	74-121		01/10/2000	1251
200053-1	Solid	MS	500	52.56	50.00000	105.1	74-121		01/10/2000	1507
200053-1	Solid	MSD	500	52.04	50.00000	104.1	74-121		01/10/2000	1541
200065-1	Solid	MS	0.98	49.23	50.00000	98.5	74-121		01/10/2000	1806
200065-1	Solid	MSD	0.99	53.30	50.00000	106.6	74-121		01/10/2000	1844
		CCV	1.00	51.02	50.00000	102.0	86-115		01/10/2000	2153
		LCS	1.00	48.10	50.00000	96.2	86-115		01/10/2000	2231
		MB	1.00	52.66	50.00000	105.3	86-115		01/10/2000	2309
200057-4			1.00	51.45	50.00000	102.9	86-115		01/11/2000	0024
200057-5			1.00	45.62	50.00000	91.2	86-115		01/11/2000	0102
200057-2			1.00	49.40	50.00000	98.8	86-115		01/11/2000	0139

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC PROJECT: Walk in Projects ATTN: Cecily Warren

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
200058-1			1.00	52.40	50.00000	104.8	86-115		01/11/2000	0217
200058-2			1.00	47.70	50.00000	95.4	86-115		01/11/2000	0255
200058-3			1.00	55.22	50.00000	110.4	86-115		01/11/2000	0333
200058-4			1.00	48.34	50.00000	96.7	86-115		01/11/2000	0410
200058-5			1.00	47.42	50.00000	94.8	86-115		01/11/2000	0448
200058-6			1.00	51.89	50.00000	103.8	86-115		01/11/2000	0525
200058-7			1.00	55.17	50.00000	110.3	86-115		01/11/2000	0604
200058-8			1.00	48.96	50.00000	97.9	86-115		01/11/2000	0642
200067-1			1.00	55.82	50.00000	111.6	86-115		01/11/2000	0719
200067-2			1.00	53.93	50.00000	107.9	86-115		01/11/2000	0756
200067-3			1.00	46.78	50.00000	93.6	86-115		01/11/2000	0830

Surrogate	Units
Dibromofluoromethane	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	53.24	50.00000	106.5	86-118		01/10/2000	1001
		LCS	1.00	51.05	50.00000	102.1	86-118		01/10/2000	1036
		MB	1.00	46.65	50.00000	93.3	86-118		01/10/2000	1110
200069-1	Org. Waste		200.00	50.94	50.00000	101.9	80-120		01/10/2000	1251
200053-1	Solid	MS	500	50.17	50.00000	100.3	80-120		01/10/2000	1507
200053-1	Solid	MSD	500	51.21	50.00000	102.4	80-120		01/10/2000	1541
200065-1	Solid	MS	0.98	58.86	50.00000	117.7	80-120		01/10/2000	1806
200065-1	Solid	MSD	0.99	52.37	50.00000	104.7	80-120		01/10/2000	1844
		CCV	1.00	54.58	50.00000	109.2	86-118		01/10/2000	2153
		LCS	1.00	51.68	50.00000	103.4	86-118		01/10/2000	2231
		MB	1.00	49.45	50.00000	98.9	86-118		01/10/2000	2309
200057-4			1.00	51.34	50.00000	102.7	86-118		01/11/2000	0024
200057-5			1.00	49.61	50.00000	99.2	86-118		01/11/2000	0102
200057-2			1.00	49.17	50.00000	98.3	86-118		01/11/2000	0139
200058-1			1.00	52.16	50.00000	104.3	86-118		01/11/2000	0217
200058-2			1.00	50.43	50.00000	100.9	86-118		01/11/2000	0255
200058-3			1.00	52.80	50.00000	105.6	86-118		01/11/2000	0333
200058-4			1.00	51.81	50.00000	103.6	86-118		01/11/2000	0410
200058-5			1.00	52.75	50.00000	105.5	86-118		01/11/2000	0448
200058-6			1.00	51.69	50.00000	103.4	86-118		01/11/2000	0525
200058-7			1.00	50.62	50.00000	101.2	86-118		01/11/2000	0604
200058-8			1.00	52.25	50.00000	104.5	86-118		01/11/2000	0642
200067-1			1.00	51.68	50.00000	103.4	86-118		01/11/2000	0719
200067-2			1.00	52.11	50.00000	104.2	86-118		01/11/2000	0756
200067-3			1.00	52.07	50.00000	104.1	86-118		01/11/2000	0830

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC PROJECT: Walk in Projects ATTN: Cecily Warren

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	45.58	50.00000	91.2	88-110		01/10/2000	1001
		LCS	1.00	45.11	50.00000	90.2	88-110		01/10/2000	1036
		MB	1.00	47.10	50.00000	94.2	88-110		01/10/2000	1110
200069-1	Org. Waste		200.00	48.71	50.00000	97.4	81-118		01/10/2000	1251
200053-1	Solid	MS	500	46.56	50.00000	93.1	81-117		01/10/2000	1507
200053-1	Solid	MSD	500	45.26	50.00000	90.5	81-117		01/10/2000	1541
200065-1	Solid	MS	0.98	49.68	50.00000	99.4	81-117		01/10/2000	1806
200065-1	Solid	MSD	0.99	46.55	50.00000	93.1	81-117		01/10/2000	1844
		CCV	1.00	51.39	50.00000	102.8	88-110		01/10/2000	2153
		LCS	1.00	45.45	50.00000	90.9	88-110		01/10/2000	2231
		MB	1.00	44.62	50.00000	89.2	88-110		01/10/2000	2309
200057-4			1.00	52.13	50.00000	104.3	88-110		01/11/2000	0024
200057-5			1.00	48.01	50.00000	96.0	88-110		01/11/2000	0102
200057-2			1.00	50.25	50.00000	100.5	88-110		01/11/2000	0139
200058-1			1.00	48.42	50.00000	96.8	88-110		01/11/2000	0217
200058-2			1.00	46.37	50.00000	92.7	88-110		01/11/2000	0255
200058-3			1.00	48.28	50.00000	96.6	88-110		01/11/2000	0333
200058-4			1.00	52.47	50.00000	104.9	88-110		01/11/2000	0410
200058-5			1.00	50.96	50.00000	101.9	88-110		01/11/2000	0448
200058-6			1.00	46.95	50.00000	93.9	88-110		01/11/2000	0525
200058-7			1.00	47.17	50.00000	94.3	88-110		01/11/2000	0604
200058-8			1.00	46.33	50.00000	92.7	88-110		01/11/2000	0642
200067-1			1.00	47.46	50.00000	94.9	88-110		01/11/2000	0719
200067-2			1.00	47.37	50.00000	94.7	88-110		01/11/2000	0756
200067-3			1.00	47.55	50.00000	95.1	88-110		01/11/2000	0830

Method.....: Volatile Organics (Client List) Batch.....: 42726
Method Code.....: 8260C Analyst.....: qcp

Surrogate	Units
1,2-Dichloroethane-d4	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	42.35	50.00000	84.7	80-120		01/11/2000	1126
		LCS	1.00	40.04	50.00000	80.1	80-120		01/11/2000	1203
		MB	1.00	40.57	50.00000	81.1	80-120		01/11/2000	1241
200069-2	Solid		2.50	32.65	50.00000	65.3	80-120	X	01/11/2000	1505
200022-1	Solid		2.00	42.20	50.00000	84.4	80-120		01/11/2000	1650
200022-1	Solid	MS	2.00	41.53	50.00000	83.1	80-120		01/11/2000	1727
200022-1	Solid	MSD	2.00	42.19	50.00000	84.4	80-120		01/11/2000	1805
994725-10	Solid		5.00	38.03	50.00000	76.1	80-120	X	01/11/2000	1842

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC PROJECT: Walk in Projects ATTN: Cecily Warren

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	51.15	50.00000	102.3	86-115		01/11/2000	1126
		LCS	1.00	53.64	50.00000	107.3	86-115		01/11/2000	1203
		MB	1.00	52.73	50.00000	105.5	86-115		01/11/2000	1241
200069-2	Solid		2.50	46.09	50.00000	92.2	74-121		01/11/2000	1505
200022-1	Solid		2.00	49.51	50.00000	99.0	74-121		01/11/2000	1650
200022-1	Solid	MS	2.00	48.15	50.00000	96.3	74-121		01/11/2000	1727
200022-1	Solid	MSD	2.00	46.59	50.00000	93.2	74-121		01/11/2000	1805
994725-10	Solid		5.00	49.96	50.00000	99.9	74-121		01/11/2000	1842

Surrogate	Units
Dibromofluoromethane	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	47.79	50.00000	95.6	86-118		01/11/2000	1126
		LCS	1.00	48.47	50.00000	96.9	86-118		01/11/2000	1203
		MB	1.00	49.76	50.00000	99.5	86-118		01/11/2000	1241
200069-2	Solid		2.50	44.88	50.00000	89.8	80-120		01/11/2000	1505
200022-1	Solid		2.00	45.38	50.00000	90.8	80-120		01/11/2000	1650
200022-1	Solid	MS	2.00	52.73	50.00000	105.5	80-120		01/11/2000	1727
200022-1	Solid	MSD	2.00	54.48	50.00000	109.0	80-120		01/11/2000	1805
994725-10	Solid		5.00	49.48	50.00000	99.0	80-120		01/11/2000	1842

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	48.62	50.00000	97.2	88-110		01/11/2000	1126
		LCS	1.00	51.29	50.00000	102.6	88-110		01/11/2000	1203
		MB	1.00	47.66	50.00000	95.3	88-110		01/11/2000	1241
200069-2	Solid		2.50	49.81	50.00000	99.6	81-117		01/11/2000	1505
200022-1	Solid		2.00	49.93	50.00000	99.9	81-117		01/11/2000	1650
200022-1	Solid	MS	2.00	50.94	50.00000	101.9	81-117		01/11/2000	1727
200022-1	Solid	MSD	2.00	44.52	50.00000	89.0	81-117		01/11/2000	1805
994725-10	Solid		5.00	49.51	50.00000	99.0	81-117		01/11/2000	1842

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

Method.....: Volatile Organics, TCLP
Method Code.....: 8260TC

Batch.....: 42729
Analyst.....: qcp

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	51.15	50.00000	102.3	86-115		01/11/2000	1126
		LCS	1.00	53.64	50.00000	107.3	86-115		01/11/2000	1203
		MB	1.00	52.73	50.00000	105.5	86-115		01/11/2000	1241
200022-1	Solid	MS	2.00	48.15	50.00000	96.3	86-115		01/11/2000	1727
200022-1	Solid	MSD	2.00	46.59	50.00000	93.2	86-115		01/11/2000	1805
		MB	1.00	52.82	50.00000	105.6	86-115		01/11/2000	1920
200069-1			20.00	47.14	50.00000	94.3	86-115		01/11/2000	1957
		MB	1.00	45.09	50.00000	90.2	86-115		01/11/2000	2034
200069-2			1.00	52.45	50.00000	104.9	86-115		01/11/2000	2111
200049-1			1.00	54.66	50.00000	109.3	86-115		01/11/2000	2148
200049-2			1.00	52.62	50.00000	105.2	86-115		01/11/2000	2225

Surrogate	Units
Dibromofluoromethane	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	47.79	50.00000	95.6	86-118		01/11/2000	1126
		LCS	1.00	48.47	50.00000	96.9	86-118		01/11/2000	1203
		MB	1.00	49.76	50.00000	99.5	86-118		01/11/2000	1241
200022-1	Solid	MS	2.00	52.73	50.00000	105.5	86-118		01/11/2000	1727
200022-1	Solid	MSD	2.00	54.48	50.00000	109.0	86-118		01/11/2000	1805
		MB	1.00	50.41	50.00000	100.8	86-118		01/11/2000	1920
200069-1			20.00	50.95	50.00000	101.9	86-118		01/11/2000	1957
		MB	1.00	48.94	50.00000	97.9	86-118		01/11/2000	2034
200069-2			1.00	48.20	50.00000	96.4	86-118		01/11/2000	2111
200049-1			1.00	45.05	50.00000	90.1	86-118		01/11/2000	2148
200049-2			1.00	49.63	50.00000	99.3	86-118		01/11/2000	2225

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	48.62	50.00000	97.2	88-110		01/11/2000	112[illegible]
		LCS	1.00	51.29	50.00000	102.6	88-110		01/11/2000	120[illegible]
		MB	1.00	47.66	50.00000	95.3	88-110		01/11/2000	124[illegible]
200022-1	Solid	MS	2.00	50.94	50.00000	101.9	88-110		01/11/2000	172[illegible]
200022-1	Solid	MSD	2.00	44.52	50.00000	89.0	88-110		01/11/2000	180[illegible]
		MB	1.00	51.18	50.00000	102.4	88-110		01/11/2000	192[illegible]
200069-1			20.00	49.66	50.00000	99.3	88-110		01/11/2000	195[illegible]
		MB	1.00	48.77	50.00000	97.5	88-110		01/11/2000	203[illegible]

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
200069-2			1.00	46.94	50.00000	93.9	88-110		01/11/2000	2111
200049-1			1.00	47.08	50.00000	94.2	88-110		01/11/2000	2148
200049-2			1.00	47.79	50.00000	95.6	88-110		01/11/2000	2225

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QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/12/20

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(3) Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992
(4) Methods of Organic Chemical Analysis of Municipal and Industrial Wastewater, Federal Register, Vol. 49, No. 209, October 1984 and 40 CFR Part 136 amendments
(5) EPA 600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils
(6) Methods of Soil Analysis, American Society of Agronomy, Agronomy No. 9, 1965
(7) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991
(8) American Society for Testing and Materials, Petroleum Products, Lubricants, and Fossil Fuels, Section 5, Volumes 05.01 - 05.05
(9) Hach Handbook of Water Analysis, 1979

Comments:
Data in the QC report may differ from final results due to digestion and/or dilution of sample into analytical ranges. The "Time Analyzed" may not be the actual time of analysis. The "Date Analyzed" is the actual date of analysis. Sludge samples are reported on a wet weight basis (i.e., not corrected for percent moisture) unless otherwise indicated.

Quality Control acceptance criteria are based either on limits specified in the referenced method or on actual laboratory performance.

All data is reported on sample "as received" unless noted.

Sample IDs with a "-00" at the end indicate a blank spike or blank spike duplicate associated with the numbered sample.

SAMPLE RESULT IDENTIFICATION

ND = Not detected at a value greater than the reporting limit
TNTC = Too numerous to count

BLANK QC SAMPLE IDENTIFICATION

MB Method Blank
ICB Initial Calibration Blank
CCB Continuing Calibration Blank

SPIKE QC SAMPLE IDENTIFICATION

MS Method (Matrix) Spike
MSD Method (Matrix) Spike Duplicate
PDS Post Digestion/Distillation Spike
SB Spiked Blank
SBD Spiked Blank Duplicate

Severn Trent Laboratories
Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471
a part of Severn Trent Services Inc

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/12/20

REFERENCE STANDARD QC SAMPLE IDENTIFICATION

LCS	Laboratory Control Standard
RS	Reference Standard
ICV	Initial Calibration Verification Standard
CCV	Continuing Calibration Verification Standard
ISA/ISB	ICP Interference Check Sample
DSC	Distilled Standard Check

DUPLICATE QC SAMPLE IDENTIFICATION

MD	Method (Matrix) Duplicate
ED	Extraction Duplicate
DD	Digestion Duplicate
PDD	Post Digestion Duplicate

Analyses performed by a subcontract laboratory are indicated on the analytical and/or quality control reports under "technician" using the following codes:

SUBCONTRACT LABORATORIES

Severn Trent Laboratories:			
Anaheim, CA	*an	Houston, TX	*he
Aurora, CO	*au	Valparaiso, IN	*vp
Other Laboratories	*xx	Client provided data	*cp
Core Laboratories	*hp	Pollution Control Srv.	*pc
Quanterra	*qu	Saybolt	*sa

EXPLANATION OF DATA FLAGS

B - This flag is used to indicate that an analyte is present in the method blank as well as in the sample. It indicates that the client should consider this when evaluating the results.

D - This flag indicates that surrogates were diluted out of calibration range and cannot be quantified.

E - Indicates that a sample result is an estimate because the concentration exceeded the calibration range of the instrument.

I - Used to indicate matrix interference.

J - Indicates that a value is an estimate. It is used when a compound is determined to be present based on the mass spectral data, but at a concentration less than the quantitation limit of the method. This flag is also used when estimating the concentration of a tentatively identified compound.

X - Indicates that a surrogate recovery is outside the specified quality control limits.

Y - Used to identify a spike or spike duplicate recovery and spike duplicate is outside the specified quality control limits.

* - Indicates a relative percent difference for a duplicate analysis is outside the specified quality control limits.

' - Used to indicate that a standard is outside specified quality control limits.

Severn Trent Laboratories
4723 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471

a part of
Severn Trent Services Inc

NATURAL RESOURCE CONSERVATION COMMISSION

Chain of Custody Record

STL # 700069

002789

Location: (Do not fill in this shaded area if the facility information must be confidential)

Permit #:

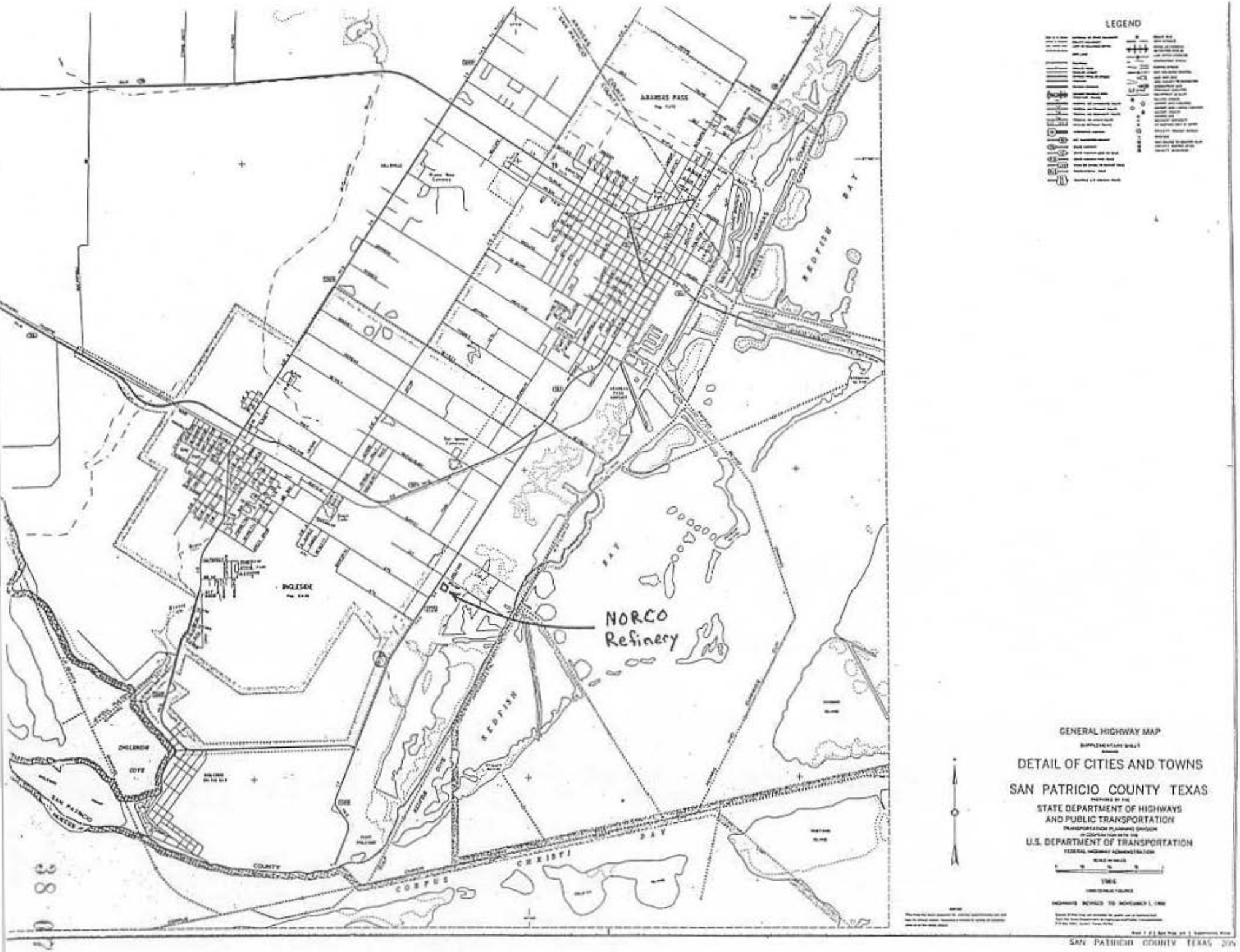
Region:	Organization #:	PCA Code:	Program:	Sampler telephone number:
14	4214	93806	AIR	361 825 3118

E-Mail ID:	Sampler: (signature)	Sampler: (please print clearly)
CROITSCH@tnrcc.state.tx.us	David Harvey / Clint Roitsch	CLINT ROITSCH / David Harvey

Lab ID Number	Sample ID	Date	Time	# of Bottles	Grab/ Comp.	Matrix L,S,M,O,T	C12	pH	Cond.	Analyses Requested	REMARKS
	-01	1/7/00	1020	2	GRAB	L				TCLP VOCs; flash point VOLATILE ORGANIC COMPOUNDS	STRONG VOLATILE ODORS
	-02	1/7/00	1030	1	Grab	L				VOCs; TCLP VOCs	
	-03										1°C
	-04										
	-05										
	-06										
	-07										
	-08										
	-09										
	-10										

Relinquished by:	Date	Time	Received by:	
David Harvey	1/7/00	1127	Teresa Toledo W 1-7-00 11:27	For Laboratory Use: 000069 STL#
Relinquished by:	Date	Time	Received by:	Received on ice: Y N 1.0 deg. C
Relinquished by:	Date	Time	Received by:	Preservatives: Y (N)
Relinquished by:	Date	Time	Received by:	COC Seal: Y (N)
Shipper name:	Shipper Number:			Seals Intact: Y N n/a

98 072


LEGEND
ARANSAS PASS
INGLESIDE
INGLESIDE COVE
SAN PATRICIO COUNTY
REDFISH BAY
CORPUS CHRISTI BAY
NORCO Refinery
GENERAL HIGHWAY MAP
DETAIL OF CITIES AND TOWNS
SAN PATRICIO COUNTY TEXAS
STATE DEPARTMENT OF HIGHWAYS
AND PUBLIC TRANSPORTATION
U.S. DEPARTMENT OF TRANSPORTATION
1966

rpjsckl

Job Sample Receipt Checklist Report
01/07/2000

V2

Job Number.....: 200069 Location.: 57203 Customer Job ID.....: Job Check List Date.: 01/07/2000
Project Number.: 99999995 Project Description.: Walk in Projects Project Manager.....: rem
Customer.....: TNRCC Contact.: Cecily Warren

Questions ?	(Y/N)	Comments
How did samples arrive?.....		CLIENT DELIVERED
Chain-of-Custody Present?.....	Y	
Custody seal on shipping container?.....	N	
...If "yes", custody seal intact?.....		
Custody seals on sample containers?.....	N	
...If "yes", custody seal intact?.....		
Samples chilled?.....	Y	
Temperature blank in cooler?.....	Y	
Temperature of cooler acceptable? (4 deg C +/- 2).	Y	1.0 DEG C
Samples received intact (good condition)?.....	Y	
Volatile samples acceptable? (no headspace).....		NOT APPLICABLE
Correct containers used?.....	Y	
Adequate sample volume provided?.....	Y	
Samples preserved correctly?.....	Y	
Samples received within holding-time?.....	Y	
Agreement between COC and sample labels?.....	Y	
Additional.....		
Comments.....		1-7-2000 DJ
Sample Custodian Signature.....		

38 074

Tentatively Identified Compound (LSC) summary

Operator ID: QCP Date Acquired: 10 Jan 00 12:51
Data File: C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D
Name: 200069-01 Q(RR)
Misc: 25uL[20uL(5g/10mL)/1mL]/50mL
Method: C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title: VOA Standards for 5 point calibration
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
2-Hexenal, (E)-	13.43	9.5	ug/l	248285	ISTD02	12.74	1302000	50.0
Cyclopentane, 1,3-di	16.18	7.9	ug/l	254721	ISTD03	18.11	1603390	50.0
Cyclohexene, 4-ethen	17.26	257.9	ug/l	8269140	ISTD03	18.11	1603390	50.0
Hexane, 4-ethyl-2-me	20.74	45.7	ug/l	4274120	ISTD04	22.11	4676030	50.0
Butanoic acid, butyl	21.23	36.6	ug/l	3418300	ISTD04	22.11	4676030	50.0
2-Hexenal, 2-ethyl-	21.96	12.9	ug/l	1210320	ISTD04	22.11	4676030	50.0
Benzene, 1-ethenyl-2	22.51	23.1	ug/l	2162220	ISTD04	22.11	4676030	50.0
Benzene, 1-methyl-4-	22.59	8.5	ug/l	799443	ISTD04	22.11	4676030	50.0
Bicyclo[2.2.1]hept-2	22.98	15.2	ug/l	1423870	ISTD04	22.11	4676030	50.0
1,3,7,11-Cyclotetrad	23.25	13.5	ug/l	1261710	ISTD04	22.11	4676030	50.0
4,7-Methano-1H-inden	23.50	13.0	ug/l	1212800	ISTD04	22.11	4676030	50.0
Cyclohexanone, 2-cyc	26.08	30.6	ug/l	2863060	ISTD04	22.11	4676030	50.0

B200A006.D 8260B.M Tue Jan 11 14:49:50 2000

RECEIVED
JAN 18 2000
FIELD OPERATIONS
REGION 14

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

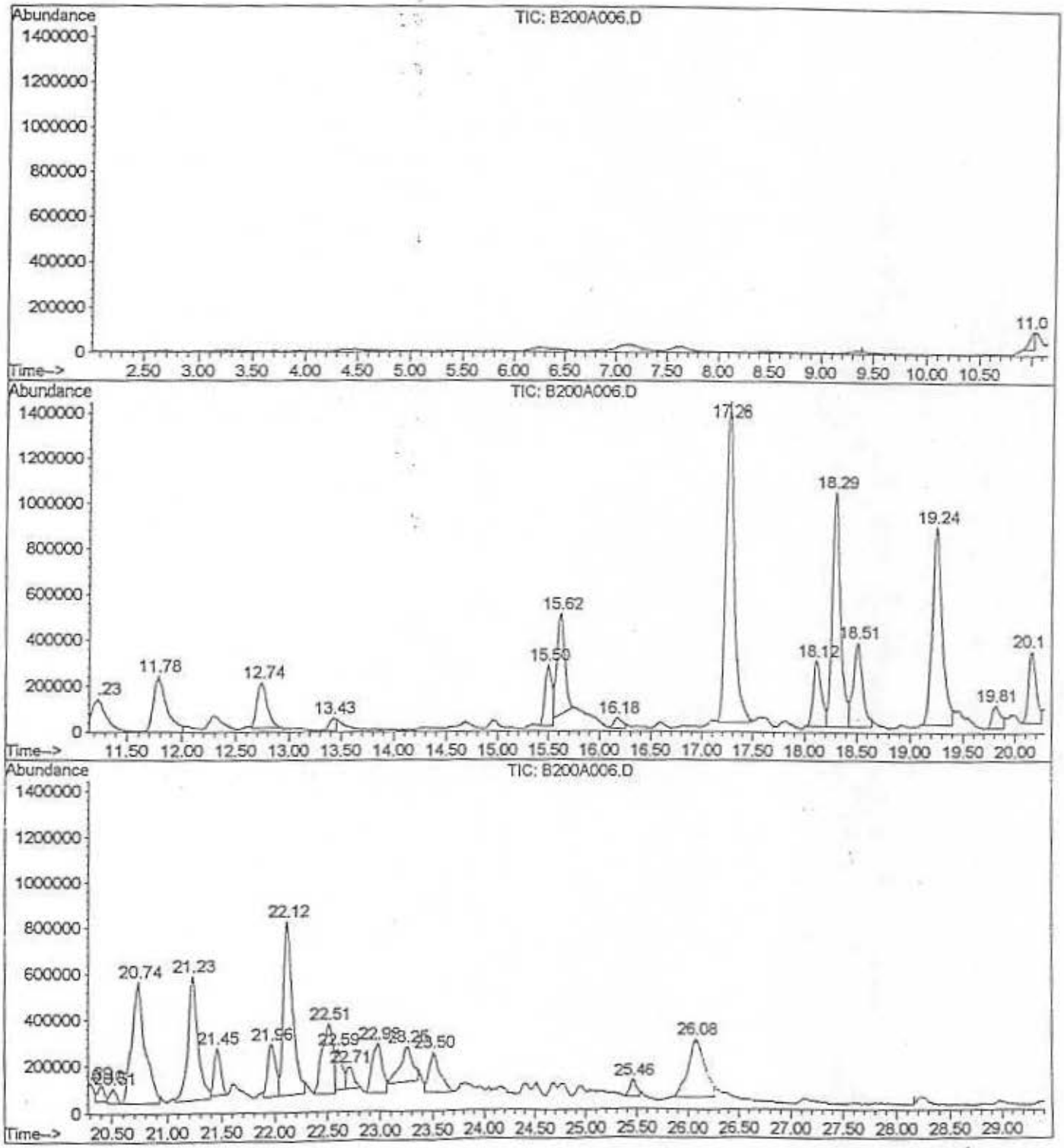
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	11.021	1722	1739	1741	rBV7	78249	396265	264058	3.19%	0.438%
2	11.233	1761	1780	1821	rVB5	137313	1674593	1173567	14.19%	1.945%
3	11.781	1860	1886	1930	rBV5	243411	2175226	2020473	24.43%	3.349%
4	12.744	2052	2072	2102	rVB5	198684	1549558	1301996	15.75%	2.158%
5	13.427	2183	2204	2209	rBV8	56682	308518	248285	3.00%	0.412%
6	15.497	2588	2604	2614	rBV	268758	1413635	1278492	15.46%	2.119%
7	15.621	2614	2628	2650	rVB5	431364	3518127	2383851	28.83%	3.951%
8	16.175	2720	2735	2751	rBV10	47406	377055	254721	3.08%	0.422%
9	17.257	2924	2944	2986	rBV2	1406763	8803624	8269140	100.00%	13.707%
10	18.116	3089	3110	3128	rBV2	290105	1808289	1603388	19.39%	2.658%
11	18.292	3128	3144	3170	rVV3	1031547	6325132	5676577	68.65%	9.410%
12	18.509	3170	3186	3212	rVV5	370135	3215667	2258841	27.32%	3.744%
13	19.244	3304	3328	3358	rBV5	872302	5997684	5573093	67.40%	9.238%
14	19.808	3422	3437	3454	rBV5	101451	727742	579860	7.01%	0.961%
15	20.160	3486	3505	3523	rBV7	318351	1979713	1619165	19.58%	2.684%
16	20.294	3523	3531	3541	rVV8	77166	636659	323217	3.91%	0.536%
17	20.403	3541	3552	3562	rVV9	63241	581650	272930	3.30%	0.452%
18	20.512	3562	3573	3586	rVB5	62828	547297	254236	3.07%	0.421%
19	20.740	3588	3617	3653	rBV6	525127	4809165	4274120	51.69%	7.085%
20	21.231	3680	3712	3744	rVV7	542238	4107685	3418301	41.34%	5.666%
21	21.454	3744	3755	3775	rVB6	203079	1397214	878306	10.62%	1.456%
22	21.961	3839	3853	3868	rVV9	228522	1667823	1210316	14.64%	2.006%
23	22.116	3868	3883	3916	rVV4	756789	5883995	4676033	56.55%	7.751%
24	22.515	3932	3960	3971	rBV8	305847	2732280	2162220	26.15%	3.584%
25	22.592	3971	3975	3991	rVV8	176511	1612397	799443	9.67%	1.325%
26	22.706	3991	3997	4016	rVB7	94539	1114739	447738	5.41%	0.742%
27	22.980	4028	4050	4066	rBV9	216042	1939057	1423871	17.22%	2.360%
28	23.255	4070	4103	4124	rVV9	151552	2437316	1261706	15.26%	2.091%
29	23.503	4136	4151	4187	rVB9	174925	2250748	1212801	14.67%	2.010%
30	25.459	4514	4529	4544	rBV9	74159	646410	344311	4.16%	0.571%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	rBV9	256412	3604370	2863060	34.62%	4.746%

38 076

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D
Operator : QCP
Acquired : 10 Jan 00 12:51 using AcqMethod 8260B
Instrument : GC/MS Ins
Sample Name: 200069-01 Q(RR)
Misc Info : 25uL[20uL(5g/10mL)/1mL]/50mL
Vial Number: 7
Quant File :8260B.RES (RTE Integrator)



B200A006.D 8260B.M Tue Jan 11 14:49:33 2000

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

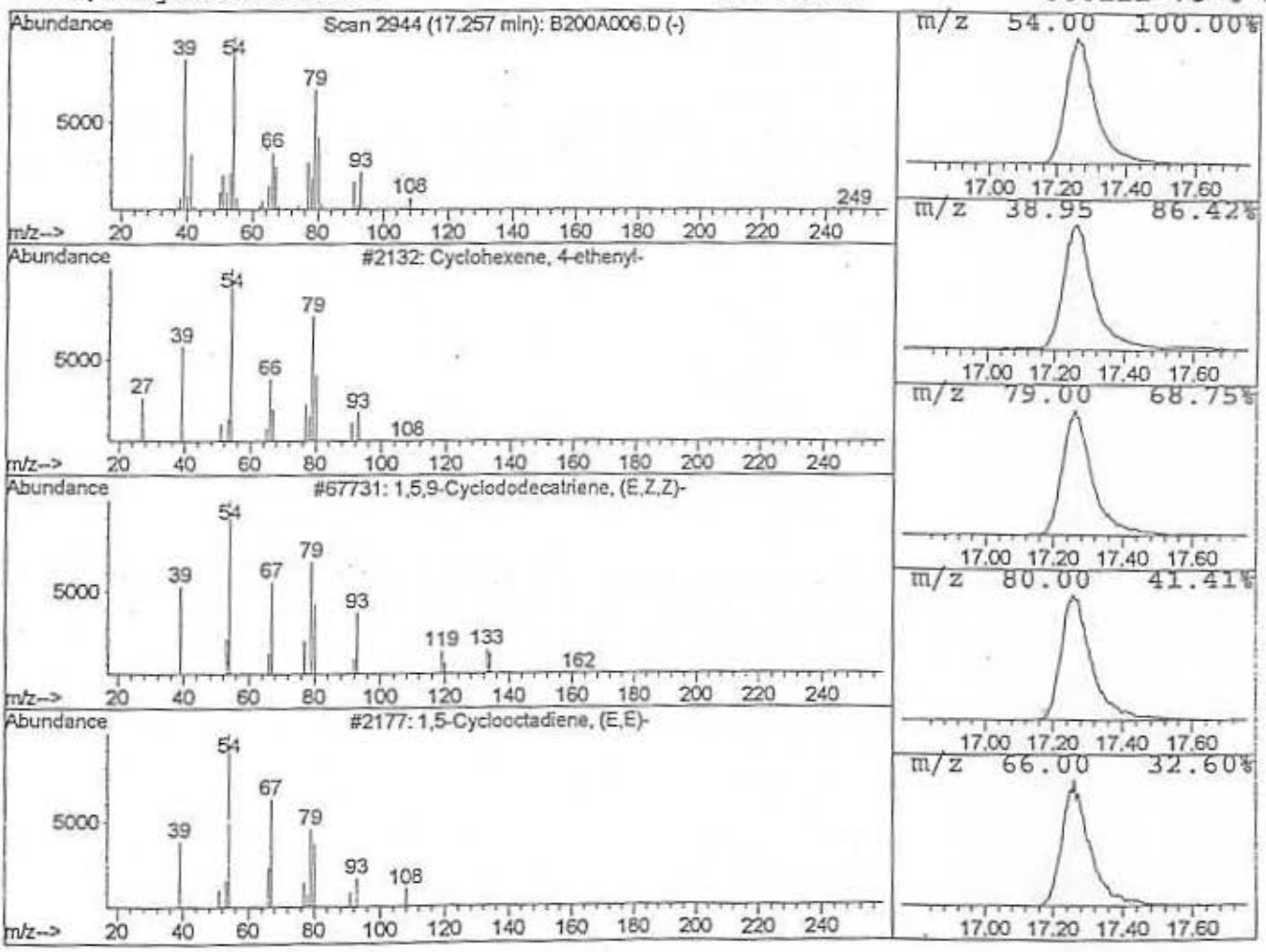
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 3 Cyclohexene, 4-ethenyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.26	257.87 ug/l	8269140	Chlorobenzene-d5	18.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 4-ethenyl-	108	C8H12	000100-40-3	96
2	1,5,9-Cyclododecatriene, (E,Z,Z)-	162	C12H18	002765-29-9	37
3	1,5-Cyclooctadiene, (E,E)-	108	C8H12	017612-50-9	50
4	1,5-Cyclooctadiene	108	C8H12	000111-78-4	80



38 078

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

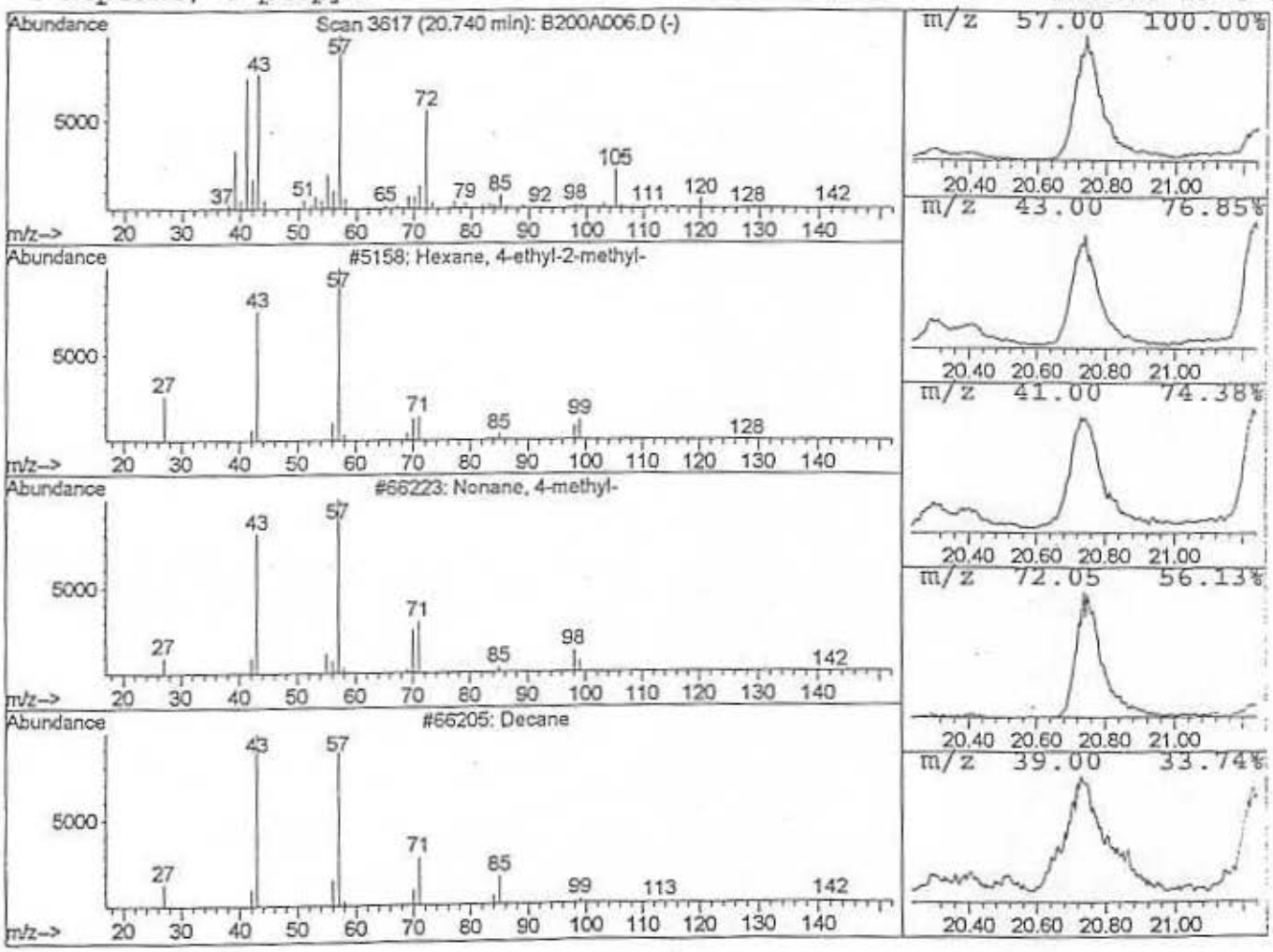
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 4 Hexane, 4-ethyl-2-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.74	45.70 ug/l	4274120	1,4-Dichlorobenzene-d4	22.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
✓1	Hexane, 4-ethyl-2-methyl-	128	C9H20	003074-75-7	25
2	Nonane, 4-methyl-	142	C10H22	017301-94-9	35
3	Decane	142	C10H22	000124-18-5	22
4	Heptane, 4-propyl-	142	C10H22	003178-29-8	27



38 079

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

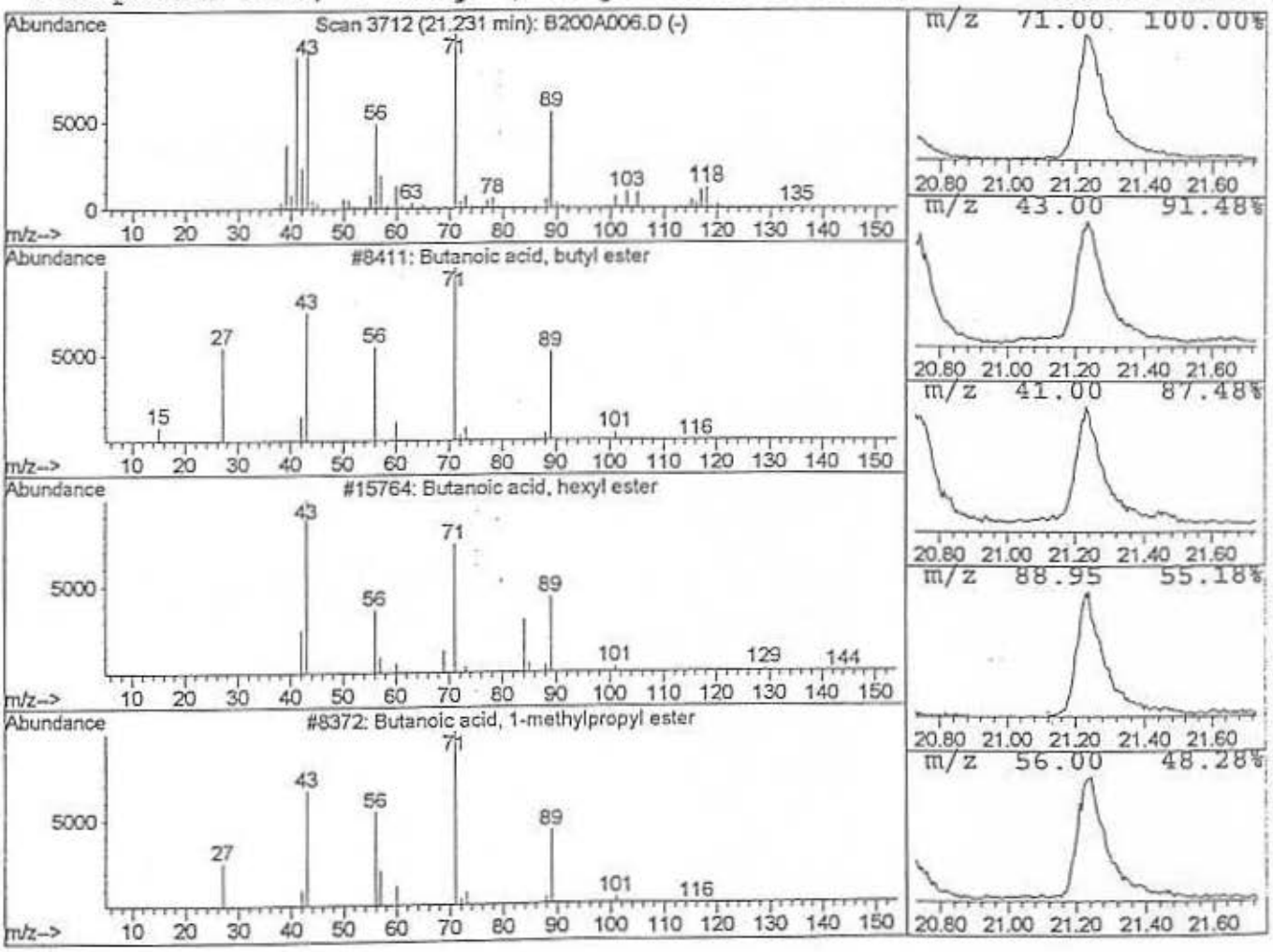
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 5 Butanoic acid, butyl ester Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.23	36.55 ug/l	3418300	1,4-Dichlorobenzene-d4	22.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid, butyl ester	144	C8H16O2	000109-21-7	72
2	Butanoic acid, hexyl ester	172	C10H20O2	002639-63-6	64
3	Butanoic acid, 1-methylpropyl ester	144	C8H16O2	000819-97-6	72
4	Propanoic acid, 2-methyl-, butyl es	144	C8H16O2	000097-87-0	45



38 080

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

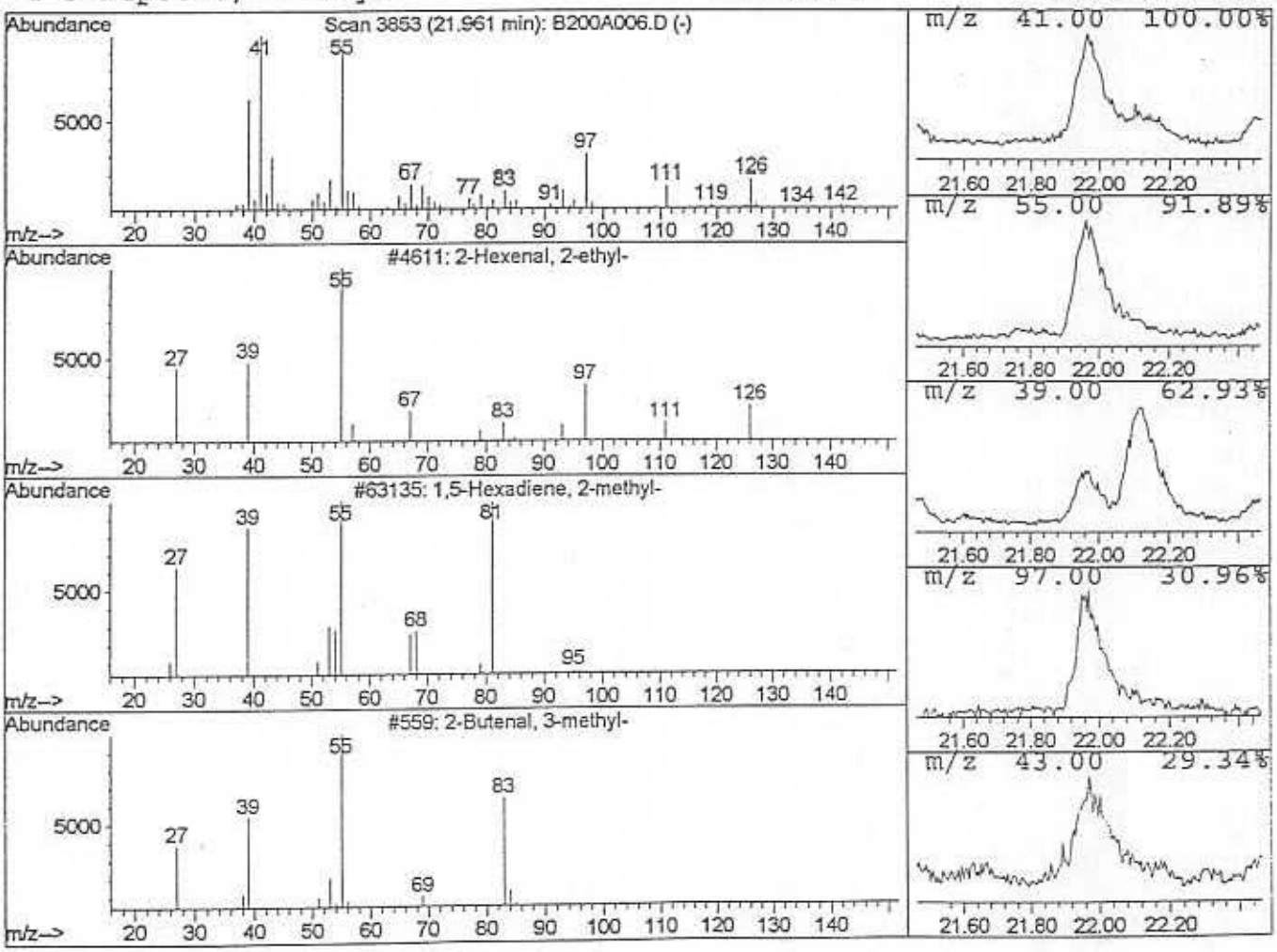
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 6 2-Hexenal, 2-ethyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.96	12.94 ug/l	1210320	1,4-Dichlorobenzene-d4	22.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Hexenal, 2-ethyl-	126	C8H14O	000645-62-5	95
2	1,5-Hexadiene, 2-methyl-	96	C7H12	004049-81-4	16
3	2-Butenal, 3-methyl-	84	C5H8O	000107-86-8	25
4	3-Heptene, 3-ethyl-	126	C9H18	074764-46-8	30



38 081

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

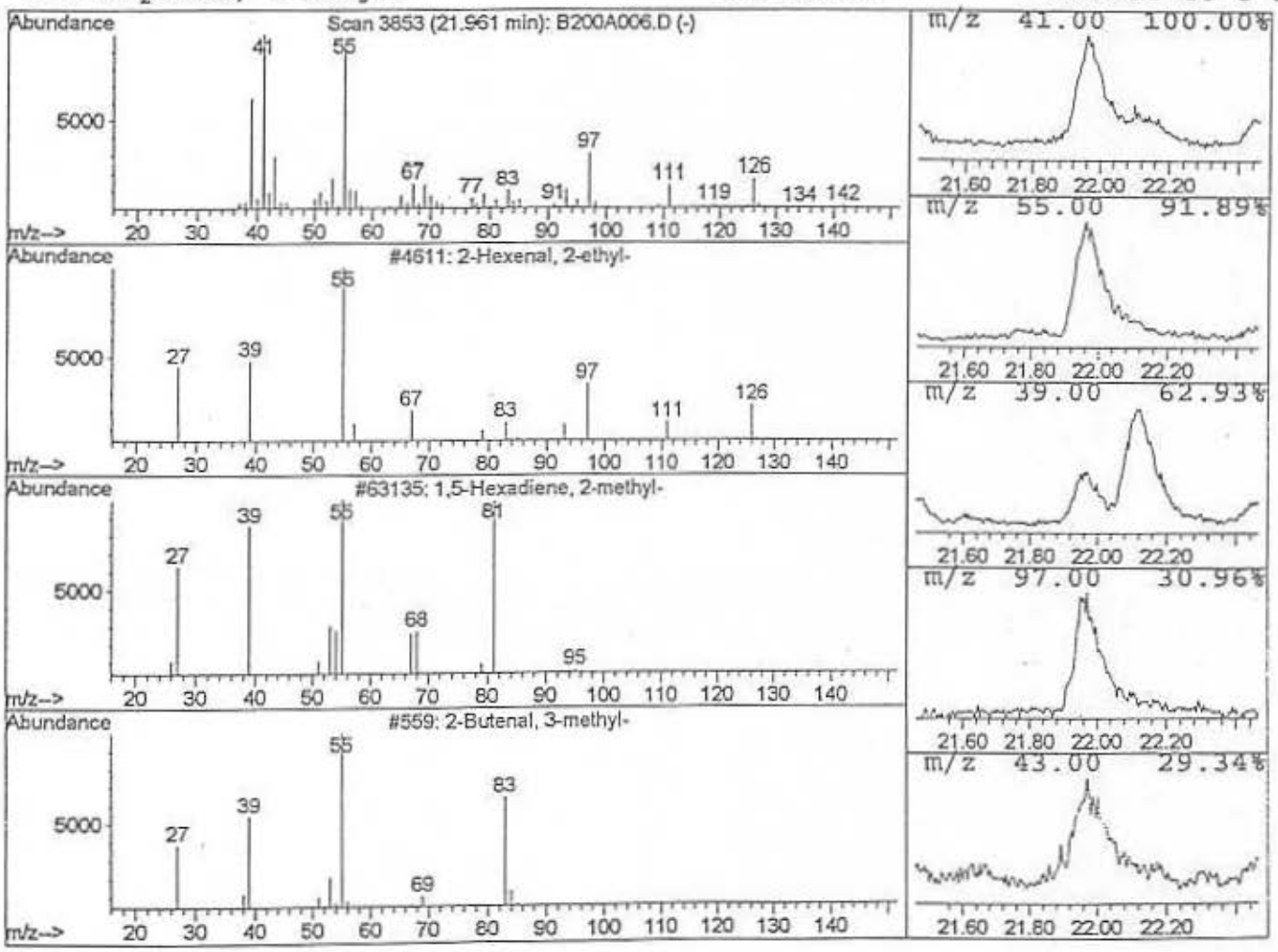
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 6 2-Hexenal, 2-ethyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.96	12.94 ug/l	1210320	1,4-Dichlorobenzene-d4	22.11

Hit# of 5	Tentative ID:	MW	MolForm	CAS#	Qual
1	2-Hexenal, 2-ethyl-	126	C8H14O	000645-62-5	95
2	1,5-Hexadiene, 2-methyl-	96	C7H12	004049-81-4	16
3	2-Butenal, 3-methyl-	84	C5H8O	000107-86-8	25
4	3-Heptene, 3-ethyl-	126	C9H18	074764-46-8	30



38 082

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

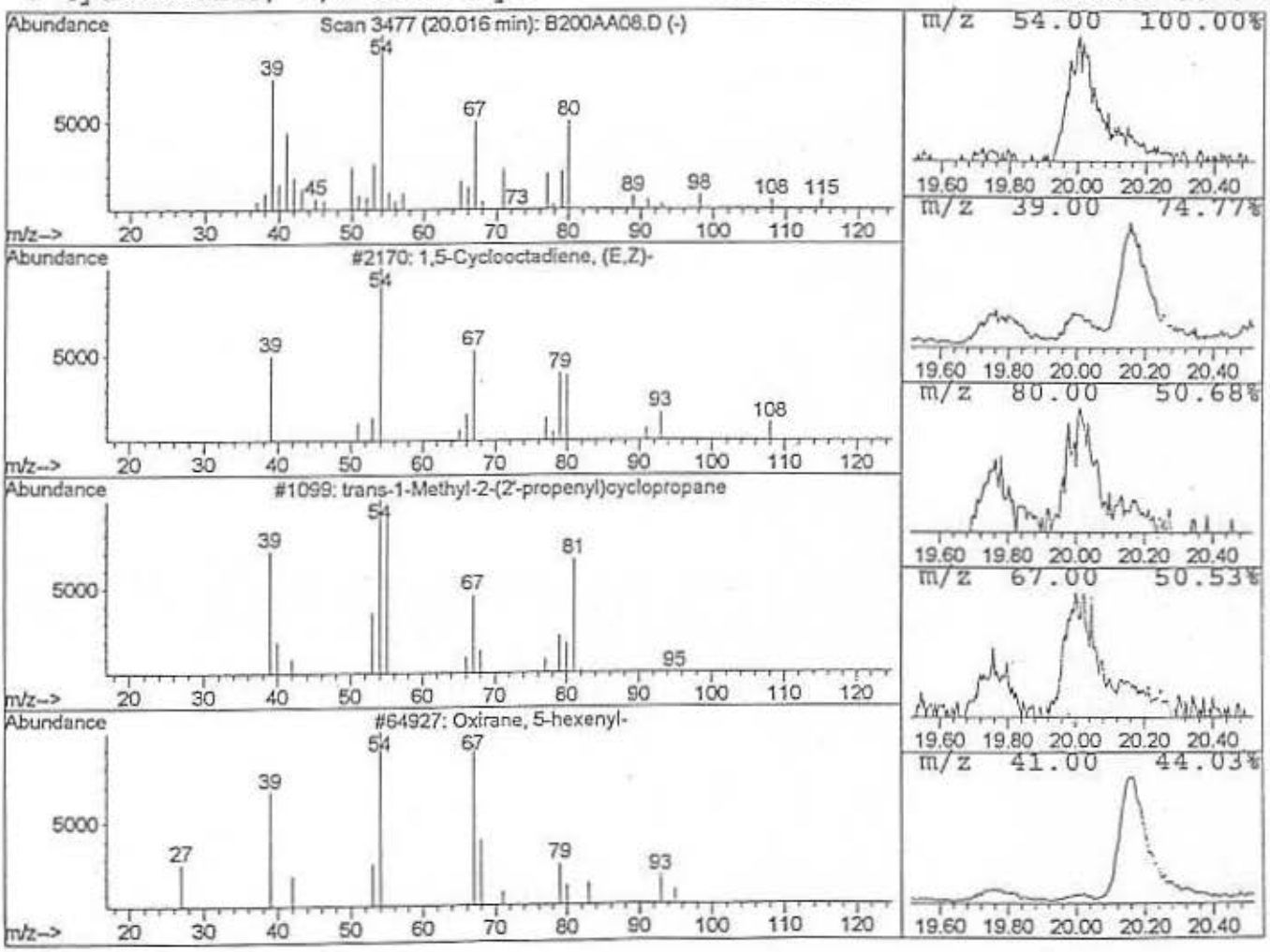
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 7 1,5-Cyclooctadiene, (E,Z)- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.02	14.30 ug/l	276376	Chlorobenzene-d5	18.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,5-Cyclooctadiene, (E,Z)-	108	C8H12	005259-71-2	25
2	trans-1-Methyl-2-(2'-propenyl)cyclo	96	C7H12	000000-00-0	56
3	Oxirane, 5-hexenyl-	126	C8H14O	019600-63-6	40
4	Cyclobutane, 1,2-diethenyl-	108	C8H12	002422-85-7	23



38 083

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

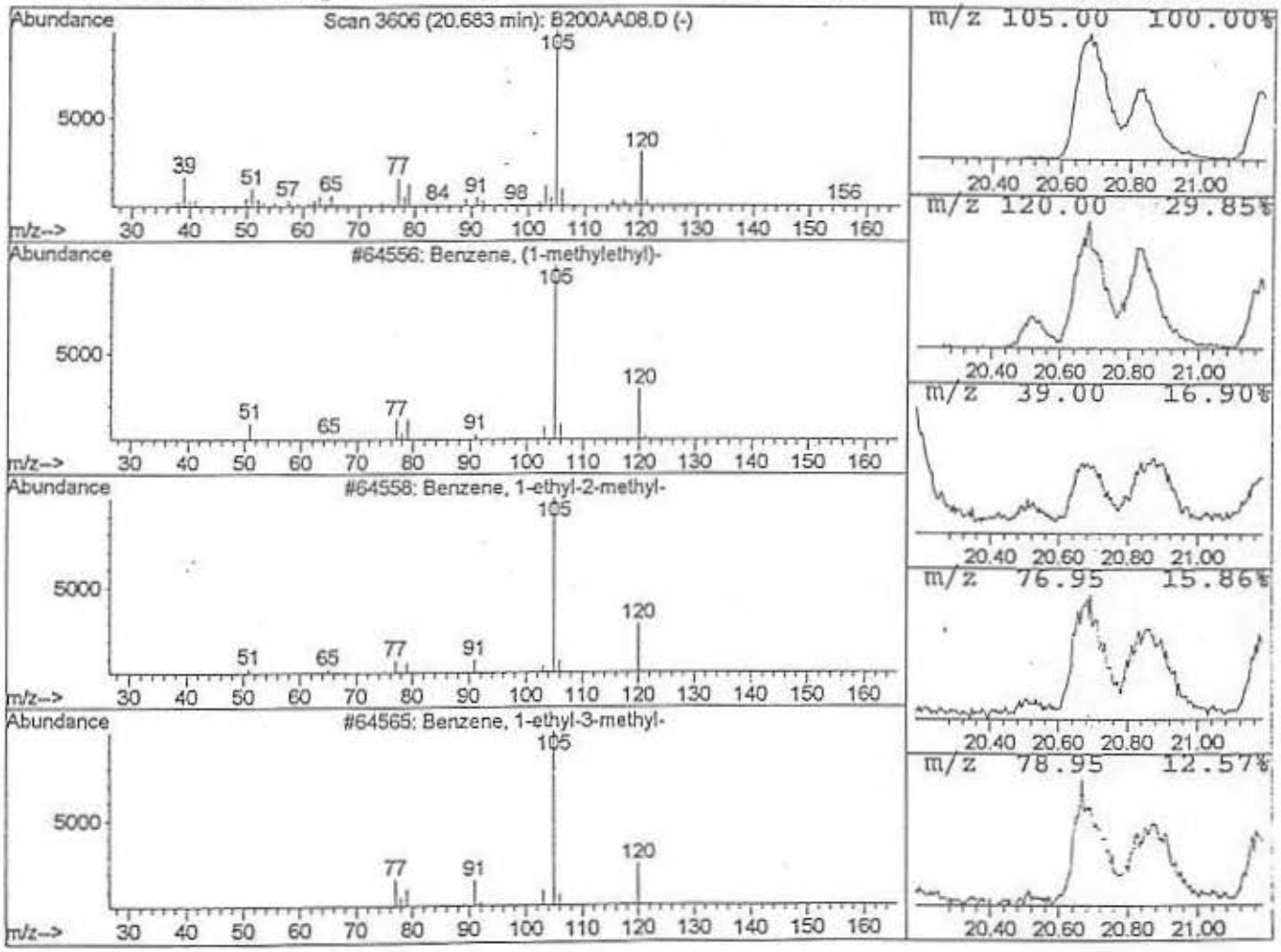
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 8 Benzene, (1-methylethyl)- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.68	12.57 ug/l	1783730	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	90
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	91
3	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	83
4	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	87



38 084

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

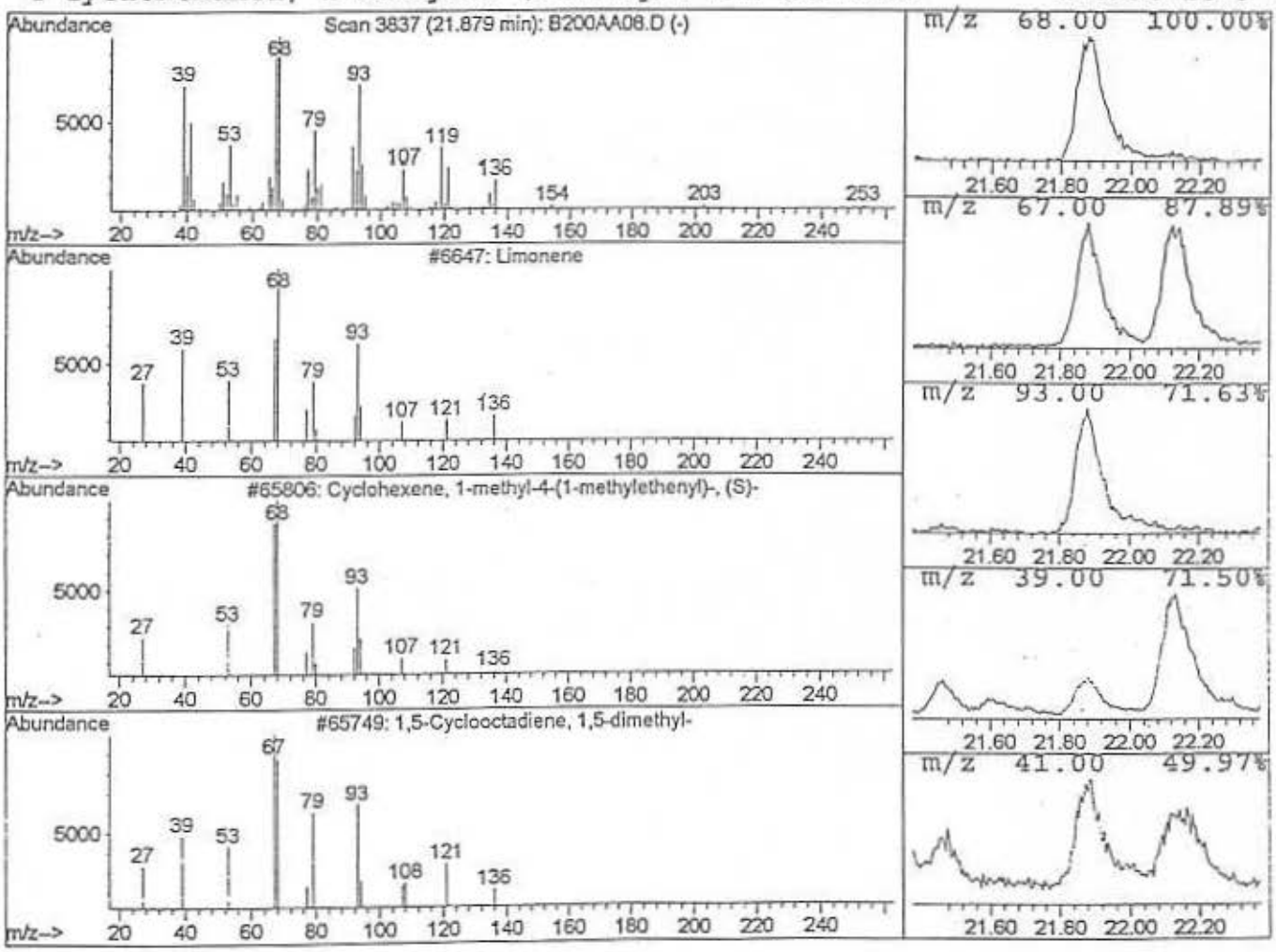
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 10 Limonene Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.88	12.47 ug/l	1768480	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID:	MW	MolForm	CAS#	Qual
1	Limonene	136	C10H16	000138-86-3	70
2	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	005989-54-8	86
3	1,5-Cyclooctadiene, 1,5-dimethyl-	136	C10H16	003760-14-3	58
4	Cyclohexanol, 1-methyl-4-(1-methyle	196	C12H20O2	010198-23-9	47



38 085

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

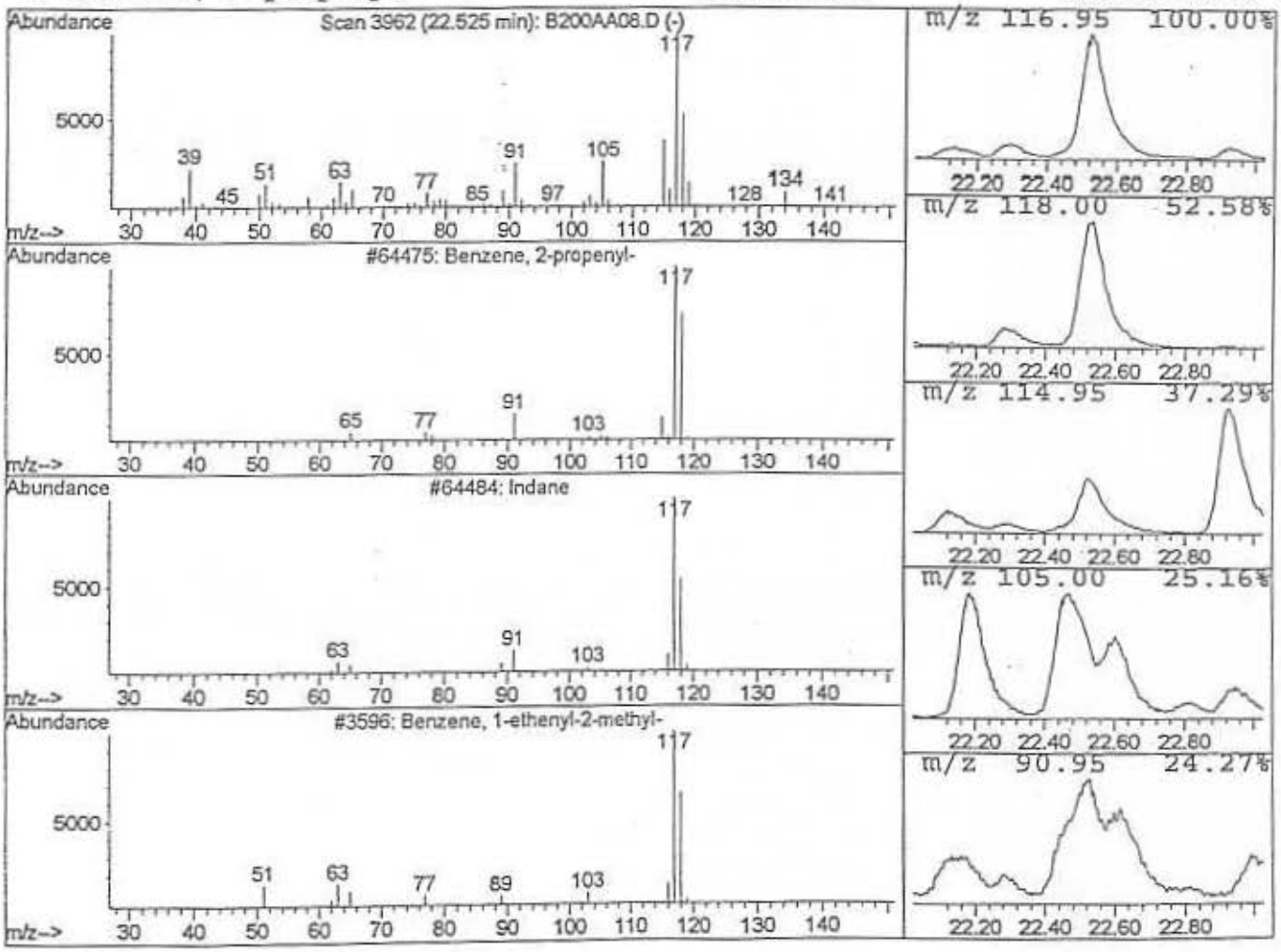
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 11 Benzene, 2-propenyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.53	39.97 ug/l	5670990	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-propenyl-	118	C9H10	000300-57-2	58
2	Indane	118	C9H10	000496-11-7	70
3	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	50
4	Benzene, 1-propenyl-	118	C9H10	000637-50-3	70



38 086

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

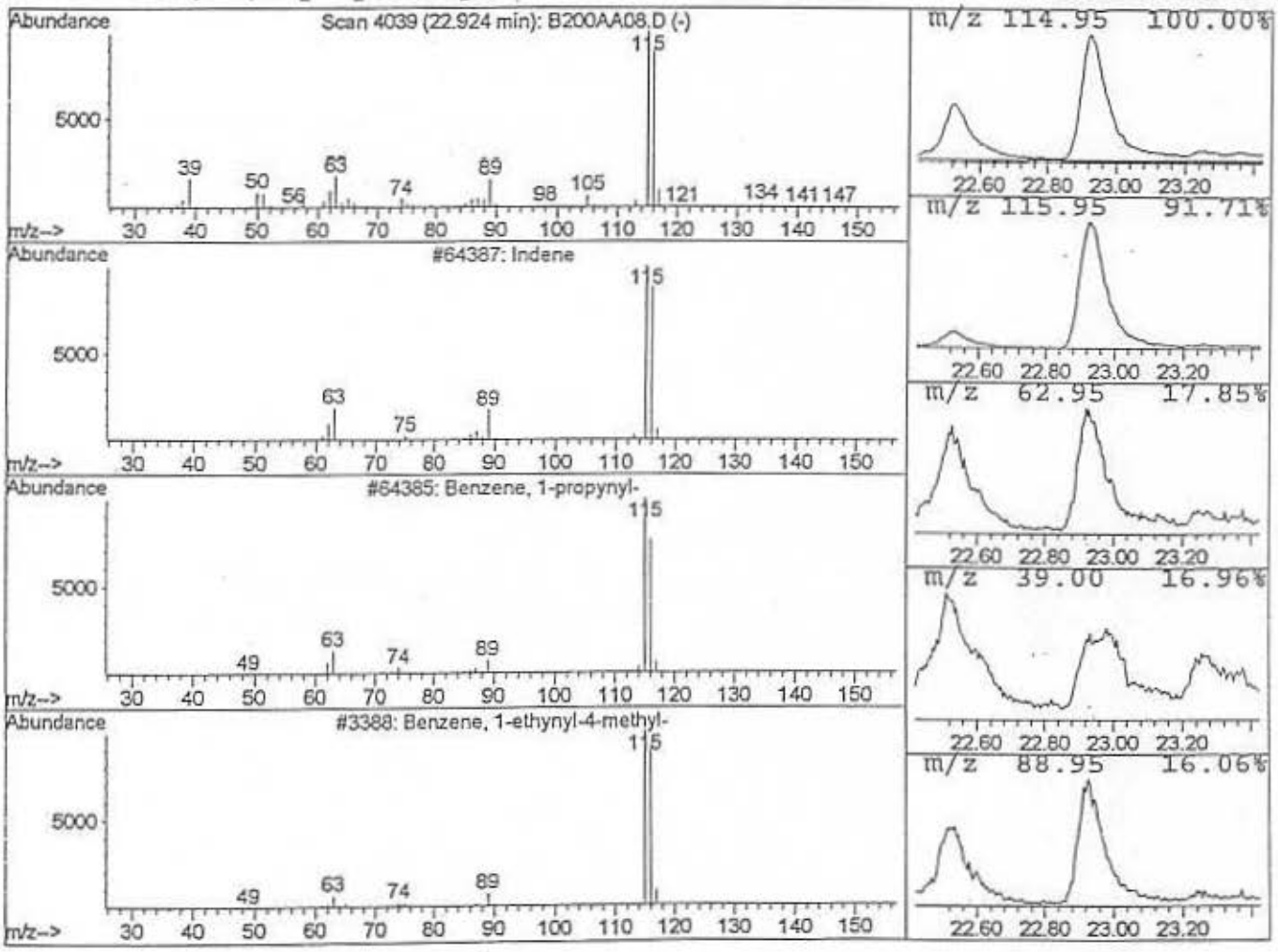
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 12 Indene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.92	30.58 ug/l	4337560	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indene	116	C9H8	000095-13-6	96
2	Benzene, 1-propynyl-	116	C9H8	000673-32-5	94
3	Benzene, 1-ethynyl-4-methyl-	116	C9H8	000766-97-2	64
4	Benzene, 1,2-propadienyl-	116	C9H8	002327-99-3	52



38 087

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

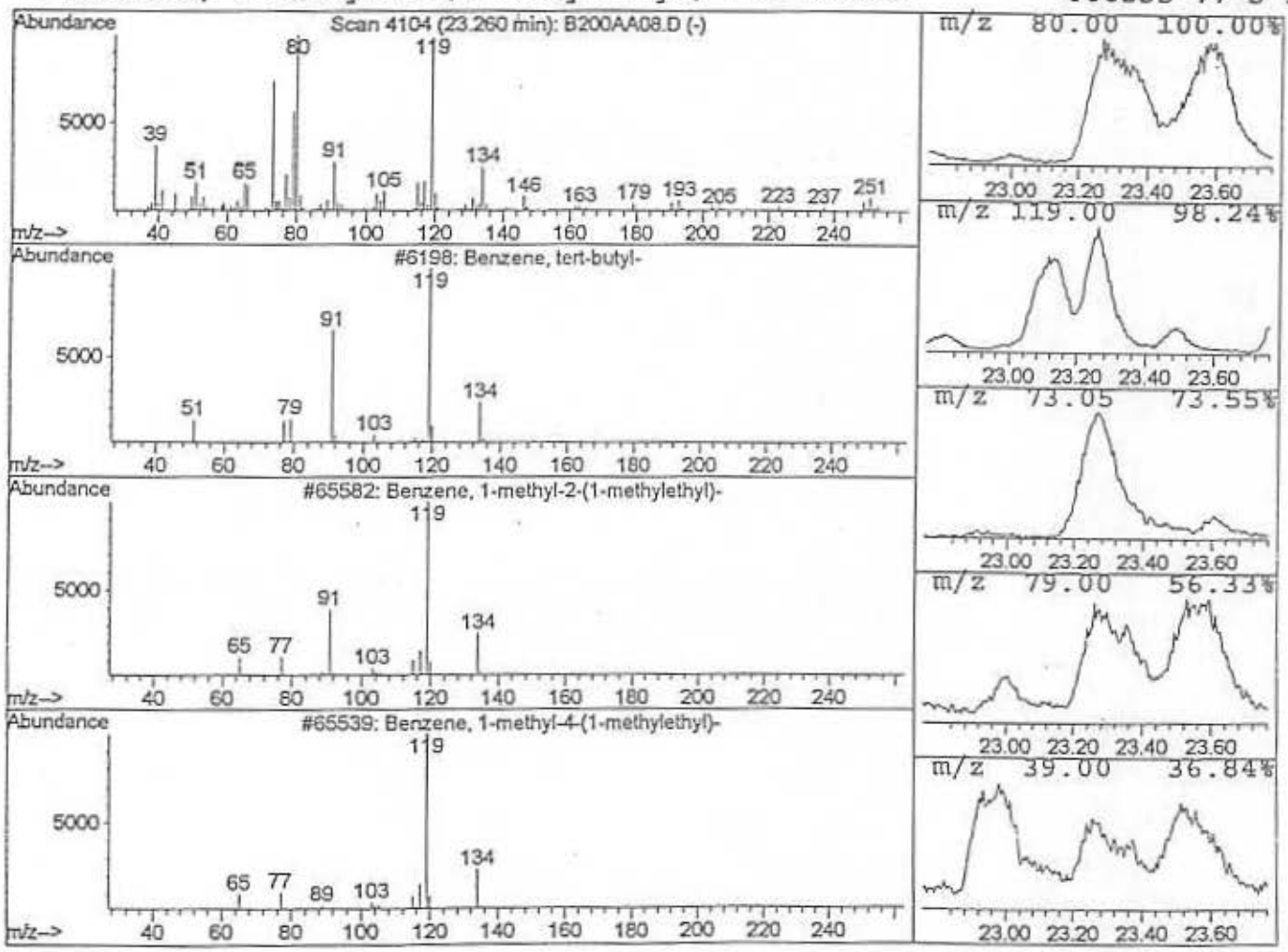
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 13 Benzene, tert-butyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.26	13.61 ug/l	1931250	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, tert-butyl-	134	C10H14	000098-06-6	11
2	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	25
3	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	25
4	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	25



38 088

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

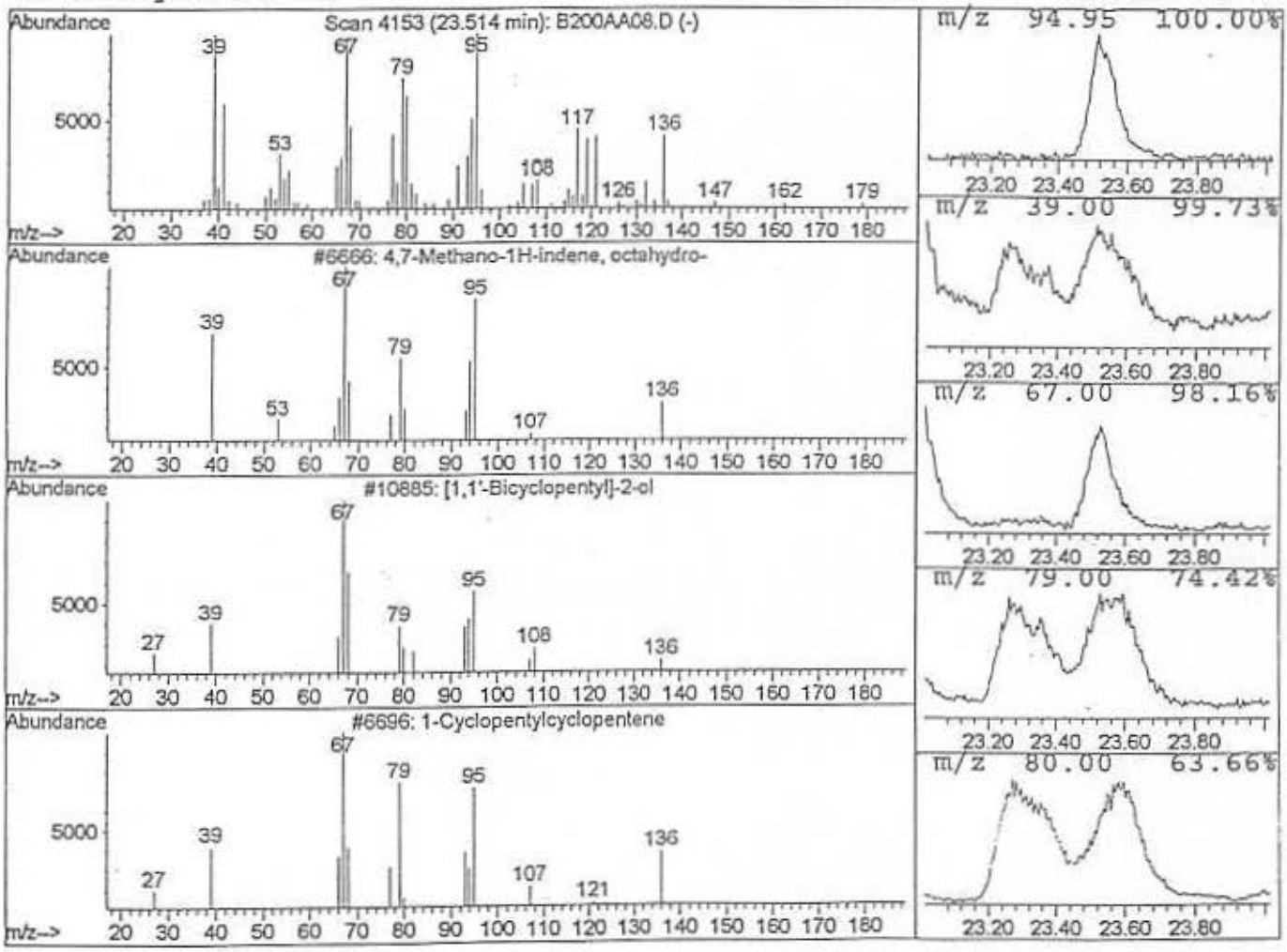
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 14 4,7-Methano-1H-indene, octahyd Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.51	9.55 ug/l	1354470	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4,7-Methano-1H-indene, octahydro-	136	C10H16	006004-38-2	56
2	[1,1'-Bicyclopentyl]-2-ol	154	C10H18O	004884-25-7	9
3	1-Cyclopentylcyclopentene	136	C10H16	004884-21-3	27
4	6-Nonynoic acid	154	C9H14O2	056630-31-0	38



38 089

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

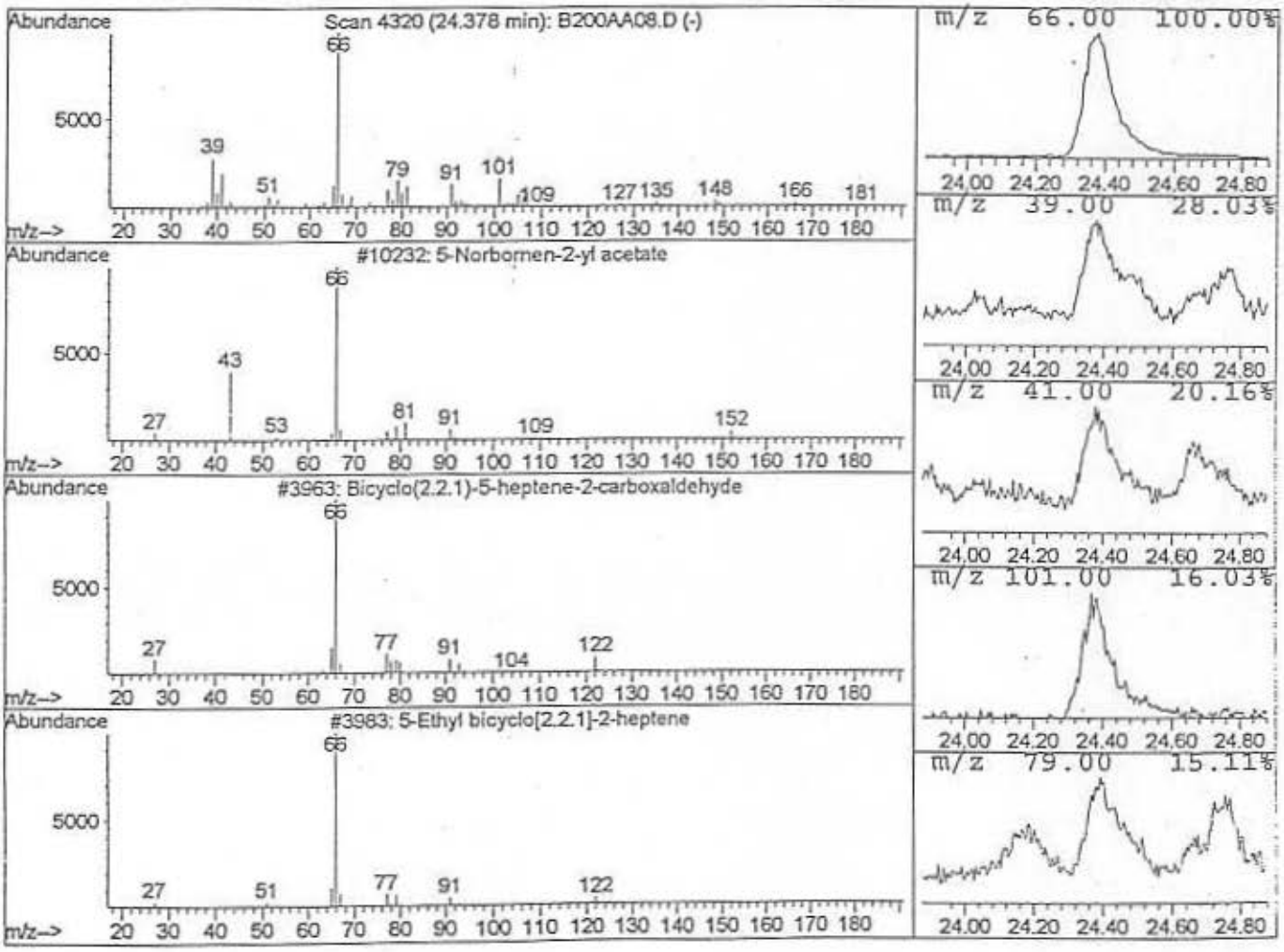
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 15 5-Norbornen-2-yl acetate Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.38	9.27 ug/l	1315130	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5-Norbornen-2-yl acetate	152	C9H12O2	006143-29-9	78
2	Bicyclo(2.2.1)-5-heptene-2-carboxal	122	C8H10O	005453-80-5	78
3	5-Ethyl bicyclo[2.2.1]-2-heptene	122	C9H14	015403-89-1	64
4	2-Norbornene	94	C7H10	000498-66-8	56



38 090

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

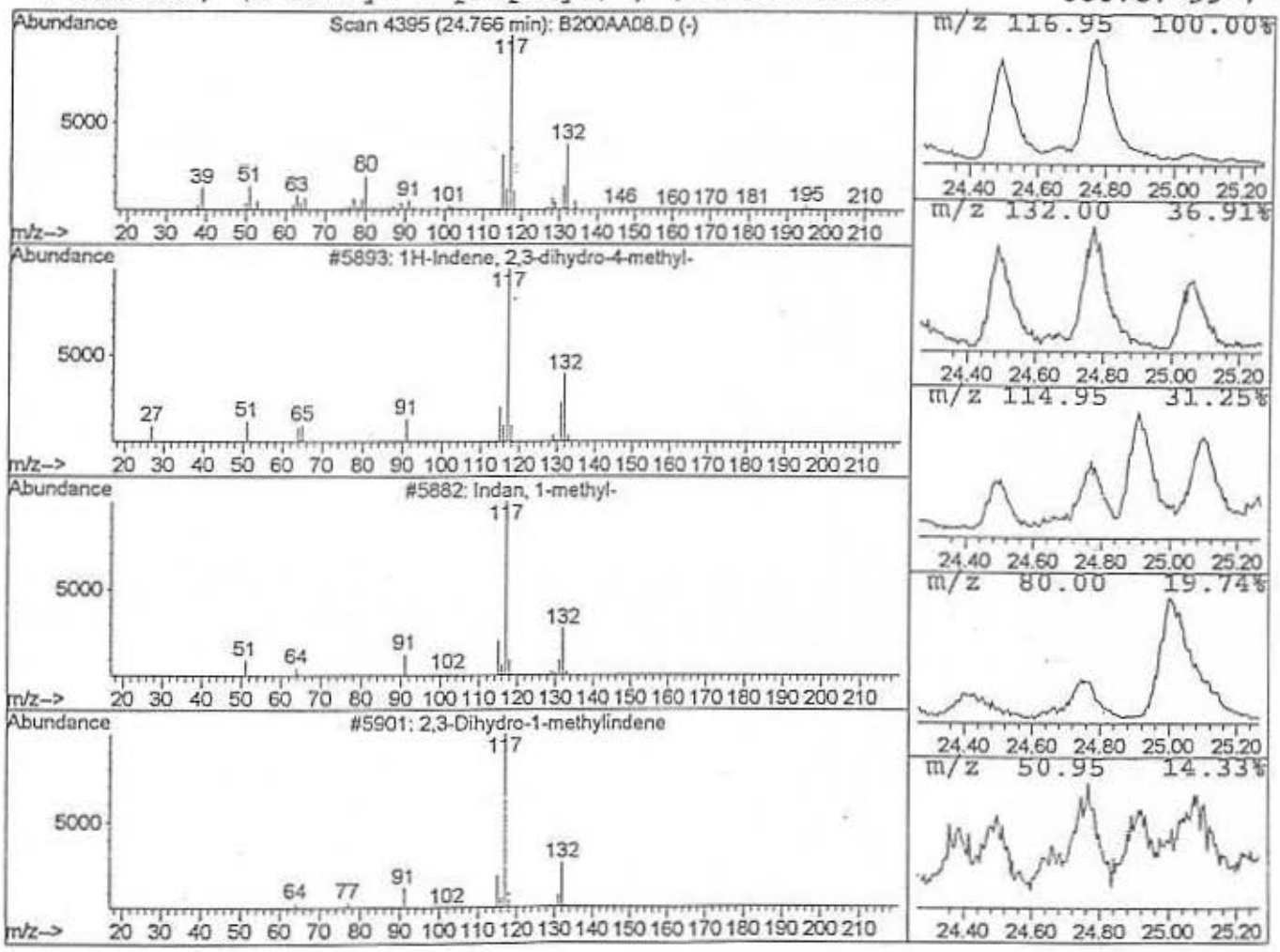
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 16 1H-Indene, 2,3-dihydro-4-methy Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.77	7.87 ug/l	1115880	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	53
2	Indan, 1-methyl-	132	C10H12	000767-58-8	80
3	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	68
4	Benzene, (1-methyl-1-propenyl)-, (Z	132	C10H12	000767-99-7	72



38 091

SEVERN TRENT LABORATORIES

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 01/12/2000

CUSTOMER: TNRCC

PROJECT: DAVID HARVEY

ATTN: Cecily Warren

Customer Sample ID: 002789-02
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200069-2
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	cis-1,2-Dichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	trans-1,2-Dichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	cis-1,3-Dichloropropene, Solid	ND	10	ug/Kg	01/11/00	qcp
	trans-1,3-Dichloropropene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,3-Dichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	2,2-Dichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1-Dichloropropene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,4-Dioxane, Solid	ND	120	ug/Kg	01/11/00	qcp
	Ethyl Acetate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Ethylbenzene, Solid	500	10	ug/Kg	01/11/00	qcp
	Ethyl Ether (Diethyl Ether), Solid	ND	10	ug/Kg	01/11/00	qcp
	Ethyl Methacrylate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Hexachlorobutadiene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Hexane, Solid	ND	10	ug/Kg	01/11/00	qcp
	2-Hexanone, Solid	ND	10	ug/Kg	01/11/00	qcp
	Iodomethane (Methyl Iodide), Solid	ND	10	ug/Kg	01/11/00	qcp
	Isobutyl Alcohol, Solid	ND	2500	ug/Kg	01/11/00	qcp
	Isopropyl Alcohol (2-Propanol), Solid	ND	250	ug/Kg	01/11/00	qcp
	Isopropylbenzene (Cumene), Solid	60	10	ug/Kg	01/11/00	qcp
	p-Isopropyltoluene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Methylacrylonitrile, Solid	ND	25	ug/Kg	01/11/00	qcp
	Methylene Chloride (Dichloromethane), Solid	ND	120	ug/Kg	01/11/00	qcp
	4-Methyl-2-Pentanone (MIBK), Solid	ND	10	ug/Kg	01/11/00	qcp
	Methyl Methacrylate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Naphthalene, Solid	1200	10	ug/Kg	01/11/00	qcp
	2-Nitropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Propionitrile, Solid	ND	120	ug/Kg	01/11/00	qcp
	n-Propylbenzene, Solid	50	10	ug/Kg	01/11/00	qcp
	Styrene, Solid	670	10	ug/Kg	01/11/00	qcp
	1,1,1,2-Tetrachloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,2,2-Tetrachloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Tetrachloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Toluene, Solid	90	10	ug/Kg	01/11/00	qcp
	1,2,3-Trichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2,4-Trichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,1-Trichloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,2-Trichloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Trichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Trichlorofluoromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,2-Trichloro-1,2,2-Trifluoroethane, Solid	ND	120	ug/Kg	01/11/00	qcp
	1,2,3-Trichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2,4-Trimethylbenzene, Solid	260	10	ug/Kg	01/11/00	qcp
	1,3,5-Trimethylbenzene, Solid	120	10	ug/Kg	01/11/00	qcp
	Vinyl Acetate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Vinyl Chloride (Chloroethene), Solid	ND	10	ug/Kg	01/11/00	qcp
	o-Xylene, Solid	200	10	ug/Kg	01/11/00	qcp
	m&p-Xylenes, Solid	200	10	ug/Kg	01/11/00	qcp

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 01/12/2000

CUSTOMER: TNRCC | PROJECT: DAVID HARVEY | ATTN: Cecily Warren

Customer Sample ID: 002789-02
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200069-2
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8260B	Volatile Organics, TCLP					
	Benzene	ND	25	ug/L	01/11/00	qcp
	Carbon Tetrachloride	ND	25	ug/L	01/11/00	qcp
	Chlorobenzene	ND	25	ug/L	01/11/00	qcp
	Chloroform	ND	25	ug/L	01/11/00	qcp
	1,2-Dichloroethane (EDC)	ND	25	ug/L	01/11/00	qcp
	1,1-Dichloroethene	ND	25	ug/L	01/11/00	qcp
	Methyl Ethyl Ketone (2-Butanone)	ND	250	ug/L	01/11/00	qcp
	Tetrachloroethene	ND	25	ug/L	01/11/00	qcp
	Trichloroethene	ND	25	ug/L	01/11/00	qcp
	Vinyl Chloride (Chloroethene)	ND	25	ug/L	01/11/00	qcp
SW-846 1311	TCLP Physical Characterization					
	% Solids	100	0.5	%	01/10/00	rh
	% Liquid	<0.5	0.5	%	01/10/00	rh
	% Aqueous - Extract	100	0.5	%	01/10/00	rh
	% Non-aqueous - Extract	<0.5	0.5	%	01/10/00	rh
SW-846 1311	Toxic Characteristic Leaching Procedure					
	Zero Head Space (ZHE) Extraction	Complete			01/10/00	rh

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Job Number	200069	Customer Name	TNRCC
COC Number	2789	Customer Description	002789-02

SAMPLE ANALYSIS SUMMARY

Tentatively Identified Compounds

INDIVIDUAL CONSTITUENTS	CAS NO.	METHOD	ESTIMATED CONCENTRATION	UNITS
Cyclohexene, 4-ethenyl	100-40-3	SW-846 8260B	420	ug/Kg
$C_8H_{16}O_2$		SW-846 8260B	150	ug/Kg
$C_7H_{14}O$		SW-846 8260B	87	ug/Kg
$C_{10}H_{16}$		SW-846 8260B	70	ug/Kg
C_8H_{12}		SW-846 8260B	36	ug/Kg
C_9H_{12}		SW-846 8260B	31	ug/Kg
Limonene	138-86-3	SW-846 8260B	31	ug/Kg
Indane	496-11-7	SW-846 8260B	100	ug/Kg
Indene	95-13-6	SW-846 8260B	76	ug/Kg
$C_{10}H_{14}$		SW-846 8260B	34	ug/Kg
$C_{10}H_{12}$		SW-846 8260B	20	ug/Kg
$C_{12}H_{18}$		SW-846 8260B	45	ug/Kg
$C_{13}H_{14}$		SW-846 8260B	46	ug/Kg
Unknown Hydrocarbons		SW-846 8260B	156	ug/Kg

awk - 1/12/00

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QUALITY CONTROL RESULTS

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC

PROJECT: Walk in Projects

ATTN: Cecily Warren

Test Method.....: SW-846 1010
Method Description.: Ignitability (Pensky-Martens Closed-Cup)
Parameter.....: Ignitability (Flashpoint)

Batch.....: 42637
Units.....: degrees F

Analyst...: tim
Test Code.: IGNPMC

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date	Time
LCS		C80724A	79.5		81		98.1	%	90-110	01/10/2000	0915
MD	200069-1		<70.0			<70.0	0.0	R	20	01/10/2000	1015

38 095

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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SEVERN TRENT LABORATORIES

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QUALITY CONTROL RESULTS

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC	PROJECT: Walk-in Projects	ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: SW-846 8260B
Method Description.: Volatile Organics (Client List)
Batch.....: 42690
Units.....: ug/L
Analyst...: qcp

CCV	Continuing Calibration Verification	V912038			01/10/2000	1001

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	101.94		100.000000		101.9	%	80-120
Bromoform	113.88		100.000000		113.9	%	80-120
Chlorobenzene	108.11		100.000000		108.1	%	80-120
Chloroform	100.36		100.000000		100.4	%	80-120
Chloromethane	80.01		100.000000		80.0	%	80-120
1,1-Dichloroethane	100.75		100.000000		100.8	%	80-120
1,1-Dichloroethene	90.55		100.000000		90.5	%	80-120
1,2-Dichloropropane	95.15		100.000000		95.2	%	80-120
Ethylbenzene	104.18		100.000000		104.2	%	80-120
1,1,2,2-Tetrachloroethane	115.44		100.000000		115.4	%	80-120
Toluene	96.15		100.000000		96.2	%	80-120
Trichloroethene	94.12		100.000000		94.1	%	80-120
Vinyl Chloride (Chloroethene)	92.16		100.000000		92.2	%	80-120

LCS	Laboratory Control Sample	V91211A			01/10/2000	1036

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	47.96		50.000000		95.9	%	80-120
Chlorobenzene	49.68		50.000000		99.4	%	80-120
1,1-Dichloroethene	40.22		50.000000		80.4	%	80-120
Toluene	44.95		50.000000		89.9	%	80-120
Trichloroethene	46.03		50.000000		92.1	%	80-120

MB	Method Blank	01102000			01/10/2000	1110

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Acrolein	ND						
Acrylonitrile	ND						
Acetone	ND						
Acetonitrile	ND						
Allyl Chloride (3-Chloro-1-Propene)	ND						
Benzene	ND						
Benzyl Chloride	ND						
Bromobenzene	ND						
Bromochloromethane	ND						
Bromodichloromethane	ND						
Bromoform	ND						
Bromomethane	ND						
1,3-Butadiene	ND						
n-Butyl Alcohol (1-Butanol)	ND						
tert-Butyl Methyl Ether (MTBE)	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
n-Butylbenzene	ND						
sec-Butylbenzene	ND						
tert-Butylbenzene	ND						
Carbon Disulfide	ND						

38 096

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	1110

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroethane	ND						
2-Chloroethylvinyl Ether	ND						
Chloroform	ND						
1-Chlorohexane	ND						
Chloromethane	ND						
2-Chloro-1,3-Butadiene (Chloroprene)	ND						
2-Chlorotoluene	ND						
4-Chlorotoluene	ND						
Cyclohexanone	ND						
Cyclohexane	ND						
Dibromochloromethane	ND						
1,2-Dibromoethane (EDB)	ND						
1,2-Dibromo-3-Chloropropane	ND						
Dibromomethane	ND						
1,2-Dichlorobenzene	ND						
1,3-Dichlorobenzene	ND						
1,4-Dichlorobenzene	ND						
trans-1,4-Dichloro-2-Butene	ND						
cis-1,4-Dichloro-2-Butene	ND						
Dichlorodifluoromethane	ND						
1,1-Dichloroethane	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
cis-1,2-Dichloroethene	ND						
trans-1,2-Dichloroethene	ND						
1,2-Dichloropropane	ND						
cis-1,3-Dichloropropene	ND						
trans-1,3-Dichloropropene	ND						
1,3-Dichloropropane	ND						
2,2-Dichloropropane	ND						
1,1-Dichloropropene	ND						
1,4-Dioxane	ND						
Ethyl Acetate	ND						
Ethylbenzene	ND						
Ethyl Ether (Diethyl Ether)	ND						
Ethyl Methacrylate	ND						
Hexachlorobutadiene	ND						
Hexane	ND						
2-Hexanone	ND						
Iodomethane (Methyl Iodide)	ND						
Isobutyl Alcohol	ND						
Isopropyl Alcohol (2-Propanol)	ND						
Isopropylbenzene (Cumene)	ND						
p-Isopropyltoluene	ND						
Methylacrylonitrile	ND						
Methylene Chloride (Dichloromethane)	ND						
4-Methyl-2-Pentanone (MIBK)	ND						
Methyl Methacrylate	ND						
1-Methylpyrrolidine (NMP)	ND						
Naphthalene	ND						
2-Nitropropane	ND						
Propionitrile	ND						

38 097

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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CUSTOMER: TNRCC | PROJECT: Walk In Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	1110

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
n-Propylbenzene	ND						
Styrene	ND						
1,1,1,2-Tetrachloroethane	ND						
1,1,2,2-Tetrachloroethane	ND						
Tetrachloroethene	ND						
Toluene	ND						
1,2,3-Trichlorobenzene	ND						
1,2,4-Trichlorobenzene	ND						
1,1,1-Trichloroethane	ND						
1,1,2-Trichloroethane	ND						
Trichloroethene	ND						
Trichlorofluoromethane	ND						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND						
1,2,3-Trichloropropane	ND						
1,2,4-Trimethylbenzene	ND						
1,3,5-Trimethylbenzene	ND						
Vinyl Acetate	ND						
Vinyl Chloride (Chloroethene)	ND						
Xylenes (total)	ND						
o-Xylene	ND						
m&p-Xylenes	ND						

MS	Matrix Spike	V91211A	200053-1	500	01/10/2000	1507

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	49.71		50.000000	ND	99.4	%	80-120
Chlorobenzene	54.10		50.000000	ND	108.2	%	80-120
1,1-Dichloroethene	38.17		50.000000	ND	76.3	%	80-120
Toluene	51.18		50.000000	ND	102.4	%	80-120
Trichloroethene	48.91		50.000000	ND	97.8	%	80-120

MSD	Matrix Spike Duplicate	V91211A	200053-1	500	01/10/2000	1541

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	47.71	49.71	50.000000	ND	95.4	%	80-120
					4.1	R	21
Chlorobenzene	51.96	54.10	50.000000	ND	103.9	%	80-120
					4.0	R	21
1,1-Dichloroethene	34.62	38.17	50.000000	ND	69.2	%	80-120
					9.8	R	22
Toluene	47.83	51.18	50.000000	ND	95.7	%	80-120
					6.8	R	21
Trichloroethene	49.25	48.91	50.000000	ND	98.5	%	80-120
					0.7	R	24

38 098

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MS	Matrix Spike	V91110A	200065-1	0.98	01/10/2000	1806

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	50.72		50.000000	ND	101.4	%	80-120
Chlorobenzene	56.47		50.000000	ND	112.9	%	80-120
1,1-Dichloroethene	48.88		50.000000	ND	97.8	%	80-120
Toluene	55.08		50.000000	ND	110.2	%	80-120
Trichloroethene	57.24		50.000000	ND	114.5	%	80-120

MSD	Matrix Spike Duplicate	V91110A	200065-1	0.99	01/10/2000	1844

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	47.43	50.72	50.000000	ND	94.9	%	80-120
					6.7	R	21
Chlorobenzene	50.83	56.47	50.000000	ND	101.7	%	80-120
					10.5	R	21
1,1-Dichloroethene	47.72	48.88	50.000000	ND	95.4	%	80-120
					2.4	R	22
Toluene	52.17	55.08	50.000000	ND	104.3	%	80-120
					5.4	R	21
Trichloroethene	52.98	57.24	50.000000	ND	106.0	%	80-120
					7.7	R	24

CCV	Continuing Calibration Verification	V912038			01/10/2000	2153

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	91.81		100.000000		91.8	%	80-120
Bromoform	119.62		100.000000		119.6	%	80-120
Chlorobenzene	112.46		100.000000		112.5	%	80-120
Chloroform	99.40		100.000000		99.4	%	80-120
Chloromethane	80.60		100.000000		80.6	%	80-120
1,1-Dichloroethane	97.76		100.000000		97.8	%	80-120
1,1-Dichloroethene	85.55		100.000000		85.5	%	80-120
1,2-Dichloropropane	102.04		100.000000		102.0	%	80-120
Ethylbenzene	110.89		100.000000		110.9	%	80-120
1,1,2,2-Tetrachloroethane	108.00		100.000000		108.0	%	80-120
Toluene	116.31		100.000000		116.3	%	80-120
Trichloroethene	109.84		100.000000		109.8	%	80-120
Vinyl Chloride (Chloroethene)	84.56		100.000000		84.6	%	80-120

LCS	Laboratory Control Sample	V91211A			01/10/2000	2231

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	49.31		50.000000		98.6	%	80-120
Chlorobenzene	49.17		50.000000		98.3	%	80-120
1,1-Dichloroethene	40.48		50.000000		81.0	%	80-120
Toluene	49.96		50.000000		99.9	%	80-120
Trichloroethene	47.84		50.000000		95.7	%	80-120

38 099

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	2309

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Acrolein	ND						
Acrylonitrile	ND						
Acetone	ND						
Acetonitrile	ND						
Allyl Chloride (3-Chloro-1-Propene)	ND						
Benzene	ND						
Benzyl Chloride	ND						
Bromobenzene	ND						
Bromochloromethane	ND						
Bromodichloromethane	ND						
Bromoform	ND						
Bromomethane	ND						
1,3-Butadiene	ND						
n-Butyl Alcohol (1-Butanol)	ND						
tert-Butyl Methyl Ether (MTBE)	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
n-Butylbenzene	ND						
sec-Butylbenzene	ND						
tert-Butylbenzene	ND						
Carbon Disulfide	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroethane	ND						
2-Chloroethylvinyl Ether	ND						
Chloroform	ND						
1-Chlorohexane	ND						
Chloromethane	ND						
2-Chloro-1,3-Butadiene (Chloroprene)	ND						
2-Chlorotoluene	ND						
4-Chlorotoluene	ND						
Cyclohexanone	ND						
Cyclohexane	ND						
Dibromochloromethane	ND						
1,2-Dibromoethane (EDB)	ND						
1,2-Dibromo-3-Chloropropane	ND						
Dibromomethane	ND						
1,2-Dichlorobenzene	ND						
1,3-Dichlorobenzene	ND						
1,4-Dichlorobenzene	ND						
trans-1,4-Dichloro-2-Butene	ND						
cis-1,4-Dichloro-2-Butene	ND						
Dichlorodifluoromethane	ND						
1,1-Dichloroethane	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
cis-1,2-Dichloroethene	ND						
trans-1,2-Dichloroethene	ND						
1,2-Dichloropropane	ND						
cis-1,3-Dichloropropene	ND						
trans-1,3-Dichloropropene	ND						
1,3-Dichloropropane	ND						
2,2-Dichloropropane	ND						
1,1-Dichloropropene	ND						
1,4-Dioxane	ND						

38 100

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	2309

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Ethyl Acetate	ND						
Ethylbenzene	ND						
Ethyl Ether (Diethyl Ether)	ND						
Ethyl Methacrylate	ND						
Hexachlorobutadiene	ND						
Hexane	ND						
2-Hexanone	ND						
Iodomethane (Methyl Iodide)	ND						
Isobutyl Alcohol	ND						
Isopropyl Alcohol (2-Propanol)	ND						
Isopropylbenzene (Cumene)	ND						
p-Isopropyltoluene	ND						
Methylacrylonitrile	ND						
Methylene Chloride (Dichloromethane)	ND						
4-Methyl-2-Pentanone (MIBK)	ND						
Methyl Methacrylate	ND						
1-Methylpyrrolidine (NMP)	ND						
Naphthalene	ND						
2-Nitropropane	ND						
Propionitrile	ND						
n-Propylbenzene	ND						
Styrene	ND						
1,1,1,2-Tetrachloroethane	ND						
1,1,2,2-Tetrachloroethane	ND						
Tetrachloroethene	ND						
Toluene	ND						
1,2,3-Trichlorobenzene	ND						
1,2,4-Trichlorobenzene	ND						
1,1,1-Trichloroethane	ND						
1,1,2-Trichloroethane	ND						
Trichloroethene	ND						
Trichlorofluoromethane	ND						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND						
1,2,3-Trichloropropane	ND						
1,2,4-Trimethylbenzene	ND						
1,3,5-Trimethylbenzene	ND						
Vinyl Acetate	ND						
Vinyl Chloride (Chloroethene)	ND						
Xylenes (total)	ND						
o-Xylene	ND						
m&p-Xylenes	ND						

Test Method.....: SW-846 8260B
Method Description.: Volatile Organics (Client List)

Batch.....: 42726
Units.....: ug/L

Analyst...: qcp

CCV	Continuing Calibration Verification	V912038			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	94.40		100.000000		94.4	%	80-120
Bromoform	118.12		100.000000		118.1	%	80-120
Chlorobenzene	112.98		100.000000		113.0	%	80-120

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
CCV	Continuing Calibration Verification	V91203B			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Chloroform	94.49		100.000000		94.5	%	80-120
Chloromethane	80.82		100.000000		80.8	%	80-120
1,1-Dichloroethane	97.34		100.000000		97.3	%	80-120
1,1-Dichloroethene	91.58		100.000000		91.6	%	80-120
1,2-Dichloropropane	98.97		100.000000		99.0	%	80-120
Ethylbenzene	112.31		100.000000		112.3	%	80-120
1,1,2,2-Tetrachloroethane	105.04		100.000000		105.0	%	80-120
Toluene	106.73		100.000000		106.7	%	80-120
Trichloroethene	100.23		100.000000		100.2	%	80-120
Vinyl Chloride (Chloroethene)	90.73		100.000000		90.7	%	80-120

LCS	Laboratory Control Sample	V91211A			01/11/2000	1203

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	46.49		50.000000		93.0	%	80-120
Chlorobenzene	53.02		50.000000		106.0	%	80-120
1,1-Dichloroethene	42.71		50.000000		85.4	%	80-120
Toluene	54.94		50.000000		109.9	%	80-120
Trichloroethene	50.07		50.000000		100.1	%	80-120

MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Acrolein	ND						
Acrylonitrile	ND						
Acetone	ND						
Acetonitrile	ND						
Allyl Chloride (3-Chloro-1-Propene)	ND						
Benzene	ND						
Benzyl Chloride	ND						
Bromobenzene	ND						
Bromochloromethane	ND						
Bromodichloromethane	ND						
Bromoform	ND						
Bromomethane	ND						
1,3-Butadiene	ND						
n-Butyl Alcohol (1-Butanol)	ND						
tert-Butyl Methyl Ether (MTBE)	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
n-Butylbenzene	ND						
sec-Butylbenzene	ND						
tert-Butylbenzene	ND						
Carbon Disulfide	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroethane	ND						
2-Chloroethylvinyl Ether	ND						
Chloroform	ND						
1-Chlorohexane	ND						
Chloromethane	ND						

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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Job Number.: 200069 | Report Date.: 01/12/2000

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
2-Chloro-1,3-Butadiene (Chloroprene)	ND						
2-Chlorotoluene	ND						
4-Chlorotoluene	ND						
Cyclohexanone	ND						
Cyclohexane	ND						
Dibromochloromethane	ND						
1,2-Dibromoethane (EDB)	ND						
1,2-Dibromo-3-Chloropropane	ND						
Dibromomethane	ND						
1,2-Dichlorobenzene	ND						
1,3-Dichlorobenzene	ND						
1,4-Dichlorobenzene	ND						
trans-1,4-Dichloro-2-Butene	ND						
cis-1,4-Dichloro-2-Butene	ND						
Dichlorodifluoromethane	ND						
1,1-Dichloroethane	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
cis-1,2-Dichloroethene	ND						
trans-1,2-Dichloroethene	ND						
1,2-Dichloropropane	ND						
cis-1,3-Dichloropropene	ND						
trans-1,3-Dichloropropene	ND						
1,3-Dichloropropane	ND						
2,2-Dichloropropane	ND						
1,1-Dichloropropene	ND						
1,4-Dioxane	ND						
Ethyl Acetate	ND						
Ethylbenzene	ND						
Ethyl Ether (Diethyl Ether)	ND						
Ethyl Methacrylate	ND						
Hexachlorobutadiene	ND						
Hexane	ND						
2-Hexanone	ND						
Iodomethane (Methyl Iodide)	ND						
Isobutyl Alcohol	ND						
Isopropyl Alcohol (2-Propanol)	ND						
Isopropylbenzene (Cumene)	ND						
p-Isopropyltoluene	ND						
Methylacrylonitrile	ND						
Methylene Chloride (Dichloromethane)	ND						
4-Methyl-2-Pentanone (MIBK)	ND						
Methyl Methacrylate	ND						
1-Methylpyrrolidine (NMP)	ND						
Naphthalene	ND						
2-Nitropropane	ND						
Propionitrile	ND						
n-Propylbenzene	ND						
Styrene	ND						
1,1,1,2-Tetrachloroethane	ND						
1,1,2,2-Tetrachloroethane	ND						
Tetrachloroethene	ND						
Toluene	ND						
1,2,3-Trichlorobenzene	ND						

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
1,2,4-Trichlorobenzene	ND						
1,1,1-Trichloroethane	ND						
1,1,2-Trichloroethane	ND						
Trichloroethene	ND						
Trichlorofluoromethane	ND						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND						
1,2,3-Trichloropropane	ND						
1,2,4-Trimethylbenzene	ND						
1,3,5-Trimethylbenzene	ND						
Vinyl Acetate	ND						
Vinyl Chloride (Chloroethene)	ND						
Xylenes (total)	ND						
o-Xylene	ND						
m&p-Xylenes	ND						

MS	Matrix Spike	V91211A	200022-1	2.00	01/11/2000 1727

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	59.36		50.000000	12.15	94.4	%	80-120
Chlorobenzene	54.54		50.000000	ND	109.1	%	80-120
1,1-Dichloroethene	43.38		50.000000	ND	86.8	%	80-120
Toluene	59.35		50.000000	5.80	107.1	%	80-120
Trichloroethene	53.09		50.000000	ND	106.2	%	80-120

MSD	Matrix Spike Duplicate	V91211A	200022-1	2.00	01/11/2000 1805

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	55.76	59.36	50.000000	12.15	87.2	%	80-120
					6.3	R	21
Chlorobenzene	52.33	54.54	50.000000	ND	104.7	%	80-120
					4.1	R	21
1,1-Dichloroethene	44.67	43.38	50.000000	ND	89.3	%	80-120
					2.9	R	22
Toluene	54.18	59.35	50.000000	5.80	96.8	%	80-120
					9.1	R	21
Trichloroethene	51.70	53.09	50.000000	ND	103.4	%	80-120
					2.7	R	24

Test Method.....: SW-846 8260B
Method Description.: Volatile Organics, TCLP

Batch.....: 42729
Units.....: ug/L

Analyst...: qcp

CCV	Continuing Calibration Verification	V912038			01/11/2000 1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	94.40		100.000000		94.4	%	80-120
Carbon Tetrachloride	93.48		100.000000		93.5	%	80-120
Chlorobenzene	112.98		100.000000		113.0	%	80-120

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QUALITY CONTROL RESULTS

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
CCV	Continuing Calibration Verification	V912038			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Chloroform	94.49		100.000000		94.5	%	80-120
1,2-Dichloroethane (EDC)	88.35		100.000000		88.3	%	80-120
1,1-Dichloroethene	91.58		100.000000		91.6	%	80-120
Methyl Ethyl Ketone (2-Butanone)	103.57		100.000000		103.6	%	80-120
Tetrachloroethene	81.43		100.000000		81.4	%	80-120
Trichloroethene	100.23		100.000000		100.2	%	80-120
Vinyl Chloride (Chloroethene)	90.73		100.000000		90.7	%	80-120

LCS	Laboratory Control Sample	V91211A			01/11/2000	1203

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	46.49		50.000000		93.0	%	80-120
Chlorobenzene	53.02		50.000000		106.0	%	80-120
1,1-Dichloroethene	42.71		50.000000		85.4	%	80-120
Trichloroethene	50.07		50.000000		100.1	%	80-120

MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroform	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
Tetrachloroethene	ND						
Trichloroethene	ND						
Vinyl Chloride (Chloroethene)	ND						

MS	Matrix Spike	V91211A	200022-1	2.00	01/11/2000	1727

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	59.36		50.000000	12.15	94.4	%	80-120
Chlorobenzene	54.54		50.000000	ND	109.1	%	80-120
1,1-Dichloroethene	43.38		50.000000	ND	86.8	%	80-120
Trichloroethene	53.09		50.000000	ND	106.2	%	80-120

MSD	Matrix Spike Duplicate	V91211A	200022-1	2.00	01/11/2000	1805

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	55.76	59.36	50.000000	12.15	87.2	%	80-120
					6.3	R	20
Chlorobenzene	52.33	54.54	50.000000	ND	104.7	%	80-120
					4.1	R	20
1,1-Dichloroethene	44.67	43.38	50.000000	ND	89.3	%	80-120
					2.9	R	20

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QUALITY CONTROL RESULTS

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MSD	Matrix Spike Duplicate	V91211A	200022-1	2.00	01/11/2000	1805

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Trichloroethene	51.70	53.09	50.000000	ND	103.4	%	80-120
					2.7	R	20

MB	Method Blank	01102000			01/11/2000	1920

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroform	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
Tetrachloroethene	ND						
Trichloroethene	ND						
Vinyl Chloride (Chloroethene)	ND						

MB	Method Blank	01102000			01/11/2000	2034

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroform	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
Tetrachloroethene	ND						
Trichloroethene	ND						
Vinyl Chloride (Chloroethene)	ND						

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

Method.....: Volatile Organics (Client List)
Method Code.....: 8260C

Batch.....: 42690
Analyst.....: qcp

Surrogate	Units
1,2-Dichloroethane-d4	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	41.12	50.00000	82.2	80-120		01/10/2000	1001
		LCS	1.00	40.69	50.00000	81.4	80-120		01/10/2000	1036
		MB	1.00	41.30	50.00000	82.6	80-120		01/10/2000	1110
200069-1	Org. Waste		200.00	46.54	50.00000	93.1	80-120		01/10/2000	1251
200053-1	Solid	MS	500	44.07	50.00000	88.1	80-120		01/10/2000	1507
200053-1	Solid	MSD	500	45.01	50.00000	90.0	80-120		01/10/2000	1541
200065-1	Solid	MS	0.98	40.03	50.00000	80.1	80-120		01/10/2000	1806
200065-1	Solid	MSD	0.99	41.94	50.00000	83.9	80-120		01/10/2000	1844
		CCV	1.00	40.08	50.00000	80.2	80-120		01/10/2000	2153
		LCS	1.00	42.01	50.00000	84.0	80-120		01/10/2000	2231
		MB	1.00	45.24	50.00000	90.5	80-120		01/10/2000	2309
200057-4			1.00	42.60	50.00000	85.2	80-120		01/11/2000	0024
200057-5			1.00	43.60	50.00000	87.2	80-120		01/11/2000	0102
200057-2			1.00	40.14	50.00000	80.3	80-120		01/11/2000	0139
200058-1			1.00	49.38	50.00000	98.8	80-120		01/11/2000	0217
200058-2			1.00	40.64	50.00000	81.3	80-120		01/11/2000	0255
200058-3			1.00	49.96	50.00000	99.9	80-120		01/11/2000	0333
200058-4			1.00	56.18	50.00000	112.4	80-120		01/11/2000	0410
200058-5			1.00	45.24	50.00000	90.5	80-120		01/11/2000	0448
200058-6			1.00	48.36	50.00000	96.7	80-120		01/11/2000	0525
200058-7			1.00	46.00	50.00000	92.0	80-120		01/11/2000	0604
200058-8			1.00	45.59	50.00000	91.2	80-120		01/11/2000	0642
200067-1			1.00	46.58	50.00000	93.2	80-120		01/11/2000	0719
200067-2			1.00	44.57	50.00000	89.1	80-120		01/11/2000	0756
200067-3			1.00	50.66	50.00000	101.3	80-120		01/11/2000	0830

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	46.24	50.00000	92.5	86-115		01/10/2000	1001
		LCS	1.00	48.20	50.00000	96.4	86-115		01/10/2000	1036
		MB	1.00	49.70	50.00000	99.4	86-115		01/10/2000	1110
200069-1	Org. Waste		200.00	50.08	50.00000	100.2	74-121		01/10/2000	1251
200053-1	Solid	MS	500	52.56	50.00000	105.1	74-121		01/10/2000	1507
200053-1	Solid	MSD	500	52.04	50.00000	104.1	74-121		01/10/2000	1541
200065-1	Solid	MS	0.98	49.23	50.00000	98.5	74-121		01/10/2000	1806
200065-1	Solid	MSD	0.99	53.30	50.00000	106.6	74-121		01/10/2000	1844
		CCV	1.00	51.02	50.00000	102.0	86-115		01/10/2000	2153
		LCS	1.00	48.10	50.00000	96.2	86-115		01/10/2000	2231
		MB	1.00	52.66	50.00000	105.3	86-115		01/10/2000	2309
200057-4			1.00	51.45	50.00000	102.9	86-115		01/11/2000	0024
200057-5			1.00	45.62	50.00000	91.2	86-115		01/11/2000	0102
200057-2			1.00	49.40	50.00000	98.8	86-115		01/11/2000	0139

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
200058-1			1.00	52.40	50.00000	104.8	86-115		01/11/2000	0217
200058-2			1.00	47.70	50.00000	95.4	86-115		01/11/2000	0255
200058-3			1.00	55.22	50.00000	110.4	86-115		01/11/2000	0333
200058-4			1.00	48.34	50.00000	96.7	86-115		01/11/2000	0410
200058-5			1.00	47.42	50.00000	94.8	86-115		01/11/2000	0448
200058-6			1.00	51.89	50.00000	103.8	86-115		01/11/2000	0525
200058-7			1.00	55.17	50.00000	110.3	86-115		01/11/2000	0604
200058-8			1.00	48.96	50.00000	97.9	86-115		01/11/2000	0642
200067-1			1.00	55.82	50.00000	111.6	86-115		01/11/2000	0719
200067-2			1.00	53.93	50.00000	107.9	86-115		01/11/2000	0756
200067-3			1.00	46.78	50.00000	93.6	86-115		01/11/2000	0830

Surrogate	Units
Dibromofluoromethane	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	53.24	50.00000	106.5	86-118		01/10/2000	1001
		LCS	1.00	51.05	50.00000	102.1	86-118		01/10/2000	1036
		MB	1.00	46.65	50.00000	93.3	86-118		01/10/2000	1110
200069-1	Org. Waste		200.00	50.94	50.00000	101.9	80-120		01/10/2000	1251
200053-1	Solid	MS	500	50.17	50.00000	100.3	80-120		01/10/2000	1507
200053-1	Solid	MSD	500	51.21	50.00000	102.4	80-120		01/10/2000	1541
200065-1	Solid	MS	0.98	58.86	50.00000	117.7	80-120		01/10/2000	1806
200065-1	Solid	MSD	0.99	52.37	50.00000	104.7	80-120		01/10/2000	1844
		CCV	1.00	54.58	50.00000	109.2	86-118		01/10/2000	2153
		LCS	1.00	51.68	50.00000	103.4	86-118		01/10/2000	2231
		MB	1.00	49.45	50.00000	98.9	86-118		01/10/2000	2309
200057-4			1.00	51.34	50.00000	102.7	86-118		01/11/2000	0024
200057-5			1.00	49.61	50.00000	99.2	86-118		01/11/2000	0102
200057-2			1.00	49.17	50.00000	98.3	86-118		01/11/2000	0139
200058-1			1.00	52.16	50.00000	104.3	86-118		01/11/2000	0217
200058-2			1.00	50.43	50.00000	100.9	86-118		01/11/2000	0255
200058-3			1.00	52.80	50.00000	105.6	86-118		01/11/2000	0333
200058-4			1.00	51.81	50.00000	103.6	86-118		01/11/2000	0410
200058-5			1.00	52.75	50.00000	105.5	86-118		01/11/2000	0448
200058-6			1.00	51.69	50.00000	103.4	86-118		01/11/2000	0525
200058-7			1.00	50.62	50.00000	101.2	86-118		01/11/2000	0604
200058-8			1.00	52.25	50.00000	104.5	86-118		01/11/2000	0642
200067-1			1.00	51.68	50.00000	103.4	86-118		01/11/2000	0719
200067-2			1.00	52.11	50.00000	104.2	86-118		01/11/2000	0756
200067-3			1.00	52.07	50.00000	104.1	86-118		01/11/2000	0830

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC PROJECT: Walk in Projects ATTN: Cecily Warren

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	45.58	50.00000	91.2	88-110		01/10/2000	1001
		LCS	1.00	45.11	50.00000	90.2	88-110		01/10/2000	1036
		MB	1.00	47.10	50.00000	94.2	88-110		01/10/2000	1110
200069-1	Org. Waste		200.00	48.71	50.00000	97.4	81-118		01/10/2000	1251
200053-1	Solid	MS	500	46.56	50.00000	93.1	81-117		01/10/2000	1507
200053-1	Solid	MSD	500	45.26	50.00000	90.5	81-117		01/10/2000	1541
200065-1	Solid	MS	0.98	49.68	50.00000	99.4	81-117		01/10/2000	1806
200065-1	Solid	MSD	0.99	46.55	50.00000	93.1	81-117		01/10/2000	1844
		CCV	1.00	51.39	50.00000	102.8	88-110		01/10/2000	2153
		LCS	1.00	45.45	50.00000	90.9	88-110		01/10/2000	2231
		MB	1.00	44.62	50.00000	89.2	88-110		01/10/2000	2309
200057-4			1.00	52.13	50.00000	104.3	88-110		01/11/2000	0024
200057-5			1.00	48.01	50.00000	96.0	88-110		01/11/2000	0102
200057-2			1.00	50.25	50.00000	100.5	88-110		01/11/2000	0139
200058-1			1.00	48.42	50.00000	96.8	88-110		01/11/2000	0217
200058-2			1.00	46.37	50.00000	92.7	88-110		01/11/2000	0255
200058-3			1.00	48.28	50.00000	96.6	88-110		01/11/2000	0333
200058-4			1.00	52.47	50.00000	104.9	88-110		01/11/2000	0410
200058-5			1.00	50.96	50.00000	101.9	88-110		01/11/2000	0448
200058-6			1.00	46.95	50.00000	93.9	88-110		01/11/2000	0525
200058-7			1.00	47.17	50.00000	94.3	88-110		01/11/2000	0604
200058-8			1.00	46.33	50.00000	92.7	88-110		01/11/2000	0642
200067-1			1.00	47.46	50.00000	94.9	88-110		01/11/2000	0719
200067-2			1.00	47.37	50.00000	94.7	88-110		01/11/2000	0756
200067-3			1.00	47.55	50.00000	95.1	88-110		01/11/2000	0830

Method.....: Volatile Organics (Client List) Batch.....: 42726
Method Code.....: 8260C Analyst.....: qcp

Surrogate	Units
1,2-Dichloroethane-d4	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	42.35	50.00000	84.7	80-120		01/11/2000	1126
		LCS	1.00	40.04	50.00000	80.1	80-120		01/11/2000	1203
		MB	1.00	40.57	50.00000	81.1	80-120		01/11/2000	1241
200069-2	Solid		2.50	32.65	50.00000	65.3	80-120	X	01/11/2000	1505
200022-1	Solid		2.00	42.20	50.00000	84.4	80-120		01/11/2000	1650
200022-1	Solid	MS	2.00	41.53	50.00000	83.1	80-120		01/11/2000	1727
200022-1	Solid	MSD	2.00	42.19	50.00000	84.4	80-120		01/11/2000	1805
994725-10	Solid		5.00	38.03	50.00000	76.1	80-120	X	01/11/2000	1842

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC PROJECT: Walk in Projects ATTN: Cecily Warren

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	51.15	50.00000	102.3	86-115		01/11/2000	1126
		LCS	1.00	53.64	50.00000	107.3	86-115		01/11/2000	1203
		MB	1.00	52.73	50.00000	105.5	86-115		01/11/2000	1241
200069-2	Solid		2.50	46.09	50.00000	92.2	74-121		01/11/2000	1505
200022-1	Solid		2.00	49.51	50.00000	99.0	74-121		01/11/2000	1650
200022-1	Solid	MS	2.00	48.15	50.00000	96.3	74-121		01/11/2000	1727
200022-1	Solid	MSD	2.00	46.59	50.00000	93.2	74-121		01/11/2000	1805
994725-10	Solid		5.00	49.96	50.00000	99.9	74-121		01/11/2000	1842

Surrogate	Units
Dibromofluoromethane	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	47.79	50.00000	95.6	86-118		01/11/2000	1126
		LCS	1.00	48.47	50.00000	96.9	86-118		01/11/2000	1203
		MB	1.00	49.76	50.00000	99.5	86-118		01/11/2000	1241
200069-2	Solid		2.50	44.88	50.00000	89.8	80-120		01/11/2000	1505
200022-1	Solid		2.00	45.38	50.00000	90.8	80-120		01/11/2000	1650
200022-1	Solid	MS	2.00	52.73	50.00000	105.5	80-120		01/11/2000	1727
200022-1	Solid	MSD	2.00	54.48	50.00000	109.0	80-120		01/11/2000	1805
994725-10	Solid		5.00	49.48	50.00000	99.0	80-120		01/11/2000	1842

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	48.62	50.00000	97.2	88-110		01/11/2000	1126
		LCS	1.00	51.29	50.00000	102.6	88-110		01/11/2000	1203
		MB	1.00	47.66	50.00000	95.3	88-110		01/11/2000	1241
200069-2	Solid		2.50	49.81	50.00000	99.6	81-117		01/11/2000	1505
200022-1	Solid		2.00	49.93	50.00000	99.9	81-117		01/11/2000	1650
200022-1	Solid	MS	2.00	50.94	50.00000	101.9	81-117		01/11/2000	1727
200022-1	Solid	MSD	2.00	44.52	50.00000	89.0	81-117		01/11/2000	1805
994725-10	Solid		5.00	49.51	50.00000	99.0	81-117		01/11/2000	1842

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

Method.....: Volatile Organics, TCLP
Method Code.....: 8260TC

Batch.....: 42729
Analyst.....: qcp

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	51.15	50.00000	102.3	86-115		01/11/2000	1126
		LCS	1.00	53.64	50.00000	107.3	86-115		01/11/2000	1203
		MB	1.00	52.73	50.00000	105.5	86-115		01/11/2000	1241
200022-1	Solid	MS	2.00	48.15	50.00000	96.3	86-115		01/11/2000	1727
200022-1	Solid	MSD	2.00	46.59	50.00000	93.2	86-115		01/11/2000	1805
		MB	1.00	52.82	50.00000	105.6	86-115		01/11/2000	1920
200069-1			20.00	47.14	50.00000	94.3	86-115		01/11/2000	1957
		MB	1.00	45.09	50.00000	90.2	86-115		01/11/2000	2034
200069-2			1.00	52.45	50.00000	104.9	86-115		01/11/2000	2111
200049-1			1.00	54.66	50.00000	109.3	86-115		01/11/2000	2148
200049-2			1.00	52.62	50.00000	105.2	86-115		01/11/2000	2225

Surrogate	Units
Dibromofluoromethane	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	47.79	50.00000	95.6	86-118		01/11/2000	1126
		LCS	1.00	48.47	50.00000	96.9	86-118		01/11/2000	1203
		MB	1.00	49.76	50.00000	99.5	86-118		01/11/2000	1241
200022-1	Solid	MS	2.00	52.73	50.00000	105.5	86-118		01/11/2000	1727
200022-1	Solid	MSD	2.00	54.48	50.00000	109.0	86-118		01/11/2000	1805
		MB	1.00	50.41	50.00000	100.8	86-118		01/11/2000	1920
200069-1			20.00	50.95	50.00000	101.9	86-118		01/11/2000	1957
		MB	1.00	48.94	50.00000	97.9	86-118		01/11/2000	2034
200069-2			1.00	48.20	50.00000	96.4	86-118		01/11/2000	2111
200049-1			1.00	45.05	50.00000	90.1	86-118		01/11/2000	2148
200049-2			1.00	49.63	50.00000	99.3	86-118		01/11/2000	2225

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	48.62	50.00000	97.2	88-110		01/11/2000	112[illegible]
		LCS	1.00	51.29	50.00000	102.6	88-110		01/11/2000	120[illegible]
		MB	1.00	47.66	50.00000	95.3	88-110		01/11/2000	124[illegible]
200022-1	Solid	MS	2.00	50.94	50.00000	101.9	88-110		01/11/2000	172[illegible]
200022-1	Solid	MSD	2.00	44.52	50.00000	89.0	88-110		01/11/2000	180[illegible]
		MB	1.00	51.18	50.00000	102.4	88-110		01/11/2000	192[illegible]
200069-1			20.00	49.66	50.00000	99.3	88-110		01/11/2000	195[illegible]
		MB	1.00	48.77	50.00000	97.5	88-110		01/11/2000	203[illegible]

Severn Trent Laboratories
4333 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471

SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 01/12/2000

CUSTOMER: TNRCC | PROJECT: Walk In Projects | ATTN: Cecily Warren

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
200069-2			1.00	46.94	50.00000	93.9	88-110		01/11/2000	2111
200049-1			1.00	47.08	50.00000	94.2	88-110		01/11/2000	2148
200049-2			1.00	47.79	50.00000	95.6	88-110		01/11/2000	2225

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471

a part of Severn Trent Services Inc

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/12/20

(1) EPA 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, March 1983
(2) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III
(3) Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992
(4) Methods of Organic Chemical Analysis of Municipal and Industrial Wastewater, Federal Register, Vol. 49, No. 209, October 1984 and 40 CFR Part 136 amendments
(5) EPA 600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils
(6) Methods of Soil Analysis, American Society of Agronomy, Agronomy No. 9, 1965
(7) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991
(8) American Society for Testing and Materials, Petroleum Products, Lubricants, and Fossil Fuels, Section 5, Volumes 05.01 - 05.05
(9) Hach Handbook of Water Analysis, 1979

Comments:
Data in the QC report may differ from final results due to digestion and/or dilution of sample into analytical ranges. The "Time Analyzed" may not be the actual time of analysis. The "Date Analyzed" is the actual date of analysis. Sludge samples are reported on a wet weight basis (i.e., not corrected for percent moisture) unless otherwise indicated.

Quality Control acceptance criteria are based either on limits specified in the referenced method or on actual laboratory performance.

All data is reported on sample "as received" unless noted.

Sample IDs with a "-00" at the end indicate a blank spike or blank spike duplicate associated with the numbered sample.

SAMPLE RESULT IDENTIFICATION

ND = Not detected at a value greater than the reporting limit
TNTC = Too numerous to count

BLANK QC SAMPLE IDENTIFICATION

MB Method Blank
ICB Initial Calibration Blank
CCB Continuing Calibration Blank

SPIKE QC SAMPLE IDENTIFICATION

MS Method (Matrix) Spike
MSD Method (Matrix) Spike Duplicate
PDS Post Digestion/Distillation Spike
SB Spiked Blank
SBD Spiked Blank Duplicate

Severn Trent Laboratories
4388 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471
a part of Severn Trent Services Inc

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/12/20

REFERENCE STANDARD QC SAMPLE IDENTIFICATION

LCS	Laboratory Control Standard
RS	Reference Standard
ICV	Initial Calibration Verification Standard
CCV	Continuing Calibration Verification Standard
ISA/ISB	ICP Interference Check Sample
DSC	Distilled Standard Check

DUPLICATE QC SAMPLE IDENTIFICATION

MD	Method (Matrix) Duplicate
ED	Extraction Duplicate
DD	Digestion Duplicate
PDD	Post Digestion Duplicate

Analyses performed by a subcontract laboratory are indicated on the analytical and/or quality control reports under "technician" using the following codes:

SUBCONTRACT LABORATORIES

Severn Trent Laboratories:			
Anaheim, CA	*an	Houston, TX	*he
Aurora, CO	*au	Valparaiso, IN	*vp
Other Laboratories	*xx	Client provided data	*cp
Core Laboratories	*hp	Pollution Control Srv.	*pc
Quanterra	*qu	Saybolt	*sa

EXPLANATION OF DATA FLAGS

B - This flag is used to indicate that an analyte is present in the method blank as well as in the sample. It indicates that the client should consider this when evaluating the results.

D - This flag indicates that surrogates were diluted out of calibration range and cannot be quantified.

E - Indicates that a sample result is an estimate because the concentration exceeded the calibration range of the instrument.

I - Used to indicate matrix interference.

J - Indicates that a value is an estimate. It is used when a compound is determined to be present based on the mass spectral data, but at a concentration less than the quantitation limit of the method. This flag is also used when estimating the concentration of a tentatively identified compound.

X - Indicates that a surrogate recovery is outside the specified quality control limits.

Y - Used to identify a spike or spike duplicate recovery and spike duplicate is outside the specified quality control limits.

* - Indicates a relative percent difference for a duplicate analysis is outside the specified quality control limits.

" - Used to indicate that a standard is outside specified quality control limits.

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471

NATURAL RESOURCE CONSERVATION COMMISSION

Chain of Custody Record

STL # 700069

002789

Location: (Do not fill in this shaded area if the facility information must be confidential)

Permit #:

Region:	Organization #:	PCA Code:	Program:	Sampler telephone number:
14	4214	93806	AIR	361 825 3118

E-Mail ID:	Sampler: (signature)	Sampler: (please print clearly)
CROITSCH@TNRCC.STATE.TX.US	David Harvey / Clint Roitsch	CLINT ROITSCH / David Harvey

Lab ID Number	Sample ID	Date	Time	# of Bottles	Grab/ Comp.	Matrix L,S,M,O,T	C12	pH	Cond.	Analyses Requested	REMARKS
	-01	1/7/00	1020	2	GRAB	L				TCLP VOCs; flash point VOLATILE ORGANIC COMPOUNDS	STRONG VOLATILE ODORS
	-02	1/7/00	1030	1	Grab	L				VOCs; TCLP VOCs	
	-03										1°C
	-04										
	-05										
	-06										
	-07										
	-08										
	-09										
	-10										

Relinquished by:	Date	Time	Received by:	
David Harvey	1/7/00	1127	Teresa Toledo W	1-7-00 11:27
Relinquished by:	Date	Time	Received by:	
Relinquished by:	Date	Time	Received by:	
Relinquished by:	Date	Time	Received by:	
Shipper name:	Shipper Number:			

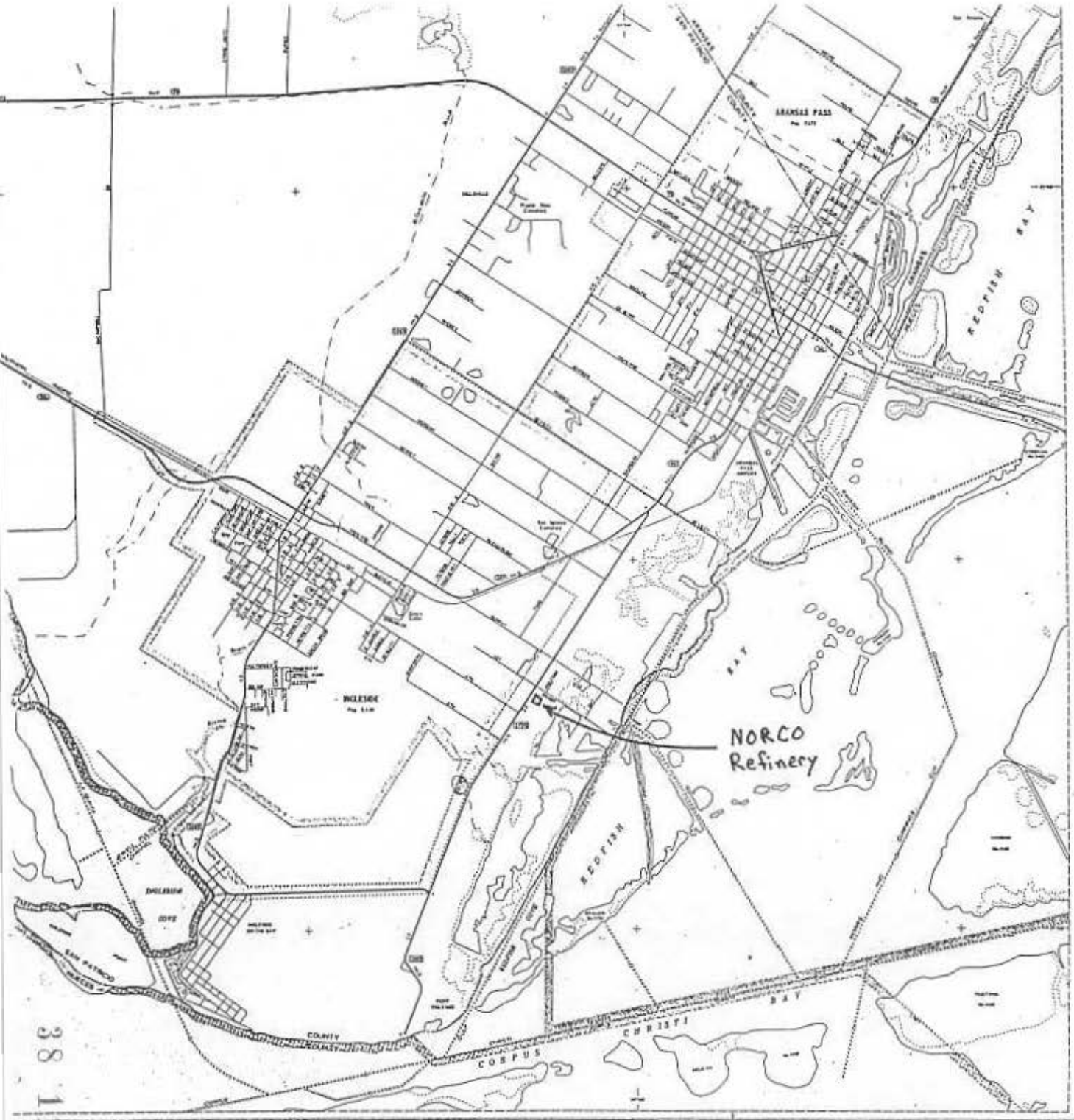
For Laboratory Use: 000069 STL#

Received on Ice: Y N 1.0 deg. C

Preservatives: Y N

COC Seal: Y N

Seals Intact: Y N n/a



LEGEND

GENERAL HIGHWAY MAP

SUPPLEMENTARY SHEET

DETAIL OF CITIES AND TOWNS

SAN PATRICIO COUNTY TEXAS

PREPARED BY THE

STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION

TRANSPORTATION PLANNING DIVISION

IN COOPERATION WITH THE

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

SCALE IN MILES

1968

CONTINUATION FROM

HIGHWAYS REVISED TO NOVEMBER 1, 1968

NOTE

This map has been prepared for various departmental and other purposes. Information contained in it should not be used as a land survey.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

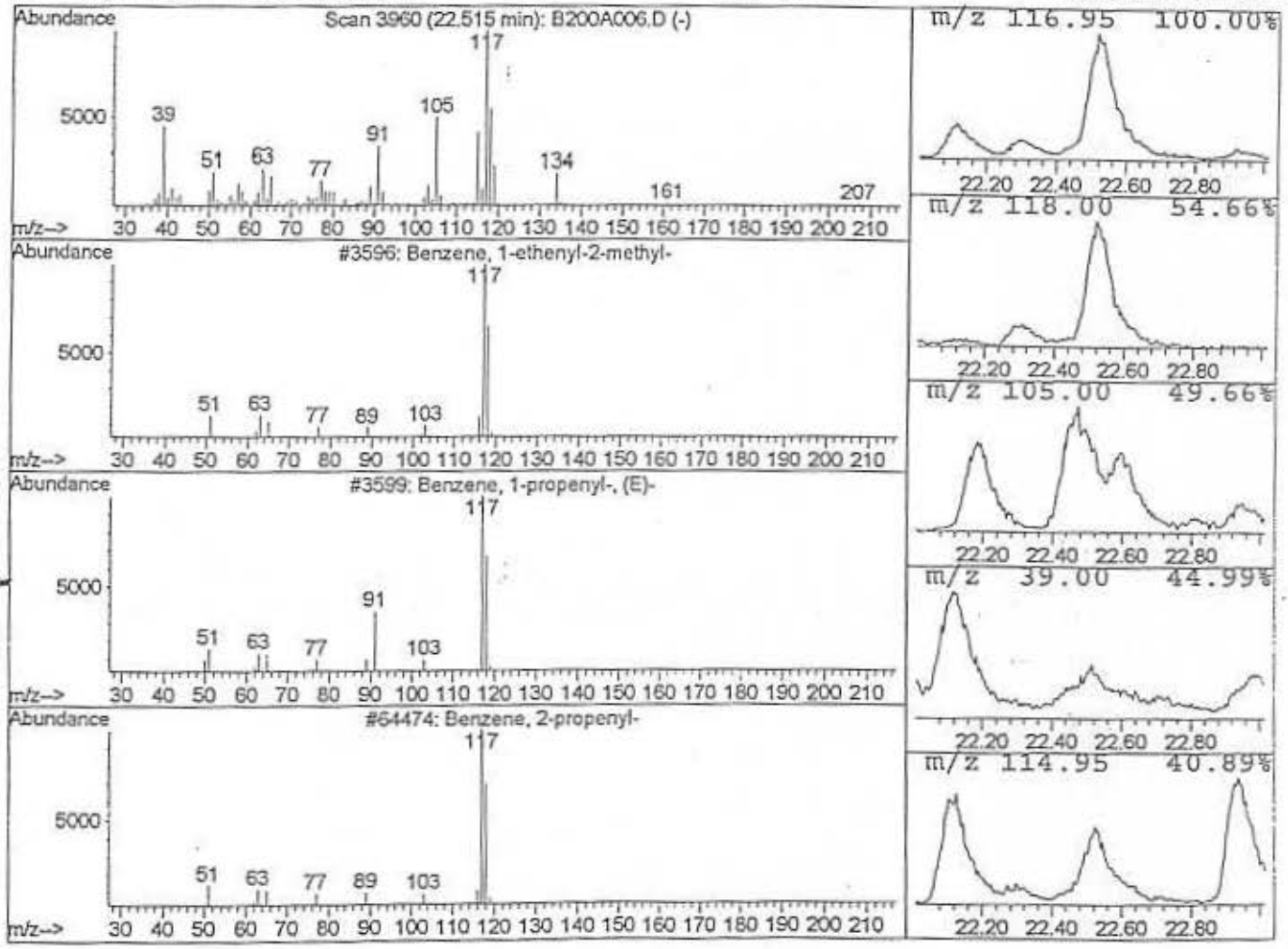
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 7 Benzene, 1-ethenyl-2-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.51	23.12 ug/l	2162220	1,4-Dichlorobenzene-d4	22.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	49
2	Benzene, 1-propenyl-, (E)-	118	C9H10	000873-66-5	60
3	Benzene, 2-propenyl-	118	C9H10	000300-57-2	58
4	Benzene, 1-propenyl-	118	C9H10	000637-50-3	43



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

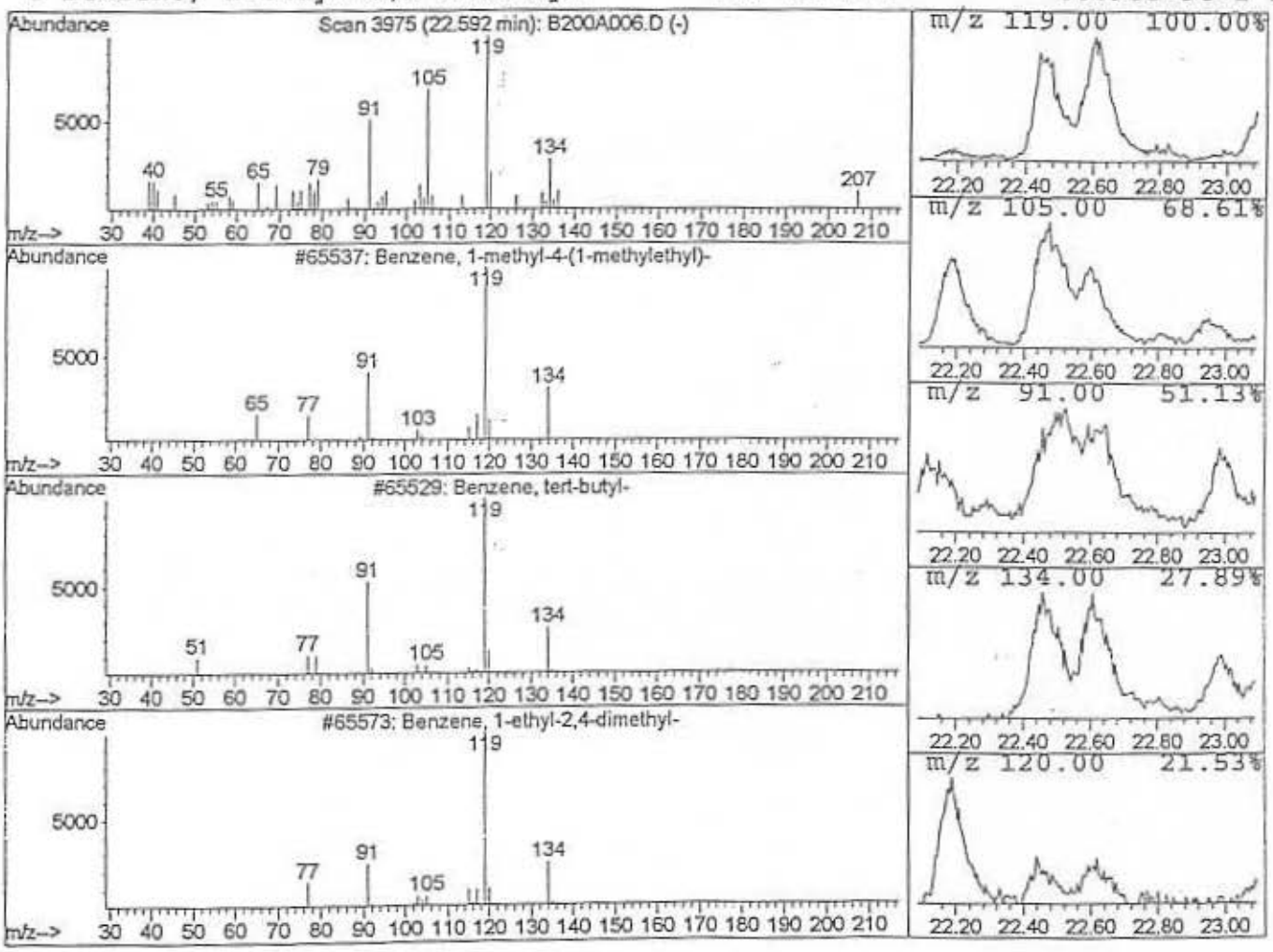
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 8 Benzene, 1-methyl-4-(1-methyle Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.59	8.55 ug/l	799443	1,4-Dichlorobenzene-d4	22.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	52
2	Benzene, tert-butyl-	134	C10H14	000098-06-6	50
3	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	50
4	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	52



38 118

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

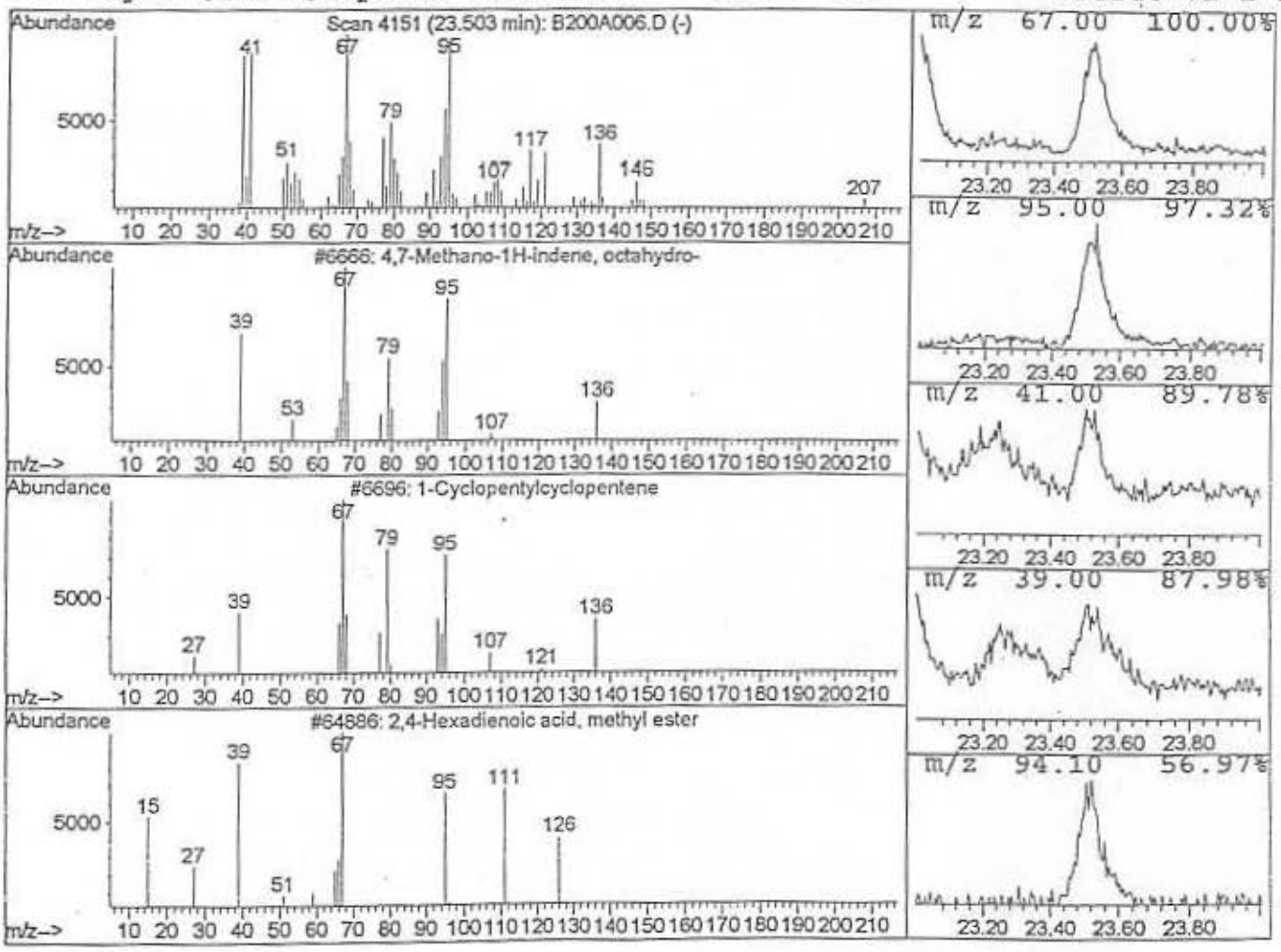
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 11 4,7-Methano-1H-indene, octahyd Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.50	12.97 ug/l	1212800	1,4-Dichlorobenzene-d4	22.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4,7-Methano-1H-indene, octahydro-	136	C10H16	006004-38-2	96
2	1-Cyclopentylcyclopentene	136	C10H16	004884-21-3	25
3	2,4-Hexadienoic acid, methyl ester	126	C7H10O2	001515-80-6	53
4	Bicyclo[2.2.1]heptane-2-methanol	126	C8H14O	005240-72-2	10



38 119

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

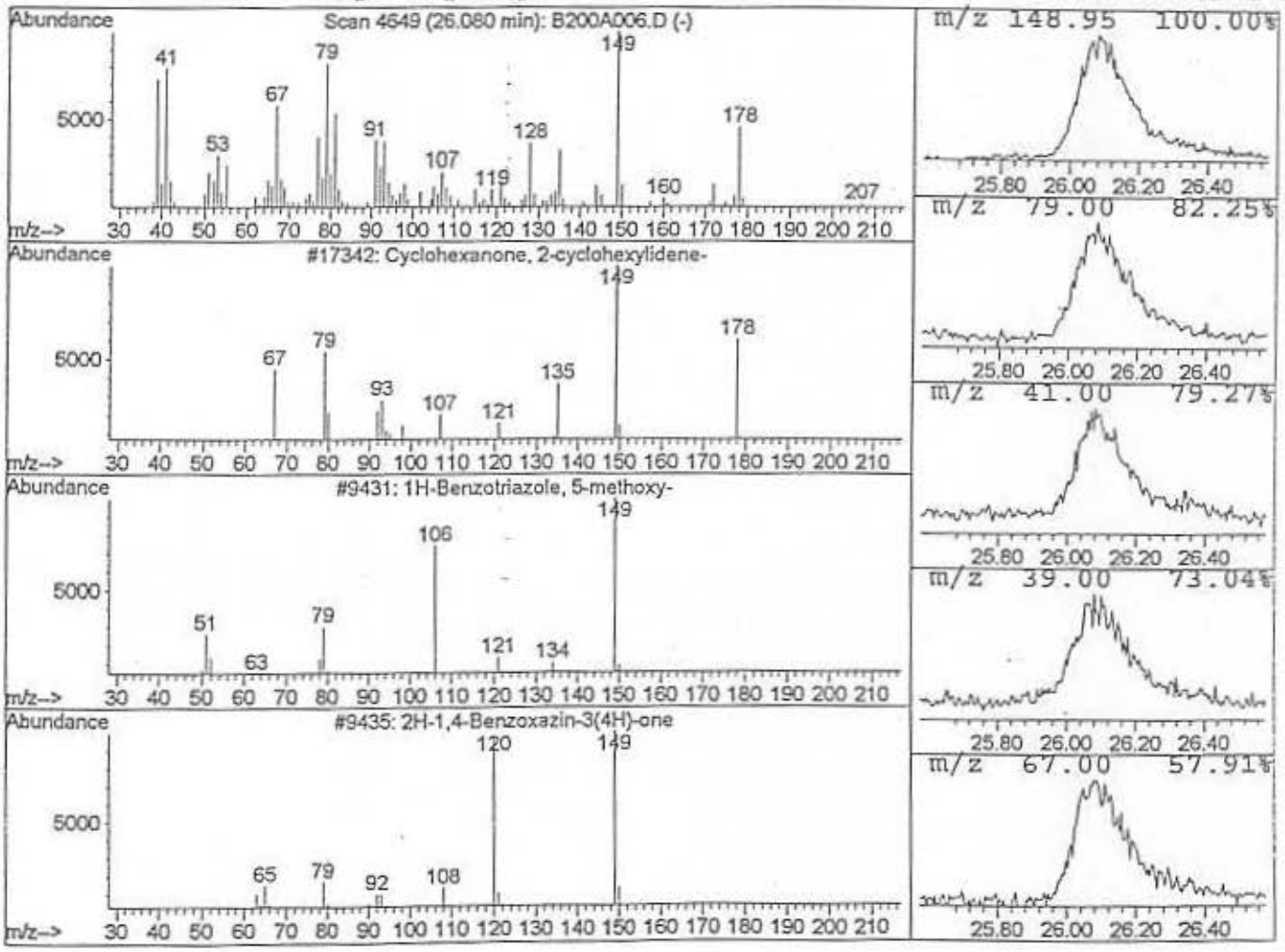
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 12 Cyclohexanone, 2-cyclohexylide Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
26.08	30.61 ug/l	2863060	1,4-Dichlorobenzene-d4	22.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanone, 2-cyclohexylidene-	178	C12H18O	001011-12-7	96
2	1H-Benzotriazole, 5-methoxy-	149	C7H7N3O	027799-91-3	18
3	2H-1,4-Benzoxazin-3(4H)-one	149	C8H7NO2	005466-88-6	11
4	Formamide, n-ethyl-N-phenyl-	149	C9H11NO	005461-49-4	22



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

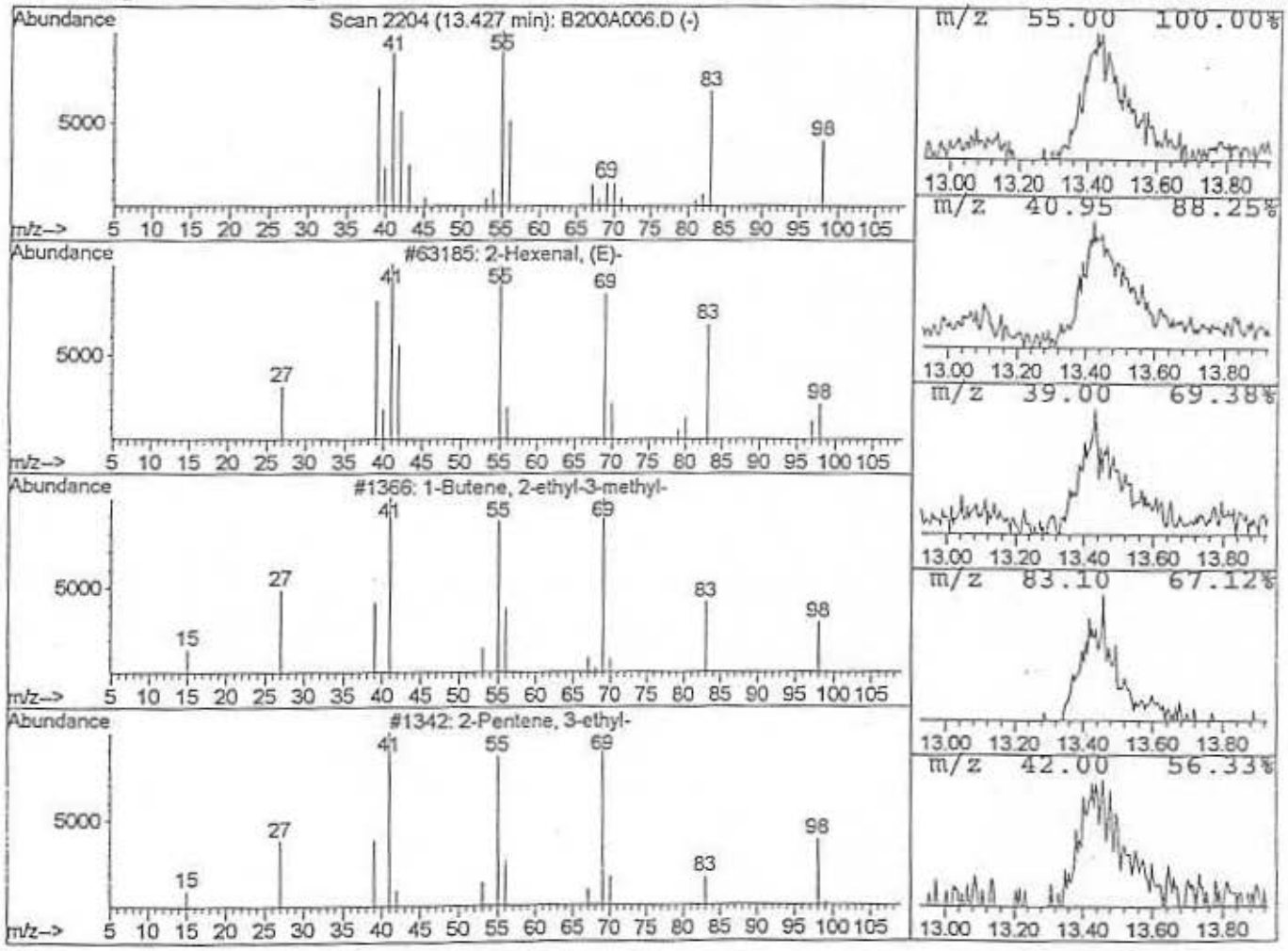
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 2-Hexenal, (E)- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.43	9.53 ug/l	248285	1,4-Difluorobenzene	12.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Hexenal, (E)-	98	C6H10O	006728-26-3	38
2	1-Butene, 2-ethyl-3-methyl-	98	C7H14	007357-93-9	49
3	2-Pentene, 3-ethyl-	98	C7H14	000816-79-5	27
4	Allyl methallyl ether	112	C7H12O	014289-96-4	35



38 121

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

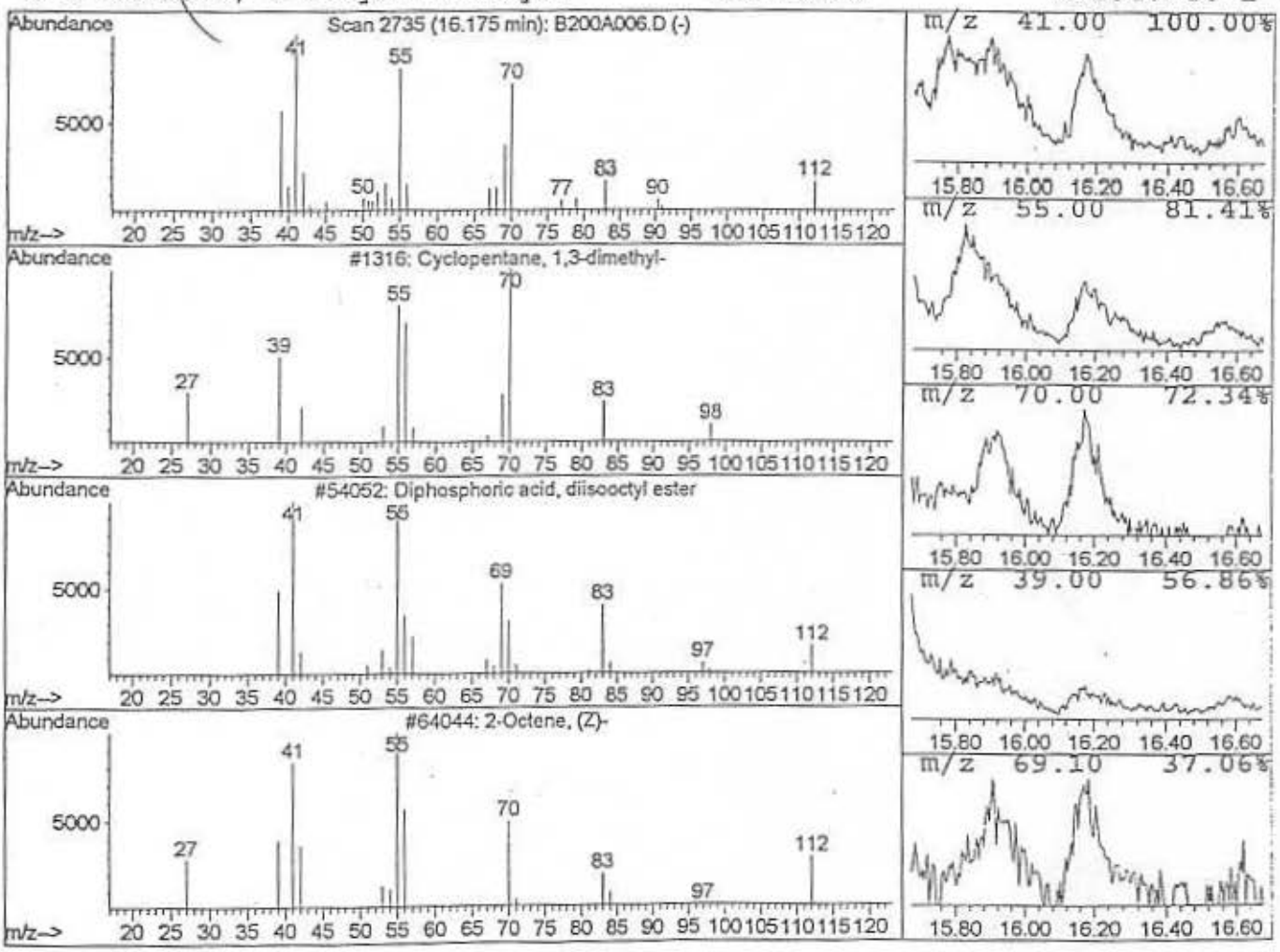
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 2 Cyclopentane, 1,3-dimethyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.18	7.94 ug/l	254721	Chlorobenzene-d5	18.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,3-dimethyl-	98	C7H14	002453-00-1	37
2	Diphosphoric acid, diisooctyl ester	402	C16H36O7P2	072101-07-6	40
3	2-Octene, (Z)-	112	C8H16	007642-04-8	35
4	1-Pentene, 3-ethyl-4-methyl-	112	C8H16	061847-80-1	47



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

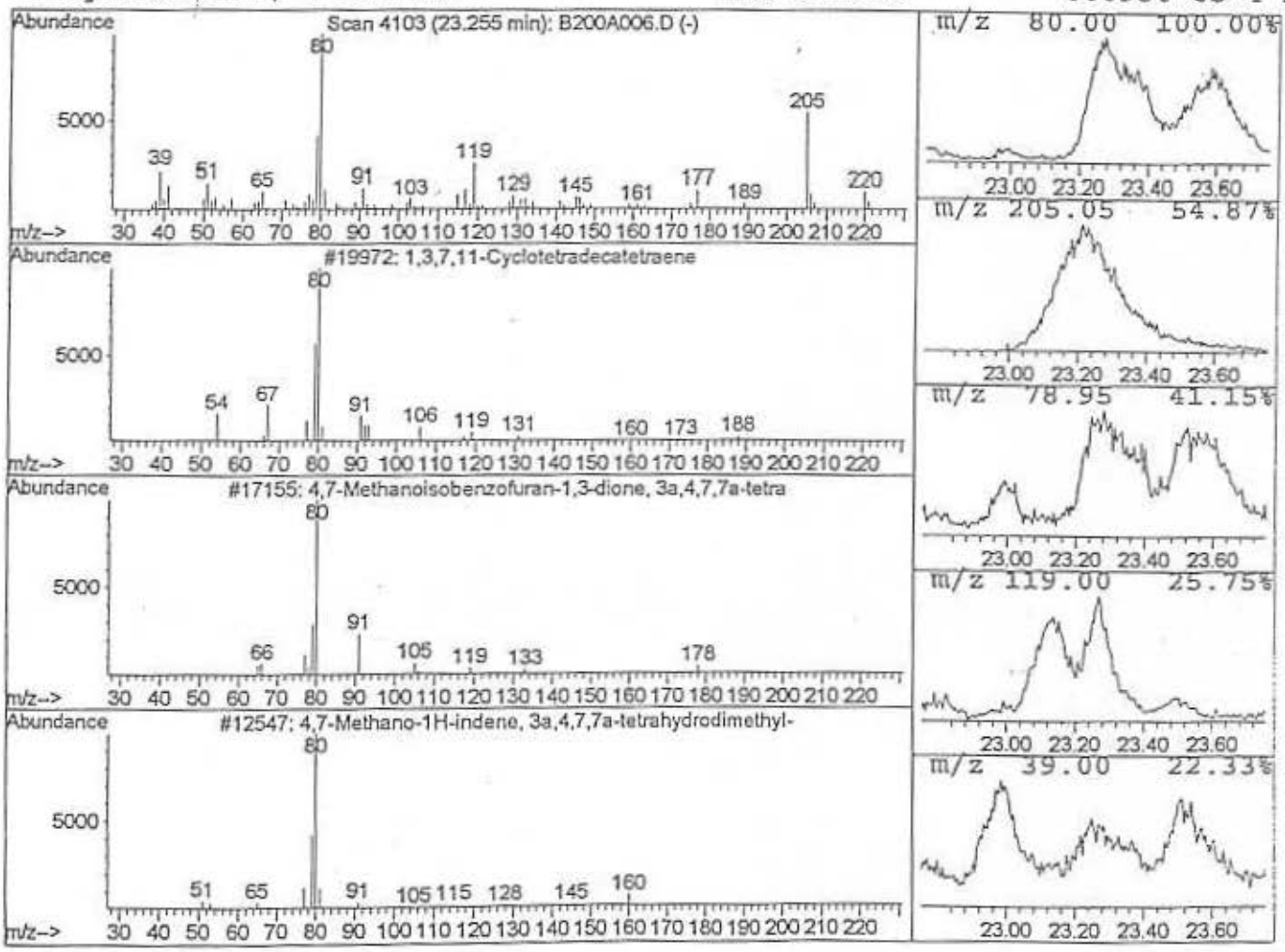
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 10 1,3,7,11-Cyclotetradecatetraen Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.25	13.49 ug/l	1261710	1,4-Dichlorobenzene-d4	22.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,7,11-Cyclotetradecatetraene	188	C14H20	061142-50-5	50
2	4,7-Methanoisobenzofuran-1,3-dione,	178	C10H10O3	025134-21-8	38
3	4,7-Methano-1H-indene, 3a,4,7,7a-te	160	C12H16	026472-00-4	38
4	Cyclohexene, 4-chloro-	116	C6H9Cl	000930-65-4	38



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01102000\B200A006.D Vial: 7
Acq On : 10 Jan 00 12:51 Operator: QCP
Sample : 200069-01 Q(RR) Inst : GC/MS Ins
Misc : 25uL[20uL(5g/10mL)/1mL]/ Multiplr: 200000.00
MS Integration Params: RTEINT.P

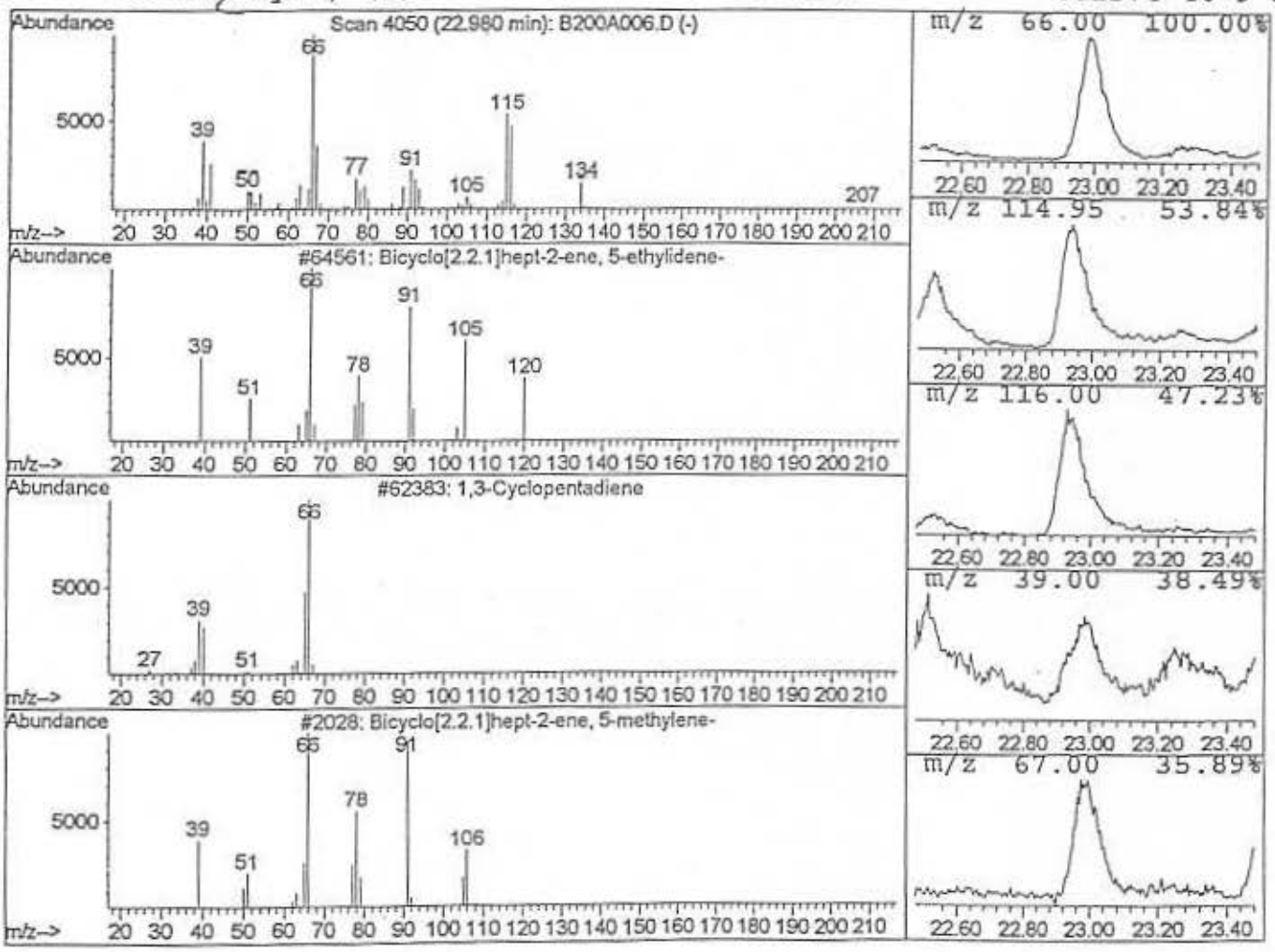
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 9 Bicyclo[2.2.1]hept-2-ene, 5-et Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.98	15.23 ug/l	1423870	1,4-Dichlorobenzene-d4	22.11

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[2.2.1]hept-2-ene, 5-ethylid	120	C9H12	016219-75-3	10
2	1,3-Cyclopentadiene	66	C5H6	000542-92-7	53
3	Bicyclo[2.2.1]hept-2-ene, 5-methyle	106	C8H10	000694-91-7	42
4	3-Penten-1-yne, (Z)-	66	C5H6	001574-40-9	36



38 124

Tentatively Identified Compound (LSC) summary

Operator ID: QCP Date Acquired: 11 Jan 00 15:05
Data File: C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D
Name: 200069-02 S(RR)
Misc: 2.00g/5mL
Method: C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title: VOA Standards for 5 point calibration
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
~~Benzeneethanamine, 3~~	~~2.46~~	~~21.6~~	~~ug/l~~	306932	ISTD01	11.27	710372	50.0
Cyclohexene, 4-ethen	17.28	167.1	ug/l	3229450	ISTD03	18.13	966252	50.0
Pentanal propylenegl	17.65	19.9	ug/l	385153	ISTD03	18.13	966252	50.0
Ethane, isothiocyana	18.68	38.9	ug/l	752102	ISTD03	18.13	966252	50.0
3-Hexanone, 2-methyl	18.93	34.8	ug/l	672858	ISTD03	18.13	966252	50.0
1,3,6-Octatriene, 3,	19.78	28.0	ug/l	541396	ISTD03	18.13	966252	50.0
1,5-Cyclooctadiene,	20.02	14.3	ug/l	276376	ISTD03	18.13	966252	50.0
Benzene, (1-methylet	20.68	12.6	ug/l	1783730	ISTD04	22.13	7093200	50.0
Benzenepropanenitril	21.20	10.9	ug/l	1546410	ISTD04	22.13	7093200	50.0
Limonene	21.88	12.5	ug/l	1768480	ISTD04	22.13	7093200	50.0
Benzene, 2-propenyl-	22.53	40.0	ug/l	5670990	ISTD04	22.13	7093200	50.0
Indene	22.92	30.6	ug/l	4337560	ISTD04	22.13	7093200	50.0
Benzene, tert-butyl-	23.26	13.6	ug/l	1931250	ISTD04	22.13	7093200	50.0
4,7-Methano-1H-inden	23.51	9.5	ug/l	1354470	ISTD04	22.13	7093200	50.0
5-Norbornen-2-yl ace	24.38	9.3	ug/l	1315130	ISTD04	22.13	7093200	50.0
1H-Indene, 2,3-dihyd	24.77	7.9	ug/l	1115880	ISTD04	22.13	7093200	50.0
Benzene, 1,3,5-triet	25.45	17.9	ug/l	2540770	ISTD04	22.13	7093200	50.0
Endo-5,6-bis(hydroxy	28.21	22.6	ug/l	3211300	ISTD04	22.13	7093200	50.0
6-Exo-methylbicyclo[	28.95	9.9	ug/l	1400770	ISTD04	22.13	7093200	50.0
5-Phenylbicyclo[2.2.	29.37	18.5	ug/l	2618600	ISTD04	22.13	7093200	50.0

B200AA08.D 8260B.M Tue Jan 11 15:48:06 2000

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.02 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

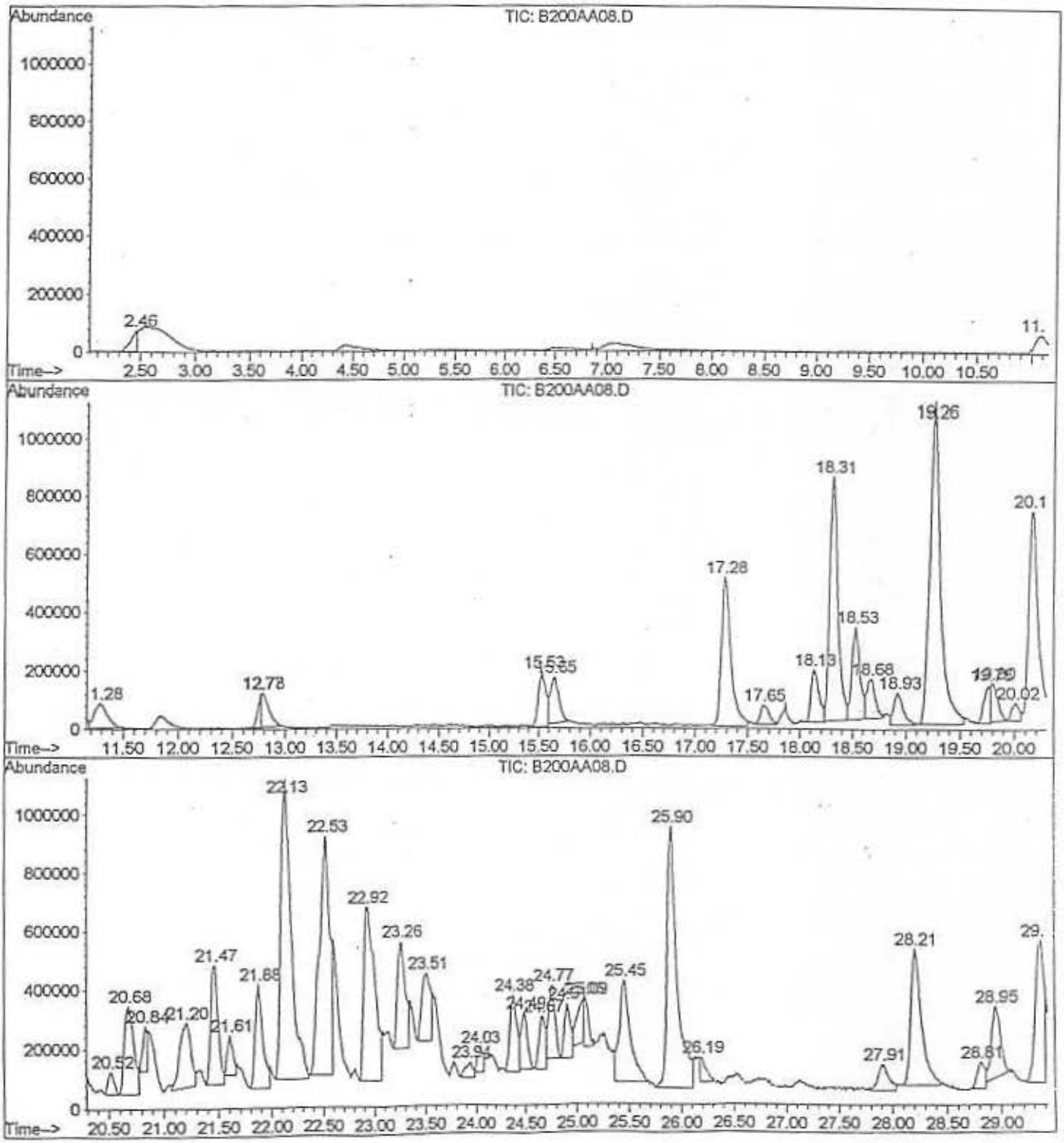
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	2.462	57	85	87	rBV	72338	347685	306932	4.05%	0.375%
2	11.083	1725	1751	1770	rBV8	62543	522271	464322	6.13%	0.567%
3	11.280	1770	1789	1825	rVB6	84372	1002098	710372	9.38%	0.868%
4	12.765	2059	2076	2077	rBV3	118345	298990	269556	3.56%	0.329%
5	12.781	2077	2079	2112	rVB6	115876	1242933	563020	7.43%	0.688%
6	15.534	2592	2611	2623	rBV4	186228	1025928	967599	12.77%	1.182%
7	15.653	2623	2634	2663	rVB6	157455	1612177	908963	12.00%	1.110%
8	17.278	2924	2948	2992	rBV6	512258	3365634	3229453	42.63%	3.945%
9	17.645	3003	3019	3045	rBV4	67660	517216	385153	5.08%	0.471%
10	18.132	3096	3113	3132	rBV4	180477	1126841	966252	12.76%	1.180%
11	18.313	3132	3148	3175	rVV2	840554	5194669	4647891	61.36%	5.678%
12	18.530	3175	3190	3207	rVV3	316465	2111013	1683020	22.22%	2.056%
13	18.675	3207	3218	3240	rVB6	133963	1389102	752102	9.93%	0.919%
14	18.929	3253	3267	3297	rVB5	112327	1036308	672858	8.88%	0.822%
15	19.260	3301	3331	3384	rBV5	1109775	7871871	7575248	100.00%	9.254%
16	19.777	3406	3431	3432	rBV8	132725	662398	541396	7.15%	0.661%
17	19.798	3432	3435	3460	rVB7	131814	1216031	546863	7.22%	0.668%
18	20.016	3460	3477	3486	rBV10	60490	441594	276376	3.65%	0.338%
19	20.171	3487	3507	3546	rVB4	702259	4787361	4172639	55.08%	5.097%
20	20.523	3563	3575	3587	rVB3	72785	525005	286809	3.79%	0.350%
21	20.683	3587	3606	3624	rBV3	295000	2128701	1783727	23.55%	2.179%
22	20.838	3624	3636	3639	rBV5	151775	734798	409802	5.41%	0.501%
23	21.201	3680	3706	3723	rVV5	222885	2125648	1546412	20.41%	1.889%
24	21.470	3743	3758	3774	rBV2	403999	2312135	1862445	24.59%	2.275%
25	21.609	3774	3785	3796	rBV6	133674	901343	465607	6.15%	0.569%
26	21.879	3821	3837	3857	rBV6	352967	2182072	1768480	23.35%	2.160%
27	22.132	3866	3886	3929	rBV3	1026025	8152748	7093202	93.64%	8.665%
28	22.525	3929	3962	3975	rBV5	816907	6503830	5670988	74.86%	6.928%
29	22.924	4025	4039	4067	rBV6	592195	5006366	4337559	57.26%	5.299%
30	23.260	4090	4104	4119	rBV4	366597	2929411	1931250	25.49%	2.359%
31	23.514	4135	4153	4163	rBV4	231116	2409134	1354469	17.88%	1.655%

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D
Operator : QCP
Acquired : 11 Jan 00 15:05 using AcqMethod 8260B
Instrument : GC/MS Ins
Sample Name: 200069-02 S(RR)
Misc Info : 2.00g/5mL
Vial Number: 9
Quant File :8260B.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

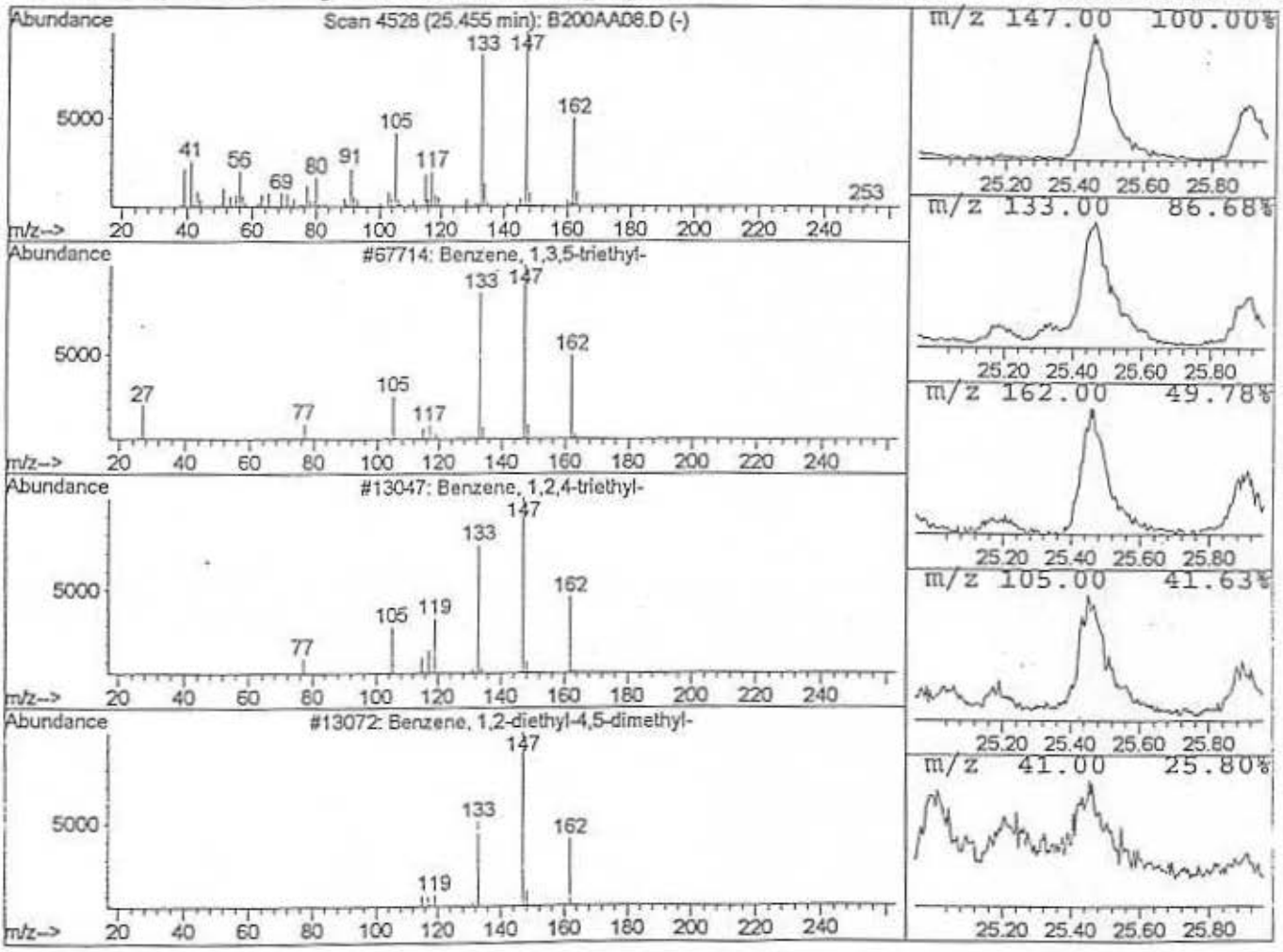
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 17 Benzene, 1,3,5-triethyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
25.45	17.91 ug/l	2540770	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3,5-triethyl-	162	C12H18	000102-25-0	74
2	Benzene, 1,2,4-triethyl-	162	C12H18	000877-44-1	91
3	Benzene, 1,2-diethyl-4,5-dimethyl-	162	C12H18	019961-07-0	40
4	1,2,3,4-Tetrahydro-2,3-dimethylquin	162	C10H14N2	013311-77-8	32



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

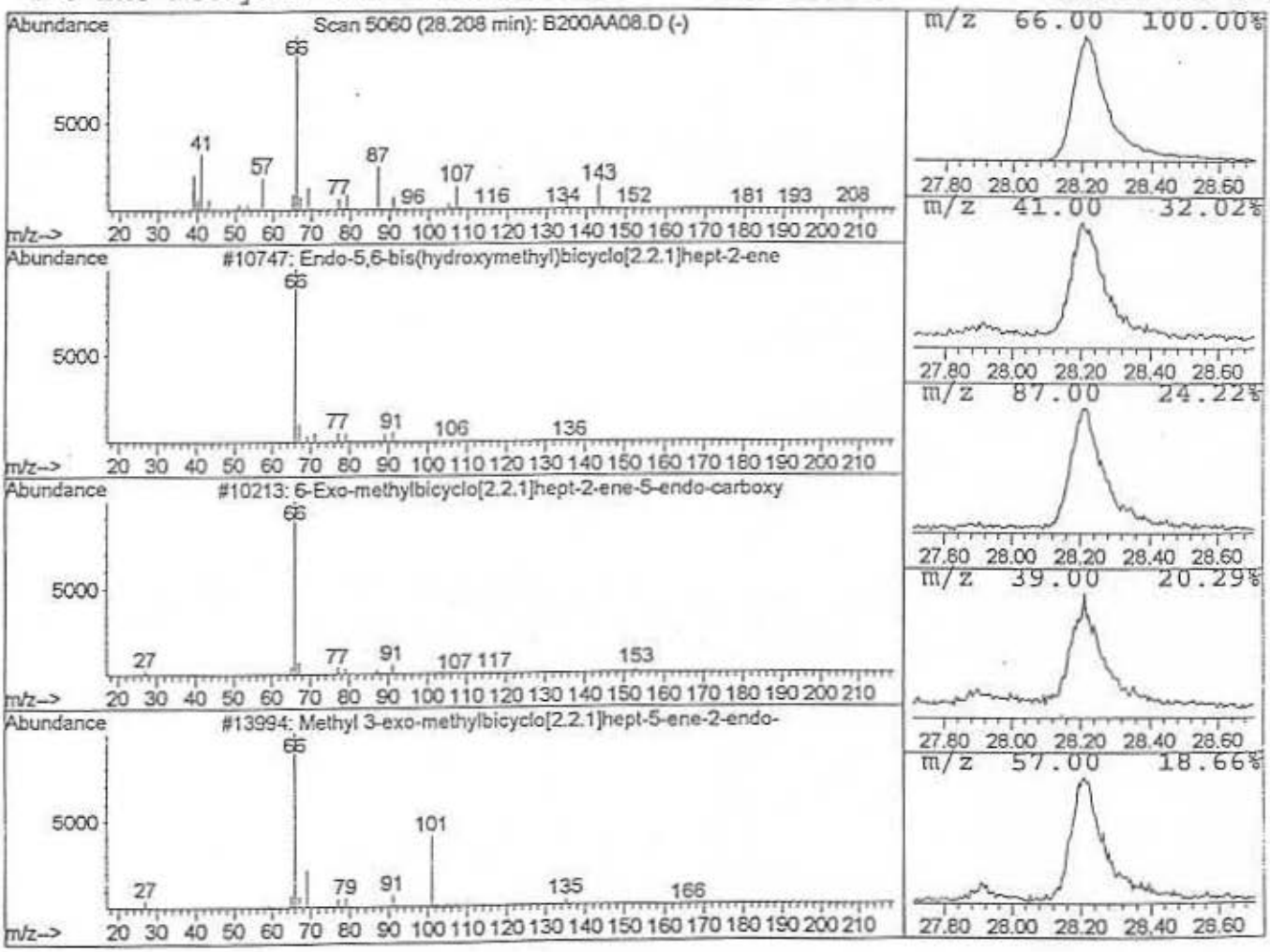
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 18 Endo-5,6-bis(hydroxymethyl)bic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
28.21	22.64 ug/l	3211300	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Endo-5,6-bis(hydroxymethyl)bicyclo[	154	C9H14O2	000000-00-0	50
2	6-Exo-methylbicyclo[2.2.1]hept-2-en	152	C9H12O2	000000-00-0	56
3	Methyl 3-exo-methylbicyclo[2.2.1]he	166	C10H14O2	000000-00-0	40
4	6-Exo-methyl-5-endo-norbornenol	124	C8H12O	041414-52-2	39



38 129

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

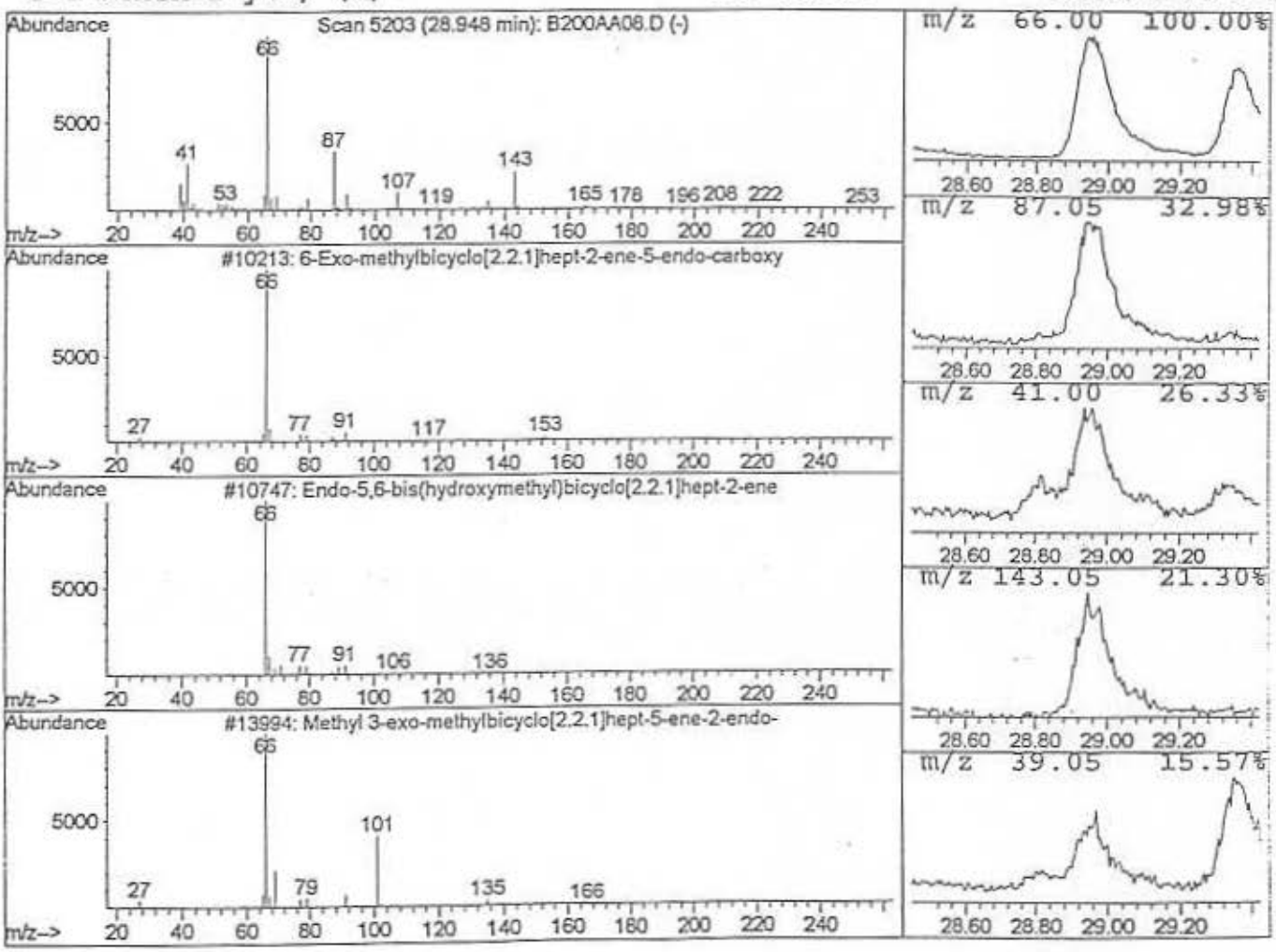
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 19 6-Exo-methylbicyclo[2.2.1]hept Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
28.95	9.87 ug/l	1400770	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	6-Exo-methylbicyclo[2.2.1]hept-2-en	152	C9H12O2	000000-00-0	39
2	Endo-5,6-bis(hydroxymethyl)bicyclo[	154	C9H14O2	000000-00-0	39
3	Methyl 3-exo-methylbicyclo[2.2.1]he	166	C10H14O2	000000-00-0	40
4	4-Nonen-2-yne, (Z)-	122	C9H14	053497-78-2	9



38 130

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

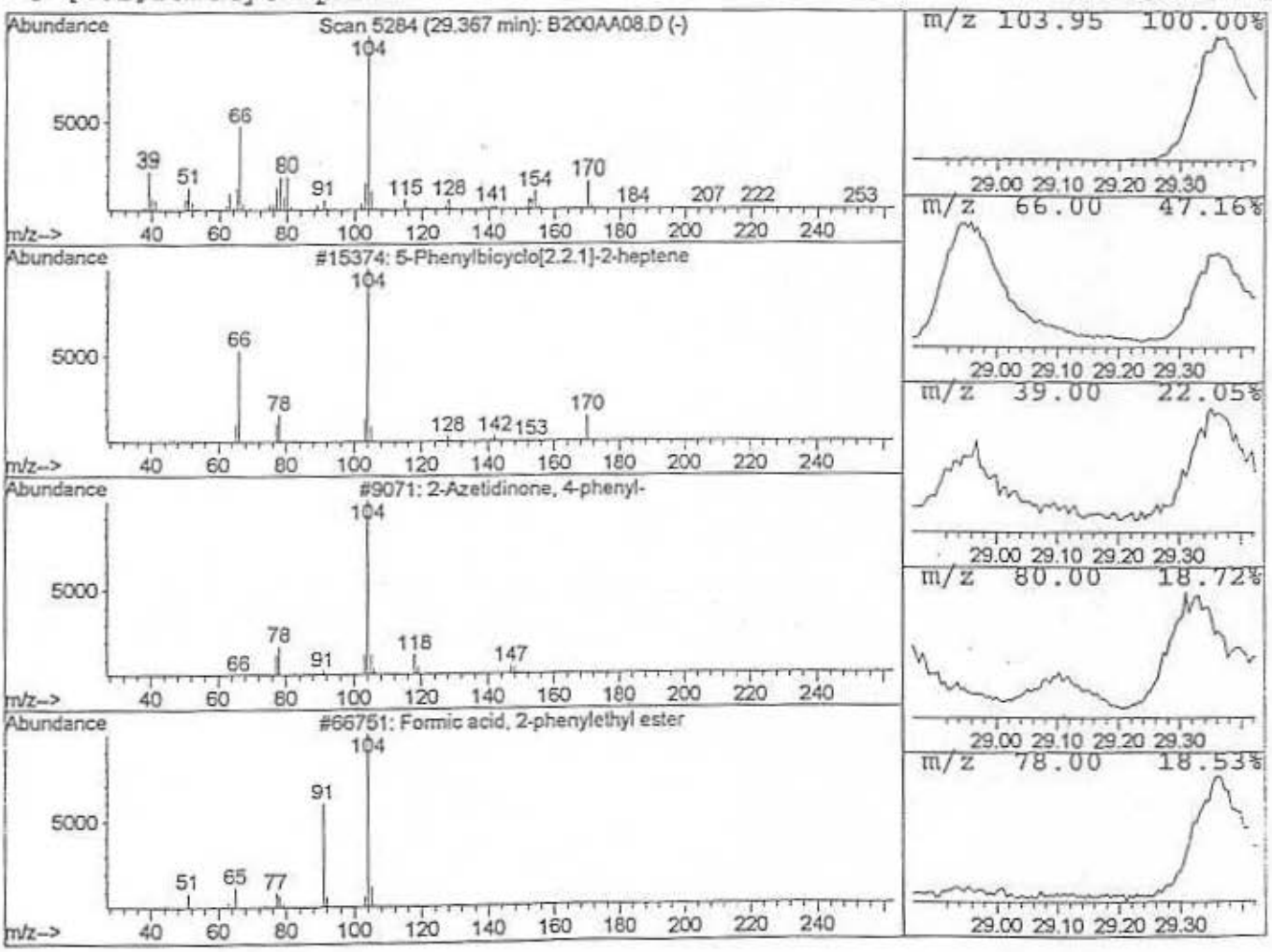
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 20 5-Phenylbicyclo[2.2.1]-2-hepte Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
29.37	18.46 ug/l	2618600	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID.	MW	MolForm	CAS#	Qual
1	5-Phenylbicyclo[2.2.1]-2-heptene	170	C13H14	006143-30-2	93
2	2-Azetidinone, 4-phenyl-	147	C9H9NO	005661-55-2	10
3	Formic acid, 2-phenylethyl ester	150	C9H10O2	000104-62-1	10
4	[2.2]Paracyclophane	208	C16H16	001633-22-3	10



38 131

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\JAN2000\01112000\B200AA08.D Vial: 9
Acq On : 11 Jan 00 15:05 Operator: QCP
Sample : 200069-02 S(RR) Inst : GC/MS Ins
Misc : 2.00g/5mL Multiplr: 2.50
MS Integration Params: RTEINT.P

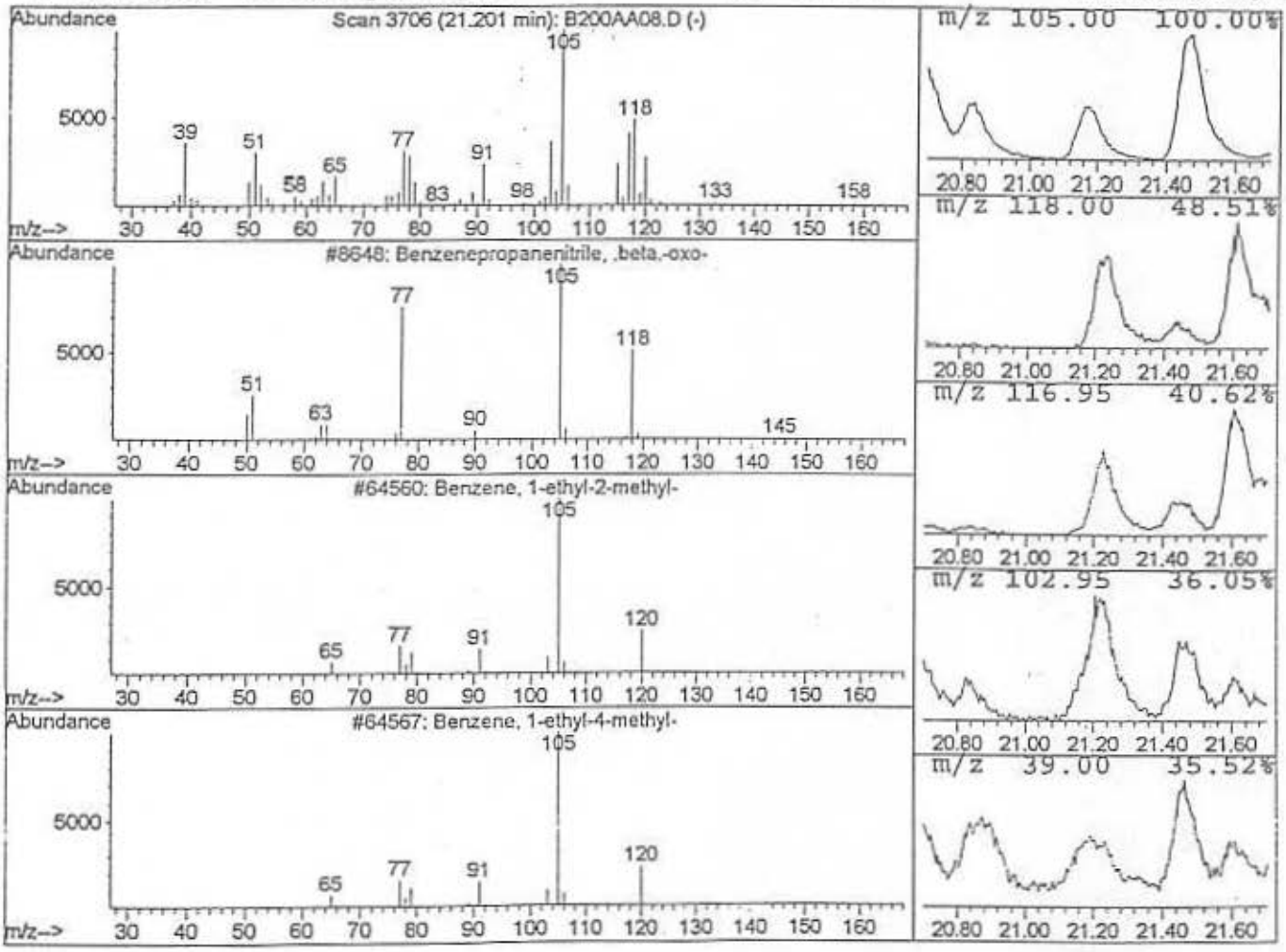
Quant Method : C:\HPCHEM\1\METHODS\8260B.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

****

Peak Number 9 Benzenepropanenitrile, .beta.- Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.20	10.90 ug/l	1546410	1,4-Dichlorobenzene-d4	22.13

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzenepropanenitrile, .beta.-oxo-	145	C9H7NO	000614-16-4	27
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	18
3	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	18
4	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	22



38 132

D. H.

FEB 17 2000
FIELD OPERATIONS
REGION 14

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Severn Trent Laboratories
1733 North Padre Island Drive
Corpus Christi, TX 78408

Tel: (361) 289-2673
(800) 548-8228
Fax: (361) 289-2471
www.stl-inc.com

February 16, 2000

Ms. Cecily Warren
TNRCC
P.O. Box 13087 Capitol Station
Field Operations Division
Austin, TX 78711-3087

Re: Severn Trent Laboratories' Job Number 200069

Dear Ms. Warren:

Enclosed is the revised analytical report of Severn-Trent Laboratories' job number 200069. As requested by David Harvey, analysis for specific gravity was added to sample 1.

Please replace the original report with this revised report and feel free to call if you have any questions or if we can be of further assistance.

Sincerely,

Deborah Jimenez

Deborah Jimenez
Project Manager

Enclosure

SEVERN TRENT LABORATORIES

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ANALYTICAL REPORT

JOB NUMBER: 200069

Prepared For:

TNRCC
P. O. Box 13087 Capitol Station
Field Operations Division
Austin, TX 78711-3087

Attention: Cecily Warren

Date: 02/16/2000

Signature

Date 2/16/00

Name: Chip Meador

Title: Laboratory Director

Severn Trent Laboratories
1733 N. Padre Island Drive
Corpus Christi, TX 78408

PHONE: 512/289-2673
FAX..: 512/289-2471

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SEVERN TRENT LABORATORIES

CASE NARRATIVE

Job Number 200069

January 12, 2000

Volatile Organics Analysis

Sample 200069-2 was analyzed for volatile organics using EPA Method 8260B. The percent recovery result for 1,2-dichloroethane-d14 surrogate was below the acceptance criteria. Reanalysis yielded similar results. All other quality control analyses were within acceptable limits and it appears the out of control data are due to the sample matrix.

Please call if you have any questions regarding this report or if we can be of further assistance.

Olga Verónica McDonald

Olga Verónica McDonald
QA/QC Coordinator

Severn Trent Laboratories
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SAMPLE INFORMATION
Date: 02/16/2000

Job Number.: 200069
Customer...: TNRCC
Attn.....: Cecily Warren

Project Number.....: 99999995
Customer Project ID....: DAVID HARVEY
Project Description....: Walk in Projects

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200069-1	002789-01	Org. Waste	01/07/2000	10:20	01/07/2000	11:27
200069-2	002789-02	Soil	01/07/2000	10:30	01/07/2000	11:27

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 02/16/2000

CUSTOMER: TNRCC PROJECT: DAVID HARVEY ATTN: Cecily Warren

Customer Sample ID: 002789-01
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:20
Sample Matrix.....: Org. Waste

Laboratory Sample ID: 200069-1
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
ASTM 1429-86	Specific Gravity	0.8602	0.0001	25C/25C	02/15/00	nar
	GCMS Scan for Volatile Organics	Complete			01/10/00	qcp
SW-846 1010	Ignitability (Flashpoint)	<70.0	1	degrees F	01/10/00	tlm
SW-846 8260B	Volatile Organics (Client List)					
	Acrolein, Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	Acrylonitrile, Org. Waste	ND	4000	mg/Kg	01/10/00	qcp
	Acetone, Org. Waste	ND	20000	mg/Kg	01/10/00	qcp
	Acetonitrile, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Allyl Chloride (3-Chloro-1-Propene), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Benzene, Org. Waste	9000	1000	mg/Kg	01/10/00	qcp
	Benzyl Chloride, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromochloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromodichloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromoform, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Bromomethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,3-Butadiene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	n-Butyl Alcohol (1-Butanol), Org. Waste	ND	200000	mg/Kg	01/10/00	qcp
	tert-Butyl Methyl Ether (MTBE), Org. Waste	3000	1000	mg/Kg	01/10/00	qcp
	Methyl Ethyl Ketone (2-Butanone), Org. Waste	ND	2000	mg/Kg	01/10/00	qcp
	n-Butylbenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	sec-Butylbenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	tert-Butylbenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Carbon Disulfide, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Carbon Tetrachloride, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2-Chloroethylvinyl Ether, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chloroform, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1-Chlorohexane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Chloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2-Chloro-1,3-Butadiene (Chloroprene), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2-Chlorotoluene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	4-Chlorotoluene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Cyclohexanone, Org. Waste	ND	4000	mg/Kg	01/10/00	qcp
	Cyclohexane, Org. Waste	5000	1000	mg/Kg	01/10/00	qcp
	Dibromochloromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dibromoethane (EDB), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dibromo-3-Chloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Dibromomethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,3-Dichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,4-Dichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	trans-1,4-Dichloro-2-Butene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	cis-1,4-Dichloro-2-Butene, Org. Waste	ND	2000	mg/Kg	01/10/00	qcp

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 02/16/2000

CUSTOMER: TNRCC

PROJECT: DAVID HARVEY

ATTN: Cecily Warren

Customer Sample ID: 002789-01
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:20
Sample Matrix.....: Org. Waste

Laboratory Sample ID: 200069-1
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	Dichlorodifluoromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1-Dichloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dichloroethane (EDC), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1-Dichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	cis-1,2-Dichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	trans-1,2-Dichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2-Dichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	cis-1,3-Dichloropropene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	trans-1,3-Dichloropropene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,3-Dichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	2,2-Dichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1-Dichloropropene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,4-Dioxane, Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	Ethyl Acetate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Ethylbenzene, Org. Waste	33000	1000	mg/Kg	01/10/00	qcp
	Ethyl Ether (Diethyl Ether), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Ethyl Methacrylate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Hexachlorobutadiene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Hexane, Org. Waste	3000	1000	mg/Kg	01/10/00	qcp
	2-Hexanone, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Iodomethane (Methyl Iodide), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Isobutyl Alcohol, Org. Waste	ND	200000	mg/Kg	01/10/00	qcp
	Isopropyl Alcohol (2-Propanol), Org. Waste	ND	20000	mg/Kg	01/10/00	qcp
	Isopropylbenzene (Cumene), Org. Waste	2000	1000	mg/Kg	01/10/00	qcp
	p-Isopropyltoluene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Methylacrylonitrile, Org. Waste	ND	2000	mg/Kg	01/10/00	qcp
	Methylene Chloride (Dichloromethane), Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	4-Methyl-2-Pentanone (MIBK), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Methyl Methacrylate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Naphthalene, Org. Waste	5000	1000	mg/Kg	01/10/00	qcp
	2-Nitropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Propionitrile, Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	n-Propylbenzene, Org. Waste	2000	1000	mg/Kg	01/10/00	qcp
	Styrene, Org. Waste	30000	1000	mg/Kg	01/10/00	qcp
	1,1,1,2-Tetrachloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,2,2-Tetrachloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Tetrachloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Toluene, Org. Waste	14000	1000	mg/Kg	01/10/00	qcp
	1,2,3-Trichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2,4-Trichlorobenzene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,1-Trichloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,2-Trichloroethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Trichloroethene, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	Trichlorofluoromethane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,1,2-Trichloro-1,2,2-Trifluoroethane, Org. Waste	ND	10000	mg/Kg	01/10/00	qcp
	1,2,3-Trichloropropane, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	1,2,4-Trimethylbenzene, Org. Waste	7000	1000	mg/Kg	01/10/00	qcp
	1,3,5-Trimethylbenzene, Org. Waste	3000	1000	mg/Kg	01/10/00	qcp
	Vinyl Acetate, Org. Waste	ND	1000	mg/Kg	01/10/00	qcp

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 02/16/2000

CUSTOMER: TNRCC | PROJECT: DAVID HARVEY | ATTN: Cecily Warren

Customer Sample ID: 002789-01
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:20
Sample Matrix.....: Org. Waste

Laboratory Sample ID: 200069-1
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	Vinyl Chloride (Chloroethene), Org. Waste	ND	1000	mg/Kg	01/10/00	qcp
	o-Xylene, Org. Waste	8000	1000	mg/Kg	01/10/00	qcp
	m&p-Xylenes, Org. Waste	11000	1000	mg/Kg	01/10/00	qcp
SW-846 8260B	Volatile Organics, TCLP					
	Benzene	6800	500	mg/L	01/11/00	qcp
	Carbon Tetrachloride	ND	500	mg/L	01/11/00	qcp
	Chlorobenzene	ND	500	mg/L	01/11/00	qcp
	Chloroform	ND	500	mg/L	01/11/00	qcp
	1,2-Dichloroethane (EDC)	ND	500	mg/L	01/11/00	qcp
	1,1-Dichloroethene	ND	500	mg/L	01/11/00	qcp
	Methyl Ethyl Ketone (2-Butanone)	ND	5000	mg/L	01/11/00	qcp
	Tetrachloroethene	ND	500	mg/L	01/11/00	qcp
	Trichloroethene	ND	500	mg/L	01/11/00	qcp
	Vinyl Chloride (Chloroethene)	ND	500	mg/L	01/11/00	qcp
SW-846 1311	TCLP Physical Characterization					
	% Solids	<0.5	0.5	%	01/10/00	rh
	% Liquid	100	0.5	%	01/10/00	rh
	% Aqueous - Extract	<0.5	0.5	%	01/10/00	rh
	% Non-aqueous - Extract	100	0.5	%	01/10/00	rh
SW-846 1311	Toxic Characteristic Leaching Procedure					
	Zero Head Space (ZHE) Extraction	Complete			01/10/00	rh

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Job Number	200069	Customer Name	TNRCC
COC Number	2789	Customer Description	002789-01

SAMPLE ANALYSIS SUMMARY

Tentatively Identified Compounds

INDIVIDUAL CONSTITUENTS	CAS NO.	METHOD	ESTIMATED CONCENTRATION	UNITS
$C_{10}H_{22}$		SW-846 8260B	9100	mg/Kg
Butanoic Acid, butyl ester	109-21-7	SW-846 8260B	7300	mg/Kg
2-Hexenal, 2-ethyl-	645-62-5	SW-846 8260B	2600	ug/Kg
C_9H_{10}		SW-846 8260B	4600	ug/Kg
$C_{10}H_{14}$		SW-846 8260B	1700	ug/Kg
$C_{10}H_{16}$		SW-846 8260B	2600	ug/Kg
$C_{12}H_{180}$		SW-846 8260B	6100	mg/Kg
Unknown Hydrocarbon		SW-846 8260B	9000	mg/Kg
Cyclohexene, 4-ethenyl-	100-40-3	SW-846 8260B	52000	mg/Kg

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 02/16/2000

CUSTOMER: TNRCC

PROJECT: DAVID HARVEY

ATTN: Cecily Warren

Customer Sample ID: 002789-02
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200069-2
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	GCMS Scan for Volatile Organics	Complete			01/11/00	qcp
SW-846 8260B	Volatile Organics (Client List)					
	Acrolein, Solid	ND	120	ug/Kg	01/11/00	qcp
	Acrylonitrile, Solid	ND	50	ug/Kg	01/11/00	qcp
	Acetone, Solid	ND	250	ug/Kg	01/11/00	qcp
	Acetonitrile, Solid	ND	10	ug/Kg	01/11/00	qcp
	Allyl Chloride (3-Chloro-1-Propene), Solid	ND	10	ug/Kg	01/11/00	qcp
	Benzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Benzyl Chloride, Solid	ND	10	ug/Kg	01/11/00	qcp
	Bromobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Bromochloromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Bromodichloromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Bromoform, Solid	ND	10	ug/Kg	01/11/00	qcp
	Bromomethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,3-Butadiene, Solid	ND	10	ug/Kg	01/11/00	qcp
	n-Butyl Alcohol (1-Butanol), Solid	ND	2500	ug/Kg	01/11/00	qcp
	tert-Butyl Methyl Ether (MTBE), Solid	ND	10	ug/Kg	01/11/00	qcp
	Methyl Ethyl Ketone (2-Butanone), Solid	ND	25	ug/Kg	01/11/00	qcp
	n-Butylbenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	sec-Butylbenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	tert-Butylbenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Carbon Disulfide, Solid	ND	10	ug/Kg	01/11/00	qcp
	Carbon Tetrachloride, Solid	ND	10	ug/Kg	01/11/00	qcp
	Chlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Chloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	2-Chloroethylvinyl Ether, Solid	ND	10	ug/Kg	01/11/00	qcp
	Chloroform, Solid	ND	10	ug/Kg	01/11/00	qcp
	1-Chlorohexane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Chloromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	2-Chloro-1,3-Butadiene (Chloroprene), Solid	ND	10	ug/Kg	01/11/00	qcp
	2-Chlorotoluene, Solid	ND	10	ug/Kg	01/11/00	qcp
	4-Chlorotoluene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Cyclohexanone, Solid	ND	50	ug/Kg	01/11/00	qcp
	Cyclohexane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Dibromochloromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dibromoethane (EDB), Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dibromo-3-Chloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Dibromomethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,3-Dichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,4-Dichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	trans-1,4-Dichloro-2-Butene, Solid	ND	10	ug/Kg	01/11/00	qcp
	cis-1,4-Dichloro-2-Butene, Solid	ND	25	ug/Kg	01/11/00	qcp
	Dichlorodifluoromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1-Dichloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dichloroethane (EDC), Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1-Dichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp

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LABORATORY TEST RESULTS

Job Number: 200069 Date: 02/16/2000

CUSTOMER: TNRCC PROJECT: DAVID HARVEY ATTN: Cecily Warren

Customer Sample ID: 002789-02
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200069-2
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	cis-1,2-Dichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	trans-1,2-Dichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2-Dichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	cis-1,3-Dichloropropene, Solid	ND	10	ug/Kg	01/11/00	qcp
	trans-1,3-Dichloropropene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,3-Dichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	2,2-Dichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1-Dichloropropene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,4-Dioxane, Solid	ND	120	ug/Kg	01/11/00	qcp
	Ethyl Acetate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Ethylbenzene, Solid	500	10	ug/Kg	01/11/00	qcp
	Ethyl Ether (Diethyl Ether), Solid	ND	10	ug/Kg	01/11/00	qcp
	Ethyl Methacrylate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Hexachlorobutadiene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Hexane, Solid	ND	10	ug/Kg	01/11/00	qcp
	2-Hexanone, Solid	ND	10	ug/Kg	01/11/00	qcp
	Iodomethane (Methyl Iodide), Solid	ND	10	ug/Kg	01/11/00	qcp
	Isobutyl Alcohol, Solid	ND	2500	ug/Kg	01/11/00	qcp
	Isopropyl Alcohol (2-Propanol), Solid	ND	250	ug/Kg	01/11/00	qcp
	Isopropylbenzene (Cumene), Solid	60	10	ug/Kg	01/11/00	qcp
	p-Isopropyltoluene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Methylacrylonitrile, Solid	ND	25	ug/Kg	01/11/00	qcp
	Methylene Chloride (Dichloromethane), Solid	ND	120	ug/Kg	01/11/00	qcp
	4-Methyl-2-Pentanone (MIBK), Solid	ND	10	ug/Kg	01/11/00	qcp
	Methyl Methacrylate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Naphthalene, Solid	1200	10	ug/Kg	01/11/00	qcp
	2-Nitropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Propionitrile, Solid	ND	120	ug/Kg	01/11/00	qcp
	n-Propylbenzene, Solid	50	10	ug/Kg	01/11/00	qcp
	Styrene, Solid	670	10	ug/Kg	01/11/00	qcp
	1,1,1,2-Tetrachloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,2,2-Tetrachloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Tetrachloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Toluene, Solid	90	10	ug/Kg	01/11/00	qcp
	1,2,3-Trichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2,4-Trichlorobenzene, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,1-Trichloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,2-Trichloroethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	Trichloroethene, Solid	ND	10	ug/Kg	01/11/00	qcp
	Trichlorofluoromethane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,1,2-Trichloro-1,2,2-Trifluoroethane, Solid	ND	120	ug/Kg	01/11/00	qcp
	1,2,3-Trichloropropane, Solid	ND	10	ug/Kg	01/11/00	qcp
	1,2,4-Trimethylbenzene, Solid	260	10	ug/Kg	01/11/00	qcp
	1,3,5-Trimethylbenzene, Solid	120	10	ug/Kg	01/11/00	qcp
	Vinyl Acetate, Solid	ND	10	ug/Kg	01/11/00	qcp
	Vinyl Chloride (Chloroethene), Solid	ND	10	ug/Kg	01/11/00	qcp
	o-Xylene, Solid	200	10	ug/Kg	01/11/00	qcp
	m&p-Xylenes, Solid	200	10	ug/Kg	01/11/00	qcp

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LABORATORY TEST RESULTS

Job Number: 200069

Date: 02/16/2000

CUSTOMER: TNRCC | PROJECT: DAVID HARVEY | ATTN: Cecily Warren

Customer Sample ID: 002789-02
Date Sampled.....: 01/07/2000
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200069-2
Date Received.....: 01/07/2000
Time Received.....: 11:27

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8260B	Volatile Organics, TCLP					
	Benzene	ND	25	ug/L	01/11/00	qcp
	Carbon Tetrachloride	ND	25	ug/L	01/11/00	qcp
	Chlorobenzene	ND	25	ug/L	01/11/00	qcp
	Chloroform	ND	25	ug/L	01/11/00	qcp
	1,2-Dichloroethane (EDC)	ND	25	ug/L	01/11/00	qcp
	1,1-Dichloroethene	ND	25	ug/L	01/11/00	qcp
	Methyl Ethyl Ketone (2-Butanone)	ND	250	ug/L	01/11/00	qcp
	Tetrachloroethene	ND	25	ug/L	01/11/00	qcp
	Trichloroethene	ND	25	ug/L	01/11/00	qcp
	Vinyl Chloride (Chloroethene)	ND	25	ug/L	01/11/00	qcp
SW-846 1311	TCLP Physical Characterization					
	% Solids	100	0.5	%	01/10/00	rh
	% Liquid	<0.5	0.5	%	01/10/00	rh
	% Aqueous - Extract	100	0.5	%	01/10/00	rh
	% Non-aqueous - Extract	<0.5	0.5	%	01/10/00	rh
SW-846 1311	Toxic Characteristic Leaching Procedure					
	Zero Head Space (ZHE) Extraction	Complete			01/10/00	rh

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Job Number	200069	Customer Name	TNRCC
COC Number	2789	Customer Description	002789-02

SAMPLE ANALYSIS SUMMARY

Tentatively Identified Compounds

INDIVIDUAL CONSTITUENTS	CAS NO.	METHOD	ESTIMATED CONCENTRATION	UNITS
Cyclohexene, 4-ethenyl	100-40-3	SW-846 8260B	420	ug/Kg
$C_8H_{16}O_2$		SW-846 8260B	150	ug/Kg
$C_7H_{14}O$		SW-846 8260B	87	ug/Kg
$C_{10}H_{16}$		SW-846 8260B	70	ug/Kg
C_8H_{12}		SW-846 8260B	36	ug/Kg
C_9H_{12}		SW-846 8260B	31	ug/Kg
Limonene	138-86-3	SW-846 8260B	31	ug/Kg
Indane	496-11-7	SW-846 8260B	100	ug/Kg
Indene	95-13-6	SW-846 8260B	76	ug/Kg
$C_{10}H_{14}$		SW-846 8260B	34	ug/Kg
$C_{10}H_{12}$		SW-846 8260B	20	ug/Kg
$C_{12}H_{18}$		SW-846 8260B	45	ug/Kg
$C_{13}H_{14}$		SW-846 8260B	46	ug/Kg
Unknown Hydrocarbons		SW-846 8260B	156	ug/Kg

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QUALITY CONTROL RESULTS

Job Number.: 200069 | Report Date.: 02/16/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

Test Method.....: ASTM 1429-86
Method Description.: Specific Gravity
Parameter.....: Specific Gravity
Batch.....: 43727
Units.....: 25C/25C
Analyst...: nar
Test Code.: SPGRAV

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date	Time
MD	200069-1		0.8572			0.8602	0.3	R	20	02/15/2000	1510

Test Method.....: SW-846 1010
Method Description.: Ignitability (Pensky-Martens Closed-Cup)
Parameter.....: Ignitability (Flashpoint)
Batch.....: 42637
Units.....: degrees F
Analyst...: tlm
Test Code.: IGNPMC

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date	Time
LCS		C80724A	79.5		81		98.1	%	90-110	01/10/2000	0915
MD	200069-1		<70.0			<70.0	0.0	R	20	01/10/2000	1015

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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SEVERN TRENT LABORATORIES

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QUALITY CONTROL RESULTS

Job Number.: 200069

Report Date.: 02/16/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: SW-846 8260B
Method Description.: Volatile Organics (Client List)
Batch.....: 42690
Units.....: ug/L
Analyst...: qcp

CCV	Continuing Calibration Verification	V91203B			01/10/2000	1001

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	101.94		100.000000		101.9	%	80-120
Bromoform	113.88		100.000000		113.9	%	80-120
Chlorobenzene	108.11		100.000000		108.1	%	80-120
Chloroform	100.36		100.000000		100.4	%	80-120
Chloromethane	80.01		100.000000		80.0	%	80-120
1,1-Dichloroethane	100.75		100.000000		100.8	%	80-120
1,1-Dichloroethene	90.55		100.000000		90.5	%	80-120
1,2-Dichloropropane	95.15		100.000000		95.2	%	80-120
Ethylbenzene	104.18		100.000000		104.2	%	80-120
1,1,2,2-Tetrachloroethane	115.44		100.000000		115.4	%	80-120
Toluene	96.15		100.000000		96.2	%	80-120
Trichloroethene	94.12		100.000000		94.1	%	80-120
Vinyl Chloride (Chloroethene)	92.16		100.000000		92.2	%	80-120

LCS	Laboratory Control Sample	V91211A			01/10/2000	1036

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	47.96		50.000000		95.9	%	80-120
Chlorobenzene	49.68		50.000000		99.4	%	80-120
1,1-Dichloroethene	40.22		50.000000		80.4	%	80-120
Toluene	44.95		50.000000		89.9	%	80-120
Trichloroethene	46.03		50.000000		92.1	%	80-120

MB	Method Blank	01102000			01/10/2000	1110

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Acrolein	ND						
Acrylonitrile	ND						
Acetone	ND						
Acetonitrile	ND						
Allyl Chloride (3-Chloro-1-Propene)	ND						
Benzene	ND						
Benzyl Chloride	ND						
Bromobenzene	ND						
Bromochloromethane	ND						
Bromodichloromethane	ND						
Bromoform	ND						
Bromomethane	ND						
1,3-Butadiene	ND						
n-Butyl Alcohol (1-Butanol)	ND						
tert-Butyl Methyl Ether (MTBE)	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
n-Butylbenzene	ND						
sec-Butylbenzene	ND						
tert-Butylbenzene	ND						
Carbon Disulfide	ND						

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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Job Number.: 200069

Report Date.: 02/16/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	1110

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroethane	ND						
2-Chloroethylvinyl Ether	ND						
Chloroform	ND						
1-Chlorohexane	ND						
Chloromethane	ND						
2-Chloro-1,3-Butadiene (Chloroprene)	ND						
2-Chlorotoluene	ND						
4-Chlorotoluene	ND						
Cyclohexanone	ND						
Cyclohexane	ND						
Dibromochloromethane	ND						
1,2-Dibromoethane (EDB)	ND						
1,2-Dibromo-3-Chloropropane	ND						
Dibromomethane	ND						
1,2-Dichlorobenzene	ND						
1,3-Dichlorobenzene	ND						
1,4-Dichlorobenzene	ND						
trans-1,4-Dichloro-2-Butene	ND						
cis-1,4-Dichloro-2-Butene	ND						
Dichlorodifluoromethane	ND						
1,1-Dichloroethane	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
cis-1,2-Dichloroethene	ND						
trans-1,2-Dichloroethene	ND						
1,2-Dichloropropane	ND						
cis-1,3-Dichloropropene	ND						
trans-1,3-Dichloropropene	ND						
1,3-Dichloropropane	ND						
2,2-Dichloropropane	ND						
1,1-Dichloropropene	ND						
1,4-Dioxane	ND						
Ethyl Acetate	ND						
Ethylbenzene	ND						
Ethyl Ether (Diethyl Ether)	ND						
Ethyl Methacrylate	ND						
Hexachlorobutadiene	ND						
Hexane	ND						
2-Hexanone	ND						
Iodomethane (Methyl Iodide)	ND						
Isobutyl Alcohol	ND						
Isopropyl Alcohol (2-Propanol)	ND						
Isopropylbenzene (Cumene)	ND						
p-Isopropyltoluene	ND						
Methylacrylonitrile	ND						
Methylene Chloride (Dichloromethane)	ND						
4-Methyl-2-Pentanone (MIBK)	ND						
Methyl Methacrylate	ND						
1-Methylpyrrolidine (NMP)	ND						
Naphthalene	ND						
2-Nitropropane	ND						
Propionitrile	ND						

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	1110

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
n-Propylbenzene	ND						
Styrene	ND						
1,1,1,2-Tetrachloroethane	ND						
1,1,2,2-Tetrachloroethane	ND						
Tetrachloroethene	ND						
Toluene	ND						
1,2,3-Trichlorobenzene	ND						
1,2,4-Trichlorobenzene	ND						
1,1,1-Trichloroethane	ND						
1,1,2-Trichloroethane	ND						
Trichloroethene	ND						
Trichlorofluoromethane	ND						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND						
1,2,3-Trichloropropane	ND						
1,2,4-Trimethylbenzene	ND						
1,3,5-Trimethylbenzene	ND						
Vinyl Acetate	ND						
Vinyl Chloride (Chloroethene)	ND						
Xylenes (total)	ND						
o-Xylene	ND						
m&p-Xylenes	ND						

MS	Matrix Spike	V91211A	200053-1	500	01/10/2000	1507

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	49.71		50.000000	ND	99.4	%	80-120
Chlorobenzene	54.10		50.000000	ND	108.2	%	80-120
1,1-Dichloroethene	38.17		50.000000	ND	76.3	%	80-120
Toluene	51.18		50.000000	ND	102.4	%	80-120
Trichloroethene	48.91		50.000000	ND	97.8	%	80-120

MSD	Matrix Spike Duplicate	V91211A	200053-1	500	01/10/2000	1541

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	47.71	49.71	50.000000	ND	95.4	%	80-120
					4.1	R	21
Chlorobenzene	51.96	54.10	50.000000	ND	103.9	%	80-120
					4.0	R	21
1,1-Dichloroethene	34.62	38.17	50.000000	ND	69.2	%	80-120
					9.8	R	22
Toluene	47.83	51.18	50.000000	ND	95.7	%	80-120
					6.8	R	21
Trichloroethene	49.25	48.91	50.000000	ND	98.5	%	80-120
					0.7	R	24

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MS	Matrix Spike	V91110A	200065-1	0.98	01/10/2000	1806

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	50.72		50.000000	ND	101.4	%	80-120
Chlorobenzene	56.47		50.000000	ND	112.9	%	80-120
1,1-Dichloroethene	48.88		50.000000	ND	97.8	%	80-120
Toluene	55.08		50.000000	ND	110.2	%	80-120
Trichloroethene	57.24		50.000000	ND	114.5	%	80-120

MSD	Matrix Spike Duplicate	V91110A	200065-1	0.99	01/10/2000	1844

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	47.43	50.72	50.000000	ND	94.9	%	80-120
					6.7	R	21
Chlorobenzene	50.83	56.47	50.000000	ND	101.7	%	80-120
					10.5	R	21
1,1-Dichloroethene	47.72	48.88	50.000000	ND	95.4	%	80-120
					2.4	R	22
Toluene	52.17	55.08	50.000000	ND	104.3	%	80-120
					5.4	R	21
Trichloroethene	52.98	57.24	50.000000	ND	106.0	%	80-120
					7.7	R	24

CCV	Continuing Calibration Verification	V91203B			01/10/2000	2153

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	91.81		100.000000		91.8	%	80-120
Bromoform	119.62		100.000000		119.6	%	80-120
Chlorobenzene	112.46		100.000000		112.5	%	80-120
Chloroform	99.40		100.000000		99.4	%	80-120
Chloromethane	80.60		100.000000		80.6	%	80-120
1,1-Dichloroethane	97.76		100.000000		97.8	%	80-120
1,1-Dichloroethene	85.55		100.000000		85.5	%	80-120
1,2-Dichloropropane	102.04		100.000000		102.0	%	80-120
Ethylbenzene	110.89		100.000000		110.9	%	80-120
1,1,2,2-Tetrachloroethane	108.00		100.000000		108.0	%	80-120
Toluene	116.31		100.000000		116.3	%	80-120
Trichloroethene	109.84		100.000000		109.8	%	80-120
Vinyl Chloride (Chloroethene)	84.56		100.000000		84.6	%	80-120

LCS	Laboratory Control Sample	V91211A			01/10/2000	2231

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	49.31		50.000000		98.6	%	80-120
Chlorobenzene	49.17		50.000000		98.3	%	80-120
1,1-Dichloroethene	40.48		50.000000		81.0	%	80-120
Toluene	49.96		50.000000		99.9	%	80-120
Trichloroethene	47.84		50.000000		95.7	%	80-120

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* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	2309

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Acrolein	ND						
Acrylonitrile	ND						
Acetone	ND						
Acetonitrile	ND						
Allyl Chloride (3-Chloro-1-Propene)	ND						
Benzene	ND						
Benzyl Chloride	ND						
Bromobenzene	ND						
Bromochloromethane	ND						
Bromodichloromethane	ND						
Bromoform	ND						
Bromomethane	ND						
1,3-Butadiene	ND						
n-Butyl Alcohol (1-Butanol)	ND						
tert-Butyl Methyl Ether (MTBE)	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
n-Butylbenzene	ND						
sec-Butylbenzene	ND						
tert-Butylbenzene	ND						
Carbon Disulfide	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroethane	ND						
2-Chloroethylvinyl Ether	ND						
Chloroform	ND						
1-Chlorohexane	ND						
Chloromethane	ND						
2-Chloro-1,3-Butadiene (Chloroprene)	ND						
2-Chlorotoluene	ND						
4-Chlorotoluene	ND						
Cyclohexanone	ND						
Cyclohexane	ND						
Dibromochloromethane	ND						
1,2-Dibromoethane (EDB)	ND						
1,2-Dibromo-3-Chloropropane	ND						
Dibromomethane	ND						
1,2-Dichlorobenzene	ND						
1,3-Dichlorobenzene	ND						
1,4-Dichlorobenzene	ND						
trans-1,4-Dichloro-2-Butene	ND						
cis-1,4-Dichloro-2-Butene	ND						
Dichlorodifluoromethane	ND						
1,1-Dichloroethane	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
cis-1,2-Dichloroethene	ND						
trans-1,2-Dichloroethene	ND						
1,2-Dichloropropane	ND						
cis-1,3-Dichloropropene	ND						
trans-1,3-Dichloropropene	ND						
1,3-Dichloropropane	ND						
2,2-Dichloropropane	ND						
1,1-Dichloropropene	ND						
1,4-Dioxane	ND						

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* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/10/2000	2309

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Ethyl Acetate	ND						
Ethylbenzene	ND						
Ethyl Ether (Diethyl Ether)	ND						
Ethyl Methacrylate	ND						
Hexachlorobutadiene	ND						
Hexane	ND						
2-Hexanone	ND						
Iodomethane (Methyl Iodide)	ND						
Isobutyl Alcohol	ND						
Isopropyl Alcohol (2-Propanol)	ND						
Isopropylbenzene (Cumene)	ND						
p-Isopropyltoluene	ND						
Methylacrylonitrile	ND						
Methylene Chloride (Dichloromethane)	ND						
4-Methyl-2-Pentanone (MIBK)	ND						
Methyl Methacrylate	ND						
1-Methylpyrrolidine (NMP)	ND						
Naphthalene	ND						
2-Nitropropane	ND						
Propionitrile	ND						
n-Propylbenzene	ND						
Styrene	ND						
1,1,1,2-Tetrachloroethane	ND						
1,1,2,2-Tetrachloroethane	ND						
Tetrachloroethene	ND						
Toluene	ND						
1,2,3-Trichlorobenzene	ND						
1,2,4-Trichlorobenzene	ND						
1,1,1-Trichloroethane	ND						
1,1,2-Trichloroethane	ND						
Trichloroethene	ND						
Trichlorofluoromethane	ND						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND						
1,2,3-Trichloropropane	ND						
1,2,4-Trimethylbenzene	ND						
1,3,5-Trimethylbenzene	ND						
Vinyl Acetate	ND						
Vinyl Chloride (Chloroethene)	ND						
Xylenes (total)	ND						
o-Xylene	ND						
m&p-Xylenes	ND						

Test Method.....: SW-846 8260B
Method Description.: Volatile Organics (Client List)

Batch.....: 42726
Units.....: ug/L

Analyst...: qcp

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
CCV	Continuing Calibration Verification	V912038			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	94.40		100.000000		94.4	%	80-120
Bromoform	118.12		100.000000		118.1	%	80-120
Chlorobenzene	112.98		100.000000		113.0	%	80-120

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
CCV	Continuing Calibration Verification	V91203B			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Chloroform	94.49		100.000000		94.5	%	80-120
Chloromethane	80.82		100.000000		80.8	%	80-120
1,1-Dichloroethane	97.34		100.000000		97.3	%	80-120
1,1-Dichloroethene	91.58		100.000000		91.6	%	80-120
1,2-Dichloropropane	98.97		100.000000		99.0	%	80-120
Ethylbenzene	112.31		100.000000		112.3	%	80-120
1,1,2,2-Tetrachloroethane	105.04		100.000000		105.0	%	80-120
Toluene	106.73		100.000000		106.7	%	80-120
Trichloroethene	100.23		100.000000		100.2	%	80-120
Vinyl Chloride (Chloroethene)	90.73		100.000000		90.7	%	80-120

LCS	Laboratory Control Sample	V91211A			01/11/2000	1203

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	46.49		50.000000		93.0	%	80-120
Chlorobenzene	53.02		50.000000		106.0	%	80-120
1,1-Dichloroethene	42.71		50.000000		85.4	%	80-120
Toluene	54.94		50.000000		109.9	%	80-120
Trichloroethene	50.07		50.000000		100.1	%	80-120

MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Acrolein	ND						
Acrylonitrile	ND						
Acetone	ND						
Acetonitrile	ND						
Allyl Chloride (3-Chloro-1-Propene)	ND						
Benzene	ND						
Benzyl Chloride	ND						
Bromobenzene	ND						
Bromochloromethane	ND						
Bromodichloromethane	ND						
Bromoform	ND						
Bromomethane	ND						
1,3-Butadiene	ND						
n-Butyl Alcohol (1-Butanol)	ND						
tert-Butyl Methyl Ether (MTBE)	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
n-Butylbenzene	ND						
sec-Butylbenzene	ND						
tert-Butylbenzene	ND						
Carbon Disulfide	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroethane	ND						
2-Chloroethylvinyl Ether	ND						
Chloroform	ND						
1-Chlorohexane	ND						
Chloromethane	ND						

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
2-Chloro-1,3-Butadiene (Chloroprene)	ND						
2-Chlorotoluene	ND						
4-Chlorotoluene	ND						
Cyclohexanone	ND						
Cyclohexane	ND						
Dibromochloromethane	ND						
1,2-Dibromoethane (EDB)	ND						
1,2-Dibromo-3-Chloropropane	ND						
Dibromomethane	ND						
1,2-Dichlorobenzene	ND						
1,3-Dichlorobenzene	ND						
1,4-Dichlorobenzene	ND						
trans-1,4-Dichloro-2-Butene	ND						
cis-1,4-Dichloro-2-Butene	ND						
Dichlorodifluoromethane	ND						
1,1-Dichloroethane	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
cis-1,2-Dichloroethene	ND						
trans-1,2-Dichloroethene	ND						
1,2-Dichloropropane	ND						
cis-1,3-Dichloropropene	ND						
trans-1,3-Dichloropropene	ND						
1,3-Dichloropropane	ND						
2,2-Dichloropropane	ND						
1,1-Dichloropropene	ND						
1,4-Dioxane	ND						
Ethyl Acetate	ND						
Ethylbenzene	ND						
Ethyl Ether (Diethyl Ether)	ND						
Ethyl Methacrylate	ND						
Hexachlorobutadiene	ND						
Hexane	ND						
2-Hexanone	ND						
Iodomethane (Methyl Iodide)	ND						
Isobutyl Alcohol	ND						
Isopropyl Alcohol (2-Propanol)	ND						
Isopropylbenzene (Cumene)	ND						
p-Isopropyltoluene	ND						
Methylacrylonitrile	ND						
Methylene Chloride (Dichloromethane)	ND						
4-Methyl-2-Pentanone (MIBK)	ND						
Methyl Methacrylate	ND						
1-Methylpyrrolidine (NMP)	ND						
Naphthalene	ND						
2-Nitropropane	ND						
Propionitrile	ND						
n-Propylbenzene	ND						
Styrene	ND						
1,1,1,2-Tetrachloroethane	ND						
1,1,2,2-Tetrachloroethane	ND						
Tetrachloroethene	ND						
Toluene	ND						
1,2,3-Trichlorobenzene	ND						

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QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
1,2,4-Trichlorobenzene	ND						
1,1,1-Trichloroethane	ND						
1,1,2-Trichloroethane	ND						
Trichloroethene	ND						
Trichlorofluoromethane	ND						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND						
1,2,3-Trichloropropane	ND						
1,2,4-Trimethylbenzene	ND						
1,3,5-Trimethylbenzene	ND						
Vinyl Acetate	ND						
Vinyl Chloride (Chloroethene)	ND						
Xylenes (total)	ND						
o-Xylene	ND						
m&p-Xylenes	ND						

MS	Matrix Spike	V91211A	200022-1	2.00	01/11/2000	1727

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	59.36		50.000000	12.15	94.4	%	80-120
Chlorobenzene	54.54		50.000000	ND	109.1	%	80-120
1,1-Dichloroethene	43.38		50.000000	ND	86.8	%	80-120
Toluene	59.35		50.000000	5.80	107.1	%	80-120
Trichloroethene	53.09		50.000000	ND	106.2	%	80-120

MSD	Matrix Spike Duplicate	V91211A	200022-1	2.00	01/11/2000	1805

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	55.76	59.36	50.000000	12.15	87.2	%	80-120
					6.3	R	21
Chlorobenzene	52.33	54.54	50.000000	ND	104.7	%	80-120
					4.1	R	21
1,1-Dichloroethene	44.67	43.38	50.000000	ND	89.3	%	80-120
					2.9	R	22
Toluene	54.18	59.35	50.000000	5.80	96.8	%	80-120
					9.1	R	21
Trichloroethene	51.70	53.09	50.000000	ND	103.4	%	80-120
					2.7	R	24

Test Method.....: SW-846 8260B
Method Description.: Volatile Organics, TCLP

Batch.....: 42729
Units.....: ug/L

Analyst...: qcp

CCV	Continuing Calibration Verification	V91203B			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	94.40		100.000000		94.4	%	80-120
Carbon Tetrachloride	93.48		100.000000		93.5	%	80-120
Chlorobenzene	112.98		100.000000		113.0	%	80-120

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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QUALITY CONTROL RESULTS

Job Number.: 200069 | Report Date.: 02/16/2000

CUSTOMER: TNRCC | PROJECT: Walk In Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
CCV	Continuing Calibration Verification	V91203B			01/11/2000	1126

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Chloroform	94.49		100.000000		94.5	%	80-120
1,2-Dichloroethane (EDC)	88.35		100.000000		88.3	%	80-120
1,1-Dichloroethene	91.58		100.000000		91.6	%	80-120
Methyl Ethyl Ketone (2-Butanone)	103.57		100.000000		103.6	%	80-120
Tetrachloroethene	81.43		100.000000		81.4	%	80-120
Trichloroethene	100.23		100.000000		100.2	%	80-120
Vinyl Chloride (Chloroethene)	90.73		100.000000		90.7	%	80-120

LCS	Laboratory Control Sample	V91211A			01/11/2000	1203

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	46.49		50.000000		93.0	%	80-120
Chlorobenzene	53.02		50.000000		106.0	%	80-120
1,1-Dichloroethene	42.71		50.000000		85.4	%	80-120
Trichloroethene	50.07		50.000000		100.1	%	80-120

MB	Method Blank	D1112000			01/11/2000	1241

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroform	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
Tetrachloroethene	ND						
Trichloroethene	ND						
Vinyl Chloride (Chloroethene)	ND						

MS	Matrix Spike	V91211A	200022-1	2.00	01/11/2000	1727

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	59.36		50.000000	12.15	94.4	%	80-120
Chlorobenzene	54.54		50.000000	ND	109.1	%	80-120
1,1-Dichloroethene	43.38		50.000000	ND	86.8	%	80-120
Trichloroethene	53.09		50.000000	ND	106.2	%	80-120

MSD	Matrix Spike Duplicate	V91211A	200022-1	2.00	01/11/2000	1805

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	55.76	59.36	50.000000	12.15	87.2	%	80-120
					6.3	R	20
Chlorobenzene	52.33	54.54	50.000000	ND	104.7	%	80-120
					4.1	R	20
1,1-Dichloroethene	44.67	43.38	50.000000	ND	89.3	%	80-120
					2.9	R	20

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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Job Number.: 200069

Report Date.: 02/16/2000

CUSTOMER: TNRCC | PROJECT: Walk In Projects | ATTN: Cecily Warren

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MSD	Matrix Spike Duplicate	V91211A	200022-1	2.00	01/11/2000	1805

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Trichloroethene	51.70	53.09	50.000000	ND	103.4	%	80-120
					2.7	R	20

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/11/2000	1920

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroform	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
Tetrachloroethene	ND						
Trichloroethene	ND						
Vinyl Chloride (Chloroethene)	ND						

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	01102000			01/11/2000	2034

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene	ND						
Carbon Tetrachloride	ND						
Chlorobenzene	ND						
Chloroform	ND						
1,2-Dichloroethane (EDC)	ND						
1,1-Dichloroethene	ND						
Methyl Ethyl Ketone (2-Butanone)	ND						
Tetrachloroethene	ND						
Trichloroethene	ND						
Vinyl Chloride (Chloroethene)	ND						

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 02/16/2000

CUSTOMER: TNRCC | PROJECT: Walk In Projects | ATTN: Cecily Warren

Method.....: Volatile Organics (Client List)
Method Code.....: 8260C

Batch.....: 42690
Analyst.....: qcp

Surrogate	Units
1,2-Dichloroethane-d4	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	41.12	50.00000	82.2	80-120		01/10/2000	1001
		LCS	1.00	40.69	50.00000	81.4	80-120		01/10/2000	1036
		MB	1.00	41.30	50.00000	82.6	80-120		01/10/2000	1110
200069-1	Org. Waste		200.00	46.54	50.00000	93.1	80-120		01/10/2000	1251
200053-1	Solid	MS	500	44.07	50.00000	88.1	80-120		01/10/2000	1507
200053-1	Solid	MSD	500	45.01	50.00000	90.0	80-120		01/10/2000	1541
200065-1	Solid	MS	0.98	40.03	50.00000	80.1	80-120		01/10/2000	1806
200065-1	Solid	MSD	0.99	41.94	50.00000	83.9	80-120		01/10/2000	1844
		CCV	1.00	40.08	50.00000	80.2	80-120		01/10/2000	2153
		LCS	1.00	42.01	50.00000	84.0	80-120		01/10/2000	2231
		MB	1.00	45.24	50.00000	90.5	80-120		01/10/2000	2309
200057-4			1.00	42.60	50.00000	85.2	80-120		01/11/2000	0024
200057-5			1.00	43.60	50.00000	87.2	80-120		01/11/2000	0102
200057-2			1.00	40.14	50.00000	80.3	80-120		01/11/2000	0139
200058-1			1.00	49.38	50.00000	98.8	80-120		01/11/2000	0217
200058-2			1.00	40.64	50.00000	81.3	80-120		01/11/2000	0255
200058-3			1.00	49.96	50.00000	99.9	80-120		01/11/2000	0333
200058-4			1.00	56.18	50.00000	112.4	80-120		01/11/2000	0410
200058-5			1.00	45.24	50.00000	90.5	80-120		01/11/2000	0448
200058-6			1.00	48.36	50.00000	96.7	80-120		01/11/2000	0525
200058-7			1.00	46.00	50.00000	92.0	80-120		01/11/2000	0604
200058-8			1.00	45.59	50.00000	91.2	80-120		01/11/2000	0642
200067-1			1.00	46.58	50.00000	93.2	80-120		01/11/2000	0719
200067-2			1.00	44.57	50.00000	89.1	80-120		01/11/2000	0756
200067-3			1.00	50.66	50.00000	101.3	80-120		01/11/2000	0830

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	46.24	50.00000	92.5	86-115		01/10/2000	1001
		LCS	1.00	48.20	50.00000	96.4	86-115		01/10/2000	1036
		MB	1.00	49.70	50.00000	99.4	86-115		01/10/2000	1110
200069-1	Org. Waste		200.00	50.08	50.00000	100.2	74-121		01/10/2000	1251
200053-1	Solid	MS	500	52.56	50.00000	105.1	74-121		01/10/2000	1507
200053-1	Solid	MSD	500	52.04	50.00000	104.1	74-121		01/10/2000	1541
200065-1	Solid	MS	0.98	49.23	50.00000	98.5	74-121		01/10/2000	1806
200065-1	Solid	MSD	0.99	53.30	50.00000	106.6	74-121		01/10/2000	1844
		CCV	1.00	51.02	50.00000	102.0	86-115		01/10/2000	2153
		LCS	1.00	48.10	50.00000	96.2	86-115		01/10/2000	2231
		MB	1.00	52.66	50.00000	105.3	86-115		01/10/2000	2309
200057-4			1.00	51.45	50.00000	102.9	86-115		01/11/2000	0024
200057-5			1.00	45.62	50.00000	91.2	86-115		01/11/2000	0102
200057-2			1.00	49.40	50.00000	98.8	86-115		01/11/2000	0139

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 02/16/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
200058-1			1.00	52.40	50.00000	104.8	86-115		01/11/2000	0217
200058-2			1.00	47.70	50.00000	95.4	86-115		01/11/2000	0255
200058-3			1.00	55.22	50.00000	110.4	86-115		01/11/2000	0333
200058-4			1.00	48.34	50.00000	96.7	86-115		01/11/2000	0410
200058-5			1.00	47.42	50.00000	94.8	86-115		01/11/2000	0448
200058-6			1.00	51.89	50.00000	103.8	86-115		01/11/2000	0525
200058-7			1.00	55.17	50.00000	110.3	86-115		01/11/2000	0604
200058-8			1.00	48.96	50.00000	97.9	86-115		01/11/2000	0642
200067-1			1.00	55.82	50.00000	111.6	86-115		01/11/2000	0719
200067-2			1.00	53.93	50.00000	107.9	86-115		01/11/2000	0756
200067-3			1.00	46.78	50.00000	93.6	86-115		01/11/2000	0830

Surrogate	Units
Dibromofluoromethane	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	53.24	50.00000	106.5	86-118		01/10/2000	1001
		LCS	1.00	51.05	50.00000	102.1	86-118		01/10/2000	1036
		MB	1.00	46.65	50.00000	93.3	86-118		01/10/2000	1110
200069-1	Org. Waste		200.00	50.94	50.00000	101.9	80-120		01/10/2000	1251
200053-1	Solid	MS	500	50.17	50.00000	100.3	80-120		01/10/2000	1507
200053-1	Solid	MSD	500	51.21	50.00000	102.4	80-120		01/10/2000	1541
200065-1	Solid	MS	0.98	58.86	50.00000	117.7	80-120		01/10/2000	1806
200065-1	Solid	MSD	0.99	52.37	50.00000	104.7	80-120		01/10/2000	1844
		CCV	1.00	54.58	50.00000	109.2	86-118		01/10/2000	2153
		LCS	1.00	51.68	50.00000	103.4	86-118		01/10/2000	2231
		MB	1.00	49.45	50.00000	98.9	86-118		01/10/2000	2309
200057-4			1.00	51.34	50.00000	102.7	86-118		01/11/2000	0024
200057-5			1.00	49.61	50.00000	99.2	86-118		01/11/2000	0102
200057-2			1.00	49.17	50.00000	98.3	86-118		01/11/2000	0139
200058-1			1.00	52.16	50.00000	104.3	86-118		01/11/2000	0217
200058-2			1.00	50.43	50.00000	100.9	86-118		01/11/2000	0255
200058-3			1.00	52.80	50.00000	105.6	86-118		01/11/2000	0333
200058-4			1.00	51.81	50.00000	103.6	86-118		01/11/2000	0410
200058-5			1.00	52.75	50.00000	105.5	86-118		01/11/2000	0448
200058-6			1.00	51.69	50.00000	103.4	86-118		01/11/2000	0525
200058-7			1.00	50.62	50.00000	101.2	86-118		01/11/2000	0604
200058-8			1.00	52.25	50.00000	104.5	86-118		01/11/2000	0642
200067-1			1.00	51.68	50.00000	103.4	86-118		01/11/2000	0719
200067-2			1.00	52.11	50.00000	104.2	86-118		01/11/2000	0756
200067-3			1.00	52.07	50.00000	104.1	86-118		01/11/2000	0830

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 02/16/2000

CUSTOMER: TNRCC | PROJECT: Walk in Projects | ATTN: Cecily Warren

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	45.58	50.00000	91.2	88-110		01/10/2000	1001
		LCS	1.00	45.11	50.00000	90.2	88-110		01/10/2000	1036
		MB	1.00	47.10	50.00000	94.2	88-110		01/10/2000	1110
200069-1	Org. Waste		200.00	48.71	50.00000	97.4	81-118		01/10/2000	1251
200053-1	Solid	MS	500	46.56	50.00000	93.1	81-117		01/10/2000	1507
200053-1	Solid	MSD	500	45.26	50.00000	90.5	81-117		01/10/2000	1541
200065-1	Solid	MS	0.98	49.68	50.00000	99.4	81-117		01/10/2000	1806
200065-1	Solid	MSD	0.99	46.55	50.00000	93.1	81-117		01/10/2000	1844
		CCV	1.00	51.39	50.00000	102.8	88-110		01/10/2000	2153
		LCS	1.00	45.45	50.00000	90.9	88-110		01/10/2000	2231
		MB	1.00	44.62	50.00000	89.2	88-110		01/10/2000	2309
200057-4			1.00	52.13	50.00000	104.3	88-110		01/11/2000	0024
200057-5			1.00	48.01	50.00000	96.0	88-110		01/11/2000	0102
200057-2			1.00	50.25	50.00000	100.5	88-110		01/11/2000	0139
200058-1			1.00	48.42	50.00000	96.8	88-110		01/11/2000	0217
200058-2			1.00	46.37	50.00000	92.7	88-110		01/11/2000	0255
200058-3			1.00	48.28	50.00000	96.6	88-110		01/11/2000	0333
200058-4			1.00	52.47	50.00000	104.9	88-110		01/11/2000	0410
200058-5			1.00	50.96	50.00000	101.9	88-110		01/11/2000	0448
200058-6			1.00	46.95	50.00000	93.9	88-110		01/11/2000	0525
200058-7			1.00	47.17	50.00000	94.3	88-110		01/11/2000	0604
200058-8			1.00	46.33	50.00000	92.7	88-110		01/11/2000	0642
200067-1			1.00	47.46	50.00000	94.9	88-110		01/11/2000	0719
200067-2			1.00	47.37	50.00000	94.7	88-110		01/11/2000	0756
200067-3			1.00	47.55	50.00000	95.1	88-110		01/11/2000	0830

Method.....: Volatile Organics (Client List)
Method Code.....: 8260C

Batch.....: 42726
Analyst.....: qcp

Surrogate	Units
1,2-Dichloroethane-d4	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	42.35	50.00000	84.7	80-120		01/11/2000	1126
		LCS	1.00	40.04	50.00000	80.1	80-120		01/11/2000	1203
		MB	1.00	40.57	50.00000	81.1	80-120		01/11/2000	1241
200069-2	Solid		2.50	32.65	50.00000	65.3	80-120	X	01/11/2000	1505
200022-1	Solid		2.00	42.20	50.00000	84.4	80-120		01/11/2000	1650
200022-1	Solid	MS	2.00	41.53	50.00000	83.1	80-120		01/11/2000	1727
200022-1	Solid	MSD	2.00	42.19	50.00000	84.4	80-120		01/11/2000	1805
994725-10	Solid		5.00	38.03	50.00000	76.1	80-120	X	01/11/2000	1842

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 02/16/2000

CUSTOMER: TNRCC PROJECT: Walk in Projects ATTN: Cecily Warren

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	51.15	50.00000	102.3	86-115		01/11/2000	1126
		LCS	1.00	53.64	50.00000	107.3	86-115		01/11/2000	1203
		MB	1.00	52.73	50.00000	105.5	86-115		01/11/2000	1241
200069-2	Solid		2.50	46.09	50.00000	92.2	74-121		01/11/2000	1505
200022-1	Solid		2.00	49.51	50.00000	99.0	74-121		01/11/2000	1650
200022-1	Solid	MS	2.00	48.15	50.00000	96.3	74-121		01/11/2000	1727
200022-1	Solid	MSD	2.00	46.59	50.00000	93.2	74-121		01/11/2000	1805
994725-10	Solid		5.00	49.96	50.00000	99.9	74-121		01/11/2000	1842

Surrogate	Units
Dibromofluoromethane	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	47.79	50.00000	95.6	86-118		01/11/2000	1126
		LCS	1.00	48.47	50.00000	96.9	86-118		01/11/2000	1203
		MB	1.00	49.76	50.00000	99.5	86-118		01/11/2000	1241
200069-2	Solid		2.50	44.88	50.00000	89.8	80-120		01/11/2000	1505
200022-1	Solid		2.00	45.38	50.00000	90.8	80-120		01/11/2000	1650
200022-1	Solid	MS	2.00	52.73	50.00000	105.5	80-120		01/11/2000	1727
200022-1	Solid	MSD	2.00	54.48	50.00000	109.0	80-120		01/11/2000	1805
994725-10	Solid		5.00	49.48	50.00000	99.0	80-120		01/11/2000	1842

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	48.62	50.00000	97.2	88-110		01/11/2000	1126
		LCS	1.00	51.29	50.00000	102.6	88-110		01/11/2000	1203
		MB	1.00	47.66	50.00000	95.3	88-110		01/11/2000	1241
200069-2	Solid		2.50	49.81	50.00000	99.6	81-117		01/11/2000	1505
200022-1	Solid		2.00	49.93	50.00000	99.9	81-117		01/11/2000	1650
200022-1	Solid	MS	2.00	50.94	50.00000	101.9	81-117		01/11/2000	1727
200022-1	Solid	MSD	2.00	44.52	50.00000	89.0	81-117		01/11/2000	1805
994725-10	Solid		5.00	49.51	50.00000	99.0	81-117		01/11/2000	1842

Severn Trent Laboratories
1733 North Padre Island Drive, Corpus Christi, Texas 78408, (361) 289-2673, Fax (361) 289-2471

a part of

SEVERN TRENT LABORATORIES

Committed To Your Success

SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 02/16/2000

CUSTOMER: TNRCC PROJECT: Walk in Projects ATTN: Cecily Warren

Method.....: Volatile Organics, TCLP
Method Code.....: 8260TC

Batch.....: 42729
Analyst.....: qcp

Surrogate	Units
4-Bromofluorobenzene	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	51.15	50.00000	102.3	86-115		01/11/2000	1126
		LCS	1.00	53.64	50.00000	107.3	86-115		01/11/2000	1203
		MB	1.00	52.73	50.00000	105.5	86-115		01/11/2000	1241
200022-1	Solid	MS	2.00	48.15	50.00000	96.3	86-115		01/11/2000	1727
200022-1	Solid	MSD	2.00	46.59	50.00000	93.2	86-115		01/11/2000	1805
		MB	1.00	52.82	50.00000	105.6	86-115		01/11/2000	1920
200069-1			20.00	47.14	50.00000	94.3	86-115		01/11/2000	1957
		MB	1.00	45.09	50.00000	90.2	86-115		01/11/2000	2034
200069-2			1.00	52.45	50.00000	104.9	86-115		01/11/2000	2111
200049-1			1.00	54.66	50.00000	109.3	86-115		01/11/2000	2148
200049-2			1.00	52.62	50.00000	105.2	86-115		01/11/2000	2225

Surrogate	Units
Dibromofluoromethane	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	47.79	50.00000	95.6	86-118		01/11/2000	1126
		LCS	1.00	48.47	50.00000	96.9	86-118		01/11/2000	1203
		MB	1.00	49.76	50.00000	99.5	86-118		01/11/2000	1241
200022-1	Solid	MS	2.00	52.73	50.00000	105.5	86-118		01/11/2000	1727
200022-1	Solid	MSD	2.00	54.48	50.00000	109.0	86-118		01/11/2000	1805
		MB	1.00	50.41	50.00000	100.8	86-118		01/11/2000	1920
200069-1			20.00	50.95	50.00000	101.9	86-118		01/11/2000	1957
		MB	1.00	48.94	50.00000	97.9	86-118		01/11/2000	2034
200069-2			1.00	48.20	50.00000	96.4	86-118		01/11/2000	2111
200049-1			1.00	45.05	50.00000	90.1	86-118		01/11/2000	2148
200049-2			1.00	49.63	50.00000	99.3	86-118		01/11/2000	2225

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		CCV	1.00	48.62	50.00000	97.2	88-110		01/11/2000	1126
		LCS	1.00	51.29	50.00000	102.6	88-110		01/11/2000	1203
		MB	1.00	47.66	50.00000	95.3	88-110		01/11/2000	1241
200022-1	Solid	MS	2.00	50.94	50.00000	101.9	88-110		01/11/2000	1727
200022-1	Solid	MSD	2.00	44.52	50.00000	89.0	88-110		01/11/2000	1805
		MB	1.00	51.18	50.00000	102.4	88-110		01/11/2000	1920
200069-1			20.00	49.66	50.00000	99.3	88-110		01/11/2000	1957
		MB	1.00	48.77	50.00000	97.5	88-110		01/11/2000	2034

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SURROGATE RECOVERIES REPORT

Job Number.: 200069

Report Date.: 02/16/2000

CUSTOMER: TNRCC

PROJECT: Walk in Projects

ATTN: Cecily Warren

Surrogate	Units
Toluene-d8	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
200069-2			1.00	46.94	50.00000	93.9	88-110		01/11/2000	2111
200049-1			1.00	47.08	50.00000	94.2	88-110		01/11/2000	2148
200049-2			1.00	47.79	50.00000	95.6	88-110		01/11/2000	2225

38 162

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QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 02/16/20

(1) EPA 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, March 1983
(2) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III
(3) Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992
(4) Methods of Organic Chemical Analysis of Municipal and Industrial Wastewater, Federal Register, Vol. 49, No. 209, October 1984 and 40 CFR Part 136 amendments
(5) EPA 600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils
(6) Methods of Soil Analysis, American Society of Agronomy, Agronomy No. 9, 1965
(7) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991
(8) American Society for Testing and Materials, Petroleum Products, Lubricants, and Fossil Fuels, Section 5, Volumes 05.01 - 05.05
(9) Hach Handbook of Water Analysis, 1979

Comments:
Data in the QC report may differ from final results due to digestion and/or dilution of sample into analytical ranges. The "Time Analyzed" may not be the actual time of analysis. The "Date Analyzed" is the actual date of analysis. Sludge samples are reported on a wet weight basis (i.e., not corrected for percent moisture) unless otherwise indicated.

Quality Control acceptance criteria are based either on limits specified in the referenced method or on actual laboratory performance.

All data is reported on sample "as received" unless noted.

Sample IDs with a "-00" at the end indicate a blank spike or blank spike duplicate associated with the numbered sample.

SAMPLE RESULT IDENTIFICATION

ND = Not detected at a value greater than the reporting limit
TNTC = Too numerous to count

BLANK QC SAMPLE IDENTIFICATION

MB Method Blank
ICB Initial Calibration Blank
CCB Continuing Calibration Blank

SPIKE QC SAMPLE IDENTIFICATION

MS Method (Matrix) Spike
MSD Method (Matrix) Spike Duplicate
PDS Post Digestion/Distillation Spike
SB Spiked Blank
SBD Spiked Blank Duplicate

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QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 02/16/20

REFERENCE STANDARD QC SAMPLE IDENTIFICATION

LCS	Laboratory Control Standard
RS	Reference Standard
ICV	Initial Calibration Verification Standard
CCV	Continuing Calibration Verification Standard
ISA/ISB	ICP Interference Check Sample
DSC	Distilled Standard Check

DUPLICATE QC SAMPLE IDENTIFICATION

MD	Method (Matrix) Duplicate
ED	Extraction Duplicate
DD	Digestion Duplicate
PDD	Post Digestion Duplicate

Analyses performed by a subcontract laboratory are indicated on the analytical and/or quality control reports under "technician" using the following codes:

SUBCONTRACT LABORATORIES

Severn Trent Laboratories:

Anaheim, CA	*an	Houston, TX	*he
Aurora, CO	*au	Valparaiso, IN	*vp
Other Laboratories	*xx	Client provided data	*cp
Core Laboratories	*hp	Pollution Control Srv.	*pc
Quanterra	*qu	Saybolt	*sa

EXPLANATION OF DATA FLAGS

B - This flag is used to indicate that an analyte is present in the method blank as well as in the sample. It indicates that the client should consider this when evaluating the results.

D - This flag indicates that surrogates were diluted out of calibration range and cannot be quantified.

E - Indicates that a sample result is an estimate because the concentration exceeded the calibration range of the instrument.

I - Used to indicate matrix interference.

J - Indicates that a value is an estimate. It is used when a compound is determined to be present based on the mass spectral data, but at a concentration less than the quantitation limit of the method. This flag is also used when estimating the concentration of a tentatively identified compound.

X - Indicates that a surrogate recovery is outside the specified quality control limits.

Y - Used to identify a spike or spike duplicate recovery and spike duplicate is outside the specified quality control limits.

* - Indicates a relative percent difference for a duplicate analysis is outside the specified quality control limits.

' - Used to indicate that a standard is outside specified quality control limits.

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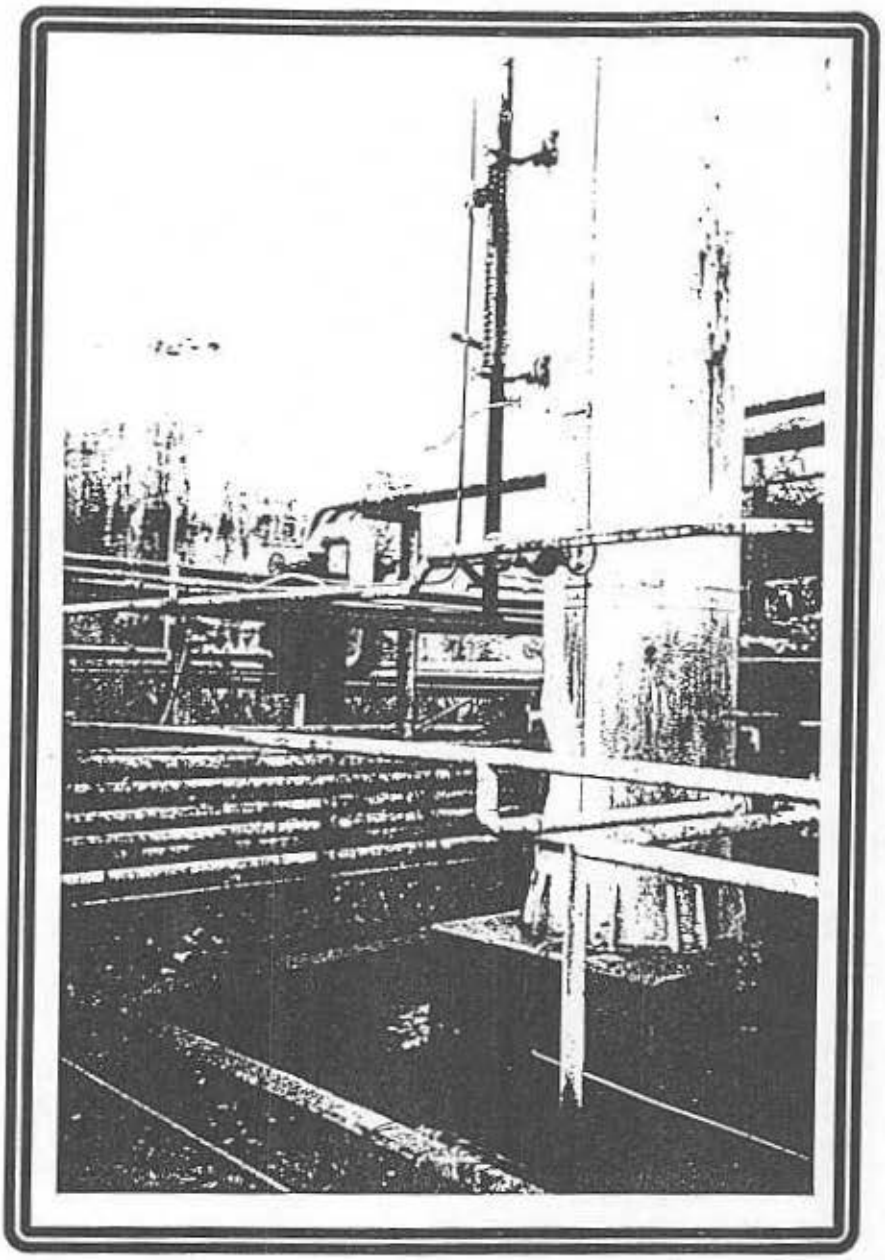
a part of

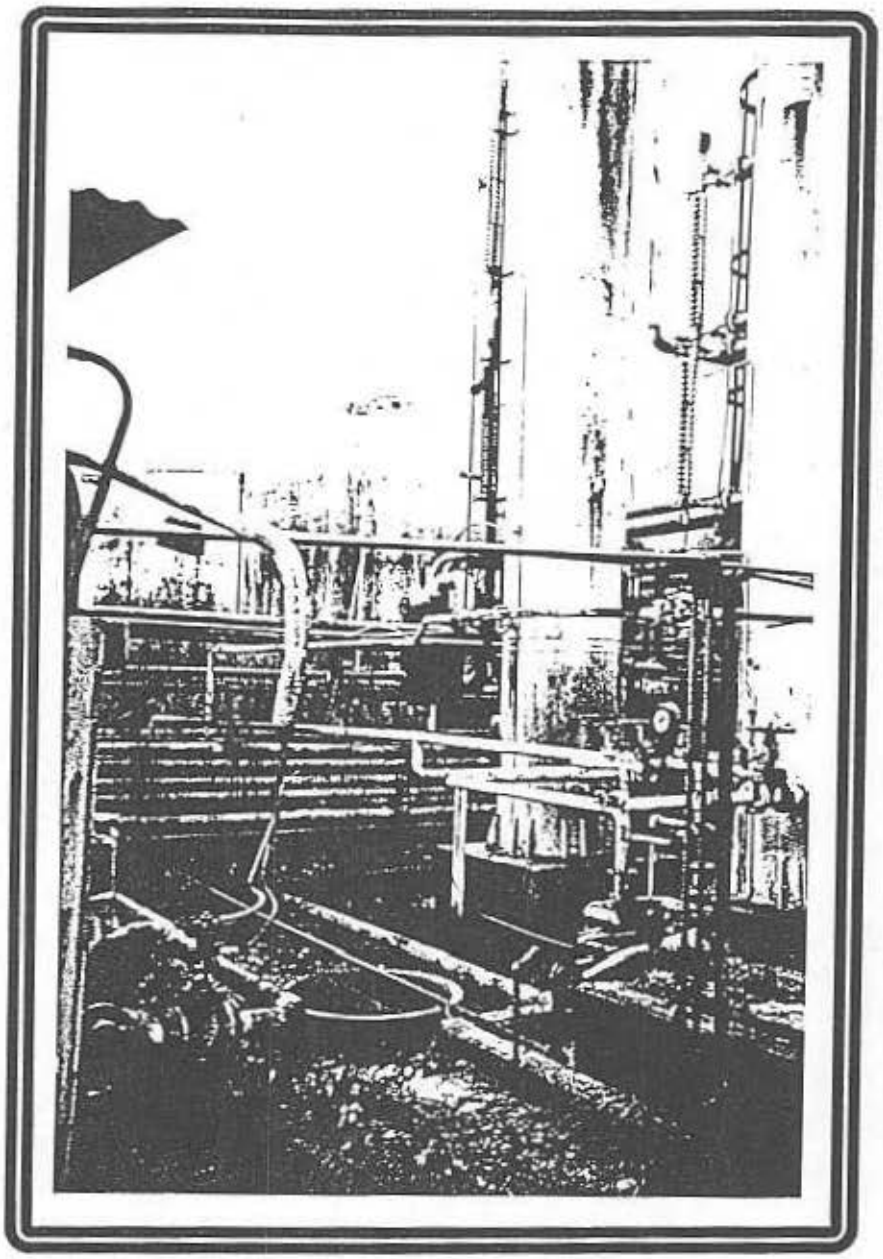
ATTACHMENT "D"

PHOTOGRAPHS



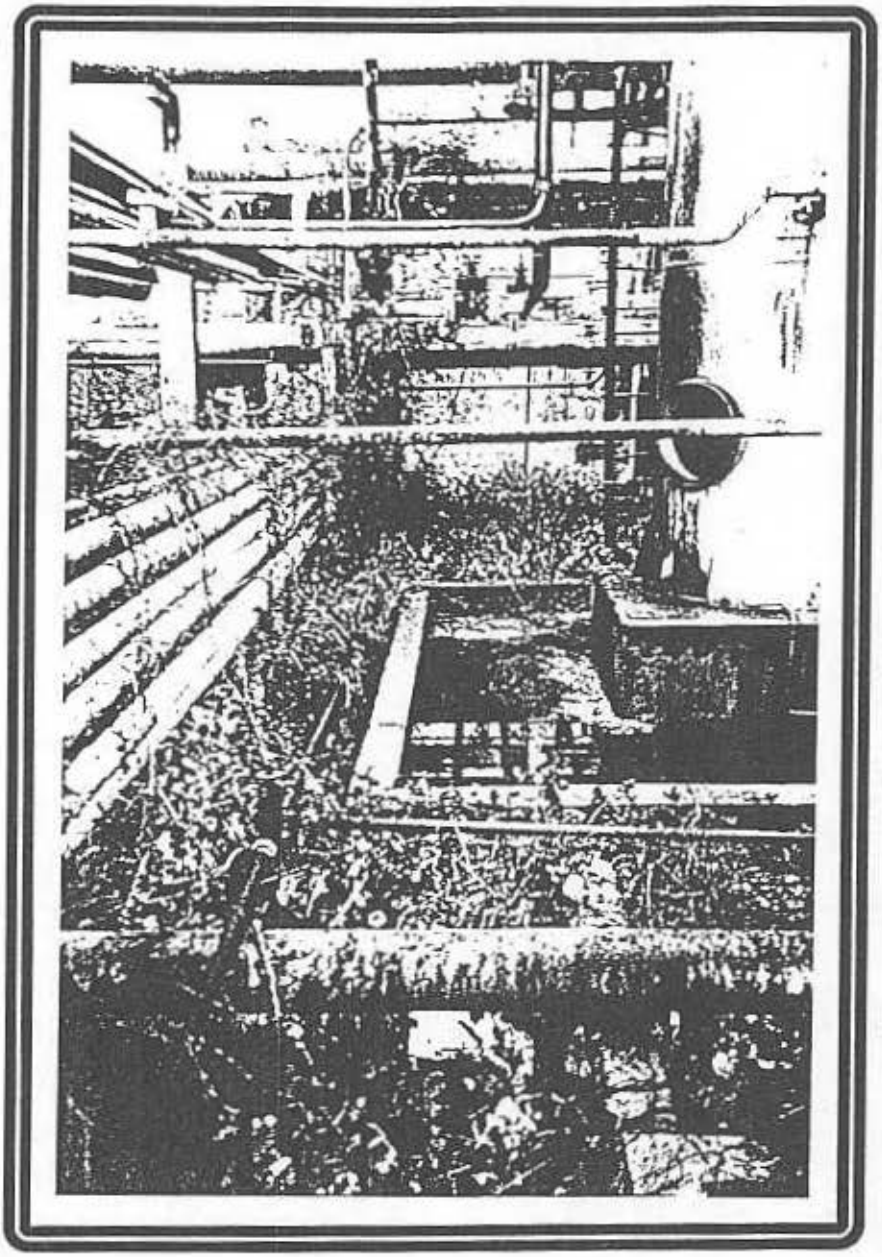
OFFICIAL PHOTOGRAPH
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Subject: National Oil Recovery Corporation - Ingleside Refining Facility
Location: intersection of FM 2725 and Bishop Road
City: east of Ingleside County: San Patricio
Date: January 7, 2000 Time: AM
Weather: Sun [ ] Haze [ ] Clouds [X] Rain [X] Snow [ ]
Photographer (Sig.): David Harvey
Witness (Sig.):
Camera: Olympus Zoom
TNRCC Solid Waste Registration No.: 31288
Photo No. 1 of 5
Comments: looking southeast at the leaking tank; note spilled fluid pooled on concrete at base; note dead vegetation surrounding concrete base; leak is spraying from the valve in the top center of the photo



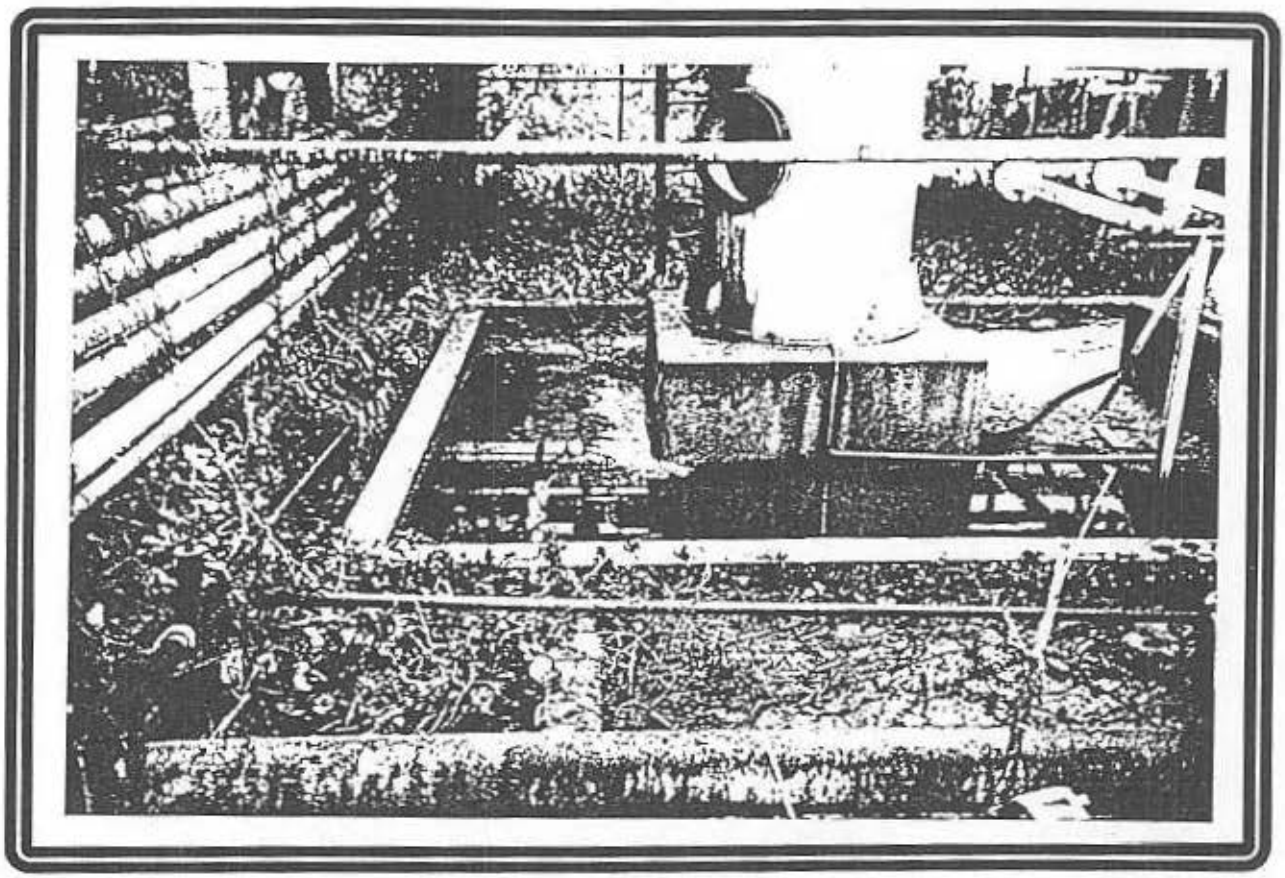
OFFICIAL PHOTOGRAPH
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Subject: National Oil Recovery Corporation - Ingleside Refining Facility
Location: intersection of FM 2725 and Bishop Road
City: east of Ingleside County: San Patricio
Date: January 7, 2000 Time: AM
Weather: Sun [ ] Haze [ ] Clouds [X] Rain [X] Snow [ ]
Photographer (Sig.): David Harvey
Witness (Sig.):
Camera: Olympus Zoom
TNRCC Solid Waste Registration No.: 31288
Photo No. 2 of 5
Comments: looking southeast at the leaking tank; note spilled fluid pooled on concrete at base; note dead vegetation surrounding concrete base



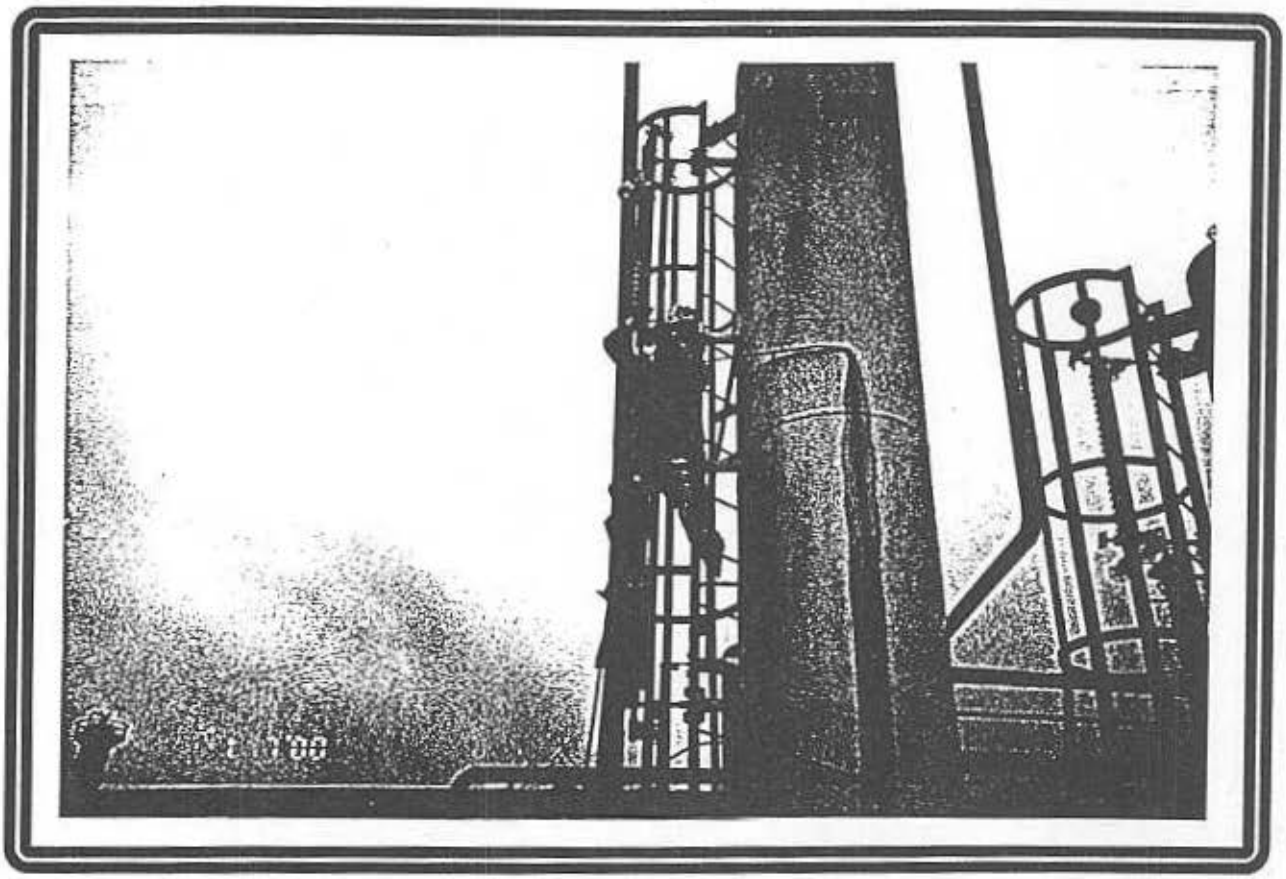
OFFICIAL PHOTOGRAPH
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Subject: National Oil Recovery Corporation - Ingleside Refining Facility
Location: intersection of FM 2725 and Bishop Road
City: east of Ingleside County: San Patricio
Date: January 7, 2000 Time: AM
Weather: Sun [ ] Haze [ ] Clouds [X] Rain [X] Snow [ ]
Photographer (Sig.): David Harney
Witness (Sig.):
Camera: Olympus Zoom
TNRCC Solid Waste Registration No.: 31288
Photo No. 3 of 5
Comments: looking south at the base of the leaking tank; note spilled fluid pooled on concrete at base; note dead vegetation surrounding concrete base



OFFICIAL PHOTOGRAPH
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Subject: National Oil Recovery Corporation - Ingleside Refining Facility
Location: intersection of FM 2725 and Bishop Road
City: east of Ingleside County: San Patricio
Date: January 7, 2000 Time: AM
Weather: Sun [ ] Haze [ ] Clouds [X] Rain [X] Snow [ ]
Photographer (Sig.): David Harvey
Witness (Sig.):
Camera: Olympus Zoom
TNRCC Solid Waste Registration No.: 31288
Photo No. 4 of 5
Comments: looking south at the base of the leaking tank; note spilled fluid pooled on concrete at base; note dead vegetation surrounding concrete base



OFFICIAL PHOTOGRAPH
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Subject: National Oil Recovery Corporation - Ingleside Refining Facility
Location: intersection of FM 2725 and Bishop Road
City: east of Ingleside County: San Patricio
Date: January 7, 2000 Time: AM
Weather: Sun [ ] Haze [ ] Clouds [X] Rain [X] Snow [ ]
Photographer (Sig.): David Barney
Witness (Sig.):
Camera: Olympus Zoom
TNRCC Solid Waste Registration No.: 31288
Photo No. 5 of 5
Comments: TNRCC Region 14 Environmental Investigator Clint Roitsch collecting a sample of the leaking fluid

ATTACHMENT "E"

RECORDS OBTAINED FROM
THE SAN PATRICIO COUNTY APPRAISAL DISTRICT

San Patricio County Appraisal District
1146 E. Market Street ★ P. O. Box 938 ★ Sinton, Texas 78387-0938
[361] 364-5402 ★ Fax [361] 364-1198

facsimile
TRANSMITTAL

to: DAVID HARVEY

fax #: (361) 825-3101

re: Acct # 0022-0990-0002-003

date: January 11, 2000

pages: 2 page(s) total, including this cover sheet

LEGAL DESCRIPTION

TRS 1, 2, & 3 BLK II
BURTON & DANFORD S/D

04/10/97

ACCOUNT NUMBER:

JURISDICTIONS: 00,01,03,37

MAP NUMBER:

LOCATION: 0022
00000

SAN PATRICIO APPRAISAL DIST.

APPRAISAL DATE: 01/14/97

APPRAISED BY: JG

SCALE= 12

TOTAL AREA =

RURAL LAND VALUATION

CLASS	ST CD	ACRES	L. MOD.	UNIT	MARKET VALUE	UNIT	PRODUCTIVE VALU
23U		30.000	100.0	2750	82500		
					EXCELLENT		☐
					GOOD AVERAGE		☐
					AVERAGE		☐
					FAIR		☐
					POOR		☐
					EST. YR BUILT		
					STREET ADDRESS		
TOTAL		30.000AG CODE			82500		

CHANGE PER Rendition 4/6/99

12/6/99

APPRAISERS REMARKS

ZONING:

UTILITIES:

NATIONAL OIL RECOVERY CORP
c/o Property Tax Appeal
PO Box 72875
Corpus Christi TX 78472-2875

FOUNDATION:

FLOOR:

EXTR. WALLS:

ROOF TYPE:

ROOF MATR:

STREET IMPR: PAVED

INTERIOR WALLS:

URBAN LAND VALUATION

CLASS	ST CD	ACTUAL FRONT	ACTUAL REAR	AVG. FF/ SQ. FT.	AVG. DEPTH	FF/SQ. FT. PRICE	NEB. MOD.	DEPTH MOD.	SPL. MOD.	ACTUAL FF/ SQ. FT. PRICE	TOTAL VALUE

IMPROVEMENT VALUATION

IMPROVEMENT TYPE	SQUARE FEET	CLASS	% OF UNIT	UNIT VALUE	ACTUAL VALUE	NEB. MOD.	% GOOD	FUNC. DEP.	ECON. DEP.	MARKET VALUE
VALUATION CLASSIFICATION CODE:										

MAIN STRUCTURE EXCEPTIONS

DESCR	SQ.FT./UNITS	UNIT PRICE	VA

TOPOGRAPHY: LEVEL

EXEMPTION CODES:
EXEMPT:
OTHER CODE:
OTHER VALUE:

VALUATION SUMMARY

LAND	IMPROVEMENT	TOTAL
82500		8250

Jan 11 00 09:28a san patricio cad 361 364 1158 p.6

38 173

ATTACHMENT "F"

TELEPHONE MEMOS

TELEPHONE MEMO TO THE FILE

Call To: David Harvey

Call From: Mike Ward

Date of Call: January 11, 1999; approx. 3:30 PM

File No.: SWR No. 31288

Phone no.: (361)241-7748

Subject: spill at National Oil Recovery Corporation/Ingleside Refinery (NORCO)

Information for File:

Mr. Ward returned my call. I asked Mr. Ward how long the fluid had been in the tank which had leaked. He stated that he did not know, but that he thought the fluid was "residue left when they flushed the vessels out" when the plant shutdown. Therefore, by his estimate, the fluid had been in this vessel since approximately 1984.

approx. 3:45 PM - Mr. Ward called and asked if NORCO could begin the assessment and cleanup of the spill when he returned from out of town on 1/22/00. I told Mr. Ward that the assessment and cleanup should begin immediately, not ten days from now.

Signed David Harvey
David Harvey

TELEPHONE MEMO TO THE FILE

Call To: David Harvey

Call From: Richard Bergner

Date of Call: January 14, 2000; approx.11:20 PM

File No.: SWR No. 31288

Phone no.: (713)783-4832

Subject: spill at National Oil Recovery Corporation/Ingleside Refinery (NORCO)

Information for File:

Mr. Bergner returned my call. I asked Mr. Bergner if assessment and remediation of the spill which had occurred at the subject facility during the week of 1/4 -11/00 had begun. Mr. Bergner stated that it had not, and that he considered the spill to be insignificant. I informed Mr. Bergner that the spill was a violation of the Texas Water Code and corrective action was required under Commission rules. I also informed Mr. Bergner that our office had received an odor complaint from an adjacent resident during the week of the spill. This resident had alleged health effects. I then asked Mr. Bergner to inform his clients (NORCO owners) to please begin assessing the vertical and horizontal extent of contamination. Mr. Bergner stated that he didn't understand. I then asked Mr. Bergner to inform his clients to collect soil and ground water samples indicating the size of the contamination. Mr. Bergner then understood and requested that we provide this to him in writing. I stated that our office would be notifying the NORCO owners via correspondence, and that Commission rules were available via the internet. He then stated that he didn't know who could perform the site assessment and remediation since his "man on the ground", Mike Ward, was out of town. I then told him that the yellow pages were full of environmental consulting firms who would, for a fee, be glad to conduct a remedial investigation. I then reiterated the R-14 requests for the NORCO owners: define the horizontal and vertical extent of contamination, and remove and properly dispose of the remaining fluid in the vessel which had leaked. I then offered my technical assistance if the owners, Mr. Bergner, or their consultants had any questions. Mr. Bergner stated that he would "find his own answers" and then hung up on me.

Signed David Harvey

David Harvey

ATTACHMENT "G"

NORCO GROUND WATER SAMPLE ANALYSIS

MILLER ENVIRONMENTAL
CONSULTING SERVICES
4260 Beacon St., Corpus Christi, Texas 78405
(512)882-4445 FAX(512)882-4866

FACSIMILE COVER SHEET

DATE:	02/25/00
TO:	David Harvey
COMPANY:	TNRCC - IHW
FAX NO.:	980-3101
FROM:	Tom Freund
RE:	NORCO groundwater results

NUMBER OF PAGES INCLUDING COVER SHEET: 5

MESSAGE:

David:

Please see the attached results for TMW-1 (temp. monitor well) at the NORCO facility. Call me when you get a chance and let's discuss, then I'll call mister nice guy.

Thanks,

Tom

If you are having difficulties in receiving this, please call us immediately at (512)882-4445. Thank you.

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL, AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT OR THE EMPLOYEE OR AGENT RESPONSIBLE FOR DELIVERING THE MESSAGE TO THE INTENDED RECIPIENT, ANY DISSEMINATION, DISTRIBUTION, OR COPYING OF THIS COMMUNICATION IS PROHIBITED. IF YOU HAVE RECEIVED THIS MESSAGE IN ERROR, PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO US AT THE ABOVE ADDRESS VIA THE U.S. POSTAL SERVICE. THANK YOU.

ANALYSYS INC.

4221 Freidrich Lane, Suite 190
Austin, TX 78744-1044 • (512) 444-5896 • FAX (512) 447-4766

Client: Miller Environmental Consulting Services	**Report #/Lab ID#:** 225152 **Report Date:** 2/17/00
Attn: Tom Freund	**Project ID:** 140761 Job #00-0046 NORCO Ingleside
Address: 4260 Beacon St.	**Sample Name:** TMW-1
Corpus Christi, TX 78405	**Sample Matrix:** water
	Date Received: 2/10/00 **Time:** 16:50:00
Phone: (361) 882-4445 **FAX:** (361) 882-4866	**Date Sampled:** 2/10/00 **Time:** 14:10:00

REPORT OF ANALYSIS

(See attached pages for report details)

This analytical report respectfully submitted by AnalySys, Inc. The enclosed results have been reviewed and to the best of my knowledge the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program.© Copyright 1998 AnalySys, Inc., Austin, Texas. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written permission of AnalySys, Inc..

Respectfully Submitted,

Richard Laster

Richard Laster

ANALYSYS INC.

4221 Freidrich Lane, Suite 190, Austin, TX 78744
& 2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 444-5896 • FAX (512) 447-4766

Client: Miller Environmental Consulting Services
Attn: Tom Freund

Project ID: 140761 Job #00-0046 NORCO Ingleside
Sample Name: TMW-1

Report #/Lab ID#: 225152
Matrix: water

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA[1]

Parameter	Result	Units	RQL[5]	Blank	Date	Method[6]	Prec.[2]	Recov.[3]	CCV[4]	LCS[4]
Volatile organics-8260	---				2/17/00					
1,1,1,2-Tetrachloroethane	<500	µg/L	500	<500	2/17/00	624 & 8260b	7.9	96.3	99.2	95.8
1,1,1-Trichloroethane	<500	µg/L	500	<500	2/17/00	624 & 8260b	7	88.8	91.4	91
1,1,2,2-Tetrachloroethane	<500	µg/L	500	<500	2/17/00	624 & 8260b	17.8	130.3	101.8	99.4
1,1,2-Trichloroethane	<500	µg/L	500	<500	2/17/00	624 & 8260b	3.8	106.4	95.7	96.9
1,1-Dichloroethane	<500	µg/L	500	<500	2/17/00	624 & 8260b	1.9	99.4	91.1	93
1,1-Dichloroethene	<500	µg/L	500	<500	2/17/00	624 & 8260b	2.3	95.3	88.5	86.5
1,2-Dibromo-3-chloropropane	<1000	µg/L	1000	<1000	2/17/00	624 & 8260b	22.2	155.9	111.8	125
1,2-Dibromoethane	<500	µg/L	500	<500	2/17/00	624 & 8260b	3.6	115.4	103	105.8
1,2-Dichlorobenzene	<500	µg/L	500	<500	2/17/00	624 & 8260b	2.7	102	98.5	100.6
1,2-Dichloroethane	805	µg/L	500	<500	2/17/00	624 & 8260b	6.7	98.3	85.3	91.2
1,2-Dichloropropane	<500	µg/L	500	<500	2/17/00	624 & 8260b	0.6	105.5	100.4	104.7
1,3-Dichlorobenzene	<500	µg/L	500	<500	2/17/00	624 & 8260b	6.7	99.2	100.2	100.9
1,4-Dichlorobenzene	<500	µg/L	500	<500	2/17/00	624 & 8260b	4.4	99.9	99.7	98.6
1,4-Dioxane	<10000	µg/L	10000	<10000	2/17/00	624 & 8260b	40.4	258.1	165.5	181.3
2-Butanone (MEK)	<1000	µg/L	1000	<1000	2/17/00	624 & 8260b	34.1	88.2	109.8	110.5
2-Chloroethyl vinyl ether	<500	µg/L	500	<500	2/17/00	624 & 8260b	28.3	113.6	100.5	101.7
2-Hexanone	<2000	µg/L	2000	<2000	2/17/00	624 & 8260b	31.4	108.3	103.4	101.8
4-Methyl-2-pentanone (MIBK)	5910	µg/L	1000	<1000	2/17/00	624 & 8260b	32.4	157.3	114.8	116.6
Acetone	<5000	µg/L	5000	<5000	2/17/00	624 & 8260b	36.2	49.5	85.9	93.2
Acetonitrile	<10000	µg/L	10000	<10000	2/17/00	624 & 8260b	35.2	164.5	110.4	116.9
Acrolein	<5000	µg/L	5000	<5000	2/17/00	624 & 8260b	22.2	102	100.7	112.3
Acrylonitrile	<5000	µg/L	5000	<5000	2/17/00	624 & 8260b	29.7	147	103.4	109.4
Benzene	6910	µg/L	500	<500	2/17/00	624 & 8260b	3.3	94.1	94.7	94.6

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ANALYSYS INC.

4221 Freidrich Lane, Suite 190, Austin, TX 78744
& 2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 444-5896 • FAX (512) 447-4766

Client: Miller Environmental Consulting Services
Attn: Tom Freund

Project ID: 140761 Job #00-0046 NORCO Ingleside
Sample Name: TMW-1

Report #/Lab ID#: 225152
Matrix: water

REPORT OF ANALYSIS — QUALITY ASSURANCE DATA[1]

Parameter	Result	Units	RQL[5]	Blank	Date	Method[6]	Prec.[2]	Recov.[3]	CCV[4]	LCS[4]
Bromobenzene	<500	µg/L	500	<500	2/17/00	624 & 8260b	1.2	107.5	102.5	107.3
Bromodichloromethane	<500	µg/L	500	<500	2/17/00	624 & 8260b	0.2	100.7	94.1	97.4
Bromoform	<500	µg/L	500	<500	2/17/00	624 & 8260b	13.3	131.9	110.8	109.2
Bromomethane	<1000	µg/L	1000	<1000	2/17/00	624 & 8260b	6.3	107.4	94.3	90
Carbon Disulfide	<1000	µg/L	1000	<1000	2/17/00	624 & 8260b	1.1	85.9	84.3	80.6
Carbon tetrachloride	<500	µg/L	500	<500	2/17/00	624 & 8260b	8.2	84	86.4	89.6
Chlorobenzene	<500	µg/L	500	<500	2/17/00	624 & 8260b	7.3	97.4	99.5	100.4
Chloroethane	<1000	µg/L	1000	<1000	2/17/00	624 & 8260b	2	101.1	98	89.6
Chloroform	<500	µg/L	500	<500	2/17/00	624 & 8260b	0.7	95.8	90.2	92.6
Chloromethane	<1000	µg/L	1000	<1000	2/17/00	624 & 8260b	3.4	88.4	80.1	81.1
cis-1,3-Dichloropropene	<500	µg/L	500	<500	2/17/00	624 & 8260b	4.8	112.3	104	104.7
Dibromochloromethane	<500	µg/L	500	<500	2/17/00	624 & 8260b	1.9	104.3	100.1	100.4
Dibromomethane	<500	µg/L	500	<500	2/17/00	624 & 8260b	10.3	111.5	92.4	99.5
Dichlorodifluoromethane	<1000	µg/L	1000	<1000	2/17/00	624 & 8260b	3.5	54.4	49.6	48
Ethylbenzene	8260	µg/L	500	<500	2/17/00	624 & 8260b	7.5	100.3	102.7	103.9
Iodomethane	<500	µg/L	500	<500	2/17/00	624 & 8260b	0.5	88	92.9	83.8
m,p-Xylenes	2460	µg/L	500	<500	2/17/00	624 & 8260b	6.8	109	108.9	107.1
Methylene chloride	<500	µg/L	500	<500	2/17/00	624 & 8260b	6.2	95.9	85.3	83.4
o-Xylene	2340	µg/L	500	<500	2/17/00	624 & 8260b	5.9	114.9	112.5	111.1
Styrene	12800	µg/L	500	<500	2/17/00	624 & 8260b	4.2	114.9	113.6	110.1
Tetrachloroethene	<500	µg/L	500	<500	2/17/00	624 & 8260b	15.8	81.9	93.5	92.4
Toluene	8560	µg/L	500	<500	2/17/00	624 & 8260b	1	106.6	105.1	106.8
trans-1,2-Dichloroethene	<500	µg/L	500	<500	2/17/00	624 & 8260b	8.3	91.8	91.1	72.4
trans-1,3-Dichloropropene	<500	µg/L	500	<500	2/17/00	624 & 8260b	2.3	99.9	97.3	95.3

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Client: Miller Environmental Consulting Services
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Project ID: 140761 Job #00-0046 NORCO Ingleside
Sample Name: TMW-1

Report #/Lab ID#: 225152
Matrix: water

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA[1]

Parameter	Result	Units	RQL[5]	Blank	Date	Method[6]	Prec.[2]	Recov.[3]	CCV[4]	LCS[4]
Trichloroethene	<500	µg/L	500	<500	2/17/00	624 & 8260b	3.8	94.1	96.7	100.7
Trichlorofluoromethane	<1000	µg/L	1000	<1000	2/17/00	624 & 8260b	2.4	78	74.1	75.1
Vinyl acetate	<1000	µg/L	1000	<1000	2/17/00	624 & 8260b	13.3	133.8	105.6	87.3
Vinyl Chloride	<1000	µg/L	1000	<1000	2/17/00	624 & 8260b	4.2	73.2	81.8	74

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TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

FY 2000 MULTI-MEDIA TRACKING FORM

Facility/Source Name: National Oil Recovery Corporation - Ingleside Facility

Address: intersection of FM 2725 and Bishop Road
Ingleside, Texas

County: San Patricio *Region:* 14 *Office:* Corpus Christi

Use E-mail address for inspector name

AGRI _____ *AIR* Croitsch

IHW DHarvey *MSW* _____

PST _____ *PWS* _____

WSM _____ *UIC* _____

Inspection Media	ID Number (Permit, Registration, Account, Facility Id #, etc. - as applicable)	Inspection Date(s) (begin/end)	Violations Discovered? (Yes/No)	VIOLATIONS ADDRESSED BY (check all that apply): do not use a checkmark - date must be used			
				Regional NOV (date)	Regional BCA (date)	Regional Order (date)	Referral to Central Office (date of referral)
Agriculture							
Air	SD-0054-N	1/7/00	Yes				3/7/00
IHW - Hazardous or Industrial Solid	31288	1/7/00	Yes				3/7/00
IHW - UIC							
IHW- Radioactive							
Municipal Waste							
Petroleum Storage Tank							
Public Water Supply							
Water Quality							

FY1999 - E-Mail to JBARBEE
Attach copy to the report

REVISED 9-98 dr