2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

March 1, 2007

Mr. Yasser Fahmy
TRC
21 Technology Drive
Irvine, CA 92618

RE: P2700302
WDI

Dear Mr. Fahmy:

Enclosed are the results of the sample(s) submitted to our laboratory on February 5, 2007. For your reference, these analyses have been assigned our service request number P2700302.

All analyses were performed in accordance with our laboratory's quality assurance program. Results are intended to be considered in their entirety and apply only to the samples analyzed. Columbia Analytical Services is not responsible for use of less than the complete report. Your report contains 74 pages.

Columbia Analytical Services is certified by the California Department of Health Services, Certificate No. 2380; Arizona Department of Health Services, Certificate No. AZ0694; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661. Please contact me for specific method(s) and analyte(s) corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera
Project Manager

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Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

Client:	TRC	Date of Report:	03/01/07
Address:	21 Technology Drive	Date Received:	02/05/07
	Irvine, CA 92618	CAS Project No:	P2700302
Contact:	Mr. Yasser Fahmy	Purchase Order:	Verbal

Client Project ID: WDI

Two (2) Stainless Steel Summa Canisters labeled: "WDI-IBM-37-2-2-07" and "WDI-IBM-37-2-2-07-SC"

The samples were received at the laboratory under chain of custody on February 5, 2007. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

Methane and Total Gaseous Non-Methane Organics as Methane Analysis

The samples were analyzed for methane and total gaseous non-methane organics as methane according to modified EPA Method 25C. The analyses included a single sample injection (method modification) analyzed by gas chromatography using flame ionization detection/total combustion analysis.

Fixed Gases Analysis

The samples were also analyzed for fixed gases (hydrogen, oxygen/argon, nitrogen, carbon monoxide, and carbon dioxide) according to modified EPA Method 3C (single injection) using a gas chromatograph equipped with a thermal conductivity detector (TCD).

Reviewed and Approved:

Wade Henton
GC-VOA Team Leader
Air Quality Laboratory

Reviewed and Approved:

Chris Parnell
GCMS-VOA Team Leader
Air Quality Laboratory

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CAS Project No: P2700302

Volatile Organic Compound Analysis

The samples were also analyzed by combined gas chromatography/mass spectrometry (GC/MS) in scan mode for volatile organic compounds and in SIM mode for selected volatile organic compounds. The analyses were performed according to the methodology outlined in EPA Method TO-15. However, the method was modified to include pressurization with Helium. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical systems used were comprised of an Agilent Model 5973inert GC/MS/DS and an Agilent 5973N GC/MS/DS each interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given in the attached data package. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

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Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: TRC Work order: P2700302
Project: WDI
Sample(s) received on: 2/5/07 Date opened: 2/5/07 by: MZ

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature NA °C			
	Blank Temperature NA °C			
8	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
9	Is pH (acid) **preservation** necessary, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** (acid) preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Required pH (as received, if required)	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2700302-001			NA	
P2700302-002			NA	

Explain any discrepancies: (include lab sample ID numbers):

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-001

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00923

Date Collected: 2/2/07
Date Received: 2/5/07
Date Analyzed: 2/6/07
Volume(s) Analyzed: 0.50 ml

Pi 1 = 0.6 Pf 1 = 3.5
D.F. = 1.19

CAS #	Compound	Result ppmV	MRL ppmV	Data Qualifier
74-82-8	Methane	**3.7**	0.60	
	Total Gaseous Nonmethane Organics (TGNMO) as Methane	ND	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: MJ Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07-SC**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-002

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01272

Date Collected: 2/2/07
Date Received: 2/5/07
Date Analyzed: 2/6/07
Volume(s) Analyzed: 0.50 ml

Pi 1 = 0.6 Pf 1 = 3.5
D.F. = 1.19

CAS #	Compound	Result ppmV	MRL ppmV	Data Qualifier
74-82-8	Methane	**3.9**	0.60	
	Total Gaseous Nonmethane Organics (TGNMO) as Methane	ND	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: W Date: 2/20/07

00302SVG.RE2 -Sample (2)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07-SC**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-002DUP

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID:

Date Collected: 2/2/07
Date Received: 2/5/07
Date Analyzed: 2/6/07
Volume(s) Analyzed: 0.50 ml

Pi 1 = 0.6 Pf 1 = 3.5
D.F. = 1.19

CAS #	Compound	Result ppmV	MRL ppmV	Data Qualifier
74-82-8	Methane	**3.8**	0.60	
	Total Gaseous Nonmethane Organics (TGNMO) as Methane	ND	1.2	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: MU Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Method Blank**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P070206-MB

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 2/6/07
Volume(s) Analyzed: 0.50 ml

D.F. = 1.00

CAS #	Compound	Result ppmV	MRL ppmV	Data Qualifier
74-82-8	Methane	ND	0.50	
	Total Gaseous Nonmethane Organics (TGNMO) as Methane	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: W Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Lab Control Sample**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P070206-LCS

Laboratory Control Sample Summary

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 2/06/07
Volume(s) Analyzed: NA

Compound	Spike Amount LCS ppmV	Result LCS ppmV	**% Recovery LCS**	Acceptance Limits	Data Qualifier
Methane	57.5	61.5	107	90-110	
Total Gaseous Nonmethane Organics (TGNMO) as Methane	345	362	105	90-110	

Verified By: MJ Date: 2/20/07

Response Factor Report GC 01

Method : J:\GC01\METHODS\M102006.M (Chemstation Integrator)
Title : EPA 25C TCA/FID Analysis for TGNMO
Last Update : Mon Oct 23 16:38:21 2006
Response via : Initial Calibration

Calibration Files
1 =10200606.D 2 =10200607.D 3 =10200608.D
4 =10200609.D 5 =10200610.D 6 =10200611.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Carbon Monoxide	5.184	5.715	5.812	6.058	6.017	6.064	5.808 E3	5
2)	Methane	6.638	6.124	6.356	6.256	6.204	6.190	6.295 E3	2
3)	Carbon Dioxide	5.461	7.056	6.139	6.279	6.073	6.194	6.200 E3	8
4)	TGNMO-1	6.773	6.683	5.923	6.159	6.535	6.429	6.417 E3	5
5)	TGMNO-2	6.773	6.683	5.923	6.159	6.535	6.429	6.417 E3	5

VB 10/23/06

(#) = Out of Range

Compound #2: Methane (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	0.550	3651			
2	4.034	24705			
3	11.006	69950			
4	80.680	504760			
5	2751.710	17070304			
6	20170.000	124856778			

	Integration Parameter File	Sum?
Igt		
		☐
		☐
		☐

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Compound #4: TGHM0-1 (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	0.819	5547			
2	6.000	40100			
3	16.371	96972			
4	120.000	739089			
5	4072.300	26614390			
6	29850.000	191892442			

	Integration Parameter File	Sum?
Tgt		
		☐
		☐
		☐

Prev | Next | Plot | Page 1 | Page 2 | OK | Cancel | Help

Compound #5: TGdH0-2 (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	0.819	5547			
2	6.000	40100			
3	16.371	96972			
4	120.000	739089			
5	4072.300	26614390			
6	29850.000	191892442			

	Integration Parameter File	Sum?
Igt		
		☐
		☐
		☐

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PERFORMANCE ANALYTICAL INC.

ZW 2/6/07

EPA 25C TCA/FID Analysis for TGNMO

Client & PAI Job# : TRC P2700302
Analyst : WHH
Sample amount : 500uL / 68uL

Printed : 2/6/07
Instrument : GC #1 / FID #1
Date analyzed : 6 Feb 2007 15:14

Sample Results (ppm)

Sample ID	Carbon Monoxide	Methane	Carbon Dioxide	TGNMO-1	TGNMO-2	Pi1	Pf1	Pi2	Pf2
STD 100ppm S14-122806	97.1	76.5	98.4	108.4					
ACTUAL	100.1	80.1	100.7	101.2					
% DIFF.	3.0%	4.6%	2.3%	7.1%					
MB NL	0.00	0.00	0.00	0.00	0.00				
LAB AIR NL	2.28	2.56	609.34	0.00	0.00				
0302-001 v	0.84	3.09	v	0.00	0.00	0.6	3.5		
0302-002 v	0.81	3.26	v	0.00	0.00	0.6	3.5		
0302-002 v dup	0.68	3.21	v	0.00	0.00	0.6	3.5		
LCS 345ppm S14-040506	64.85	61.53	63.93	362.43					
ACTUAL	57.9	57.5	57.9	345.0					
% Recovery	112.0%	107.0%	110.5%	105.1%					
STD 100ppm S14-122806	102.65	77.85		110.27					
ACTUAL	100.1	80.1	100.7	101.2					
% DIFF.	2.5%	2.8%	100.0%	9.0%					

Completed Sample Results ppm

Loop ratio=7.33

Sample ID	Carbon Monoxide	Methane	Carbon Dioxide	TOTAL TGNMO	TOTAL TGNMO as Hexane	BAG DF	LOOP DF	PiPf DF	
RL ppm *	5.0	0.5	5.0	1.0	0.17				
MDL ppm	0.10	0.19	1.80	0.48	0.08				
MB NL	ND	ND	ND	ND	ND	1.00	1.00	1.00	
LAB AIR NL	2.28	2.56	609.34	ND	ND	1.00	1.00	1.00	
0302-001 v	ND	3.67	VENT	ND	ND	1.00	1.00	1.19	E
0302-002 v	ND	3.87	VENT	ND	ND	1.00	1.00	1.19	E
0302-002 v dup	ND	3.82	VENT	ND	ND	1.00	1.00	1.19	E

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Injection Log

Directory: j:\gc01\data\25c\2006_10\20

Line	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
1	1	10200601.d	1.		STD 100/80ppmS14-10110605		20 Oct 106 12::4
2	1	10200602.d	1.		MB		20 Oct 106 12::5
3	1	10200603.d	1.		Lab Air		20 Oct 106 12::0
4	1	10200604.d	1.		LCS 345ppm		20 Oct 106 12::2
5	1	10200605.d	1.		test low		20 Oct 106 13::5
6	1	10200606.d	1.		STD 25C low level small loop	S14-10110606	20 Oct 106 13::0
7	1	10200607.d	1.		STD 25C low level normal loop	S14-10110606	20 Oct 106 13::3
8	1	10200608.d	1.		STD 25C mid level small loop	S14-10110605	20 Oct 106 12::0
9	1	10200609.d	1.		STD 25C mid level normal loop	S14-10110605	20 Oct 106 12::2
10	1	10200610.d	1.		STD 25C high level small loop	S14-10200601	20 Oct 106 12::1
11	1	10200611.d	1.		STD 25C high level normal loop	S14-10200601	20 Oct 106 12::3
12	1	10200612.d	1.		ICV S14-03270602		20 Oct 106 12::5
13	1	10200613.d	1.		ICV S14-03270602	aprox 100/80ppm	20 Oct 106 12::2
14	1	10200614.d	1.	x	MB electrical noise		20 Oct 106 12::3
15	1	10200615.d	1.		MB good		20 Oct 106 12::0
16	1	10200616.d	1.		MB		20 Oct 106 12::2

WB 10/23/06

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COLUMBIA ANALYTICAL SERVICES
SAMPLE RUN LOG
ID: HP 5890 SERIES II / GC1

DATE: 2 / 6 / 2007 DATA SYSTEM: HP Chemstation ANALYSIS: ___25C ✓ 25C(MOD.) ___3C ___3C(MOD.)

INJECTOR: PACKED COLUMN
VALVE SYSTEM:
3C ___ REGULAR LOOP (100µL) ___ OTHER _____
25C ___ REGULAR LOOP (500µL) ___ SMALL LOOP (7.33:1)

COLUMN ID's:
___8' X 1/8" CARBOSPHERE
___4' X 1/8" TENAX / HAYSEP Q / CARBOSPHERE

TEMPERATURE PROGRAMMING:
INITIAL AT 50 °C FOR 2 min
RAMP RATE 30 °C/min TO 200 °C HOLD FOR 1 min

CARRIER GAS: He 25.1 mL/min

DETECTOR INFO: HP TCD #1: 260 °C SENSITIVITY: INITIAL HIGH, 1.5 min LOW
HP FID #1: 280 °C POLARITY: INITIAL NEGATIVE, 1.5 min POSITIVE

DATA PATHWAY: J:\GC1\DATA\25C\2007-02\06\ METHOD FILE NAME: J:\GC1\METHODS_____.M

	DATA FILE HEADER INFO	CLIENT	ANALYST
01	Std 100 ppm 514-12280601		ZL
02	MB		
03	Lab Air		
04	LCS 345 ppm 514-04050602		
05			
06	0302-001	TRC	
07	-001		
08	-001		
09	-002		
10	-002 dup		
11	Std 100 ppm 514-12280601		
12			
13	wait		
14			
15		ZL	
16			
17		2/6/07	
18			
19			
20			
21			
22			
23			
24			
25		ZL	
26			
27		2/6/07	
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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-001

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00923

Date Collected: 2/2/07
Date Received: 2/5/07
Date Analyzed: 2/6/07
Volume(s) Analyzed: 0.10 ml

Pi 1 = 0.6 Pf 1 = 3.5
D.F. = 1.19

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.12	
7782-44-7 7440-37-1	Oxygen + Argon *	**22.1**	0.12	
7727-37-9	Nitrogen	**77.8**	0.12	
630-08-0	Carbon Monoxide	ND	0.12	
124-38-9	Carbon Dioxide	ND	0.12	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = Coeluting Compounds

Verified By: w Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07-SC**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-002

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01272

Date Collected: 2/2/07
Date Received: 2/5/07
Date Analyzed: 2/6/07
Volume(s) Analyzed: 0.10 ml

Pi 1 = 0.6 Pf 1 = 3.5
D.F. = 1.19

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.12	
7782-44-7 7440-37-1	Oxygen + Argon *	**22.0**	0.12	
7727-37-9	Nitrogen	**77.9**	0.12	
630-08-0	Carbon Monoxide	ND	0.12	
124-38-9	Carbon Dioxide	ND	0.12	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = Coeluting Compounds

Verified By: MV Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07-SC**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-002DUP

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01272

Date Collected: 02/02/07
Date Received: 02/05/07
Date Analyzed: 02/06/07
Volume(s) Analyzed: 0.10 ml

Pi 1 = 0.6 Pf 1 = 3.5

D.F. = 1.19

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.12	
7782-44-7 7440-37-1	Oxygen + Argon *	**22.1**	0.12	
7727-37-9	Nitrogen	**77.9**	0.12	
630-08-0	Carbon Monoxide	ND	0.12	
124-38-9	Carbon Dioxide	ND	0.12	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = Coeluting Compounds

Verified By: W Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **Method Blank**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P070206-MB

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 2/6/07
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.10	
7782-44-7 7440-37-1	Oxygen + Argon *	ND	0.10	
7727-37-9	Nitrogen	ND	0.10	
630-08-0	Carbon Monoxide	ND	0.10	
124-38-9	Carbon Dioxide	ND	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = Coeluting Compounds

Verified By: MJ Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Lab Control Sample**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P070206-LCS

Laboratory Control Sample Summary

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 2/06/07
Volume(s) Analyzed: NA

Compound	Spike Amount LCS ppmV	Result LCS ppmV	**% Recovery LCS**	Acceptance Limits	Data Qualifier
Hydrogen	40,100	38,200	**95**	90-110	
Oxygen + Argon *	50,000	50,600	**101**	90-110	
Nitrogen	50,500	50,100	**99**	90-110	
Carbon Monoxide	50,100	50,900	**102**	90-110	
Carbon Dioxide	50,400	51,800	**103**	90-110	

Verified By: MJ Date: 2/20/07

Response Factor Report GC 01

Method : J:\GC01\METHODS\3C082106.M (Chemstation Integrator)
Title : EPA 3C GC/TCD Analysis for Fixed Gases
Last Update : Mon Aug 21 16:53:50 2006

Calibration Files
1 =08210605.D 2 =08210606.D 3 =08210607.D
4 =08210608.D 5 =08210609.D

	Compound	1	2	3	4	5	Avg		%RSD
1)	Hydrogen	0.969	0.809	0.886	1.007	0.994	0.933	E1	8.97
2)	Oxygen	1.329	1.193	1.293	1.265	1.167	1.249	E1	5.43
3)	Nitrogen	1.476	1.364	1.484	1.480	1.406	1.442	E1	3.74
4)	Carbon Monoxide	1.384	1.312	1.423	1.406	1.323	1.370	E1	3.63
5)	Methane	1.027	0.996	1.061	1.039	0.973	1.019	E1	3.40
6)	Carbon Dioxide	1.559	1.511	1.614	1.591	1.498	1.555	E1	3.20

WP 8/22/06

(#) = Out of Range

Compound #1: Hydrogen (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	34.255	332			
2	697.000	5639			
3	4100.000	36325			
4	42927.000	432280			
5	73800.000	733283			

	Integration Parameter File	Sum?
Tot		
		☐
		☐
		☐

Next | Plot | Page 1 | Page 2 | OK | Cancel | Help

Compound # 2: Oxygen (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	43.017	572			
2	841.500	10038			
3	4950.000	63987			
4	51826.500	655569			
5	89100.000	1039947			

	Integration Parameter File	Sum?
Igt		
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		☐
		☐

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Compound #3: Nitrogen (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	42.585	628			
2	844.050	11517			
3	4965.000	73699			
4	51983.550	769193			
5	89370.000	1256516			

	Integration Parameter File	Sum?
Tgt		
		☐
		☐
		☐

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Compound #4: Carbon Monoxide (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	42.585	589			
2	853.400	11196			
3	5020.000	71443			
4	52559.400	738905			
5	90360.000	1195622			

	Integration Parameter File	Sum?
Tgt		
		☐
		☐
		☐

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Compound #5: Methane (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	34.425	353			
2	685.700	6832			
3	4034.000	42792			
4	42235.980	438858			
5	72612.000	706850			

	Integration Parameter File	Sum?
Tgt		
		☐
		☐
		☐

[illegible] 0.00

[illegible] 0.000

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Compound #6: Carbon Dioxide (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	42.585	664			
2	847.450	12806			
3	4985.000	80434			
4	52192.950	830567			
5	89730.000	1344318			

	Integration Parameter File	Sum?
Tgt		
		☐
		☐
		☐

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ZW 2/20/07

COLUMBIA ANALYTICAL INC.

EPA 3C GC/TCD Analysis for Fixed Gases

Client & PAI Job# : TRC P2700302
Analyst : WHH
Sample amount : ~100uL

Printed : 2/20/07
Instrument : GC #1 / TCD #1
Date analyzed : 6 Feb 2007 16:00

Sample Result

Sample ID	Hydrogen	O2/Ar	Nitrogen	Carbon Monoxide	Methane	Carbon Dioxide	Pi1	Pf1	Pi2	Pf2
STD-50000ppm	37244	50866	49607	51539	41690	51859				
ACTUAL	40100	49970	50540	50050	40050	50360				
% DIFFER.	7.1%	1.8%	1.8%	3.0%	4.1%	3.0%				
MB	0	0	0	0	0	0				
LAB AIR	0	213189	755160	0	0	574				
0302-001	0	219724	774927	0	0	800	0.6	3.5		
0302-002	0	226128	799198	0	0	475	0.6	3.5		
LCS 50000ppm S14-12	38214	50601	50067	50850	40968	51797				
ACTUAL	40100	49970	50540	50050	40050	50360				
% DIFFER.	4.7%	1.3%	0.9%	1.6%	2.3%	2.9%				
0302-002 dup	0	227366	803041	0	0	330	0.6	3.5		
STD 50000ppm S14-09	37173	51026	50956	51262	41436	51700				
ACTUAL	40100	49970	50540	50050	40050	50360				
% DIFFER.	7.3%	2.1%	0.8%	2.4%	3.5%	2.7%				

Sample Result ppm with the DILUTION FACTOR

Sample ID	Hydrogen	O2/Ar	Nitrogen	Carbon Monoxide	Methane	Carbon Dioxide	Total	D.F.
MB	0	0	0	0	0	0	0.0	1.00
LAB AIR	0	213189	755160	0	0	574	96.9	1.00
0302-001	0	261372	921808	0	0	951	118.4	1.19
0302-002	0	268989	950680	0	0	565	122.0	1.19
LCS 50000ppm S14-12	38214	50601	50067	50850	40968	51797	28.2	1.00
ACTUAL	40100	49970	50540	50050	40050	50360	28.1	1.00
% DIFFER.	0	0	0	0	0	0	0.0	1.00
0302-002 dup	0	270462	955252	0	0	393	122.6	1.19

Sample Result (Normalized)

Sample ID	Hydrogen	O2/Ar	Nitrogen	Carbon Monoxide	Methane	Carbon Dioxide	Total
RL ppm	1000	1000	1000	1000	1000	1000	
MDL ppm	400	500	400	500	500	600	
STD-50000ppm	37244	50866	49607	51539	41690	51859	
MB	ND	ND	ND	ND	ND	ND	
LAB AIR	ND	220005	779303	ND	ND	592	99.99
0302-001	ND	220706	778390	ND	ND	803	99.99
0302-002	ND	220418	779019	ND	ND	463	99.99
LCS 50000ppm S14-12	135257	179103	177212	179984	145006	183337	99.99
ACTUAL	142655	177767	179795	178052	142477	179155	99.99
% DIFFER.	ND	ND	ND	ND	ND	ND	0.00
0302-002 dup	ND	220564	779016	ND	ND	320	99.99

ZW 2/20/07

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Injection Log

Directory: j:\gc01\data\fxg\2006_08\21

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	4	08210601.d	10.	Test		21 Aug 106 12::5
2	4	08210602.d	10.	Test		21 Aug 106 13::5
3	4	08210603.d	10.	MB		21 Aug 106 13::0
4	4	08210604.d	10.	test		21 Aug 106 12::1
5	4	08210605.d	10.	STD 1 S14-03260601 (loop 0.17)		21 Aug 106 12::3
6	4	08210606.d	10.	STD 2 S14-04120602 (loop 0.17)		21 Aug 106 12::1
7	5	08210607.d	10.	STD 3 S14-04120602 (loop 1.00)		21 Aug 106 12::3
8	5	08210608.d	10.	STD 4 S14-04120602 (loop 10.47)		21 Aug 106 12::4
9	5	08210609.d	10.	STD 5 S14-~~05~~ 4 120602 (loop 18.0)		21 Aug 106 12::5
10	5	08210610.d	10.	lab air	12/11/06	21 Aug 106 12::1
11	5	08210611.d	10.	icv		21 Aug 106 12::2
12	5	08210612.d	10.	ICV S14-07110501		21 Aug 106 12::5
13	5	08210613.d	10.	blank		21 Aug 106 12::1

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COLUMBIA ANALYTICAL SERVICES
SAMPLE RUN LOG
ID: HP 5890 SERIES II / GC1

DATE: 2 / 6 / 2007 DATA SYSTEM: HP Chemstation ANALYSIS: ___25C ___25C(MOD.) ___3C ✓ 3C(MOD.)

INJECTOR: PACKED COLUMN
VALVE SYSTEM:
3C ___ REGULAR LOOP (100µL) ___ OTHER _____
25C ___ REGULAR LOOP (500µL) ___ SMALL LOOP (7.33:1)

COLUMN ID's:
___8' X 1/8" CARBOSPHERE
___4' X 1/8" TENAX / HAYSEP Q / CARBOSPHERE

TEMPERATURE PROGRAMMING:
INITIAL AT 50 °C FOR 2 min
RAMP RATE 30 °C/min TO 200 °C HOLD FOR 1 min

CARRIER GAS: He 25.1 mL/min

DETECTOR INFO: HP TCD #1: 260 °C SENSITIVITY: INITIAL HIGH, 1.5 min LOW
HP FID #1: 280 °C POLARITY: INITIAL NEGATIVE, 1.5 min POSITIVE

DATA PATHWAY: J:\GC1\DATA\FXG\2007-02\061 METHOD FILE NAME: J:\GC1\METHODS_____.M

	DATA FILE HEADER INFO	CLIENT	ANALYST
01	Std 50000 ppm	S14-09010603	ZH
02			
03	MB		
04	Lab Air		
05	Wait		
06	LCS 50000 ppm	S14-12150602	
07	0302-002	TRL	
08	-002		
09	-001		
10	Std 50000 ppm	S14-09010603	
11	wait		
12	0305-001	[redacted]	
13	Std 50000 ppm	S14-09010603	
14			
15			ZH
16			
17			2/6/07
18			
19			
20			

	DATA FILE HEADER INFO	CLIENT	ANALYST
21			
22			
23			
24			
25			
26		ZH	
27			
28		2/6/07	
29			
30			
31			
32			
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40			

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00923

Date Collected: 2/2/07
Date Received: 2/5/07
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 0.35 Liter(s)

Pi 1 = 0.6 Pf 1 = 3.5

Can D.F. = 1.19

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	3.4	ND	1.6	
75-01-4	Vinyl Chloride	ND	3.4	ND	1.3	
74-83-9	Bromomethane	ND	3.4	ND	0.88	
75-00-3	Chloroethane	ND	3.4	ND	1.3	
67-64-1	Acetone	**75**	17	**31**	7.2	
75-69-4	Trichlorofluoromethane	ND	3.4	ND	0.61	
75-35-4	1,1-Dichloroethene	ND	3.4	ND	0.86	
75-09-2	Methylene chloride	ND	3.4	ND	0.98	
76-13-1	Trichlorotrifluoroethane	ND	3.4	ND	0.44	
75-15-0	Carbon Disulfide	ND	3.4	ND	1.1	
156-60-5	trans-1,2-Dichloroethene	ND	3.4	ND	0.86	
75-34-3	1,1-Dichloroethane	ND	3.4	ND	0.84	
1634-04-4	Methyl tert-Butyl Ether	ND	3.4	ND	0.94	
108-05-4	Vinyl Acetate	ND	3.4	ND	0.97	
78-93-3	2-Butanone (MEK)	**7.4**	3.4	**2.5**	1.2	
156-59-2	cis-1,2-Dichloroethene	ND	3.4	ND	0.86	
67-66-3	Chloroform	ND	3.4	ND	0.70	
107-06-2	1,2-Dichloroethane	ND	3.4	ND	0.84	
71-55-6	1,1,1-Trichloroethane	ND	3.4	ND	0.62	
71-43-2	Benzene	ND	3.4	ND	1.1	
56-23-5	Carbon Tetrachloride	ND	3.4	ND	0.54	
78-87-5	1,2-Dichloropropane	ND	3.4	ND	0.74	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: LW Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00923

Date Collected: 2/2/07
Date Received: 2/5/07
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 0.35 Liter(s)

Pi 1 = 0.6 Pf 1 = 3.5

Can D.F. = 1.19

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	3.4	ND	0.51	
79-01-6	Trichloroethene	ND	3.4	ND	0.63	
10061-01-5	cis-1,3-Dichloropropene	ND	3.4	ND	0.75	
108-10-1	4-Methyl-2-pentanone	ND	3.4	ND	0.83	
10061-02-6	trans-1,3-Dichloropropene	ND	3.4	ND	0.75	
79-00-5	1,1,2-Trichloroethane	ND	3.4	ND	0.62	
108-88-3	Toluene	**32**	3.4	**8.4**	0.90	
591-78-6	2-Hexanone	ND	3.4	ND	0.83	
124-48-1	Dibromochloromethane	ND	3.4	ND	0.40	
106-93-4	1,2-Dibromoethane	ND	3.4	ND	0.44	
127-18-4	Tetrachloroethene	**220**	3.4	**32**	0.50	
108-90-7	Chlorobenzene	ND	3.4	ND	0.74	
100-41-4	Ethylbenzene	ND	3.4	ND	0.78	
179601-23-1	*m,p* -Xylenes	**14**	3.4	**3.3**	0.78	
75-25-2	Bromoform	ND	3.4	ND	0.33	
100-42-5	Styrene	ND	3.4	ND	0.80	
95-47-6	o-Xylene	**4.1**	3.4	**0.95**	0.78	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.4	ND	0.50	
541-73-1	1,3-Dichlorobenzene	ND	3.4	ND	0.57	
106-46-7	1,4-Dichlorobenzene	ND	3.4	ND	0.57	
95-50-1	1,2-Dichlorobenzene	ND	3.4	ND	0.57	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: MV Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-001DUP

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00923

Date Collected: 2/2/07
Date Received: 2/5/07
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 0.35 Liter(s)

Pi 1 = 0.6 Pf 1 = 3.5

Can D.F. = 1.19

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	3.4	ND	1.6	
75-01-4	Vinyl Chloride	ND	3.4	ND	1.3	
74-83-9	Bromomethane	ND	3.4	ND	0.88	
75-00-3	Chloroethane	ND	3.4	ND	1.3	
67-64-1	Acetone	**78**	17	**33**	7.2	
75-69-4	Trichlorofluoromethane	ND	3.4	ND	0.61	
75-35-4	1,1-Dichloroethene	ND	3.4	ND	0.86	
75-09-2	Methylene chloride	ND	3.4	ND	0.98	
76-13-1	Trichlorotrifluoroethane	ND	3.4	ND	0.44	
75-15-0	Carbon Disulfide	ND	3.4	ND	1.1	
156-60-5	trans-1,2-Dichloroethene	ND	3.4	ND	0.86	
75-34-3	1,1-Dichloroethane	ND	3.4	ND	0.84	
1634-04-4	Methyl tert-Butyl Ether	ND	3.4	ND	0.94	
108-05-4	Vinyl Acetate	ND	3.4	ND	0.97	
78-93-3	2-Butanone (MEK)	**7.3**	3.4	**2.5**	1.2	
156-59-2	cis-1,2-Dichloroethene	ND	3.4	ND	0.86	
67-66-3	Chloroform	ND	3.4	ND	0.70	
107-06-2	1,2-Dichloroethane	ND	3.4	ND	0.84	
71-55-6	1,1,1-Trichloroethane	ND	3.4	ND	0.62	
71-43-2	Benzene	ND	3.4	ND	1.1	
56-23-5	Carbon Tetrachloride	ND	3.4	ND	0.54	
78-87-5	1,2-Dichloropropane	ND	3.4	ND	0.74	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: MJ Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-001DUP

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00923

Date Collected: 2/2/07
Date Received: 2/5/07
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 0.35 Liter(s)

Pi 1 = 0.6 Pf 1 = 3.5

Can D.F. = 1.19

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	3.4	ND	0.51	
79-01-6	Trichloroethene	ND	3.4	ND	0.63	
10061-01-5	cis-1,3-Dichloropropene	ND	3.4	ND	0.75	
108-10-1	4-Methyl-2-pentanone	ND	3.4	ND	0.83	
10061-02-6	trans-1,3-Dichloropropene	ND	3.4	ND	0.75	
79-00-5	1,1,2-Trichloroethane	ND	3.4	ND	0.62	
108-88-3	Toluene	**33**	3.4	**8.7**	0.90	
591-78-6	2-Hexanone	ND	3.4	ND	0.83	
124-48-1	Dibromochloromethane	ND	3.4	ND	0.40	
106-93-4	1,2-Dibromoethane	ND	3.4	ND	0.44	
127-18-4	Tetrachloroethene	**220**	3.4	**33**	0.50	
108-90-7	Chlorobenzene	ND	3.4	ND	0.74	
100-41-4	Ethylbenzene	ND	3.4	ND	0.78	
179601-23-1	*m,p* -Xylenes	**15**	3.4	**3.4**	0.78	
75-25-2	Bromoform	ND	3.4	ND	0.33	
100-42-5	Styrene	ND	3.4	ND	0.80	
95-47-6	o-Xylene	**4.2**	3.4	**0.97**	0.78	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.4	ND	0.50	
541-73-1	1,3-Dichlorobenzene	ND	3.4	ND	0.57	
106-46-7	1,4-Dichlorobenzene	ND	3.4	ND	0.57	
95-50-1	1,2-Dichlorobenzene	ND	3.4	ND	0.57	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: LW Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07-SC**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01272

Date Collected: 2/2/07
Date Received: 2/5/07
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 0.35 Liter(s)

Pi 1 = 0.6 Pf 1 = 3.5

Can D.F. = 1.19

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	3.4	ND	1.6	
75-01-4	Vinyl Chloride	ND	3.4	ND	1.3	
74-83-9	Bromomethane	ND	3.4	ND	0.88	
75-00-3	Chloroethane	ND	3.4	ND	1.3	
67-64-1	Acetone	**86**	17	**36**	7.2	
75-69-4	Trichlorofluoromethane	ND	3.4	ND	0.61	
75-35-4	1,1-Dichloroethene	ND	3.4	ND	0.86	
75-09-2	Methylene chloride	ND	3.4	ND	0.98	
76-13-1	Trichlorotrifluoroethane	ND	3.4	ND	0.44	
75-15-0	Carbon Disulfide	ND	3.4	ND	1.1	
156-60-5	trans-1,2-Dichloroethene	ND	3.4	ND	0.86	
75-34-3	1,1-Dichloroethane	ND	3.4	ND	0.84	
1634-04-4	Methyl tert-Butyl Ether	ND	3.4	ND	0.94	
108-05-4	Vinyl Acetate	ND	3.4	ND	0.97	
78-93-3	2-Butanone (MEK)	**8.5**	3.4	**2.9**	1.2	
156-59-2	cis-1,2-Dichloroethene	ND	3.4	ND	0.86	
67-66-3	Chloroform	ND	3.4	ND	0.70	
107-06-2	1,2-Dichloroethane	ND	3.4	ND	0.84	
71-55-6	1,1,1-Trichloroethane	ND	3.4	ND	0.62	
71-43-2	Benzene	ND	3.4	ND	1.1	
56-23-5	Carbon Tetrachloride	ND	3.4	ND	0.54	
78-87-5	1,2-Dichloropropane	ND	3.4	ND	0.74	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: W Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07-SC**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01272

Date Collected: 2/2/07
Date Received: 2/5/07
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 0.35 Liter(s)

Pi 1 = 0.6 Pf 1 = 3.5

Can D.F. = 1.19

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	3.4	ND	0.51	
79-01-6	Trichloroethene	ND	3.4	ND	0.63	
10061-01-5	cis-1,3-Dichloropropene	ND	3.4	ND	0.75	
108-10-1	4-Methyl-2-pentanone	ND	3.4	ND	0.83	
10061-02-6	trans-1,3-Dichloropropene	ND	3.4	ND	0.75	
79-00-5	1,1,2-Trichloroethane	ND	3.4	ND	0.62	
108-88-3	Toluene	**32**	3.4	**8.6**	0.90	
591-78-6	2-Hexanone	ND	3.4	ND	0.83	
124-48-1	Dibromochloromethane	ND	3.4	ND	0.40	
106-93-4	1,2-Dibromoethane	ND	3.4	ND	0.44	
127-18-4	Tetrachloroethene	**220**	3.4	**32**	0.50	
108-90-7	Chlorobenzene	ND	3.4	ND	0.74	
100-41-4	Ethylbenzene	ND	3.4	ND	0.78	
179601-23-1	*m,p*-Xylenes	**15**	3.4	**3.3**	0.78	
75-25-2	Bromoform	ND	3.4	ND	0.33	
100-42-5	Styrene	ND	3.4	ND	0.80	
95-47-6	o-Xylene	**4.1**	3.4	**0.95**	0.78	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.4	ND	0.50	
541-73-1	1,3-Dichlorobenzene	ND	3.4	ND	0.57	
106-46-7	1,4-Dichlorobenzene	ND	3.4	ND	0.57	
95-50-1	1,2-Dichlorobenzene	ND	3.4	ND	0.57	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: MJ Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Method Blank**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P070213-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.0	ND	0.48	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: KJ Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Method Blank**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P070213-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	*m,p* -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	o-Xylene	ND	1.0	ND	0.23	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: W Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Project ID: **WDI**

CAS Project ID: P2700302

Surrogate Spike Recovery Results

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister(s)
Test Notes:

Date Collected: 2/2/07
Date Received: 2/5/07
Date Analyzed: 2/13/07

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4		Toluene-d8		Bromofluorobenzene		Data Qualifier
		% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	
Method Blank	P070213-MB	**88**	80-120	**99**	80-120	**108**	80-120	
Lab Control Sample	P070213-LCS	**95**	80-120	**101**	80-120	**105**	80-120	
Duplicate Lab Control Sample	P070213-DLCS	**95**	80-120	**100**	80-120	**104**	80-120	
WDI-IBM-37-2-2-07	P2700302-001	**89**	80-120	**100**	80-120	**105**	80-120	
WDI-IBM-37-2-2-07	P2700302-001DUP	**90**	80-120	**100**	80-120	**105**	80-120	
WDI-IBM-37-2-2-07-SC	P2700302-002	**90**	80-120	**100**	80-120	**105**	80-120	

Verified By: MW Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID : **WDI**

CAS Project ID: P2700302
CAS Sample ID: P070213-LCS, P070213-DLCS

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 2/13/07
Volume(s) Analyzed: NA

Compound	Spike Amt LCS/DLCS ng	Result LCS ng	Result DLCS ng	% Recovery LCS	% Recovery DLCS	Acceptance Limits	RPD	RPD Limit %	Data Qualifier
Chloromethane	24.3	25.4	21.3	**105**	**88**	65-135	**18**	35	
Vinyl Chloride	24.8	27.1	23.3	**109**	**94**	65-135	**15**	35	
Bromomethane	25.0	25.8	22.6	**103**	**90**	65-135	**13**	35	
Chloroethane	25.0	25.5	21.9	**102**	**88**	65-135	**15**	35	
Acetone	26.5	26.9	23.1	**102**	**87**	65-135	**16**	35	
Trichlorofluoromethane	24.3	25.2	22.2	**104**	**91**	65-135	**13**	35	
1,1-Dichloroethene	27.3	28.4	24.8	**104**	**91**	65-135	**13**	35	
Methylene chloride	26.8	26.3	22.8	**98**	**85**	65-135	**14**	35	
Trichlorotrifluoroethane	27.0	27.8	25.3	**103**	**94**	65-135	**9**	35	
Carbon Disulfide	25.0	25.5	22.3	**102**	**89**	65-135	**14**	35	
trans-1,2-Dichloroethene	26.3	26.8	23.1	**102**	**88**	65-135	**15**	35	
1,1-Dichloroethane	26.3	26.1	23.1	**99**	**88**	65-135	**12**	35	
Methyl tert-Butyl Ether	26.3	25.4	24.4	**97**	**93**	65-135	**4**	35	
Vinyl Acetate	24.3	23.0	22.5	**95**	**93**	65-135	**2**	35	
2-Butanone (MEK)	26.8	27.7	25.1	**103**	**94**	65-135	**9**	35	
cis-1,2-Dichloroethene	26.5	26.9	23.5	**102**	**89**	65-135	**14**	35	
Chloroform	30.0	27.8	24.7	**93**	**82**	65-135	**13**	35	
1,2-Dichloroethane	26.0	26.8	24.0	**103**	**92**	65-135	**11**	35	
1,1,1-Trichloroethane	26.3	26.9	24.1	**102**	**92**	65-135	**10**	35	
Benzene	26.3	27.1	23.7	**103**	**90**	65-135	**13**	35	
Carbon Tetrachloride	25.8	26.2	24.2	**102**	**94**	65-135	**8**	35	
1,2-Dichloropropane	26.0	27.1	23.5	**104**	**90**	65-135	**14**	35	

Verified By: W Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID : **WDI**

CAS Project ID: P2700302
CAS Sample ID: P070213-LCS, P070213-DLCS

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 2/13/07
Volume(s) Analyzed: NA

Compound	Spike Amt LCS/DLCS ng	Result LCS ng	Result DLCS ng	% Recovery LCS	% Recovery DLCS	Acceptance Limits	RPD	RPD Limit %	Data Qualifier
Bromodichloromethane	27.5	27.1	25.2	**99**	**92**	65-135	**7**	35	
Trichloroethene	27.3	29.1	25.7	**107**	**94**	65-135	**13**	35	
cis-1,3-Dichloropropene	26.0	26.0	22.9	**100**	**88**	65-135	**13**	35	
4-Methyl-2-pentanone	26.5	30.9	26.9	**117**	**102**	65-135	**14**	35	
trans-1,3-Dichloropropene	27.8	29.7	26.2	**107**	**94**	65-135	**13**	35	
1,1,2-Trichloroethane	25.8	27.7	24.2	**107**	**94**	65-135	**13**	35	
Toluene	26.0	27.8	24.3	**107**	**93**	65-135	**14**	35	
2-Hexanone	26.0	31.2	27.2	**120**	**105**	65-135	**13**	35	
Dibromochloromethane	26.5	29.8	26.1	**112**	**98**	65-135	**13**	35	
1,2-Dibromoethane	26.0	28.3	24.9	**109**	**96**	65-135	**13**	35	
Tetrachloroethene	25.8	27.9	24.5	**108**	**95**	65-135	**13**	35	
Chlorobenzene	26.0	28.2	24.7	**108**	**95**	65-135	**13**	35	
Ethylbenzene	25.8	27.7	24.4	**107**	**95**	65-135	**12**	35	
m,p-Xylenes	61.5	66.6	58.7	**108**	**95**	65-135	**13**	35	
Bromoform	31.3	35.1	30.7	**112**	**98**	65-135	**13**	35	
Styrene	25.8	28.9	25.5	**112**	**99**	65-135	**12**	35	
o-Xylene	29.0	31.4	27.8	**108**	**96**	65-135	**12**	35	
1,1,2,2-Tetrachloroethane	29.3	32.2	28.1	**110**	**96**	65-135	**14**	35	
1,3-Dichlorobenzene	25.3	27.8	24.7	**110**	**98**	65-135	**12**	35	
1,4-Dichlorobenzene	26.0	28.9	25.8	**111**	**99**	65-135	**11**	35	
1,2-Dichlorobenzene	25.5	28.2	25.1	**111**	**98**	65-135	**12**	35	

Verified By: NJ Date: 2/20/07

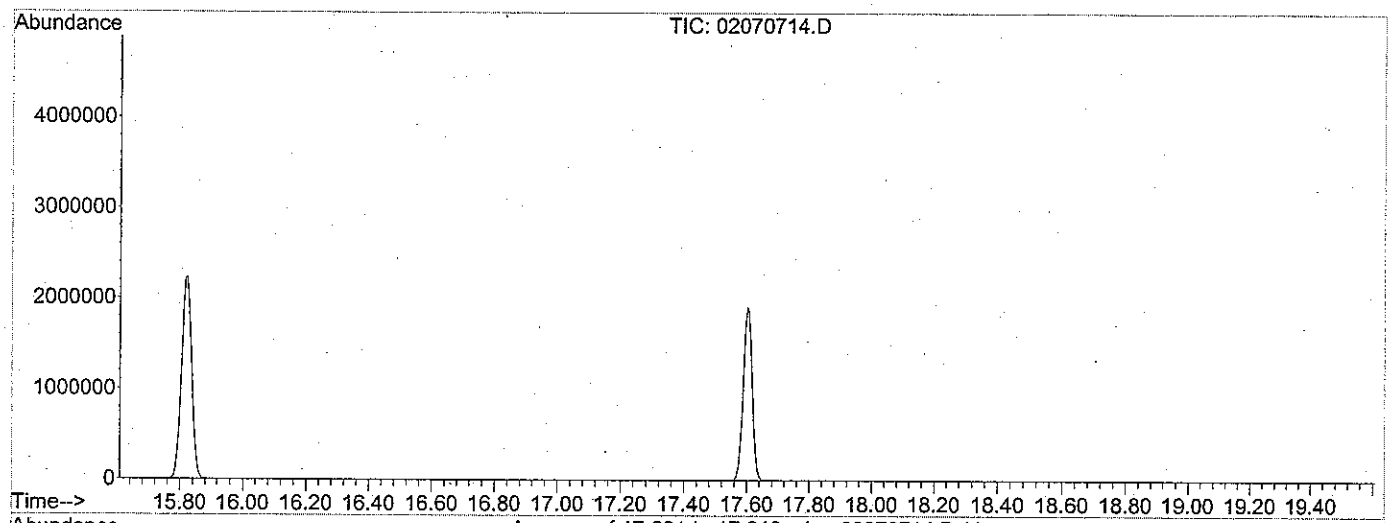
BFB

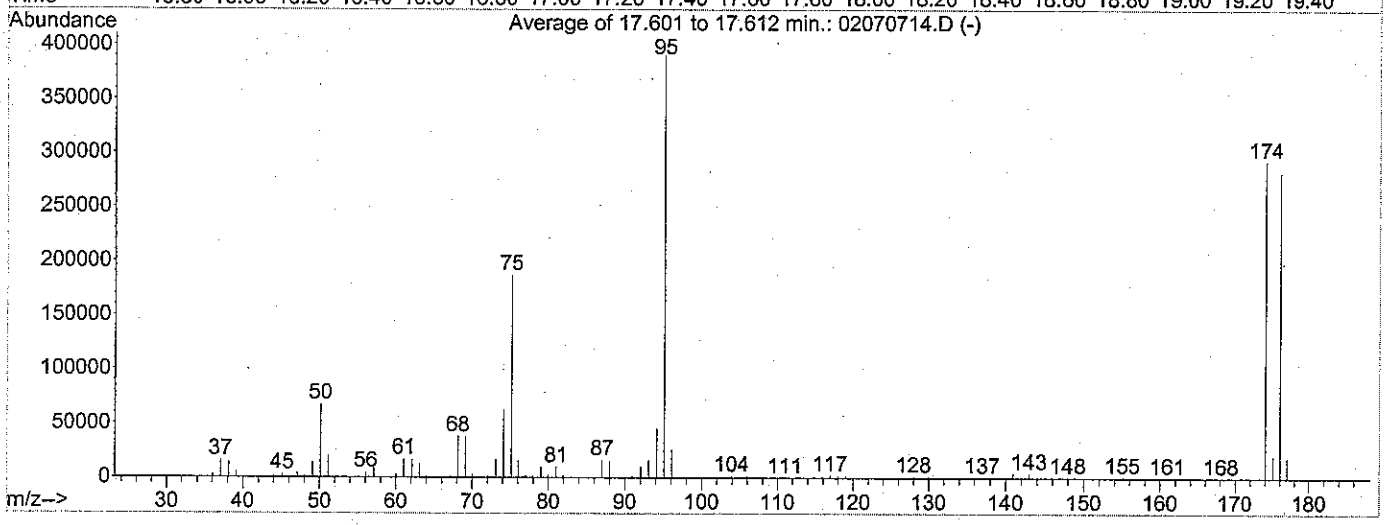
ICAL

Data Path : J:\MS08\Data\2007_02\07\
Data File : 02070714.D
Acq On : 7 Feb 2007 7:50 pm
Operator : LM/SC
Sample : 25ng BFB STD
Misc : S15-02050702
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS08\METHODS\R8020707.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
Last Update : Tue Jan 23 09:32:12 2007





AutoFind: Scans 2501, 2502, 2503; Background Corrected with Scan 2490

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.3	67474	PASS
75	95	30	66	47.9	186944	PASS
95	95	100	100	100.0	390016	PASS
96	95	5	9	6.6	25565	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	75.0	292672	PASS
175	174	4	9	6.9	20106	PASS
176	174	93	101	96.3	281962	PASS
177	176	5	9	6.5	18447	PASS

C 2/8/07
LM 2/8/07

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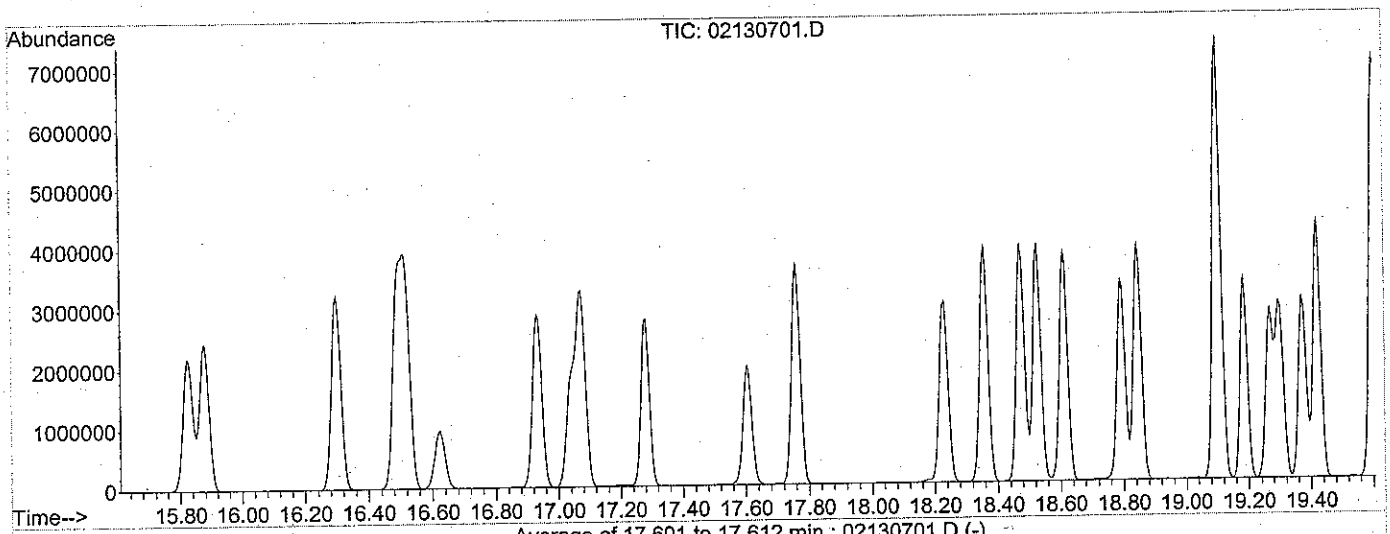
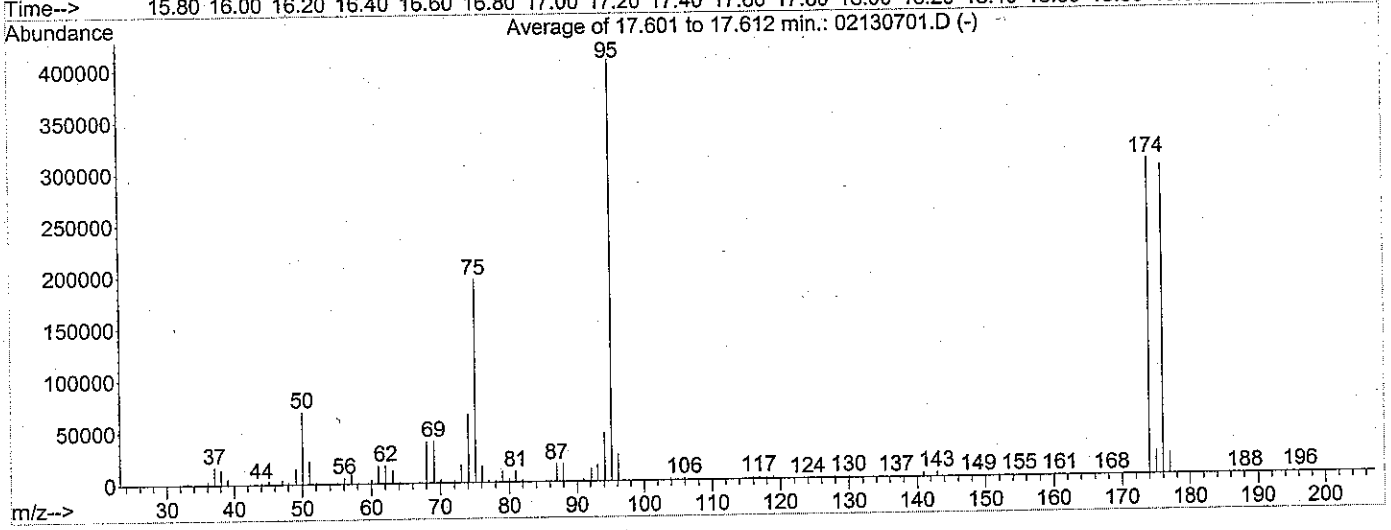
BFB

Data Path : J:\MS08\Data\2007_02\13\
Data File : 02130701.D
Acq On : 13 Feb 2007 8:46 am
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-02060702/S15-02050706
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS08\METHODS\R8020707.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
Last Update : Thu Feb 08 09:27:58 2007





AutoFind: Scans 2501, 2502, 2503; Background Corrected with Scan 2490

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.0	69325	PASS
75	95	30	66	48.0	195562	PASS
95	95	100	100	100.0	407360	PASS
96	95	5	9	6.4	25968	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	74.9	305260	PASS
175	174	4	9	7.2	21859	PASS
176	174	93	101	97.9	298972	PASS
177	176	5	9	6.7	20032	PASS

E. 2/13/07
LM 2/14/07.

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Response Factor Report MS08

Method Path : J:\MS08\METHODS\
Method File : R8020707.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
Last Update : Thu Feb 08 09:27:58 2007
Response Via : Initial Calibration

Calibration Files
0.5 =02070715.D 1 =02070716.D 5 =02070717.D 25 =02070718.D
50 =02070719.D 100 =02070720.D =

		Compound	0.5	1	5	25	50	100	Avg	%RSD
1)	IR	Bromochloromethane (I	----------ISTD----------							
2)	T	Propene	2.712	2.272	1.891	1.814	1.685	1.621	1.999	20.87
3)	T	Dichlorodifluorom	4.934	4.361	3.829	3.734	3.551	3.417	3.971	14.42
4)	T	Chloromethane	3.224	2.890	2.645	2.688	2.523	2.362	2.722	11.10
5)	T	Freon 114	1.534	1.265	1.110	1.090	1.042	1.015	1.176	16.66
6)	T	Vinyl Chloride	2.752	2.452	2.245	2.093	1.972	1.972	2.248	13.67
7)	T	1,3-Butadiene	1.896	1.726	1.639	1.591	1.521	1.540	1.652	8.49
8)	T	Bromomethane	2.111	1.900	1.675	1.675	1.630	1.636	1.771	10.96
9)	T	Chloroethane	1.807	1.587	1.483	1.426	1.362	1.325	1.498	11.82
10)	T	Ethanol	1.258	1.046	0.973	1.175	1.128	1.118	1.116	8.89
11)	T	Acetonitrile	3.534	3.131	2.938	3.374	3.194	3.113	3.214	6.55
12)	T	Acrolein	1.173	1.060	1.042	1.072	1.029	1.014	1.065	5.36
13)	T	Acetone	2.031	1.660	1.445	1.392	1.366	1.366	1.543	17.07
14)	T	Trichlorofluorome	3.257	2.936	2.675	2.705	2.591	2.574	2.790	9.44
15)	T	Isopropanol	5.143	4.739	4.459	4.084	3.446	2.971	4.140	19.67
16)	T	Acrylonitrile	2.552	2.244	2.184	2.312	2.216	2.174	2.280	6.23
17)	T	1,1-Dichloroethen	2.017	1.825	1.670	1.669	1.600	1.572	1.726	9.72
18)	T	tert-Butanol	4.826	4.789	4.309	3.050	2.812	2.439	3.704	28.63
19)	T	Methylene Chlorid	2.632	2.212	1.924	1.864	1.785	1.765	2.030	16.55
20)	T	Allyl Chloride	2.242	2.074	2.100	2.336	2.272	2.245	2.211	4.62
21)	T	Trichlorotrifluor	1.785	1.552	1.446	1.414	1.377	1.386	1.493	10.45
22)	T	Carbon Disulfide	9.530	8.101	7.102	6.958	6.611	6.367	7.445	15.88
23)	T	trans-1,2-Dichlor	3.291	2.874	2.675	2.684	2.565	2.498	2.764	10.42
24)	T	1,1-Dichloroethan	3.432	2.951	2.633	2.636	2.481	2.342	2.746	14.31
25)	T	Methyl tert-Butyl	6.576	5.990	5.611	5.471	5.201	4.996	5.641	10.14
26)	T	Vinyl Acetate	0.382	0.357	0.365	0.404	0.399	0.398	0.384	5.05
27)	T	2-Butanone	1.385	1.260	1.250	1.236	1.179	1.146	1.243	6.64
28)	T	cis-1,2-Dichloroe	2.895	2.602	2.395	2.423	2.317	2.262	2.482	9.38
29)	T	Diisopropyl Ether	1.651	1.626	1.482	1.428	1.353	1.298	1.473	9.68
30)	T	Ethyl Acetate	0.765	0.678	0.617	0.605	0.567	0.531	0.627	13.37
31)	T	n-Hexane	3.644	3.228	2.943	2.839	2.702	2.629	2.998	12.68
32)	T	Chloroform	3.588	3.229	2.694	2.639	2.383	2.285	2.803	18.05
33)	S	1,2-Dichloroethan	1.886	1.858	1.827	1.868	1.775	1.729	1.824	3.32
34)	T	Tetrahydrofuran	1.422	1.306	1.209	1.195	1.031	0.866	1.172	16.88
35)	T	Ethyl tert-Butyl	2.485	2.268	2.218	2.151	2.062	1.998	2.197	7.83
36)	T	1,2-Dichloroethan	3.006	2.658	2.502	2.497	2.391	2.206	2.543	10.66
37)	IR	1,4-Difluorobenzene (	----------ISTD----------							
38)	T	1,1,1-Trichloroet	0.774	0.705	0.646	0.646	0.621	0.609	0.667	9.35
39)	T	Isopropyl Acetate	0.270	0.253	0.244	0.236	0.224	0.217	0.241	8.04
40)	T	1-Butanol	0.197	0.198	0.196	0.184	0.176	0.167	0.187	6.84
41)	T	Benzene	1.872	1.663	1.537	1.504	1.427	1.371	1.563	11.63
42)	T	Carbon Tetrachlor	0.598	0.541	0.528	0.545	0.530	0.517	0.543	5.32
43)	T	Cyclohexane	0.781	0.653	0.589	0.579	0.552	0.528	0.614	15.03
44)	T	tert-Amyl Methyl	1.259	1.196	1.112	1.085	1.040	1.010	1.117	8.50
45)	T	1,2-Dichloropropa	0.437	0.416	0.378	0.380	0.360	0.351	0.387	8.54
46)	T	Bromodichlorometh	0.601	0.545	0.516	0.528	0.504	0.489	0.530	7.42
47)	T	Trichloroethene	0.444	0.414	0.375	0.371	0.355	0.344	0.384	9.91
48)	T	1,4-Dioxane	0.301	0.294	0.271	0.258	0.247	0.234	0.267	9.87
49)	T	Isooctane	1.820	1.682	1.529	1.503	1.413	1.322	1.545	11.71
50)	T	Methyl Methacryla	0.150	0.143	0.148	0.153	0.149	0.147	0.148	2.23
51)	T	n-Heptane	0.460	0.419	0.390	0.380	0.363	0.346	0.393	10.42
52)	T	cis-1,3-Dichlorop	0.725	0.660	0.643	0.646	0.612	0.578	0.644	7.65
53)	T	4-Methyl-2-pentan	0.330	0.350	0.334	0.285	0.269	0.253	0.304	13.04
54)	T	trans-1,3-Dichlor	0.637	0.602	0.581	0.600	0.576	0.562	0.593	4.45
55)	T	1,1,2-Trichloroet	0.435	0.395	0.376	0.377	0.359	0.348	0.382	8.08
56)	I	Chlorobenzene-d5 (IS3	----------ISTD----------							
57)	S	Toluene-d8 (SS2)	2.186	2.175	2.178	2.181	2.177	2.178	2.179	0.18

Response Factor Report MS08

Method Path : J:\MS08\METHODS\
Method File : R8020707.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
Last Update : Thu Feb 08 09:27:58 2007
Response Via : Initial Calibration

Calibration Files
0.5 =02070715.D 1 =02070716.D 5 =02070717.D 25 =02070718.D
50 =02070719.D 100 =02070720.D =

		Compound	0.5	1	5	25	50	100	Avg	%RSD
58)	T	Toluene	3.837	3.461	3.158	3.093	2.858	2.629	3.173	13.56
59)	T	2-Hexanone	1.554	1.589	1.593	1.294	1.195	1.127	1.392	15.19
60)	T	Dibromochlorometh	0.906	0.846	0.809	0.839	0.790	0.755	0.824	6.31
61)	T	1,2-Dibromoethane	1.012	0.915	0.861	0.873	0.820	0.778	0.877	9.27
62)	T	Butyl Acetate	1.679	1.790	1.735	1.428	1.328	1.244	1.534	15.00
63)	T	n-Octane	0.747	0.687	0.643	0.642	0.590	0.541	0.641	11.23
64)	T	Tetrachloroethene	0.927	0.812	0.754	0.737	0.692	0.655	0.763	12.71
65)	T	Chlorobenzene	2.447	2.196	2.018	1.983	1.839	1.727	2.035	12.66
66)	T	Ethylbenzene	4.364	3.929	3.663	3.603	3.315	3.053	3.654	12.59
67)	T	m- & p-Xylene	2.805	2.570	2.380	2.316	2.113	1.927	2.352	13.35
68)	T	Bromoform	0.562	0.525	0.524	0.551	0.522	0.499	0.530	4.26
69)	T	Styrene	2.290	2.173	2.089	2.160	1.996	1.847	2.092	7.40
70)	T	o-Xylene	3.019	2.752	2.584	2.520	2.303	2.105	2.547	12.68
71)	T	n-Nonane	1.703	1.564	1.477	1.464	1.322	1.188	1.453	12.42
72)	T	1,1,2,2-Tetrachlo	1.330	1.246	1.185	1.170	1.087	1.002	1.170	9.89
73)	S	Bromofluorobenzen	0.663	0.664	0.657	0.654	0.651	0.653	0.657	0.82
74)	T	Cumene	4.045	3.666	3.357	3.334	3.022	2.733	3.359	13.77
75)	T	alpha-Pinene	1.925	1.788	1.714	1.740	1.617	1.491	1.712	8.66
76)	T	n-Propylbenzene	5.058	4.743	4.397	4.321	3.921	3.487	4.321	13.02
77)	T	3-Ethyltoluene	4.073	3.833	3.554	3.563	3.225	2.896	3.524	11.93
78)	T	4-Ethyltoluene	4.015	3.683	3.416	3.282	3.015	2.712	3.354	13.87
79)	T	1,3,5-Trimethylbe	3.451	3.185	2.970	2.868	2.628	2.385	2.915	13.10
80)	T	alpha-Methylstyre	1.406	1.370	1.320	1.511	1.391	1.271	1.378	5.94
81)	T	2-Ethyltoluene	4.294	3.867	3.665	3.582	3.250	2.917	3.596	13.32
82)	T	1,2,4-Trimethylbe	3.361	3.109	2.951	2.795	2.533	2.297	2.841	13.61
83)	T	n-Decane	1.697	1.614	1.506	1.478	1.350	1.199	1.474	12.19
84)	T	Benzyl Chloride	2.698	2.599	2.701	2.690	2.521	2.291	2.583	6.20
85)	T	1,3-Dichlorobenze	1.962	1.708	1.622	1.581	1.449	1.301	1.604	14.11
86)	T	1,4-Dichlorobenze	1.809	1.693	1.596	1.537	1.408	1.270	1.552	12.51
87)	T	sec-Butylbenzene	4.478	4.290	3.934	3.798	3.416	2.962	3.813	14.68
88)	T	p-Isopropyltoluen	3.591	3.353	3.162	2.968	2.684	2.374	3.022	14.72
89)	T	1,2,3-Trimethylbe	3.224	2.971	2.793	2.702	2.447	2.194	2.722	13.48
90)	T	1,2-Dichlorobenze	1.776	1.652	1.525	1.428	1.299	1.150	1.471	15.60
91)	T	d-Limonene	0.957	0.954	0.912	1.096	1.000	0.901	0.970	7.33
92)	T	1,2-Dibromo-3-Chl	0.435	0.443	0.475	0.499	0.489	0.464	0.467	5.41
93)	T	n-Undecane	1.311	1.247	1.126	1.078	1.058	0.993	1.135	10.64
94)	T	1,2,4-Trichlorobe	0.297	0.289	0.293	0.253	0.268	0.264	0.277	6.48
95)	T	Naphthalene	2.451	2.617	2.656	2.601	2.769	2.664	2.627	3.96
96)	T	n-Dodecane	1.091	1.125	0.879	0.668	0.691	0.684	0.856	24.53
97)	T	Hexachloro-1,3-bu	0.497	0.533	0.503	0.431	0.461	0.454	0.480	7.80

(#) = Out of Range

Evaluate Continuing Calibration Report

Data Path : J:\MS08\Data\2007_02\13\
Data File : 02130701.D
Acq On : 13 Feb 2007 8:46 am
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-02060702/S15-02050706
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 13 09:12:47 2007
Quant Method : J:\MS08\METHODS\R8020707.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Thu Feb 08 09:27:58 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	104	0.01
2	T	Propene	1.999	1.522	23.9	88	0.00
3	T	Dichlorodifluoromethane	3.971	3.413	14.1	95	0.00
4	T	Chloromethane	2.722	2.391	12.2	93	0.01
5	T	Freon 114	1.176	1.145	2.6	110	0.00
6	T	Vinyl Chloride	2.248	2.006	10.8	100	0.00
7	T	1,3-Butadiene	1.652	1.544	6.5	101	0.00
8	T	Bromomethane	1.771	1.525	13.9	95	0.00
9	T	Chloroethane	1.498	1.258	16.0	92	0.00
10	T	Ethanol	1.116	1.004	10.0	89	0.02
11	T	Acetonitrile	3.214	2.803	12.8	87	0.01
12	T	Acrolein	1.065	0.919	13.7	89	0.01
13	T	Acetone	1.543	1.245	19.3	93	0.02
14	T	Trichlorofluoromethane	2.790	2.505	10.2	97	0.01
15	T	Isopropanol	4.140	3.447	16.7	88	0.02
16	T	Acrylonitrile	2.280	1.998	12.4	90	0.01
17	T	1,1-Dichloroethene	1.726	1.513	12.3	95	0.00
18	T	tert-Butanol	3.704	2.913	21.4	100	0.02
19	T	Methylene Chloride	2.030	1.663	18.1	93	0.00
20	T	Allyl Chloride	2.211	1.966	11.1	88	0.00
21	T	Trichlorotrifluoroethane	1.493	1.327	11.1	98	0.00
22	T	Carbon Disulfide	7.445	6.204	16.7	93	0.00
23	T	trans-1,2-Dichloroethene	2.764	2.343	15.2	91	0.00
24	T	1,1-Dichloroethane	2.746	2.329	15.2	92	0.00
25	T	Methyl tert-Butyl Ether	5.641	4.822	14.5	92	0.01
26	T	Vinyl Acetate	0.384	0.341	11.2	88	0.01
27	T	2-Butanone	1.243	1.090	12.3	92	0.00
28	T	cis-1,2-Dichloroethene	2.482	2.107	15.1	91	0.00
29	T	Diisopropyl Ether	1.473	1.269	13.8	93	0.00
30	T	Ethyl Acetate	0.627	0.512	18.3	88	0.01
31	T	n-Hexane	2.998	2.365	21.1	87	0.00
32	T	Chloroform	2.803	2.350	16.2	93	0.01
33	S	1,2-Dichloroethane-d4(SS1)	1.824	1.739	4.7	97	0.00
34	T	Tetrahydrofuran	1.172	1.017	13.2	89	0.01
35	T	Ethyl tert-Butyl Ether	2.197	1.924	12.4	93	0.00
36	T	1,2-Dichloroethane	2.543	2.235	12.1	93	0.01
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	99	0.00
38	T	1,1,1-Trichloroethane	0.667	0.612	8.2	94	0.00
39	T	Isopropyl Acetate	0.241	0.211	12.4	89	0.01
40	T	1-Butanol	0.187	0.162	13.4	87	0.00
41	T	Benzene	1.563	1.393	10.9	92	0.00
42	T	Carbon Tetrachloride	0.543	0.512	5.7	93	0.00
43	T	Cyclohexane	0.614	0.541	11.9	92	0.00
44	T	tert-Amyl Methyl Ether	1.117	1.006	9.9	92	0.00
45	T	1,2-Dichloropropane	0.387	0.343	11.4	89	0.00
46	T	Bromodichloromethane	0.530	0.493	7.0	92	0.00
47	T	Trichloroethene	0.384	0.358	6.8	96	0.00
48	T	1,4-Dioxane	0.267	0.236	11.6	91	0.00
49	T	Isooctane	1.545	1.327	14.1	87	0.00
50	T	Methyl Methacrylate	0.148	0.146	1.4	94	0.00
51	T	n-Heptane	0.393	0.349	11.2	91	0.00

L-2/13/07
LM 2/14/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\Data\2007_02\13\
Data File : 02130701.D
Acq On : 13 Feb 2007 8:46 am
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-02060702/S15-02050706
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 13 09:12:47 2007
Quant Method : J:\MS08\METHODS\R8020707.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Thu Feb 08 09:27:58 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	cis-1,3-Dichloropropene	0.644	0.591	8.2	91	0.00
53	T	4-Methyl-2-pentanone	0.304	0.250	17.8	87	0.00
54	T	trans-1,3-Dichloropropene	0.593	0.554	6.6	91	0.00
55	T	1,1,2-Trichloroethane	0.382	0.350	8.4	92	0.00
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	99	0.00
57	S	Toluene-d8 (SS2)	2.179	2.170	0.4	99	0.00
58	T	Toluene	3.173	2.884	9.1	92	0.00
59	T	2-Hexanone	1.392	1.110	20.3	85	0.00
60	T	Dibromochloromethane	0.824	0.802	2.7	95	0.00
61	T	1,2-Dibromoethane	0.877	0.816	7.0	93	0.00
62	T	Butyl Acetate	1.534	1.189	22.5	82	0.00
63	T	n-Octane	0.641	0.573	10.6	88	0.00
64	T	Tetrachloroethene	0.763	0.716	6.2	96	0.00
65	T	Chlorobenzene	2.035	1.860	8.6	93	0.00
66	T	Ethylbenzene	3.654	3.358	8.1	92	0.00
67	T	m- & p-Xylene	2.352	2.163	8.0	92	0.00
68	T	Bromoform	0.530	0.534	-0.8	96	0.00
69	T	Styrene	2.092	2.011	3.9	92	0.00
70	T	o-Xylene	2.547	2.338	8.2	92	0.00
71	T	n-Nonane	1.453	1.264	13.0	85	0.00
72	T	1,1,2,2-Tetrachloroethane	1.170	1.082	7.5	92	0.00
73	S	Bromofluorobenzene (SS3)	0.657	0.709	-7.9	107	0.00
74	T	Cumene	3.359	3.109	7.4	92	0.00
75	T	alpha-Pinene	1.712	1.617	5.5	92	0.00
76	T	n-Propylbenzene	4.321	4.014	7.1	92	0.00
77	T	3-Ethyltoluene	3.524	3.350	4.9	93	0.00
78	T	4-Ethyltoluene	3.354	3.107	7.4	94	0.00
79	T	1,3,5-Trimethylbenzene	2.915	2.725	6.5	94	0.00
80	T	alpha-Methylstyrene	1.378	1.382	-0.3	91	0.00
81	T	2-Ethyltoluene	3.596	3.372	6.2	93	0.00
82	T	1,2,4-Trimethylbenzene	2.841	2.648	6.8	94	0.00
83	T	n-Decane	1.474	1.336	9.4	90	0.00
84	T	Benzyl Chloride	2.583	2.483	3.9	91	0.00
85	T	1,3-Dichlorobenzene	1.604	1.534	4.4	96	0.00
86	T	1,4-Dichlorobenzene	1.552	1.493	3.8	96	0.00
87	T	sec-Butylbenzene	3.813	3.586	6.0	93	0.00
88	T	p-Isopropyltoluene	3.022	2.850	5.7	95	0.00
89	T	1,2,3-Trimethylbenzene	2.722	2.563	5.8	94	0.00
90	T	1,2-Dichlorobenzene	1.471	1.392	5.4	97	0.00
91	T	d-Limonene	0.970	0.979	-0.9	88	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.467	0.501	-7.3	99	0.00
93	T	n-Undecane	1.135	1.061	6.5	97	0.00
94	T	1,2,4-Trichlorobenzene	0.277	0.295	-6.5	115	0.00
95	T	Naphthalene	2.627	2.981	-13.5	113	0.00
96	T	n-Dodecane	0.856	0.767	10.4	114	0.00
97	T	Hexachloro-1,3-butadiene	0.480	0.506	-5.4	116	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

E 2/13/07
LM 2/14/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\Data\2007_02\13\
Data File : 02130703.D
Acq On : 13 Feb 2007 10:54 am
Operator : LM/SC
Sample : 1ng TO-15 CCV STD
Misc : S15-02060702/S15-02050703
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 13 11:22:10 2007
Quant Method : J:\MS08\METHODS\R8020707.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Thu Feb 08 09:27:58 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	98	-0.02
2	T	Propene	1.999	2.097	-4.9	90	0.01
3	T	Dichlorodifluoromethane	3.971	4.340	-9.3	97	0.01
4	T	Chloromethane	2.722	2.878	-5.7	97	0.00
5	T	Freon 114	1.176	1.377	-17.1	106	0.01
6	T	Vinyl Chloride	2.248	2.493	-10.9	99	0.00
7	T	1,3-Butadiene	1.652	1.749	-5.9	99	0.00
8	T	Bromomethane	1.771	1.848	-4.3	95	0.00
9	T	Chloroethane	1.498	1.533	-2.3	94	0.00
10	T	Ethanol	1.116	1.053	5.6	98	-0.02
11	T	Acetonitrile	3.214	2.957	8.0	92	-0.01
12	T	Acrolein	1.065	1.011	5.1	93	0.00
13	T	Acetone	1.543	1.848	-19.8	109	0.00
14	T	Trichlorofluoromethane	2.790	2.982	-6.9	99	0.00
15	T	Isopropanol	4.140	4.615	-11.5	95	-0.02
16	T	Acrylonitrile	2.280	2.085	8.6	91	-0.02
17	T	1,1-Dichloroethene	1.726	1.828	-5.9	98	-0.01
18	T	tert-Butanol	3.704	4.502	-21.5	92	0.00
19	T	Methylene Chloride	2.030	2.154	-6.1	95	-0.03
20	T	Allyl Chloride	2.211	2.017	8.8	95	-0.01
21	T	Trichlorotrifluoroethane	1.493	1.554	-4.1	98	0.00
22	T	Carbon Disulfide	7.445	8.434	-13.3	102	-0.01
23	T	trans-1,2-Dichloroethene	2.764	2.792	-1.0	95	-0.02
24	T	1,1-Dichloroethane	2.746	2.888	-5.2	96	-0.02
25	T	Methyl tert-Butyl Ether	5.641	5.895	-4.5	96	0.00
26	T	Vinyl Acetate	0.384	0.360	6.3	98	-0.02
27	T	2-Butanone	1.243	1.302	-4.7	101	-0.01
28	T	cis-1,2-Dichloroethene	2.482	2.539	-2.3	95	-0.02
29	T	Diisopropyl Ether	1.473	1.558	-5.8	94	-0.01
30	T	Ethyl Acetate	0.627	0.624	0.5	90	0.00
31	T	n-Hexane	2.998	2.940	1.9	89	-0.01
32	T	Chloroform	2.803	3.048	-8.7	92	-0.02
33	S	1,2-Dichloroethane-d4(SS1)	1.824	1.810	0.8	95	-0.02
34	T	Tetrahydrofuran	1.172	1.183	-0.9	88	0.00
35	T	Ethyl tert-Butyl Ether	2.197	2.183	0.6	94	-0.01
36	T	1,2-Dichloroethane	2.543	2.594	-2.0	95	-0.01
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	96	-0.02
38	T	1,1,1-Trichloroethane	0.667	0.700	-4.9	95	-0.02
39	T	Isopropyl Acetate	0.241	0.241	0.0	91	0.00
40	T	1-Butanol	0.187	0.192	-2.7	93	0.02
41	T	Benzene	1.563	1.633	-4.5	94	-0.01
42	T	Carbon Tetrachloride	0.543	0.508	6.4	90	-0.01
43	T	Cyclohexane	0.614	0.645	-5.0	95	-0.01
44	T	tert-Amyl Methyl Ether	1.117	1.134	-1.5	91	-0.01
45	T	1,2-Dichloropropane	0.387	0.395	-2.1	91	-0.01
46	T	Bromodichloromethane	0.530	0.526	0.8	93	-0.01
47	T	Trichloroethene	0.384	0.401	-4.4	93	-0.02
48	T	1,4-Dioxane	0.267	0.270	-1.1	88	0.00
49	T	Isooctane	1.545	1.617	-4.7	92	-0.01
50	T	Methyl Methacrylate	0.148	0.148	0.0	99	0.00
51	T	n-Heptane	0.393	0.406	-3.3	93	0.00

2/13/07
LM 2/14/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\Data\2007_02\13\
Data File : 02130703.D
Acq On : 13 Feb 2007 10:54 am
Operator : LM/SC
Sample : 1ng TO-15 CCV STD
Misc : S15-02060702/S15-02050703
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 13 11:22:10 2007
Quant Method : J:\MS08\METHODS\R8020707.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Thu Feb 08 09:27:58 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	cis-1,3-Dichloropropene	0.644	0.647	-0.5	94	0.00
53	T	4-Methyl-2-pentanone	0.304	0.332	-9.2	91	0.00
54	T	trans-1,3-Dichloropropene	0.593	0.586	1.2	93	-0.01
55	T	1,1,2-Trichloroethane	0.382	0.394	-3.1	96	0.00
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	95	0.00
57	S	Toluene-d8 (SS2)	2.179	2.180	-0.0	95	0.00
58	T	Toluene	3.173	3.441	-8.4	95	-0.01
59	T	2-Hexanone	1.392	1.494	-7.3	89	0.00
60	T	Dibromochloromethane	0.824	0.870	-5.6	98	0.00
61	T	1,2-Dibromoethane	0.877	0.906	-3.3	94	0.00
62	T	Butyl Acetate	1.534	1.569	-2.3	83	0.00
63	T	n-Octane	0.641	0.682	-6.4	94	0.00
64	T	Tetrachloroethene	0.763	0.861	-12.8	101	-0.01
65	T	Chlorobenzene	2.035	2.211	-8.6	96	-0.01
66	T	Ethylbenzene	3.654	3.884	-6.3	94	-0.01
67	T	m- & p-Xylene	2.352	2.530	-7.6	94	0.00
68	T	Bromoform	0.530	0.525	0.9	95	-0.01
69	T	Styrene	2.092	2.120	-1.3	93	0.00
70	T	o-Xylene	2.547	2.720	-6.8	94	-0.01
71	T	n-Nonane	1.453	1.486	-2.3	90	0.00
72	T	1,1,2,2-Tetrachloroethane	1.170	1.234	-5.5	94	-0.01
73	S	Bromofluorobenzene (SS3)	0.657	0.693	-5.5	99	0.00
74	T	Cumene	3.359	3.602	-7.2	94	0.00
75	T	alpha-Pinene	1.712	1.661	3.0	88	0.00
76	T	n-Propylbenzene	4.321	4.594	-6.3	92	0.00
77	T	3-Ethyltoluene	3.524	3.902	-10.7	97	0.00
78	T	4-Ethyltoluene	3.354	3.568	-6.4	92	0.00
79	T	1,3,5-Trimethylbenzene	2.915	3.108	-6.6	93	0.00
80	T	alpha-Methylstyrene	1.378	1.102	20.0	77	0.00
81	T	2-Ethyltoluene	3.596	3.901	-8.5	96	0.00
82	T	1,2,4-Trimethylbenzene	2.841	3.105	-9.3	95	-0.01
83	T	n-Decane	1.474	1.590	-7.9	94	0.00
84	T	Benzyl Chloride	2.583	2.519	2.5	92	-0.01
85	T	1,3-Dichlorobenzene	1.604	1.728	-7.7	96	-0.01
86	T	1,4-Dichlorobenzene	1.552	1.738	-12.0	98	0.00
87	T	sec-Butylbenzene	3.813	4.157	-9.0	92	0.00
88	T	p-Isopropyltoluene	3.022	3.349	-10.8	95	0.00
89	T	1,2,3-Trimethylbenzene	2.722	2.967	-9.0	95	0.00
90	T	1,2-Dichlorobenzene	1.471	1.611	-9.5	93	0.00
91	T	d-Limonene	0.970	0.742	23.5	74	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.467	0.406	13.1	87	0.00
93	T	n-Undecane	1.135	1.252	-10.3	96	0.00
94	T	1,2,4-Trichlorobenzene	0.277	0.314	-13.4	103	0.00
95	T	Naphthalene	2.627	2.649	-0.8	96	0.00
96	T	n-Dodecane	0.856	1.123	-31.2#	95	0.00
97	T	Hexachloro-1,3-butadiene	0.480	0.481	-0.2	86	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2/13/07
2/14/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\DATA\2007_02\13\
Data File : 02130711.D
Acq On : 13 Feb 2007 5:55 pm
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-02060702/S15-02050706(closing CCV)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 14 08:58:43 2007
Quant Method : J:\MS08\METHODS\R8020707.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Thu Feb 08 09:27:58 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	96	0.00
2	T	Propene	1.999	1.616	19.2	86	0.00
3	T	Dichlorodifluoromethane	3.971	3.561	10.3	92	0.00
4	T	Chloromethane	2.722	2.572	5.5	92	0.01
5	T	Freon 114	1.176	1.144	2.7	101	0.00
6	T	Vinyl Chloride	2.248	2.119	5.7	97	0.00
7	T	1,3-Butadiene	1.652	1.613	2.4	97	0.00
8	T	Bromomethane	1.771	1.597	9.8	92	0.00
9	T	Chloroethane	1.498	1.312	12.4	88	0.00
10	T	Ethanol	1.116	1.049	6.0	86	0.01
11	T	Acetonitrile	3.214	2.964	7.8	84	0.00
12	T	Acrolein	1.065	0.963	9.6	86	0.00
13	T	Acetone	1.543	1.289	16.5	89	0.01
14	T	Trichlorofluoromethane	2.790	2.603	6.7	92	0.00
15	T	Isopropanol	4.140	3.597	13.1	85	0.01
16	T	Acrylonitrile	2.280	2.076	8.9	86	0.00
17	T	1,1-Dichloroethene	1.726	1.561	9.6	90	0.00
18	T	tert-Butanol	3.704	2.867	22.6	90	0.01
19	T	Methylene Chloride	2.030	1.705	16.0	88	0.00
20	T	Allyl Chloride	2.211	2.069	6.4	85	0.00
21	T	Trichlorotrifluoroethane	1.493	1.351	9.5	92	0.00
22	T	Carbon Disulfide	7.445	6.388	14.2	88	0.00
23	T	trans-1,2-Dichloroethene	2.764	2.427	12.2	87	0.00
24	T	1,1-Dichloroethane	2.746	2.422	11.8	88	0.00
25	T	Methyl tert-Butyl Ether	5.641	5.017	11.1	88	0.00
26	T	Vinyl Acetate	0.384	0.355	7.6	84	0.00
27	T	2-Butanone	1.243	1.141	8.2	89	0.00
28	T	cis-1,2-Dichloroethene	2.482	2.190	11.8	87	0.00
29	T	Diisopropyl Ether	1.473	1.320	10.4	89	0.00
30	T	Ethyl Acetate	0.627	0.538	14.2	85	0.00
31	T	n-Hexane	2.998	2.535	15.4	86	0.00
32	T	Chloroform	2.803	2.450	12.6	89	0.00
33	S	1,2-Dichloroethane-d4(SS1)	1.824	1.802	1.2	93	0.00
34	T	Tetrahydrofuran	1.172	1.065	9.1	86	0.00
35	T	Ethyl tert-Butyl Ether	2.197	1.984	9.7	89	0.00
36	T	1,2-Dichloroethane	2.543	2.291	9.9	88	0.00
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	94	0.00
38	T	1,1,1-Trichloroethane	0.667	0.606	9.1	88	0.00
39	T	Isopropyl Acetate	0.241	0.216	10.4	86	0.00
40	T	1-Butanol	0.187	0.159	15.0	81	0.00
41	T	Benzene	1.563	1.412	9.7	88	0.00
42	T	Carbon Tetrachloride	0.543	0.511	5.9	88	0.00
43	T	Cyclohexane	0.614	0.542	11.7	88	0.00
44	T	tert-Amyl Methyl Ether	1.117	1.013	9.3	88	0.00
45	T	1,2-Dichloropropane	0.387	0.349	9.8	86	0.00
46	T	Bromodichloromethane	0.530	0.495	6.6	88	0.00
47	T	Trichloroethene	0.384	0.356	7.3	90	0.00
48	T	1,4-Dioxane	0.267	0.237	11.2	86	0.00
49	T	Isooctane	1.545	1.361	11.9	85	0.00
50	T	Methyl Methacrylate	0.148	0.144	2.7	88	0.00
51	T	n-Heptane	0.393	0.354	9.9	88	0.00

E 2/14/07
LM 2/14/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\DATA\2007_02\13\
Data File : 02130711.D
Acq On : 13 Feb 2007 5:55 pm
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-02060702/S15-02050706(closing CCV)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 14 08:58:43 2007
Quant Method : J:\MS08\METHODS\R8020707.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Thu Feb 08 09:27:58 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	cis-1,3-Dichloropropene	0.644	0.597	7.3	87	0.00
53	T	4-Methyl-2-pentanone	0.304	0.252	17.1	83	0.00
54	T	trans-1,3-Dichloropropene	0.593	0.558	5.9	87	0.00
55	T	1,1,2-Trichloroethane	0.382	0.351	8.1	87	0.00
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	93	0.00
57	S	Toluene-d8 (SS2)	2.179	2.169	0.5	93	0.00
58	T	Toluene	3.173	2.913	8.2	88	0.00
59	T	2-Hexanone	1.392	1.123	19.3	81	0.00
60	T	Dibromochloromethane	0.824	0.806	2.2	89	0.00
61	T	1,2-Dibromoethane	0.877	0.827	5.7	88	0.00
62	T	Butyl Acetate	1.534	1.222	20.3	80	0.00
63	T	n-Octane	0.641	0.582	9.2	84	0.00
64	T	Tetrachloroethene	0.763	0.718	5.9	91	0.00
65	T	Chlorobenzene	2.035	1.900	6.6	89	0.00
66	T	Ethylbenzene	3.654	3.413	6.6	88	0.00
67	T	m- & p-Xylene	2.352	2.183	7.2	88	0.00
68	T	Bromoform	0.530	0.529	0.2	89	0.00
69	T	Styrene	2.092	2.034	2.8	88	0.00
70	T	o-Xylene	2.547	2.368	7.0	87	0.00
71	T	n-Nonane	1.453	1.299	10.6	83	0.00
72	T	1,1,2,2-Tetrachloroethane	1.170	1.099	6.1	87	0.00
73	S	Bromofluorobenzene (SS3)	0.657	0.685	-4.3	97	0.00
74	T	Cumene	3.359	3.152	6.2	88	0.00
75	T	alpha-Pinene	1.712	1.633	4.6	87	0.00
76	T	n-Propylbenzene	4.321	4.076	5.7	88	0.00
77	T	3-Ethyltoluene	3.524	3.378	4.1	88	0.00
78	T	4-Ethyltoluene	3.354	3.118	7.0	88	0.00
79	T	1,3,5-Trimethylbenzene	2.915	2.727	6.4	89	0.00
80	T	alpha-Methylstyrene	1.378	1.373	0.4	85	0.00
81	T	2-Ethyltoluene	3.596	3.393	5.6	88	0.00
82	T	1,2,4-Trimethylbenzene	2.841	2.665	6.2	89	0.00
83	T	n-Decane	1.474	1.362	7.6	86	0.00
84	T	Benzyl Chloride	2.583	2.509	2.9	87	0.00
85	T	1,3-Dichlorobenzene	1.604	1.517	5.4	89	0.00
86	T	1,4-Dichlorobenzene	1.552	1.488	4.1	90	0.00
87	T	sec-Butylbenzene	3.813	3.606	5.4	88	0.00
88	T	p-Isopropyltoluene	3.022	2.847	5.8	89	0.00
89	T	1,2,3-Trimethylbenzene	2.722	2.557	6.1	88	0.00
90	T	1,2-Dichlorobenzene	1.471	1.390	5.5	91	0.00
91	T	d-Limonene	0.970	0.990	-2.1	84	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.467	0.503	-7.7	94	0.00
93	T	n-Undecane	1.135	1.054	7.1	91	0.00
94	T	1,2,4-Trichlorobenzene	0.277	0.288	-4.0	106	0.00
95	T	Naphthalene	2.627	2.924	-11.3	105	0.00
96	T	n-Dodecane	0.856	0.775	9.5	108	0.00
97	T	Hexachloro-1,3-butadiene	0.480	0.493	-2.7	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

E 2/14/07
LM 2/14/07

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: TRC
Client Project ID: WDI

CAS Project ID: P2700302

Internal Standard Area and RT Summary

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister(s)
Test Notes:

Lab File ID: 02130701.D
Date Analyzed: 02/13/07
Time Analyzed: 08:46

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	24 Hour Standard	405759	9.08	1811670	11.01	912551	15.82
	Upper Limit	568063	9.41	2536338	11.34	1277571	16.15
	Lower Limit	243455	8.75	1087002	10.68	547531	15.49
	Client Sample ID						
01	Method Blank	396020	9.04	1846464	10.98	908471	15.82
02	Lab Control Sample	374587	9.08	1750043	11.00	869346	15.82
03	Duplicate Lab Control Sample	377430	9.07	1762808	11.00	877144	15.82
04	WDI-IBM-37-2-2-07	400461	9.05	1842568	10.99	903501	15.82
05	WDI-IBM-37-2-2-07 (Lab Duplicate)	370799	9.05	1710103	10.99	848445	15.82
06	WDI-IBM-37-2-2-07-SC	371021	9.05	1726262	10.99	843722	15.82
07							
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18							
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20							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Verified by: MJ Date: 2/20/07

00302VOA.RE1 - ISS

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	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	2/7/07 9:06	02070701.D	25ng TO-15 CCV STD	S15-02060702/S15-02050706	LM/SC	1	Failed, Freon 113, Naphthalene, Hexane
2	2/7/07 9:47	02070702.D	25ng TO-15 CCV STD	S15-02060702/S15-02050706	LM/SC	1	Failed
3	2/7/07 11:04	02070703.D	TO-15 Method Blank (1000ml)	S15-02060702	LM/SC	1	Passed
4	2/7/07 11:46	02070704.D	25ng TO-15 LCS STD	S15-02060702/S15-01300702	LM/SC	2	
5	2/7/07 12:26	02070705.D	P2700183-001 (1.0mL)	[redacted].5,3.7)	LM/SC	1	can file, Not used
6	2/7/07 13:16	02070706.D	P2700183-001 (5.0mL)	[redacted].3.7)	LM/SC	1	
7	2/7/07 14:26	02070707.D	P2700232-001 (5.0mL)	[redacted])	LM/SC	1	
8	2/7/07 15:18	02070708.D	BLANK (200mL)	RINSE	LM/SC	1	
9	2/7/07 16:07	02070709.D	P2700212-001 Dil (5.0mL)	[redacted]3.5)	LM/SC	1	
10	2/7/07 16:48	02070710.D	5ng TO-15 CCV STD	S15-02050702/S15-01110702	LM/SC	1	
11	2/7/07 18:03	02070711.D	Blank (500mL)	Check System	LM/SC	3	
12	2/7/07 18:38	02070712.D	Blank (200mL)	Check System	LM/SC	3	
13	2/7/07 19:14	02070713.D	Blank (200mL)	Check System	LM/SC	3	
14	2/7/07 19:50	02070714.D	25ng BFB STD	S15-02050702	LM/SC	3	
15	2/7/07 20:26	02070715.D	0.5ng TO-15 ICAL STD	S15-02050702/S15-02050703	LM/SC	3	Ical ok for all
16	2/7/07 21:02	02070716.D	1ng TO-15 ICAL STD	S15-02050702/S15-02050703	LM/SC	3	compaunds
17	2/7/07 21:37	02070717.D	5ng TO-15 ICAL STD	S15-02050702/S15-02050703	LM/SC	3	0.5ng to 100ng
18	2/7/07 22:13	02070718.D	25ng TO-15 ICAL STD	S15-02050702/S15-02050706	LM/SC	3	
19	2/7/07 22:48	02070719.D	50ng TO-15 ICAL STD	S15-02050702/S15-02050706	LM/SC	3	
20	2/7/07 23:24	02070720.D	100ng TO-15 ICAL STD	S15-02050702/S15-02050706	LM/SC	3	
21	2/8/07 0:00	02070721.D	25ng TO-15 ICV STD	S15-02050702/S15-01300702	LM/SC	2	passed

ICAL

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	2/13/07 8:46	02130701.D	25ng TO-15 CCV STD	S15-02060702/S15-02050706	LM/SC	1	passed
2	2/13/07 10:08	02130702.D	TO-15 Method Blank (1000mL)	S15-02060702	LM/SC	3	passed
3	2/13/07 10:54	02130703.D	1ng TO-15 CCV STD	S15-02060702/S15-02050703	LM/SC	3	passed
4	2/13/07 11:45	02130704.D	25ng TO-15 LCS STD	S15-02060702/S15-01300704	LM/SC	2	passed
5	2/13/07 12:21	02130705.D	25ng TO-15 LCSD STD	S15-02060702/S15-01300704	LM/SC	2	passed
6	2/13/07 13:57	02130706.D	P2700302-001 (350ml)	TRC WDI-IBM-37-2-2-07 (0.6,3.5)	LM/SC	4	
7	2/13/07 14:39	02130707.D	P2700302-001 dup (350ml)	TRC WDI-IBM-37-2-2-07 (0.6,3.5)	LM/SC	4	Cont file, last batch
8	2/13/07 15:27	02130708.D	P2700302-001 dup (350ml)	TRC WDI-IBM-37-2-2-07 (0.6,3.5)	LM/SC	4	Case file, blank
9	2/13/07 16:09	02130709.D	P2700302-001 dup (350ml)	TRC WDI-IBM-37-2-2-07 (0.6,3.5)	LM/SC	4	passed
10	2/13/07 16:59	02130710.D	P2700302-002 (350ml)	TRC WDI-IBM-37-2-2-07-SC (0.6,3.5)	LM/SC	5	
11	2/13/07 17:55	02130711.D	25ng TO-15 CCV STD	S15-02060702/S15-02050706(closing CCV)	LM/SC	3	passed as lab dup
12	2/13/07 18:35	02130712.D	P2700311-001 (1000mL)	[redacted]-3.7,3.5)	LM/SC	6	
13	2/13/07 19:16	02130713.D	P2700311-002 (1000mL)	[redacted]-3.8,3.5)	LM/SC	7	
14	2/13/07 19:57	02130714.D	P2700311-003 (1000mL)	[redacted]2.1,3.7)	LM/SC	8	
15	2/13/07 20:37	02130715.D	P2700311-004 (1000mL)	[redacted](-2.6,3.6)	LM/SC	9	
16	2/13/07 21:18	02130716.D	P2700311-005 (1000mL)	[redacted]-2.8,3.5)	LM/SC	10	
17	2/13/07 21:54	02130717.D	P2700225-005 DIL (100mL)	[redacted]-0.5,10.9)	LM/SC	11	
18	2/13/07 22:29	02130718.D	P2700225-006 DIL (100mL)	[redacted]-1.6,11.2)	LM/SC	12	
19	2/13/07 23:05	02130719.D	P2700225-008 DIL (100mL)	[redacted]0,11.6)	LM/SC	13	
20	2/13/07 23:40	02130720.D	P2700292-007 DIL (25mL)	[redacted],3.5)	LM/SC	14	
21	2/14/07 0:16	02130721.D	P2700292-008 DIL (25mL)	[redacted]0,3.5)	LM/SC	15	
22	2/14/07 0:51	02130722.D	P2700292-009 DIL (40mL)	[redacted]7,3.6)	LM/SC	16	
23	2/14/07 1:27	02130723.D	P2700292-011 DIL (100mL)	[redacted]4,3.5)	LM/SC	4	
24	2/14/07 2:02	02130724.D	4ng TO-15 LCS STD	S15-02060702/S15-02130702(check)	LM/SC	2	passed

1	2/14/07 9:05	02140701.D	25ng TO-15 CCV STD	S15-02060702/S15-02050706	LM/SC	3	Case file
2	2/14/07 9:57	02140702.D	blank (200mL)	check system	LM/SC	1	
3	2/14/07 10:47	02140703.D	25ng TO-15 CCV STD	S15-02060702/S15-02050706	LM/SC	1	passed
4	2/14/07 11:43	02140704.D	TO-15 Method Blank (1000mL)	S15-02060702	LM/SC	1	passed
5	2/14/07 12:24	02140705.D	25ngTO-15 LCS STD	S15-02060702/S15-01300704	LM/SC	2	passed
6	2/14/07 13:54	02140706.D	P2700292-001 (0.25mL)	[redacted]2,3.5)	LM/SC	1	Case file, Run higher vol
7	2/14/07 14:35	02140707.D	P2700292-001 (0.5mL)	[redacted],3.5)	LM/SC	1	
8	2/14/07 15:35	02140708.D	P2700292-001 DUP (0.5mL)	[redacted]2,3.5)	LM/SC	1	passed as lab dup
9	2/14/07 16:23	02140709.D	P2700292-002 (3.0mL)	[redacted]0,3.5)	LM/SC	1	Case file, miss inject
10	2/14/07 17:13	02140710.D	P2700292-002 (2.5mL)	[redacted],3.5)	LM/SC	1	
11	2/14/07 17:51	02140711.D	BLANK (200mL)	CHECK SYSTEM	LM/SC	3	
12	2/14/07 18:26	02140712.D	P2700363-001 (200mL)	[redacted]1.8,10.4)	LM/SC	4	Case file
13	2/14/07 19:02	02140713.D	P2700363-002 (400mL)	[redacted]0.5,10.0)	LM/SC	5	
14	2/14/07 19:37	02140714.D	P2700363-003 (400mL)	[redacted]-0.4,10.4)	LM/SC	6	
15	2/14/07 20:13	02140715.D	P2700363-004 (400mL)	[redacted]-4.1,10.3)	LM/SC	7	
16	2/14/07 20:48	02140716.D	P2700363-005 (400mL)	[redacted]0.3,10.0)	LM/SC	8	
17	2/14/07 21:24	02140717.D	P2700363-006 (400mL)	[redacted]0.4,10.5)	LM/SC	9	

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-001

Test Code: EPA TO-15 SIM Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS7
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00923

Date Collected: 2/2/07
Date Received: 2/5/07
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.6 Pf 1 = 3.5

Can D.F. = 1.19

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.030	ND	0.012	
106-93-4	1,2-Dibromoethane	**0.032**	0.030	**0.0042**	0.0039	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: W Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-IBM-37-2-2-07-SC**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P2700302-002

Test Code: EPA TO-15 SIM Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS7
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01272

Date Collected: 2/2/07
Date Received: 2/5/07
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = 0.6 Pf 1 = 3.5

Can D.F. = 1.19

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.030	ND	0.012	
106-93-4	1,2-Dibromoethane	**0.034**	0.030	**0.0044**	0.0039	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: µ Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Method Blank**
Client Project ID: **WDI**

CAS Project ID: P2700302
CAS Sample ID: P070213-MB

Test Code: EPA TO-15 SIM Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS7
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 2/13/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.025	ND	0.0098	
106-93-4	1,2-Dibromoethane	ND	0.025	ND	0.0033	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: W Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Project ID: **WDI**

CAS Project ID: P2700302

Surrogate Spike Recovery Results

Test Code: EPA TO-15 SIM Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS7
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister(s)
Test Notes:

Date Collected: 2/2/07
Date Received: 2/5/07
Date Analyzed: 2/13/07

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4		Toluene-d8		Bromofluorobenzene		Data Qualifier
		% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	
Method Blank	P070213-MB	**96**	80-120	**100**	80-120	**106**	80-120	
Lab Control Sample	P070213-LCS	**99**	80-120	**99**	80-120	**104**	80-120	
Duplicate Lab Control Sample	P070213-DLCS	**98**	80-120	**101**	80-120	**105**	80-120	
WDI-IBM-37-2-2-07	P2700302-001	**94**	80-120	**100**	80-120	**101**	80-120	
WDI-IBM-37-2-2-07-SC	P2700302-002	**95**	80-120	**100**	80-120	**102**	80-120	

Verified By: WS Date: 2/20/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID : **WDI**

CAS Project ID: P2700302
CAS Sample ID: P070213-LCS, P070213-DLCS

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary

Test Code: EPA TO-15 SIM Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS7
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 2/13/07
Volume(s) Analyzed: NA

Compound	Spike Amt LCS/DLCS pg	Result LCS pg	Result DLCS pg	% Recovery LCS	% Recovery DLCS	Acceptance Limits	RPD	RPD Limit %	Data Qualifier
Vinyl Chloride	495	456	466	**92**	**94**	65-135	**2**	35	
1,2-Dibromoethane	520	480	495	**92**	**95**	65-135	**3**	35	

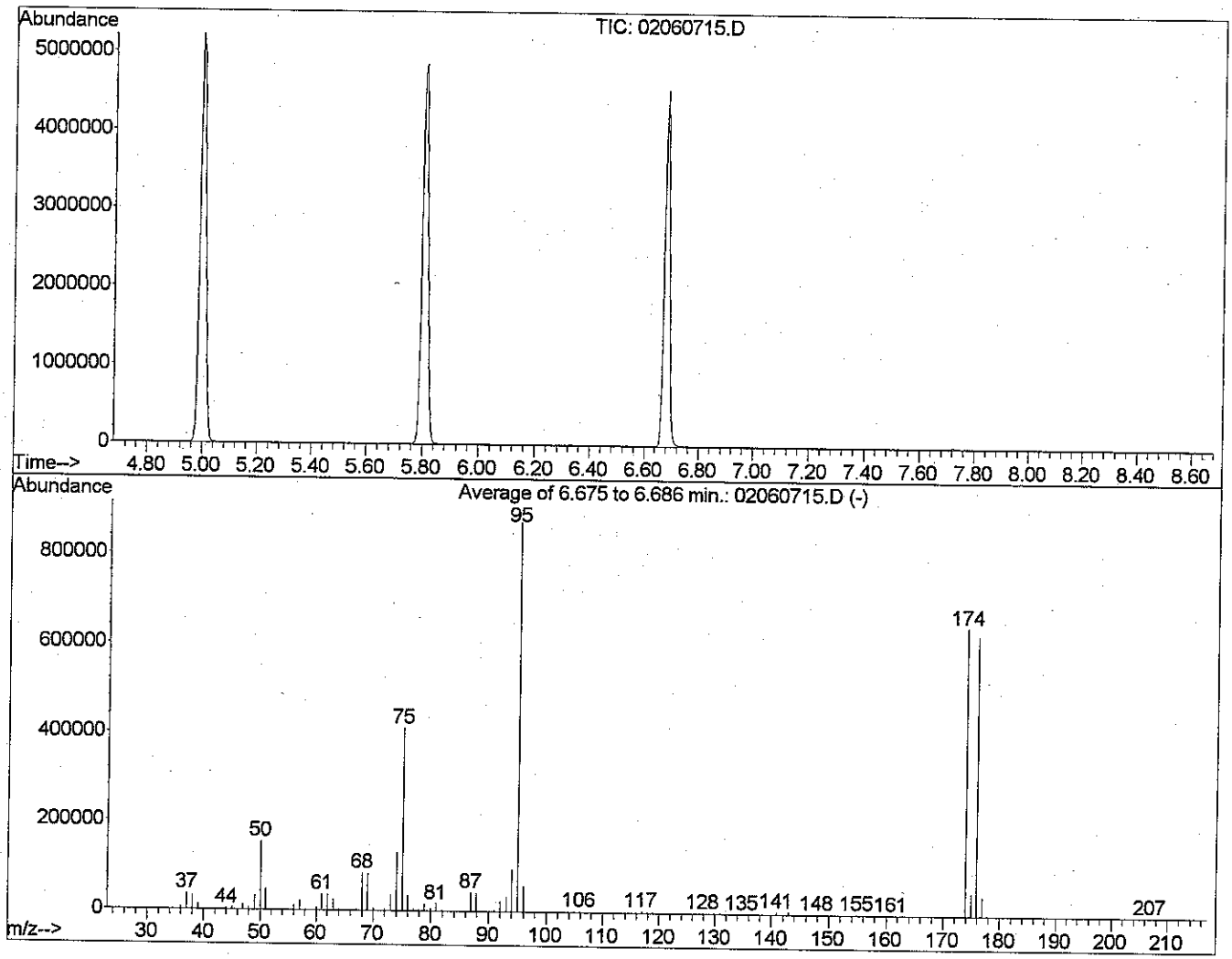
Verified By: MJ Date: 2/20/07

ICAL

BFB

Data File : J:\MS07\DATA\2007_02\06\02060715.D
Acq On : 6 Feb 2007 19:28
Sample : 25ng BFB
Misc :
MS Integration Params: rteint.p
Method : J:\MS07\METHODS\X7020607.M (RTE Integrator)
Title : TO-15/SIM

Vial: 1
Operator: AB
Inst : MSD7
Multiplr: 1.00



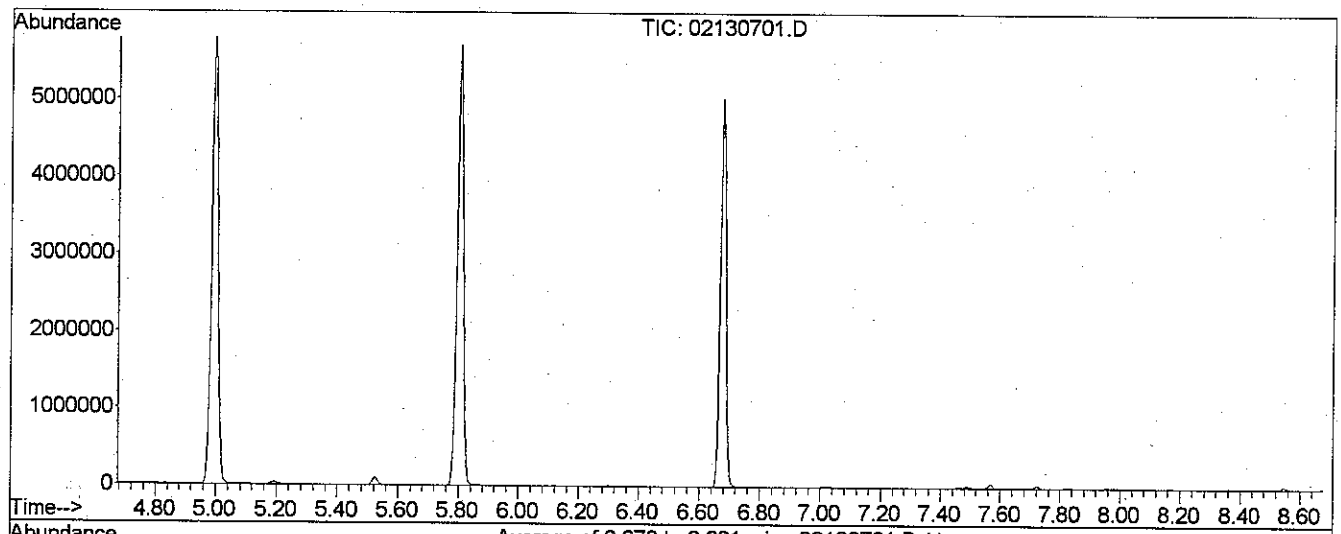
AutoFind: Scans 382, 383, 384; Background Corrected with Scan 374

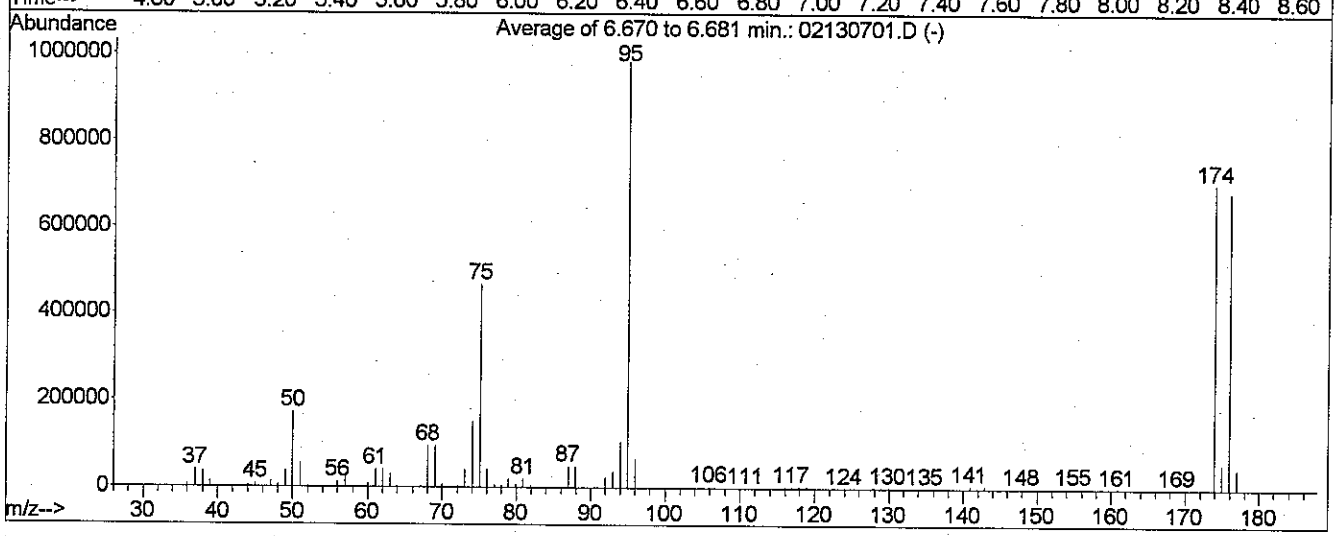
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.6	153256	PASS
75	95	30	66	47.0	410645	PASS
95	95	100	100	100.0	872917	PASS
96	95	5	9	6.6	57242	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	73.9	645504	PASS
175	174	4	9	7.8	50376	PASS
176	174	93	101	97.2	627328	PASS
177	176	5	9	6.6	41461	PASS

BFB

Data File : J:\MS07\DATA\2007_02\13\02130701.D
Acq On : 13 Feb 2007 9:21
Sample : 25ng BFB
Misc :
MS Integration Params: rteint.p
Method : J:\MS07\METHODS\X7020607.M (RTE Integrator)
Title : TO-15/SIM

Vial: 1
Operator: AB
Inst : MSD7
Multiplr: 1.00





AutoFind: Scans 381, 382, 383; Background Corrected with Scan 373

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.5	172288	PASS
75	95	30	66	47.5	466986	PASS
95	95	100	100	100.0	982144	PASS
96	95	5	9	6.7	65925	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	71.5	702698	PASS
175	174	4	9	7.9	55522	PASS
176	174	93	101	97.3	683818	PASS
177	176	5	9	6.7	45717	PASS

Response Factor Report MSD7

Method : J:\MS07\METHODS\X7020607.M (RTE Integrator)
Title : TO-15/SIM
Last Update : Wed Feb 07 09:37:21 2007
Response via : Initial Calibration

Calibration Files
10 =02060718.D 25 =02060719.D 100 =02060720.D 250 =02060721.D 500 =02060722.D
1000 =02060723.D 2500 =02060724.D 9999 =02060725.D = =

		Compound	10	25	100	250	500	1000	2500	9999	Avg		%RSD
1)	I	Bromochloromethan	----------	----------	----------	----------	ISTD	----------	----------	----------			
2)	T	Dichlorodifluorom	4.445	4.055	2.789	3.009	3.083	3.078	3.017	2.955	3.304		18.17
3)	T	Chloromethane		1.420	0.864	0.902	0.920	0.915	0.881	0.860	0.966		20.87
4)	T	Vinyl Chloride	3.464	3.396	2.639	2.844	2.926	2.924	2.850	2.756	2.975		9.96
5)	T	Chloroethane	2.160	1.706	1.260	1.402	1.461	1.391	1.417	1.447	1.531		18.50
6)	T	Acetone			3.062	2.454	2.167	1.986	1.894	1.528	2.182		24.24
7)	T	1,1-Dichloroethen	1.645	1.598	1.243	1.368	1.431	1.437	1.457	1.448	1.453		8.64
8)	T	Methylene Chlorid			1.460	1.610	1.642	1.663	1.651	1.587	1.602		4.69
9)	T	Trichlorotrifluor	1.440	1.261	1.012	1.083	1.111	0.997	0.916	0.912	1.092		16.58
10)	T	trans-1,2-Dichlor	1.773	1.724	1.409	1.541	1.569	1.587	1.580	1.573	1.595		7.01
11)	T	1,1-Dichloroethan	2.511	2.417	2.227	2.455	2.540	2.548	2.622	2.714	2.504		5.80
12)	T	Methyl tert-Butyl		4.421	4.310	4.596	4.493	3.324	2.556	2.601	3.757		24.20
13)	T	cis-1,2-Dichloroe	2.014	1.766	1.418	1.575	1.619	1.628	1.625	1.617	1.658		10.41
14)	T	Chloroform			2.371	2.340	2.271	2.190	2.192	2.191	2.259		3.61
15)	S	1,2-Dichloroethan	2.226	2.147	2.240	2.167	2.152	2.098	2.078	2.043	2.144		3.21
16)	T	1,2-Dichloroethan	2.622	2.455	1.964	2.190	2.279	2.239	2.143	2.130	2.253		9.08
17)	T	1,1,1-Trichloroet	2.589	2.531	2.067	2.272	2.343	2.334	2.219	2.204	2.320		7.42
18)	T	Benzene			1.015	0.792	0.749	0.722	0.694	0.678	0.775	E1	16.05
19)	T	Carbon Tetrachlor	1.765	1.395	1.387	1.529	1.587	1.567	1.569	1.647	1.556		7.98
20)	I	1,4-Difluorobenze	----------	----------	----------	----------	ISTD	----------	----------	----------			
21)	T	1,2-Dichloropropa	0.364	0.357	0.278	0.312	0.319	0.318	0.316	0.321	0.323		8.34
22)	T	Trichloroethene	0.345	0.281	0.222	0.246	0.249	0.248	0.249	0.254	0.262		14.21
23)	T	1,4-Dioxane		0.343	0.209	0.223	0.225	0.223	0.224	0.226	0.239		19.38
24)	T	cis-1,3-Dichlorop	0.550	0.525	0.420	0.473	0.487	0.482	0.491	0.501	0.491		7.80
25)	T	1,1,2-Trichloroet	0.315	0.287	0.212	0.233	0.238	0.237	0.239	0.241	0.250		13.39
26)	S	Toluene-d8 (SS2)	1.163	1.169	1.171	1.173	1.165	1.167	1.174	1.171	1.169		0.33
27)	T	Toluene	2.015	1.668	1.128	1.233	1.255	1.245	1.243	1.251	1.380		21.92

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report MSD7

Method : J:\MS07\METHODS\X7020607.M (RTE Integrator)
Title : TO-15/SIM
Last Update : Wed Feb 07 09:37:21 2007
Response via : Initial Calibration

Calibration Files
10 =02060718.D 25 =02060719.D 100 =02060720.D 250 =02060721.D 500 =02060722.D
1000 =02060723.D 2500 =02060724.D 9999 =02060725.D = =

		Compound	10	25	100	250	500	1000	2500	9999	Avg	%RSD
28)	T	1,2-Dibromoethane	0.342	0.324	0.255	0.282	0.290	0.288	0.291	0.296	0.296	8.87
29)	T	Tetrachloroethene	0.271	0.267	0.215	0.239	0.244	0.242	0.244	0.248	0.246	7.08
30)	I	Chlorobenzene-d5	ISTD									
31)	T	Chlorobenzene	1.793	1.594	1.201	1.333	1.374	1.362	1.352	1.378	1.423	12.92
32)	T	Ethylbenzene	3.433	3.048	2.251	2.503	2.580	2.554	2.544	2.578	2.686	13.88
33)	T	m-&-p-Xylene	2.210	1.981	1.471	1.638	1.698	1.681	1.674	1.717	1.759	13.06
34)	T	o-Xylene	2.306	2.089	1.524	1.724	1.781	1.766	1.756	1.809	1.844	13.12
35)	T	1,1,2,2-Tetrachlo	1.044	0.991	0.688	0.776	0.802	0.801	0.805	0.839	0.843	13.85
36)	S	Bromofluorobenzen	0.633	0.631	0.626	0.631	0.631	0.639	0.638	0.645	0.634	0.96
37)	T	1,3-Dichlorobenze	1.407	1.286	0.865	0.989	1.028	1.023	1.030	1.085	1.089	15.98
38)	T	1,4-Dichlorobenze	1.313	1.260	0.827	0.960	1.003	0.997	1.006	1.065	1.054	15.13
39)	T	1,2-Dichlorobenze	1.297	1.251	0.792	0.915	0.954	0.952	0.954	1.001	1.014	16.93
40)	T	1,2,4-Trichlorobe			0.431	0.527	0.567	0.582	0.590	0.631	0.555	12.54
41)	T	Naphthalene			1.400	1.707	1.870	1.903	1.943	2.204	1.838	14.59
42)	T	Hexachlorobutadie			0.239	0.282	0.305	0.307	0.310	0.322	0.294	10.16

(#) = Out of Range ### Number of calibration levels exceeded format ###

Evaluate Continuing Calibration Report

Data File : J:\MS07\DATA\2007_02\13\02130702.D
Acq On : 13 Feb 2007 9:49
Sample : 500pg TO-15/SIM CCV Std
Misc : S15-02060703/S15-02070703
MS Integration Params: rteint.p

Vial: 2
Operator: AB
Inst : MSD7
Multiplr: 1.00

Method : J:\MS07\METHODS\X7020607.M (RTE Integrator)
Title : TO-15/SIM
Last Update : Wed Feb 07 09:37:21 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane (IS1)	1.000	1.000	0.0	120	0.00
2	T	Dichlorodifluoromethane	3.304	3.259	1.4	127	0.00
3	T	Chloromethane	0.966	1.004	-3.9	131	0.00
4	T	Vinyl Chloride	2.975	3.014	-1.3	124	0.00
5	T	Chloroethane	1.531	1.541	-0.7	127	0.00
6	T	Acetone	2.182	2.611	-19.7	145	0.00
7	T	1,1-Dichloroethene	1.453	1.500	-3.2	126	0.00
8	T	Methylene Chloride	1.602	1.738	-8.5	127	0.00
9	T	Trichlorotrifluoroethane	1.092	1.182	-8.2	128	0.00
10	T	trans-1,2-Dichloroethene	1.595	1.661	-4.1	127	0.00
11	T	1,1-Dichloroethane	2.504	2.711	-8.3	128	0.00
12	T	Methyl tert-Butyl Ether	3.757	5.137	-36.7#	138	0.00
13	T	cis-1,2-Dichloroethene	1.658	1.700	-2.5	126	0.00
14	T	Chloroform	2.259	2.925	-29.5	155	0.00
15	S	1,2-Dichloroethane-d4 (SS1)	2.144	2.145	-0.0	120	0.00
16	T	1,2-Dichloroethane	2.253	2.323	-3.1	123	0.00
17	T	1,1,1-Trichloroethane	2.320	2.437	-5.0	125	0.00
18	T	Benzene	7.750	8.871	-14.5	143	0.00
19	T	Carbon Tetrachloride	1.556	1.811	-16.4	137	0.00
20	I	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	119	0.00
21	T	1,2-Dichloropropane	0.323	0.333	-3.1	125	0.00
22	T	Trichloroethene	0.262	0.269	-2.7	129	0.00
23	T	1,4-Dioxane	0.239	0.200	16.3	106	0.00
24	T	cis-1,3-Dichloropropene	0.491	0.509	-3.7	125	0.00
25	T	1,1,2-Trichloroethane	0.250	0.249	0.4	125	0.00
26	S	Toluene-d8 (SS2)	1.169	1.171	-0.2	120	0.00
27	T	Toluene	1.380	1.322	4.2	126	0.00
28	T	1,2-Dibromoethane	0.296	0.302	-2.0	124	0.00
29	T	Tetrachloroethene	0.246	0.258	-4.9	126	0.00
30	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	124	0.00
31	T	Chlorobenzene	1.423	1.398	1.8	126	0.00
32	T	Ethylbenzene	2.686	2.585	3.8	124	0.00
33	T	m-&-p-Xylene	1.759	1.696	3.6	123	0.00
34	T	o-Xylene	1.844	1.780	3.5	124	0.00
35	T	1,1,2,2-Tetrachloroethane	0.843	0.792	6.0	122	0.00
36	S	Bromofluorobenzene (SS3)	0.634	0.680	-7.3	133	0.00
37	T	1,3-Dichlorobenzene	1.089	1.032	5.2	124	0.00
38	T	1,4-Dichlorobenzene	1.054	1.004	4.7	124	0.00
39	T	1,2-Dichlorobenzene	1.014	0.957	5.6	124	0.00

(#) = Out of Range

JS 2/13/07

Evaluate Continuing Calibration Report

Data File : J:\MS07\DATA\2007_02\13\02130702.D Vial: 2
Acq On : 13 Feb 2007 9:49 Operator: AB
Sample : 500pg TO-15/SIM CCV Std Inst : MSD7
Misc : S15-02060703/S15-02070703 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\MS07\METHODS\X7020607.M (RTE Integrator)
Title : TO-15/SIM
Last Update : Wed Feb 07 09:37:21 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	1,2,4-Trichlorobenzene	0.555	0.598	-7.7	130	0.00
41	T	Naphthalene	1.838	1.811	1.5	120	0.00
42	T	Hexachlorobutadiene	0.294	0.320	-8.8	130	0.00

JB 2/13/07

Evaluate Continuing Calibration Report

Data File : J:\MS07\DATA\2007_02\13\02130705.D
Acq On : 13 Feb 2007 11:35
Sample : 25pg TO-15/SIM CRQL Std
Misc : S15-02060703/S15-02070704
MS Integration Params: rteint.p

Vial: 2
Operator: AB
Inst : MSD7
Multiplr: 1.00

Method : J:\MS07\METHODS\X7020607.M (RTE Integrator)
Title : TO-15/SIM
Last Update : Wed Feb 07 09:37:21 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane (IS1)	1.000	1.000	0.0	122	0.00
2	T	Dichlorodifluoromethane	3.304	3.768	-14.0	114	0.00
3	T	Chloromethane	0.966	1.498	-55.1#	129	0.01
4	T	Vinyl Chloride	2.975	3.227	-8.5	116	0.01
5	T	Chloroethane	1.531	1.669	-9.0	120	0.01
6	T	Acetone	2.182	37.526	-1619.8#	0#	0.02
7	T	1,1-Dichloroethene	1.453	1.571	-8.1	120	0.01
8	T	Methylene Chloride	1.602	5.535	-245.5#	0#	0.01
9	T	Trichlorotrifluoroethane	1.092	1.246	-14.1	121	0.00
10	T	trans-1,2-Dichloroethene	1.595	1.691	-6.0	120	0.01
11	T	1,1-Dichloroethane	2.504	2.546	-1.7	129	0.01
12	T	Methyl tert-Butyl Ether	3.757	5.180	-37.9#	143	0.03
13	T	cis-1,2-Dichloroethene	1.658	1.754	-5.8	122	0.00
14	T	Chloroform	2.259	3.584	-58.7#	0#	0.00
15	S	1,2-Dichloroethane-d4 (SS1)	2.144	2.073	3.3	118	0.00
16	T	1,2-Dichloroethane	2.253	2.415	-7.2	120	0.00
17	T	1,1,1-Trichloroethane	2.320	2.539	-9.4	123	0.00
18	T	Benzene	7.750	44.932	-479.8#	0#	0.00
19	T	Carbon Tetrachloride	1.556	1.455	6.5	128	0.00
20	I	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	118	0.00
21	T	1,2-Dichloropropane	0.323	0.344	-6.5	114	0.00
22	T	Trichloroethene	0.262	0.334	-27.5	140	0.00
23	T	1,4-Dioxane	0.239	0.311	-30.1#	107	0.03
24	T	cis-1,3-Dichloropropene	0.491	0.509	-3.7	114	0.00
25	T	1,1,2-Trichloroethane	0.250	0.276	-10.4	114	0.00
26	S	Toluene-d8 (SS2)	1.169	1.159	0.9	117	0.00
27	T	Toluene	1.380	1.726	-25.1	122	0.00
28	T	1,2-Dibromoethane	0.296	0.326	-10.1	119	0.00
29	T	Tetrachloroethene	0.246	0.273	-11.0	120	0.00
30	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	118	0.00
31	T	Chlorobenzene	1.423	1.774	-24.7	131	0.00
32	T	Ethylbenzene	2.686	2.915	-8.5	113	0.00
33	T	m-&-p-Xylene	1.759	1.870	-6.3	111	-0.01
34	T	o-Xylene	1.844	1.951	-5.8	110	0.00
35	T	1,1,2,2-Tetrachloroethane	0.843	0.876	-3.9	104	0.00
36	S	Bromofluorobenzene (SS3)	0.634	0.652	-2.8	122	0.00
37	T	1,3-Dichlorobenzene	1.089	1.156	-6.2	106	0.00
38	T	1,4-Dichlorobenzene	1.054	1.158	-9.9	108	0.00
39	T	1,2-Dichlorobenzene	1.014	1.069	-5.4	101	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\MS07\DATA\2007_02\13\02130705.D Vial: 2
Acq On : 13 Feb 2007 11:35 Operator: AB
Sample : 25pg TO-15/SIM CRQL Std Inst : MSD7
Misc : S15-02060703/S15-02070704 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\MS07\METHODS\X7020607.M (RTE Integrator)
Title : TO-15/SIM
Last Update : Wed Feb 07 09:37:21 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	1,2,4-Trichlorobenzene	0.555	0.656	-18.2	0#	0.00
41	T	Naphthalene	1.838	1.362	25.9	0#	0.00
42	T	Hexachlorobutadiene	0.294	0.422	-43.5#	0#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : J:\MS07\DATA\2007_02\13\02130716.D Vial: 2
Acq On : 13 Feb 2007 18:33 Operator: AB
Sample : 500pg TO-15/SIM CCV Std Inst : MSD7
Misc : S15-02060703/S15-02070703 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\MS07\METHODS\X7020607.M (RTE Integrator)
Title : TO-15/SIM
Last Update : Wed Feb 07 09:37:21 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane (IS1)	1.000	1.000	0.0	119	0.00
2	T	Dichlorodifluoromethane	3.304	3.375	-2.1	130	0.00
3	T	Chloromethane	0.966	0.981	-1.6	126	0.00
4	T	Vinyl Chloride	2.975	3.062	-2.9	124	0.00
5	T	Chloroethane	1.531	1.548	-1.1	126	0.00
6	T	Acetone	2.182	2.060	5.6	113	0.00
7	T	1,1-Dichloroethene	1.453	1.542	-6.1	128	0.00
8	T	Methylene Chloride	1.602	1.781	-11.2	129	0.00
9	T	Trichlorotrifluoroethane	1.092	1.236	-13.2	132	0.00
10	T	trans-1,2-Dichloroethene	1.595	1.704	-6.8	129	0.00
11	T	1,1-Dichloroethane	2.504	2.769	-10.6	129	0.00
12	T	Methyl tert-Butyl Ether	3.757	5.125	-36.4#	135	0.00
13	T	cis-1,2-Dichloroethene	1.658	1.741	-5.0	127	0.00
14	T	Chloroform	2.259	2.506	-10.9	131	0.00
15	S	1,2-Dichloroethane-d4 (SS1)	2.144	2.121	1.1	117	0.00
16	T	1,2-Dichloroethane	2.253	2.364	-4.9	123	0.00
17	T	1,1,1-Trichloroethane	2.320	2.480	-6.9	125	0.00
18	T	Benzene	7.750	8.094	-4.4	128	0.00
19	T	Carbon Tetrachloride	1.556	1.791	-15.1	134	0.00
20	I	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	117	0.00
21	T	1,2-Dichloropropane	0.323	0.335	-3.7	123	0.00
22	T	Trichloroethene	0.262	0.272	-3.8	128	0.00
23	T	1,4-Dioxane	0.239	0.199	16.7	104	0.00
24	T	cis-1,3-Dichloropropene	0.491	0.508	-3.5	122	0.00
25	T	1,1,2-Trichloroethane	0.250	0.255	-2.0	125	0.00
26	S	Toluene-d8 (SS2)	1.169	1.159	0.9	116	0.00
27	T	Toluene	1.380	1.337	3.1	125	0.00
28	T	1,2-Dibromoethane	0.296	0.305	-3.0	123	0.00
29	T	Tetrachloroethene	0.246	0.267	-8.5	128	0.00
30	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	118	0.00
31	T	Chlorobenzene	1.423	1.451	-2.0	125	0.00
32	T	Ethylbenzene	2.686	2.657	1.1	122	0.00
33	T	m-&-p-Xylene	1.759	1.744	0.9	121	0.00
34	T	o-Xylene	1.844	1.825	1.0	121	0.00
35	T	1,1,2,2-Tetrachloroethane	0.843	0.826	2.0	122	0.00
36	S	Bromofluorobenzene (SS3)	0.634	0.665	-4.9	124	0.00
37	T	1,3-Dichlorobenzene	1.089	1.069	1.8	123	0.00
38	T	1,4-Dichlorobenzene	1.054	1.038	1.5	122	0.00
39	T	1,2-Dichlorobenzene	1.014	0.987	2.7	122	0.00

(#) = Out of Range

2/13/07

Evaluate Continuing Calibration Report

Data File : J:\MS07\DATA\2007_02\13\02130716.D Vial: 2
Acq On : 13 Feb 2007 18:33 Operator: AB
Sample : 500pg TO-15/SIM CCV Std Inst : MSD7
Misc : S15-02060703/S15-02070703 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\MS07\METHODS\X7020607.M (RTE Integrator)
Title : TO-15/SIM
Last Update : Wed Feb 07 09:37:21 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	1,2,4-Trichlorobenzene	0.555	0.568	-2.3	118	0.00
41	T	Naphthalene	1.838	1.656	9.9	105	0.00
42	T	Hexachlorobutadiene	0.294	0.296	-0.7	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2/13/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: TRC
Client Project ID: WDI

CAS Project ID: P2700302

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS7
Analyst: Aristotle Bragasin
Sampling Media: Summa Canister(s)
Test Notes:

Lab File ID: 02130702.D
Date Analyzed: 02/13/07
Time Analyzed: 09:49

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	24 Hour Standard	32510	5.87	181054	7.15	101990	10.60
	Upper Limit	45514	6.20	253476	7.48	142786	10.93
	Lower Limit	19506	5.54	108632	6.82	61194	10.27
	Client Sample ID						
01	Method Blank	31346	5.87	176570	7.15	99299	10.60
02	Lab Control Sample	32129	5.87	178596	7.15	97923	10.60
03	WDI-IBM-37-2-2-07	32199	5.88	177924	7.16	105784	10.61
04	WDI-IBM-37-2-2-07-SC	33161	5.88	183336	7.16	107217	10.61
05	Duplicate Lab Control Sample	33165	5.87	181959	7.15	101863	10.60
06							
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20							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Verified by: ___ Date: 2/20/07

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	2/6/07 9:51	02060701.D	25ng BFB		AB	1	Per Carmen Maintenance
2	2/6/07 10:27	02060702.D	25ng BFB		AB	1	New Column, new EM
3	2/6/07 10:57	02060703.D	25ng BFB		AB	1	2 new filaments, New Temp
4	2/6/07 11:23	02060704.D	25ng BFB		AB	1	
5	2/6/07 12:40	02060705.D	25ng BFB		AB	1	
6	2/6/07 13:21	02060706.D	std check (SCANmode)		AB	1	
7	2/6/07 13:57	02060707.D	blank(SCANmode)		AB	1	
8	2/6/07 15:27	02060708.D	std check (SIMmode)		AB	1	Acq Method TO15SIMA
9	2/6/07 16:13	02060709.D	std check (SIMmode)		AB	1	
10	2/6/07 16:50	02060710.D	10pg std check		AB	1	
11	2/6/07 17:28	02060711.D	1000pg std check	S15-02060703/S15-01110702	AB	4	
12	2/6/07 18:07	02060712.D	Blank (100ml)	S15-02060703	AB	2	
13	2/6/07 18:35	02060713.D	Blank (100ml)	S15-02060703	AB	2	
14	2/6/07 19:03	02060714.D	Blank (100ml)	S15-02060703	AB	2	
15	2/6/07 19:28	02060715.D	25ng BFB		AB	1	PASSED
16	2/6/07 19:49	02060716.D	Blank (100ml)	S15-02060703	AB	2	
17	2/6/07 20:17	02060717.D	Calibration Blank (100ml)	S15-02060703	AB	2	PASSED
18	2/6/07 20:45	02060718.D	10pg TO-15/SIM ICAL Std	S15-02060703/S15-01110705	AB	2	ICAL GOOD 10-10,000pg
19	2/6/07 21:12	02060719.D	25pg TO-15/SIM ICAL Std	S15-02060703/S15-01110705	AB	2	Chloromethane, MTBE,
20	2/6/07 21:40	02060720.D	100pg TO-15/SIM ICAL Std	S15-02060703/S15-01110704	AB	2	1,4 Dioxane — 25-10,000pg
21	2/6/07 22:07	02060721.D	250pg TO-15/SIM ICAL Std	S15-02060703/S15-01110704	AB	2	Acetone, MeCl2, Chloroform
22	2/6/07 22:35	02060722.D	500pg TO-15/SIM ICAL Std	S15-02060703/S15-01110704	AB	2	Benzene, 1,4-TCB, Naphthalene
23	2/6/07 23:02	02060723.D	1000pg TO-15/SIM ICAL Std	S15-02060703/S15-01110704	AB	2	Hexachlorobutadiene
24	2/6/07 23:29	02060724.D	2500pg TO-15/SIM ICAL Std	S15-02060703/S15-01110704	AB	2	100-10,000pg
25	2/6/07 23:56	02060725.D	10000pg TO-15/SIM ICAL Std	S15-02060703/S15-01110702	AB	4	
26	2/7/07 0:24	02060726.D	blank	S15-02060703	AB	2	
27	2/7/07 0:51	02060727.D	500pg TO-15/SIM ICV std	S15-02060703/S15-01200702	AB	3	PASSED

2/7/07

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	2/13/07 9:21	02130701.D	25ng BFB		AB	1	PASSED
2	2/13/07 9:49	02130702.D	500pg TO-15/SIM CCV Std	S15-02060703/S15-02070703	AB	2	PASSED KNOWN MTBE high
3	2/13/07 10:32	02130703.D	TO-15/SIM Method Blank (1000ml)	S15-02060703	AB	2	PASSED
4	2/13/07 11:03	02130704.D	500pg TO-15/SIM LCS	S15-02060703/S15-01200702	AB	3	PASSED [redacted]
5	2/13/07 11:35	02130705.D	25pg TO-15/SIM CRQL Std	S15-02060703/S15-02070704	AB	2	
6	2/13/07 12:24	02130706.D	P2700354-005 (1000ml)	[redacted]-14.5, 3.5)	AB	9	
7	2/13/07 12:54	02130707.D	P2700302-001 (1000ml)	TRC WDI-IBM-37-2-2-07 (0.6, 3.5)	AB	10	
8	2/13/07 13:25	02130708.D	P2700302-002 (1000ml)	TRC WDI-IBM-37-2-2-07-SC (0.6, 3.5)	AB	11	
9	2/13/07 14:35	02130709.D	Blank (1000ml)		AB	2	
10	2/13/07 15:11	02130710.D	500pg TO-15/SIM LCS Dup	S15-02060703/S15-01200702	AB	3	PASSED AS Dup
11	2/13/07 15:44	02130711.D	P2700354-001 (1000ml)	[redacted]1.4, 3.5)	AB	12	
12	2/13/07 16:14	02130712.D	P2700354-001Dup (1000ml)	[redacted].4, 3.5)	AB	12	PASSED AS Dup
13	2/13/07 16:45	02130713.D	P2700354-002 (1000ml)	[redacted].8,3.5)	AB	13	
14	2/13/07 17:16	02130714.D	P2700354-003 (1000ml)	[redacted]2.0, 3.5)	AB	14	
15	2/13/07 18:01	02130715.D	P2700354-004 (1000ml)	[redacted].8, 3.5)	AB	15	
16	2/13/07 18:33	02130716.D	500pg TO-15/SIM CCV Std	S15-02060703/S15-02070703	AB	2	PASSED CLOSING [redacted]
17	2/13/07 19:10	02130717.D	Blank (1000ml)		AB	2	
18	2/13/07 20:08	02130718.D	P2700304-031 (1000ml)	[redacted] 3.6)	AB	5	
19	2/13/07 20:39	02130719.D	P2700304-025 (1000ml)	[redacted].4, 3.6)	AB	6	
20	2/13/07 21:10	02130720.D	P2700304-026 (1000ml)	[redacted]2.7, 3.5)	AB	7	
21	2/13/07 21:40	02130721.D	P2700304-027 (1000ml)	[redacted]3.6)	AB	8	
22	2/13/07 22:11	02130722.D	P2700304-028 (1000ml)	[redacted]3.5)	AB	9	
23	2/13/07 22:41	02130723.D	P2700304-029 (1000ml)	[redacted]-3.2, 3.6)	AB	12	
24	2/13/07 23:11	02130724.D	P2700304-030 (1000ml)	[redacted]-2.8, 3.6)	AB	13	
25	2/13/07 23:39	02130725.D	25pg std check		AB	2	
26	2/14/07 0:06	02130726.D	2000pg std check		AB	4	
27	2/14/07 0:34	02130727.D	Blank (100ml)		AB	10	
28	2/14/07 1:01	02130728.D	Blank (500ml)		AB	2	
29	2/14/07 1:29	02130729.D	Blank (100ml)		AB	2	
30	2/14/07 1:54	02130730.D	25ng BFB		AB	1	
31	2/14/07 2:16	02130731.D	Blank (100ml)		AB	2	
32	2/14/07 2:44	02130732.D	10pg TO-15/SIM ICAL std	S15-02060703/S15-02070704	AB	2	ICAL 10000 10 - 10,000
33	2/14/07 3:12	02130733.D	25pg TO-15/SIM ICAL std	S15-02060703/S15-02070704	AB	2	Except chloromethane 25
34	2/14/07 3:41	02130734.D	100pg TO-15/SIM ICAL std	S15-02060703/S15-02070703	AB	2	Acetone 250 - 10,000
35	2/14/07 4:09	02130735.D	250pg TO-15/SIM ICAL std	S15-02060703/S15-02070703	AB	2	MeCl, Benzene, Chloroform
36	2/14/07 4:37	02130736.D	500pg TO-15/SIM ICAL std	S15-02060703/S15-02070703	AB	2	100 - 10,000 pg
37	2/14/07 5:05	02130737.D	1000pg TO-15/SIM ICAL std	S15-02060703/S15-02070703	AB	2	
38	2/14/07 5:33	02130738.D	2500pg TO-15/SIM ICAL std	S15-02060703/S15-02070703	AB	2	
39	2/14/07 6:01	02130739.D	10000pg TO-15/SIM ICAL std	S15-02060703/S15-02050703	AB	2	
40	2/14/07 6:29	02130740.D	Blank (100ml)		AB	2	
41	2/14/07 6:57	02130741.D	500pg TO-15/SIM ICV std	S15-02060703/S15-01200702	AB	3	NOT USED
42	2/14/07 10:11	02130742.D	500pg TO-15/SIM ICV std	S15-02060703/S15-01200702	AB	3	↓
43	2/14/07 10:44	02130743.D	500pg TO-15/SIM ICV std	S15-02060703/S15-02080702	AB	3	PASSED

2/14/07 11:19 AM

Air - Chain of Custody Record & Analytical Service Request

Columbia Analytical Services INC.
An Employee - Owned Company
2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day - Standard

CAS Project No. R2700302

CAS Contact

Company Name & Address (Reporting Information): TRC, 21 W. TECHNOLOGY DR., IRVINE, CA. 92618

Project Name: WOI

Project Number:

Project Manager: YASSER KAHMY

P.O. # / Billing Information:

Phone: (949) 727-7336 Fax: (949) 753-0111

Email Address for Result Reporting: YKAHMY@TRCSOLUTIONS.COM

Sampler (Print & Sign): STEVEN CRAWFORD Steven Crawford

Analysis Method and/or Analytes

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Sample Type (Air/Tube/Solid)	Canister ID (Bar Code # - AC, SC, etc.)	Flow Controller (Bar Code - FC #)	Sample Volume	TO-15	EPA 25C MODIFIED (TOTAL METHANE ORGANIC CARBON)	EPA 3C MODIFIED (METHANE)		Comments e.g. Actual Preservative or specific instructions
WOI-IOM-37-2-2-07	1 +0/6	2-2-07	1231	AIR	AC00923	FC00600	6L	X	X	X		
WOI-IOM-37-2-2-07-SC	2 +0/6	2-2-07	1231	AIR	AC01272	FC00477	6L	X	X	X		

Report Tier Levels - please select
Tier I - (Results/Default if not specified) ____
Tier II - (Results + QC) ____
Tier III - (Data Validation Package) 10% Surcharge ✓
Tier V - (client specified) ____
EDD required (Yes) No
Type: _____ EDD Units: _____

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Steven Crawford	2-2-07	1315	[illegible]	2/5/07	0910
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank
Temperature _____ °C 10900