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 22, 2007

Mr. Troy Gill
TRC
21 Technology Drive
Irvine, CA 92618

RE: P2700478
WDI

Dear Mr. Gill:

Enclosed are the results of the sample(s) submitted to our laboratory on January 12, 2007. For your reference, these analyses have been assigned our service request number P2700478.

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 54 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

Kate Aguilera
Project Manager

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Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

Client:	TRC	Date of Report:	03/22/07
Address:	21 Technology Drive	Date Received:	02/23/07
	Irvine, CA 92618	CAS Project No:	P2700478
Contact:	Mr. Troy Gill	Purchase Order:	Verbal

Client Project ID: WDI

Two (2) Stainless Steel Summa Canisters labeled:

"WDI-GTS-IN-2-22-07" and "WDI-GTS-OUT-2-22-07"

The samples were received at the laboratory under chain of custody on February 23, 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 sample at the time that it was 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: P2700478

Volatile Organic Compound Analysis

The samples were also analyzed by combined gas chromatography/mass spectrometry (GC/MS) for 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 system used was comprised of an Agilent 5973inert GC/MS/DS 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.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-IN-2-22-07**
Client Project ID: **WDI**

CAS Project ID: P2700478
CAS Sample ID: P2700478-001

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Zheng Wang
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00873

Date Collected: 2/22/07
Date Received: 2/23/07
Date Analyzed: 2/27/07
Volume(s) Analyzed: 0.50 ml

Pi 1 = -1.2 Pf 1 = 3.8
D.F. = 1.37

CAS #	Compound	Result ppmV	MRL ppmV	Data Qualifier
74-82-8	Methane	**98**	0.69	
	Total Gaseous Nonmethane Organics (TGNMO) as Methane	**2.8**	1.4	

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: 3/9/07

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-OUT-2-22-07**
Client Project ID: **WDI**

CAS Project ID: P2700478
CAS Sample ID: P2700478-002

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Zheng Wang
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00028

Date Collected: 2/22/07
Date Received: 2/23/07
Date Analyzed: 2/27/07
Volume(s) Analyzed: 0.50 ml

Pi 1 = -3.1 Pf 1 = 3.5
D.F. = 1.57

CAS #	Compound	Result ppmV	MRL ppmV	Data Qualifier
74-82-8	Methane	**68**	0.79	
	Total Gaseous Nonmethane Organics (TGNMO) as Methane	**1.9**	1.6	

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: pu Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P2700478
CAS Sample ID: P070227-MB

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

Date Collected: NA
Date Received: NA
Date Analyzed: 2/27/07
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: HJ Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P2700478
CAS Sample ID: P070227-LCS

Laboratory Control Sample Summary

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

Date Collected: NA
Date Received: NA
Date Analyzed: 2/27/07
Volume(s) Analyzed: NA

Compound	Spike Amount LCS ppmV	Result LCS ppmV	**% Recovery LCS**	Acceptance Limits	Data Qualifier
Methane	57.5	60.3	105	90-110	
Total Gaseous Nonmethane Organics (TGNMO) as Methane	345	357	103	90-110	

Verified By: w Date: 3/9/07

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	124856770			

	Integration Parameter File	Sum?
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Compound #4: TGHMO-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?
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Compound #5: TGHHO-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			

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PERFORMANCE ANALYTICAL INC.

WB 2/28/07

EPA 25C TCA/FID Analysis for TGNMO

Client & PAI Job# : TRC P2700478
Analyst : ZW
Sample amount : 500uL / 68uL

Printed : 2/28/07
Instrument : GC #1 / FID #1
Date analyzed : 2/27/07

Sample Results (ppm)

Sample ID	Carbon Monoxide	Methane	Carbon Dioxide	TGNMO-1	TGNMO-2	Pi1	Pf1	Pi2	Pf2
STD 100ppm S14-122806	100.2	77.8	110.4	110.6					
ACTUAL	100.1	80.1	100.7	101.2					
% DIFF.	0.1%	2.9%	9.7%	9.3%					
MB NL	0.00	0.00	0.00	0.00	0.00				
LAB AIR NL	0.78	2.07	507.94	0.00	0.00				
0478-001 v	0.76	71.48	0.51	2.05	0.00	-1.2	3.8		
0478-002 v	0.72	43.60	0.00	1.21	0.00	-3.1	3.5		

LCS 345ppm S14-040506	63.38	60.25	60.55	357.16
ACTUAL	57.9	57.5	57.9	345.0
% Recovery	109.4%	104.8%	104.6%	103.5%
STD 100ppm S14-122806	100.22	77.29	98.83	111.48
ACTUAL	100.1	80.1	100.7	101.2
% DIFF.	0.1%	3.5%	1.9%	10.2%

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	0.78	2.07	507.94	ND	ND	1.00	1.00	1.00
0478-001 v	ND	97.96	ND	2.80	0.47	1.00	1.00	1.37
0478-002 v	ND	68.41	ND	1.89	0.32	1.00	1.00	1.57

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Injection Log

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

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	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

WL 10/23/06

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

DATE : 2 / 27 / 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 \ 27 **METHOD FILE NAME : J:\GC1\METHODS** ___ **.M**

	DATA FILE HEADER INFO	CLIENT	ANALYST
01	STD 345 ppm S14-04050602		LG
02	STD 100 ppm S14-1228 0601		
03	MB		
04	Lab Air		
05	LCS 345 ppm S14-04050602		
06	0454-009 ✓		
07	009 ✓		
08	009 ✓		
09	010 ✓		
10	010 ✓ Dup		
11	011 ✓		
12	011 ✓		
13	011 ✓		
14	011 ✓		
15	011 ✓		
16	STD 100 ppm S14-1228 0601		
17	↓		
18	0454-011 ✓		
19	012 ✓		
20	0478-001 ✓		

	DATA FILE HEADER INFO	CLIENT	ANALYST
21	0478-002 ✓		LG
22	STD 100 ppm S14-1228 0601		
23	↓		
24	MB		
25	Lab Air		
26	LCS 345 ppm S14-04050602		
27	↓		
28	0507-001		
29	004		
30	002		
31	005		
32	006		
33	008		
34	008 Dup		
35	STD 100 ppm S14-1228 0601		
36			
37			
38			
39			
40			

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **WDI-GTS-IN-2-22-07**
Client Project ID: **WDI**

CAS Project ID: P2700478
CAS Sample ID: P2700478-001

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Zheng Wang
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00873

Date Collected: 02/22/07
Date Received: 02/23/07
Date Analyzed: 02/27/07
Volume(s) Analyzed: 0.10 ml

Pi 1 = -1.2 Pf 1 = 3.8
D.F. = 1.37

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.14	
7782-44-7 7440-37-1	Oxygen + Argon *	**16.6**	0.14	
7727-37-9	Nitrogen	**80.9**	0.14	
630-08-0	Carbon Monoxide	ND	0.14	
124-38-9	Carbon Dioxide	**2.47**	0.14	

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: ɯ Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **WDI-GTS-IN-2-22-07**
Client Project ID: **WDI**

CAS Project ID: P2700478
CAS Sample ID: P2700478-001DUP

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Zheng Wang
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00873

Date Collected: 02/22/07
Date Received: 02/23/07
Date Analyzed: 02/27/07
Volume(s) Analyzed: 0.10 ml

Pi 1 = -1.2 Pf 1 = 3.8
D.F. = 1.37

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.14	
7782-44-7 7440-37-1	Oxygen + Argon *	**16.6**	0.14	
7727-37-9	Nitrogen	**80.9**	0.14	
630-08-0	Carbon Monoxide	ND	0.14	
124-38-9	Carbon Dioxide	**2.51**	0.14	

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: KU Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **WDI-GTS-OUT-2-22-07**
Client Project ID: **WDI**

CAS Project ID: P2700478
CAS Sample ID: P2700478-002

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Zheng Wang
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00028

Date Collected: 02/22/07
Date Received: 02/23/07
Date Analyzed: 02/27/07
Volume(s) Analyzed: 0.10 ml

Pi 1 = -3.1 Pf 1 = 3.5
D.F. = 1.57

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.16	
7782-44-7 7440-37-1	Oxygen + Argon *	**16.8**	0.16	
7727-37-9	Nitrogen	**80.8**	0.16	
630-08-0	Carbon Monoxide	ND	0.16	
124-38-9	Carbon Dioxide	**2.42**	0.16	

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: KW Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P2700478
CAS Sample ID: P070227-MB

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

Date Collected: NA
Date Received: NA
Date Analyzed: 02/27/07
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: HJ Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P2700478
CAS Sample ID: P070227-LCS

Laboratory Control Sample Summary

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

Date Collected: NA
Date Received: NA
Date Analyzed: 2/27/07
Volume(s) Analyzed: NA

Compound	Spike Amount LCS ppmV	Result LCS ppmV	**% Recovery LCS**	Acceptance Limits	Data Qualifier
Oxygen + Argon *	219,000	229,000	**105**	90-110	
Nitrogen	780,000	813,000	**104**	90-110	

Verified By: KJ Date: 3/9/07

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?
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Compound #2: Oxygen (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	43.017	572			
2	841.500	10039			
3	4950.000	53987			
4	51826.500	655569			
5	89100.000	1039947			

	Integration Parameter File	Sum?
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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?
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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?
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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	12805			
3	4985.000	80434			
4	52192.950	830567			
5	89730.000	1344318			

	Integration Parameter File	Sum?
Tgt		
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Prev | Plot | Page 1 | Page 2 | OK | Cancel | Help

VH 2/28/07

COLUMBIA ANALYTICAL INC.

EPA 3C GC/TCD Analysis for Fixed Gases

Client & PAI Job# : TRC P2700478
Analyst : ZW
Sample amount : ~100uL

Printed : 2/28/07
Instrument : GC #1 / TCD #1
Date analyzed : 2/27/07

Sample Result

Sample ID	Hydrogen	O2/Ar	Nitrogen	Carbon Monoxide	Methane	Carbon Dioxide	Pi1	Pf1	Pi2	Pf2
STD-50000ppm	38982	53016	52376	53616	43234	53985				
ACTUAL	40100	49970	50540	50050	40050	50360				
% DIFFER.	2.8%	6.1%	3.6%	7.1%	8.0%	7.2%				
MB	0	0	0	0	0	0				
LAB AIR	0	229325	812504	0	0	328				
0478-001	0	155530	757238	0	0	23110	-1.2	3.8		
0478-002	0	136363	655109	0	0	19602	-3.1	3.5		
0478-001 dup	0	155891	759458	0	0	23544	-1.2	3.8		
STD 50000ppm S14-09	38013	52610	52616	52371	42104	53356				
ACTUAL	40100	49970	50540	50050	40050	50360				
% DIFFER.	5.2%	5.3%	4.1%	4.6%	5.1%	5.9%				

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	229325	812504	0	0	328	104.2	1.00
0478-001	0	213134	1037696	0	0	31670	128.2	1.37
0478-002	0	213949	1027844	0	0	30755	127.3	1.57
0478-001 dup	0	213629	1040739	0	0	32264	128.7	1.37

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	38982	53016	52376	53616	43234	53985	
MB	ND	ND	ND	ND	ND	ND	
LAB AIR	ND	220026	779558	ND	ND	315	99.99
0478-001	ND	166170	809039	ND	ND	24691	99.99
0478-002	ND	168109	807625	ND	ND	24166	99.99
0478-001 dup	ND	166021	808806	ND	ND	25074	99.99

See 25C for methane

VH 2/28/07

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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-~~06~~ 4 120602 (loop 18.0)		21 Aug 106 12::5
10	5	08210610.d	10.	lab air	[illegible]	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 / 27 / 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\ Fxs5 | 2007.02 | 27 METHOD FILE NAME: J:\GC1\METHODS\ 3C082106 .M

	DATA FILE HEADER INFO	CLIENT	ANALYST
01	STD 50000 ppm S14-09010603		KK
02	MB		
03	Lab Air		
04	wait		
05	0478-001		
06	001 Dup		
07	002		
08	002		
09	wait		
10	X		
11	X		
12	X		
13	QC SC00086		
14	STD 50000 ppm S14-09010603		
15	0507-001		
16	001		
17	STD 50000 ppm S14-09010603		
18			
19			
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21			
22			
23			
24			
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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-IN-2-22-07**
Client Project ID: **WDI**

CAS Project ID: P2700478
CAS Sample ID: P2700478-001

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: SC00873

Date Collected: 2/22/07
Date Received: 2/23/07
Date(s) Analyzed: 3/5/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.2 Pf 1 = 3.8

Can D.F. = 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	**12**	1.4	**5.6**	0.66	
75-01-4	Vinyl Chloride	**2.2**	1.4	**0.85**	0.54	
74-83-9	Bromomethane	ND	1.4	ND	0.35	
75-00-3	Chloroethane	ND	1.4	ND	0.52	
67-64-1	Acetone	**23**	6.9	**9.6**	2.9	**M**
75-69-4	Trichlorofluoromethane	**2.7**	1.4	**0.48**	0.24	
75-35-4	1,1-Dichloroethene	ND	1.4	ND	0.35	
75-09-2	Methylene chloride	ND	1.4	ND	0.39	
76-13-1	Trichlorotrifluoroethane	ND	1.4	ND	0.18	
75-15-0	Carbon Disulfide	**4.3**	1.4	**1.4**	0.44	
156-60-5	trans-1,2-Dichloroethene	ND	1.4	ND	0.35	
75-34-3	1,1-Dichloroethane	ND	1.4	ND	0.34	
1634-04-4	Methyl tert-Butyl Ether	ND	1.4	ND	0.38	
108-05-4	Vinyl Acetate	ND	1.4	ND	0.39	
78-93-3	2-Butanone (MEK)	**6.2**	1.4	**2.1**	0.46	
156-59-2	cis-1,2-Dichloroethene	ND	1.4	ND	0.35	
67-66-3	Chloroform	**4.4**	1.4	**0.91**	0.28	
107-06-2	1,2-Dichloroethane	ND	1.4	ND	0.34	
71-55-6	1,1,1-Trichloroethane	ND	1.4	ND	0.25	
71-43-2	Benzene	**4.3**	1.4	**1.4**	0.43	
56-23-5	Carbon Tetrachloride	ND	1.4	ND	0.22	
78-87-5	1,2-Dichloropropane	ND	1.4	ND	0.30	

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.
M = Matrix interference; results may be biased high.

Verified By: W Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: TRC
Client Sample ID: WDI-GTS-IN-2-22-07
Client Project ID: WDI

CAS Project ID: P2700478
CAS Sample ID: P2700478-001

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: SC00873

Date Collected: 2/22/07
Date Received: 2/23/07
Date(s) Analyzed: 3/5/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.2 Pf 1 = 3.8

Can D.F. = 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.4	ND	0.20	
79-01-6	Trichloroethene	**6.4**	1.4	**1.2**	0.26	
10061-01-5	cis-1,3-Dichloropropene	ND	1.4	ND	0.30	
108-10-1	4-Methyl-2-pentanone	ND	1.4	ND	0.33	
10061-02-6	trans-1,3-Dichloropropene	ND	1.4	ND	0.30	
79-00-5	1,1,2-Trichloroethane	ND	1.4	ND	0.25	
108-88-3	Toluene	**7.7**	1.4	**2.0**	0.36	
591-78-6	2-Hexanone	ND	1.4	ND	0.33	
124-48-1	Dibromochloromethane	ND	1.4	ND	0.16	
106-93-4	1,2-Dibromoethane	ND	1.4	ND	0.18	
127-18-4	Tetrachloroethene	**26**	1.4	**3.8**	0.20	
108-90-7	Chlorobenzene	ND	1.4	ND	0.30	
100-41-4	Ethylbenzene	**4.5**	1.4	**1.0**	0.32	
179601-23-1	*m,p* -Xylenes	**22**	1.4	**5.0**	0.32	
75-25-2	Bromoform	ND	1.4	ND	0.13	
100-42-5	Styrene	ND	1.4	ND	0.32	
95-47-6	o-Xylene	**4.9**	1.4	**1.1**	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.4	ND	0.20	
541-73-1	1,3-Dichlorobenzene	ND	1.4	ND	0.23	
106-46-7	1,4-Dichlorobenzene	ND	1.4	ND	0.23	
95-50-1	1,2-Dichlorobenzene	ND	1.4	ND	0.23	

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: LJ Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-OUT-2-22-07**
Client Project ID: **WDI**

CAS Project ID: P2700478
CAS Sample ID: P2700478-002

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: SC00028

Date Collected: 2/22/07
Date Received: 2/23/07
Date(s) Analyzed: 3/5/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.1 Pf 1 = 3.5

Can D.F. = 1.57

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	**25**	1.6	**12**	0.76	
75-01-4	Vinyl Chloride	ND	1.6	ND	0.61	
74-83-9	Bromomethane	ND	1.6	ND	0.40	
75-00-3	Chloroethane	ND	1.6	ND	0.60	
67-64-1	Acetone	**53**	7.9	**22**	3.3	**M**
75-69-4	Trichlorofluoromethane	**3.0**	1.6	**0.53**	0.28	
75-35-4	1,1-Dichloroethene	ND	1.6	ND	0.40	
75-09-2	Methylene chloride	ND	1.6	ND	0.45	
76-13-1	Trichlorotrifluoroethane	ND	1.6	ND	0.20	
75-15-0	Carbon Disulfide	**2.5**	1.6	**0.81**	0.50	
156-60-5	trans-1,2-Dichloroethene	ND	1.6	ND	0.40	
75-34-3	1,1-Dichloroethane	ND	1.6	ND	0.39	
1634-04-4	Methyl tert-Butyl Ether	ND	1.6	ND	0.44	
108-05-4	Vinyl Acetate	ND	1.6	ND	0.45	
78-93-3	2-Butanone (MEK)	**16**	1.6	**5.3**	0.53	
156-59-2	cis-1,2-Dichloroethene	ND	1.6	ND	0.40	
67-66-3	Chloroform	**3.2**	1.6	**0.66**	0.32	
107-06-2	1,2-Dichloroethane	ND	1.6	ND	0.39	
71-55-6	1,1,1-Trichloroethane	ND	1.6	ND	0.29	
71-43-2	Benzene	**2.5**	1.6	**0.79**	0.49	
56-23-5	Carbon Tetrachloride	ND	1.6	ND	0.25	
78-87-5	1,2-Dichloropropane	ND	1.6	ND	0.34	

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.
M = Matrix interference; results may be biased high.

Verified By: µ Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-OUT-2-22-07**
Client Project ID: **WDI**

CAS Project ID: P2700478
CAS Sample ID: P2700478-002

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: SC00028

Date Collected: 2/22/07
Date Received: 2/23/07
Date(s) Analyzed: 3/5/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.1 Pf 1 = 3.5

Can D.F. = 1.57

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.6	ND	0.23	
79-01-6	Trichloroethene	**1.6**	1.6	**0.30**	0.29	
10061-01-5	cis-1,3-Dichloropropene	ND	1.6	ND	0.35	
108-10-1	4-Methyl-2-pentanone	ND	1.6	ND	0.38	
10061-02-6	trans-1,3-Dichloropropene	ND	1.6	ND	0.35	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ND	0.29	
108-88-3	Toluene	**16**	1.6	**4.1**	0.42	
591-78-6	2-Hexanone	ND	1.6	ND	0.38	
124-48-1	Dibromochloromethane	ND	1.6	ND	0.18	
106-93-4	1,2-Dibromoethane	ND	1.6	ND	0.20	
127-18-4	Tetrachloroethene	ND	1.6	ND	0.23	
108-90-7	Chlorobenzene	ND	1.6	ND	0.34	
100-41-4	Ethylbenzene	**7.2**	1.6	**1.7**	0.36	
179601-23-1	*m,p* -Xylenes	**33**	1.6	**7.7**	0.36	
75-25-2	Bromoform	ND	1.6	ND	0.15	
100-42-5	Styrene	ND	1.6	ND	0.37	
95-47-6	o-Xylene	**7.2**	1.6	**1.7**	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.6	ND	0.23	
541-73-1	1,3-Dichlorobenzene	ND	1.6	ND	0.26	
106-46-7	1,4-Dichlorobenzene	ND	1.6	ND	0.26	
95-50-1	1,2-Dichlorobenzene	ND	1.6	ND	0.26	

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: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-OUT-2-22-07**
Client Project ID: **WDI**

CAS Project ID: P2700478
CAS Sample ID: P2700478-002DUP

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: SC00028

Date Collected: 2/22/07
Date Received: 2/23/07
Date(s) Analyzed: 3/5/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.1 Pf 1 = 3.5

Can D.F. = 1.57

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	**21**	1.6	**10**	0.76	
75-01-4	Vinyl Chloride	ND	1.6	ND	0.61	
74-83-9	Bromomethane	ND	1.6	ND	0.40	
75-00-3	Chloroethane	ND	1.6	ND	0.60	
67-64-1	Acetone	**52**	7.9	**22**	3.3	**M**
75-69-4	Trichlorofluoromethane	**3.0**	1.6	**0.54**	0.28	
75-35-4	1,1-Dichloroethene	ND	1.6	ND	0.40	
75-09-2	Methylene chloride	ND	1.6	ND	0.45	
76-13-1	Trichlorotrifluoroethane	ND	1.6	ND	0.20	
75-15-0	Carbon Disulfide	**2.6**	1.6	**0.83**	0.50	
156-60-5	trans-1,2-Dichloroethene	ND	1.6	ND	0.40	
75-34-3	1,1-Dichloroethane	ND	1.6	ND	0.39	
1634-04-4	Methyl tert-Butyl Ether	ND	1.6	ND	0.44	
108-05-4	Vinyl Acetate	ND	1.6	ND	0.45	
78-93-3	2-Butanone (MEK)	**13**	1.6	**4.5**	0.53	
156-59-2	cis-1,2-Dichloroethene	ND	1.6	ND	0.40	
67-66-3	Chloroform	**3.3**	1.6	**0.68**	0.32	
107-06-2	1,2-Dichloroethane	ND	1.6	ND	0.39	
71-55-6	1,1,1-Trichloroethane	ND	1.6	ND	0.29	
71-43-2	Benzene	**2.6**	1.6	**0.80**	0.49	
56-23-5	Carbon Tetrachloride	ND	1.6	ND	0.25	
78-87-5	1,2-Dichloropropane	ND	1.6	ND	0.34	

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.
M = Matrix interference; results may be biased high.

Verified By: WJ Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-OUT-2-22-07**
Client Project ID: **WDI**

CAS Project ID: P2700478
CAS Sample ID: P2700478-002DUP

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: SC00028

Date Collected: 2/22/07
Date Received: 2/23/07
Date(s) Analyzed: 3/5/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.1 Pf 1 = 3.5

Can D.F. = 1.57

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.6	ND	0.23	
79-01-6	Trichloroethene	**1.6**	1.6	**0.30**	0.29	
10061-01-5	cis-1,3-Dichloropropene	ND	1.6	ND	0.35	
108-10-1	4-Methyl-2-pentanone	ND	1.6	ND	0.38	
10061-02-6	trans-1,3-Dichloropropene	ND	1.6	ND	0.35	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ND	0.29	
108-88-3	Toluene	**16**	1.6	**4.3**	0.42	
591-78-6	2-Hexanone	ND	1.6	ND	0.38	
124-48-1	Dibromochloromethane	ND	1.6	ND	0.18	
106-93-4	1,2-Dibromoethane	ND	1.6	ND	0.20	
127-18-4	Tetrachloroethene	ND	1.6	ND	0.23	
108-90-7	Chlorobenzene	ND	1.6	ND	0.34	
100-41-4	Ethylbenzene	**7.5**	1.6	**1.7**	0.36	
179601-23-1	*m,p*-Xylenes	**34**	1.6	**7.9**	0.36	
75-25-2	Bromoform	ND	1.6	ND	0.15	
100-42-5	Styrene	ND	1.6	ND	0.37	
95-47-6	o-Xylene	**7.5**	1.6	**1.7**	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.6	ND	0.23	
541-73-1	1,3-Dichlorobenzene	ND	1.6	ND	0.26	
106-46-7	1,4-Dichlorobenzene	ND	1.6	ND	0.26	
95-50-1	1,2-Dichlorobenzene	ND	1.6	ND	0.26	

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: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P2700478
CAS Sample ID: P070305-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: 3/5/07
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: LU Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P2700478
CAS Sample ID: P070305-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: 3/5/07
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: LU Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: TRC
Client Project ID: WDI

CAS Project ID: P2700478

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: 2/22/07
Date Received: 2/23/07
Date Analyzed: 3/5/07

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	P070305-MB	**90**	80-120	**101**	80-120	**104**	80-120	
Lab Control Sample	P070305-LCS	**96**	80-120	**100**	80-120	**103**	80-120	
Duplicate Lab Control Sample	P070305-DLCS	**95**	80-120	**99**	80-120	**103**	80-120	
WDI-GTS-IN-2-22-07	P2700478-001	**86**	80-120	**98**	80-120	**102**	80-120	
WDI-GTS-OUT-2-22-07	P2700478-002	**88**	80-120	**98**	80-120	**102**	80-120	
WDI-GTS-OUT-2-22-07	P2700478-002DUP	**88**	80-120	**99**	80-120	**103**	80-120	

Verified By: μ Date: 3/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P2700478
CAS Sample ID: P070305-LCS, P070305-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: 3/5/07
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	23.5	22.3	97	92	65-135	5	35	
Vinyl Chloride	24.8	24.3	24.2	98	98	65-135	0	35	
Bromomethane	25.0	18.8	19.1	75	76	65-135	1	35	
Chloroethane	25.0	22.2	22.0	89	88	65-135	1	35	
Acetone	26.5	21.9	22.5	83	85	65-135	2	35	
Trichlorofluoromethane	24.3	22.7	22.8	93	94	65-135	1	35	
1,1-Dichloroethene	27.3	24.7	24.4	90	89	65-135	1	35	
Methylene chloride	26.8	22.4	22.7	84	85	65-135	1	35	
Trichlorotrifluoroethane	27.0	24.4	24.4	90	90	65-135	0	35	
Carbon Disulfide	25.0	21.9	22.1	88	88	65-135	0	35	
trans-1,2-Dichloroethene	26.3	22.7	23.0	86	87	65-135	1	35	
1,1-Dichloroethane	26.3	23.3	23.5	89	89	65-135	0	35	
Methyl tert-Butyl Ether	26.3	23.7	24.0	90	91	65-135	1	35	
Vinyl Acetate	24.3	23.9	24.2	98	100	65-135	2	35	
2-Butanone (MEK)	26.8	24.4	24.7	91	92	65-135	1	35	
cis-1,2-Dichloroethene	26.5	23.1	23.3	87	88	65-135	1	35	
Chloroform	30.0	24.4	24.5	81	82	65-135	1	35	
1,2-Dichloroethane	26.0	23.4	23.7	90	91	65-135	1	35	
1,1,1-Trichloroethane	26.3	23.5	23.8	89	90	65-135	1	35	
Benzene	26.3	23.5	23.8	89	90	65-135	1	35	
Carbon Tetrachloride	25.8	23.8	23.8	92	92	65-135	0	35	
1,2-Dichloropropane	26.0	23.6	24.0	91	92	65-135	1	35	

Verified By: LW Date: 3/22/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P2700478
CAS Sample ID: P070305-LCS, P070305-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: 3/5/07
Volume(s) Analyzed: NA

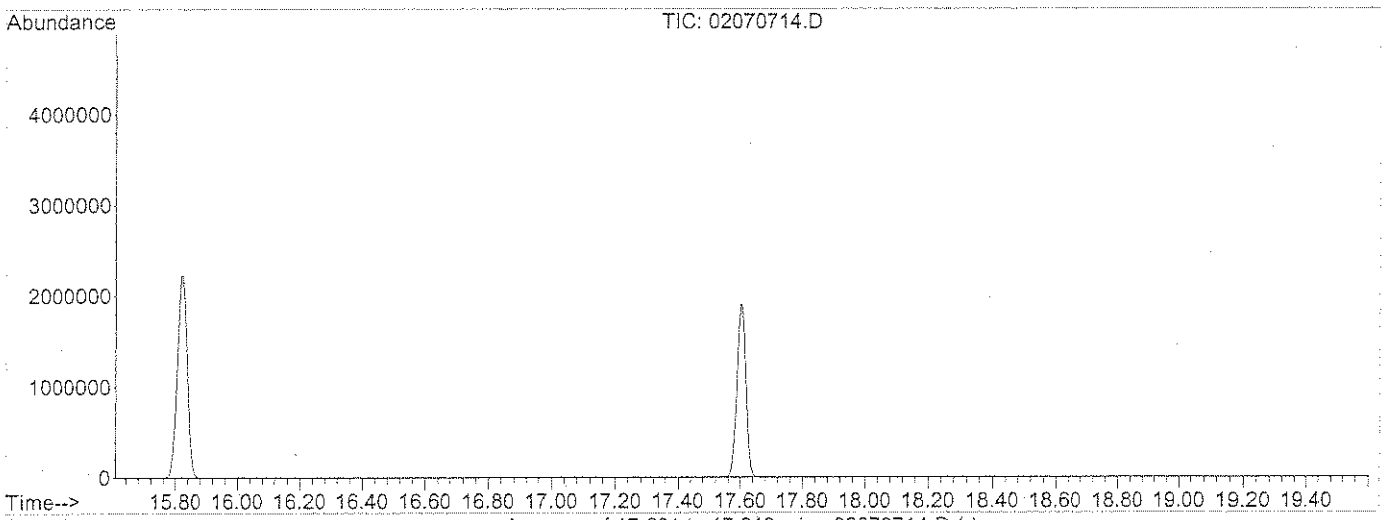
Compound	Spike Amt LCS/DLCS ng	Result LCS ng	Result DLCS ng	% Recovery LCS	% Recovery DLCS	Acceptance Limits	RPD	RPD Limit %	Data Qualifier
Bromodichloromethane	27.5	24.9	25.3	91	92	65-135	1	35	
Trichloroethene	27.3	24.9	25.1	91	92	65-135	1	35	
cis-1,3-Dichloropropene	26.0	22.6	22.8	87	88	65-135	1	35	
4-Methyl-2-pentanone	26.5	27.0	27.3	102	103	65-135	1	35	
trans-1,3-Dichloropropene	27.8	25.7	26.1	92	94	65-135	2	35	
1,1,2-Trichloroethane	25.8	23.6	24.2	91	94	65-135	3	35	
Toluene	26.0	23.4	23.6	90	91	65-135	1	35	
2-Hexanone	26.0	27.0	27.1	104	104	65-135	0	35	
Dibromochloromethane	26.5	25.1	25.4	95	96	65-135	1	35	
1,2-Dibromoethane	26.0	23.8	24.3	92	93	65-135	1	35	
Tetrachloroethene	25.8	23.1	23.3	90	90	65-135	0	35	
Chlorobenzene	26.0	23.6	23.8	91	92	65-135	1	35	
Ethylbenzene	25.8	23.3	23.6	90	91	65-135	1	35	
m,p-Xylenes	61.5	56.1	56.7	91	92	65-135	1	35	
Bromoform	31.3	29.0	29.6	93	95	65-135	2	35	
Styrene	25.8	24.5	24.9	95	97	65-135	2	35	
o-Xylene	29.0	26.5	26.7	91	92	65-135	1	35	
1,1,2,2-Tetrachloroethane	29.3	27.5	27.6	94	94	65-135	0	35	
1,3-Dichlorobenzene	25.3	23.4	23.6	92	93	65-135	1	35	
1,4-Dichlorobenzene	26.0	24.4	24.8	94	95	65-135	1	35	
1,2-Dichlorobenzene	25.5	23.7	23.9	93	94	65-135	1	35	

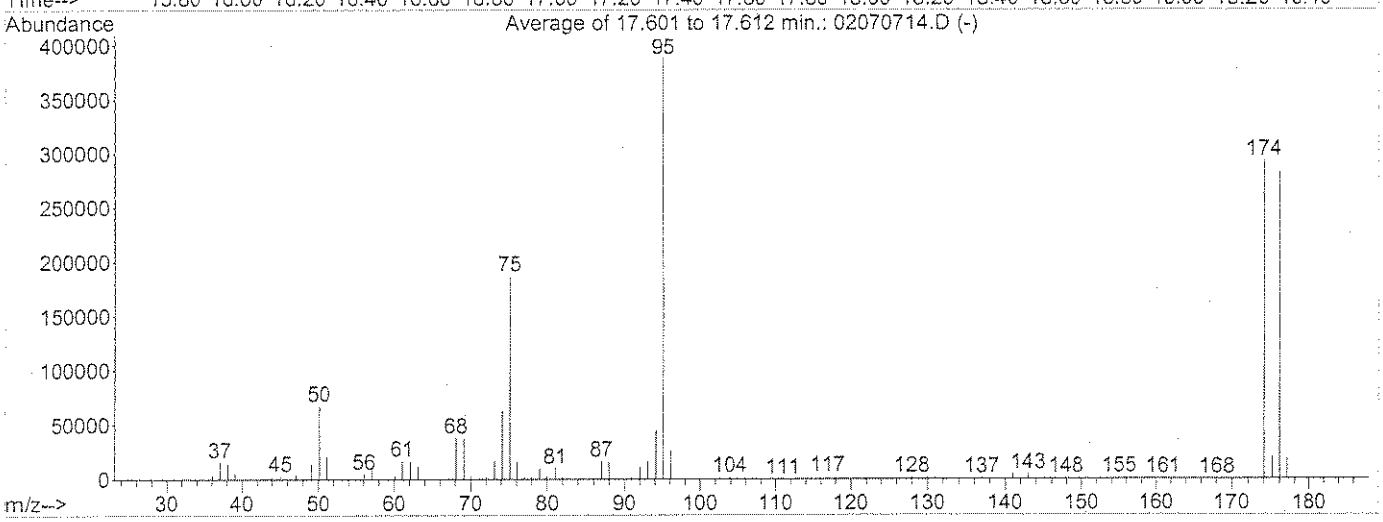
Verified By: LW Date: 3/22/07

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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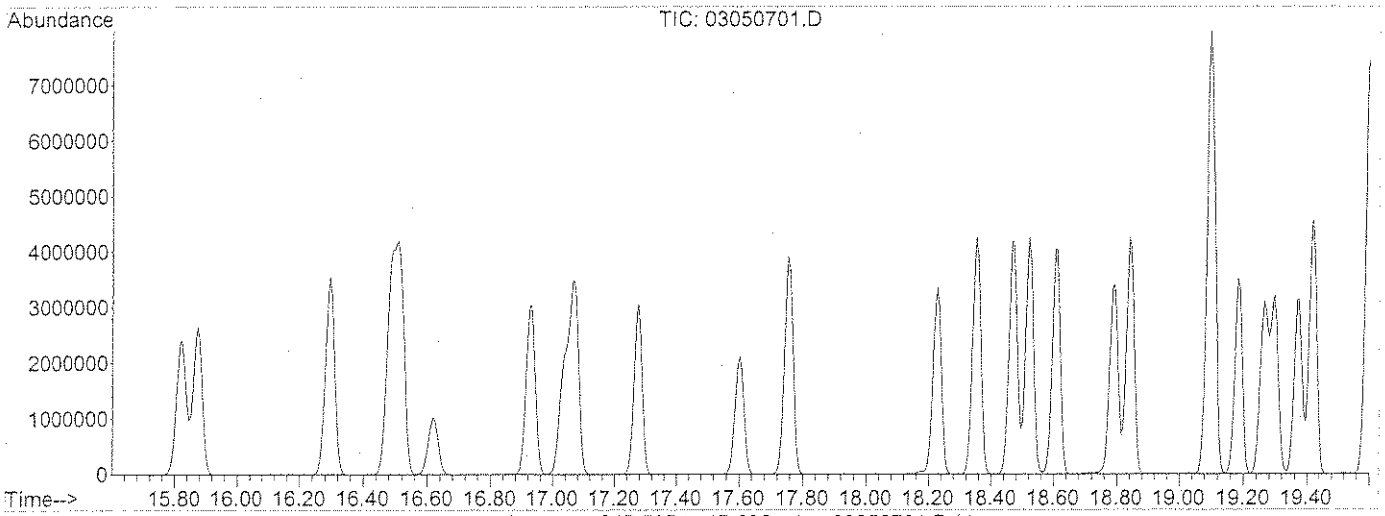
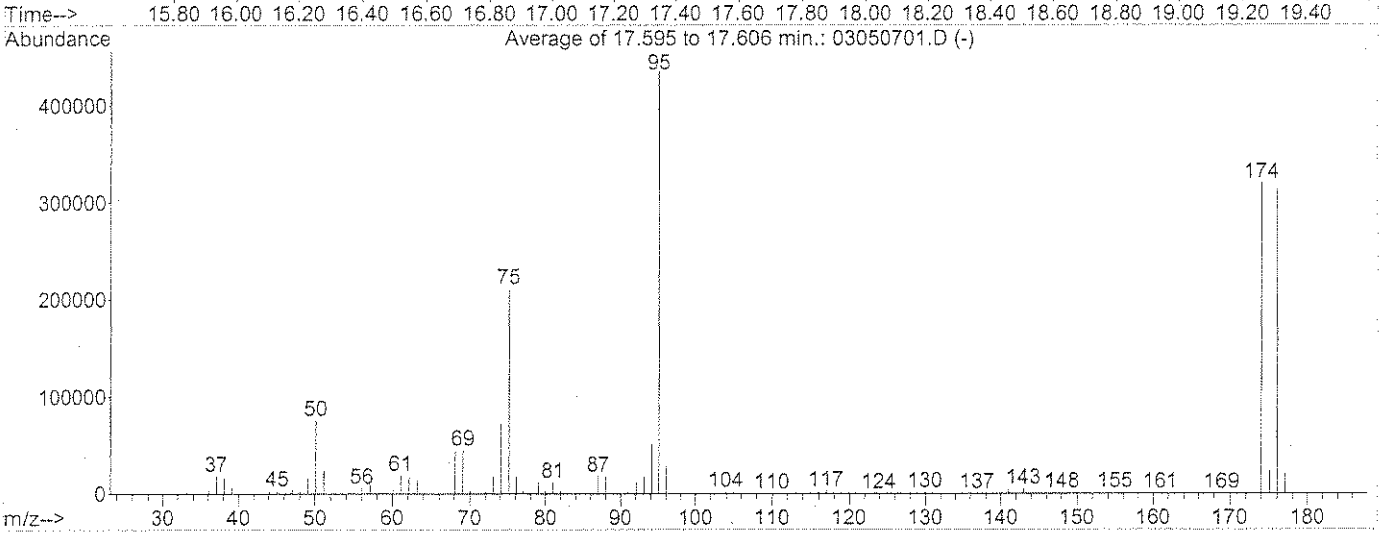
Data Path : J:\MS08\Data\2007_03\05\
Data File : 03050701.D
Acq On : 5 Mar 2007 9:29 am
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-02260703/S15-02150704
ALS Vial : 1 Sample Multiplier: 1

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 2500, 2501, 2502; 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	75525	PASS
75	95	30	66	48.5	211029	PASS
95	95	100	100	100.0	435370	PASS
96	95	5	9	6.5	28125	PASS
173	174	0.00	2	0.4	1179	PASS
174	95	50	120	73.4	319573	PASS
175	174	4	9	7.3	23186	PASS
176	174	93	101	98.0	313109	PASS
177	176	5	9	6.5	20245	PASS

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LM 3/6/07

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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

LM 2/8/07

LM 2/8/07

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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

2/8/07
LM 2/8/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\Data\2007_03\05\
Data File : 03050701.D
Acq On : 5 Mar 2007 9:29 am
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-02260703/S15-02150704
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 06 14:07:08 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	116	0.00
2	T	Propene	1.999	1.607	19.6	103	0.00
3	T	Dichlorodifluoromethane	3.971	3.550	10.6	110	0.00
4	T	Chloromethane	2.722	2.580	5.2	111	0.00
5	T	Freon 114	1.176	1.226	-4.3	130	0.00
6	T	Vinyl Chloride	2.248	2.103	6.5	117	0.00
7	T	1,3-Butadiene	1.652	1.609	2.6	117	0.00
8	T	Bromomethane	1.771	1.328	25.0	92	0.00
9	T	Chloroethane	1.498	1.289	14.0	105	0.00
.0	T	Ethanol	1.116	1.136	-1.8	112	0.02
.1	T	Acetonitrile	3.214	2.989	7.0	103	0.01
.2	T	Acrolein	1.065	0.969	9.0	105	0.01
.3	T	Acetone	1.543	1.288	16.5	107	0.02
.4	T	Trichlorofluoromethane	2.790	2.546	8.7	109	0.00
.5	T	Isopropanol	4.140	3.630	12.3	103	0.02
.6	T	Acrylonitrile	2.280	2.026	11.1	102	0.01
.7	T	1,1-Dichloroethene	1.726	1.510	12.5	105	0.00
.8	T	tert-Butanol	3.704	3.873	-4.6	147	0.02
.9	T	Methylene Chloride	2.030	1.651	18.7	103	0.00
:0	T	Allyl Chloride	2.211	1.988	10.1	99	0.00
:1	T	Trichlorotrifluoroethane	1.493	1.313	12.1	108	0.00
:2	T	Carbon Disulfide	7.445	6.352	14.7	106	0.00
:3	T	trans-1,2-Dichloroethene	2.764	2.320	16.1	100	0.00
:4	T	1,1-Dichloroethane	2.746	2.345	14.6	103	0.00
:5	T	Methyl tert-Butyl Ether	5.641	4.863	13.8	103	0.01
:6	T	Vinyl Acetate	0.384	0.396	-3.1	114	0.00
:7	T	2-Butanone	1.243	1.088	12.5	102	0.01
:8	T	cis-1,2-Dichloroethene	2.482	2.091	15.8	100	0.00
:9	T	Diisopropyl Ether	1.473	1.262	14.3	102	0.00
0	T	Ethyl Acetate	0.627	0.531	15.3	102	0.00
1	T	n-Hexane	2.998	2.410	19.6	98	0.00
2	T	Chloroform	2.803	2.317	17.3	102	0.00
3	S	1,2-Dichloroethane-d4(SS1)	1.824	1.758	3.6	109	0.00
4	T	Tetrahydrofuran	1.172	1.020	13.0	99	0.00
5	T	Ethyl tert-Butyl Ether	2.197	1.893	13.8	102	0.00
6	T	1,2-Dichloroethane	2.543	2.174	14.5	101	0.00
7	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	110	0.00
8	T	1,1,1-Trichloroethane	0.667	0.589	11.7	100	0.00
9	T	Isopropyl Acetate	0.241	0.219	9.1	102	0.00
0	T	1-Butanol	0.187	0.253	-35.3#	151	0.00
1	T	Benzene	1.563	1.365	12.7	100	0.00
2	T	Carbon Tetrachloride	0.543	0.488	10.1	98	0.00
3	T	Cyclohexane	0.614	0.523	14.8	99	0.00
4	T	tert-Amyl Methyl Ether	1.117	1.002	10.3	101	0.00
5	T	1,2-Dichloropropane	0.387	0.338	12.7	98	0.00
6	T	Bromodichloromethane	0.530	0.479	9.6	100	0.00
7	T	Trichloroethene	0.384	0.347	9.6	103	0.00
8	T	1,4-Dioxane	0.267	0.255	4.5	109	0.00
9	T	Isooctane	1.545	1.310	15.2	96	0.00
0	T	Methyl Methacrylate	0.148	0.143	3.4	102	0.00
1	T	n-Heptane	0.393	0.338	14.0	98	0.00

E. 3/6/07
LM 3/6/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\Data\2007_03\05\
Data File : 03050701.D
Acq On : 5 Mar 2007 9:29 am
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-02260703/S15-02150704
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 06 14:07:08 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	0.579	10.1	98	0.00
53	T	4-Methyl-2-pentanone	0.304	0.286	5.9	110	0.00
54	T	trans-1,3-Dichloropropene	0.593	0.535	9.8	98	0.00
55	T	1,1,2-Trichloroethane	0.382	0.340	11.0	99	0.00
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	107	0.00
57	S	Toluene-d8 (SS2)	2.179	2.209	-1.4	109	0.00
58	T	Toluene	3.173	2.842	10.4	99	0.00
59	T	2-Hexanone	1.392	1.357	2.5	113	0.00
60	T	Dibromochloromethane	0.824	0.783	5.0	100	0.00
61	T	1,2-Dibromoethane	0.877	0.807	8.0	99	0.00
62	T	Butyl Acetate	1.534	1.506	1.8	113	0.00
63	T	n-Octane	0.641	0.565	11.9	95	0.00
64	T	Tetrachloroethene	0.763	0.695	8.9	101	0.00
65	T	Chlorobenzene	2.035	1.834	9.9	99	0.00
66	T	Ethylbenzene	3.654	3.308	9.5	99	0.00
67	T	m- & p-Xylene	2.352	2.121	9.8	98	0.00
68	T	Bromoform	0.530	0.514	3.0	100	0.00
69	T	Styrene	2.092	1.939	7.3	96	0.00
70	T	o-Xylene	2.547	2.301	9.7	98	0.00
71	T	n-Nonane	1.453	1.240	14.7	91	0.00
72	T	1,1,2,2-Tetrachloroethane	1.170	1.087	7.1	100	0.00
73	S	Bromofluorobenzene (SS3)	0.657	0.679	-3.3	111	0.00
74	T	Cumene	3.359	3.036	9.6	98	0.00
75	T	alpha-Pinene	1.712	1.582	7.6	98	0.00
76	T	n-Propylbenzene	4.321	3.969	8.1	99	0.00
77	T	3-Ethyltoluene	3.524	3.240	8.1	98	0.00
78	T	4-Ethyltoluene	3.354	3.056	8.9	100	0.00
79	T	1,3,5-Trimethylbenzene	2.915	2.645	9.3	99	0.00
80	T	alpha-Methylstyrene	1.378	1.295	6.0	92	0.00
81	T	2-Ethyltoluene	3.596	3.301	8.2	99	0.00
82	T	1,2,4-Trimethylbenzene	2.841	2.578	9.3	99	0.00
83	T	n-Decane	1.474	1.315	10.8	96	0.00
84	T	Benzyl Chloride	2.583	2.502	3.1	100	0.00
85	T	1,3-Dichlorobenzene	1.604	1.457	9.2	99	0.00
86	T	1,4-Dichlorobenzene	1.552	1.419	8.6	99	0.00
87	T	sec-Butylbenzene	3.813	3.497	8.3	99	0.00
88	T	p-Isopropyltoluene	3.022	2.786	7.8	101	0.00
89	T	1,2,3-Trimethylbenzene	2.722	2.496	8.3	99	0.00
90	T	1,2-Dichlorobenzene	1.471	1.325	9.9	100	0.00
91	T	d-Limonene	0.970	0.909	6.3	89	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.467	0.494	-5.8	106	0.00
93	T	n-Undecane	1.135	1.035	8.8	103	0.00
94	T	1,2,4-Trichlorobenzene	0.277	0.279	-0.7	119	0.00
95	T	Naphthalene	2.627	2.921	-11.2	121	0.00
96	T	n-Dodecane	0.856	0.765	10.6	123	0.00
97	T	Hexachloro-1,3-butadiene	0.480	0.470	2.1	117	0.00

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

3/6/07
LM 3/6/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\Data\2007_03\05\
Data File : 03050704.D
Acq On : 5 Mar 2007 11:52 am
Operator : LM/SC
Sample : 1ng TO-15 CCV STD
Misc : S15-02260703/S15-02150701
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 06 15:09:39 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	105	-0.02
2	T	Propene	1.999	1.884	5.8	87	0.03
3	T	Dichlorodifluoromethane	3.971	4.213	-6.1	101	0.02
4	T	Chloromethane	2.722	2.779	-2.1	101	0.02
5	T	Freon 114	1.176	1.392	-18.4	115	0.02
6	T	Vinyl Chloride	2.248	2.420	-7.7	103	0.01
7	T	1,3-Butadiene	1.652	1.813	-9.7	110	0.00
8	T	Bromomethane	1.771	1.493	15.7	82	0.01
9	T	Chloroethane	1.498	1.476	1.5	97	0.00
10	T	Ethanol	1.116	0.723	35.2#	72	0.00
11	T	Acetonitrile	3.214	2.927	8.9	98	0.00
12	T	Acrolein	1.065	0.946	11.2	93	0.02
13	T	Acetone	1.543	1.570	-1.7	99	0.01
14	T	Trichlorofluoromethane	2.790	2.810	-0.7	100	0.00
15	T	Isopropanol	4.140	4.213	-1.8	93	0.00
16	T	Acrylonitrile	2.280	2.073	9.1	97	0.00
17	T	1,1-Dichloroethene	1.726	1.645	4.7	94	0.00
18	T	tert-Butanol	3.704	4.399	-18.8	96	0.01
19	T	Methylene Chloride	2.030	1.989	2.0	94	-0.02
20	T	Allyl Chloride	2.211	1.884	14.8	95	-0.01
21	T	Trichlorotrifluoroethane	1.493	1.431	4.2	97	0.00
22	T	Carbon Disulfide	7.445	7.614	-2.3	98	0.00
23	T	trans-1,2-Dichloroethene	2.764	2.603	5.8	95	-0.02
24	T	1,1-Dichloroethane	2.746	2.796	-1.8	99	-0.02
25	T	Methyl tert-Butyl Ether	5.641	5.365	4.9	94	0.00
26	T	Vinyl Acetate	0.384	0.359	6.5	105	0.00
27	T	2-Butanone	1.243	1.215	2.3	101	0.00
28	T	cis-1,2-Dichloroethene	2.482	2.311	6.9	93	-0.02
29	T	Diisopropyl Ether	1.473	1.432	2.8	92	0.00
30	T	Ethyl Acetate	0.627	0.587	6.4	91	0.00
31	T	n-Hexane	2.998	2.862	4.5	93	0.00
32	T	Chloroform	2.803	2.843	-1.4	92	-0.02
33	S	1,2-Dichloroethane-d4(SS1)	1.824	1.821	0.2	103	-0.01
34	T	Tetrahydrofuran	1.172	1.146	2.2	92	0.00
35	T	Ethyl tert-Butyl Ether	2.197	2.098	4.5	97	0.00
36	T	1,2-Dichloroethane	2.543	2.345	7.8	92	-0.01
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	102	-0.01
38	T	1,1,1-Trichloroethane	0.667	0.646	3.1	93	-0.01
39	T	Isopropyl Acetate	0.241	0.233	3.3	94	0.00
40	T	1-Butanol	0.187	0.152	18.7	78	0.02
41	T	Benzene	1.563	1.550	0.8	95	0.00
42	T	Carbon Tetrachloride	0.543	0.444	18.2	84	-0.01
43	T	Cyclohexane	0.614	0.606	1.3	94	-0.01
44	T	tert-Amyl Methyl Ether	1.117	1.072	4.0	91	0.00
45	T	1,2-Dichloropropane	0.387	0.378	2.3	92	0.00
46	T	Bromodichloromethane	0.530	0.518	2.3	97	0.00
47	T	Trichloroethene	0.384	0.379	1.3	93	-0.01
48	T	1,4-Dioxane	0.267	0.257	3.7	89	0.00
49	T	Isooctane	1.545	1.487	3.8	90	0.00
50	T	Methyl Methacrylate	0.148	0.133	10.1	95	0.00
51	T	n-Heptane	0.393	0.381	3.1	93	0.00

3/6/07
LM 3/6/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\Data\2007_03\05\
Data File : 03050704.D
Acq On : 5 Mar 2007 11:52 am
Operator : LM/SC
Sample : 1ng TO-15 CCV STD
Misc : S15-02260703/S15-02150701
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 06 15:09:39 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	0.618	4.0	95	0.00
53	T	4-Methyl-2-pentanone	0.304	0.305	-0.3	89	0.00
54	T	trans-1,3-Dichloropropene	0.593	0.549	7.4	93	0.00
55	T	1,1,2-Trichloroethane	0.382	0.370	3.1	95	0.00
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	102	0.00
57	S	Toluene-d8 (SS2)	2.179	2.183	-0.2	102	0.00
58	T	Toluene	3.173	3.171	0.1	93	0.00
59	T	2-Hexanone	1.392	1.405	-0.9	90	0.00
60	T	Dibromochloromethane	0.824	0.761	7.6	91	-0.01
61	T	1,2-Dibromoethane	0.877	0.841	4.1	93	-0.01
62	T	Butyl Acetate	1.534	1.529	0.3	87	0.00
63	T	n-Octane	0.641	0.633	1.2	94	0.00
64	T	Tetrachloroethene	0.763	0.782	-2.5	98	0.00
65	T	Chlorobenzene	2.035	2.037	-0.1	94	-0.01
66	T	Ethylbenzene	3.654	3.578	2.1	93	-0.01
67	T	m- & p-Xylene	2.352	2.324	1.2	92	-0.02
68	T	Bromoform	0.530	0.493	7.0	95	0.00
69	T	Styrene	2.092	1.907	8.8	89	0.00
70	T	o-Xylene	2.547	2.498	1.9	92	-0.01
71	T	n-Nonane	1.453	1.385	4.7	90	0.00
72	T	1,1,2,2-Tetrachloroethane	1.170	1.160	0.9	95	-0.01
73	S	Bromofluorobenzene (SS3)	0.657	0.688	-4.7	105	0.00
74	T	Cumene	3.359	3.272	2.6	91	0.00
75	T	alpha-Pinene	1.712	1.597	6.7	91	-0.01
76	T	n-Propylbenzene	4.321	4.315	0.1	92	0.00
77	T	3-Ethyltoluene	3.524	3.464	1.7	92	0.00
78	T	4-Ethyltoluene	3.354	3.397	-1.3	94	-0.01
79	T	1,3,5-Trimethylbenzene	2.915	2.867	1.6	91	-0.01
80	T	alpha-Methylstyrene	1.378	1.174	14.8	87	0.00
81	T	2-Ethyltoluene	3.596	3.544	1.4	93	-0.01
82	T	1,2,4-Trimethylbenzene	2.841	2.861	-0.7	94	-0.01
83	T	n-Decane	1.474	1.488	-0.9	94	-0.01
84	T	Benzyl Chloride	2.583	2.407	6.8	94	-0.01
85	T	1,3-Dichlorobenzene	1.604	1.599	0.3	95	-0.02
86	T	1,4-Dichlorobenzene	1.552	1.515	2.4	91	0.00
87	T	sec-Butylbenzene	3.813	3.802	0.3	90	0.00
88	T	p-Isopropyltoluene	3.022	3.013	0.3	91	0.00
89	T	1,2,3-Trimethylbenzene	2.722	2.710	0.4	93	0.00
90	T	1,2-Dichlorobenzene	1.471	1.479	-0.5	91	-0.01
91	T	d-Limonene	0.970	0.819	15.6	87	-0.01
92	T	1,2-Dibromo-3-Chloropropane	0.467	0.349	25.3	80	0.00
93	T	n-Undecane	1.135	1.105	2.6	90	0.00
94	T	1,2,4-Trichlorobenzene	0.277	0.250	9.7	88	0.00
95	T	Naphthalene	2.627	2.513	4.3	98	0.00
96	T	n-Dodecane	0.856	1.025	-19.7	93	0.00
97	T	Hexachloro-1,3-butadiene	0.480	0.438	8.7	83	0.00

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

3/6/07
LM 3/6/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\Data\2007_03\05\
Data File : 03050710.D
Acq On : 5 Mar 2007 5:05 pm
Operator : LM/SC
Sample : 25ng TO-15 CCV STD Closing CCV LM 3/7/07
Misc : S15-02260703/S15-02150704
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 05 17:31:53 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	120	0.00
2	T	Propene	1.999	1.500	25.0	99	0.00
3	T	Dichlorodifluoromethane	3.971	3.389	14.7	109	0.00
4	T	Chloromethane	2.722	2.278	16.3	102	0.00
5	T	Freon 114	1.176	1.165	0.9	128	0.00
6	T	Vinyl Chloride	2.248	2.032	9.6	116	0.00
7	T	1,3-Butadiene	1.652	1.573	4.8	119	0.00
8	T	Bromomethane	1.771	1.353	23.6	97	0.00
9	T	Chloroethane	1.498	1.243	17.0	104	0.00
10	T	Ethanol	1.116	1.095	1.9	112	0.02
11	T	Acetonitrile	3.214	2.862	11.0	102	0.00
12	T	Acrolein	1.065	0.951	10.7	106	0.00
13	T	Acetone	1.543	1.238	19.8	107	0.01
14	T	Trichlorofluoromethane	2.790	2.522	9.6	112	0.00
15	T	Isopropanol	4.140	3.563	13.9	105	0.01
16	T	Acrylonitrile	2.280	1.976	13.3	102	0.00
17	T	1,1-Dichloroethene	1.726	1.509	12.6	108	0.00
18	T	tert-Butanol	3.704	3.713	-0.2	146	0.01
19	T	Methylene Chloride	2.030	1.649	18.8	106	0.00
20	T	Allyl Chloride	2.211	1.929	12.8	99	0.00
21	T	Trichlorotrifluoroethane	1.493	1.312	12.1	111	0.00
22	T	Carbon Disulfide	7.445	6.066	18.5	105	0.00
23	T	trans-1,2-Dichloroethene	2.764	2.295	17.0	103	0.00
24	T	1,1-Dichloroethane	2.746	2.325	15.3	106	0.00
25	T	Methyl tert-Butyl Ether	5.641	4.776	15.3	105	0.00
26	T	Vinyl Acetate	0.384	0.397	-3.4	118	0.00
27	T	2-Butanone	1.243	1.096	11.8	106	0.00
28	T	cis-1,2-Dichloroethene	2.482	2.069	16.6	102	0.00
29	T	Diisopropyl Ether	1.473	1.263	14.3	106	0.00
30	T	Ethyl Acetate	0.627	0.523	16.6	104	0.00
31	T	n-Hexane	2.998	2.329	22.3	98	0.00
32	T	Chloroform	2.803	2.306	17.7	105	0.00
33	S	1,2-Dichloroethane-d4(SS1)	1.824	1.784	2.2	115	0.00
34	T	Tetrahydrofuran	1.172	1.009	13.9	101	0.00
35	T	Ethyl tert-Butyl Ether	2.197	1.893	13.8	106	0.00
36	T	1,2-Dichloroethane	2.543	2.167	14.8	104	0.00
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	115	0.00
38	T	1,1,1-Trichloroethane	0.667	0.589	11.7	105	0.00
39	T	Isopropyl Acetate	0.241	0.213	11.6	104	0.00
40	T	1-Butanol	0.187	0.248	-32.6#	155	0.00
41	T	Benzene	1.563	1.353	13.4	104	0.00
42	T	Carbon Tetrachloride	0.543	0.488	10.1	103	0.00
43	T	Cyclohexane	0.614	0.519	15.5	103	0.00
44	T	tert-Amyl Methyl Ether	1.117	0.985	11.8	105	0.00
45	T	1,2-Dichloropropane	0.387	0.333	14.0	101	0.00
46	T	Bromodichloromethane	0.530	0.474	10.6	104	0.00
47	T	Trichloroethene	0.384	0.344	10.4	107	0.00
48	T	1,4-Dioxane	0.267	0.256	4.1	114	0.00
49	T	Isooctane	1.545	1.277	17.3	98	0.00
50	T	Methyl Methacrylate	0.148	0.142	4.1	107	0.00
51	T	n-Heptane	0.393	0.336	14.5	102	0.00

Ex 3/6/07
LM 3/6/07

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Evaluate Continuing Calibration Report

Data Path : J:\MS08\Data\2007_03\05\
Data File : 03050710.D
Acq On : 5 Mar 2007 5:05 pm
Operator : LM/SC
Sample : 25ng TO-15 CCV STD Chaining CCV LM 3/7/07
Misc : S15-02260703/S15-02150704
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 05 17:31:53 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	0.572	11.2	102	0.00
53	T	4-Methyl-2-pentanone	0.304	0.280	7.9	113	0.00
54	T	trans-1,3-Dichloropropene	0.593	0.532	10.3	102	0.00
55	T	1,1,2-Trichloroethane	0.382	0.339	11.3	104	0.00
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	114	0.00
57	S	Toluene-d8 (SS2)	2.179	2.191	-0.6	114	0.00
58	T	Toluene	3.173	2.807	11.5	103	0.00
59	T	2-Hexanone	1.392	1.328	4.6	117	0.00
60	T	Dibromochloromethane	0.824	0.775	5.9	105	0.00
61	T	1,2-Dibromoethane	0.877	0.803	8.4	105	0.00
62	T	Butyl Acetate	1.534	1.472	4.0	117	0.00
63	T	n-Octane	0.641	0.554	13.6	98	0.00
64	T	Tetrachloroethene	0.763	0.685	10.2	106	0.00
65	T	Chlorobenzene	2.035	1.822	10.5	105	0.00
66	T	Ethylbenzene	3.654	3.271	10.5	103	0.00
67	T	m- & p-Xylene	2.352	2.101	10.7	103	0.00
68	T	Bromoform	0.530	0.508	4.2	105	0.00
69	T	Styrene	2.092	1.928	7.8	102	0.00
70	T	o-Xylene	2.547	2.267	11.0	102	0.00
71	T	n-Nonane	1.453	1.210	16.7	94	0.00
72	T	1,1,2,2-Tetrachloroethane	1.170	1.065	9.0	104	0.00
73	S	Bromofluorobenzene (SS3)	0.657	0.687	-4.6	119	0.00
74	T	Cumene	3.359	2.999	10.7	102	0.00
75	T	alpha-Pinene	1.712	1.568	8.4	102	0.00
76	T	n-Propylbenzene	4.321	3.909	9.5	103	0.00
77	T	3-Ethyltoluene	3.524	3.177	9.8	101	0.00
78	T	4-Ethyltoluene	3.354	3.030	9.7	105	0.00
79	T	1,3,5-Trimethylbenzene	2.915	2.593	11.0	103	0.00
80	T	alpha-Methylstyrene	1.378	1.277	7.3	96	0.00
81	T	2-Ethyltoluene	3.596	3.262	9.3	104	0.00
82	T	1,2,4-Trimethylbenzene	2.841	2.543	10.5	103	0.00
83	T	n-Decane	1.474	1.296	12.1	100	0.00
84	T	Benzyl Chloride	2.583	2.459	4.8	104	0.00
85	T	1,3-Dichlorobenzene	1.604	1.435	10.5	103	0.00
86	T	1,4-Dichlorobenzene	1.552	1.403	9.6	104	0.00
87	T	sec-Butylbenzene	3.813	3.436	9.9	103	0.00
88	T	p-Isopropyltoluene	3.022	2.733	9.6	105	0.00
89	T	1,2,3-Trimethylbenzene	2.722	2.454	9.8	103	0.00
90	T	1,2-Dichlorobenzene	1.471	1.305	11.3	104	0.00
91	T	d-Limonene	0.970	0.892	8.0	93	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.467	0.492	-5.4	112	0.00
93	T	n-Undecane	1.135	1.041	8.3	110	0.00
94	T	1,2,4-Trichlorobenzene	0.277	0.273	1.4	123	0.00
95	T	Naphthalene	2.627	2.869	-9.2	125	0.00
96	T	n-Dodecane	0.856	0.767	10.4	130	0.00
97	T	Hexachloro-1,3-butadiene	0.480	0.465	3.1	122	0.00

3/6/07
LM 3/6/07

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

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: TRC
Client Project ID: WDI

CAS Project ID: P2700478

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: 03050701.D
Date Analyzed: 03/05/07
Time Analyzed: 09:29

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	24 Hour Standard	450792	9.07	2008774	11.00	989751	15.82
	Upper Limit	631109	9.40	2812284	11.33	1385651	16.15
	Lower Limit	270475	8.74	1205264	10.67	593851	15.49
	Client Sample ID						
01	Method Blank	420507	9.05	2012343	10.98	977613	15.82
02	Lab Control Sample	402561	9.07	1850465	11.00	934840	15.82
03	Duplicate Lab Control Sample	404275	9.07	1863633	11.00	944821	15.82
04	WDI-GTS-OUT-2-22-07	429318	9.06	1971004	11.00	1004798	15.82
05	WDI-GTS-OUT-2-22-07 (Lab Duplicate)	445524	9.05	2058971	10.98	1032462	15.82
06	WDI-GTS-IN-2-22-07	460879	9.05	2098767	10.99	1063233	15.82
07							
08							
09							
10							
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14							
15							
16							
17							
18							
19							
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: MU Date: 3/9/07

	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. Focus 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	Dam gb. Not used
6	2/7/07 13:16	02070706.D	P2700183-001 (5.0mL)	[redacted].5,3.7)	LM/SC	1	
7	2/7/07 14:26	02070707.D	P2700232-001 (5.0mL)	[redacted]5)	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].6,3.5)	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

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
21	3/3/07 1:45	03020721.D	P2700492-001 (1000ml)	[redacted]5.0,3.5)	LM/SC	13	
22	3/3/07 2:26	03020722.D	P2700482-001 (1000ml)	[redacted]8,3.5)	LM/SC	14	
23	3/3/07 3:06	03020723.D	P2700482-002 (1000ml)	[redacted].3.5)	LM/SC	15	
24	3/3/07 3:47	03020724.D	P2700482-003 (1000ml)	[redacted].3.5)	LM/SC	16	

3/6/07 LM 3/7/07

1	3/5/07 9:29	3050701.D	25ng TO-15 CCV STD	S15-02260703/S15-02150704	LM/SC	1	Passed
2	3/5/07 10:24	3050702.D	TO-15 Method Blank (1000ml)	S15-02260703	LM/SC	3	Passed
3	3/5/07 11:10	3050703.D	1ng TO-15 CCV STD	S15-02260703/S15-02150701	LM/SC	2	Outside file
4	3/5/07 11:52	3050704.D	1ng TO-15 CCV STD	S15-02260703/S15-02150701	LM/SC	1	Passed
5	3/5/07 12:35	3050705.D	25ng TO-15 LCS STD	S15-02260703/S15-03020702	LM/SC	2	Passed
6	3/5/07 13:11	3050706.D	25ng TO-15 LCSD STD	S15-02260703/S15-03020702	LM/SC	2	Passed
7	3/5/07 14:09	3050707.D	P2700478-002 (1000ml)	TRC WDI-GTS-OUT-2-22-07 (-3.1,3.5)	LM/SC	4	
8	3/5/07 15:01	3050708.D	P2700478-002 DUP (1000ml)	TRC WDI-GTS-OUT-2-22-07 (-3.1,3.5)	LM/SC	4	Passed
9	3/5/07 15:56	3050709.D	P2700478-001 (1000ml)	TRC WDI-GTS-IN-2-22-07 (-1.2,3.8)	LM/SC	5	
10	3/5/07 17:05	3050710.D	25ng TO-15 CCV STD	S15-02260703/S15-02150704	LM/SC	1	Passed
11	3/5/07 17:57	3050711.D	P2700498-001 (100ml)	[redacted]-0.5,3.5)	LM/SC	6	
12	3/5/07 18:38	3050712.D	P2700498-002 (1000ml)	[redacted]0.0,3.5)	LM/SC	7	
13	3/5/07 19:18	3050713.D	P2700527-001 (1000ml)	[redacted]2.8,3.5)	LM/SC	8	
14	3/5/07 19:59	3050714.D	P2700527-002 (1000ml)	[redacted]-2.4,3.5)	LM/SC	9	
15	3/5/07 20:40	3050715.D	P2700527-003 (1000ml)	[redacted]-1.4,3.5)	LM/SC	10	
16	3/5/07 21:20	3050716.D	P2700527-004 (1000ml)	[redacted]-1.4,3.5)	LM/SC	11	
17	3/5/07 21:56	3050717.D	P2700491-001 Dil (100ml)	[redacted]0.1,3.5)	LM/SC	12	
18	3/5/07 22:36	3050718.D	P2700527-005 (1000ml)	[redacted]2.7,3.5)	LM/SC	13	
19	3/5/07 23:12	3050719.D	BLANK (200ml)	Rinse	LM/SC	1	
20	3/5/07 23:48	3050720.D	4ng TO-15 IDP STD	S15-02260703/S15-03020701	LM/SC	14	
21	3/6/07 0:23	3050721.D	4ng TO-15 IDP STD	S15-02260703/S15-03020701	LM/SC	14	
22	3/6/07 0:59	3050722.D	4ng TO-15 IDP STD	S15-02260703/S15-03020701	LM/SC	14	
23	3/6/07 8:55	3050723.D	4ng TO-15 IDP STD	S15-02260703/S15-03020701	LM/SC	14	

1	3/6/07 9:51	03060701.D	25ng TO-15 CCV STD	S15-02260703/S15-02150704	LM/SC	3	Passed
2	3/6/07 10:57	03060702.D	TO-15 Method Blank (1000ml)	S15-02260703	LM/SC	3	Passed
3	3/6/07 11:49	03060703.D	25ng TO-15 LCS STD	S15-02260703/S15-03020702	LM/SC	2	Passed
4	3/6/07 12:55	03060704.D	P2700528-002 (1000ml)	[redacted]2.9,3.5)	LM/SC	4	
5	3/6/07 13:37	03060705.D	P2700528-002 DUP (1000ml)	[redacted]2.9,3.5)	LM/SC	4	Passed
6	3/6/07 14:17	03060706.D	P2700528-001 (100ml)	[redacted]2.1,3.5)	LM/SC	5	Outside file
7	3/6/07 15:13	03060707.D	P2700498-001 (50ml)	[redacted]0.5,3.5)	LM/SC	6	
8	3/6/07 16:05	03060708.D	P2700529-001 (100ml)	[redacted],10.4)	LM/SC	10	
9	3/6/07 17:21	03060709.D	P2700529-002 (100ml)	[redacted]2,10.4)	LM/SC	4	
10	3/6/07 18:02	03060710.D	P2700528-001 (1000ml)	[redacted]2.1,3.5)	LM/SC	5	
11	3/6/07 18:42	03060711.D	P2700528-003 (1000ml)	[redacted]1.5,3.5)	LM/SC	6	
12	3/6/07 19:23	03060712.D	P2700528-004 (1000ml)	[redacted]2.4,3.5)	LM/SC	7	

LM 3/7/07

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: TRC Work order: P2700478

Project: WDI

Sample(s) received on: 2/23/07 Date opened: 2/23/07 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
P2700478-001			NA	
P2700478-002			NA	

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

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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. 92700478

CAS Contact

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

Project Name: WOI

Project Number:

Project Manager: TROY GILL

P.O. # / Billing Information:

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

Email Address for Result Reporting: TGILL@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 25 C MODIFIED (TOTAL METHANE ORGANIC CARBON)	EPA 3 C MODIFIED (METHANE)		Comments e.g. Actual Preservative or specific instructions
WOI-GTS-IN-2-22-07	1	2-22-07	1200	AIR	SC00873	6V-.5-100	6L	X	X	X		
WOI-GTS-OUT-2-22-07	2	2-22-07	1115	AIR	SC00028	6V-.5-118	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	2-22-07	1330	[illegible]	2/23/07	0925
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank
Temperature ____ °C 11245