RTI LABORATORIES, INC.

Analytical Report

Level III Data Package

Work Order #: 1212437
Revised

Project: Kirtland AFB
Contract #: W912DY-10-D0014
CO#: 501
Tracking #: 140705-036A
Project # 140705
Task Order: 02

Shaw Environmental & Infrastructure, Inc
Susan Huang
4005 Port Chicago Hwy
Concord, CA 94520

Reviewed & Approved By: Date: 1/17/2013

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Shaw Environmental & Infrastructure, Inc

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Contract #: W912DY-10-D0014

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RTI Laboratories, Inc.

Date: *17-Jan.-13*

CLIENT: Shaw Environmental & Infrastructure, Inc.

Project: Kirtland AFB
CO#: 501
Tracking #: 140705-036A
Project No.: 140705
Prime Contract: W912DY-10-D0014
Task Order: 02
Work Order: 1212437 Revised

CASE NARRATIVE

Revised Report 1/17/2013: The revised report includes corrections to the address on the cover page from Centennial, CO to Concord, CA as well as the addition of project information; the revision of reporting limits in the report to reflect the actual values that should have been reported in the report originally issued 1/15/13; and the correction to the case narrative noting that there are no surrogates out of compliance.

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 12/11/2012 in good condition. The sample set consisted of 42 air samples.

SAMPLE ANALYSIS:
Samples were analyzed at the RTI Livonia Laboratory for:
Volatile Organic Compounds – EPA Method TO15
Air-Phase Petroleum Hydrocarbons – MA_APH (Massachusetts DEP APH Method)
Fixed Gases (Noncondensable Gases/Light Hydrocarbons) – ASTM D2504

SAMPLE 1212437-003A, -004A, -005A, 20A, 020ADUP and 021A: Samples required secondary dilution for certain analytes. Re-analysis exceeded hold time for these analytes and are H flagged in the analytical report.

SAMPLE 1212437-025A: Instrument recalibration required for QSM compliance. Sample analysis exceeded hold time

QUALITY CONTROL:

Volatile Organic Compounds Analyses:

All sample analyses included a Method Blank, CCV, RLVS (CRQL) and Duplicate. All QC parameters were within established control limits except where noted on the QC forms or below. Initial and continuing calibration results were within method specifications. MS tuning parameters were within the acceptable ranges for the method.

Surrogate recoveries were within established control limits.

Air-Phase Petroleum Hydrocarbons Analyses:

All sample analyses included a Method Blank, LCS, LCSD and Duplicate, where applicable. All QC parameters were within established control limits except where noted on the QC summary forms or below. Initial and continuing calibration results were within method specifications.

Surrogate recoveries were within established control limits.

Analytical Sequence ID 54855:

- Sample ID 1212373-036ADUP: The % RPD was outside the acceptance criteria for C9-C12 Aliphatic Hydrocarbons (57.2%).

Fixed Gases (Noncondensable Gases/Light Hydrocarbons) Analyses:

All sample analyses included a Method Blank, LCS, LCSD and Duplicate, where applicable. All QC parameters were within established control limits except where noted on the QC summary forms or below. Initial and continuing calibration results were within method specifications.

Samples collected in Tedlar bags have a limited holding time as specified by the manufacturer for the collection of volatile organic compounds. There is no known stability data for the analytes of interest for this project collected in Tedlar bags. The standard holding time is 48 hours for Tedlar bags. Due to the nature of the project sample analysis within 48 hours was not feasible

No other problems were noted during the analytical events associated with this project.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signed:_____for_____ Date:__January 17, 2013____
Charles O'Bryan, Director, Quality Management

RTI Laboratories - Definitions and Acronyms

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

DEFINITIONS:

DF: Dilution factor; the dilution factor applied to the prepared sample.

DL: Detection Limit; The lowest concentration of analyte that can be detected by the method in the applicable matrix.

DUP: Duplicate; aliquots of a sample taken from the same container under laboratory conditions and processed and analyzed independently, used to calculate Precision (%RPD).

LCS: Laboratory Control Sample; prepared by adding a known amount of target analytes to a specified amount of clean matrix and prepared with the batch of samples, used to calculate Accuracy (%REC).

LCSD: A duplicate LCS sample, used to calculate both Accuracy (%REC) and Precision (%RPD)

LOD: Limit of Detection; a laboratory verified concentration that can be detected at three times greater than the noise level. This concentration is equal to or greater than the DL.

LOQ: Limit of Quantitation; The lowest verified limit to which data is quantified without qualifications. Analyte concentrations below the LOQ are reported with a "J" qualifier.

MBLK: Method Blank; a sample of similar matrix that does not contain target analytes or interference that may impact the analytical results and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedure, used to assess and verify that the analytical process is free of contamination.

Mg/Kg or mg/L: Units of part per million (PPM) – milligram per Kilogram (W/W) or milligram per Liter (W/V).

MS: Matrix Spike; prepared by adding a known amount of target analytes to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available, used to calculate Accuracy (%REC)

MSD: A duplicate MS sample, used to calculate both Accuracy (%REC) and Precision (%RPD)

% REC: Percent Recovery of a known spike (SPK); a measure of accuracy expressed as a percentage of a measured (recovered) concentration compared to the known concentration (SPK) added to the sample. This is compared to the Low Limit and High Limit.

% RPD: Relative Percent Difference; a measure of precision expressed as a percentage of the difference between two duplicates relative to the average concentration. This is compared to the RPD Limit.

Qual: Qualifier that applies to the analyte reported

SPK: Spike; used in the QC section for both SPK Value and SPK Ref Val

Ug/Kg or ug/L: Units of part per billion (PPB) – microgram per Kilogram (W/W) or microgram per Liter (W/V).

QUALIFIERS:

*/X: Reported value exceeds the maximum allowed concentration by regulation or permit.

B: Analyte detected in the associated Method Blank at a concentration greater than 1/2 the LOQ

E: Analyte concentration reported that exceeds the upper calibration standard. Greater uncertainty is associated with this result and data should be considered estimated.

G: CCB result is greater than the MDL

H: Holding time for preparation or analysis has been exceeded

J: Analyte concentrations are equal to or greater than the DL and less than the LOQ. Greater uncertainty is associated with this result and data reported is estimated. These analytes are not routinely reviewed nor narrated as to their potential for being laboratory artifacts.

M: Manual Integration used to determine area response

P: Second column RPD exceeds 40%

Q/S: % REC exceeds control limits

R: % RPD exceeds control limits

T: MBLK result is greater than 1/2 of the LOQ

U: The analyte concentration is less than the DL. The result is reported as less than the LOD

1212437

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV108

Project Number: 140705
Project Name: Kirtland AFB
Sample Coordinator: Mark Lyon
Turnaround Time:

Samples Shipment Date: 06 DEC 2012
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/2323121533

Bill To: Shaw Environmental, Inc. - Accounts P
PO Box 98519
Baton Rouge LA 70884

Report To: Pamela Moss
7604 Technology Way, Suite 300
Denver CO 80237

Special Instructions:

Possible Hazard Indentification: Non-hazard ☐ Flammable ☑ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological ☐

Sample Disposal: Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

1. Relinquished By (Signature/Affiliation) T Nagy	Date: 12/6/12 Time: 1415	1. Received By (Signature/Affiliation) Rachel Dear	Date: 11dec12 Time: 1015
2. Relinquished By (Signature/Affiliation) n/a und 11dec12	Date: Time:	2. Received By (Signature/Affiliation) n/a und 11dec12	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:	3. Received By (Signature/Affiliation)	Date: Time:

Comments:

	Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol (" Hg)	Units	Fil	CID	Condition On Receipt
1	VA1987	SVMW-11-050-GS-VA1987-REG	06 DEC 2012	08:46	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5		N	827	
	VA1987	SVMW-11-050-GS-VA1987-REG	06 DEC 2012	08:46	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
2	VA1988	SVMW-11-100-GS-VA1988-REG	06 DEC 2012	09:09	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	724	
	VA1988	SVMW-11-100-GS-VA1988-REG	06 DEC 2012	09:09	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
3	VA1989	SVMW-11-250-GS-VA1989-REG	06 DEC 2012	09:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	619	
	VA1989	SVMW-11-250-GS-VA1989-REG	06 DEC 2012	09:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
dup 4	VA1990	SVMW-11-250-GS-VA1990-FD	06 DEC 2012	09:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by	-7		N	786	

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV108

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol (" Hg)	Units	Fil	CID	Condition On Receipt
								MA DEP, VOCs / TPH by TO-15					
4	VA1990	SVMW-11-250-GS-VA1990-FD	06 DEC 2012	09:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
5	VA1991	SVMW-11-260-GS-VA1991-REG	06 DEC 2012	10:27	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1156	
	VA1991	SVMW-11-260-GS-VA1991-REG	06 DEC 2012	10:27	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
6	VA2000	SVMW-14-150-GS-VA2000-REG	05 DEC 2012	09:03	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5.5		N	586	
	VA2000	SVMW-14-150-GS-VA2000-REG	05 DEC 2012	09:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
7	VA2001	SVMW-14-250-GS-VA2001-REG	05 DEC 2012	09:36	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1225	
	VA2001	SVMW-14-250-GS-VA2001-REG	05 DEC 2012	09:36	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
dup 8	VA2002	SVMW-14-250-GS-VA2002-FD	05 DEC 2012	09:36	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5		N	1130	
	VA2002	SVMW-14-250-GS-VA2002-FD	05 DEC 2012	09:36	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
9	VA2003	SVMW-14-350-GS-VA2003-REG	05 DEC 2012	11:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	706	
	VA2003	SVMW-14-350-GS-VA2003-REG	05 DEC 2012	11:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N	OK - low volume	
10	VA2004	SVMW-14-450-GS-VA2004-REG	05 DEC 2012	12:02	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	551	
	VA2004	SVMW-14-450-GS-VA2004-REG	05 DEC 2012	12:02	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
11	VA2026	SVEW-12-410-GS-VA2026-REG	05 DEC 2012	12:27	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	701	
	VA2026	SVEW-12-410-GS-VA2026-REG	05 DEC 2012	12:27	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
12	VA2159	KAFB-106128-025-GS-VA2159-REG	05 DEC 2012	09:09	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5		N	719	
	VA2159	KAFB-106128-025-GS-VA2159-REG	05 DEC 2012	09:09	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
13	VA2160	KAFB-106128-050-GS-VA2160-REG	05 DEC 2012	09:37	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5		N	548	
	VA2160	KAFB-106128-050-GS-VA2160-REG	05 DEC 2012	09:37	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
14	VA2161	KAFB-106128-150-GS-VA2161-REG	05 DEC 2012	11:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5.5		N	708	
	VA2161	KAFB-106128-150-GS-VA2161-REG	05 DEC 2012	11:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
15	VA2162	KAFB-106128-250-GS-VA2162-REG	05 DEC 2012	12:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1210	
	VA2162	KAFB-106128-250-GS-VA2162-REG	05 DEC 2012	12:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
dup 16	VA2163	KAFB-106128-250-GS-VA2163-FD	05 DEC 2012	12:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	663	
	VA2163	KAFB-106128-250-GS-VA2163-FD	05 DEC 2012	12:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
17	VA2164	KAFB-106128-350-GS-VA2164-REG	05 DEC 2012	13:08	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	636	
	VA2164	KAFB-106128-350-GS-VA2164-REG	05 DEC 2012	13:08	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV108

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	"Hg Sample Vol	Units	Fil	CID	Condition On Receipt
18	VA2165	KAFB-106128-450-GS-VA2165-REG	05 DEC 2012	13:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	627	
	VA2165	KAFB-106128-450-GS-VA2165-REG	05 DEC 2012	13:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
19	VA2185	KAFB-106132-025-GS-VA2185-REG	05 DEC 2012	15:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	684	
	VA2185	KAFB-106132-025-GS-VA2185-REG	05 DEC 2012	15:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
20	VA2186	KAFB-106132-050-GS-VA2186-REG	05 DEC 2012	15:49	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	632	
	VA2186	KAFB-106132-050-GS-VA2186-REG	05 DEC 2012	15:49	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
dup 21	VA2187	KAFB-106132-050-GS-VA2187-FD	05 DEC 2012	15:49	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	802	
	VA2187	KAFB-106132-050-GS-VA2187-FD	05 DEC 2012	15:49	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
22	VA2188	KAFB-106132-175-GS-VA2188-REG	06 DEC 2012	08:36	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5		N	662	
	VA2188	KAFB-106132-175-GS-VA2188-REG	06 DEC 2012	08:36	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N	OK - low volume	
23	VA2189	KAFB-106132-250-GS-VA2189-REG	06 DEC 2012	09:14	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-4		N	1192	
	VA2189	KAFB-106132-250-GS-VA2189-REG	06 DEC 2012	09:14	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
24	VA2190	KAFB-106132-350-GS-VA2190-REG	06 DEC 2012	09:51	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5		N	554	
	VA2190	KAFB-106132-350-GS-VA2190-REG	06 DEC 2012	09:51	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
25	VA2191	KAFB-106132-450-GS-VA2191-REG	06 DEC 2012	10:31	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5		N	675	
	VA2191	KAFB-106132-450-GS-VA2191-REG	06 DEC 2012	10:31	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N	OK - low volume	
26	VA2192	KAFB-106133-025-GS-VA2192-REG	06 DEC 2012	11:28	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	667	
	VA2192	KAFB-106133-025-GS-VA2192-REG	06 DEC 2012	11:28	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
27	VA2193	KAFB-106133-050-GS-VA2193-REG	06 DEC 2012	12:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	834	
	VA2193	KAFB-106133-050-GS-VA2193-REG	06 DEC 2012	12:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
28	VA2194	KAFB-106133-170-GS-VA2194-REG	06 DEC 2012	12:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1102	
	VA2194	KAFB-106133-170-GS-VA2194-REG	06 DEC 2012	12:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
29	VA2219	KAFB-106137-025-GS-VA2219-REG	04 DEC 2012	12:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5		N	841	
	VA2219	KAFB-106137-025-GS-VA2219-REG	04 DEC 2012	12:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
30	VA2220	KAFB-106137-050-GS-VA2220-REG	04 DEC 2012	13:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5		N	731	
	VA2220	KAFB-106137-050-GS-VA2220-REG	04 DEC 2012	13:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
31	VA2221	KAFB-106137-150-GS-VA2221-REG	04 DEC 2012	13:54	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	681	
	VA2221	KAFB-106137-150-GS-VA2221-REG	04 DEC 2012	13:54	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV108

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol (" Hg)	Units	Fil	CID	Condition On Receipt
32	VA2222	KAFB-106137-250-GS-VA2222-REG	04 DEC 2012	14:29	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1150	
	VA2222	KAFB-106137-250-GS-VA2222-REG	04 DEC 2012	14:29	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
33	VA2223	KAFB-106137-350-GS-VA2223-REG	04 DEC 2012	15:05	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	760	
	VA2223	KAFB-106137-350-GS-VA2223-REG	04 DEC 2012	15:05	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N	OK	- low volume
34	VA2224	KAFB-106137-450-GS-VA2224-REG	04 DEC 2012	15:43	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1223	
	VA2224	KAFB-106137-450-GS-VA2224-REG	04 DEC 2012	15:43	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
35	VA2225	KAFB-106138-025-GS-VA2225-REG	05 DEC 2012	13:39	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	595	
	VA2225	KAFB-106138-025-GS-VA2225-REG	05 DEC 2012	13:39	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N	OK	- low volume
36	VA2226	KAFB-106138-050-GS-VA2226-REG	05 DEC 2012	14:05	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	651	
	VA2226	KAFB-106138-050-GS-VA2226-REG	05 DEC 2012	14:05	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
dup 37	VA2227	KAFB-106138-050-GS-VA2227-FD	05 DEC 2012	14:05	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5.5		N	1153	
	VA2227	KAFB-106138-050-GS-VA2227-FD	05 DEC 2012	14:05	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
38	VA2228	KAFB-106138-150-GS-VA2228-REG	05 DEC 2012	14:45	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	657	
	VA2228	KAFB-106138-150-GS-VA2228-REG	05 DEC 2012	14:45	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
39	VA2229	KAFB-106138-250-GS-VA2229-REG	05 DEC 2012	15:16	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	710	
	VA2229	KAFB-106138-250-GS-VA2229-REG	05 DEC 2012	15:16	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
40	VA2230	KAFB-106138-350-GS-VA2230-REG	05 DEC 2012	15:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1219	
	VA2230	KAFB-106138-350-GS-VA2230-REG	05 DEC 2012	15:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
41	VA2231	KAFB-106138-450-GS-VA2231-REG	05 DEC 2012	16:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	842	
	VA2231	KAFB-106138-450-GS-VA2231-REG	05 DEC 2012	16:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
42	VA8108-TB	FIELDQC-AQ-VA8108-TB-TB	04 DEC 2012	12:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-30		N	648	

FROM:
DAVID AUBREY
(505) 307-8968
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS **1 OF 6**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4232 7505

SHIP TO:

RACHEL DEAR
(734) 422-8000
RTI LABORATORIES
31628 GLENDALE ST.
LIVONIA MI 48150

REF 1:140705
REF 2:BB010030

BILLING: P/P
HAZARDOUS MATERIALS - GROUND ONLY
HAZ#: 176

12 - amber vacs RD2 11dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pocket

CUSTODY SEAL
DATE 12/6/12
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

Account Number	Emergency Contact Number	For Air Services Only
10335E	(800) 424-9300	This shipment is within the limitations prescribed for: (Delete Non-Applicable Mode)
Reference Number	**ER Registrant**	~~Passenger Aircraft~~ XXXX / ~~Cargo Aircraft Only~~ XXXX
1Z10335E0342327505	Chemtrec CCN20044	

Hazardous Materials Description and Quantity
UN3167, Gas sample, non-pressurized, flammable, n.o.s., 2.1, ERG 115, 1 Fiberboard Box x 5 L

For Air Shipments, "I declare that all of the applicable air transport requirements have been met".

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/ placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

If ~~this shipment~~ contains radioactive material acceptable for passenger aircraft, such material is intended for use in or incident to research, medical diagnosis or treatment.

Signature 12/6/12 Date

Carrier Use Only
Initials DCJ
SLIC 8710
Date 12/6/12

Page 1 of 1 | 1 Package

T - 10 Door: 1215
UPST 827318 MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0342327505

P21D142 1155301 Dec 08 16:27:20 2012 US

SS2022 HIP 11.1.3 BTLP2844L 6059 S

FROM:
DAVID AUBREY
(505) 307-8968
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

19 LBS **2 OF 6**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4254 1112

SHIP TO:
RACHEL DEAR
(734) 422-8000
RTI LABORATORIES
31628 GLENDALE ST.
LIVONIA MI 48150

REF 1:140705
REF 2:BB010030

BILLING: P/P
HAZARDOUS MATERIALS - GROUND ONLY
HAZ#: 176

11- amber vacs
2- tedlar bags

RD2
11dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

CUSTODY SEAL
DATE 12/6/12
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

Account Number	Emergency Contact Number	For Air Services Only
10335E	(800) 424-9300	This shipment is within the limitations prescribed for: (Delete Non-Applicable Mode)
Reference Number	**ER Registrant**	~~Passenger Aircraft~~ XXXX / ~~Cargo Aircraft Only~~ XXXX
1Z10335E0342541112	Chemtrec CCN20044	

Hazardous Materials Description and Quantity
UN3167, Gas sample, non-pressurized, flammable, n.o.s., 2.1, ERG 115, 1 Fiberboard Box x 4 L

For Air Shipments, "I declare that all of the applicable air transport requirements have been met".
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/ placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
If this shipment contains radioactive material acceptable for passenger aircraft, such material is intended for use in, or incident to, research, medical diagnosis or treatment.

Signature — Date 12/6/12

Carrier Use Only
Initials LW
SLIC 3712
Date 12/6/12

Page 1 of 1 — 1 Package

T - 10
UPST 827318

Door : 1215
MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0342541112

P21D142 1155301 Dec 08 16:26:16 2012 US

SS2022 HIP 11.1.3 BTLP2844L

6059 S

FROM:
DAVID AUBREY
(505) 307-8968
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

3 LBS **3 OF 6**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4206 5324

SHIP TO:
RACHEL DEAR
(734) 422-8000
RTI LABORATORIES
31628 GLENDALE ST.
LIVONIA MI 48150

REF 1:140705
REF 2:BB010030

RTI LABORATORIES
31628 GLENDALE ST

LIVONIA MI 48150

P: RED2 S: MPUR I: 3

DAG-4036

1Z10335E034206 5324

ZRQBQGB MILIV181 DEC 11 06:05:27 2012
US 4821 HIP 12.1.6 OKILE810

BILLING: P/P
HAZARDOUS MATERIALS - GROUND ONLY
HAZ#: 176

20 tedlar bags - RD2

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

CUSTODY SEAL
DATE 12/6/12
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

T - 10 Door: 1215
MI 48150
UPST 827318 MI 482 9-02

UPS GROUND

1Z10335E0342065324

P21D142 1155301 Dec 08 16:26:09 2012 US
6059 S
SS2022 HIP 11.1.3 BTLP2844L

HAZARDOUS MATERIALS SHIPPING PAPER

Account Number	Emergency Contact Number	For Air Services Only
10335E	(800) 424-9300	This shipment is within the limitations prescribed for: (Delete Non-Applicable Mode)
Reference Number: 1Z10335E0342065324	ER Registrant: Chemtrec CCN20044	~~Passenger Aircraft~~ XXXX / ~~Cargo Aircraft Only~~ XXXX

Hazardous Materials Description and Quantity
UN3167, Gas sample, non-pressurized, flammable, n.o.s., 2.1, ERG 115, 1 Fiberboard Box x 5 L

FROM:
DAVID AUBREY
(505) 307-8968
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS **4 OF 6**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4177 6139

SHIP TO:
RACHEL DEAR
(734) 422-8000
RTI LABORATORIES
31628 GLENDALE ST.
LIVONIA MI 48150

REF 1:140705
REF 2:BB010030

BILLING: P/P

12 amber Vacs - RD2
11dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 12/6/12
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

FROM:
DAVID AUBREY
(505) 307-8968
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

24 LBS **5 OF 6**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4050 9545

SHIP TO:
RACHEL DEAR
(734) 422-8000
RTI LABORATORIES
31628 GLENDALE ST.
LIVONIA MI 48150

REF 1:140705
REF 2:BB010030

BILLING: P/P

7 amber vacs
36 regulators

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 12/6/12
SIGNATURE [illegible]

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

FROM:
DAVID AUBREY
(505) 307-8968
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

3 LBS **6 OF 6**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4166 1557

SHIP TO:
RACHEL DEAR
(734) 422-8000
RTI LABORATORIES
31628 GLENDALE ST.
LIVONIA MI 48150

REF 1:140705
REF 2:BB010030

BILLING: P/P

tedlar bags RDJ
19 ~~tedlar~~ ① 11dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 12/6/12
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

Fold here and place in label pouch

① misspelling corrected 11dec12

RTI LABORATORIES, INC.

RTI Laboratories
31628 Glendale St.
Livonia, MI 48150
TEL: (734) 422-8000
Website: www.rtilab.com

Sample Receipt Checklist

Client Name:	**SHA04**			Work Order Number:	**1212437**
RCPNo:	**1**	Date and Time Received:	**12/11/2012 10:15:00 AM**	Received by:	**Matt Tuynman**
Completed By:	Rachel Dean	Reviewed By:	Kathryn Griffin		
Completed Date:	**12/11/2012 2:15:21 PM**	Reviewed Date:	**12/11/2012 2:57 PM**		

Carrier Name: UPS

1.	Chain of custody present?	Yes [x]	No [ ]	
2.	Chain of custody signed when relinquished and received?	Yes [x]	No [ ]	
3.	Chain of custody agrees with sample labels?	Yes [x]	No [ ]	Not Present [ ]
4.	Are matrices correctly identified on Chain of custody?	Yes [x]	No [ ]	
5.	Is it clear what analyses were requested?	Yes [x]	No [ ]	
6.	Custody seals intact on sample bottles?	Yes [ ]	No [ ]	Not Present [x]
7.	Samples in proper container/bottle?	Yes [x]	No [ ]	
8.	Were correct preservatives used and noted?	Yes [ ]	No [ ]	NA [x]
9.	Sample containers intact?	Yes [x]	No [ ]	
10.	Sufficient sample volume for indicated test?	Yes [x]	No [ ]	
11.	Were container lables complete (ID, Pres, Date)?	Yes [x]	No [ ]	
12.	All samples received within holding time?	Yes [x]	No [ ]	
13.	Was an attempt made to cool the samples?	Yes [x]	No [ ]	NA [ ]
14.	All samples received at a temp. of > 0° C to 6.0° C?	Yes [ ]	No [ ]	NA [x]
15.	Sample Temp. taken and recorded upon receipt?	Yes [ ]	No [x]	To ºC
16.	Water - Were bubbles absent in VOC vials?	Yes [ ]	No [ ]	No Vials [x]
17.	Water - Was there Chlorine Present?	Yes [ ]	No [ ]	NA [x]
18.	Water - pH acceptable upon receipt?	Yes [ ]	No [ ]	No Water [x]
19.	Are Samples considered acceptable?	Yes [x]	No [ ]	
20.	Custody Seals present?	Yes [x]	No [ ]	
21.	Traffic Report or Packing Lists present?	Yes [ ]	No [x]	
22.	Airbill or Sticker?	Air Bill [x]	Sticker [ ]	Not Present [ ]
23.	Airbill No:	See Comments		
24.	Sample Tags Present?	Yes [ ]	No [x]	
25.	Sample Tags Listed on COC?	Yes [ ]	No [x]	
26.	Tag Numbers:			
27.	Sample Condition?	Intact [x]	Broken [ ]	Leaking [ ]
28.	Response when temperature is outside of range:			
29.	Preservative added to bottles:			

Case Number: SDG: SAS:

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client Name: **SHA04** Work Order Number: **1212437**

Comment: VA2219 was labeled twice. VA2220 was verified by SHAW printed label as well as COC.

Tedlar bags received with low volume but are acceptable; VA2003, VA2188, VA2191, VA2223 & VA2225.

1 of 6: 1Z 103 35E 03 4232 7505
2 of 6: 1Z 103 35E 03 4254 1112
3 of 6: 1Z 103 35E 03 4206 5324
4 of 6: 1Z 103 35E 03 4177 6139
5 of 6: 1Z 103 35E 03 4050 9545
6 of 6: 1Z 103 35E 03 4166 1557

Client Contacted: Yes [x] No [ ] NA [ ] Person Contacted: Susan, David & Lisa

Contact Mode: Phone [ ] Fax: [ ] Email: [x] In Person: [ ]

Date Contacted: **12/11/2012 12:54:00 PM** Contacted By: **Rachel Dear**

Regarding: incorrect sample labeling; VA2219 & VA2220

Client Instructions: Proceed with analysis

CorrectiveAction:

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
		Good	No			

SampleID	ContainerID	Type	Vacuum Read (inch Hg)	Orig pH	Adj pH	Req Min pH	Req Max pH
1212437-001A	827	Bottle	-5" Hg				
1212437-001B	Container-01 of 01	Bottle					
1212437-002A	724	Bottle	-6" Hg				
1212437-002B	Container-01 of 01	Bottle					
1212437-003A	619	Bottle	-6" Hg				
1212437-003B	Container-01 of 01	Bottle					
1212437-004A	786	Bottle	-7" Hg				
1212437-004B	Container-01 of 01	Bottle					
1212437-005A	1156	Bottle	-6" Hg				
1212437-005B	Container-01 of 01	Bottle					
1212437-006A	586	Bottle	-5.5" Hg				
1212437-006B	Container-01 of 01	Bottle					
1212437-007A	1225	Bottle	-6" Hg				
1212437-007B	Container-01 of 01	Bottle					
1212437-008A	1130	Bottle	-5" Hg				
1212437-008B	Container-01 of 01	Bottle					
1212437-009A	706	Bottle	-6.5" Hg				
1212437-009B	Container-01 of 01	Bottle					
1212437-010A	551	Bottle	-6" Hg				
1212437-010B	Container-01 of 01	Bottle					
1212437-011A	701	Bottle	-6" Hg				
1212437-011B	Container-01 of 01	Bottle					
1212437-012A	719	Bottle	-5" Hg				

1212437-012B	Container-01 of 01	Bottle					
1212437-013A	548	Bottle	-5" Hg				
1212437-013B	Container-01 of 01	Bottle					
1212437-014A	708	Bottle	-5.5" Hg				
1212437-014B	Container-01 of 01	Bottle					
1212437-015A	1210	Bottle	-6" Hg				
1212437-015B	Container-01 of 01	Bottle					
1212437-016A	663	Bottle	-6" Hg				
1212437-016B	Container-01 of 01	Bottle					
1212437-017A	636	Bottle	-6" Hg				
1212437-017B	Container-01 of 01	Bottle					
1212437-018A	627	Bottle	-6.5" Hg				
1212437-018B	Container-01 of 01	Bottle					
1212437-019A	684	Bottle	-6" Hg				
1212437-019B	Container-01 of 01	Bottle					
1212437-020A	632	Bottle	-6" Hg				
1212437-020B	Container-01 of 01	Bottle					
1212437-021A	802	Bottle	-6" Hg				
1212437-021B	Container-01 of 01	Bottle					
1212437-022A	662	Bottle	-5" Hg				
1212437-022B	Container-01 of 01	Bottle					
1212437-023A	1192	Bottle	-4" Hg				
1212437-023B	Container-01 of 01	Bottle					
1212437-024A	554	Bottle	-5" Hg				
1212437-024B	Container-01 of 01	Bottle					
1212437-025A	675	Bottle	-5" Hg				
1212437-025B	Container-01 of 01	Bottle					
1212437-026A	667	Bottle	-6" Hg				
1212437-026B	Container-01 of 01	Bottle					
1212437-027A	836	Bottle	-6" Hg				
1212437-027B	Container-01 of 01	Bottle					
1212437-028A	1102	Bottle	-6" Hg				
1212437-028B	Container-01 of 01	Bottle					
1212437-029A	841	Bottle	-5" Hg				
1212437-029B	Container-01 of 01	Bottle					
1212437-030A	731	Bottle	-5" Hg				
1212437-030B	Container-01 of 01	Bottle					
1212437-031A	681	Bottle	-6" Hg				
1212437-031B	Container-01 of 01	Bottle					
1212437-032A	1150	Bottle	-6" Hg				
1212437-032B	Container-01 of 01	Bottle					
1212437-033A	760	Bottle	-6" Hg				
1212437-033B	Container-01 of 01	Bottle					
1212437-034A	1223	Bottle	-6" Hg				
1212437-034B	Container-01 of 01	Bottle					
1212437-035A	595	Bottle	-6" Hg				
1212437-035B	Container-01 of 01	Bottle					
1212437-036A	651	Bottle	-6" Hg				
1212437-036B	Container-01 of 01	Bottle					

1212437-037A	1153	Bottle	-5.5" Hg				
1212437-037B	Container-01 of 01	Bottle					
1212437-038A	657	Bottle	-6" Hg				
1212437-038B	Container-01 of 01	Bottle					
1212437-039A	710	Bottle	-6" Hg				
1212437-039B	Container-01 of 01	Bottle					
1212437-040A	1219	Bottle	-6" Hg				
1212437-040B	Container-01 of 01	Bottle					
1212437-041A	842	Bottle	-6" Hg				
1212437-041B	Container-01 of 01	Bottle					
1212437-042A	648	Bottle	-30" Hg				

RTI Laboratories - Workorder Sample Summary

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1212437-001A	VA1987		12/6/2012 8:46 AM	12/11/2012 10:15 AM	Air
1212437-001B	VA1987		12/6/2012 8:46 AM	12/11/2012 10:15 AM	Air
1212437-002A	VA1988		12/6/2012 9:09 AM	12/11/2012 10:15 AM	Air
1212437-002B	VA1988		12/6/2012 9:09 AM	12/11/2012 10:15 AM	Air
1212437-003A	VA1989		12/6/2012 9:42 AM	12/11/2012 10:15 AM	Air
1212437-003B	VA1989		12/6/2012 9:42 AM	12/11/2012 10:15 AM	Air
1212437-004A	VA1990		12/6/2012 9:42 AM	12/11/2012 10:15 AM	Air
1212437-004B	VA1990		12/6/2012 9:42 AM	12/11/2012 10:15 AM	Air
1212437-005A	VA1991		12/6/2012 10:27 AM	12/11/2012 10:15 AM	Air
1212437-005B	VA1991		12/6/2012 10:27 AM	12/11/2012 10:15 AM	Air
1212437-006A	VA2000		12/5/2012 9:03 AM	12/11/2012 10:15 AM	Air
1212437-006B	VA2000		12/5/2012 9:03 AM	12/11/2012 10:15 AM	Air
1212437-007A	VA2001		12/5/2012 9:36 AM	12/11/2012 10:15 AM	Air
1212437-007B	VA2001		12/5/2012 9:36 AM	12/11/2012 10:15 AM	Air
1212437-008A	VA2002		12/5/2012 9:36 AM	12/11/2012 10:15 AM	Air
1212437-008B	VA2002		12/5/2012 9:36 AM	12/11/2012 10:15 AM	Air
1212437-009A	VA2003		12/5/2012 11:38 AM	12/11/2012 10:15 AM	Air
1212437-009B	VA2003		12/5/2012 11:38 AM	12/11/2012 10:15 AM	Air
1212437-010A	VA2004		12/5/2012 12:02 PM	12/11/2012 10:15 AM	Air
1212437-010B	VA2004		12/5/2012 12:02 PM	12/11/2012 10:15 AM	Air
1212437-011A	VA2026		12/5/2012 12:27 PM	12/11/2012 10:15 AM	Air
1212437-011B	VA2026		12/5/2012 12:27 PM	12/11/2012 10:15 AM	Air
1212437-012A	VA2159		12/5/2012 9:09 AM	12/11/2012 10:15 AM	Air
1212437-012B	VA2159		12/5/2012 9:09 AM	12/11/2012 10:15 AM	Air
1212437-013A	VA2160		12/5/2012 9:37 AM	12/11/2012 10:15 AM	Air
1212437-013B	VA2160		12/5/2012 9:37 AM	12/11/2012 10:15 AM	Air
1212437-014A	VA2161		12/5/2012 11:41 AM	12/11/2012 10:15 AM	Air
1212437-014B	VA2161		12/5/2012 11:41 AM	12/11/2012 10:15 AM	Air
1212437-015A	VA2162		12/5/2012 12:15 PM	12/11/2012 10:15 AM	Air
1212437-015B	VA2162		12/5/2012 12:15 PM	12/11/2012 10:15 AM	Air
1212437-016A	VA2163		12/5/2012 12:15 PM	12/11/2012 10:15 AM	Air
1212437-016B	VA2163		12/5/2012 12:15 PM	12/11/2012 10:15 AM	Air
1212437-017A	VA2164		12/5/2012 1:08 PM	12/11/2012 10:15 AM	Air
1212437-017B	VA2164		12/5/2012 1:08 PM	12/11/2012 10:15 AM	Air
1212437-018A	VA2165		12/5/2012 1:50 PM	12/11/2012 10:15 AM	Air
1212437-018B	VA2165		12/5/2012 1:50 PM	12/11/2012 10:15 AM	Air
1212437-019A	VA2185		12/5/2012 3:20 PM	12/11/2012 10:15 AM	Air
1212437-019B	VA2185		12/5/2012 3:20 PM	12/11/2012 10:15 AM	Air
1212437-020A	VA2186		12/5/2012 3:49 PM	12/11/2012 10:15 AM	Air
1212437-020B	VA2186		12/5/2012 3:49 PM	12/11/2012 10:15 AM	Air
1212437-021A	VA2187		12/5/2012 3:49 PM	12/11/2012 10:15 AM	Air
1212437-021B	VA2187		12/5/2012 3:49 PM	12/11/2012 10:15 AM	Air
1212437-022A	VA2188		12/6/2012 8:36 AM	12/11/2012 10:15 AM	Air
1212437-022B	VA2188		12/6/2012 8:36 AM	12/11/2012 10:15 AM	Air
1212437-023A	VA2189		12/6/2012 9:14 AM	12/11/2012 10:15 AM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1212437-023B	VA2189		12/6/2012 9:14 AM	12/11/2012 10:15 AM	Air
1212437-024A	VA2190		12/6/2012 9:51 AM	12/11/2012 10:15 AM	Air
1212437-024B	VA2190		12/6/2012 9:51 AM	12/11/2012 10:15 AM	Air
1212437-025A	VA2191		12/6/2012 10:31 AM	12/11/2012 10:15 AM	Air
1212437-025B	VA2191		12/6/2012 10:31 AM	12/11/2012 10:15 AM	Air
1212437-026A	VA2192		12/6/2012 11:28 AM	12/11/2012 10:15 AM	Air
1212437-026B	VA2192		12/6/2012 11:28 AM	12/11/2012 10:15 AM	Air
1212437-027A	VA2193		12/6/2012 12:00 PM	12/11/2012 10:15 AM	Air
1212437-027B	VA2193		12/6/2012 12:00 PM	12/11/2012 10:15 AM	Air
1212437-028A	VA2194		12/6/2012 12:32 PM	12/11/2012 10:15 AM	Air
1212437-028B	VA2194		12/6/2012 12:32 PM	12/11/2012 10:15 AM	Air
1212437-029A	VA2219		12/4/2012 12:42 PM	12/11/2012 10:15 AM	Air
1212437-029B	VA2219		12/4/2012 12:42 PM	12/11/2012 10:15 AM	Air
1212437-030A	VA2220		12/4/2012 1:22 PM	12/11/2012 10:15 AM	Air
1212437-030B	VA2220		12/4/2012 1:22 PM	12/11/2012 10:15 AM	Air
1212437-031A	VA2221		12/4/2012 1:54 PM	12/11/2012 10:15 AM	Air
1212437-031B	VA2221		12/4/2012 1:54 PM	12/11/2012 10:15 AM	Air
1212437-032A	VA2222		12/4/2012 2:29 PM	12/11/2012 10:15 AM	Air
1212437-032B	VA2222		12/4/2012 2:29 PM	12/11/2012 10:15 AM	Air
1212437-033A	VA2223		12/4/2012 3:05 PM	12/11/2012 10:15 AM	Air
1212437-033B	VA2223		12/4/2012 3:05 PM	12/11/2012 10:15 AM	Air
1212437-034A	VA2224		12/4/2012 3:43 PM	12/11/2012 10:15 AM	Air
1212437-034B	VA2224		12/4/2012 3:43 PM	12/11/2012 10:15 AM	Air
1212437-035A	VA2225		12/5/2012 1:39 PM	12/11/2012 10:15 AM	Air
1212437-035B	VA2225		12/5/2012 1:39 PM	12/11/2012 10:15 AM	Air
1212437-036A	VA2226		12/5/2012 2:05 PM	12/11/2012 10:15 AM	Air
1212437-036B	VA2226		12/5/2012 2:05 PM	12/11/2012 10:15 AM	Air
1212437-037A	VA2227		12/5/2012 2:05 PM	12/11/2012 10:15 AM	Air
1212437-037B	VA2227		12/5/2012 2:05 PM	12/11/2012 10:15 AM	Air
1212437-038A	VA2228		12/5/2012 2:45 PM	12/11/2012 10:15 AM	Air
1212437-038B	VA2228		12/5/2012 2:45 PM	12/11/2012 10:15 AM	Air
1212437-039A	VA2229		12/5/2012 3:16 PM	12/11/2012 10:15 AM	Air
1212437-039B	VA2229		12/5/2012 3:16 PM	12/11/2012 10:15 AM	Air
1212437-040A	VA2230		12/5/2012 3:47 PM	12/11/2012 10:15 AM	Air
1212437-040B	VA2230		12/5/2012 3:47 PM	12/11/2012 10:15 AM	Air
1212437-041A	VA2231		12/5/2012 4:20 PM	12/11/2012 10:15 AM	Air
1212437-041B	VA2231		12/5/2012 4:20 PM	12/11/2012 10:15 AM	Air
1212437-042A	VA8108-TB		12/4/2012 12:00 PM	12/11/2012 10:15 AM	Air

RTI Laboratories - DATES REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212437-001A	VA1987	12/6/2012 8:46 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 4:59 PM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 6:20 PM
1212437-001B	VA1987	12/6/2012 8:46 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 12:08 PM
1212437-002A	VA1988	12/6/2012 9:09 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 4:41 AM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 7:02 PM
1212437-002B	VA1988	12/6/2012 9:09 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 12:27 PM
1212437-003A	VA1989	12/6/2012 9:42 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2013 4:10 PM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 9:17 PM
				EPA_TO15-Volatile Organic Compounds			1/6/2013 4:30 AM
1212437-003B	VA1989	12/6/2012 9:42 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 12:44 PM
1212437-004A	VA1990	12/6/2012 9:42 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2013 3:27 PM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 8:34 PM
				EPA_TO15-Volatile Organic Compounds			1/6/2013 1:37 AM
1212437-004B	VA1990	12/6/2012 9:42 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 12:59 PM
1212437-005A	VA1991	12/6/2012 10:27 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2013 1:13 PM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 10:49 PM
				EPA_TO15-Volatile Organic Compounds			1/6/2013 5:12 AM
1212437-005B	VA1991	12/6/2012 10:27 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 1:38 PM

RTI Laboratories - DATES REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212437-006A	VA2000	12/5/2012 9:03 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2012 5:48 AM
				EPA_TO15-Volatile Organic Compounds			12/26/2012 11:47 PM
1212437-006B	VA2000	12/5/2012 9:03 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 1:56 PM
1212437-007A	VA2001	12/5/2012 9:36 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2012 6:36 AM
				EPA_TO15-Volatile Organic Compounds			12/27/2012 2:00 AM
1212437-007B	VA2001	12/5/2012 9:36 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 2:14 PM
1212437-008A	VA2002	12/5/2012 9:36 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/29/2012 11:02 AM
				EPA_TO15-Volatile Organic Compounds			12/27/2012 1:18 AM
1212437-008B	VA2002	12/5/2012 9:36 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 2:29 PM
1212437-009A	VA2003	12/5/2012 11:38 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/29/2012 12:41 PM
				EPA_TO15-Volatile Organic Compounds			12/27/2012 3:30 AM
				EPA_TO15-Volatile Organic Compounds			1/1/2013 8:47 PM
1212437-009B	VA2003	12/5/2012 11:38 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 2:43 PM
1212437-010A	VA2004	12/5/2012 12:02 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 1:49 AM
				EPA_TO15-Volatile Organic Compounds			1/1/2013 5:46 PM
1212437-010B	VA2004	12/5/2012 12:02 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 2:58 PM
1212437-011A	VA2026	12/5/2012 12:27 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 2:32 AM
				EPA_TO15-Volatile Organic Compounds			1/1/2013 11:00 PM

RTI Laboratories - DATES REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212437-011A	VA2026	12/5/2012 12:27 PM	Air				
				EPA_TO15-Volatile Organic Compounds			1/4/2013 6:32 AM
1212437-011B	VA2026	12/5/2012 12:27 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 4:00 PM
1212437-012A	VA2159	12/5/2012 9:09 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/29/2012 10:13 AM
				EPA_TO15-Volatile Organic Compounds			1/1/2013 4:16 PM
1212437-012B	VA2159	12/5/2012 9:09 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 4:15 PM
1212437-013A	VA2160	12/5/2012 9:37 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/29/2012 11:51 AM
				EPA_TO15-Volatile Organic Compounds			1/1/2013 4:58 PM
1212437-013B	VA2160	12/5/2012 9:37 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 4:39 PM
1212437-014A	VA2161	12/5/2012 11:41 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/29/2012 2:19 PM
				EPA_TO15-Volatile Organic Compounds			12/27/2012 4:11 AM
1212437-014B	VA2161	12/5/2012 11:41 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 4:54 PM
1212437-015A	VA2162	12/5/2012 12:15 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/1/2013 1:59 PM
				EPA_TO15-Volatile Organic Compounds			1/1/2013 6:28 PM
1212437-015B	VA2162	12/5/2012 12:15 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 5:09 PM
1212437-016A	VA2163	12/5/2012 12:15 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/1/2013 12:45 PM
				EPA_TO15-Volatile Organic Compounds			1/1/2013 7:10 PM

RTI Laboratories - DATES REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212437-016B	VA2163	12/5/2012 12:15 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 5:24 PM
1212437-017A	VA2164	12/5/2012 1:08 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 3:15 AM
				EPA_TO15-Volatile Organic Compounds			1/2/2013 1:23 AM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 7:15 AM
1212437-017B	VA2164	12/5/2012 1:08 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 5:38 PM
1212437-018A	VA2165	12/5/2012 1:50 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 4:16 PM
				EPA_TO15-Volatile Organic Compounds			1/2/2013 3:34 AM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 10:11 AM
1212437-018B	VA2165	12/5/2012 1:50 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 5:54 PM
1212437-019A	VA2185	12/5/2012 3:20 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/1/2013 8:18 PM
				EPA_TO15-Volatile Organic Compounds			1/2/2013 7:19 AM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 8:43 AM
1212437-019B	VA2185	12/5/2012 3:20 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 6:08 PM
1212437-020A	VA2186	12/5/2012 3:49 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 2:04 PM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 11:55 AM
				EPA_TO15-Volatile Organic Compounds			1/5/2013 10:03 PM
1212437-020B	VA2186	12/5/2012 3:49 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/21/2012 6:23 PM
1212437-021A	VA2187	12/5/2012 3:49 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 3:34 PM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 10:59 AM

RTI Laboratories - DATES REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212437-021A	VA2187	12/5/2012 3:49 PM	Air				
				EPA_TO15-Volatile Organic Compounds			1/5/2013 11:32 PM
1212437-021B	VA2187	12/5/2012 3:49 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 12:18 PM
1212437-022A	VA2188	12/6/2012 8:36 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 1:00 AM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 5:37 PM
1212437-022B	VA2188	12/6/2012 8:36 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 1:13 PM
1212437-023A	VA2189	12/6/2012 9:14 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2013 11:06 AM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 7:52 PM
1212437-023B	VA2189	12/6/2012 9:14 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 1:45 PM
1212437-024A	VA2190	12/6/2012 9:51 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 7:51 PM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 10:06 PM
1212437-024B	VA2190	12/6/2012 9:51 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 1:59 PM
1212437-025A	VA2191	12/6/2012 10:31 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2013 1:56 PM
				EPA_TO15-Volatile Organic Compounds			1/6/2013 2:22 AM
1212437-025B	VA2191	12/6/2012 10:31 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 2:13 PM
1212437-026A	VA2192	12/6/2012 11:28 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 9:22 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2013 12:17 AM

RTI Laboratories - DATES REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212437-026B	VA2192	12/6/2012 11:28 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 2:27 PM
1212437-027A	VA2193	12/6/2012 12:00 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 10:07 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2013 1:02 AM
1212437-027B	VA2193	12/6/2012 12:00 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 2:46 PM
1212437-028A	VA2194	12/6/2012 12:32 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 10:52 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2013 1:48 AM
1212437-028B	VA2194	12/6/2012 12:32 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 3:04 PM
1212437-029A	VA2219	12/4/2012 12:42 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2012 12:55 AM
				EPA_TO15-Volatile Organic Compounds			12/26/2012 6:49 PM
1212437-029B	VA2219	12/4/2012 12:42 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 3:39 PM
1212437-030A	VA2220	12/4/2012 1:22 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2012 1:44 AM
				EPA_TO15-Volatile Organic Compounds			12/26/2012 7:31 PM
1212437-030B	VA2220	12/4/2012 1:22 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 4:03 PM
1212437-031A	VA2221	12/4/2012 1:54 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2012 2:33 AM
				EPA_TO15-Volatile Organic Compounds			12/26/2012 8:12 PM
1212437-031B	VA2221	12/4/2012 1:54 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 4:47 PM

RTI Laboratories - DATES REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212437-032A	VA2222	12/4/2012 2:29 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2012 3:21 AM
				EPA_TO15-Volatile Organic Compounds			12/26/2012 8:54 PM
1212437-032B	VA2222	12/4/2012 2:29 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 5:01 PM
1212437-033A	VA2223	12/4/2012 3:05 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2012 4:10 AM
				EPA_TO15-Volatile Organic Compounds			12/26/2012 9:36 PM
1212437-033B	VA2223	12/4/2012 3:05 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 5:22 PM
1212437-034A	VA2224	12/4/2012 3:43 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/29/2012 9:24 AM
				EPA_TO15-Volatile Organic Compounds			12/26/2012 10:21 PM
1212437-034B	VA2224	12/4/2012 3:43 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 5:37 PM
1212437-035A	VA2225	12/5/2012 1:39 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/1/2013 2:46 PM
				EPA_TO15-Volatile Organic Compounds			1/2/2013 2:07 AM
1212437-035B	VA2225	12/5/2012 1:39 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/2/2013 6:07 PM
1212437-036A	VA2226	12/5/2012 2:05 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/1/2013 5:11 PM
				EPA_TO15-Volatile Organic Compounds			1/2/2013 5:04 AM
1212437-036B	VA2226	12/5/2012 2:05 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2013 12:48 PM
1212437-037A	VA2227	12/5/2012 2:05 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/1/2013 4:23 PM
				EPA_TO15-Volatile Organic Compounds			1/2/2013 4:19 AM

RTI Laboratories - DATES REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212437-037B	VA2227	12/5/2012 2:05 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2013 1:04 PM
1212437-038A	VA2228	12/5/2012 2:45 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/1/2013 5:57 PM
				EPA_TO15-Volatile Organic Compounds			1/2/2013 5:47 AM
1212437-038B	VA2228	12/5/2012 2:45 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2013 1:24 PM
1212437-039A	VA2229	12/5/2012 3:16 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/1/2013 7:29 PM
				EPA_TO15-Volatile Organic Compounds			1/2/2013 6:30 AM
1212437-039B	VA2229	12/5/2012 3:16 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2013 2:12 PM
1212437-040A	VA2230	12/5/2012 3:47 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/1/2013 9:03 PM
				EPA_TO15-Volatile Organic Compounds			1/2/2013 8:04 AM
1212437-040B	VA2230	12/5/2012 3:47 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/3/2013 2:26 PM
1212437-041A	VA2231	12/5/2012 4:20 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2013 12:11 AM
				EPA_TO15-Volatile Organic Compounds			1/4/2013 12:41 PM
1212437-041B	VA2231	12/5/2012 4:20 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 6:25 PM
1212437-042A	VA8108-TB	12/4/2012 12:00 PM	Air				
				EPA_TO15-Volatile Organic Compounds			12/26/2012 6:00 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 8:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-001	**Matrix:**	Air
Client Sample ID:	VA1987		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	11	0.10		% v/v	1	12/21/2012 12:08 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 12:08 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 12:08 PM
Nitrogen	80	0.10		% v/v	1	12/21/2012 12:08 PM
Oxygen	7.2	0.10		% v/v	1	12/21/2012 12:08 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,3-Butadiene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
2-Butanone	30,000	20,000		ppbv	20000	1/4/2013 6:20 PM
2-Hexanone	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Acetone	200,000	20,000		ppbv	20000	1/4/2013 6:20 PM
Benzene	69,000	20,000		ppbv	20000	1/4/2013 6:20 PM
Benzyl chloride	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Bromodichloromethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Bromoform	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Bromomethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Carbon disulfide	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Chlorobenzene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Chloroethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Chloroform	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Chloromethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 8:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-001	**Matrix:**	Air
Client Sample ID:	VA1987		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	480,000	40,000		ppbv	20000	1/4/2013 6:20 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Ethyl acetate	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Ethylbenzene	ND	40,000	U	ppbv	20000	1/4/2013 6:20 PM
Heptane	280,000	20,000		ppbv	20000	1/4/2013 6:20 PM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	1/4/2013 6:20 PM
m,p-Xylene	ND	40,000	U	ppbv	20000	1/4/2013 6:20 PM
Methylene chloride	ND	100,000	U	ppbv	20000	1/4/2013 6:20 PM
n-Hexane	180,000	40,000		ppbv	20000	1/4/2013 6:20 PM
Naphthalene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
o-Xylene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Propylene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Styrene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Tetrachloroethene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Toluene	220,000	20,000		ppbv	20000	1/4/2013 6:20 PM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Trichloroethene	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Vinyl acetate	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Vinyl chloride	ND	20,000	U	ppbv	20000	1/4/2013 6:20 PM
Xylenes, Total	ND	60,000	U	ppbv	20000	1/4/2013 6:20 PM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	20000	1/4/2013 6:20 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	22,000,000	4,700,000		µg/m³	40000	1/2/2013 4:59 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000	U	µg/m³	40000	1/2/2013 4:59 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600,000	U	µg/m³	40000	1/2/2013 4:59 PM
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	40000	1/2/2013 4:59 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 9:09:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-002	**Matrix:**	Air
Client Sample ID:	VA1988		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	12	0.10		% v/v	1	12/21/2012 12:27 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 12:27 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 12:27 PM
Nitrogen	82	0.10		% v/v	1	12/21/2012 12:27 PM
Oxygen	2.8	0.10		% v/v	1	12/21/2012 12:27 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,1,2,2-Tetrachloroethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,1,2-Trichloroethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,1-Dichloroethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,1-Dichloroethene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,2,4-Trichlorobenzene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,2,4-Trimethylbenzene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,2-Dibromoethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,2-Dichlorobenzene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,2-Dichloroethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,2-Dichloropropane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,3,5-Trimethylbenzene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,3-Butadiene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,3-Dichlorobenzene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
1,4-Dichlorobenzene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
2-Butanone	310,000	160,000		ppbv	160000	1/4/2013 7:02 PM
2-Hexanone	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
4-Methyl-2-pentanone	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Acetone	2,000,000	160,000		ppbv	160000	1/4/2013 7:02 PM
Benzene	840,000	160,000		ppbv	160000	1/4/2013 7:02 PM
Benzyl chloride	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Bromodichloromethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Bromoform	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Bromomethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Carbon disulfide	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Carbon tetrachloride	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Chlorobenzene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Chlorodibromomethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Chloroethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Chloroform	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Chloromethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
cis-1,2-Dichloroethene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
cis-1,3-dichloropropene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 9:09:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-002	**Matrix:**	Air
Client Sample ID:	VA1988		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,700,000	320,000		ppbv	160000	1/4/2013 7:02 PM
Dichlorodifluoromethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Ethyl acetate	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Ethylbenzene	ND	320,000	U	ppbv	160000	1/4/2013 7:02 PM
Heptane	1,600,000	160,000		ppbv	160000	1/4/2013 7:02 PM
Hexachlorobutadiene	ND	320,000	U	ppbv	160000	1/4/2013 7:02 PM
m,p-Xylene	ND	320,000	U	ppbv	160000	1/4/2013 7:02 PM
Methylene chloride	ND	800,000	U	ppbv	160000	1/4/2013 7:02 PM
n-Hexane	4,100,000	320,000		ppbv	160000	1/4/2013 7:02 PM
Naphthalene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
o-Xylene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Propylene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Styrene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
tert-Butyl Methyl Ether	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Tetrachloroethene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Tetrahydrofuran	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Toluene	720,000	160,000		ppbv	160000	1/4/2013 7:02 PM
trans-1,2-Dichloroethene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
trans-1,3-dichloropropene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Trichloroethene	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Trichlorofluoromethane	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Vinyl acetate	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Vinyl chloride	ND	160,000	U	ppbv	160000	1/4/2013 7:02 PM
Xylenes, Total	ND	480,000	U	ppbv	160000	1/4/2013 7:02 PM
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	160000	1/4/2013 7:02 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	170,000,000	19,000,000		µg/m³	160000	1/2/2013 4:41 AM
C9-C10 Aromatic Hydrocarbons	ND	21,000,000	U	µg/m³	160000	1/2/2013 4:41 AM
C9-C12 Aliphatic Hydrocarbons	ND	30,000,000	U	µg/m³	160000	1/2/2013 4:41 AM
Surr: 4-Bromofluorobenzene	93.5	70-130		%REC	160000	1/2/2013 4:41 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 9:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-003	**Matrix:**	Air
Client Sample ID:	VA1989		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	3.1	0.10		% v/v	1	12/21/2012 12:44 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 12:44 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 12:44 PM
Nitrogen	80	0.10		% v/v	1	12/21/2012 12:44 PM
Oxygen	15	0.10		% v/v	1	12/21/2012 12:44 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
2-Butanone	390,000	160,000	H	ppbv	160000	1/6/2013 4:30 AM
2-Hexanone	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Acetone	2,800,000	160,000	H	ppbv	160000	1/6/2013 4:30 AM
Benzene	270,000	8,000		ppbv	8000	1/4/2013 9:17 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Bromoform	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Bromomethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Chloroethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Chloroform	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Chloromethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 9:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-003	**Matrix:**	Air
Client Sample ID:	VA1989		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,000,000	320,000	H	ppbv	160000	1/6/2013 4:30 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Ethylbenzene	33,000	16,000		ppbv	8000	1/4/2013 9:17 PM
Heptane	3,000,000	160,000	H	ppbv	160000	1/6/2013 4:30 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/4/2013 9:17 PM
m,p-Xylene	77,000	16,000		ppbv	8000	1/4/2013 9:17 PM
Methylene chloride	ND	40,000	U	ppbv	8000	1/4/2013 9:17 PM
n-Hexane	770,000	320,000	H	ppbv	160000	1/6/2013 4:30 AM
Naphthalene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
o-Xylene	16,000	8,000		ppbv	8000	1/4/2013 9:17 PM
Propylene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Styrene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Toluene	1,400,000	160,000	H	ppbv	160000	1/6/2013 4:30 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Trichloroethene	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/4/2013 9:17 PM
Xylenes, Total	93,000	24,000		ppbv	8000	1/4/2013 9:17 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	8000	1/4/2013 9:17 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	98,000,000	19,000,000		µg/m³	160000	1/4/2013 4:10 PM
C9-C10 Aromatic Hydrocarbons	ND	21,000,000	U	µg/m³	160000	1/4/2013 4:10 PM
C9-C12 Aliphatic Hydrocarbons	ND	30,000,000	U	µg/m³	160000	1/4/2013 4:10 PM
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	160000	1/4/2013 4:10 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 9:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-004	**Matrix:**	Air
Client Sample ID:	VA1990		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	3.0	0.10		% v/v	1	12/21/2012 12:59 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 12:59 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 12:59 PM
Nitrogen	80	0.10		% v/v	1	12/21/2012 12:59 PM
Oxygen	15	0.10		% v/v	1	12/21/2012 12:59 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
2-Butanone	370,000	160,000	H	ppbv	160000	1/6/2013 1:37 AM
2-Hexanone	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Acetone	2,800,000	160,000	H	ppbv	160000	1/6/2013 1:37 AM
Benzene	270,000	8,000		ppbv	8000	1/4/2013 8:34 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Bromoform	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Bromomethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Chloroethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Chloroform	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Chloromethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 9:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-004	**Matrix:**	Air
Client Sample ID:	VA1990		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,900,000	320,000	H	ppbv	160000	1/6/2013 1:37 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Ethylbenzene	24,000	16,000		ppbv	8000	1/4/2013 8:34 PM
Heptane	2,800,000	160,000	H	ppbv	160000	1/6/2013 1:37 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/4/2013 8:34 PM
m,p-Xylene	53,000	16,000		ppbv	8000	1/4/2013 8:34 PM
Methylene chloride	ND	40,000	U	ppbv	8000	1/4/2013 8:34 PM
n-Hexane	630,000	320,000	H	ppbv	160000	1/6/2013 1:37 AM
Naphthalene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
o-Xylene	11,000	8,000		ppbv	8000	1/4/2013 8:34 PM
Propylene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Styrene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Toluene	1,200,000	160,000	H	ppbv	160000	1/6/2013 1:37 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Trichloroethene	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/4/2013 8:34 PM
Xylenes, Total	64,000	24,000		ppbv	8000	1/4/2013 8:34 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	8000	1/4/2013 8:34 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	130,000,000	19,000,000		µg/m³	160000	1/4/2013 3:27 PM
C9-C10 Aromatic Hydrocarbons	ND	21,000,000	U	µg/m³	160000	1/4/2013 3:27 PM
C9-C12 Aliphatic Hydrocarbons	ND	30,000,000	U	µg/m³	160000	1/4/2013 3:27 PM
Surr: 4-Bromofluorobenzene	94.1	70-130		%REC	160000	1/4/2013 3:27 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 10:27:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-005	**Matrix:**	Air
Client Sample ID:	VA1991		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	3.2	0.10		% v/v	1	12/21/2012 1:38 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 1:38 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 1:38 PM
Nitrogen	81	0.10		% v/v	1	12/21/2012 1:38 PM
Oxygen	15	0.10		% v/v	1	12/21/2012 1:38 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,1,2,2-Tetrachloroethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,1,2-Trichloroethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,1-Dichloroethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,1-Dichloroethene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,2,4-Trichlorobenzene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,2,4-Trimethylbenzene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,2-Dibromoethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,2-Dichlorobenzene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,2-Dichloroethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,2-Dichloropropane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,3,5-Trimethylbenzene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,3-Butadiene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,3-Dichlorobenzene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
1,4-Dichlorobenzene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
2-Butanone	610,000	80,000		ppbv	80000	1/4/2013 10:49 PM
2-Hexanone	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
4-Methyl-2-pentanone	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Acetone	2,900,000	80,000		ppbv	80000	1/4/2013 10:49 PM
Benzene	950,000	80,000		ppbv	80000	1/4/2013 10:49 PM
Benzyl chloride	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Bromodichloromethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Bromoform	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Bromomethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Carbon disulfide	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Carbon tetrachloride	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Chlorobenzene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Chlorodibromomethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Chloroethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Chloroform	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Chloromethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
cis-1,2-Dichloroethene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
cis-1,3-dichloropropene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 10:27:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-005	**Matrix:**	Air
Client Sample ID:	VA1991		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,100,000	320,000	H	ppbv	160000	1/6/2013 5:12 AM
Dichlorodifluoromethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Ethyl acetate	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Ethylbenzene	ND	160,000	U	ppbv	80000	1/4/2013 10:49 PM
Heptane	3,500,000	80,000		ppbv	80000	1/4/2013 10:49 PM
Hexachlorobutadiene	ND	160,000	U	ppbv	80000	1/4/2013 10:49 PM
m,p-Xylene	83,000	160,000	J	ppbv	80000	1/4/2013 10:49 PM
Methylene chloride	ND	400,000	U	ppbv	80000	1/4/2013 10:49 PM
n-Hexane	1,600,000	160,000		ppbv	80000	1/4/2013 10:49 PM
Naphthalene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
o-Xylene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Propylene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Styrene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
tert-Butyl Methyl Ether	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Tetrachloroethene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Tetrahydrofuran	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Toluene	2,000,000	80,000		ppbv	80000	1/4/2013 10:49 PM
trans-1,2-Dichloroethene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
trans-1,3-dichloropropene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Trichloroethene	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Trichlorofluoromethane	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Vinyl acetate	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Vinyl chloride	ND	80,000	U	ppbv	80000	1/4/2013 10:49 PM
Xylenes, Total	83,000	240,000	J	ppbv	80000	1/4/2013 10:49 PM
Surr: 4-Bromofluorobenzene	94.3	70-130		%REC	80000	1/4/2013 10:49 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	150,000,000	19,000,000		µg/m³	160000	1/4/2013 1:13 PM
C9-C10 Aromatic Hydrocarbons	ND	21,000,000	U	µg/m³	160000	1/4/2013 1:13 PM
C9-C12 Aliphatic Hydrocarbons	ND	30,000,000	U	µg/m³	160000	1/4/2013 1:13 PM
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	160000	1/4/2013 1:13 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 9:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-006	**Matrix:**	Air
Client Sample ID:	VA2000		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.050	0.10	J	% v/v	1	12/21/2012 1:56 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 1:56 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 1:56 PM
Nitrogen	79	0.10		% v/v	1	12/21/2012 1:56 PM
Oxygen	21	0.10		% v/v	1	12/21/2012 1:56 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,2,4-Trimethylbenzene	160	40		ppbv	40	12/26/2012 11:47 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,3,5-Trimethylbenzene	66	40		ppbv	40	12/26/2012 11:47 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
2-Butanone	ND	40	U	ppbv	40	12/26/2012 11:47 PM
2-Hexanone	ND	40	U	ppbv	40	12/26/2012 11:47 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Acetone	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Benzene	170	40		ppbv	40	12/26/2012 11:47 PM
Benzyl chloride	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Bromoform	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Bromomethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Carbon disulfide	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Chlorobenzene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Chloroethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Chloroform	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Chloromethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/26/2012 11:47 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 9:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-006	**Matrix:**	Air
Client Sample ID:	VA2000		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	350	80		ppbv	40	12/26/2012 11:47 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Ethyl acetate	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Ethylbenzene	250	80		ppbv	40	12/26/2012 11:47 PM
Heptane	390	40		ppbv	40	12/26/2012 11:47 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/26/2012 11:47 PM
m,p-Xylene	720	80		ppbv	40	12/26/2012 11:47 PM
Methylene chloride	ND	200	U	ppbv	40	12/26/2012 11:47 PM
n-Hexane	140	80		ppbv	40	12/26/2012 11:47 PM
Naphthalene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
o-Xylene	250	40		ppbv	40	12/26/2012 11:47 PM
Propylene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Styrene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Toluene	1,200	40		ppbv	40	12/26/2012 11:47 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Trichloroethene	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Vinyl acetate	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Vinyl chloride	ND	40	U	ppbv	40	12/26/2012 11:47 PM
Xylenes, Total	970	120		ppbv	40	12/26/2012 11:47 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	40	12/26/2012 11:47 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	68,000	47,000		µg/m³	400	12/22/2012 5:48 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/22/2012 5:48 AM
C9-C12 Aliphatic Hydrocarbons	20,000	76,000	J	µg/m³	400	12/22/2012 5:48 AM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	400	12/22/2012 5:48 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 9:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-007	**Matrix:**	Air
Client Sample ID:	VA2001		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.14	0.10		% v/v	1	12/21/2012 2:14 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 2:14 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 2:14 PM
Nitrogen	79	0.10		% v/v	1	12/21/2012 2:14 PM
Oxygen	21	0.10		% v/v	1	12/21/2012 2:14 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,2,4-Trimethylbenzene	190	40		ppbv	40	12/27/2012 2:00 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,3,5-Trimethylbenzene	76	40		ppbv	40	12/27/2012 2:00 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
2-Butanone	ND	40	U	ppbv	40	12/27/2012 2:00 AM
2-Hexanone	ND	40	U	ppbv	40	12/27/2012 2:00 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Acetone	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Benzene	260	40		ppbv	40	12/27/2012 2:00 AM
Benzyl chloride	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Bromoform	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Bromomethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Carbon disulfide	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Chlorobenzene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Chloroethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Chloroform	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Chloromethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/27/2012 2:00 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 9:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-007	**Matrix:**	Air
Client Sample ID:	VA2001		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	570	80		ppbv	40	12/27/2012 2:00 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Ethyl acetate	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Ethylbenzene	310	80		ppbv	40	12/27/2012 2:00 AM
Heptane	600	40		ppbv	40	12/27/2012 2:00 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/27/2012 2:00 AM
m,p-Xylene	870	80		ppbv	40	12/27/2012 2:00 AM
Methylene chloride	ND	200	U	ppbv	40	12/27/2012 2:00 AM
n-Hexane	230	80		ppbv	40	12/27/2012 2:00 AM
Naphthalene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
o-Xylene	310	40		ppbv	40	12/27/2012 2:00 AM
Propylene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Styrene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Toluene	1,600	40		ppbv	40	12/27/2012 2:00 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Trichloroethene	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Vinyl acetate	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Vinyl chloride	ND	40	U	ppbv	40	12/27/2012 2:00 AM
Xylenes, Total	1,200	120		ppbv	40	12/27/2012 2:00 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	40	12/27/2012 2:00 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	68,000	47,000		µg/m³	400	12/22/2012 6:36 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/22/2012 6:36 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/22/2012 6:36 AM
Surr: 4-Bromofluorobenzene	99.9	70-130		%REC	400	12/22/2012 6:36 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 9:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-008	**Matrix:**	Air
Client Sample ID:	VA2002		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.068	0.10	J	% v/v	1	12/21/2012 2:29 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 2:29 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 2:29 PM
Nitrogen	78	0.10		% v/v	1	12/21/2012 2:29 PM
Oxygen	21	0.10		% v/v	1	12/21/2012 2:29 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,2,4-Trimethylbenzene	84	40		ppbv	40	12/27/2012 1:18 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
2-Butanone	ND	40	U	ppbv	40	12/27/2012 1:18 AM
2-Hexanone	ND	40	U	ppbv	40	12/27/2012 1:18 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Acetone	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Benzene	150	40		ppbv	40	12/27/2012 1:18 AM
Benzyl chloride	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Bromoform	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Bromomethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Carbon disulfide	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Chlorobenzene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Chloroethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Chloroform	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Chloromethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/27/2012 1:18 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 9:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-008	**Matrix:**	Air
Client Sample ID:	VA2002		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	330	80		ppbv	40	12/27/2012 1:18 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Ethyl acetate	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Ethylbenzene	140	80		ppbv	40	12/27/2012 1:18 AM
Heptane	350	40		ppbv	40	12/27/2012 1:18 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/27/2012 1:18 AM
m,p-Xylene	420	80		ppbv	40	12/27/2012 1:18 AM
Methylene chloride	ND	200	U	ppbv	40	12/27/2012 1:18 AM
n-Hexane	140	80		ppbv	40	12/27/2012 1:18 AM
Naphthalene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
o-Xylene	140	40		ppbv	40	12/27/2012 1:18 AM
Propylene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Styrene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Toluene	870	40		ppbv	40	12/27/2012 1:18 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Trichloroethene	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Vinyl acetate	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Vinyl chloride	ND	40	U	ppbv	40	12/27/2012 1:18 AM
Xylenes, Total	560	120		ppbv	40	12/27/2012 1:18 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40	12/27/2012 1:18 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	100,000	47,000		µg/m³	400	12/29/2012 11:02 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/29/2012 11:02 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/29/2012 11:02 AM
Surr: 4-Bromofluorobenzene	93.2	70-130		%REC	400	12/29/2012 11:02 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 11:38:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-009	**Matrix:**	Air
Client Sample ID:	VA2003		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.046	0.10	Jm	% v/v	1	12/21/2012 2:43 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 2:43 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 2:43 PM
Nitrogen	78	0.10		% v/v	1	12/21/2012 2:43 PM
Oxygen	21	0.10		% v/v	1	12/21/2012 2:43 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,2,4-Trimethylbenzene	110	40		ppbv	40	12/27/2012 3:30 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,3,5-Trimethylbenzene	54	40		ppbv	40	12/27/2012 3:30 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
2-Butanone	65	40		ppbv	40	12/27/2012 3:30 AM
2-Hexanone	ND	40	U	ppbv	40	12/27/2012 3:30 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Acetone	68	40		ppbv	40	12/27/2012 3:30 AM
Benzene	1,500	40		ppbv	40	12/27/2012 3:30 AM
Benzyl chloride	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Bromoform	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Bromomethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Carbon disulfide	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Chlorobenzene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Chloroethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Chloroform	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Chloromethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/27/2012 3:30 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 11:38:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-009	**Matrix:**	Air
Client Sample ID:	VA2003		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,100	800		ppbv	400	1/1/2013 8:47 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Ethyl acetate	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Ethylbenzene	370	80		ppbv	40	12/27/2012 3:30 AM
Heptane	1,900	40		ppbv	40	12/27/2012 3:30 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/27/2012 3:30 AM
m,p-Xylene	950	80		ppbv	40	12/27/2012 3:30 AM
Methylene chloride	ND	200	U	ppbv	40	12/27/2012 3:30 AM
n-Hexane	3,300	800		ppbv	400	1/1/2013 8:47 PM
Naphthalene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
o-Xylene	320	40		ppbv	40	12/27/2012 3:30 AM
Propylene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Styrene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Toluene	5,500	400		ppbv	400	1/1/2013 8:47 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Trichloroethene	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Vinyl acetate	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Vinyl chloride	ND	40	U	ppbv	40	12/27/2012 3:30 AM
Xylenes, Total	1,300	120		ppbv	40	12/27/2012 3:30 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	12/27/2012 3:30 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	330,000	94,000		µg/m³	800	12/29/2012 12:41 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/29/2012 12:41 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/29/2012 12:41 PM
Surr: 4-Bromofluorobenzene	93.7	70-130		%REC	800	12/29/2012 12:41 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 12:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-010	**Matrix:**	Air
Client Sample ID:	VA2004		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	1.4	0.10		% v/v	1	12/21/2012 2:58 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 2:58 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 2:58 PM
Nitrogen	84	0.10		% v/v	1	12/21/2012 2:58 PM
Oxygen	14	0.10		% v/v	1	12/21/2012 2:58 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,3-Butadiene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
2-Butanone	1,000	400		ppbv	400	1/1/2013 5:46 PM
2-Hexanone	ND	400	U	ppbv	400	1/1/2013 5:46 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Acetone	4,700	400		ppbv	400	1/1/2013 5:46 PM
Benzene	2,000	400		ppbv	400	1/1/2013 5:46 PM
Benzyl chloride	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Bromodichloromethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Bromoform	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Bromomethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Carbon disulfide	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Carbon tetrachloride	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Chlorobenzene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Chlorodibromomethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Chloroethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Chloroform	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Chloromethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	1/1/2013 5:46 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 12:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-010	**Matrix:**	Air
Client Sample ID:	VA2004		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	4,500	800		ppbv	400	1/1/2013 5:46 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Ethyl acetate	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Ethylbenzene	420	800	J	ppbv	400	1/1/2013 5:46 PM
Heptane	4,900	400		ppbv	400	1/1/2013 5:46 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	1/1/2013 5:46 PM
m,p-Xylene	1,200	800		ppbv	400	1/1/2013 5:46 PM
Methylene chloride	8,700	2,000		ppbv	400	1/1/2013 5:46 PM
n-Hexane	3,300	800		ppbv	400	1/1/2013 5:46 PM
Naphthalene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
o-Xylene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Propylene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Styrene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Tetrachloroethene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Tetrahydrofuran	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Toluene	7,300	400		ppbv	400	1/1/2013 5:46 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Trichloroethene	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Vinyl acetate	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Vinyl chloride	ND	400	U	ppbv	400	1/1/2013 5:46 PM
Xylenes, Total	1,200	1,200	J	ppbv	400	1/1/2013 5:46 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	400	1/1/2013 5:46 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	400,000	47,000		µg/m³	400	1/2/2013 1:49 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	1/2/2013 1:49 AM
C9-C12 Aliphatic Hydrocarbons	50,000	76,000	J	µg/m³	400	1/2/2013 1:49 AM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	400	1/2/2013 1:49 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 12:27:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-011	**Matrix:**	Air
Client Sample ID:	VA2026		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.13	0.10		% v/v	1	12/21/2012 4:00 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 4:00 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 4:00 PM
Nitrogen	79	0.10		% v/v	1	12/21/2012 4:00 PM
Oxygen	21	0.10		% v/v	1	12/21/2012 4:00 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,3-Butadiene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
2-Butanone	ND	800	U	ppbv	800	1/1/2013 11:00 PM
2-Hexanone	ND	800	U	ppbv	800	1/1/2013 11:00 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Acetone	4,500	800		ppbv	800	1/1/2013 11:00 PM
Benzene	15,000	800		ppbv	800	1/1/2013 11:00 PM
Benzyl chloride	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Bromodichloromethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Bromoform	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Bromomethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Carbon disulfide	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Carbon tetrachloride	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Chlorobenzene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Chlorodibromomethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Chloroethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Chloroform	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Chloromethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/1/2013 11:00 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 12:27:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-011	**Matrix:**	Air
Client Sample ID:	VA2026		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	29,000	1,600		ppbv	800	1/1/2013 11:00 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Ethyl acetate	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Ethylbenzene	3,900	1,600		ppbv	800	1/1/2013 11:00 PM
Heptane	27,000	800		ppbv	800	1/1/2013 11:00 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/1/2013 11:00 PM
m,p-Xylene	9,900	1,600		ppbv	800	1/1/2013 11:00 PM
Methylene chloride	24,000	4,000		ppbv	800	1/1/2013 11:00 PM
n-Hexane	19,000	1,600		ppbv	800	1/1/2013 11:00 PM
Naphthalene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
o-Xylene	2,700	800		ppbv	800	1/1/2013 11:00 PM
Propylene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Styrene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Tetrachloroethene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Tetrahydrofuran	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Toluene	31,000	8,000		ppbv	8000	1/4/2013 6:32 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Trichloroethene	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Vinyl acetate	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Vinyl chloride	ND	800	U	ppbv	800	1/1/2013 11:00 PM
Xylenes, Total	13,000	2,400		ppbv	800	1/1/2013 11:00 PM
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	800	1/1/2013 11:00 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,800,000	940,000		µg/m³	8000	1/2/2013 2:32 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/2/2013 2:32 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/2/2013 2:32 AM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	8000	1/2/2013 2:32 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 9:09:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-012	**Matrix:**	Air
Client Sample ID:	VA2159		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.69	0.10		% v/v	1	12/21/2012 4:15 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 4:15 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 4:15 PM
Nitrogen	78	0.10		% v/v	1	12/21/2012 4:15 PM
Oxygen	21	0.10		% v/v	1	12/21/2012 4:15 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
2-Butanone	ND	40	U	ppbv	40	1/1/2013 4:16 PM
2-Hexanone	ND	40	U	ppbv	40	1/1/2013 4:16 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Acetone	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Benzene	170	40		ppbv	40	1/1/2013 4:16 PM
Benzyl chloride	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Bromoform	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Bromomethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Carbon disulfide	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Chlorobenzene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Chloroethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Chloroform	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Chloromethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/1/2013 4:16 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 9:09:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-012	**Matrix:**	Air
Client Sample ID:	VA2159		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	290	80		ppbv	40	1/1/2013 4:16 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Ethyl acetate	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Ethylbenzene	47	80	J	ppbv	40	1/1/2013 4:16 PM
Heptane	200	40		ppbv	40	1/1/2013 4:16 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/1/2013 4:16 PM
m,p-Xylene	130	80		ppbv	40	1/1/2013 4:16 PM
Methylene chloride	ND	200	U	ppbv	40	1/1/2013 4:16 PM
n-Hexane	210	80		ppbv	40	1/1/2013 4:16 PM
Naphthalene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
o-Xylene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Propylene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Styrene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Toluene	710	40		ppbv	40	1/1/2013 4:16 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Trichloroethene	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Vinyl acetate	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Vinyl chloride	ND	40	U	ppbv	40	1/1/2013 4:16 PM
Xylenes, Total	130	120		ppbv	40	1/1/2013 4:16 PM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	40	1/1/2013 4:16 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	150,000	47,000		µg/m³	400	12/29/2012 10:13 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/29/2012 10:13 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/29/2012 10:13 AM
Surr: 4-Bromofluorobenzene	93.5	70-130		%REC	400	12/29/2012 10:13 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 9:37:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-013	**Matrix:**	Air
Client Sample ID:	VA2160		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.4	0.10		% v/v	1	12/21/2012 4:39 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 4:39 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 4:39 PM
Nitrogen	79	0.10		% v/v	1	12/21/2012 4:39 PM
Oxygen	20	0.10		% v/v	1	12/21/2012 4:39 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
2-Butanone	ND	40	U	ppbv	40	1/1/2013 4:58 PM
2-Hexanone	ND	40	U	ppbv	40	1/1/2013 4:58 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Acetone	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Benzene	130	40		ppbv	40	1/1/2013 4:58 PM
Benzyl chloride	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Bromoform	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Bromomethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Carbon disulfide	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Chlorobenzene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Chloroethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Chloroform	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Chloromethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/1/2013 4:58 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 9:37:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-013	**Matrix:**	Air
Client Sample ID:	VA2160		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	240	80		ppbv	40	1/1/2013 4:58 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Ethyl acetate	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Ethylbenzene	42	80	J	ppbv	40	1/1/2013 4:58 PM
Heptane	160	40		ppbv	40	1/1/2013 4:58 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/1/2013 4:58 PM
m,p-Xylene	120	80		ppbv	40	1/1/2013 4:58 PM
Methylene chloride	ND	200	U	ppbv	40	1/1/2013 4:58 PM
n-Hexane	160	80		ppbv	40	1/1/2013 4:58 PM
Naphthalene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
o-Xylene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Propylene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Styrene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Toluene	610	40		ppbv	40	1/1/2013 4:58 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Trichloroethene	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Vinyl acetate	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Vinyl chloride	ND	40	U	ppbv	40	1/1/2013 4:58 PM
Xylenes, Total	120	120	J	ppbv	40	1/1/2013 4:58 PM
Surr: 4-Bromofluorobenzene	94.2	70-130		%REC	40	1/1/2013 4:58 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	140,000	47,000		µg/m³	400	12/29/2012 11:51 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/29/2012 11:51 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/29/2012 11:51 AM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	400	12/29/2012 11:51 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 11:41:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-014	**Matrix:**	Air
Client Sample ID:	VA2161		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	2.4	0.10		% v/v	1	12/21/2012 4:54 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 4:54 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 4:54 PM
Nitrogen	79	0.10		% v/v	1	12/21/2012 4:54 PM
Oxygen	18	0.10		% v/v	1	12/21/2012 4:54 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
2-Butanone	ND	40	U	ppbv	40	12/27/2012 4:11 AM
2-Hexanone	ND	40	U	ppbv	40	12/27/2012 4:11 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Acetone	61	40		ppbv	40	12/27/2012 4:11 AM
Benzene	200	40		ppbv	40	12/27/2012 4:11 AM
Benzyl chloride	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Bromoform	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Bromomethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Carbon disulfide	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Chlorobenzene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Chloroethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Chloroform	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Chloromethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/27/2012 4:11 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 11:41:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-014	**Matrix:**	Air
Client Sample ID:	VA2161		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	440	80		ppbv	40	12/27/2012 4:11 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Ethyl acetate	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Ethylbenzene	62	80	J	ppbv	40	12/27/2012 4:11 AM
Heptane	300	40		ppbv	40	12/27/2012 4:11 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/27/2012 4:11 AM
m,p-Xylene	160	80		ppbv	40	12/27/2012 4:11 AM
Methylene chloride	ND	200	U	ppbv	40	12/27/2012 4:11 AM
n-Hexane	280	80		ppbv	40	12/27/2012 4:11 AM
Naphthalene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
o-Xylene	46	40		ppbv	40	12/27/2012 4:11 AM
Propylene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Styrene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Toluene	970	40		ppbv	40	12/27/2012 4:11 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Trichloroethene	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Vinyl acetate	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Vinyl chloride	ND	40	U	ppbv	40	12/27/2012 4:11 AM
Xylenes, Total	210	120		ppbv	40	12/27/2012 4:11 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40	12/27/2012 4:11 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	140,000	47,000		µg/m³	400	12/29/2012 2:19 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/29/2012 2:19 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/29/2012 2:19 PM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	400	12/29/2012 2:19 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 12:15:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-015	**Matrix:**	Air
Client Sample ID:	VA2162		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.7	0.10		% v/v	1	12/21/2012 5:09 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 5:09 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 5:09 PM
Nitrogen	79	0.10		% v/v	1	12/21/2012 5:09 PM
Oxygen	19	0.10		% v/v	1	12/21/2012 5:09 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
2-Butanone	ND	40	U	ppbv	40	1/1/2013 6:28 PM
2-Hexanone	ND	40	U	ppbv	40	1/1/2013 6:28 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Acetone	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Benzene	130	40		ppbv	40	1/1/2013 6:28 PM
Benzyl chloride	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Bromoform	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Bromomethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Carbon disulfide	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Carbon tetrachloride	48	40		ppbv	40	1/1/2013 6:28 PM
Chlorobenzene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Chloroethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Chloroform	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Chloromethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/1/2013 6:28 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 12:15:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-015	**Matrix:**	Air
Client Sample ID:	VA2162		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	250	80		ppbv	40	1/1/2013 6:28 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Ethyl acetate	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Ethylbenzene	46	80	J	ppbv	40	1/1/2013 6:28 PM
Heptane	170	40		ppbv	40	1/1/2013 6:28 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/1/2013 6:28 PM
m,p-Xylene	120	80		ppbv	40	1/1/2013 6:28 PM
Methylene chloride	ND	200	U	ppbv	40	1/1/2013 6:28 PM
n-Hexane	170	80		ppbv	40	1/1/2013 6:28 PM
Naphthalene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
o-Xylene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Propylene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Styrene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Toluene	650	40		ppbv	40	1/1/2013 6:28 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Trichloroethene	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Vinyl acetate	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Vinyl chloride	ND	40	U	ppbv	40	1/1/2013 6:28 PM
Xylenes, Total	120	120		ppbv	40	1/1/2013 6:28 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	40	1/1/2013 6:28 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	34,000	4,700		µg/m³	40	1/1/2013 1:59 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/1/2013 1:59 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	1/1/2013 1:59 PM
Surr: 4-Bromofluorobenzene	98.8	70-130		%REC	40	1/1/2013 1:59 PM

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WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 12:15:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-016	**Matrix:**	Air
Client Sample ID:	VA2163		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.7	0.10		% v/v	1	12/21/2012 5:24 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 5:24 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 5:24 PM
Nitrogen	79	0.10		% v/v	1	12/21/2012 5:24 PM
Oxygen	19	0.10		% v/v	1	12/21/2012 5:24 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
2-Butanone	ND	40	U	ppbv	40	1/1/2013 7:10 PM
2-Hexanone	ND	40	U	ppbv	40	1/1/2013 7:10 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Acetone	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Benzene	160	40		ppbv	40	1/1/2013 7:10 PM
Benzyl chloride	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Bromoform	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Bromomethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Carbon disulfide	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Carbon tetrachloride	47	40		ppbv	40	1/1/2013 7:10 PM
Chlorobenzene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Chloroethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Chloroform	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Chloromethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/1/2013 7:10 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 12:15:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-016	**Matrix:**	Air
Client Sample ID:	VA2163		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	310	80		ppbv	40	1/1/2013 7:10 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Ethyl acetate	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Ethylbenzene	52	80	J	ppbv	40	1/1/2013 7:10 PM
Heptane	200	40		ppbv	40	1/1/2013 7:10 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/1/2013 7:10 PM
m,p-Xylene	140	80		ppbv	40	1/1/2013 7:10 PM
Methylene chloride	ND	200	U	ppbv	40	1/1/2013 7:10 PM
n-Hexane	190	80		ppbv	40	1/1/2013 7:10 PM
Naphthalene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
o-Xylene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Propylene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Styrene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Toluene	760	40		ppbv	40	1/1/2013 7:10 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Trichloroethene	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Vinyl acetate	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Vinyl chloride	ND	40	U	ppbv	40	1/1/2013 7:10 PM
Xylenes, Total	140	120		ppbv	40	1/1/2013 7:10 PM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	40	1/1/2013 7:10 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	39,000	4,700		µg/m³	40	1/1/2013 12:45 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/1/2013 12:45 PM
C9-C12 Aliphatic Hydrocarbons	1,200	7,600	J	µg/m³	40	1/1/2013 12:45 PM
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	40	1/1/2013 12:45 PM

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WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 1:08:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-017	**Matrix:**	Air
Client Sample ID:	VA2164		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	1.5	0.10		% v/v	1	12/21/2012 5:38 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 5:38 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 5:38 PM
Nitrogen	79	0.10		% v/v	1	12/21/2012 5:38 PM
Oxygen	19	0.10		% v/v	1	12/21/2012 5:38 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,3-Butadiene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
2-Butanone	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
2-Hexanone	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Acetone	10,000	8,000		ppbv	8000	1/2/2013 1:23 AM
Benzene	360,000	8,000		ppbv	8000	1/2/2013 1:23 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Bromoform	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Bromomethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Chloroethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Chloroform	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Chloromethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 1:08:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-017	**Matrix:**	Air
Client Sample ID:	VA2164		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	530,000	40,000		ppbv	20000	1/4/2013 7:15 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Ethylbenzene	19,000	16,000		ppbv	8000	1/2/2013 1:23 AM
Heptane	420,000	20,000		ppbv	20000	1/4/2013 7:15 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/2/2013 1:23 AM
m,p-Xylene	81,000	16,000		ppbv	8000	1/2/2013 1:23 AM
Methylene chloride	39,000	40,000	J	ppbv	8000	1/2/2013 1:23 AM
n-Hexane	280,000	40,000		ppbv	20000	1/4/2013 7:15 AM
Naphthalene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
o-Xylene	18,000	8,000		ppbv	8000	1/2/2013 1:23 AM
Propylene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Styrene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Toluene	280,000	20,000		ppbv	20000	1/4/2013 7:15 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Trichloroethene	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/2/2013 1:23 AM
Xylenes, Total	98,000	24,000		ppbv	8000	1/2/2013 1:23 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8000	1/2/2013 1:23 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	15,000,000	2,300,000		µg/m³	20000	1/2/2013 3:15 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	1/2/2013 3:15 AM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	1/2/2013 3:15 AM
Surr: 4-Bromofluorobenzene	95.1	70-130		%REC	20000	1/2/2013 3:15 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 1:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-018	**Matrix:**	Air
Client Sample ID:	VA2165		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.50	0.10		% v/v	1	12/21/2012 5:54 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 5:54 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 5:54 PM
Nitrogen	80	0.10		% v/v	1	12/21/2012 5:54 PM
Oxygen	19	0.10		% v/v	1	12/21/2012 5:54 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,3-Butadiene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
2-Butanone	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
2-Hexanone	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Acetone	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Benzene	300,000	8,000		ppbv	8000	1/2/2013 3:34 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Bromoform	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Bromomethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Chloroethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Chloroform	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Chloromethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 1:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-018	**Matrix:**	Air
Client Sample ID:	VA2165		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,500,000	80,000		ppbv	40000	1/4/2013 10:11 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Ethylbenzene	ND	16,000	U	ppbv	8000	1/2/2013 3:34 AM
Heptane	930,000	40,000		ppbv	40000	1/4/2013 10:11 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/2/2013 3:34 AM
m,p-Xylene	16,000	16,000	J	ppbv	8000	1/2/2013 3:34 AM
Methylene chloride	ND	40,000	U	ppbv	8000	1/2/2013 3:34 AM
n-Hexane	1,500,000	80,000		ppbv	40000	1/4/2013 10:11 AM
Naphthalene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
o-Xylene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Propylene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Styrene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Toluene	350,000	8,000		ppbv	8000	1/2/2013 3:34 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Trichloroethene	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/2/2013 3:34 AM
Xylenes, Total	16,000	24,000	J	ppbv	8000	1/2/2013 3:34 AM
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	8000	1/2/2013 3:34 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	53,000,000	9,400,000		µg/m³	80000	1/2/2013 4:16 PM
C9-C10 Aromatic Hydrocarbons	ND	11,000,000	U	µg/m³	80000	1/2/2013 4:16 PM
C9-C12 Aliphatic Hydrocarbons	ND	15,000,000	U	µg/m³	80000	1/2/2013 4:16 PM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	80000	1/2/2013 4:16 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 3:20:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-019	**Matrix:**	Air
Client Sample ID:	VA2185		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	1.1	0.10		% v/v	1	12/21/2012 6:08 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 6:08 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 6:08 PM
Nitrogen	79	0.10		% v/v	1	12/21/2012 6:08 PM
Oxygen	19	0.10		% v/v	1	12/21/2012 6:08 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,3-Butadiene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
2-Butanone	ND	400	U	ppbv	400	1/2/2013 7:19 AM
2-Hexanone	ND	400	U	ppbv	400	1/2/2013 7:19 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Acetone	1,800	400		ppbv	400	1/2/2013 7:19 AM
Benzene	14,000	400		ppbv	400	1/2/2013 7:19 AM
Benzyl chloride	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Bromodichloromethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Bromoform	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Bromomethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Carbon disulfide	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Carbon tetrachloride	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Chlorobenzene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Chlorodibromomethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Chloroethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Chloroform	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Chloromethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	1/2/2013 7:19 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 3:20:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-019	**Matrix:**	Air
Client Sample ID:	VA2185		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	30,000	1,600		ppbv	800	1/4/2013 8:43 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Ethyl acetate	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Ethylbenzene	700	800	J	ppbv	400	1/2/2013 7:19 AM
Heptane	33,000	800		ppbv	800	1/4/2013 8:43 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	1/2/2013 7:19 AM
m,p-Xylene	2,900	800		ppbv	400	1/2/2013 7:19 AM
Methylene chloride	6,100	2,000		ppbv	400	1/2/2013 7:19 AM
n-Hexane	20,000	800		ppbv	400	1/2/2013 7:19 AM
Naphthalene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
o-Xylene	640	400		ppbv	400	1/2/2013 7:19 AM
Propylene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Styrene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Tetrachloroethene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Tetrahydrofuran	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Toluene	40,000	800		ppbv	800	1/4/2013 8:43 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Trichloroethene	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Vinyl acetate	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Vinyl chloride	ND	400	U	ppbv	400	1/2/2013 7:19 AM
Xylenes, Total	3,500	1,200		ppbv	400	1/2/2013 7:19 AM
Surr: 4-Bromofluorobenzene	94.7	70-130		%REC	400	1/2/2013 7:19 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	420,000	47,000		µg/m³	400	1/1/2013 8:18 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	1/1/2013 8:18 PM
C9-C12 Aliphatic Hydrocarbons	130,000	76,000		µg/m³	400	1/1/2013 8:18 PM
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	400	1/1/2013 8:18 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 3:49:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-020	**Matrix:**	Air
Client Sample ID:	VA2186		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	1.2	0.10		% v/v	1	12/21/2012 6:23 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/21/2012 6:23 PM
Methane	ND	0.50	U	% v/v	1	12/21/2012 6:23 PM
Nitrogen	80	0.10		% v/v	1	12/21/2012 6:23 PM
Oxygen	19	0.10		% v/v	1	12/21/2012 6:23 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,3-Butadiene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
2-Butanone	ND	400	U	ppbv	400	1/4/2013 11:55 AM
2-Hexanone	ND	400	U	ppbv	400	1/4/2013 11:55 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Acetone	1,900	400		ppbv	400	1/4/2013 11:55 AM
Benzene	16,000	400		ppbv	400	1/4/2013 11:55 AM
Benzyl chloride	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Bromodichloromethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Bromoform	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Bromomethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Carbon disulfide	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Carbon tetrachloride	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Chlorobenzene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Chlorodibromomethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Chloroethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Chloroform	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Chloromethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	1/4/2013 11:55 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 3:49:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-020	**Matrix:**	Air
Client Sample ID:	VA2186		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	16,000	1,600	H	ppbv	800	1/5/2013 10:03 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Ethyl acetate	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Ethylbenzene	940	800		ppbv	400	1/4/2013 11:55 AM
Heptane	19,000	800	H	ppbv	800	1/5/2013 10:03 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	1/4/2013 11:55 AM
m,p-Xylene	3,400	800		ppbv	400	1/4/2013 11:55 AM
Methylene chloride	8,100	2,000		ppbv	400	1/4/2013 11:55 AM
n-Hexane	13,000	1,600	H	ppbv	800	1/5/2013 10:03 PM
Naphthalene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
o-Xylene	790	400		ppbv	400	1/4/2013 11:55 AM
Propylene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Styrene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Tetrachloroethene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Tetrahydrofuran	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Toluene	26,000	800	H	ppbv	800	1/5/2013 10:03 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Trichloroethene	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Vinyl acetate	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Vinyl chloride	ND	400	U	ppbv	400	1/4/2013 11:55 AM
Xylenes, Total	4,200	1,200		ppbv	400	1/4/2013 11:55 AM
Surr: 4-Bromofluorobenzene	88.2	70-130		%REC	400	1/4/2013 11:55 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	810,000	94,000		µg/m³	800	1/2/2013 2:04 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	1/2/2013 2:04 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	1/2/2013 2:04 PM
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	800	1/2/2013 2:04 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 3:49:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-021	**Matrix:**	Air
Client Sample ID:	VA2187		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	1.1	0.10		% v/v	1	1/2/2013 12:18 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 12:18 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 12:18 PM
Nitrogen	84	0.10		% v/v	1	1/2/2013 12:18 PM
Oxygen	20	0.10		% v/v	1	1/2/2013 12:18 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,3-Butadiene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
2-Butanone	ND	400	U	ppbv	400	1/4/2013 10:59 AM
2-Hexanone	ND	400	U	ppbv	400	1/4/2013 10:59 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Acetone	2,000	400		ppbv	400	1/4/2013 10:59 AM
Benzene	17,000	400		ppbv	400	1/4/2013 10:59 AM
Benzyl chloride	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Bromodichloromethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Bromoform	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Bromomethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Carbon disulfide	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Carbon tetrachloride	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Chlorobenzene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Chlorodibromomethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Chloroethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Chloroform	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Chloromethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	1/4/2013 10:59 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 3:49:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-021	**Matrix:**	Air
Client Sample ID:	VA2187		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	25,000	1,600	H	ppbv	800	1/5/2013 11:32 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Ethyl acetate	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Ethylbenzene	560	800	J	ppbv	400	1/4/2013 10:59 AM
Heptane	28,000	800	H	ppbv	800	1/5/2013 11:32 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	1/4/2013 10:59 AM
m,p-Xylene	2,500	800		ppbv	400	1/4/2013 10:59 AM
Methylene chloride	11,000	2,000		ppbv	400	1/4/2013 10:59 AM
n-Hexane	20,000	1,600	H	ppbv	800	1/5/2013 11:32 PM
Naphthalene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
o-Xylene	480	400		ppbv	400	1/4/2013 10:59 AM
Propylene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Styrene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Tetrachloroethene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Tetrahydrofuran	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Toluene	37,000	800	H	ppbv	800	1/5/2013 11:32 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Trichloroethene	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Vinyl acetate	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Vinyl chloride	ND	400	U	ppbv	400	1/4/2013 10:59 AM
Xylenes, Total	3,000	1,200		ppbv	400	1/4/2013 10:59 AM
Surr: 4-Bromofluorobenzene	90.2	70-130		%REC	400	1/4/2013 10:59 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	850,000	94,000		µg/m³	800	1/2/2013 3:34 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	1/2/2013 3:34 PM
C9-C12 Aliphatic Hydrocarbons	35,000	150,000	J	µg/m³	800	1/2/2013 3:34 PM
Surr: 4-Bromofluorobenzene	96.9	70-130		%REC	800	1/2/2013 3:34 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 8:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-022	**Matrix:**	Air
Client Sample ID:	VA2188		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.057	0.10	J	% v/v	1	1/2/2013 1:13 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 1:13 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 1:13 PM
Nitrogen	82	0.10		% v/v	1	1/2/2013 1:13 PM
Oxygen	22	0.10		% v/v	1	1/2/2013 1:13 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,3-Butadiene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
2-Butanone	ND	400	U	ppbv	400	1/4/2013 5:37 PM
2-Hexanone	ND	400	U	ppbv	400	1/4/2013 5:37 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Acetone	1,800	400		ppbv	400	1/4/2013 5:37 PM
Benzene	2,900	400		ppbv	400	1/4/2013 5:37 PM
Benzyl chloride	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Bromodichloromethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Bromoform	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Bromomethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Carbon disulfide	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Carbon tetrachloride	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Chlorobenzene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Chlorodibromomethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Chloroethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Chloroform	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Chloromethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	1/4/2013 5:37 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 8:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-022	**Matrix:**	Air
Client Sample ID:	VA2188		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	4,300	800		ppbv	400	1/4/2013 5:37 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Ethyl acetate	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Ethylbenzene	ND	800	U	ppbv	400	1/4/2013 5:37 PM
Heptane	5,600	400		ppbv	400	1/4/2013 5:37 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	1/4/2013 5:37 PM
m,p-Xylene	670	800	J	ppbv	400	1/4/2013 5:37 PM
Methylene chloride	9,700	2,000		ppbv	400	1/4/2013 5:37 PM
n-Hexane	4,000	800		ppbv	400	1/4/2013 5:37 PM
Naphthalene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
o-Xylene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Propylene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Styrene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Tetrachloroethene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Tetrahydrofuran	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Toluene	9,100	400		ppbv	400	1/4/2013 5:37 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Trichloroethene	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Vinyl acetate	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Vinyl chloride	ND	400	U	ppbv	400	1/4/2013 5:37 PM
Xylenes, Total	670	1,200	J	ppbv	400	1/4/2013 5:37 PM
Surr: 4-Bromofluorobenzene	89.9	70-130		%REC	400	1/4/2013 5:37 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	240,000	47,000		µg/m³	400	1/2/2013 1:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	1/2/2013 1:00 AM
C9-C12 Aliphatic Hydrocarbons	15,000	76,000	J	µg/m³	400	1/2/2013 1:00 AM
Surr: 4-Bromofluorobenzene	92.8	70-130		%REC	400	1/2/2013 1:00 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 9:14:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-023	**Matrix:**	Air
Client Sample ID:	VA2189		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.28	0.10		% v/v	1	1/2/2013 1:45 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 1:45 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 1:45 PM
Nitrogen	84	0.10		% v/v	1	1/2/2013 1:45 PM
Oxygen	21	0.10		% v/v	1	1/2/2013 1:45 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,3-Butadiene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
2-Butanone	570	400		ppbv	400	1/4/2013 7:52 PM
2-Hexanone	ND	400	U	ppbv	400	1/4/2013 7:52 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Acetone	3,700	400		ppbv	400	1/4/2013 7:52 PM
Benzene	2,700	400		ppbv	400	1/4/2013 7:52 PM
Benzyl chloride	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Bromodichloromethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Bromoform	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Bromomethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Carbon disulfide	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Carbon tetrachloride	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Chlorobenzene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Chlorodibromomethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Chloroethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Chloroform	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Chloromethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	1/4/2013 7:52 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 9:14:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-023	**Matrix:**	Air
Client Sample ID:	VA2189		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,200	800		ppbv	400	1/4/2013 7:52 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Ethyl acetate	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Ethylbenzene	ND	800	U	ppbv	400	1/4/2013 7:52 PM
Heptane	5,500	400		ppbv	400	1/4/2013 7:52 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	1/4/2013 7:52 PM
m,p-Xylene	530	800	J	ppbv	400	1/4/2013 7:52 PM
Methylene chloride	8,200	2,000		ppbv	400	1/4/2013 7:52 PM
n-Hexane	5,600	800		ppbv	400	1/4/2013 7:52 PM
Naphthalene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
o-Xylene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Propylene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Styrene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Tetrachloroethene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Tetrahydrofuran	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Toluene	7,200	400		ppbv	400	1/4/2013 7:52 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Trichloroethene	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Vinyl acetate	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Vinyl chloride	ND	400	U	ppbv	400	1/4/2013 7:52 PM
Xylenes, Total	530	1,200	J	ppbv	400	1/4/2013 7:52 PM
Surr: 4-Bromofluorobenzene	93.0	70-130		%REC	400	1/4/2013 7:52 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	140,000	47,000		µg/m³	400	1/4/2013 11:06 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	1/4/2013 11:06 AM
C9-C12 Aliphatic Hydrocarbons	27,000	76,000	J	µg/m³	400	1/4/2013 11:06 AM
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	400	1/4/2013 11:06 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 9:51:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-024	**Matrix:**	Air
Client Sample ID:	VA2190		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.74	0.10		% v/v	1	1/2/2013 1:59 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 1:59 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 1:59 PM
Nitrogen	83	0.10		% v/v	1	1/2/2013 1:59 PM
Oxygen	21	0.10		% v/v	1	1/2/2013 1:59 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,3-Butadiene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
2-Butanone	820	400		ppbv	400	1/4/2013 10:06 PM
2-Hexanone	ND	400	U	ppbv	400	1/4/2013 10:06 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Acetone	3,500	400		ppbv	400	1/4/2013 10:06 PM
Benzene	2,500	400		ppbv	400	1/4/2013 10:06 PM
Benzyl chloride	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Bromodichloromethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Bromoform	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Bromomethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Carbon disulfide	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Carbon tetrachloride	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Chlorobenzene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Chlorodibromomethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Chloroethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Chloroform	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Chloromethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	1/4/2013 10:06 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 9:51:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-024	**Matrix:**	Air
Client Sample ID:	VA2190		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	4,300	800		ppbv	400	1/4/2013 10:06 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Ethyl acetate	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Ethylbenzene	ND	800	U	ppbv	400	1/4/2013 10:06 PM
Heptane	6,500	400		ppbv	400	1/4/2013 10:06 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	1/4/2013 10:06 PM
m,p-Xylene	850	800		ppbv	400	1/4/2013 10:06 PM
Methylene chloride	4,200	2,000		ppbv	400	1/4/2013 10:06 PM
n-Hexane	3,500	800		ppbv	400	1/4/2013 10:06 PM
Naphthalene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
o-Xylene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Propylene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Styrene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Tetrachloroethene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Tetrahydrofuran	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Toluene	10,000	400		ppbv	400	1/4/2013 10:06 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Trichloroethene	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Vinyl acetate	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Vinyl chloride	ND	400	U	ppbv	400	1/4/2013 10:06 PM
Xylenes, Total	850	1,200	J	ppbv	400	1/4/2013 10:06 PM
Surr: 4-Bromofluorobenzene	93.0	70-130		%REC	400	1/4/2013 10:06 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	480,000	94,000		µg/m³	800	1/2/2013 7:51 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	1/2/2013 7:51 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	1/2/2013 7:51 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	800	1/2/2013 7:51 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 10:31:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-025	**Matrix:**	Air
Client Sample ID:	VA2191		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.049	0.10	J	% v/v	1	1/2/2013 2:13 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 2:13 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 2:13 PM
Nitrogen	82	0.10		% v/v	1	1/2/2013 2:13 PM
Oxygen	22	0.10		% v/v	1	1/2/2013 2:13 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,1,2,2-Tetrachloroethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,1,2-Trichloroethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,1-Dichloroethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,1-Dichloroethene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,2,4-Trichlorobenzene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,2,4-Trimethylbenzene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,2-Dibromoethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,2-Dichlorobenzene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,2-Dichloroethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,2-Dichloropropane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,3,5-Trimethylbenzene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,3-Butadiene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,3-Dichlorobenzene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
1,4-Dichlorobenzene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
2-Butanone	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
2-Hexanone	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
4-Methyl-2-pentanone	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Acetone	1,000	800	H	ppbv	800	1/6/2013 2:22 AM
Benzene	1,700	800	H	ppbv	800	1/6/2013 2:22 AM
Benzyl chloride	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Bromodichloromethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Bromoform	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Bromomethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Carbon disulfide	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Carbon tetrachloride	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Chlorobenzene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Chlorodibromomethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Chloroethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Chloroform	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Chloromethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
cis-1,2-Dichloroethene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
cis-1,3-dichloropropene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 10:31:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-025	**Matrix:**	Air
Client Sample ID:	VA2191		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,600	1,600	H	ppbv	800	1/6/2013 2:22 AM
Dichlorodifluoromethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Ethyl acetate	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Ethylbenzene	ND	1,600	UH	ppbv	800	1/6/2013 2:22 AM
Heptane	4,300	800	H	ppbv	800	1/6/2013 2:22 AM
Hexachlorobutadiene	ND	1,600	UH	ppbv	800	1/6/2013 2:22 AM
m,p-Xylene	ND	1,600	UH	ppbv	800	1/6/2013 2:22 AM
Methylene chloride	ND	4,000	UH	ppbv	800	1/6/2013 2:22 AM
n-Hexane	5,300	1,600	H	ppbv	800	1/6/2013 2:22 AM
Naphthalene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
o-Xylene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Propylene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Styrene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
tert-Butyl Methyl Ether	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Tetrachloroethene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Tetrahydrofuran	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Toluene	6,100	800	H	ppbv	800	1/6/2013 2:22 AM
trans-1,2-Dichloroethene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
trans-1,3-dichloropropene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Trichloroethene	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Trichlorofluoromethane	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Vinyl acetate	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Vinyl chloride	ND	800	UH	ppbv	800	1/6/2013 2:22 AM
Xylenes, Total	ND	2,400	UH	ppbv	800	1/6/2013 2:22 AM
Surr: 4-Bromofluorobenzene	95.5	70-130	H	%REC	800	1/6/2013 2:22 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	6,200,000	940,000		µg/m³	8000	1/4/2013 1:56 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/4/2013 1:56 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/4/2013 1:56 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	8000	1/4/2013 1:56 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 11:28:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-026	**Matrix:**	Air
Client Sample ID:	VA2192		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.18	0.10		% v/v	1	1/2/2013 2:27 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 2:27 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 2:27 PM
Nitrogen	82	0.10		% v/v	1	1/2/2013 2:27 PM
Oxygen	22	0.10		% v/v	1	1/2/2013 2:27 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,3-Butadiene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
2-Butanone	ND	800	U	ppbv	800	1/5/2013 12:17 AM
2-Hexanone	ND	800	U	ppbv	800	1/5/2013 12:17 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Acetone	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Benzene	3,400	800		ppbv	800	1/5/2013 12:17 AM
Benzyl chloride	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Bromodichloromethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Bromoform	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Bromomethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Carbon disulfide	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Carbon tetrachloride	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Chlorobenzene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Chlorodibromomethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Chloroethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Chloroform	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Chloromethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/5/2013 12:17 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 11:28:00 AM
Project:	Kirtland AFB		
Lab ID:	1212437-026	**Matrix:**	Air
Client Sample ID:	VA2192		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	8,000	1,600		ppbv	800	1/5/2013 12:17 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Ethyl acetate	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Ethylbenzene	ND	1,600	U	ppbv	800	1/5/2013 12:17 AM
Heptane	9,500	800		ppbv	800	1/5/2013 12:17 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/5/2013 12:17 AM
m,p-Xylene	ND	1,600	U	ppbv	800	1/5/2013 12:17 AM
Methylene chloride	ND	4,000	U	ppbv	800	1/5/2013 12:17 AM
n-Hexane	5,400	1,600		ppbv	800	1/5/2013 12:17 AM
Naphthalene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
o-Xylene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Propylene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Styrene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Tetrachloroethene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Tetrahydrofuran	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Toluene	9,900	800		ppbv	800	1/5/2013 12:17 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Trichloroethene	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Vinyl acetate	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Vinyl chloride	ND	800	U	ppbv	800	1/5/2013 12:17 AM
Xylenes, Total	ND	2,400	U	ppbv	800	1/5/2013 12:17 AM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	800	1/5/2013 12:17 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	700,000	94,000		µg/m³	800	1/2/2013 9:22 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	1/2/2013 9:22 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	1/2/2013 9:22 PM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	800	1/2/2013 9:22 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 12:00:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-027	**Matrix:**	Air
Client Sample ID:	VA2193		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.68	0.10		% v/v	1	1/2/2013 2:46 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 2:46 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 2:46 PM
Nitrogen	83	0.10		% v/v	1	1/2/2013 2:46 PM
Oxygen	21	0.10		% v/v	1	1/2/2013 2:46 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,3-Butadiene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
2-Butanone	ND	800	U	ppbv	800	1/5/2013 1:02 AM
2-Hexanone	ND	800	U	ppbv	800	1/5/2013 1:02 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Acetone	1,000	800		ppbv	800	1/5/2013 1:02 AM
Benzene	2,500	800		ppbv	800	1/5/2013 1:02 AM
Benzyl chloride	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Bromodichloromethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Bromoform	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Bromomethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Carbon disulfide	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Carbon tetrachloride	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Chlorobenzene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Chlorodibromomethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Chloroethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Chloroform	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Chloromethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/5/2013 1:02 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 12:00:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-027	**Matrix:**	Air
Client Sample ID:	VA2193		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,100	1,600		ppbv	800	1/5/2013 1:02 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Ethyl acetate	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Ethylbenzene	ND	1,600	U	ppbv	800	1/5/2013 1:02 AM
Heptane	7,000	800		ppbv	800	1/5/2013 1:02 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/5/2013 1:02 AM
m,p-Xylene	ND	1,600	U	ppbv	800	1/5/2013 1:02 AM
Methylene chloride	4,000	4,000	J	ppbv	800	1/5/2013 1:02 AM
n-Hexane	5,800	1,600		ppbv	800	1/5/2013 1:02 AM
Naphthalene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
o-Xylene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Propylene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Styrene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Tetrachloroethene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Tetrahydrofuran	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Toluene	7,100	800		ppbv	800	1/5/2013 1:02 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Trichloroethene	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Vinyl acetate	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Vinyl chloride	ND	800	U	ppbv	800	1/5/2013 1:02 AM
Xylenes, Total	ND	2,400	U	ppbv	800	1/5/2013 1:02 AM
Surr: 4-Bromofluorobenzene	93.0	70-130		%REC	800	1/5/2013 1:02 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	420,000	94,000		µg/m³	800	1/2/2013 10:07 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	1/2/2013 10:07 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	1/2/2013 10:07 PM
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	800	1/2/2013 10:07 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 12:32:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-028	**Matrix:**	Air
Client Sample ID:	VA2194		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.31	0.10		% v/v	1	1/2/2013 3:04 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 3:04 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 3:04 PM
Nitrogen	84	0.10		% v/v	1	1/2/2013 3:04 PM
Oxygen	21	0.10		% v/v	1	1/2/2013 3:04 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,3-Butadiene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
2-Butanone	ND	800	U	ppbv	800	1/5/2013 1:48 AM
2-Hexanone	ND	800	U	ppbv	800	1/5/2013 1:48 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Acetone	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Benzene	2,300	800		ppbv	800	1/5/2013 1:48 AM
Benzyl chloride	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Bromodichloromethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Bromoform	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Bromomethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Carbon disulfide	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Carbon tetrachloride	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Chlorobenzene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Chlorodibromomethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Chloroethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Chloroform	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Chloromethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/5/2013 1:48 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/6/2012 12:32:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-028	**Matrix:**	Air
Client Sample ID:	VA2194		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,200	1,600		ppbv	800	1/5/2013 1:48 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Ethyl acetate	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Ethylbenzene	ND	1,600	U	ppbv	800	1/5/2013 1:48 AM
Heptane	6,400	800		ppbv	800	1/5/2013 1:48 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/5/2013 1:48 AM
m,p-Xylene	ND	1,600	U	ppbv	800	1/5/2013 1:48 AM
Methylene chloride	ND	4,000	U	ppbv	800	1/5/2013 1:48 AM
n-Hexane	3,400	1,600		ppbv	800	1/5/2013 1:48 AM
Naphthalene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
o-Xylene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Propylene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Styrene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Tetrachloroethene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Tetrahydrofuran	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Toluene	7,100	800		ppbv	800	1/5/2013 1:48 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Trichloroethene	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Vinyl acetate	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Vinyl chloride	ND	800	U	ppbv	800	1/5/2013 1:48 AM
Xylenes, Total	ND	2,400	U	ppbv	800	1/5/2013 1:48 AM
Surr: 4-Bromofluorobenzene	92.1	70-130		%REC	800	1/5/2013 1:48 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	370,000	94,000		µg/m³	800	1/2/2013 10:52 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	1/2/2013 10:52 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	1/2/2013 10:52 PM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	800	1/2/2013 10:52 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 12:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-029	**Matrix:**	Air
Client Sample ID:	VA2219		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.24	0.10		% v/v	1	1/2/2013 3:39 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 3:39 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 3:39 PM
Nitrogen	83	0.10		% v/v	1	1/2/2013 3:39 PM
Oxygen	23	0.10		% v/v	1	1/2/2013 3:39 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
2-Butanone	ND	400	U	ppbv	400	12/26/2012 6:49 PM
2-Hexanone	ND	400	U	ppbv	400	12/26/2012 6:49 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Acetone	960	400		ppbv	400	12/26/2012 6:49 PM
Benzene	450	400		ppbv	400	12/26/2012 6:49 PM
Benzyl chloride	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Bromoform	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Bromomethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Carbon disulfide	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Chlorobenzene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Chloroethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Chloroform	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Chloromethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/26/2012 6:49 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 12:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-029	**Matrix:**	Air
Client Sample ID:	VA2219		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,000	800		ppbv	400	12/26/2012 6:49 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Ethyl acetate	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Ethylbenzene	ND	800	U	ppbv	400	12/26/2012 6:49 PM
Heptane	670	400		ppbv	400	12/26/2012 6:49 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/26/2012 6:49 PM
m,p-Xylene	ND	800	U	ppbv	400	12/26/2012 6:49 PM
Methylene chloride	1,700	2,000	J	ppbv	400	12/26/2012 6:49 PM
n-Hexane	1,100	800		ppbv	400	12/26/2012 6:49 PM
Naphthalene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
o-Xylene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Propylene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Styrene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Toluene	2,300	400		ppbv	400	12/26/2012 6:49 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Trichloroethene	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Vinyl acetate	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Vinyl chloride	ND	400	U	ppbv	400	12/26/2012 6:49 PM
Xylenes, Total	ND	1,200	U	ppbv	400	12/26/2012 6:49 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	400	12/26/2012 6:49 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	220,000	47,000		µg/m³	400	12/22/2012 12:55 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/22/2012 12:55 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/22/2012 12:55 AM
Surr: 4-Bromofluorobenzene	96.9	70-130		%REC	400	12/22/2012 12:55 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 1:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-030	**Matrix:**	Air
Client Sample ID:	VA2220		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.25	0.10		% v/v	1	1/2/2013 4:03 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 4:03 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 4:03 PM
Nitrogen	83	0.10		% v/v	1	1/2/2013 4:03 PM
Oxygen	22	0.10		% v/v	1	1/2/2013 4:03 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
2-Butanone	ND	40	U	ppbv	40	12/26/2012 7:31 PM
2-Hexanone	ND	40	U	ppbv	40	12/26/2012 7:31 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Acetone	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Benzene	190	40		ppbv	40	12/26/2012 7:31 PM
Benzyl chloride	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Bromoform	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Bromomethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Carbon disulfide	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Chlorobenzene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Chloroethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Chloroform	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Chloromethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/26/2012 7:31 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 1:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-030	**Matrix:**	Air
Client Sample ID:	VA2220		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	470	80		ppbv	40	12/26/2012 7:31 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Ethyl acetate	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Ethylbenzene	58	80	J	ppbv	40	12/26/2012 7:31 PM
Heptane	310	40		ppbv	40	12/26/2012 7:31 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/26/2012 7:31 PM
m,p-Xylene	99	80		ppbv	40	12/26/2012 7:31 PM
Methylene chloride	ND	200	U	ppbv	40	12/26/2012 7:31 PM
n-Hexane	440	80		ppbv	40	12/26/2012 7:31 PM
Naphthalene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
o-Xylene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Propylene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Styrene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Toluene	1,000	40		ppbv	40	12/26/2012 7:31 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Trichloroethene	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Vinyl acetate	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Vinyl chloride	ND	40	U	ppbv	40	12/26/2012 7:31 PM
Xylenes, Total	99	120	J	ppbv	40	12/26/2012 7:31 PM
Surr: 4-Bromofluorobenzene	99.7	70-130		%REC	40	12/26/2012 7:31 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	150,000	47,000		µg/m³	400	12/22/2012 1:44 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/22/2012 1:44 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/22/2012 1:44 AM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	400	12/22/2012 1:44 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 1:54:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-031	**Matrix:**	Air
Client Sample ID:	VA2221		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.18	0.10		% v/v	1	1/2/2013 4:47 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 4:47 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 4:47 PM
Nitrogen	83	0.10		% v/v	1	1/2/2013 4:47 PM
Oxygen	22	0.10		% v/v	1	1/2/2013 4:47 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
2-Butanone	ND	40	U	ppbv	40	12/26/2012 8:12 PM
2-Hexanone	ND	40	U	ppbv	40	12/26/2012 8:12 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Acetone	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Benzene	160	40		ppbv	40	12/26/2012 8:12 PM
Benzyl chloride	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Bromoform	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Bromomethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Carbon disulfide	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Chlorobenzene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Chloroethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Chloroform	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Chloromethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/26/2012 8:12 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 1:54:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-031	**Matrix:**	Air
Client Sample ID:	VA2221		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	410	80		ppbv	40	12/26/2012 8:12 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Ethyl acetate	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Ethylbenzene	44	80	J	ppbv	40	12/26/2012 8:12 PM
Heptane	260	40		ppbv	40	12/26/2012 8:12 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/26/2012 8:12 PM
m,p-Xylene	75	80	J	ppbv	40	12/26/2012 8:12 PM
Methylene chloride	ND	200	U	ppbv	40	12/26/2012 8:12 PM
n-Hexane	370	80		ppbv	40	12/26/2012 8:12 PM
Naphthalene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
o-Xylene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Propylene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Styrene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Toluene	830	40		ppbv	40	12/26/2012 8:12 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Trichloroethene	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Vinyl acetate	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Vinyl chloride	ND	40	U	ppbv	40	12/26/2012 8:12 PM
Xylenes, Total	75	120	J	ppbv	40	12/26/2012 8:12 PM
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	40	12/26/2012 8:12 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	130,000	47,000		µg/m³	400	12/22/2012 2:33 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/22/2012 2:33 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/22/2012 2:33 AM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	400	12/22/2012 2:33 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 2:29:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-032	**Matrix:**	Air
Client Sample ID:	VA2222		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.27	0.10		% v/v	1	1/2/2013 5:01 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 5:01 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 5:01 PM
Nitrogen	83	0.10		% v/v	1	1/2/2013 5:01 PM
Oxygen	21	0.10		% v/v	1	1/2/2013 5:01 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
2-Butanone	ND	40	U	ppbv	40	12/26/2012 8:54 PM
2-Hexanone	ND	40	U	ppbv	40	12/26/2012 8:54 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Acetone	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Benzene	200	40		ppbv	40	12/26/2012 8:54 PM
Benzyl chloride	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Bromoform	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Bromomethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Carbon disulfide	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Chlorobenzene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Chloroethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Chloroform	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Chloromethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/26/2012 8:54 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 2:29:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-032	**Matrix:**	Air
Client Sample ID:	VA2222		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	590	80		ppbv	40	12/26/2012 8:54 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Ethyl acetate	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Ethylbenzene	54	80	J	ppbv	40	12/26/2012 8:54 PM
Heptane	330	40		ppbv	40	12/26/2012 8:54 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/26/2012 8:54 PM
m,p-Xylene	92	80		ppbv	40	12/26/2012 8:54 PM
Methylene chloride	ND	200	U	ppbv	40	12/26/2012 8:54 PM
n-Hexane	500	80		ppbv	40	12/26/2012 8:54 PM
Naphthalene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
o-Xylene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Propylene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Styrene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Toluene	1,000	40		ppbv	40	12/26/2012 8:54 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Trichloroethene	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Vinyl acetate	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Vinyl chloride	ND	40	U	ppbv	40	12/26/2012 8:54 PM
Xylenes, Total	92	120	J	ppbv	40	12/26/2012 8:54 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40	12/26/2012 8:54 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	180,000	47,000		µg/m³	400	12/22/2012 3:21 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/22/2012 3:21 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/22/2012 3:21 AM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	400	12/22/2012 3:21 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 3:05:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-033	**Matrix:**	Air
Client Sample ID:	VA2223		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.047	0.10	J	% v/v	1	1/2/2013 5:22 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 5:22 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 5:22 PM
Nitrogen	82	0.10		% v/v	1	1/2/2013 5:22 PM
Oxygen	22	0.10		% v/v	1	1/2/2013 5:22 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
2-Butanone	ND	40	U	ppbv	40	12/26/2012 9:36 PM
2-Hexanone	ND	40	U	ppbv	40	12/26/2012 9:36 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Acetone	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Benzene	190	40		ppbv	40	12/26/2012 9:36 PM
Benzyl chloride	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Bromoform	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Bromomethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Carbon disulfide	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Chlorobenzene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Chloroethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Chloroform	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Chloromethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/26/2012 9:36 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 3:05:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-033	**Matrix:**	Air
Client Sample ID:	VA2223		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	650	80		ppbv	40	12/26/2012 9:36 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Ethyl acetate	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Ethylbenzene	55	80	J	ppbv	40	12/26/2012 9:36 PM
Heptane	260	40		ppbv	40	12/26/2012 9:36 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/26/2012 9:36 PM
m,p-Xylene	96	80		ppbv	40	12/26/2012 9:36 PM
Methylene chloride	ND	200	U	ppbv	40	12/26/2012 9:36 PM
n-Hexane	440	80		ppbv	40	12/26/2012 9:36 PM
Naphthalene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
o-Xylene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Propylene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Styrene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Toluene	910	40		ppbv	40	12/26/2012 9:36 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Trichloroethene	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Vinyl acetate	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Vinyl chloride	ND	40	U	ppbv	40	12/26/2012 9:36 PM
Xylenes, Total	96	120	J	ppbv	40	12/26/2012 9:36 PM
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	40	12/26/2012 9:36 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	160,000	47,000		µg/m³	400	12/22/2012 4:10 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/22/2012 4:10 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/22/2012 4:10 AM
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	400	12/22/2012 4:10 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 3:43:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-034	**Matrix:**	Air
Client Sample ID:	VA2224		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.42	0.10		% v/v	1	1/2/2013 5:37 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 5:37 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 5:37 PM
Nitrogen	83	0.10		% v/v	1	1/2/2013 5:37 PM
Oxygen	21	0.10		% v/v	1	1/2/2013 5:37 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
2-Butanone	ND	800	U	ppbv	800	12/26/2012 10:21 PM
2-Hexanone	ND	800	U	ppbv	800	12/26/2012 10:21 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Acetone	4,200	800		ppbv	800	12/26/2012 10:21 PM
Benzene	7,600	800		ppbv	800	12/26/2012 10:21 PM
Benzyl chloride	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Bromoform	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Bromomethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Carbon disulfide	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Chlorobenzene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Chloroethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Chloroform	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Chloromethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/26/2012 10:21 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 3:43:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-034	**Matrix:**	Air
Client Sample ID:	VA2224		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	22,000	1,600		ppbv	800	12/26/2012 10:21 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Ethyl acetate	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Ethylbenzene	820	1,600	J	ppbv	800	12/26/2012 10:21 PM
Heptane	14,000	800		ppbv	800	12/26/2012 10:21 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/26/2012 10:21 PM
m,p-Xylene	2,400	1,600		ppbv	800	12/26/2012 10:21 PM
Methylene chloride	8,500	4,000		ppbv	800	12/26/2012 10:21 PM
n-Hexane	10,000	1,600		ppbv	800	12/26/2012 10:21 PM
Naphthalene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
o-Xylene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Propylene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Styrene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Toluene	16,000	800		ppbv	800	12/26/2012 10:21 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Trichloroethene	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Vinyl acetate	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Vinyl chloride	ND	800	U	ppbv	800	12/26/2012 10:21 PM
Xylenes, Total	2,400	2,400		ppbv	800	12/26/2012 10:21 PM
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	800	12/26/2012 10:21 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,100,000	940,000		µg/m³	8000	12/29/2012 9:24 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/29/2012 9:24 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/29/2012 9:24 AM
Surr: 4-Bromofluorobenzene	94.3	70-130		%REC	8000	12/29/2012 9:24 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 1:39:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-035	**Matrix:**	Air
Client Sample ID:	VA2225		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.047	0.10	J	% v/v	1	1/2/2013 6:07 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/2/2013 6:07 PM
Methane	ND	0.50	U	% v/v	1	1/2/2013 6:07 PM
Nitrogen	82	0.10		% v/v	1	1/2/2013 6:07 PM
Oxygen	23	0.10		% v/v	1	1/2/2013 6:07 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,3-Butadiene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
2-Butanone	ND	800	U	ppbv	800	1/2/2013 2:07 AM
2-Hexanone	ND	800	U	ppbv	800	1/2/2013 2:07 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Acetone	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Benzene	5,400	800		ppbv	800	1/2/2013 2:07 AM
Benzyl chloride	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Bromodichloromethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Bromoform	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Bromomethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Carbon disulfide	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Carbon tetrachloride	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Chlorobenzene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Chlorodibromomethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Chloroethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Chloroform	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Chloromethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/2/2013 2:07 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 1:39:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-035	**Matrix:**	Air
Client Sample ID:	VA2225		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	11,000	1,600		ppbv	800	1/2/2013 2:07 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Ethyl acetate	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Ethylbenzene	2,100	1,600		ppbv	800	1/2/2013 2:07 AM
Heptane	12,000	800		ppbv	800	1/2/2013 2:07 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/2/2013 2:07 AM
m,p-Xylene	5,100	1,600		ppbv	800	1/2/2013 2:07 AM
Methylene chloride	2,900	4,000	J	ppbv	800	1/2/2013 2:07 AM
n-Hexane	6,000	1,600		ppbv	800	1/2/2013 2:07 AM
Naphthalene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
o-Xylene	1,400	800		ppbv	800	1/2/2013 2:07 AM
Propylene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Styrene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Tetrachloroethene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Tetrahydrofuran	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Toluene	21,000	800		ppbv	800	1/2/2013 2:07 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Trichloroethene	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Vinyl acetate	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Vinyl chloride	ND	800	U	ppbv	800	1/2/2013 2:07 AM
Xylenes, Total	6,500	2,400		ppbv	800	1/2/2013 2:07 AM
Surr: 4-Bromofluorobenzene	93.4	70-130		%REC	800	1/2/2013 2:07 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,800,000	940,000		µg/m³	8000	1/1/2013 2:46 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/1/2013 2:46 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/1/2013 2:46 PM
Surr: 4-Bromofluorobenzene	95.6	70-130		%REC	8000	1/1/2013 2:46 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 2:05:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-036	**Matrix:**	Air
Client Sample ID:	VA2226		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	1.2	0.10		% v/v	1	1/3/2013 12:48 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/3/2013 12:48 PM
Methane	ND	0.50	U	% v/v	1	1/3/2013 12:48 PM
Nitrogen	84	0.10		% v/v	1	1/3/2013 12:48 PM
Oxygen	20	0.10		% v/v	1	1/3/2013 12:48 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,3-Butadiene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
2-Butanone	ND	800	U	ppbv	800	1/2/2013 5:04 AM
2-Hexanone	ND	800	U	ppbv	800	1/2/2013 5:04 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Acetone	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Benzene	3,900	800		ppbv	800	1/2/2013 5:04 AM
Benzyl chloride	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Bromodichloromethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Bromoform	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Bromomethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Carbon disulfide	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Carbon tetrachloride	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Chlorobenzene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Chlorodibromomethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Chloroethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Chloroform	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Chloromethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/2/2013 5:04 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 2:05:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-036	**Matrix:**	Air
Client Sample ID:	VA2226		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	8,600	1,600		ppbv	800	1/2/2013 5:04 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Ethyl acetate	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Ethylbenzene	2,100	1,600		ppbv	800	1/2/2013 5:04 AM
Heptane	9,500	800		ppbv	800	1/2/2013 5:04 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/2/2013 5:04 AM
m,p-Xylene	5,300	1,600		ppbv	800	1/2/2013 5:04 AM
Methylene chloride	ND	4,000	U	ppbv	800	1/2/2013 5:04 AM
n-Hexane	4,000	1,600		ppbv	800	1/2/2013 5:04 AM
Naphthalene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
o-Xylene	1,500	800		ppbv	800	1/2/2013 5:04 AM
Propylene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Styrene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Tetrachloroethene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Tetrahydrofuran	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Toluene	19,000	800		ppbv	800	1/2/2013 5:04 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Trichloroethene	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Vinyl acetate	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Vinyl chloride	ND	800	U	ppbv	800	1/2/2013 5:04 AM
Xylenes, Total	6,800	2,400		ppbv	800	1/2/2013 5:04 AM
Surr: 4-Bromofluorobenzene	93.4	70-130		%REC	800	1/2/2013 5:04 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,700,000	940,000		µg/m³	8000	1/1/2013 5:11 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/1/2013 5:11 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/1/2013 5:11 PM
Surr: 4-Bromofluorobenzene	93.8	70-130		%REC	8000	1/1/2013 5:11 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 2:05:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-037	**Matrix:**	Air
Client Sample ID:	VA2227		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	1.2	0.10		% v/v	1	1/3/2013 1:04 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/3/2013 1:04 PM
Methane	ND	0.50	U	% v/v	1	1/3/2013 1:04 PM
Nitrogen	83	0.10		% v/v	1	1/3/2013 1:04 PM
Oxygen	20	0.10		% v/v	1	1/3/2013 1:04 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,3-Butadiene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
2-Butanone	ND	800	U	ppbv	800	1/2/2013 4:19 AM
2-Hexanone	ND	800	U	ppbv	800	1/2/2013 4:19 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Acetone	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Benzene	5,200	800		ppbv	800	1/2/2013 4:19 AM
Benzyl chloride	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Bromodichloromethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Bromoform	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Bromomethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Carbon disulfide	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Carbon tetrachloride	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Chlorobenzene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Chlorodibromomethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Chloroethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Chloroform	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Chloromethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/2/2013 4:19 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 2:05:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-037	**Matrix:**	Air
Client Sample ID:	VA2227		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	12,000	1,600		ppbv	800	1/2/2013 4:19 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Ethyl acetate	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Ethylbenzene	3,000	1,600		ppbv	800	1/2/2013 4:19 AM
Heptane	13,000	800		ppbv	800	1/2/2013 4:19 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/2/2013 4:19 AM
m,p-Xylene	7,400	1,600		ppbv	800	1/2/2013 4:19 AM
Methylene chloride	ND	4,000	U	ppbv	800	1/2/2013 4:19 AM
n-Hexane	5,800	1,600		ppbv	800	1/2/2013 4:19 AM
Naphthalene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
o-Xylene	2,100	800		ppbv	800	1/2/2013 4:19 AM
Propylene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Styrene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Tetrachloroethene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Tetrahydrofuran	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Toluene	25,000	800		ppbv	800	1/2/2013 4:19 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Trichloroethene	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Vinyl acetate	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Vinyl chloride	ND	800	U	ppbv	800	1/2/2013 4:19 AM
Xylenes, Total	9,600	2,400		ppbv	800	1/2/2013 4:19 AM
Surr: 4-Bromofluorobenzene	92.4	70-130		%REC	800	1/2/2013 4:19 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,800,000	940,000		µg/m³	8000	1/1/2013 4:23 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/1/2013 4:23 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/1/2013 4:23 PM
Surr: 4-Bromofluorobenzene	95.9	70-130		%REC	8000	1/1/2013 4:23 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 2:45:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-038	**Matrix:**	Air
Client Sample ID:	VA2228		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.10	0.10		% v/v	1	1/3/2013 1:24 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/3/2013 1:24 PM
Methane	ND	0.50	U	% v/v	1	1/3/2013 1:24 PM
Nitrogen	83	0.10		% v/v	1	1/3/2013 1:24 PM
Oxygen	22	0.10		% v/v	1	1/3/2013 1:24 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,1,2,2-Tetrachloroethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,1,2-Trichloroethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,1-Dichloroethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,1-Dichloroethene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,2,4-Trichlorobenzene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,2,4-Trimethylbenzene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,2-Dibromoethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,2-Dichlorobenzene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,2-Dichloroethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,2-Dichloropropane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,3,5-Trimethylbenzene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,3-Butadiene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,3-Dichlorobenzene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
1,4-Dichlorobenzene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
2-Butanone	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
2-Hexanone	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
4-Methyl-2-pentanone	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Acetone	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Benzene	2,800	1,600		ppbv	1600	1/2/2013 5:47 AM
Benzyl chloride	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Bromodichloromethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Bromoform	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Bromomethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Carbon disulfide	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Carbon tetrachloride	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Chlorobenzene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Chlorodibromomethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Chloroethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Chloroform	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Chloromethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
cis-1,2-Dichloroethene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
cis-1,3-dichloropropene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 2:45:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-038	**Matrix:**	Air
Client Sample ID:	VA2228		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,100	3,200		ppbv	1600	1/2/2013 5:47 AM
Dichlorodifluoromethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Ethyl acetate	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Ethylbenzene	2,000	3,200	J	ppbv	1600	1/2/2013 5:47 AM
Heptane	7,200	1,600		ppbv	1600	1/2/2013 5:47 AM
Hexachlorobutadiene	ND	3,200	U	ppbv	1600	1/2/2013 5:47 AM
m,p-Xylene	5,300	3,200		ppbv	1600	1/2/2013 5:47 AM
Methylene chloride	ND	8,000	U	ppbv	1600	1/2/2013 5:47 AM
n-Hexane	2,900	3,200	J	ppbv	1600	1/2/2013 5:47 AM
Naphthalene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
o-Xylene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Propylene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Styrene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
tert-Butyl Methyl Ether	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Tetrachloroethene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Tetrahydrofuran	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Toluene	16,000	1,600		ppbv	1600	1/2/2013 5:47 AM
trans-1,2-Dichloroethene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
trans-1,3-dichloropropene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Trichloroethene	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Trichlorofluoromethane	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Vinyl acetate	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Vinyl chloride	ND	1,600	U	ppbv	1600	1/2/2013 5:47 AM
Xylenes, Total	5,300	4,800		ppbv	1600	1/2/2013 5:47 AM
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	1600	1/2/2013 5:47 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	550,000	190,000		µg/m³	1600	1/1/2013 5:57 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	1/1/2013 5:57 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	1/1/2013 5:57 PM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	1600	1/1/2013 5:57 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 3:16:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-039	**Matrix:**	Air
Client Sample ID:	VA2229		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.13	0.10		% v/v	1	1/3/2013 2:12 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/3/2013 2:12 PM
Methane	ND	0.50	U	% v/v	1	1/3/2013 2:12 PM
Nitrogen	83	0.10		% v/v	1	1/3/2013 2:12 PM
Oxygen	23	0.10		% v/v	1	1/3/2013 2:12 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,1,2,2-Tetrachloroethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,1,2-Trichloroethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,1-Dichloroethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,1-Dichloroethene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,2,4-Trichlorobenzene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,2,4-Trimethylbenzene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,2-Dibromoethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,2-Dichlorobenzene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,2-Dichloroethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,2-Dichloropropane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,3,5-Trimethylbenzene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,3-Butadiene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,3-Dichlorobenzene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
1,4-Dichlorobenzene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
2-Butanone	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
2-Hexanone	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
4-Methyl-2-pentanone	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Acetone	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Benzene	2,500	1,600		ppbv	1600	1/2/2013 6:30 AM
Benzyl chloride	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Bromodichloromethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Bromoform	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Bromomethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Carbon disulfide	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Carbon tetrachloride	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Chlorobenzene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Chlorodibromomethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Chloroethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Chloroform	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Chloromethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
cis-1,2-Dichloroethene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
cis-1,3-dichloropropene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 3:16:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-039	**Matrix:**	Air
Client Sample ID:	VA2229		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,600	3,200		ppbv	1600	1/2/2013 6:30 AM
Dichlorodifluoromethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Ethyl acetate	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Ethylbenzene	1,800	3,200	J	ppbv	1600	1/2/2013 6:30 AM
Heptane	6,500	1,600		ppbv	1600	1/2/2013 6:30 AM
Hexachlorobutadiene	ND	3,200	U	ppbv	1600	1/2/2013 6:30 AM
m,p-Xylene	4,700	3,200		ppbv	1600	1/2/2013 6:30 AM
Methylene chloride	ND	8,000	U	ppbv	1600	1/2/2013 6:30 AM
n-Hexane	2,700	3,200	J	ppbv	1600	1/2/2013 6:30 AM
Naphthalene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
o-Xylene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Propylene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Styrene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
tert-Butyl Methyl Ether	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Tetrachloroethene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Tetrahydrofuran	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Toluene	14,000	1,600		ppbv	1600	1/2/2013 6:30 AM
trans-1,2-Dichloroethene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
trans-1,3-dichloropropene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Trichloroethene	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Trichlorofluoromethane	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Vinyl acetate	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Vinyl chloride	ND	1,600	U	ppbv	1600	1/2/2013 6:30 AM
Xylenes, Total	4,700	4,800	J	ppbv	1600	1/2/2013 6:30 AM
Surr: 4-Bromofluorobenzene	93.8	70-130		%REC	1600	1/2/2013 6:30 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,200,000	190,000		µg/m³	1600	1/1/2013 7:29 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	1/1/2013 7:29 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	1/1/2013 7:29 PM
Surr: 4-Bromofluorobenzene	97.6	70-130		%REC	1600	1/1/2013 7:29 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 3:47:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-040	**Matrix:**	Air
Client Sample ID:	VA2230		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.14	0.10		% v/v	1	1/3/2013 2:26 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/3/2013 2:26 PM
Methane	ND	0.50	U	% v/v	1	1/3/2013 2:26 PM
Nitrogen	82	0.10		% v/v	1	1/3/2013 2:26 PM
Oxygen	22	0.10		% v/v	1	1/3/2013 2:26 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,3-Butadiene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
2-Butanone	ND	800	U	ppbv	800	1/2/2013 8:04 AM
2-Hexanone	ND	800	U	ppbv	800	1/2/2013 8:04 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Acetone	1,600	800		ppbv	800	1/2/2013 8:04 AM
Benzene	2,500	800		ppbv	800	1/2/2013 8:04 AM
Benzyl chloride	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Bromodichloromethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Bromoform	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Bromomethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Carbon disulfide	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Carbon tetrachloride	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Chlorobenzene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Chlorodibromomethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Chloroethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Chloroform	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Chloromethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/2/2013 8:04 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 3:47:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-040	**Matrix:**	Air
Client Sample ID:	VA2230		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,400	1,600		ppbv	800	1/2/2013 8:04 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Ethyl acetate	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Ethylbenzene	1,500	1,600	J	ppbv	800	1/2/2013 8:04 AM
Heptane	6,200	800		ppbv	800	1/2/2013 8:04 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/2/2013 8:04 AM
m,p-Xylene	4,000	1,600		ppbv	800	1/2/2013 8:04 AM
Methylene chloride	12,000	4,000		ppbv	800	1/2/2013 8:04 AM
n-Hexane	3,400	1,600		ppbv	800	1/2/2013 8:04 AM
Naphthalene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
o-Xylene	1,200	800		ppbv	800	1/2/2013 8:04 AM
Propylene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Styrene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Tetrachloroethene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Tetrahydrofuran	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Toluene	13,000	800		ppbv	800	1/2/2013 8:04 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Trichloroethene	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Vinyl acetate	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Vinyl chloride	ND	800	U	ppbv	800	1/2/2013 8:04 AM
Xylenes, Total	5,200	2,400		ppbv	800	1/2/2013 8:04 AM
Surr: 4-Bromofluorobenzene	94.2	70-130		%REC	800	1/2/2013 8:04 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	670,000	94,000		µg/m³	800	1/1/2013 9:03 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	1/1/2013 9:03 PM
C9-C12 Aliphatic Hydrocarbons	130,000	150,000	J	µg/m³	800	1/1/2013 9:03 PM
Surr: 4-Bromofluorobenzene	95.6	70-130		%REC	800	1/1/2013 9:03 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 4:20:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-041	**Matrix:**	Air
Client Sample ID:	VA2231		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.16	0.10		% v/v	1	12/20/2012 6:25 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 6:25 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 6:25 PM
Nitrogen	78	0.10		% v/v	1	12/20/2012 6:25 PM
Oxygen	21	0.10		% v/v	1	12/20/2012 6:25 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,3-Butadiene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
2-Butanone	ND	800	U	ppbv	800	1/4/2013 12:41 PM
2-Hexanone	ND	800	U	ppbv	800	1/4/2013 12:41 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Acetone	1,300	800		ppbv	800	1/4/2013 12:41 PM
Benzene	2,400	800		ppbv	800	1/4/2013 12:41 PM
Benzyl chloride	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Bromodichloromethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Bromoform	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Bromomethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Carbon disulfide	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Carbon tetrachloride	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Chlorobenzene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Chlorodibromomethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Chloroethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Chloroform	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Chloromethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/4/2013 12:41 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/5/2012 4:20:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-041	**Matrix:**	Air
Client Sample ID:	VA2231		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,100	1,600		ppbv	800	1/4/2013 12:41 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Ethyl acetate	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Ethylbenzene	1,100	1,600	J	ppbv	800	1/4/2013 12:41 PM
Heptane	5,000	800		ppbv	800	1/4/2013 12:41 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/4/2013 12:41 PM
m,p-Xylene	2,800	1,600		ppbv	800	1/4/2013 12:41 PM
Methylene chloride	5,600	4,000		ppbv	800	1/4/2013 12:41 PM
n-Hexane	2,900	1,600		ppbv	800	1/4/2013 12:41 PM
Naphthalene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
o-Xylene	820	800		ppbv	800	1/4/2013 12:41 PM
Propylene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Styrene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Tetrachloroethene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Tetrahydrofuran	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Toluene	12,000	800		ppbv	800	1/4/2013 12:41 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Trichloroethene	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Vinyl acetate	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Vinyl chloride	ND	800	U	ppbv	800	1/4/2013 12:41 PM
Xylenes, Total	3,700	2,400		ppbv	800	1/4/2013 12:41 PM
Surr: 4-Bromofluorobenzene	92.6	70-130		%REC	800	1/4/2013 12:41 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	400,000	94,000		µg/m³	800	1/2/2013 12:11 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	1/2/2013 12:11 AM
C9-C12 Aliphatic Hydrocarbons	100,000	150,000	J	µg/m³	800	1/2/2013 12:11 AM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	800	1/2/2013 12:11 AM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 12:00:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-042	**Matrix:**	Air
Client Sample ID:	VA8108-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,1,2,2-Tetrachloroethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,1,2-Trichloroethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,1-Dichloroethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,1-Dichloroethene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,2,4-Trichlorobenzene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,2,4-Trimethylbenzene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,2-Dibromoethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,2-Dichlorobenzene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,2-Dichloroethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,2-Dichloropropane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,3,5-Trimethylbenzene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,3-Butadiene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,3-Dichlorobenzene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
1,4-Dichlorobenzene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
2-Butanone	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
2-Hexanone	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
4-Methyl-2-pentanone	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Acetone	4.4	1.0		ppbv	1	12/26/2012 6:00 PM
Benzene	12	1.0		ppbv	1	12/26/2012 6:00 PM
Benzyl chloride	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Bromodichloromethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Bromoform	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Bromomethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Carbon disulfide	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Carbon tetrachloride	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Chlorobenzene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Chlorodibromomethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Chloroethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Chloroform	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Chloromethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
cis-1,2-Dichloroethene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
cis-1,3-dichloropropene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Cyclohexane	36	2.0		ppbv	1	12/26/2012 6:00 PM
Dichlorodifluoromethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Ethyl acetate	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Ethylbenzene	ND	2.0	U	ppbv	1	12/26/2012 6:00 PM
Heptane	30	1.0		ppbv	1	12/26/2012 6:00 PM
Hexachlorobutadiene	ND	2.0	U	ppbv	1	12/26/2012 6:00 PM
m,p-Xylene	2.7	2.0		ppbv	1	12/26/2012 6:00 PM
Methylene chloride	4.5	5.0	J	ppbv	1	12/26/2012 6:00 PM

RTI Laboratories - Analytical Report

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/4/2012 12:00:00 PM
Project:	Kirtland AFB		
Lab ID:	1212437-042	**Matrix:**	Air
Client Sample ID:	VA8108-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
n-Hexane	17	2.0		ppbv	1	12/26/2012 6:00 PM
Naphthalene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
o-Xylene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Propylene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Styrene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
tert-Butyl Methyl Ether	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Tetrachloroethene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Tetrahydrofuran	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Toluene	21	1.0		ppbv	1	12/26/2012 6:00 PM
trans-1,2-Dichloroethene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
trans-1,3-dichloropropene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Trichloroethene	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Trichlorofluoromethane	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Vinyl acetate	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Vinyl chloride	ND	1.0	U	ppbv	1	12/26/2012 6:00 PM
Xylenes, Total	2.7	3.0	J	ppbv	1	12/26/2012 6:00 PM
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	1	12/26/2012 6:00 PM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54812**

Sample ID: **MBLK-122012 TCD-A** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54812**
Client ID: **PBW** Batch ID: **R54812** TestNo: **ASTM-D2504** Analysis Date: **12/20/2012** SeqNo: **1080441**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	ND	0.10									U
Carbon Monoxide	ND	0.10									U
Methane	ND	0.50									U
Nitrogen	ND	0.10									U
Oxygen	ND	0.10									U

Sample ID: **LCS-122012 TCD-A** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54812**
Client ID: **LCSW** Batch ID: **R54812** TestNo: **ASTM-D2504** Analysis Date: **12/20/2012** SeqNo: **1080444**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.5	0.10	2.500	0	99.2	70	130	2.502	0.883	20	
Carbon Monoxide	2.6	0.10	2.500	0	104	70	130	2.617	1.11	20	
Methane	2.0	0.50	2.000	0	99.6	70	130	2.013	1.10	20	
Nitrogen	2.7	0.10	2.500	0	107	70	130	2.671	0.0374	20	
Oxygen	2.5	0.10	2.500	0	101	70	130	2.545	0.908	20	

Sample ID: **1212185-060BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54812**
Client ID: **ZZZZZZ** Batch ID: **R54812** TestNo: **ASTM-D2504** Analysis Date: **12/20/2012** SeqNo: **1080455**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.10	0.10						0.1080	2.82	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	78	0.10						77.75	0.454	20	
Oxygen	21	0.10						20.50	0.453	20	

Sample ID: **1212185-064BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54812**
Client ID: **ZZZZZZ** Batch ID: **R54812** TestNo: **ASTM-D2504** Analysis Date: **12/20/2012** SeqNo: **1080461**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.10	0.10						0.1010	0	20	
Carbon Monoxide	ND	0.10						0	0	20	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54812**

Sample ID:	**1212185-064BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**% v/v**	Prep Date:		RunNo:	**54812**
Client ID:	**ZZZZZZ**	Batch ID:	**R54812**	TestNo:	**ASTM-D2504**			Analysis Date:	**12/20/2012**	SeqNo:	**1080461**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Methane	ND	0.50						0	0	20	U
Nitrogen	77	0.10						77.97	0.648	20	
Oxygen	21	0.10						21.14	1.48	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54853**

Sample ID: **MBLK-122112 TCD-A** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54853**
Client ID: **PBW** Batch ID: **R54853** TestNo: **ASTM-D2504** Analysis Date: **12/21/2012** SeqNo: **1081312**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	ND	0.10									U
Carbon Monoxide	ND	0.10									U
Methane	ND	0.50									U
Nitrogen	0.031	0.10									J
Oxygen	ND	0.10									U

Sample ID: **LCS-122112 TCD** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54853**
Client ID: **LCSW** Batch ID: **R54853** TestNo: **ASTM-D2504** Analysis Date: **12/21/2012** SeqNo: **1081314**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.5	0.10	2.500	0	98.4	70	130	2.406	2.22	20	
Carbon Monoxide	2.6	0.10	2.500	0	103	70	130	2.592	0.464	20	
Methane	2.0	0.50	2.000	0	98.8	70	130	1.989	0.656	20	
Nitrogen	2.6	0.10	2.500	0	104	70	130	2.616	0.460	20	
Oxygen	2.5	0.10	2.500	0	99.8	70	130	2.503	0.360	20	

Sample ID: **1212437-010BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54853**
Client ID: **VA2004** Batch ID: **R54853** TestNo: **ASTM-D2504** Analysis Date: **12/21/2012** SeqNo: **1081328**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	1.4	0.10						1.383	0.0723	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	83	0.10						83.72	0.418	20	
Oxygen	14	0.10						13.93	0.658	20	

Sample ID: **1212437-020BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54853**
Client ID: **VA2186** Batch ID: **R54853** TestNo: **ASTM-D2504** Analysis Date: **12/21/2012** SeqNo: **1081340**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	1.2	0.10						1.208	0.331	20	
Carbon Monoxide	ND	0.10						0	0	20	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54853**

Sample ID:	**1212437-020BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**% v/v**	Prep Date:		RunNo:	**54853**
Client ID:	**VA2186**	Batch ID:	**R54853**	TestNo:	**ASTM-D2504**			Analysis Date:	**12/21/2012**	SeqNo:	**1081340**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Methane	ND	0.50						0	0	20	U
Nitrogen	80	0.10						79.74	0.0150	20	
Oxygen	19	0.10						18.67	0.0589	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54855**

Sample ID:	**MBLK VOA9 122112**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54855**
Client ID:	**PBW**	Batch ID:	**R54855**	TestNo:	**MA_APH**			Analysis Date:	**12/21/2012**	SeqNo:	**1081392**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	86		89.50		96.4	70	130				

Sample ID:	**1212373-036ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54855**
Client ID:	**ZZZZZZ**	Batch ID:	**R54855**	TestNo:	**MA_APH**			Analysis Date:	**12/21/2012**	SeqNo:	**1081395**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	640,000	94,000						604,900	4.87	30	
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	88,000	150,000						48,860	57.2	30	JR
Surr: 4-Bromofluorobenzene	70,000		71,600		98.4	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54892**

Sample ID:	**MBLK/DBV37 CC VO**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54892**
Client ID:	**PBW**	Batch ID:	**R54892**	TestNo:	**TO-15**			Analysis Date:	**12/26/2012**	SeqNo:	**1082104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									U
1,1,2,2-Tetrachloroethane	ND	1.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									U
1,1,2-Trichloroethane	ND	1.0									U
1,1-Dichloroethane	ND	1.0									U
1,1-Dichloroethene	ND	1.0									U
1,2,4-Trichlorobenzene	ND	1.0									U
1,2,4-Trimethylbenzene	ND	1.0									U
1,2-Dibromoethane	ND	1.0									U
1,2-Dichlorobenzene	ND	1.0									U
1,2-Dichloroethane	ND	1.0									U
1,2-Dichloropropane	ND	1.0									U
1,3,5-Trimethylbenzene	ND	1.0									U
1,3-Butadiene	ND	1.0									U
1,3-Dichlorobenzene	ND	1.0									U
1,4-Dichlorobenzene	ND	1.0									U
2-Butanone	ND	1.0									U
2-Hexanone	ND	1.0									U
4-Methyl-2-pentanone	ND	1.0									U
Acetone	ND	1.0									U
Benzene	ND	1.0									U
Benzyl chloride	ND	1.0									U
Bromodichloromethane	ND	1.0									U
Bromoform	ND	1.0									U
Bromomethane	ND	1.0									U
Carbon disulfide	ND	1.0									U
Carbon tetrachloride	ND	1.0									U
Chlorobenzene	ND	1.0									U
Chlorodibromomethane	ND	1.0									U
Chloroethane	ND	1.0									U
Chloroform	ND	1.0									U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54892**

Sample ID:	**MBLK/DBV37 CC VO**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54892**
Client ID:	**PBW**	Batch ID:	**R54892**	TestNo:	**TO-15**			Analysis Date:	**12/26/2012**	SeqNo:	**1082104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		93.4	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54892**

Sample ID:	**1212437-034ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54892**
Client ID:	**VA2224**	Batch ID:	**R54892**	TestNo:	**TO-15**			Analysis Date:	**12/26/2012**	SeqNo:	**1082114**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	800						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	800						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800						0	0	25	U
1,1,2-Trichloroethane	ND	800						0	0	25	U
1,1-Dichloroethane	ND	800						0	0	25	U
1,1-Dichloroethene	ND	800						0	0	25	U
1,2,4-Trichlorobenzene	ND	800						0	0	25	U
1,2,4-Trimethylbenzene	ND	800						0	0	25	U
1,2-Dibromoethane	ND	800						0	0	25	U
1,2-Dichlorobenzene	ND	800						0	0	25	U
1,2-Dichloroethane	ND	800						0	0	25	U
1,2-Dichloropropane	ND	800						0	0	25	U
1,3,5-Trimethylbenzene	ND	800						0	0	25	U
1,3-Butadiene	ND	800						0	0	25	U
1,3-Dichlorobenzene	ND	800						0	0	25	U
1,4-Dichlorobenzene	ND	800						0	0	25	U
2-Butanone	ND	800						0	0	25	U
2-Hexanone	ND	800						0	0	25	U
4-Methyl-2-pentanone	ND	800						0	0	25	U
Acetone	4,400	800						4,224	3.17	25	
Benzene	8,000	800						7,584	5.04	25	
Benzyl chloride	ND	800						0	0	25	U
Bromodichloromethane	ND	800						0	0	25	U
Bromoform	ND	800						0	0	25	U
Bromomethane	ND	800						0	0	25	U
Carbon disulfide	ND	800						0	0	25	U
Carbon tetrachloride	ND	800						0	0	25	U
Chlorobenzene	ND	800						0	0	25	U
Chlorodibromomethane	ND	800						0	0	25	U
Chloroethane	ND	800						0	0	25	U
Chloroform	ND	800						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54892**

Sample ID:	**1212437-034ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54892**
Client ID:	**VA2224**	Batch ID:	**R54892**	TestNo:	**TO-15**			Analysis Date:	**12/26/2012**	SeqNo:	**1082114**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	800						0	0	25	U
cis-1,2-Dichloroethene	ND	800						0	0	25	U
cis-1,3-dichloropropene	ND	800						0	0	25	U
Cyclohexane	23,000	1,600						22,500	3.94	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	840	1,600						816.0	2.90	25	J
Heptane	14,000	800						13,820	0.577	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	2,500	1,600						2,432	2.60	25	
Methylene chloride	8,500	4,000						8,496	0	25	
n-Hexane	11,000	1,600						10,030	4.82	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	ND	800						0	0	25	U
Propylene	ND	800						0	0	25	U
Styrene	ND	800						0	0	25	U
tert-Butyl Methyl Ether	ND	800						0	0	25	U
Tetrachloroethene	ND	800						0	0	25	U
Tetrahydrofuran	ND	800						0	0	25	U
Toluene	16,000	800						15,700	2.66	25	
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	2,500	2,400						2,432	2.60	25	
Surr: 4-Bromofluorobenzene	10,000		10,000		99.5	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55005**

Sample ID:	**MBLK VOA9 122812**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55005**
Client ID:	**PBW**	Batch ID:	**R55005**	TestNo:	**MA_APH**			Analysis Date:	**12/28/2012**	SeqNo:	**1084469**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	84		89.50		93.8	70	130				

Sample ID:	**1212373-033ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55005**
Client ID:	**ZZZZZZ**	Batch ID:	**R55005**	TestNo:	**MA_APH**			Analysis Date:	**12/28/2012**	SeqNo:	**1084474**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,600,000	190,000						1,616,000	0.938	30	
C9-C10 Aromatic Hydrocarbons	ND	210,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	300,000						0	0	30	U
Surr: 4-Bromofluorobenzene	140,000		143,200		94.3	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55020**

Sample ID:	**MBLK/DBV118 CC V**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55020**
Client ID:	**PBW**	Batch ID:	**R55020**	TestNo:	**TO-15**			Analysis Date:	**1/1/2013**	SeqNo:	**1084685**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									U
1,1,2,2-Tetrachloroethane	ND	1.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									U
1,1,2-Trichloroethane	ND	1.0									U
1,1-Dichloroethane	ND	1.0									U
1,1-Dichloroethene	ND	1.0									U
1,2,4-Trichlorobenzene	ND	1.0									U
1,2,4-Trimethylbenzene	ND	1.0									U
1,2-Dibromoethane	ND	1.0									U
1,2-Dichlorobenzene	ND	1.0									U
1,2-Dichloroethane	ND	1.0									U
1,2-Dichloropropane	ND	1.0									U
1,3,5-Trimethylbenzene	ND	1.0									U
1,3-Butadiene	ND	1.0									U
1,3-Dichlorobenzene	ND	1.0									U
1,4-Dichlorobenzene	ND	1.0									U
2-Butanone	ND	1.0									U
2-Hexanone	ND	1.0									U
4-Methyl-2-pentanone	ND	1.0									U
Acetone	ND	1.0									U
Benzene	ND	1.0									U
Benzyl chloride	ND	1.0									U
Bromodichloromethane	ND	1.0									U
Bromoform	ND	1.0									U
Bromomethane	ND	1.0									U
Carbon disulfide	ND	1.0									U
Carbon tetrachloride	ND	1.0									U
Chlorobenzene	ND	1.0									U
Chlorodibromomethane	ND	1.0									U
Chloroethane	ND	1.0									U
Chloroform	ND	1.0									U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55020**

Sample ID:	**MBLK/DBV118 CC V**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55020**
Client ID:	**PBW**	Batch ID:	**R55020**	TestNo:	**TO-15**			Analysis Date:	**1/1/2013**	SeqNo:	**1084685**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		92.7	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55020**

Sample ID:	**1212437-035ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55020**
Client ID:	**VA2225**	Batch ID:	**R55020**	TestNo:	**TO-15**			Analysis Date:	**1/2/2013**	SeqNo:	**1084757**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	800						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	800						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800						0	0	25	U
1,1,2-Trichloroethane	ND	800						0	0	25	U
1,1-Dichloroethane	ND	800						0	0	25	U
1,1-Dichloroethene	ND	800						0	0	25	U
1,2,4-Trichlorobenzene	ND	800						0	0	25	U
1,2,4-Trimethylbenzene	ND	800						0	0	25	U
1,2-Dibromoethane	ND	800						0	0	25	U
1,2-Dichlorobenzene	ND	800						0	0	25	U
1,2-Dichloroethane	ND	800						0	0	25	U
1,2-Dichloropropane	ND	800						0	0	25	U
1,3,5-Trimethylbenzene	ND	800						0	0	25	U
1,3-Butadiene	ND	800						0	0	25	U
1,3-Dichlorobenzene	ND	800						0	0	25	U
1,4-Dichlorobenzene	ND	800						0	0	25	U
2-Butanone	ND	800						0	0	25	U
2-Hexanone	ND	800						0	0	25	U
4-Methyl-2-pentanone	ND	800						0	0	25	U
Acetone	ND	800						0	0	25	U
Benzene	6,000	800						5,408	9.58	25	
Benzyl chloride	ND	800						0	0	25	U
Bromodichloromethane	ND	800						0	0	25	U
Bromoform	ND	800						0	0	25	U
Bromomethane	ND	800						0	0	25	U
Carbon disulfide	ND	800						0	0	25	U
Carbon tetrachloride	ND	800						0	0	25	U
Chlorobenzene	ND	800						0	0	25	U
Chlorodibromomethane	ND	800						0	0	25	U
Chloroethane	ND	800						0	0	25	U
Chloroform	ND	800						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55020**

Sample ID:	**1212437-035ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55020**
Client ID:	**VA2225**	Batch ID:	**R55020**	TestNo:	**TO-15**			Analysis Date:	**1/2/2013**	SeqNo:	**1084757**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	800						0	0	25	U
cis-1,2-Dichloroethene	ND	800						0	0	25	U
cis-1,3-dichloropropene	ND	800						0	0	25	U
Cyclohexane	12,000	1,600						11,430	8.32	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	2,300	1,600						2,056	9.63	25	
Heptane	13,000	800						11,910	7.06	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	5,600	1,600						5,080	9.31	25	
Methylene chloride	3,200	4,000						2,928	8.13	25	J
n-Hexane	6,500	1,600						5,952	8.74	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	1,600	800						1,432	8.56	25	
Propylene	ND	800						0	0	25	U
Styrene	ND	800						0	0	25	U
tert-Butyl Methyl Ether	ND	800						0	0	25	U
Tetrachloroethene	ND	800						0	0	25	U
Tetrahydrofuran	ND	800						0	0	25	U
Toluene	23,000	800						21,230	9.27	25	
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	7,100	2,400						6,512	9.14	25	
Surr: 4-Bromofluorobenzene	9,300		10,000		92.6	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55049**

Sample ID:	**MBLK VOA9 123112**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55049**
Client ID:	**PBW**	Batch ID:	**R55049**	TestNo:	**MA_APH**			Analysis Date:	**1/1/2013**	SeqNo:	**1085398**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	85		89.50		95.3	70	130				

Sample ID:	**1212437-038ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55049**
Client ID:	**VA2228**	Batch ID:	**R55049**	TestNo:	**MA_APH**			Analysis Date:	**1/1/2013**	SeqNo:	**1085405**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	580,000	190,000						553,200	3.92	30	
C9-C10 Aromatic Hydrocarbons	ND	210,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	300,000						0	0	30	U
Surr: 4-Bromofluorobenzene	140,000		143,200		96.3	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55072**

Sample ID: **MBLK-010213 TCD-A** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **55072**
Client ID: **PBW** Batch ID: **R55072** TestNo: **ASTM-D2504** Analysis Date: **1/2/2013** SeqNo: **1085804**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	ND	0.10									U
Carbon Monoxide	ND	0.10									U
Methane	ND	0.50									U
Nitrogen	ND	0.10									U
Oxygen	ND	0.10									U

Sample ID: **LCS-010213 TCD** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **55072**
Client ID: **LCSW** Batch ID: **R55072** TestNo: **ASTM-D2504** Analysis Date: **1/2/2013** SeqNo: **1085806**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.6	0.10	2.500	0	103	70	130	2.552	0.469	20	
Carbon Monoxide	2.7	0.10	2.500	0	107	70	130	2.669	0.225	20	
Methane	2.1	0.50	2.000	0	103	70	130	2.061	0.194	20	
Nitrogen	2.7	0.10	2.500	0	110	70	130	2.790	1.84	20	
Oxygen	2.7	0.10	2.500	0	107	70	130	2.673	0.112	20	

Sample ID: **1212437-030BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **55072**
Client ID: **VA2220** Batch ID: **R55072** TestNo: **ASTM-D2504** Analysis Date: **1/2/2013** SeqNo: **1085818**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.25	0.10						0.2510	0.800	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	82	0.10						83.22	1.13	20	
Oxygen	22	0.10						22.30	2.01	20	

Sample ID: **1212437-034BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **55072**
Client ID: **VA2224** Batch ID: **R55072** TestNo: **ASTM-D2504** Analysis Date: **1/2/2013** SeqNo: **1085824**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.42	0.10						0.4150	0.481	20	
Carbon Monoxide	ND	0.10						0	0	20	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55072**

Sample ID:	**1212437-034BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**% v/v**	Prep Date:		RunNo:	**55072**
Client ID:	**VA2224**	Batch ID:	**R55072**	TestNo:	**ASTM-D2504**			Analysis Date:	**1/2/2013**	SeqNo:	**1085824**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Methane	ND	0.50						0	0	20	U
Nitrogen	83	0.10						82.99	0.0735	20	
Oxygen	21	0.10						21.21	0.0424	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55087**

Sample ID:	**MBLK VOA9 010213**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55087**
Client ID:	**PBW**	Batch ID:	**R55087**	TestNo:	**MA_APH**			Analysis Date:	**1/2/2013**	SeqNo:	**1086091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	83		89.50		92.6	70	130				

Sample ID:	**1212437-020ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55087**
Client ID:	**VA2186**	Batch ID:	**R55087**	TestNo:	**MA_APH**			Analysis Date:	**1/2/2013**	SeqNo:	**1086093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	810,000	94,000						813,300	0.452	30	
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	150,000						0	0	30	U
Surr: 4-Bromofluorobenzene	68,000		71,600		95.6	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55105**

Sample ID: **MBLK-010313 TCD-A** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **55105**
Client ID: **PBW** Batch ID: **R55105** TestNo: **ASTM-D2504** Analysis Date: **1/3/2013** SeqNo: **1086344**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	ND	0.10									U
Carbon Monoxide	ND	0.10									U
Methane	ND	0.50									U
Nitrogen	ND	0.10									U
Oxygen	ND	0.10									U

Sample ID: **LCS-010313 TCD** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **55105**
Client ID: **LCSW** Batch ID: **R55105** TestNo: **ASTM-D2504** Analysis Date: **1/3/2013** SeqNo: **1086346**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.6	0.10	2.500	0	103	70	130	2.573	0.272	20	
Carbon Monoxide	2.7	0.10	2.500	0	108	70	130	2.672	0.634	20	
Methane	2.1	0.50	2.000	0	104	70	130	2.063	1.06	20	
Nitrogen	2.8	0.10	2.500	0	112	70	130	2.818	0.891	20	
Oxygen	2.7	0.10	2.500	0	108	70	130	2.689	0.186	20	

Sample ID: **1212722-063BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **55105**
Client ID: **ZZZZZZ** Batch ID: **R55105** TestNo: **ASTM-D2504** Analysis Date: **1/3/2013** SeqNo: **1086356**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.080	0.10						0.07800	2.53	20	J
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	82	0.10						81.46	0.121	20	
Oxygen	22	0.10						22.48	0.710	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55111**

Sample ID:	**MBLK VOA9 010313**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55111**
Client ID:	**PBW**	Batch ID:	**R55111**	TestNo:	**MA_APH**			Analysis Date:	**1/4/2013**	SeqNo:	**1086444**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	84		89.50		93.4	70	130				

Sample ID:	**1212722-004ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55111**
Client ID:	**ZZZZZZ**	Batch ID:	**R55111**	TestNo:	**MA_APH**			Analysis Date:	**1/5/2013**	SeqNo:	**1086795**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	640,000	94,000						629,200	1.42	30	
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	65,000	150,000						78,380	18.9	30	J
Surr: 4-Bromofluorobenzene	70,000		71,600		97.3	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55129**

Sample ID:	**1212437-019ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55129**
Client ID:	**VA2185**	Batch ID:	**R55129**	TestNo:	**TO-15**			Analysis Date:	**1/4/2013**	SeqNo:	**1086764**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	800						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	800						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800						0	0	25	U
1,1,2-Trichloroethane	ND	800						0	0	25	U
1,1-Dichloroethane	ND	800						0	0	25	U
1,1-Dichloroethene	ND	800						0	0	25	U
1,2,4-Trichlorobenzene	ND	800						0	0	25	U
1,2,4-Trimethylbenzene	ND	800						0	0	25	U
1,2-Dibromoethane	ND	800						0	0	25	U
1,2-Dichlorobenzene	ND	800						0	0	25	U
1,2-Dichloroethane	ND	800						0	0	25	U
1,2-Dichloropropane	ND	800						0	0	25	U
1,3,5-Trimethylbenzene	ND	800						0	0	25	U
1,3-Butadiene	ND	800						0	0	25	U
1,3-Dichlorobenzene	ND	800						0	0	25	U
1,4-Dichlorobenzene	ND	800						0	0	25	U
2-Butanone	ND	800						0	0	25	U
2-Hexanone	ND	800						0	0	25	U
4-Methyl-2-pentanone	ND	800						0	0	25	U
Acetone	1,100	800						1,152	7.19	25	
Benzene	21,000	800						19,210	7.11	25	
Benzyl chloride	ND	800						0	0	25	U
Bromodichloromethane	ND	800						0	0	25	U
Bromoform	ND	800						0	0	25	U
Bromomethane	ND	800						0	0	25	U
Carbon disulfide	ND	800						0	0	25	U
Carbon tetrachloride	ND	800						0	0	25	U
Chlorobenzene	ND	800						0	0	25	U
Chlorodibromomethane	ND	800						0	0	25	U
Chloroethane	ND	800						0	0	25	U
Chloroform	ND	800						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55129**

Sample ID:	**1212437-019ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55129**
Client ID:	**VA2185**	Batch ID:	**R55129**	TestNo:	**TO-15**			Analysis Date:	**1/4/2013**	SeqNo:	**1086764**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	800						0	0	25	U
cis-1,2-Dichloroethene	ND	800						0	0	25	U
cis-1,3-dichloropropene	ND	800						0	0	25	U
Cyclohexane	31,000	1,600						29,630	6.05	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	ND	1,600						0	0	25	U
Heptane	36,000	800						33,460	7.59	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	2,800	1,600						2,848	1.70	25	
Methylene chloride	2,400	4,000						2,480	2.95	25	J
n-Hexane	28,000	1,600						26,020	6.34	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	ND	800						0	0	25	U
Propylene	ND	800						0	0	25	U
Styrene	ND	800						0	0	25	U
tert-Butyl Methyl Ether	ND	800						0	0	25	U
Tetrachloroethene	ND	800						0	0	25	U
Tetrahydrofuran	ND	800						0	0	25	U
Toluene	43,000	800						39,700	7.88	25	E
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	2,800	2,400						2,848	1.70	25	
Surr: 4-Bromofluorobenzene	9,300		10,000		92.6	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55129**

Sample ID:	**MBLK/CCDBV95 VOA**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55129**
Client ID:	**PBW**	Batch ID:	**R55129**	TestNo:	**TO-15**			Analysis Date:	**1/4/2013**	SeqNo:	**1086769**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									U
1,1,2,2-Tetrachloroethane	ND	1.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									U
1,1,2-Trichloroethane	ND	1.0									U
1,1-Dichloroethane	ND	1.0									U
1,1-Dichloroethene	ND	1.0									U
1,2,4-Trichlorobenzene	ND	1.0									U
1,2,4-Trimethylbenzene	ND	1.0									U
1,2-Dibromoethane	ND	1.0									U
1,2-Dichlorobenzene	ND	1.0									U
1,2-Dichloroethane	ND	1.0									U
1,2-Dichloropropane	ND	1.0									U
1,3,5-Trimethylbenzene	ND	1.0									U
1,3-Butadiene	ND	1.0									U
1,3-Dichlorobenzene	ND	1.0									U
1,4-Dichlorobenzene	ND	1.0									U
2-Butanone	ND	1.0									U
2-Hexanone	ND	1.0									U
4-Methyl-2-pentanone	ND	1.0									U
Acetone	ND	1.0									U
Benzene	ND	1.0									U
Benzyl chloride	ND	1.0									U
Bromodichloromethane	ND	1.0									U
Bromoform	ND	1.0									U
Bromomethane	ND	1.0									U
Carbon disulfide	ND	1.0									U
Carbon tetrachloride	ND	1.0									U
Chlorobenzene	ND	1.0									U
Chlorodibromomethane	ND	1.0									U
Chloroethane	ND	1.0									U
Chloroform	ND	1.0									U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55129**

Sample ID:	**MBLK/CCDBV95**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55129**
Client ID:	**VOA PBW**	Batch ID:	**R55129**	TestNo:	**TO-15**			Analysis Date:	**1/4/2013**	SeqNo:	**1086769**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		93.0	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55152**

Sample ID:	**MBLK VOA1 010513**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55152**
Client ID:	**PBW**	Batch ID:	**R55152**	TestNo:	**TO-15**			Analysis Date:	**1/5/2013**	SeqNo:	**1087111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									U
1,1,2,2-Tetrachloroethane	ND	1.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									U
1,1,2-Trichloroethane	ND	1.0									U
1,1-Dichloroethane	ND	1.0									U
1,1-Dichloroethene	ND	1.0									U
1,2,4-Trichlorobenzene	ND	1.0									U
1,2,4-Trimethylbenzene	ND	1.0									U
1,2-Dibromoethane	ND	1.0									U
1,2-Dichlorobenzene	ND	1.0									U
1,2-Dichloroethane	ND	1.0									U
1,2-Dichloropropane	ND	1.0									U
1,3,5-Trimethylbenzene	ND	1.0									U
1,3-Butadiene	ND	1.0									U
1,3-Dichlorobenzene	ND	1.0									U
1,4-Dichlorobenzene	ND	1.0									U
2-Butanone	ND	1.0									U
2-Hexanone	ND	1.0									U
4-Methyl-2-pentanone	ND	1.0									U
Acetone	ND	1.0									U
Benzene	ND	1.0									U
Benzyl chloride	ND	1.0									U
Bromodichloromethane	ND	1.0									U
Bromoform	ND	1.0									U
Bromomethane	ND	1.0									U
Carbon disulfide	ND	1.0									U
Carbon tetrachloride	ND	1.0									U
Chlorobenzene	ND	1.0									U
Chlorodibromomethane	ND	1.0									U
Chloroethane	ND	1.0									U
Chloroform	ND	1.0									U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55152**

Sample ID:	**MBLK VOA1 010513**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55152**
Client ID:	**PBW**	Batch ID:	**R55152**	TestNo:	**TO-15**			Analysis Date:	**1/5/2013**	SeqNo:	**1087111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		94.0	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55152**

Sample ID:	**1212437-020ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55152**
Client ID:	**VA2186**	Batch ID:	**R55152**	TestNo:	**TO-15**			Analysis Date:	**1/5/2013**	SeqNo:	**1087113**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	800						0	0	25	UH
1,1,2,2-Tetrachloroethane	ND	800						0	0	25	UH
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800						0	0	25	UH
1,1,2-Trichloroethane	ND	800						0	0	25	UH
1,1-Dichloroethane	ND	800						0	0	25	UH
1,1-Dichloroethene	ND	800						0	0	25	UH
1,2,4-Trichlorobenzene	ND	800						0	0	25	UH
1,2,4-Trimethylbenzene	ND	800						0	0	25	UH
1,2-Dibromoethane	ND	800						0	0	25	UH
1,2-Dichlorobenzene	ND	800						0	0	25	UH
1,2-Dichloroethane	ND	800						0	0	25	UH
1,2-Dichloropropane	ND	800						0	0	25	UH
1,3,5-Trimethylbenzene	ND	800						0	0	25	UH
1,3-Butadiene	ND	800						0	0	25	UH
1,3-Dichlorobenzene	ND	800						0	0	25	UH
1,4-Dichlorobenzene	ND	800						0	0	25	UH
2-Butanone	ND	800						0	0	25	UH
2-Hexanone	ND	800						0	0	25	UH
4-Methyl-2-pentanone	ND	800						0	0	25	UH
Acetone	1,500	800						1,280	17.7	25	H
Benzene	12,000	800						10,070	13.6	25	H
Benzyl chloride	ND	800						0	0	25	UH
Bromodichloromethane	ND	800						0	0	25	UH
Bromoform	ND	800						0	0	25	UH
Bromomethane	ND	800						0	0	25	UH
Carbon disulfide	ND	800						0	0	25	UH
Carbon tetrachloride	ND	800						0	0	25	UH
Chlorobenzene	ND	800						0	0	25	UH
Chlorodibromomethane	ND	800						0	0	25	UH
Chloroethane	ND	800						0	0	25	UH
Chloroform	ND	800						0	0	25	UH

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212437

Date Reported: 1/14/2013
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55152**

Sample ID:	**1212437-020ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55152**
Client ID:	**VA2186**	Batch ID:	**R55152**	TestNo:	**TO-15**			Analysis Date:	**1/5/2013**	SeqNo:	**1087113**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	800						0	0	25	UH
cis-1,2-Dichloroethene	ND	800						0	0	25	UH
cis-1,3-dichloropropene	ND	800						0	0	25	UH
Cyclohexane	17,000	1,600						15,620	10.7	25	H
Dichlorodifluoromethane	ND	800						0	0	25	UH
Ethyl acetate	ND	800						0	0	25	UH
Ethylbenzene	ND	1,600						0	0	25	UH
Heptane	21,000	800						18,700	12.7	25	H
Hexachlorobutadiene	ND	1,600						0	0	25	UH
m,p-Xylene	1,800	1,600						1,608	11.7	25	H
Methylene chloride	ND	4,000						0	0	25	UH
n-Hexane	14,000	1,600						13,100	9.87	25	H
Naphthalene	ND	800						0	0	25	UH
o-Xylene	ND	800						0	0	25	UH
Propylene	ND	800						0	0	25	UH
Styrene	ND	800						0	0	25	UH
tert-Butyl Methyl Ether	ND	800						0	0	25	UH
Tetrachloroethene	ND	800						0	0	25	UH
Tetrahydrofuran	ND	800						0	0	25	UH
Toluene	29,000	800						25,550	14.0	25	H
trans-1,2-Dichloroethene	ND	800						0	0	25	UH
trans-1,3-dichloropropene	ND	800						0	0	25	UH
Trichloroethene	ND	800						0	0	25	UH
Trichlorofluoromethane	ND	800						0	0	25	UH
Vinyl acetate	ND	800						0	0	25	UH
Vinyl chloride	ND	800						0	0	25	UH
Xylenes, Total	1,800	2,400						1,608	11.7	25	JH
Surr: 4-Bromofluorobenzene	9,200		10,000		91.8	70	130		0	25	H

Injection Log

Directory: C:\HPCHEM\1\DATA\122612

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12261201.d	1.	BFB VOA1 122612	TUNE BFB_TUNE	26 Dec 2012 09:20
2	2	12261202.d	1.	CCV VOA1 122612	CCV EPA_TO15	26 Dec 2012 10:35
3	3	12261203.d	1.	RLVS VOA1 122612	RLVS EPA_TO15	26 Dec 2012 11:22
4	4	12261204.d	1.	MBLK/DBV42 CC VOA1 122612	DATA NOT USED	26 Dec 2012 12:11
5	5	12261205.d	1.	MBLK/DBV37 CC VOA1 122612	MBLK EPA_TO15	26 Dec 2012 14:16
6	6	12261206.d	1600.	1212373-045A	SAMP EPA_TO15	26 Dec 2012 14:59
7	7	12261207.d	8000.	1212373-004A	DATA NOT USED	26 Dec 2012 15:41
8	3	12261208.d	800.	1212373-011A	SAMP EPA_TO15	26 Dec 2012 16:27
9	3	12261209.d	800.	1212373-011A	DATA NOT USED	26 Dec 2012 17:11
10	4	12261210.d	1.	1212437-042A	SAMP EPA_TO15	26 Dec 2012 18:00
11	6	12261211.d	400.	1212437-029A	SAMP EPA_TO15	26 Dec 2012 18:49
12	7	12261212.d	40.	1212437-030A	SAMP EPA_TO15	26 Dec 2012 19:31
13	8	12261213.d	40.	1212437-031A	SAMP EPA_TO15	26 Dec 2012 20:12
14	9	12261214.d	40.	1212437-032A	SAMP EPA_TO15	26 Dec 2012 20:54
15	10	12261215.d	40.	1212437-033A	SAMP EPA_TO15	26 Dec 2012 21:36
16	11	12261216.d	800.	1212437-034A	SAMP EPA_TO15	26 Dec 2012 22:21
17	11	12261217.d	800.	1212437-034ADUP	DUP EPA_TO15	26 Dec 2012 23:06
18	12	12261218.d	40.	1212437-006A	SAMP EPA_TO15	26 Dec 2012 23:47
19	13	12261219.d	400.	1212437-012A	DATA NOT USED	27 Dec 2012 00:36
20	14	12261220.d	40.	1212437-008A	SAMP EPA_TO15	27 Dec 2012 01:18
21	15	12261221.d	40.	1212437-007A	SAMP EPA_TO15	27 Dec 2012 02:00
22	16	12261222.d	400.	1212437-013A	DATA NOT USED	27 Dec 2012 02:48
23	17	12261223.d	40.	1212437-009A	SAMP EPA_TO15	27 Dec 2012 03:30
24	18	12261224.d	40.	1212437-014A	SAMP EPA_TO15	27 Dec 2012 04:11
25	3	12261225.d	1.	RLVS2 VOA1 122612	RLVS EPA_TO15	27 Dec 2012 04:54

RTI Laboratories

ANALYTICAL RUN Summary

03-Jan-13

RunNo 54892

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1082101	BFB VOA1 122612	BFB_TUNE	TUNE	\\1\DATA\122612\	12/26/2012 9:20:	1	R54892		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.6	0.6		100	0	0	0	0	0	1%	0	2	0%	
174	M		80.9	80.9		100	0	0	0	0	0	81%	50	200	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.1	96.1		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.4	6.4		100	0	0	0	0	0	6%	5	9	0%	
50	M		18.4	18.4		100	0	0	0	0	0	18%	8	40	0%	
75	M		45.7	45.7		100	0	0	0	0	0	46%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1082102	CCV VOA1 122612	EPA_TO15	CCV	\\1\DATA\122612\	12/26/2012 10:3	1	R54892		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.62	10.62		9.6	0	0	0.107	1	50	111%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.24	11.24		10	0	0	0.211	1	50	112%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.69	10.69		9.8	0	0	0.108	1	50	109%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.01	11.01		9.8	0	0	0.2	1	50	112%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.54	10.54		9.7	0	0	0.111	1	50	109%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.6	10.6		9.9	0	0	0.097	1	50	107%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.61	9.61		9.1	0	0	0.271	1	50	106%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.96	10.96		9.8	0	0	0.245	1	50	112%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.83	10.83		9.6	0	0	0.186	1	50	113%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.44	10.44		9.7	0	0	0.208	1	50	108%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.74	10.74		9.7	0	0	0.196	1	50	111%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.08	11.08		9.8	0	0	0.224	1	50	113%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.93	10.93		9.7	0	0	0.24	1	50	113%	70	130	0%	
1,3-Butadiene	A	ppbv	11.47	11.47		9.8	0	0	0.152	1	50	117%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.43	10.43		9.7	0	0	0.202	1	50	108%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1082102	CCV VOA1 122612	EPA_TO15	CCV	\1\DATA\122612\	12/26/2012 10:3	1	R54892		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.31	10.31		9.6	0	0	0.194	1	50	107%	70	130	0%	
1,4-Dioxane	A	ppbv	10.39	10.39		9.6	0	0	0.128	1	50	108%	70	130	0%	
2-Butanone	A	ppbv	10.94	10.94		9.9	0	0	0.287	1	50	111%	70	130	0%	
2-Hexanone	A	ppbv	11.3	11.3		9.8	0	0	0.135	1	50	115%	70	130	0%	
2-Propanol	A	ppbv	10.67	10.67		10.1	0	0	0.329	1	50	106%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11	11		10	0	0	0.157	1	50	110%	70	130	0%	
Acetone	A	ppbv	10.87	10.87		10	0	0	0.43	1	50	109%	70	130	0%	
Benzene	A	ppbv	10.28	10.28		9.6	0	0	0.126	1	50	107%	70	130	0%	
Benzyl chloride	A	ppbv	11.08	11.08		9.7	0	0	0.155	1	50	114%	70	130	0%	
Bromodichloromethane	A	ppbv	10.99	10.99		9.6	0	0	0.156	1	50	114%	70	130	0%	
Bromoform	A	ppbv	11.01	11.01		9.6	0	0	0.197	1	50	115%	70	130	0%	
Bromomethane	A	ppbv	10.93	10.93		9.3	0	0	0.075	1	50	118%	70	130	0%	
Carbon disulfide	A	ppbv	10.16	10.16		9.7	0	0	0.093	1	50	105%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.4	10.4		9.5	0	0	0.114	1	50	109%	70	130	0%	
Chlorobenzene	A	ppbv	11.21	11.21		9.9	0	0	0.275	1	50	113%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.23	11.23		9.2	0	0	0.165	1	50	122%	70	130	0%	
Chloroethane	A	ppbv	10.06	10.06		9.8	0	0	0.063	1	50	103%	70	130	0%	
Chloroform	A	ppbv	10.85	10.85		9.4	0	0	0.126	1	50	115%	70	130	0%	
Chloromethane	A	ppbv	10.13	10.13		9.8	0	0	0.104	1	50	103%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.66	10.66		9.8	0	0	0.107	1	50	109%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.77	10.77		9.5	0	0	0.166	1	50	113%	70	130	0%	
Cyclohexane	A	ppbv	11.17	11.17		9.8	0	0	0.684	2	50	114%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10	10		9.2	0	0	0.086	1	50	109%	70	130	0%	
Ethanol	A	ppbv	8.99	8.99		9.2	0	0	1.962	5	50	98%	70	130	0%	
Ethyl acetate	A	ppbv	10.46	10.46		9.8	0	0	0.157	1	50	107%	70	130	0%	
Ethylbenzene	A	ppbv	11.32	11.32		9.8	0	0	0.737	2	50	116%	70	130	0%	
Heptane	A	ppbv	12.1	12.1		9.9	0	0	0.249	1	50	122%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.2	10.2		9.4	0	0	0.374	2	50	109%	70	130	0%	
m,p-Xylene	A	ppbv	22.94	22.94		19.2	0	0	0.524	2	100	119%	70	130	0%	
Methylene chloride	A	ppbv	10.5	10.5		10	0	0	2.077	5	50	105%	70	130	0%	
n-Hexane	A	ppbv	10.84	10.84		10.1	0	0	0.692	2	50	107%	70	130	0%	
Naphthalene	A	ppbv	10.05	10.05		9.2	0	0	0.247	1	50	109%	70	130	0%	
o-Xylene	A	ppbv	11.6	11.6		10	0	0	0.258	1	50	116%	70	130	0%	
Propylene	A	ppbv	10.38	10.38		10.2	0	0	0.075	1	50	102%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1082102	CCV VOA1 122612	EPA_TO15	CCV	[\1\DATA\122612`12/26/2012 10:3		1	R54892		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.68	11.68		9.8	0	0	0.263	1	50	119%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.72	10.72		9.9	0	0	0.228	1	50	108%	70	130	0%	
Tetrachloroethene	A	ppbv	10.98	10.98		9.6	0	0	0.148	1	50	114%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.4	11.4		10	0	0	0.201	1	50	114%	70	130	0%	
Toluene	A	ppbv	11.12	11.12		9.8	0	0	0.158	1	50	113%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.58	10.58		9.8	0	0	0.117	1	50	108%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.32	10.32		9.1	0	0	0.171	1	50	113%	70	130	0%	
Trichloroethene	A	ppbv	10.95	10.95		9.6	0	0	0.119	1	50	114%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.13	10.13		9.6	0	0	0.148	1	50	106%	70	130	0%	
Vinyl acetate	A	ppbv	11.17	11.17		9.9	0	0	0.266	1	50	113%	70	130	0%	
Vinyl chloride	A	ppbv	10.6	10.6		9.4	0	0	0.072	1	50	113%	70	130	0%	
Xylenes, Total	C	ppbv	34.54	34.54		29.2	0	0	0.782	3	150	118%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.25	12.25		12.5	0	0	0	0	0	98%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1082103	RLVS VOA1 122612	EPA_TO15	RLVS	[\1\DATA\122612`12/26/2012 11:2		1	R54892		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.97	0.97		0.996	0	0	0.107	1	50	97%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.12	1.12		1	0	0	0.211	1	50	112%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.99	0.99		0.98	0	0	0.108	1	50	101%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.01	1.01		0.98	0	0	0.2	1	50	103%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.95	0.95		0.97	0	0	0.111	1	50	98%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.96	0.96		0.99	0	0	0.097	1	50	97%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.12	1.12		0.91	0	0	0.271	1	50	123%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.06	1.06		0.98	0	0	0.245	1	50	108%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.95	0.95		0.96	0	0	0.186	1	50	99%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.06	1.06		0.97	0	0	0.208	1	50	109%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.01	1.01		0.97	0	0	0.196	1	50	104%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.02	1.02		0.98	0	0	0.224	1	50	104%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122612\12261202.D Vial: 2
Acq On : 26 Dec 2012 10:35 am Operator: RACHEL HILL
Sample : CCV VOA1 122612 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
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	1.000	1.000	0.0	115	0.00
2	T	Propylene	1.126	1.146	-1.8	109	-0.01
3	T	Dichlorodifluoromethane	3.845	4.180	-8.7	114	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.599	2.822	-8.6	111	0.00
5	T	Chloromethane	1.530	1.631	-6.6	112	0.00
6	T	Vinyl chloride	1.825	2.058	-12.8	115	0.00
7	T	1,3-Butadiene	0.930	1.089	-17.1	118	0.00
8	T	Bromomethane	1.376	1.618	-17.6	114	0.00
9	T	Chloroethane	0.915	1.001	-9.4	108	0.00
10	T	Trichlorofluoromethane	3.671	3.875	-5.6	109	0.00
11	T	Ethanol	0.469	0.458	2.3	109	0.00
12	T	Freon113	2.495	2.721	-9.1	107	0.00
13	T	1,1-Dichloroethene	2.300	2.462	-7.0	108	0.00
14	T	Acetone	1.984	2.156	-8.7	107	0.00
15	T	Carbon disulfide	3.443	3.605	-4.7	107	0.00
16	T	2-Propanol	2.035	2.151	-5.7	109	0.00
17	T	Methylene chloride	1.618	1.699	-5.0	106	0.00
18	T	tert-Butyl Methyl Ether	3.323	3.596	-8.2	104	0.00
19	T	trans-1,2-Dichloroethene	2.107	2.276	-8.0	107	0.00
20	T	n-Hexane	2.482	2.663	-7.3	105	0.00
21	T	1,1-Dichloroethane	2.670	2.902	-8.7	106	0.00
22	T	Vinyl acetate	3.100	3.500	-12.9	102	0.00
23	T	cis-1,2-Dichloroethene	1.350	1.469	-8.8	106	0.00
24	T	2-Butanone	1.983	2.192	-10.5	100	0.00
25	T	Ethyl acetate	2.687	2.868	-6.7	99	0.00
26	T	Tetrahydrofuran	1.233	1.405	-13.9	106	0.00
27	T	Chloroform	2.441	2.704	-10.8	108	0.00
28	T	1,1,1-Trichloroethane	2.570	2.843	-10.6	107	0.00
29	T	Cyclohexane	2.396	2.732	-14.0	105	0.00
30	T	Carbon tetrachloride	2.747	3.006	-9.4	107	0.00
31	T	Benzene	3.893	4.169	-7.1	102	0.00
32	T	1,2-Dichloroethane	1.751	1.940	-10.8	105	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	114	0.00
34	T	Heptane	0.554	0.677	-22.2	106	0.00
35	T	Trichloroethene	0.445	0.507	-13.9	106	0.00
36	T	1,2-Dichloropropane	0.428	0.484	-13.1	103	0.00
37	T	1,4-Dioxane	0.201	0.218	-8.5	105	0.00
38	T	Bromodichloromethane	0.676	0.774	-14.5	105	0.00
39	T	cis-1,3-Dichloropropene	0.584	0.663	-13.5	104	0.00
40	T	4-Methyl-2-pentanone	0.322	0.354	-9.9	101	0.00
41	T	Toluene	1.140	1.293	-13.4	104	0.00
42	T	trans-1,3-Dichloropropene	0.529	0.600	-13.4	104	0.00
43	T	1,1,2-Trichloroethane	0.397	0.446	-12.3	104	0.00
44	T	Tetrachloroethene	0.561	0.641	-14.3	105	0.00
45	T	2-Hexanone	0.537	0.619	-15.3	102	0.00
46	T	Chlorodibromomethane	0.645	0.739	-14.6	103	0.00
47	T	1,2-Dibromoethane	0.583	0.658	-12.9	102	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	113	0.00
49	T	Chlorobenzene	1.014	1.148	-13.2	103	0.00
50	T	Ethylbenzene	1.662	1.919	-15.5	104	0.00
51	T	m,p-Xylene	1.214	1.450	-19.4	105	0.00
52	T	o-Xylene	1.279	1.484	-16.0	104	0.00
53	T	Styrene	0.928	1.105	-19.1	105	0.00
54	T	Bromoform	0.705	0.809	-14.8	104	0.00
55	S	4-Bromofluorobenzene	0.609	0.597	2.0	110	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122612\12261202.D Vial: 2
Acq On : 26 Dec 2012 10:35 am Operator: RACHEL HILL
Sample : CCV VOA1 122612 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
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)
56	T	1,1,2,2-Tetrachloroethane	0.872	0.980	-12.4	102	0.00
57	T	4-Ethyltoluene	1.629	1.830	-12.3	102	0.00
58	T	1,3,5-Trimethylbenzene	1.377	1.552	-12.7	103	0.00
59	T	1,2,4-Trimethylbenzene	1.285	1.436	-11.8	103	0.00
60	T	1,3-Dichlorobenzene	0.746	0.802	-7.5	101	0.00
61	T	1,4-Dichlorobenzene	0.707	0.759	-7.4	101	0.00
62	T	Benzyl chloride	0.865	0.988	-14.2	103	0.00
63	T	1,2-Dichlorobenzene	0.638	0.687	-7.7	102	0.00
64	T	1,2,4-Trichlorobenzene	0.201	0.212	-5.5	109	0.00
65	T	Hexachlorobutadiene	0.359	0.389	-8.4	111	0.00
66		Naphthalene	0.361	0.395	-9.4	115	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122612\12261202.D Vial: 2
Acq On : 26 Dec 2012 10:35 am Operator: RACHEL HILL
Sample : CCV VOA1 122612 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 26 11:00 2012 Quant Results File: 122012V1.RES

Quant Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
Response via : Initial Calibration
DataAcq Meth : 122012V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.52	130	221242	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	831314	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.47	117	674620	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	402796	12.25	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 98.00%

Target Compounds						Qvalue
2) Propylene	5.43	41	206942	10.38	ppbv	99
3) Dichlorodifluoromethane	5.51	85	680566	10.00	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	474492	10.32	ppbv #	70
5) Chloromethane	5.93	50	274243	10.13	ppbv	99
6) Vinyl chloride	6.15	62	342318	10.60	ppbv #	95
7) 1,3-Butadiene	6.20	39	188964	11.47	ppbv #	62
8) Bromomethane	6.78	94	266274	10.93	ppbv	99
9) Chloroethane	6.93	64	162993	10.06	ppbv	98
10) Trichlorofluoromethane	7.26	101	658404	10.13	ppbv	98
11) Ethanol	7.50	45	74544	8.99	ppbv	99
12) Freon113	7.92	101	471952	10.69	ppbv	89
13) 1,1-Dichloroethene	8.02	61	431423	10.60	ppbv #	87
14) Acetone	8.12	43	381662	10.87	ppbv #	90
15) Carbon disulfide	8.39	76	618959	10.16	ppbv #	100
16) 2-Propanol	8.17	45	384485	10.67	ppbv #	1
17) Methylene chloride	8.68	49	300796	10.50	ppbv	89
18) tert-Butyl Methyl Ether	8.88	73	630191	10.72	ppbv #	94
19) trans-1,2-Dichloroethene	8.96	61	394782	10.58	ppbv #	83
20) n-Hexane	9.15	57	476038	10.84	ppbv #	83
21) 1,1-Dichloroethane	9.53	63	498194	10.54	ppbv #	96
22) Vinyl acetate	9.46	43	613235	11.17	ppbv	99
23) cis-1,2-Dichloroethene	10.21	96	254719	10.66	ppbv #	82
24) 2-Butanone	10.18	43	384027	10.94	ppbv #	98
25) Ethyl acetate	10.13	43	497384	10.46	ppbv #	99
26) Tetrahydrofuran	10.52	42	248757	11.40	ppbv	99
27) Chloroform	10.54	83	468935	10.85	ppbv	100
28) 1,1,1-Trichloroethane	10.78	97	483070	10.62	ppbv #	94
29) Cyclohexane	10.79	56	473855	11.17	ppbv #	80
30) Carbon tetrachloride	10.94	117	505480	10.40	ppbv	98
31) Benzene	11.23	78	708310	10.28	ppbv	96
32) 1,2-Dichloroethane	11.31	62	332990	10.74	ppbv #	96
34) Heptane	11.28	43	445455	12.10	ppbv #	92
35) Trichloroethene	11.96	130	323808	10.95	ppbv	95
36) 1,2-Dichloropropane	12.32	63	315271	11.08	ppbv	95
37) 1,4-Dioxane	12.39	88	138971	10.39	ppbv #	86
38) Bromodichloromethane	12.60	83	493919	10.99	ppbv	99
39) cis-1,3-Dichloropropene	13.15	75	418721	10.77	ppbv	98
40) 4-Methyl-2-pentanone	13.26	58	235728	11.00	ppbv #	91
41) Toluene	13.55	91	842666	11.12	ppbv	99
42) trans-1,3-Dichloropropene	13.86	75	362993	10.32	ppbv	98
43) 1,1,2-Trichloroethane	14.14	97	290407	11.01	ppbv	98
44) Tetrachloroethene	14.26	166	409343	10.98	ppbv	98
45) 2-Hexanone	14.34	43	403315	11.30	ppbv	82
46) Chlorodibromomethane	14.68	129	481374	11.23	ppbv	99
47) 1,2-Dibromoethane	14.91	107	420130	10.83	ppbv	100
49) Chlorobenzene	15.51	112	613326	11.21	ppbv	95
50) Ethylbenzene	15.55	91	1015156	11.32	ppbv	96
51) m,p-Xylene	15.70	91	1502902	22.94	ppbv	95
52) o-Xylene	16.30	91	800883	11.60	ppbv #	94

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122612\12261202.D Vial: 2
Acq On : 26 Dec 2012 10:35 am Operator: RACHEL HILL
Sample : CCV VOA1 122612 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 26 11:00 2012 Quant Results File: 122012V1.RES

Quant Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
Response via : Initial Calibration
DataAcq Meth : 122012V1

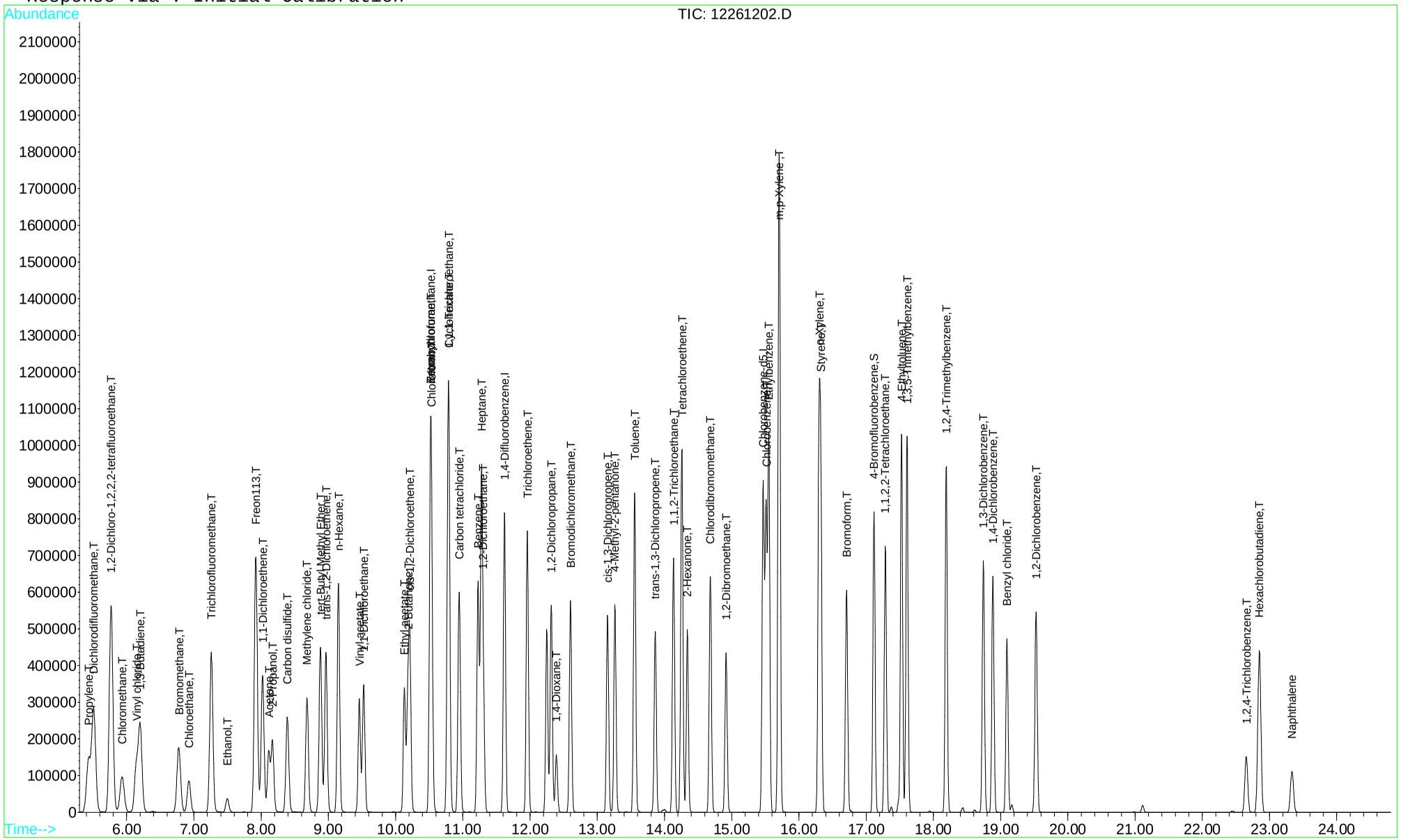
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53) Styrene	16.33	104	584599	11.68	ppbv	97
54) Bromoform	16.71	173	419205	11.01	ppbv	98
56) 1,1,2,2-Tetrachloroethane	17.28	83	529093	11.24	ppbv	99
57) 4-Ethyltoluene	17.52	105	967859	11.01	ppbv	97
58) 1,3,5-Trimethylbenzene	17.61	105	812462	10.93	ppbv	97
59) 1,2,4-Trimethylbenzene	18.19	105	759599	10.96	ppbv	98
60) 1,3-Dichlorobenzene	18.74	146	419877	10.43	ppbv	97
61) 1,4-Dichlorobenzene	18.88	146	393406	10.31	ppbv	97
62) Benzyl chloride	19.09	91	517409	11.08	ppbv	99
63) 1,2-Dichlorobenzene	19.53	146	359484	10.44	ppbv	98
64) 1,2,4-Trichlorobenzene	22.66	180	104285	9.61	ppbv	97
65) Hexachlorobutadiene	22.85	225	197444	10.20	ppbv	99
66) Naphthalene	23.34	128	196027	10.05	ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122612\12261202.D Vial: 2
Acq On : 26 Dec 2012 10:35 am Operator: RACHEL HILL
Sample : CCV VOA1 122612 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 26 11:00 2012 Quant Results File: 122012V1.RES

Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\123112

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12311201.d	1.	BFB VOA1 123112	TUNE BFB_TUNE	1 Jan 2013 02:03
2	2	12311202.d	1.	1ppb VOA1 123112	DATA NOT USED	1 Jan 2013 02:47
3	3	12311203.d	1.	1ppb VOA1 123112	ICAL2EPA_TO15	1 Jan 2013 03:31
4	4	12311204.d	1.	10ppb VOA1 123112	ICAL4EPA_TO15	1 Jan 2013 04:13
5	5	12311205.d	1.	12ppb VOA1 123112	ICAL5EPA_TO15	1 Jan 2013 04:56
6	6	12311206.d	1.	15ppb VOA1 123112	ICAL6EPA_TO15	1 Jan 2013 05:40
7	7	12311207.d	1.	20ppb VOA1 123112	ICAL7EPA_TO15	1 Jan 2013 06:23
8	8	12311208.d	1.	30ppb VOA1 123112	ICAL8EPA_TO15	1 Jan 2013 07:07
9	9	12311209.d	1.	50ppb VOA1 123112	ICAL9EPA_TO15	1 Jan 2013 07:53
10	1	12311210.d	1.	BFB2 VOA1 123112	TUNE BFB_TUNE	1 Jan 2013 08:35
11	2	12311211.d	1.	ICV VOA1 123112	ICV EPA_TO15	1 Jan 2013 09:18
12	3	12311212.d	1.	RLVS VOA1 123112	RLVS EPA_TO15	1 Jan 2013 10:02
13	4	12311213.d	1.	MBLK/DBV54 CC VOA1 123112	DATA NOT USED	1 Jan 2013 12:23
14	5	12311214.d	1.	MBLK/DBV118 CC VOA1 123112	DATA NOT USED	1 Jan 2013 13:10
15	6	12311215.d	1.	MBLK/DBV118 CC VOA1 123112	MBLK EPA_TO15	1 Jan 2013 13:57
16	1	12311216.d	400.	1212373-004A	DATA NOT USED	1 Jan 2013 14:45
17	2	12311217.d	400.	cleaning blank	DATA NOT USED	1 Jan 2013 15:34
18	2	12311218.d	40.	1212437-012A	SAMP EPA_TO15	1 Jan 2013 16:16
19	3	12311219.d	40.	1212437-013A	SAMP EPA_TO15	1 Jan 2013 16:58
20	4	12311220.d	400.	1212437-010A	SAMP EPA_TO15	1 Jan 2013 17:46
21	6	12311221.d	40.	1212437-015A	SAMP EPA_TO15	1 Jan 2013 18:28
22	7	12311222.d	40.	1212437-016A	SAMP EPA_TO15	1 Jan 2013 19:10
23	2	12311223.d	400.	1212373-004A	DATA NOT USED	1 Jan 2013 19:58
24	8	12311224.d	400.	1212437-009A	SAMP EPA_TO15	1 Jan 2013 20:47
25	9	12311225.d	1600.	1212373-004A	SAMP EPA_TO15	1 Jan 2013 21:30
26	10	12311226.d	8000.	1212373-004A	SAMP EPA_TO15	1 Jan 2013 22:12
27	9	12311227.d	800.	1212437-011A	SAMP EPA_TO15	1 Jan 2013 23:00
28	9	12311228.d	800.	1212437-011A	DATA NOT USED	1 Jan 2013 23:48
29	10	12311229.d	800.	1212437-017A	DATA NOT USED	2 Jan 2013 00:36
30	10	12311230.d	8000.	1212437-017A	SAMP EPA_TO15	2 Jan 2013 01:23
31	11	12311231.d	800.	1212437-035A	SAMP EPA_TO15	2 Jan 2013 02:07
32	11	12311232.d	800.	1212437-035ADUP	DUP EPA_TO15	2 Jan 2013 02:52
33	12	12311233.d	8000.	1212437-018A	SAMP EPA_TO15	2 Jan 2013 03:34
34	13	12311234.d	800.	1212437037A	SAMP EPA_TO15	2 Jan 2013 04:19
35	14	12311235.d	800.	1212437-036A	SAMP EPA_TO15	2 Jan 2013 05:04
36	15	12311236.d	1600.	1212437-038A	SAMP EPA_TO15	2 Jan 2013 05:47
37	16	12311237.d	1600.	1212437-039A	SAMP EPA_TO15	2 Jan 2013 06:30
38	3	12311238.d	400.	1212437-019A	SAMP EPA_TO15	2 Jan 2013 07:19
39	4	12311239.d	800.	1212437-040A	SAMP EPA_TO15	2 Jan 2013 08:04
40	3	12311240.d	1.	RLVS2 VOA1 123112	RLVS EPA_TO15	2 Jan 2013 09:30

RTI Laboratories

ANALYTICAL RUN Summary

03-Jan-13

RunNo 55020

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1084682	BFB2 VOA1 123112	BFB_TUNE	TUNE	\1\DATA\123112\	1/1/2013 8:35:00	1	R55020		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.6	0.6		100	0	0	0	0	0	1%	0	2	0%	
174	M		82.4	82.4		100	0	0	0	0	0	82%	50	200	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		97.1	97.1		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		18.5	18.5		100	0	0	0	0	0	19%	8	40	0%	
75	M		42.3	42.3		100	0	0	0	0	0	42%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1084683	ICV VOA1 123112	EPA_TO15	ICV	\1\DATA\123112\	1/1/2013 9:18:00	1	R55020		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	9.81	9.81		9.6	0	0	0.107	1	50	102%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.91	9.91		10	0	0	0.211	1	50	99%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	9.88	9.88		9.8	0	0	0.108	1	50	101%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.47	9.47		9.8	0	0	0.2	1	50	97%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.41	9.41		9.7	0	0	0.111	1	50	97%	70	130	0%	
1,1-Dichloroethene	A	ppbv	9.79	9.79		9.9	0	0	0.097	1	50	99%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.67	8.67		9.1	0	0	0.271	1	50	95%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.01	10.01		9.8	0	0	0.245	1	50	102%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.35	9.35		9.6	0	0	0.186	1	50	97%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.23	9.23		9.7	0	0	0.208	1	50	95%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.8	9.8		9.7	0	0	0.196	1	50	101%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.68	9.68		9.8	0	0	0.224	1	50	99%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.87	9.87		9.7	0	0	0.24	1	50	102%	70	130	0%	
1,3-Butadiene	A	ppbv	9.04	9.04		9.8	0	0	0.152	1	50	92%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.45	9.45		9.7	0	0	0.202	1	50	97%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1084683	ICV VOA1 123112	EPA_TO15	ICV	\\1\DATA\123112\	1/1/2013 9:18:00	1	R55020		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.43	9.43		9.6	0	0	0.194	1	50	98%	70	130	0%	
1,4-Dioxane	A	ppbv	10	10		9.6	0	0	0.128	1	50	104%	70	130	0%	
2-Butanone	A	ppbv	9.52	9.52		9.9	0	0	0.287	1	50	96%	70	130	0%	
2-Hexanone	A	ppbv	10.8	10.8		9.8	0	0	0.135	1	50	110%	70	130	0%	
2-Propanol	A	ppbv	10.31	10.31		10.1	0	0	0.329	1	50	102%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.48	10.48		10	0	0	0.157	1	50	105%	70	130	0%	
Acetone	A	ppbv	10.03	10.03		10	0	0	0.43	1	50	100%	70	130	0%	
Benzene	A	ppbv	9.3	9.3		9.6	0	0	0.126	1	50	97%	70	130	0%	
Benzyl chloride	A	ppbv	9.97	9.97		9.7	0	0	0.155	1	50	103%	70	130	0%	
Bromodichloromethane	A	ppbv	9.79	9.79		9.6	0	0	0.156	1	50	102%	70	130	0%	
Bromoform	A	ppbv	10.21	10.21		9.6	0	0	0.197	1	50	106%	70	130	0%	
Bromomethane	A	ppbv	9.24	9.24		9.3	0	0	0.075	1	50	99%	70	130	0%	
Carbon disulfide	A	ppbv	10.33	10.33		9.7	0	0	0.093	1	50	106%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.51	9.51		9.5	0	0	0.114	1	50	100%	70	130	0%	
Chlorobenzene	A	ppbv	10.04	10.04		9.9	0	0	0.275	1	50	101%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.97	9.97		9.2	0	0	0.165	1	50	108%	70	130	0%	
Chloroethane	A	ppbv	8.54	8.54		9.8	0	0	0.063	1	50	87%	70	130	0%	
Chloroform	A	ppbv	9.69	9.69		9.4	0	0	0.126	1	50	103%	70	130	0%	
Chloromethane	A	ppbv	8.67	8.67		9.8	0	0	0.104	1	50	88%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	9.39	9.39		9.8	0	0	0.107	1	50	96%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.85	8.85		9.5	0	0	0.166	1	50	93%	70	130	0%	
Cyclohexane	A	ppbv	10.14	10.14		9.8	0	0	0.684	2	50	103%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	8.37	8.37		9.2	0	0	0.086	1	50	91%	70	130	0%	
Ethanol	A	ppbv	8.21	8.21		9.2	0	0	1.962	5	50	89%	70	130	0%	
Ethyl acetate	A	ppbv	10.19	10.19		9.8	0	0	0.157	1	50	104%	70	130	0%	
Ethylbenzene	A	ppbv	10.09	10.09		9.8	0	0	0.737	2	50	103%	70	130	0%	
Heptane	A	ppbv	9.98	9.98		9.9	0	0	0.249	1	50	101%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.39	8.39		9.4	0	0	0.374	2	50	89%	70	130	0%	
m,p-Xylene	A	ppbv	21.88	21.88		19.2	0	0	0.524	2	100	114%	70	130	0%	
Methylene chloride	A	ppbv	9.39	9.39		10	0	0	2.077	5	50	94%	70	130	0%	
n-Hexane	A	ppbv	10.04	10.04		10.1	0	0	0.692	2	50	99%	70	130	0%	
Naphthalene	A	ppbv	8.71	8.71		9.2	0	0	0.247	1	50	95%	70	130	0%	
o-Xylene	A	ppbv	10.55	10.55		10	0	0	0.258	1	50	106%	70	130	0%	
Propylene	A	ppbv	8.66	8.66		10.2	0	0	0.075	1	50	85%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1084683	ICV VOA1 123112	EPA_TO15	ICV	[\1\DATA\123112`1/1/2013 9:18:00		1	R55020		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.5	10.5		9.8	0	0	0.263	1	50	107%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.01	10.01		9.9	0	0	0.228	1	50	101%	70	130	0%	
Tetrachloroethene	A	ppbv	9.83	9.83		9.6	0	0	0.148	1	50	102%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.15	10.15		10	0	0	0.201	1	50	102%	70	130	0%	
Toluene	A	ppbv	10.62	10.62		9.8	0	0	0.158	1	50	108%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.08	10.08		9.8	0	0	0.117	1	50	103%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.61	9.61		9.1	0	0	0.171	1	50	106%	70	130	0%	
Trichloroethene	A	ppbv	9.35	9.35		9.6	0	0	0.119	1	50	97%	70	130	0%	
Trichlorofluoromethane	A	ppbv	8.88	8.88		9.6	0	0	0.148	1	50	93%	70	130	0%	
Vinyl acetate	A	ppbv	10.35	10.35		9.9	0	0	0.266	1	50	105%	70	130	0%	
Vinyl chloride	A	ppbv	8.68	8.68		9.4	0	0	0.072	1	50	92%	70	130	0%	
Xylenes, Total	C	ppbv	32.43	32.43		29.2	0	0	0.782	3	150	111%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.25	12.25		12.5	0	0	0	0	0	98%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1084684	RLVS VOA1 123112	EPA_TO15	RLVS	[\1\DATA\123112`1/1/2013 10:02:0		1	R55020		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.89	0.89		0.996	0	0	0.107	1	50	89%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	0.89	0.89		1	0	0	0.211	1	50	89%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.87	0.87		0.98	0	0	0.108	1	50	89%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.8	0.8		0.98	0	0	0.2	1	50	82%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.91	0.91		0.97	0	0	0.111	1	50	94%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.9	0.9		0.99	0	0	0.097	1	50	91%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.03	1.03		0.91	0	0	0.271	1	50	113%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.88	0.88		0.98	0	0	0.245	1	50	90%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.77	0.77		0.96	0	0	0.186	1	50	80%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.85	0.85		0.97	0	0	0.208	1	50	88%	70	130	0%	
1,2-Dichloroethane	A	ppbv	0.95	0.95		0.97	0	0	0.196	1	50	98%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.84	0.84		0.98	0	0	0.224	1	50	86%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\123112\12311211.D Vial: 2
Acq On : 1 Jan 2013 9:18 am Operator: RACHEL HILL
Sample : ICV VOA1 123112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
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	1.000	1.000	0.0	104	0.00
2	T	Propylene	1.433	1.216	15.1	83	0.00
3	T	Dichlorodifluoromethane	3.616	3.291	9.0	87	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.564	2.337	8.9	85	0.00
5	T	Chloromethane	1.430	1.305	8.7	85	0.00
6	T	Vinyl chloride	1.725	1.593	7.7	84	0.00
7	T	1,3-Butadiene	1.292	1.192	7.7	85	0.00
8	T	Bromomethane	1.397	1.388	0.6	94	0.00
9	T	Chloroethane	0.857	0.796	7.1	87	0.00
10	T	Trichlorofluoromethane	3.317	3.068	7.5	88	0.00
11	T	Ethanol	0.503	0.449	10.7	90	0.00
12	T	Freon113	2.412	2.430	-0.7	92	0.00
13	T	1,1-Dichloroethene	2.082	2.059	1.1	91	0.00
14	T	Acetone	2.319	2.326	-0.3	93	0.00
15	T	Carbon disulfide	3.321	3.538	-6.5	100	0.00
16	T	2-Propanol	2.237	2.284	-2.1	96	0.00
17	T	Methylene chloride	1.578	1.481	6.1	88	0.00
18	T	tert-Butyl Methyl Ether	3.286	3.324	-1.2	90	0.00
19	T	trans-1,2-Dichloroethene	1.922	1.977	-2.9	93	0.00
20	T	n-Hexane	2.224	2.212	0.5	90	0.00
21	T	1,1-Dichloroethane	2.414	2.341	3.0	87	0.00
22	T	Vinyl acetate	3.538	3.698	-4.5	89	0.00
23	T	cis-1,2-Dichloroethene	1.342	1.287	4.1	88	0.00
24	T	2-Butanone	2.376	2.285	3.8	85	0.00
25	T	Ethyl acetate	3.088	3.213	-4.0	90	0.00
26	T	Tetrahydrofuran	1.541	1.564	-1.5	90	0.00
27	T	Chloroform	2.403	2.375	1.2	87	0.00
28	T	1,1,1-Trichloroethane	2.405	2.457	-2.2	88	0.00
29	T	Cyclohexane	2.236	2.312	-3.4	90	0.00
30	T	Carbon tetrachloride	2.471	2.474	-0.1	89	0.00
31	T	Benzene	3.884	3.764	3.1	87	0.00
32	T	1,2-Dichloroethane	1.550	1.567	-1.1	87	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
34	T	Heptane	0.753	0.760	-0.9	87	0.00
35	T	Trichloroethene	0.506	0.493	2.6	86	0.00
36	T	1,2-Dichloropropane	0.439	0.433	1.4	87	0.00
37	T	1,4-Dioxane	0.224	0.233	-4.0	96	0.00
38	T	Bromodichloromethane	0.744	0.759	-2.0	90	0.00
39	T	cis-1,3-Dichloropropene	0.654	0.609	6.9	83	0.00
40	T	4-Methyl-2-pentanone	0.332	0.348	-4.8	94	0.00
41	T	Toluene	1.279	1.386	-8.4	96	0.00
42	T	trans-1,3-Dichloropropene	0.585	0.618	-5.6	93	0.00
43	T	1,1,2-Trichloroethane	0.450	0.435	3.3	86	0.00
44	T	Tetrachloroethene	0.622	0.637	-2.4	88	0.00
45	T	2-Hexanone	0.709	0.781	-10.2	95	0.00
46	T	Chlorodibromomethane	0.706	0.718	-1.7	88	0.00
47	T	1,2-Dibromoethane	0.655	0.638	2.6	86	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
49	T	Chlorobenzene	1.101	1.117	-1.5	87	0.00
50	T	Ethylbenzene	1.791	1.844	-3.0	86	0.00
51	T	m,p-Xylene	1.278	1.456	-13.9	89	0.00
52	T	o-Xylene	1.402	1.480	-5.6	87	0.00
53	T	Styrene	1.054	1.130	-7.2	87	0.00
54	T	Bromoform	0.724	0.771	-6.5	87	0.00
55	S	4-Bromofluorobenzene	0.622	0.610	1.9	102	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\123112\12311211.D Vial: 2
Acq On : 1 Jan 2013 9:18 am Operator: RACHEL HILL
Sample : ICV VOA1 123112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
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)
56	T	1,1,2,2-Tetrachloroethane	0.953	0.944	0.9	85	0.00
57	T	4-Ethyltoluene	1.784	1.820	-2.0	86	0.00
58	T	1,3,5-Trimethylbenzene	1.497	1.524	-1.8	86	0.00
59	T	1,2,4-Trimethylbenzene	1.414	1.444	-2.1	87	0.00
60	T	1,3-Dichlorobenzene	0.811	0.790	2.6	86	0.00
61	T	1,4-Dichlorobenzene	0.761	0.748	1.7	87	0.00
62	T	Benzyl chloride	0.925	0.950	-2.7	87	0.00
63	T	1,2-Dichlorobenzene	0.680	0.647	4.9	85	0.00
64	T	1,2,4-Trichlorobenzene	0.215	0.205	4.7	92	0.00
65	T	Hexachlorobutadiene	0.393	0.351	10.7	88	0.00
66		Naphthalene	0.380	0.360	5.3	93	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\123112\12311211.D Vial: 2
Acq On : 1 Jan 2013 9:18 am Operator: RACHEL HILL
Sample : ICV VOA1 123112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 2 8:59 2013 Quant Results File: 123112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
Response via : Initial Calibration
DataAcq Meth : 123112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.53	130	230827	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	803439	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.47	117	658965	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	401790	12.25	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 98.00%

Target Compounds						Qvalue
2) Propylene	5.44	41	229001	8.66	ppbv	97
3) Dichlorodifluoromethane	5.51	85	559026	8.37	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	409949	8.66	ppbv #	73
5) Chloromethane	5.93	50	228999	8.67	ppbv	99
6) Vinyl chloride	6.15	62	276499	8.68	ppbv	99
7) 1,3-Butadiene	6.21	39	215645	9.04	ppbv	99
8) Bromomethane	6.78	94	238324	9.24	ppbv	99
9) Chloroethane	6.92	64	135154	8.54	ppbv	100
10) Trichlorofluoromethane	7.26	101	543802	8.88	ppbv	99
11) Ethanol	7.50	45	76295	8.21	ppbv	99
12) Freon113	7.92	101	439843	9.88	ppbv	92
13) 1,1-Dichloroethene	8.03	61	376368	9.79	ppbv	90
14) Acetone	8.12	43	429546	10.03	ppbv #	94
15) Carbon disulfide	8.39	76	633724	10.33	ppbv #	99
16) 2-Propanol	8.17	45	425921	10.31	ppbv #	1
17) Methylene chloride	8.69	49	273543	9.39	ppbv	89
18) tert-Butyl Methyl Ether	8.88	73	607636	10.01	ppbv	93
19) trans-1,2-Dichloroethene	8.97	61	357837	10.08	ppbv	86
20) n-Hexane	9.16	57	412467	10.04	ppbv	97
21) 1,1-Dichloroethane	9.53	63	419314	9.41	ppbv	98
22) Vinyl acetate	9.46	43	676021	10.35	ppbv	97
23) cis-1,2-Dichloroethene	10.21	96	232848	9.39	ppbv	87
24) 2-Butanone	10.18	43	417817	9.52	ppbv	96
25) Ethyl acetate	10.13	43	581388	10.19	ppbv #	100
26) Tetrahydrofuran	10.52	42	288800	10.15	ppbv	94
27) Chloroform	10.54	83	429871	9.69	ppbv	100
28) 1,1,1-Trichloroethane	10.79	97	435610	9.81	ppbv	97
29) Cyclohexane	10.79	56	418455	10.14	ppbv	93
30) Carbon tetrachloride	10.95	117	434059	9.51	ppbv	99
31) Benzene	11.23	78	667187	9.30	ppbv	97
32) 1,2-Dichloroethane	11.31	62	280685	9.80	ppbv	98
34) Heptane	11.28	43	483310	9.98	ppbv	95
35) Trichloroethene	11.96	130	304367	9.35	ppbv	97
36) 1,2-Dichloropropane	12.32	63	272809	9.68	ppbv	97
37) 1,4-Dioxane	12.40	88	144041	10.00	ppbv	88
38) Bromodichloromethane	12.60	83	468162	9.79	ppbv	99
39) cis-1,3-Dichloropropene	13.16	75	372085	8.85	ppbv	99
40) 4-Methyl-2-pentanone	13.27	58	223616	10.48	ppbv	95
41) Toluene	13.56	91	872995	10.62	ppbv	99
42) trans-1,3-Dichloropropene	13.87	75	361623	9.61	ppbv	99
43) 1,1,2-Trichloroethane	14.14	97	273947	9.47	ppbv	98
44) Tetrachloroethene	14.26	166	393203	9.83	ppbv	98
45) 2-Hexanone	14.34	43	492203	10.80	ppbv	99
46) Chlorodibromomethane	14.68	129	452225	9.97	ppbv	99
47) 1,2-Dibromoethane	14.92	107	393646	9.35	ppbv	99
49) Chlorobenzene	15.52	112	582793	10.04	ppbv	94
50) Ethylbenzene	15.55	91	952561	10.09	ppbv	97
51) m,p-Xylene	15.71	91	1473650	21.88	ppbv	97
52) o-Xylene	16.30	91	780106	10.55	ppbv	96

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\123112\12311211.D Vial: 2
Acq On : 1 Jan 2013 9:18 am Operator: RACHEL HILL
Sample : ICV VOA1 123112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 2 8:59 2013 Quant Results File: 123112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
Response via : Initial Calibration
DataAcq Meth : 123112V1

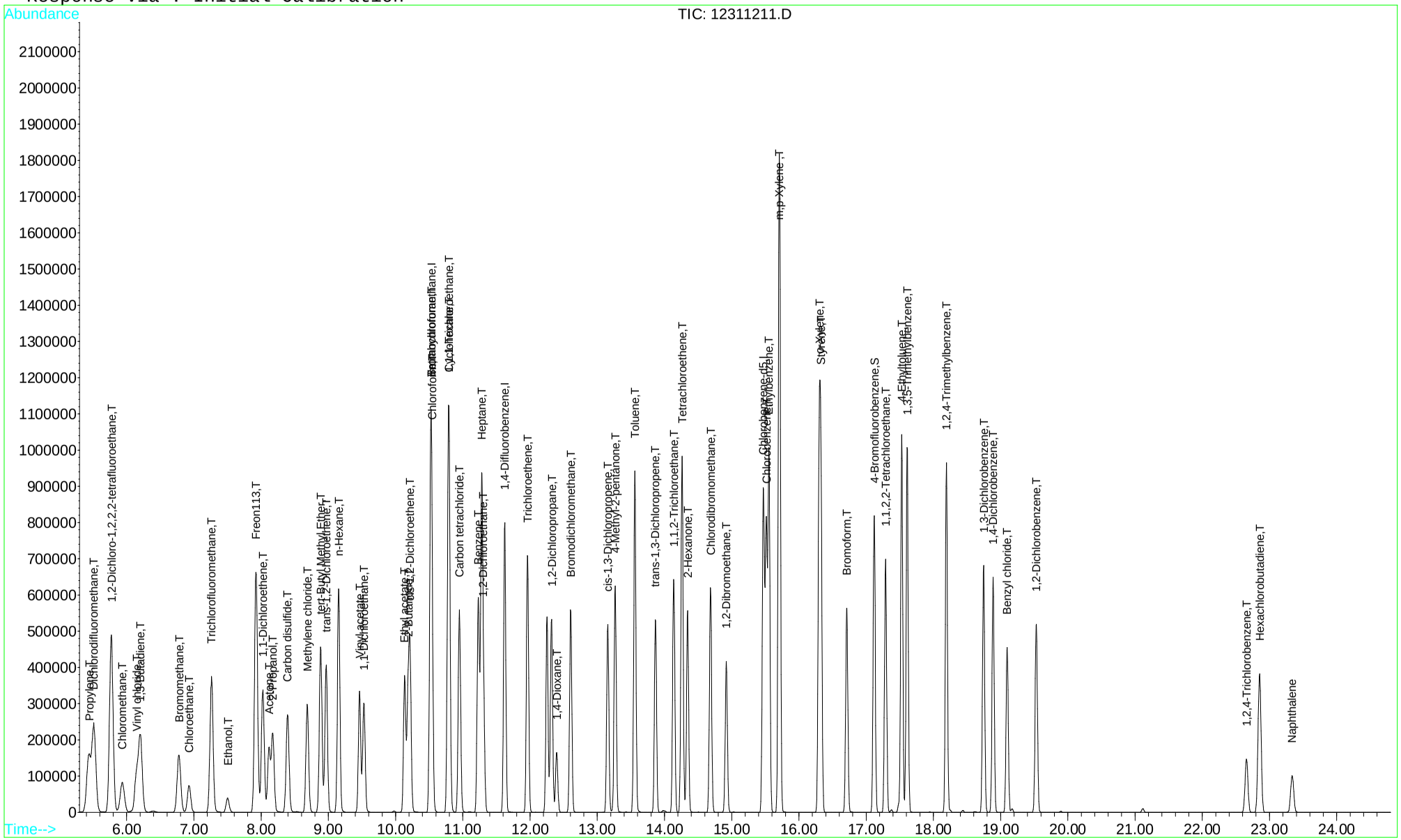
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.33	104	583652	10.50	ppbv	98
54)	Bromoform	16.71	173	389954	10.21	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.29	83	497558	9.91	ppbv	99
57)	4-Ethyltoluene	17.53	105	940405	10.00	ppbv	97
58)	1,3,5-Trimethylbenzene	17.61	105	779092	9.87	ppbv	96
59)	1,2,4-Trimethylbenzene	18.19	105	746041	10.01	ppbv	97
60)	1,3-Dichlorobenzene	18.75	146	403944	9.45	ppbv	98
61)	1,4-Dichlorobenzene	18.89	146	378339	9.43	ppbv	97
62)	Benzyl chloride	19.10	91	485933	9.97	ppbv	98
63)	1,2-Dichlorobenzene	19.53	146	331094	9.23	ppbv	98
64)	1,2,4-Trichlorobenzene	22.65	180	98244	8.67	ppbv	98
65)	Hexachlorobutadiene	22.85	225	173740	8.39	ppbv	99
66)	Naphthalene	23.33	128	174733	8.71	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\123112\12311211.D Vial: 2
Acq On : 1 Jan 2013 9:18 am Operator: RACHEL HILL
Sample : ICV VOA1 123112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 2 8:59 2013 Quant Results File: 123112V1.RES

Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\010313B

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	01031301.d	1.	BFB VOA1 010313	TUNE BFB_TUNE	3 Jan 2013 21:04
2	2	01031302.d	1.	1ppb VOA1 010313	data not used	3 Jan 2013 21:47
3	3	01031303.d	1.	1ppb VOA1 010313	ICAL2EPA_TO15	3 Jan 2013 22:31
4	4	01031304.d	1.	10ppb VOA1 010313	ICAL4EPA_TO15	3 Jan 2013 23:14
5	5	01031305.d	1.	12ppb VOA1 010313	ICAL5EPA_TO15	3 Jan 2013 23:57
6	6	01031306.d	1.	15ppb VOA1 010313	ICAL6EPA_TO15	4 Jan 2013 00:40
7	7	01031307.d	1.	20ppb VOA1 010313	ICAL7EPA_TO15	4 Jan 2013 01:23
8	8	01031308.d	1.	30ppb VOA1 010313	ICAL8EPA_TO15	4 Jan 2013 02:07
9	9	01031309.d	1.	50ppb VOA1 010313	ICAL8EPA_TO15	4 Jan 2013 02:53
10	1	01031310.d	1.	BFB2 VOA1 010313	TUNE BFB_TUNE	4 Jan 2013 03:34
11	2	01031311.d	1.	ICV VOA1 010313	ICV EPA_TO15	4 Jan 2013 04:17
12	3	01031312.d	1.	RLVS VOA1 0101313	RLVS EPA_TO15	4 Jan 2013 05:01
13	4	01031313.d	1.	MBLK VOA1 010313	data not used	4 Jan 2013 05:51
14	5	01031314.d	8000.	1212437-011A	SAMP EPA_TO15	4 Jan 2013 06:32
15	6	01031315.d	20000.	1212437-017A	SAMP EPA_TO15	4 Jan 2013 07:15
16	7	01031316.d	20000.	1212437-018A	data not used	4 Jan 2013 07:57
17	8	01031317.d	800.	1212437-019A	SAMP EPA_TO15	4 Jan 2013 08:43
18	9	01031318.d	800.	1212437-019ADUP	DUP EPA_TO15	4 Jan 2013 09:28
19	10	01031319.d	40000.	1212437-018A	SAMP EPA_TO15	4 Jan 2013 10:11
20	10	01031320.d	400.	1212437-021A	SAMP EPA_TO15	4 Jan 2013 10:59
21	11	01031321.d	400.	1212437-020A	SAMP EPA_TO15	4 Jan 2013 11:55
22	12	01031322.d	800.	1212437-041A	SAMP EPA_TO15	4 Jan 2013 12:41
23	13	01031323.d	800.	1212437-021A	data not used	4 Jan 2013 13:27
24	11	01031324.d	800.	1212437-020A	data not used	4 Jan 2013 14:16
25	12	01031325.d	800.	1212437-021A	data not used	4 Jan 2013 15:05
26	13	01031326.d	1.	MBLK/CCDBV95 VOA1 010313	MBLK EPA_TO15	4 Jan 2013 16:01
27	14	01031327.d	1.	MBLK/CCDBV67 VOA1 010313	data not used	4 Jan 2013 16:49
28	9	01031328.d	400.	1212437-022A	SAMP EPA_TO15	4 Jan 2013 17:37
29	10	01031329.d	20000.	1212437-001A	SAMP EPA_TO15	4 Jan 2013 18:20
30	11	01031330.d	160000.	1212437-002A	SAMP EPA_TO15	4 Jan 2013 19:02
31	12	01031331.d	400.	1212437-023A	SAMP EPA_TO15	4 Jan 2013 19:52
32	13	01031332.d	8000.	1212437-004A	SAMP EPA_TO15	4 Jan 2013 20:34
33	14	01031333.d	8000.	1212437-003A	SAMP EPA_TO15	4 Jan 2013 21:17
34	15	01031334.d	400.	1212437-024A	SAMP EPA_TO15	4 Jan 2013 22:06
35	16	01031335.d	80000.	1212437-005A	SAMP EPA_TO15	4 Jan 2013 22:49
36	1	01031336.d	8000.	1212437-025A	data not used	4 Jan 2013 23:31
37	2	01031337.d	800.	1212437-026A	SAMP EPA_TO15	5 Jan 2013 00:17
38	3	01031338.d	800.	1212437-027A	SAMP EPA_TO15	5 Jan 2013 01:02
39	4	01031339.d	800.	1212437-028A	SAMP EPA_TO15	5 Jan 2013 01:48
40	5	01031340.d	4.	1212722-084A	SAMP EPA_TO15	5 Jan 2013 02:33
41	1	01031341.d	1.	RLVS2 VOA1 0101313	RLVS EPA_TO15	5 Jan 2013 03:17

RTI Laboratories

ANALYTICAL RUN Summary

15-Jan-13

RunNo 55129

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086758	BFB2 VOA1 010313	BFB_TUNE	TUNE	.1\DATA\010313	E1/4/2013 3:34:00	1	R55129		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.6	0.6		100	0	0	0	0	0	1%	0	2	0%	
174	M		77.5	77.5		100	0	0	0	0	0	78%	50	200	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		98.1	98.1		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	
50	M		20.8	20.8		100	0	0	0	0	0	21%	8	40	0%	
75	M		45.8	45.8		100	0	0	0	0	0	46%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086759	ICV VOA1 010313	EPA_TO15	ICV	.1\DATA\010313	E1/4/2013 4:17:00	1	R55129		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.37	10.37		9.6	0	0	0.107	1	50	108%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.3	10.3		10	0	0	0.211	1	50	103%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.32	10.32		9.8	0	0	0.108	1	50	105%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.02	10.02		9.8	0	0	0.2	1	50	102%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.04	10.04		9.7	0	0	0.111	1	50	104%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.43	10.43		9.9	0	0	0.097	1	50	105%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.32	8.32		9.1	0	0	0.271	1	50	91%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.35	10.35		9.8	0	0	0.245	1	50	106%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.96	9.96		9.6	0	0	0.186	1	50	104%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.48	9.48		9.7	0	0	0.208	1	50	98%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.4	10.4		9.7	0	0	0.196	1	50	107%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.19	10.19		9.8	0	0	0.224	1	50	104%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.23	10.23		9.7	0	0	0.24	1	50	105%	70	130	0%	
1,3-Butadiene	A	ppbv	9.94	9.94		9.8	0	0	0.152	1	50	101%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.85	9.85		9.7	0	0	0.202	1	50	102%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086759	ICV VOA1 010313	EPA_TO15	ICV	.1\DATA\010313	E1/4/2013 4:17:00	1	R55129		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.79	9.79		9.6	0	0	0.194	1	50	102%	70	130	0%	
1,4-Dioxane	A	ppbv	10.45	10.45		9.6	0	0	0.128	1	50	109%	70	130	0%	
2-Butanone	A	ppbv	10.54	10.54		9.9	0	0	0.287	1	50	106%	70	130	0%	
2-Hexanone	A	ppbv	11.22	11.22		9.8	0	0	0.135	1	50	114%	70	130	0%	
2-Propanol	A	ppbv	11.41	11.41		10.1	0	0	0.329	1	50	113%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.06	11.06		10	0	0	0.157	1	50	111%	70	130	0%	
Acetone	A	ppbv	10.88	10.88		10	0	0	0.43	1	50	109%	70	130	0%	
Benzene	A	ppbv	9.99	9.99		9.6	0	0	0.126	1	50	104%	70	130	0%	
Benzyl chloride	A	ppbv	10.31	10.31		9.7	0	0	0.155	1	50	106%	70	130	0%	
Bromodichloromethane	A	ppbv	10.28	10.28		9.6	0	0	0.156	1	50	107%	70	130	0%	
Bromoform	A	ppbv	10.48	10.48		9.6	0	0	0.197	1	50	109%	70	130	0%	
Bromomethane	A	ppbv	9.33	9.33		9.3	0	0	0.075	1	50	100%	70	130	0%	
Carbon disulfide	A	ppbv	11.32	11.32		9.7	0	0	0.093	1	50	117%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.08	10.08		9.5	0	0	0.114	1	50	106%	70	130	0%	
Chlorobenzene	A	ppbv	10.25	10.25		9.9	0	0	0.275	1	50	104%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.55	10.55		9.2	0	0	0.165	1	50	115%	70	130	0%	
Chloroethane	A	ppbv	9.37	9.37		9.8	0	0	0.063	1	50	96%	70	130	0%	
Chloroform	A	ppbv	10.28	10.28		9.4	0	0	0.126	1	50	109%	70	130	0%	
Chloromethane	A	ppbv	9.62	9.62		9.8	0	0	0.104	1	50	98%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.05	10.05		9.8	0	0	0.107	1	50	103%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.41	9.41		9.5	0	0	0.166	1	50	99%	70	130	0%	
Cyclohexane	A	ppbv	10.84	10.84		9.8	0	0	0.684	2	50	111%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.16	9.16		9.2	0	0	0.086	1	50	100%	70	130	0%	
Ethanol	A	ppbv	9.17	9.17		9.2	0	0	1.962	5	50	100%	70	130	0%	
Ethyl acetate	A	ppbv	10.56	10.56		9.8	0	0	0.157	1	50	108%	70	130	0%	
Ethylbenzene	A	ppbv	10.27	10.27		9.8	0	0	0.737	2	50	105%	70	130	0%	
Heptane	A	ppbv	10.74	10.74		9.9	0	0	0.249	1	50	108%	70	130	0%	
Hexachlorobutadiene	A	ppbv	7.59	7.59		9.4	0	0	0.374	2	50	81%	70	130	0%	
m,p-Xylene	A	ppbv	22.42	22.42		19.2	0	0	0.524	2	100	117%	70	130	0%	
Methylene chloride	A	ppbv	9.97	9.97		10	0	0	2.077	5	50	100%	70	130	0%	
n-Hexane	A	ppbv	10.64	10.64		10.1	0	0	0.692	2	50	105%	70	130	0%	
Naphthalene	A	ppbv	7.84	7.84		9.2	0	0	0.247	1	50	85%	70	130	0%	
o-Xylene	A	ppbv	10.86	10.86		10	0	0	0.258	1	50	109%	70	130	0%	
Propylene	A	ppbv	9.83	9.83		10.2	0	0	0.075	1	50	96%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086759	ICV VOA1 010313	EPA_TO15	ICV	.1\DATA\010313	1/4/2013 4:17:00	1	R55129		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.79	10.79		9.8	0	0	0.263	1	50	110%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.57	10.57		9.9	0	0	0.228	1	50	107%	70	130	0%	
Tetrachloroethene	A	ppbv	10.32	10.32		9.6	0	0	0.148	1	50	108%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.65	10.65		10	0	0	0.201	1	50	107%	70	130	0%	
Toluene	A	ppbv	11.27	11.27		9.8	0	0	0.158	1	50	115%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.76	10.76		9.8	0	0	0.117	1	50	110%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.29	10.29		9.1	0	0	0.171	1	50	113%	70	130	0%	
Trichloroethene	A	ppbv	9.88	9.88		9.6	0	0	0.119	1	50	103%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.47	9.47		9.6	0	0	0.148	1	50	99%	70	130	0%	
Vinyl acetate	A	ppbv	10.84	10.84		9.9	0	0	0.266	1	50	109%	70	130	0%	
Vinyl chloride	A	ppbv	9.48	9.48		9.4	0	0	0.072	1	50	101%	70	130	0%	
Xylenes, Total	C	ppbv	33.28	33.28		29.2	0	0	0.782	3	150	114%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.32	12.32		12.5	0	0	0	0	0	99%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086760	RLVS VOA1 010131	EPA_TO15	RLVS	.1\DATA\010313	1/4/2013 5:01:00	1	R55129		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.96	0.96		0.996	0	0	0.107	1	50	96%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	0.95	0.95		1	0	0	0.211	1	50	95%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.98	0.98		0.98	0	0	0.108	1	50	100%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.86	0.86		0.98	0	0	0.2	1	50	88%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.06	1.06		0.97	0	0	0.111	1	50	109%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.06	1.06		0.99	0	0	0.097	1	50	107%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.04	1.04		0.91	0	0	0.271	1	50	114%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.89	0.89		0.98	0	0	0.245	1	50	91%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.8	0.8		0.96	0	0	0.186	1	50	83%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.92	0.92		0.97	0	0	0.208	1	50	95%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.07	1.07		0.97	0	0	0.196	1	50	110%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.92	0.92		0.98	0	0	0.224	1	50	94%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010313B\01031311.D Vial: 2
Acq On : 4 Jan 2013 4:17 am Operator: RACHEL HILL
Sample : ICV VOA1 010313 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
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	1.000	1.000	0.0	105	0.00
2	T	Propylene	1.368	1.318	3.7	94	0.00
3	T	Dichlorodifluoromethane	3.598	3.584	0.4	94	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.309	2.299	0.4	95	0.00
5	T	Chloromethane	1.418	1.435	-1.2	94	0.00
6	T	Vinyl chloride	1.812	1.826	-0.8	92	0.00
7	T	1,3-Butadiene	1.341	1.360	-1.4	91	0.00
8	T	Bromomethane	1.285	1.288	-0.2	99	0.00
9	T	Chloroethane	0.800	0.815	-1.9	97	0.00
10	T	Trichlorofluoromethane	3.317	3.273	1.3	94	0.00
11	T	Ethanol	0.471	0.470	0.2	99	0.00
12	T	Freon113	2.335	2.460	-5.4	96	0.00
13	T	1,1-Dichloroethene	2.064	2.174	-5.3	97	0.00
14	T	Acetone	2.347	2.553	-8.8	99	0.00
15	T	Carbon disulfide	3.037	3.545	-16.7	111	0.00
16	T	2-Propanol	2.182	2.464	-12.9	107	0.00
17	T	Methylene chloride	1.610	1.605	0.3	94	0.00
18	T	tert-Butyl Methyl Ether	3.277	3.498	-6.7	96	0.00
19	T	trans-1,2-Dichloroethene	1.896	2.083	-9.9	100	0.00
20	T	n-Hexane	2.200	2.318	-5.4	96	0.00
21	T	1,1-Dichloroethane	2.384	2.467	-3.5	94	0.00
22	T	Vinyl acetate	3.656	4.003	-9.5	94	0.00
23	T	cis-1,2-Dichloroethene	1.254	1.285	-2.5	96	0.00
24	T	2-Butanone	2.467	2.626	-6.4	94	0.00
25	T	Ethyl acetate	3.149	3.394	-7.8	98	0.00
26	T	Tetrahydrofuran	1.637	1.743	-6.5	92	0.00
27	T	Chloroform	2.538	2.662	-4.9	92	0.00
28	T	1,1,1-Trichloroethane	2.538	2.741	-8.0	92	0.00
29	T	Cyclohexane	2.291	2.534	-10.6	94	0.00
30	T	Carbon tetrachloride	2.473	2.624	-6.1	95	0.00
31	T	Benzene	3.711	3.860	-4.0	95	0.00
32	T	1,2-Dichloroethane	1.664	1.784	-7.2	92	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
34	T	Heptane	0.815	0.884	-8.5	93	0.00
35	T	Trichloroethene	0.486	0.500	-2.9	96	0.00
36	T	1,2-Dichloropropane	0.454	0.473	-4.2	94	0.00
37	T	1,4-Dioxane	0.207	0.225	-8.7	102	0.00
38	T	Bromodichloromethane	0.792	0.847	-6.9	97	0.00
39	T	cis-1,3-Dichloropropene	0.659	0.653	0.9	91	0.00
40	T	4-Methyl-2-pentanone	0.344	0.380	-10.5	101	0.00
41	T	Toluene	1.296	1.491	-15.0	105	0.00
42	T	trans-1,3-Dichloropropene	0.597	0.676	-13.2	105	0.00
43	T	1,1,2-Trichloroethane	0.447	0.457	-2.2	95	0.00
44	T	Tetrachloroethene	0.614	0.660	-7.5	96	0.00
45	T	2-Hexanone	0.753	0.862	-14.5	101	0.00
46	T	Chlorodibromomethane	0.715	0.770	-7.7	97	0.00
47	T	1,2-Dibromoethane	0.646	0.670	-3.7	97	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00
49	T	Chlorobenzene	1.120	1.160	-3.6	96	0.00
50	T	Ethylbenzene	1.917	2.010	-4.9	94	0.00
51	T	m,p-Xylene	1.443	1.685	-16.8	95	0.00
52	T	o-Xylene	1.521	1.652	-8.6	96	0.00
53	T	Styrene	1.104	1.215	-10.1	98	0.00
54	T	Bromoform	0.742	0.810	-9.2	99	0.00
55	S	4-Bromofluorobenzene	0.623	0.613	1.6	109	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\010313B\01031311.D Vial: 2
Acq On : 4 Jan 2013 4:17 am Operator: RACHEL HILL
Sample : ICV VOA1 010313 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
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)
56	T	1,1,2,2-Tetrachloroethane	0.983	1.012	-3.0	96	0.00
57	T	4-Ethyltoluene	1.828	1.927	-5.4	96	0.00
58	T	1,3,5-Trimethylbenzene	1.560	1.644	-5.4	95	0.00
59	T	1,2,4-Trimethylbenzene	1.459	1.541	-5.6	94	0.00
60	T	1,3-Dichlorobenzene	0.772	0.784	-1.6	97	0.00
61	T	1,4-Dichlorobenzene	0.720	0.734	-1.9	97	0.00
62	T	Benzyl chloride	0.902	0.959	-6.3	93	0.00
63	T	1,2-Dichlorobenzene	0.641	0.626	2.3	88	0.00
64	T	1,2,4-Trichlorobenzene	0.195	0.178	8.7	67	0.00
65	T	Hexachlorobutadiene	0.404	0.326	19.3	64	0.00
66		Naphthalene	0.369	0.315	14.6	56	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010313B\01031311.D Vial: 2
Acq On : 4 Jan 2013 4:17 am Operator: RACHEL HILL
Sample : ICV VOA1 010313 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 4 10:32 2013 Quant Results File: 010313V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
Response via : Initial Calibration
DataAcq Meth : 010313V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.53	130	198375	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.62	114	665551	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.47	117	545186	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.12	95	334427	12.32	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 98.56%				
Target Compounds							Qvalue
2) Propylene	5.44	41	213349	9.83	ppbv		96
3) Dichlorodifluoromethane	5.51	85	523246	9.16	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	346638	9.46	ppbv	#	63
5) Chloromethane	5.93	50	216340	9.62	ppbv		99
6) Vinyl chloride	6.15	62	272466	9.48	ppbv		99
7) 1,3-Butadiene	6.20	39	211440	9.94	ppbv		100
8) Bromomethane	6.78	94	190144	9.33	ppbv		99
9) Chloroethane	6.93	64	119031	9.37	ppbv		98
10) Trichlorofluoromethane	7.26	101	498586	9.47	ppbv		98
11) Ethanol	7.50	45	68585	9.17	ppbv		100
12) Freon113	7.93	101	382573	10.32	ppbv		89
13) 1,1-Dichloroethene	8.03	61	341621	10.43	ppbv	#	86
14) Acetone	8.12	43	405127	10.88	ppbv	#	91
15) Carbon disulfide	8.39	76	545756	11.32	ppbv	#	99
16) 2-Propanol	8.17	45	395009	11.41	ppbv	#	1
17) Methylene chloride	8.68	49	254775	9.97	ppbv	#	83
18) tert-Butyl Methyl Ether	8.89	73	549649	10.57	ppbv	#	91
19) trans-1,2-Dichloroethene	8.97	61	323925	10.76	ppbv	#	81
20) n-Hexane	9.15	57	371617	10.64	ppbv		94
21) 1,1-Dichloroethane	9.53	63	379799	10.04	ppbv	#	97
22) Vinyl acetate	9.46	43	628955	10.84	ppbv	#	96
23) cis-1,2-Dichloroethene	10.22	96	199906	10.05	ppbv	#	80
24) 2-Butanone	10.19	43	412638	10.54	ppbv		92
25) Ethyl acetate	10.13	43	527835	10.56	ppbv	#	98
26) Tetrahydrofuran	10.52	42	276652	10.65	ppbv		92
27) Chloroform	10.54	83	413972	10.28	ppbv		99
28) 1,1,1-Trichloroethane	10.79	97	417668	10.37	ppbv		95
29) Cyclohexane	10.80	56	394125	10.84	ppbv		89
30) Carbon tetrachloride	10.95	117	395589	10.08	ppbv		98
31) Benzene	11.23	78	588107	9.99	ppbv		95
32) 1,2-Dichloroethane	11.31	62	274631	10.40	ppbv	#	97
34) Heptane	11.28	43	465831	10.74	ppbv	#	92
35) Trichloroethene	11.96	130	255662	9.88	ppbv		94
36) 1,2-Dichloropropane	12.32	63	246548	10.19	ppbv		97
37) 1,4-Dioxane	12.40	88	115151	10.45	ppbv	#	82
38) Bromodichloromethane	12.61	83	433041	10.28	ppbv		98
39) cis-1,3-Dichloropropene	13.16	75	330065	9.41	ppbv		98
40) 4-Methyl-2-pentanone	13.27	58	202427	11.06	ppbv	#	93
41) Toluene	13.56	91	777978	11.27	ppbv		98
42) trans-1,3-Dichloropropene	13.87	75	327394	10.29	ppbv		97
43) 1,1,2-Trichloroethane	14.14	97	238718	10.02	ppbv		97
44) Tetrachloroethene	14.26	166	337250	10.32	ppbv		97
45) 2-Hexanone	14.34	43	449609	11.22	ppbv		98
46) Chlorodibromomethane	14.69	129	401689	10.55	ppbv		99
47) 1,2-Dibromoethane	14.92	107	342479	9.96	ppbv		100
49) Chlorobenzene	15.51	112	500694	10.25	ppbv	#	89
50) Ethylbenzene	15.56	91	858936	10.27	ppbv		95
51) m,p-Xylene	15.71	91	1410912	22.42	ppbv		95
52) o-Xylene	16.30	91	720645	10.86	ppbv	#	93

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010313B\01031311.D Vial: 2
Acq On : 4 Jan 2013 4:17 am Operator: RACHEL HILL
Sample : ICV VOA1 010313 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 4 10:32 2013 Quant Results File: 010313V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
Response via : Initial Calibration
DataAcq Meth : 010313V1

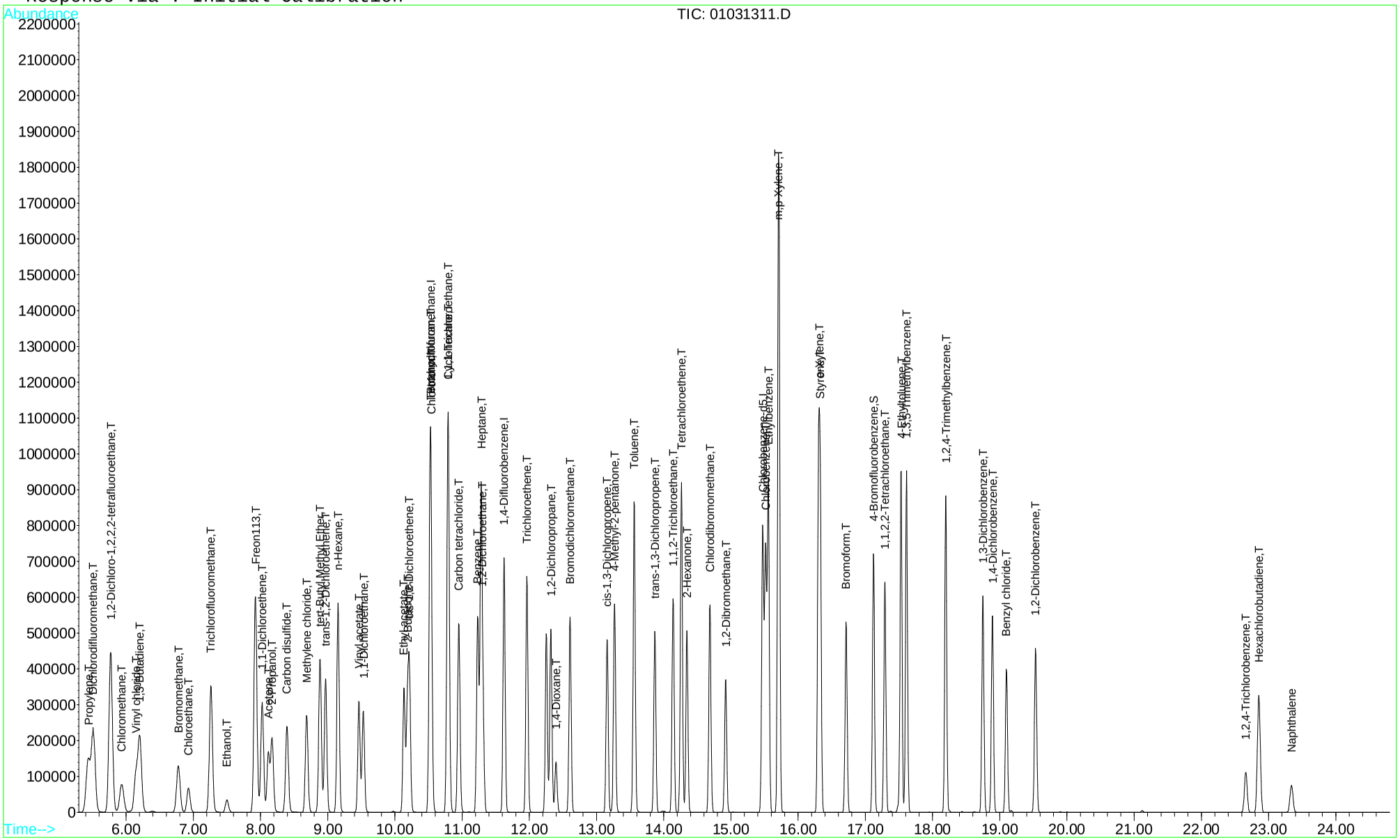
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53)	Styrene	16.33	104	519214	10.79	ppbv		97
54)	Bromoform	16.71	173	339286	10.48	ppbv		98
56)	1,1,2,2-Tetrachloroethane	17.29	83	441422	10.30	ppbv	#	98
57)	4-Ethyltoluene	17.53	105	823794	10.33	ppbv		95
58)	1,3,5-Trimethylbenzene	17.61	105	695692	10.23	ppbv		94
59)	1,2,4-Trimethylbenzene	18.20	105	658854	10.35	ppbv		95
60)	1,3-Dichlorobenzene	18.75	146	331601	9.85	ppbv		96
61)	1,4-Dichlorobenzene	18.89	146	307312	9.79	ppbv		95
62)	Benzyl chloride	19.10	91	405522	10.31	ppbv		95
63)	1,2-Dichlorobenzene	19.53	146	264873	9.48	ppbv		95
64)	1,2,4-Trichlorobenzene	22.66	180	70628	8.32	ppbv		98
65)	Hexachlorobutadiene	22.86	225	133679	7.59	ppbv		99
66)	Naphthalene	23.34	128	126338	7.84	ppbv		98

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010313B\01031311.D Vial: 2
Acq On : 4 Jan 2013 4:17 am Operator: RACHEL HILL
Sample : ICV VOA1 010313 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 4 10:32 2013 Quant Results File: 010313V1.RES

Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\010513

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	01051301.d	1.	BFB VOA1 010513	TUNE BFB_TUNE	5 Jan 2013 08:34
2	2	01051302.d	1.	CCV VOA1 010513	data not used	5 Jan 2013 10:00
3	3	01051303.d	1.	CCV VOA1 010513	data not used	5 Jan 2013 11:22
4	4	01051304.d	1.	1ppbv VOA1 010513	data not used	5 Jan 2013 12:45
5	5	01051305.d	1.	1ppbv VOA1 010513	ICAL2EPA_TO15	5 Jan 2013 13:29
6	6	01051306.d	1.	10ppbv VOA1 010513	ICAL3EPA_TO15	5 Jan 2013 14:12
7	7	01051307.d	1.	12ppbv VOA1 010513	ICAL4EPA_TO15	5 Jan 2013 14:54
8	8	01051308.d	1.	15ppbv VOA1 010513	ICAL5EPA_TO15	5 Jan 2013 15:37
9	9	01051309.d	1.	20ppbv VOA1 010513	ICAL6EPA_TO15	5 Jan 2013 16:21
10	10	01051310.d	1.	30ppbv VOA1 010513	ICAL7EPA_TO15	5 Jan 2013 17:05
11	11	01051311.d	1.	50ppbv VOA1 010513	ICAL8EPA_TO15	5 Jan 2013 17:50
12	1	01051312.d	1.	BFB VOA1 010513	TUNE BFB_TUNE	5 Jan 2013 18:32
13	3	01051313.d	1.	ICV VOA1 010513	ICV EPA_TO15	5 Jan 2013 19:15
14	4	01051314.d	1.	RLVS VOA1 010513	RLVS EPA_TO15	5 Jan 2013 19:59
15	5	01051315.d	1.	MBLK VOA1 010513	MBLK EPA_TO15	5 Jan 2013 21:18
16	1	01051316.d	800.	1212437-020A	SAMP EPA_TO15	5 Jan 2013 22:03
17	1	01051317.d	800.	1212437-020ADUP	DUP EPA_TO15	5 Jan 2013 22:47
18	2	01051318.d	800.	1212437-021A	SAMP EPA_TO15	5 Jan 2013 23:32
19	3	01051319.d	40000.	1212437-004A	data not used	6 Jan 2013 00:13
20	4	01051320.d	40000.	1212437-003A	data not used	6 Jan 2013 00:55
21	6	01051321.d	160000.	1212437-004A	SAMP EPA_TO15	6 Jan 2013 01:37
22	7	01051322.d	800.	1212437-025A	SAMP EPA_TO15	6 Jan 2013 02:22
23	7	01051323.d	800.	1212437-025A	data not used	6 Jan 2013 03:07
24	8	01051324.d	40.	1212722-084A	SAMP EPA_TO15	6 Jan 2013 03:49
25	9	01051325.d	160000.	1212437-003A	SAMP EPA_TO15	6 Jan 2013 04:30
26	10	01051326.d	160000.	1212437-005A	SAMP EPA_TO15	6 Jan 2013 05:12
27	11	01051327.d	800.	1212722-054A	SAMP EPA_TO15	6 Jan 2013 05:57
28	12	01051328.d	400.	1212722-055A	SAMP EPA_TO15	6 Jan 2013 06:46
29	13	01051329.d	400.	1212722-056A	SAMP EPA_TO15	6 Jan 2013 07:34
30	14	01051330.d	400.	1212722-057A	SAMP EPA_TO15	6 Jan 2013 08:22
31	15	01051331.d	400.	1212722-058A	SAMP EPA_TO15	6 Jan 2013 09:11
32	16	01051332.d	40.	1212722-059A	SAMP EPA_TO15	6 Jan 2013 09:53
33	17	01051333.d	40.	1212722-061A	SAMP EPA_TO15	6 Jan 2013 11:05
34	18	01051334.d	400.	1212722-062A	SAMP EPA_TO15	6 Jan 2013 11:53
35	19	01051335.d	800.	1212722-063A	SAMP EPA_TO15	6 Jan 2013 12:38
36	20	01051336.d	40.	1212722-064A	SAMP EPA_TO15	6 Jan 2013 13:20
37	21	01051337.d	40.	1212722-065A	SAMP EPA_TO15	6 Jan 2013 14:02
38	22	01051338.d	40.	1212722-066A	SAMP EPA_TO15	6 Jan 2013 14:44
39	23	01051339.d	40.	1212722-069A	SAMP EPA_TO15	6 Jan 2013 15:25
40	24	01051340.d	1.	ccdbv61	data not used	6 Jan 2013 16:14
41	4	01051341.d	1.	RLVS2 VOA1 010513	RLVS EPA_TO15	6 Jan 2013 18:04

RTI Laboratories

ANALYTICAL RUN Summary

15-Jan-13

RunNo 55152

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1087108	BFB2 VOA1 010513	BFB_TUNE	TUNE	\1\DATA\010513\	1/5/2013 6:32:00	1	R55152		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.5	0.5		100	0	0	0	0	0	1%	0	2	0%	
174	M		76.9	76.9		100	0	0	0	0	0	77%	50	200	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		97.6	97.6		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		21.7	21.7		100	0	0	0	0	0	22%	8	40	0%	
75	M		45.9	45.9		100	0	0	0	0	0	46%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1087109	ICV VOA1 010513	EPA_TO15	ICV	\1\DATA\010513\	1/5/2013 7:15:00	1	R55152		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.26	10.26		9.6	0	0	0.107	1	50	107%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.09	10.09		10	0	0	0.211	1	50	101%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.48	10.48		9.8	0	0	0.108	1	50	107%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.48	9.48		9.8	0	0	0.2	1	50	97%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.14	10.14		9.7	0	0	0.111	1	50	105%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.65	10.65		9.9	0	0	0.097	1	50	108%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.13	9.13		9.1	0	0	0.271	1	50	100%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.23	10.23		9.8	0	0	0.245	1	50	104%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.33	9.33		9.6	0	0	0.186	1	50	97%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.62	9.62		9.7	0	0	0.208	1	50	99%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.39	10.39		9.7	0	0	0.196	1	50	107%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.74	9.74		9.8	0	0	0.224	1	50	99%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.12	10.12		9.7	0	0	0.24	1	50	104%	70	130	0%	
1,3-Butadiene	A	ppbv	9.92	9.92		9.8	0	0	0.152	1	50	101%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.75	9.75		9.7	0	0	0.202	1	50	101%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1087109	ICV VOA1 010513	EPA_TO15	ICV	\\1\DATA\010513	1/5/2013 7:15:00	1	R55152		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.72	9.72		9.6	0	0	0.194	1	50	101%	70	130	0%	
1,4-Dioxane	A	ppbv	10	10		9.6	0	0	0.128	1	50	104%	70	130	0%	
2-Butanone	A	ppbv	10.75	10.75		9.9	0	0	0.287	1	50	109%	70	130	0%	
2-Hexanone	A	ppbv	10.8	10.8		9.8	0	0	0.135	1	50	110%	70	130	0%	
2-Propanol	A	ppbv	11.39	11.39		10.1	0	0	0.329	1	50	113%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.57	10.57		10	0	0	0.157	1	50	106%	70	130	0%	
Acetone	A	ppbv	10.86	10.86		10	0	0	0.43	1	50	109%	70	130	0%	
Benzene	A	ppbv	9.97	9.97		9.6	0	0	0.126	1	50	104%	70	130	0%	
Benzyl chloride	A	ppbv	10.47	10.47		9.7	0	0	0.155	1	50	108%	70	130	0%	
Bromodichloromethane	A	ppbv	9.79	9.79		9.6	0	0	0.156	1	50	102%	70	130	0%	
Bromoform	A	ppbv	10.14	10.14		9.6	0	0	0.197	1	50	106%	70	130	0%	
Bromomethane	A	ppbv	9.22	9.22		9.3	0	0	0.075	1	50	99%	70	130	0%	
Carbon disulfide	A	ppbv	11.47	11.47		9.7	0	0	0.093	1	50	118%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.02	10.02		9.5	0	0	0.114	1	50	105%	70	130	0%	
Chlorobenzene	A	ppbv	9.99	9.99		9.9	0	0	0.275	1	50	101%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.89	9.89		9.2	0	0	0.165	1	50	108%	70	130	0%	
Chloroethane	A	ppbv	9.25	9.25		9.8	0	0	0.063	1	50	94%	70	130	0%	
Chloroform	A	ppbv	10.24	10.24		9.4	0	0	0.126	1	50	109%	70	130	0%	
Chloromethane	A	ppbv	9.53	9.53		9.8	0	0	0.104	1	50	97%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.06	10.06		9.8	0	0	0.107	1	50	103%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.96	8.96		9.5	0	0	0.166	1	50	94%	70	130	0%	
Cyclohexane	A	ppbv	10.89	10.89		9.8	0	0	0.684	2	50	111%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.13	9.13		9.2	0	0	0.086	1	50	99%	70	130	0%	
Ethanol	A	ppbv	9.2	9.2		9.2	0	0	1.962	5	50	100%	70	130	0%	
Ethyl acetate	A	ppbv	11.28	11.28		9.8	0	0	0.157	1	50	115%	70	130	0%	
Ethylbenzene	A	ppbv	10.03	10.03		9.8	0	0	0.737	2	50	102%	70	130	0%	
Heptane	A	ppbv	10.25	10.25		9.9	0	0	0.249	1	50	104%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.43	8.43		9.4	0	0	0.374	2	50	90%	70	130	0%	
m,p-Xylene	A	ppbv	21.78	21.78		19.2	0	0	0.524	2	100	113%	70	130	0%	
Methylene chloride	A	ppbv	10.2	10.2		10	0	0	2.077	5	50	102%	70	130	0%	
n-Hexane	A	ppbv	10.86	10.86		10.1	0	0	0.692	2	50	108%	70	130	0%	
Naphthalene	A	ppbv	9.1	9.1		9.2	0	0	0.247	1	50	99%	70	130	0%	
o-Xylene	A	ppbv	10.57	10.57		10	0	0	0.258	1	50	106%	70	130	0%	
Propylene	A	ppbv	9.83	9.83		10.2	0	0	0.075	1	50	96%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1087109	ICV VOA1 010513	EPA_TO15	ICV	[\1\DATA\010513\	1/5/2013 7:15:00	1	R55152		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.44	10.44		9.8	0	0	0.263	1	50	107%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.75	10.75		9.9	0	0	0.228	1	50	109%	70	130	0%	
Tetrachloroethene	A	ppbv	9.72	9.72		9.6	0	0	0.148	1	50	101%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.82	10.82		10	0	0	0.201	1	50	108%	70	130	0%	
Toluene	A	ppbv	10.77	10.77		9.8	0	0	0.158	1	50	110%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.91	10.91		9.8	0	0	0.117	1	50	111%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.75	9.75		9.1	0	0	0.171	1	50	107%	70	130	0%	
Trichloroethene	A	ppbv	9.34	9.34		9.6	0	0	0.119	1	50	97%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.57	9.57		9.6	0	0	0.148	1	50	100%	70	130	0%	
Vinyl acetate	A	ppbv	11	11		9.9	0	0	0.266	1	50	111%	70	130	0%	
Vinyl chloride	A	ppbv	9.47	9.47		9.4	0	0	0.072	1	50	101%	70	130	0%	
Xylenes, Total	C	ppbv	32.35	32.35		29.2	0	0	0.782	3	150	111%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.41	12.41		12.5	0	0	0	0	0	99%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1087110	RLVS VOA1 010513	EPA_TO15	RLVS	[\1\DATA\010513\	1/5/2013 7:59:00	1	R55152		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.92	0.92		0.996	0	0	0.107	1	50	92%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	0.9	0.9		1	0	0	0.211	1	50	90%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.93	0.93		0.98	0	0	0.108	1	50	95%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.79	0.79		0.98	0	0	0.2	1	50	81%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.02	1.02		0.97	0	0	0.111	1	50	105%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.01	1.01		0.99	0	0	0.097	1	50	102%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.13	1.13		0.91	0	0	0.271	1	50	124%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.87	0.87		0.98	0	0	0.245	1	50	89%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.76	0.76		0.96	0	0	0.186	1	50	79%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.9	0.9		0.97	0	0	0.208	1	50	93%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.03	1.03		0.97	0	0	0.196	1	50	106%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.85	0.85		0.98	0	0	0.224	1	50	87%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010513\01051313.D Vial: 3
Acq On : 5 Jan 2013 7:15 pm Operator: RACHEL HILL
Sample : ICV VOA1 010513 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
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	1.000	1.000	0.0	110	0.00
2	T	Propylene	1.423	1.372	3.6	97	0.00
3	T	Dichlorodifluoromethane	3.682	3.654	0.8	97	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.327	2.303	1.0	98	0.00
5	T	Chloromethane	1.465	1.471	-0.4	96	0.00
6	T	Vinyl chloride	1.907	1.920	-0.7	95	0.00
7	T	1,3-Butadiene	1.437	1.454	-1.2	94	0.00
8	T	Bromomethane	1.368	1.357	0.8	104	0.00
9	T	Chloroethane	0.836	0.840	-0.5	100	0.00
10	T	Trichlorofluoromethane	3.406	3.395	0.3	99	0.00
11	T	Ethanol	0.479	0.478	0.2	102	0.00
12	T	Freon113	2.404	2.572	-7.0	103	0.00
13	T	1,1-Dichloroethene	2.139	2.302	-7.6	104	0.00
14	T	Acetone	2.405	2.612	-8.6	103	0.00
15	T	Carbon disulfide	3.094	3.659	-18.3	116	0.00
16	T	2-Propanol	2.238	2.522	-12.7	110	0.00
17	T	Methylene chloride	1.655	1.687	-1.9	100	0.00
18	T	tert-Butyl Methyl Ether	3.300	3.582	-8.5	102	0.00
19	T	trans-1,2-Dichloroethene	1.956	2.178	-11.3	106	0.00
20	T	n-Hexane	2.274	2.446	-7.6	103	0.00
21	T	1,1-Dichloroethane	2.435	2.545	-4.5	99	0.00
22	T	Vinyl acetate	3.745	4.163	-11.2	99	0.00
23	T	cis-1,2-Dichloroethene	1.273	1.306	-2.6	101	0.00
24	T	2-Butanone	2.580	2.801	-8.6	102	0.00
25	T	Ethyl acetate	3.229	3.715	-15.1	108	0.00
26	T	Tetrahydrofuran	1.706	1.846	-8.2	97	0.00
27	T	Chloroform	2.633	2.751	-4.5	96	0.00
28	T	1,1,1-Trichloroethane	2.624	2.805	-6.9	96	0.00
29	T	Cyclohexane	2.399	2.664	-11.0	100	0.00
30	T	Carbon tetrachloride	2.515	2.654	-5.5	99	0.00
31	T	Benzene	3.755	3.900	-3.9	99	0.00
32	T	1,2-Dichloroethane	1.728	1.851	-7.1	96	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
34	T	Heptane	0.894	0.925	-3.5	98	0.00
35	T	Trichloroethene	0.516	0.501	2.9	99	0.00
36	T	1,2-Dichloropropane	0.485	0.481	0.8	98	0.00
37	T	1,4-Dioxane	0.215	0.223	-3.7	107	0.00
38	T	Bromodichloromethane	0.844	0.861	-2.0	101	0.00
39	T	cis-1,3-Dichloropropene	0.696	0.657	5.6	95	0.00
40	T	4-Methyl-2-pentanone	0.365	0.385	-5.5	106	0.00
41	T	Toluene	1.364	1.500	-10.0	110	0.00
42	T	trans-1,3-Dichloropropene	0.634	0.679	-7.1	108	0.00
43	T	1,1,2-Trichloroethane	0.470	0.455	3.2	99	0.00
44	T	Tetrachloroethene	0.652	0.660	-1.2	100	0.00
45	T	2-Hexanone	0.803	0.884	-10.1	107	0.00
46	T	Chlorodibromomethane	0.755	0.762	-0.9	100	0.00
47	T	1,2-Dibromoethane	0.679	0.660	2.8	99	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00
49	T	Chlorobenzene	1.175	1.186	-0.9	100	0.00
50	T	Ethylbenzene	2.023	2.070	-2.3	98	0.00
51	T	m,p-Xylene	1.550	1.758	-13.4	98	0.00
52	T	o-Xylene	1.610	1.701	-5.7	100	0.00
53	T	Styrene	1.159	1.234	-6.5	101	0.00
54	T	Bromoform	0.776	0.820	-5.7	102	0.00
55	S	4-Bromofluorobenzene	0.619	0.614	0.8	114	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\010513\01051313.D Vial: 3
Acq On : 5 Jan 2013 7:15 pm Operator: RACHEL HILL
Sample : ICV VOA1 010513 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
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)
56	T	1,1,2,2-Tetrachloroethane	1.030	1.039	-0.9	101	0.00
57	T	4-Ethyltoluene	1.901	1.969	-3.6	103	0.00
58	T	1,3,5-Trimethylbenzene	1.617	1.687	-4.3	102	0.00
59	T	1,2,4-Trimethylbenzene	1.494	1.560	-4.4	104	0.00
60	T	1,3-Dichlorobenzene	0.783	0.787	-0.5	107	0.00
61	T	1,4-Dichlorobenzene	0.726	0.735	-1.2	108	0.00
62	T	Benzyl chloride	0.898	0.970	-8.0	111	0.00
63	T	1,2-Dichlorobenzene	0.634	0.629	0.8	108	0.00
64	T	1,2,4-Trichlorobenzene	0.183	0.183	0.0	127	0.00
65	T	Hexachlorobutadiene	0.392	0.351	10.5	115	0.00
66		Naphthalene	0.332	0.329	0.9	128	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010513\01051313.D Vial: 3
Acq On : 5 Jan 2013 7:15 pm Operator: RACHEL HILL
Sample : ICV VOA1 010513 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 6 11:05 2013 Quant Results File: 010513V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
Response via : Initial Calibration
DataAcq Meth : 010513V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.53	130	196257	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.62	114	662025	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.47	117	527812	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.12	95	324183	12.41	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 99.28%				
Target Compounds							Qvalue
2) Propylene	5.44	41	219665	9.83	ppbv		96
3) Dichlorodifluoromethane	5.52	85	527777	9.13	ppbv		98
4) 1,2-Dichloro-1,2,2,2-tetra	5.78	135	343555	9.40	ppbv	#	62
5) Chloromethane	5.94	50	219366	9.53	ppbv		99
6) Vinyl chloride	6.15	62	283417	9.47	ppbv		99
7) 1,3-Butadiene	6.21	39	223714	9.92	ppbv		99
8) Bromomethane	6.78	94	198070	9.22	ppbv		100
9) Chloroethane	6.93	64	121374	9.25	ppbv		97
10) Trichlorofluoromethane	7.27	101	511673	9.57	ppbv		98
11) Ethanol	7.50	45	69114	9.20	ppbv		99
12) Freon113	7.93	101	395724	10.48	ppbv		87
13) 1,1-Dichloroethene	8.03	61	357773	10.65	ppbv	#	85
14) Acetone	8.12	43	410128	10.86	ppbv	#	91
15) Carbon disulfide	8.40	76	557225	11.47	ppbv	#	99
16) 2-Propanol	8.18	45	400006	11.39	ppbv	#	1
17) Methylene chloride	8.69	49	264858	10.20	ppbv	#	81
18) tert-Butyl Methyl Ether	8.89	73	556830	10.75	ppbv	#	90
19) trans-1,2-Dichloroethene	8.97	61	335129	10.91	ppbv	#	80
20) n-Hexane	9.16	57	387800	10.86	ppbv	#	92
21) 1,1-Dichloroethane	9.53	63	387614	10.14	ppbv	#	97
22) Vinyl acetate	9.46	43	647023	11.00	ppbv	#	95
23) cis-1,2-Dichloroethene	10.22	96	201014	10.06	ppbv	#	79
24) 2-Butanone	10.19	43	435326	10.75	ppbv	#	90
25) Ethyl acetate	10.14	43	571620	11.28	ppbv	#	99
26) Tetrahydrofuran	10.53	42	289803	10.82	ppbv		91
27) Chloroform	10.54	83	423272	10.24	ppbv		100
28) 1,1,1-Trichloroethane	10.79	97	422768	10.26	ppbv		95
29) Cyclohexane	10.80	56	409931	10.89	ppbv		88
30) Carbon tetrachloride	10.95	117	395820	10.02	ppbv		99
31) Benzene	11.23	78	587840	9.97	ppbv		94
32) 1,2-Dichloroethane	11.31	62	281841	10.39	ppbv	#	97
34) Heptane	11.28	43	485218	10.25	ppbv	#	91
35) Trichloroethene	11.96	130	254948	9.34	ppbv		94
36) 1,2-Dichloropropane	12.32	63	249842	9.74	ppbv		97
37) 1,4-Dioxane	12.40	88	113634	10.00	ppbv	#	81
38) Bromodichloromethane	12.61	83	437610	9.79	ppbv		98
39) cis-1,3-Dichloropropene	13.16	75	330574	8.96	ppbv		97
40) 4-Methyl-2-pentanone	13.27	58	204167	10.57	ppbv	#	92
41) Toluene	13.56	91	778310	10.77	ppbv		98
42) trans-1,3-Dichloropropene	13.87	75	327139	9.75	ppbv		96
43) 1,1,2-Trichloroethane	14.14	97	236306	9.48	ppbv		96
44) Tetrachloroethene	14.27	166	335402	9.72	ppbv		97
45) 2-Hexanone	14.34	43	459020	10.80	ppbv		98
46) Chlorodibromomethane	14.69	129	395685	9.89	ppbv		99
47) 1,2-Dibromoethane	14.92	107	335472	9.33	ppbv		100
49) Chlorobenzene	15.52	112	495656	9.99	ppbv	#	88
50) Ethylbenzene	15.56	91	856453	10.03	ppbv		95
51) m,p-Xylene	15.71	91	1425139	21.78	ppbv		95
52) o-Xylene	16.31	91	718096	10.57	ppbv	#	92

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010513\01051313.D Vial: 3
Acq On : 5 Jan 2013 7:15 pm Operator: RACHEL HILL
Sample : ICV VOA1 010513 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 6 11:05 2013 Quant Results File: 010513V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
Response via : Initial Calibration
DataAcq Meth : 010513V1

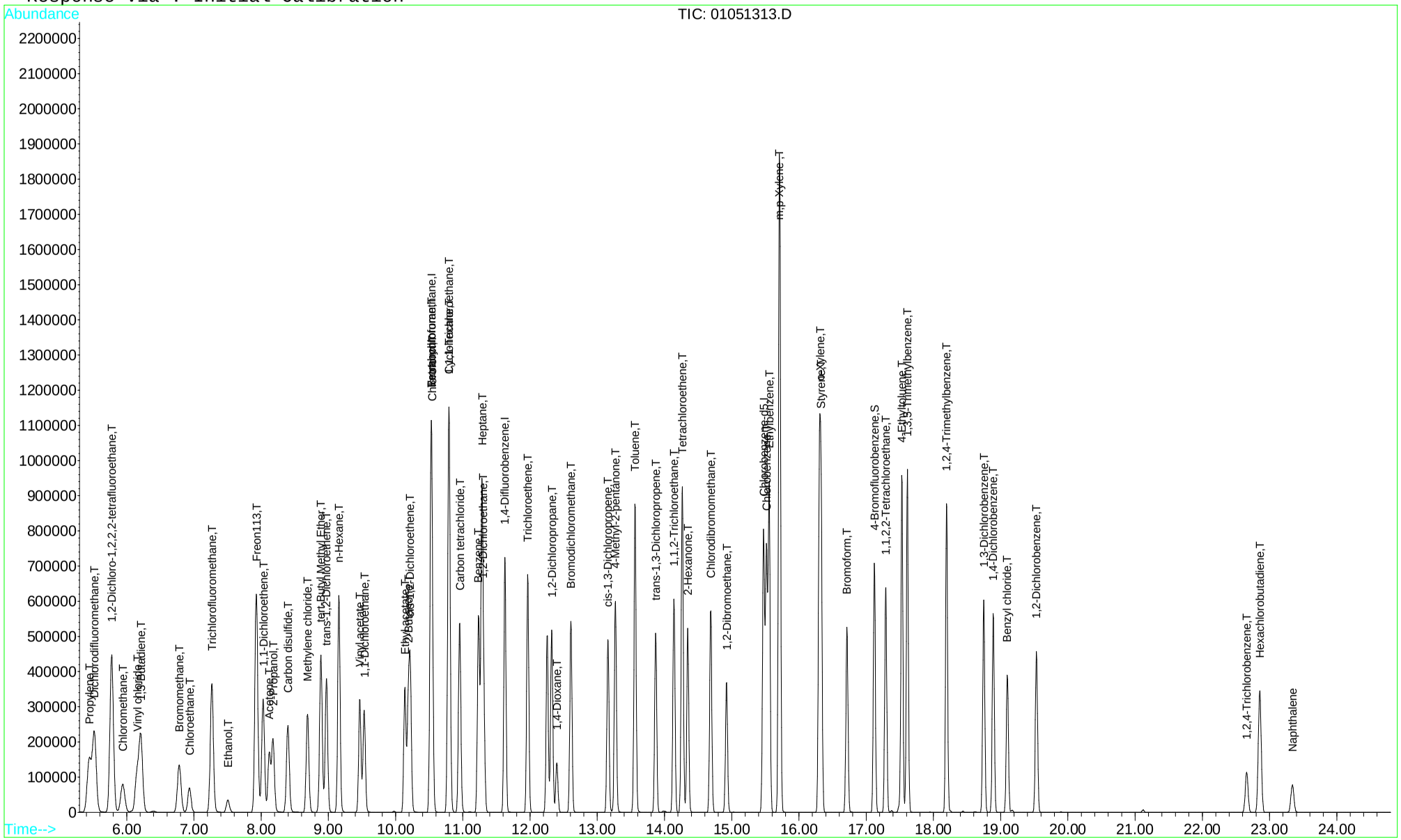
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53)	Styrene	16.33	104	510725	10.44	ppbv		97
54)	Bromoform	16.71	173	332318	10.14	ppbv		98
56)	1,1,2,2-Tetrachloroethane	17.29	83	438769	10.09	ppbv	#	98
57)	4-Ethyltoluene	17.53	105	814755	10.15	ppbv		94
58)	1,3,5-Trimethylbenzene	17.61	105	690766	10.12	ppbv		94
59)	1,2,4-Trimethylbenzene	18.19	105	645530	10.23	ppbv		95
60)	1,3-Dichlorobenzene	18.75	146	322161	9.75	ppbv	#	95
61)	1,4-Dichlorobenzene	18.89	146	297758	9.72	ppbv	#	95
62)	Benzyl chloride	19.10	91	397312	10.47	ppbv		95
63)	1,2-Dichlorobenzene	19.53	146	257497	9.62	ppbv	#	95
64)	1,2,4-Trichlorobenzene	22.66	180	70424	9.13	ppbv		97
65)	Hexachlorobutadiene	22.85	225	139424	8.43	ppbv		99
66)	Naphthalene	23.34	128	127724	9.10	ppbv		99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010513\01051313.D Vial: 3
Acq On : 5 Jan 2013 7:15 pm Operator: RACHEL HILL
Sample : ICV VOA1 010513 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 6 11:05 2013 Quant Results File: 010513V1.RES

Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
Response via : Initial Calibration

Calibration Files
2 =12201203.D 4 =12201204.D 5 =12201205.D
6 =12201206.D 7 =12201207.D 8 =12201208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.194	1.215	1.135	1.112	1.107	1.027	1.126	5.62
3)	T	Dichlorodifluoromet	3.444	4.227	4.022	3.953	3.921	3.606	3.845	6.91
4)	T	1,2-Dichloro-1,2,2,	2.382	2.928	2.760	2.690	2.651	2.390	2.599	8.30
5)	T	Chloromethane	1.425	1.683	1.626	1.562	1.542	1.400	1.530	6.81
6)	T	Vinyl chloride	1.632	2.054	1.938	1.887	1.850	1.688	1.825	8.26
7)	T	1,3-Butadiene	0.873	1.065	1.001	0.960	0.936	0.847	0.930	9.21
8)	T	Bromomethane	1.249	1.639	1.514	1.420	1.348	1.243	1.376	11.42
9)	T	Chloroethane	0.822	1.067	1.018	0.987	0.952	0.775	0.915	13.05
10)	T	Trichlorofluorometh	3.865	4.090	3.889	3.762	3.657	3.290	3.671	9.28
11)	T	Ethanol	0.617	0.485	0.480	0.447	0.441	0.388	0.469	15.63
12)	T	Freon113	2.342	2.943	2.772	2.660	2.512	2.170	2.495	12.87
13)	T	1,1-Dichloroethene	2.134	2.630	2.492	2.410	2.319	2.051	2.300	9.77
14)	T	Acetone	2.268	2.312	2.194	2.043	1.897	1.569	1.984	15.42
15)	T	Carbon disulfide	3.115	3.878	3.701	3.561	3.498	3.144	3.443	8.60
16)	T	2-Propanol	2.138	2.283	2.187	2.059	1.992	1.752	2.035	9.37
17)	T	Methylene chloride	1.743	1.848	1.736	1.658	1.579	1.372	1.618	11.23
18)	T	tert-Butyl Methyl E	3.170	3.996	3.839	3.546	3.277	2.708	3.323	15.22
19)	T	trans-1,2-Dichloroe	1.962	2.453	2.330	2.229	2.119	1.828	2.107	11.61
20)	T	n-Hexane	2.350	2.923	2.765	2.621	2.489	2.134	2.482	12.60
21)	T	1,1-Dichloroethane	2.514	3.162	3.028	2.821	2.649	2.256	2.670	13.27
22)	T	Vinyl acetate	2.295	3.947	3.729	3.447	3.151	2.573	3.100	20.63
23)	T	cis-1,2-Dichloroeth	1.283	1.591	1.507	1.428	1.347	1.159	1.350	12.66
24)	T	2-Butanone	2.002	2.514	2.250	2.124	1.892	1.546	1.983	17.92
25)	T	Ethyl acetate	2.332	3.335	3.114	2.849	2.691	2.231	2.687	16.28
26)	T	Tetrahydrofuran	1.233	1.532	1.436	1.319	1.213	0.992	1.233	18.30
27)	T	Chloroform	2.424	2.895	2.746	2.550	2.417	2.049	2.441	13.50
28)	T	1,1,1-Trichloroetha	2.474	3.069	2.883	2.713	2.551	2.172	2.570	13.54
29)	T	Cyclohexane	2.429	2.992	2.753	2.598	2.393	1.959	2.396	19.22
30)	T	Carbon tetrachlorid	2.410	3.234	3.061	2.921	2.801	2.411	2.747	12.62
31)	T	Benzene	3.794	4.689	4.463	4.134	3.855	3.190	3.893	15.23
32)	T	1,2-Dichloroethane	1.680	2.121	2.013	1.850	1.728	1.434	1.751	15.16
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.620	0.724	0.643	0.598	0.552	0.417	0.554	25.06
35)	T	Trichloroethene	0.453	0.541	0.504	0.473	0.450	0.365	0.445	16.97
36)	T	1,2-Dichloropropane	0.433	0.533	0.493	0.461	0.427	0.340	0.428	18.83
37)	T	1,4-Dioxane	0.193	0.235	0.226	0.217	0.205	0.170	0.201	13.95
38)	T	Bromodichloromethan	0.666	0.836	0.784	0.727	0.680	0.543	0.676	18.18
39)	T	cis-1,3-Dichloropro	0.536	0.727	0.678	0.632	0.600	0.479	0.584	17.98
40)	T	4-Methyl-2-pentanon	0.294	0.397	0.373	0.346	0.330	0.268	0.322	16.91
41)	T	Toluene	1.212	1.418	1.311	1.214	1.133	0.896	1.140	19.52
42)	T	trans-1,3-Dichlorop	0.458	0.656	0.613	0.573	0.548	0.443	0.529	17.57
43)	T	1,1,2-Trichloroetha	0.397	0.488	0.456	0.425	0.402	0.320	0.397	17.93
44)	T	Tetrachloroethene	0.593	0.691	0.640	0.596	0.567	0.450	0.561	18.90
45)	T	2-Hexanone	0.443	0.691	0.641	0.589	0.554	0.439	0.537	20.83
46)	T	Chlorodibromomethan	0.603	0.813	0.744	0.694	0.658	0.527	0.645	18.48
47)	T	1,2-Dibromoethane	0.564	0.735	0.680	0.628	0.591	0.466	0.583	19.23
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	1.068	1.256	1.177	1.080	1.005	0.807	1.014	19.36
50)	T	Ethylbenzene	1.835	2.075	1.936	1.772	1.621	1.288	1.662	21.04
51)	T	m,p-Xylene	1.443	1.554	1.435	1.283	1.148	0.889	1.214	25.02
52)	T	o-Xylene	1.406	1.604	1.489	1.353	1.256	0.991	1.279	21.07
53)	T	Styrene	0.868	1.188	1.116	1.010	0.939	0.744	0.928	21.40
54)	T	Bromoform	0.629	0.876	0.821	0.764	0.723	0.589	0.705	17.77
55)	S	4-Bromofluorobenzen	0.583	0.610	0.608	0.613	0.612	0.609	0.609	2.17
56)	T	1,1,2,2-Tetrachloro	0.927	1.080	1.015	0.922	0.857	0.695	0.872	19.27
57)	T	4-Ethyltoluene	1.761	2.011	1.888	1.731	1.587	1.285	1.629	19.45

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
Response via : Initial Calibration

Calibration Files
2 =12201203.D 4 =12201204.D 5 =12201205.D
6 =12201206.D 7 =12201207.D 8 =12201208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.541	1.698	1.593	1.449	1.328	1.075	1.377	19.96
59)	T	1,2,4-Trimethylbenz	1.335	1.574	1.483	1.367	1.270	1.040	1.285	18.07
60)	T	1,3-Dichlorobenzene	0.750	0.896	0.861	0.783	0.740	0.622	0.746	15.71
61)	T	1,4-Dichlorobenzene	0.691	0.848	0.814	0.751	0.702	0.595	0.707	15.38
62)	T	Benzyl chloride	0.476	1.083	1.058	0.976	0.918	0.790	0.865	24.49
63)	T	1,2-Dichlorobenzene	0.655	0.761	0.724	0.667	0.629	0.528	0.638	14.97
64)	T	1,2,4-Trichlorobenz	0.202	0.220	0.215	0.204	0.197	0.175	0.201	7.18
65)	T	Hexachlorobutadiene	0.463	0.394	0.377	0.359	0.330	0.287	0.359	16.88
66)		Naphthalene	0.317	0.387	0.389	0.379	0.359	0.323	0.361	8.26

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.52	1.000	A	2	A	B
2	T	Propylene	41	5.44	0.517	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.51	0.524	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.77	0.549	A	2	A	B
5	T	Chloromethane	50	5.93	0.564	A	3	A	B
6	T	Vinyl chloride	62	6.14	0.584	A	2	A	B
7	T	1,3-Butadiene	39	6.21	0.590	A	2	A	B
8	T	Bromomethane	94	6.77	0.644	A	3	A	B
9	T	Chloroethane	64	6.93	0.658	A	3	A	B
10	T	Trichlorofluoromethane	101	7.26	0.690	A	3	A	B
11	T	Ethanol	45	7.49	0.712	A	2	A	B
12	T	Freon113	101	7.92	0.753	A	2	A	B
13	T	1,1-Dichloroethene	61	8.03	0.763	A	2	A	B
14	T	Acetone	43	8.12	0.771	A	2	A	B
15	T	Carbon disulfide	76	8.39	0.798	A	3	A	B
16	T	2-Propanol	45	8.17	0.776	A	2	A	B
17	T	Methylene chloride	49	8.69	0.826	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.88	0.844	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	8.96	0.852	A	2	A	B
20	T	n-Hexane	57	9.15	0.870	A	3	A	B
21	T	1,1-Dichloroethane	63	9.53	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.46	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.21	0.971	A	3	A	B
24	T	2-Butanone	43	10.18	0.968	A	2	A	B
25	T	Ethyl acetate	43	10.13	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.52	1.000	A	2	A	B
27	T	Chloroform	83	10.54	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.78	1.025	A	3	A	B
29	T	Cyclohexane	56	10.79	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	10.95	1.041	A	3	A	B
31	T	Benzene	78	11.23	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.31	1.075	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.62	1.000	A	2	A	B
34	T	Heptane	43	11.28	0.971	A	3	A	B
35	T	Trichloroethene	130	11.96	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.32	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.39	1.067	A	2	A	B
38	T	Bromodichloromethane	83	12.60	1.085	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.15	1.132	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.27	1.142	A	3	A	B
41	T	Toluene	91	13.56	1.167	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.86	1.193	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.14	1.217	A	3	A	B
44	T	Tetrachloroethene	166	14.26	1.227	A	3	A	B
45	T	2-Hexanone	43	14.34	1.234	A	2	A	B
46	T	Chlorodibromomethane	129	14.68	1.264	A	2	A	B
47	T	1,2-Dibromoethane	107	14.91	1.284	A	2	A	B
48	I	Chlorobenzene-d5	117	15.47	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.51	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.55	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.70	1.015	A	2	A	B
52	T	o-Xylene	91	16.30	1.054	A	2	A	B
53	T	Styrene	104	16.33	1.055	A	3	A	B
54	T	Bromoform	173	16.71	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.12	1.107	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.28	1.117	A	2	A	B
57	T	4-Ethyltoluene	105	17.53	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.61	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.19	1.176	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.74	1.212	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.88	1.221	A	3	A	B
62	T	Benzyl chloride	91	19.09	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.53	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.66	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.85	1.477	A	2	A	B
66		Naphthalene	128	23.34	1.509	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
-----------------------------------------------------------------------
          122012V1.M     Wed Dec 26 09:19:10 2012
```

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122012B\12201211.D Vial: 2
Acq On : 21 Dec 2012 4:58 am Operator: RACHEL HILL
Sample : ICV VOA1 122012 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
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	1.000	1.000	0.0	110	0.00
2	T	Propylene	1.126	1.177	-4.5	107	0.00
3	T	Dichlorodifluoromethane	3.845	4.231	-10.0	110	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.599	2.889	-11.2	109	0.00
5	T	Chloromethane	1.530	1.647	-7.6	108	0.00
6	T	Vinyl chloride	1.825	2.007	-10.0	108	0.00
7	T	1,3-Butadiene	0.930	1.014	-9.0	105	0.00
8	T	Bromomethane	1.376	1.658	-20.5	111	0.00
9	T	Chloroethane	0.915	1.077	-17.7	111	0.00
10	T	Trichlorofluoromethane	3.671	4.073	-11.0	110	0.00
11	T	Ethanol	0.469	0.492	-4.9	112	0.01
12	T	Freon113	2.495	2.938	-17.8	110	0.00
13	T	1,1-Dichloroethene	2.300	2.631	-14.4	110	0.00
14	T	Acetone	1.984	2.230	-12.4	106	0.00
15	T	Carbon disulfide	3.443	3.977	-15.5	113	0.00
16	T	2-Propanol	2.035	2.251	-10.6	109	0.00
17	T	Methylene chloride	1.618	1.774	-9.6	106	0.00
18	T	tert-Butyl Methyl Ether	3.323	4.006	-20.6	110	0.00
19	T	trans-1,2-Dichloroethene	2.107	2.423	-15.0	109	0.00
20	T	n-Hexane	2.482	2.845	-14.6	107	0.00
21	T	1,1-Dichloroethane	2.670	3.127	-17.1	109	0.00
22	T	Vinyl acetate	3.100	3.761	-21.3	105	0.00
23	T	cis-1,2-Dichloroethene	1.350	1.603	-18.7	111	0.00
24	T	2-Butanone	1.983	2.340	-18.0	103	0.00
25	T	Ethyl acetate	2.687	3.067	-14.1	101	0.00
26	T	Tetrahydrofuran	1.233	1.445	-17.2	104	0.00
27	T	Chloroform	2.441	2.849	-16.7	108	0.00
28	T	1,1,1-Trichloroethane	2.570	3.001	-16.8	108	0.00
29	T	Cyclohexane	2.396	2.866	-19.6	106	0.00
30	T	Carbon tetrachloride	2.747	3.196	-16.3	109	0.00
31	T	Benzene	3.893	4.653	-19.5	109	0.00
32	T	1,2-Dichloroethane	1.751	2.048	-17.0	106	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	112	0.00
34	T	Heptane	0.554	0.666	-20.2	103	0.00
35	T	Trichloroethene	0.445	0.531	-19.3	110	0.00
36	T	1,2-Dichloropropane	0.428	0.520	-21.5	110	0.00
37	T	1,4-Dioxane	0.201	0.245	-21.9	117	0.00
38	T	Bromodichloromethane	0.676	0.819	-21.2	110	0.00
39	T	cis-1,3-Dichloropropene	0.584	0.712	-21.9	110	0.00
40	T	4-Methyl-2-pentanone	0.322	0.385	-19.6	109	0.00
41	T	Toluene	1.140	1.388	-21.8	110	0.00
42	T	trans-1,3-Dichloropropene	0.529	0.644	-21.7	110	0.00
43	T	1,1,2-Trichloroethane	0.397	0.476	-19.9	109	0.00
44	T	Tetrachloroethene	0.561	0.669	-19.3	109	0.00
45	T	2-Hexanone	0.537	0.645	-20.1	105	0.00
46	T	Chlorodibromomethane	0.645	0.777	-20.5	107	0.00
47	T	1,2-Dibromoethane	0.583	0.712	-22.1	109	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00
49	T	Chlorobenzene	1.014	1.228	-21.1	108	0.00
50	T	Ethylbenzene	1.662	2.023	-21.7	108	0.00
51	T	m,p-Xylene	1.214	1.497	-23.3	106	0.00
52	T	o-Xylene	1.279	1.554	-21.5	107	0.00
53	T	Styrene	0.928	1.162	-25.2	108	0.00
54	T	Bromoform	0.705	0.848	-20.3	107	0.00
55	S	4-Bromofluorobenzene	0.609	0.602	1.1	109	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\122012B\12201211.D Vial: 2
Acq On : 21 Dec 2012 4:58 am Operator: RACHEL HILL
Sample : ICV VOA1 122012 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
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)
56	T	1,1,2,2-Tetrachloroethane	0.872	1.039	-19.2	106	0.00
57	T	4-Ethyltoluene	1.629	1.944	-19.3	107	0.00
58	T	1,3,5-Trimethylbenzene	1.377	1.633	-18.6	106	0.00
59	T	1,2,4-Trimethylbenzene	1.285	1.518	-18.1	106	0.00
60	T	1,3-Dichlorobenzene	0.746	0.869	-16.5	107	0.00
61	T	1,4-Dichlorobenzene	0.707	0.822	-16.3	107	0.00
62	T	Benzyl chloride	0.865	1.050	-21.4	107	0.00
63	T	1,2-Dichlorobenzene	0.638	0.729	-14.3	106	0.00
64	T	1,2,4-Trichlorobenzene	0.201	0.223	-10.9	112	0.00
65	T	Hexachlorobutadiene	0.359	0.392	-9.2	110	0.00
66		Naphthalene	0.361	0.410	-13.6	117	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122012B\12201211.D Vial: 2
Acq On : 21 Dec 2012 4:58 am Operator: RACHEL HILL
Sample : ICV VOA1 122012 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 26 9:08 2012 Quant Results File: 122012V1.RES

Quant Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
Response via : Initial Calibration
DataAcq Meth : 122012V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.52	130	211510	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	822114	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.47	117	661201	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	397813	12.35	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 98.80%

Target Compounds						Qvalue
2) Propylene	5.44	41	203107	10.66	ppbv	99
3) Dichlorodifluoromethane	5.52	85	658606	10.12	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	464320	10.56	ppbv #	70
5) Chloromethane	5.94	50	264778	10.23	ppbv	98
6) Vinyl chloride	6.15	62	319286	10.34	ppbv #	96
7) 1,3-Butadiene	6.20	39	168084	10.68	ppbv #	58
8) Bromomethane	6.77	94	260889	11.20	ppbv	100
9) Chloroethane	6.93	64	167630	10.83	ppbv	97
10) Trichlorofluoromethane	7.26	101	661684	10.65	ppbv	99
11) Ethanol	7.51	45	76642	9.67	ppbv	99
12) Freon113	7.92	101	487265	11.54	ppbv	90
13) 1,1-Dichloroethene	8.02	61	440721	11.32	ppbv	89
14) Acetone	8.12	43	377309	11.24	ppbv #	85
15) Carbon disulfide	8.39	76	652723	11.20	ppbv #	100
16) 2-Propanol	8.17	45	384775	11.17	ppbv #	1
17) Methylene chloride	8.69	49	300181	10.96	ppbv	93
18) tert-Butyl Methyl Ether	8.89	73	671118	11.94	ppbv	93
19) trans-1,2-Dichloroethene	8.96	61	401805	11.27	ppbv	85
20) n-Hexane	9.15	57	486270	11.58	ppbv #	81
21) 1,1-Dichloroethane	9.53	63	513297	11.36	ppbv	96
22) Vinyl acetate	9.46	43	629955	12.01	ppbv	99
23) cis-1,2-Dichloroethene	10.21	96	265865	11.64	ppbv #	85
24) 2-Butanone	10.18	43	391932	11.68	ppbv #	95
25) Ethyl acetate	10.13	43	508632	11.19	ppbv #	99
26) Tetrahydrofuran	10.52	42	244512	11.72	ppbv	96
27) Chloroform	10.54	83	472370	11.43	ppbv	100
28) 1,1,1-Trichloroethane	10.78	97	487535	11.21	ppbv	95
29) Cyclohexane	10.79	56	475196	11.72	ppbv #	79
30) Carbon tetrachloride	10.95	117	513674	11.05	ppbv	99
31) Benzene	11.23	78	755824	11.47	ppbv	97
32) 1,2-Dichloroethane	11.31	62	336120	11.34	ppbv	97
34) Heptane	11.28	43	433932	11.91	ppbv #	90
35) Trichloroethene	11.96	130	334956	11.45	ppbv	96
36) 1,2-Dichloropropane	12.32	63	335411	11.92	ppbv	95
37) 1,4-Dioxane	12.40	88	154817	11.71	ppbv #	87
38) Bromodichloromethane	12.60	83	517329	11.64	ppbv	99
39) cis-1,3-Dichloropropene	13.15	75	445138	11.58	ppbv	98
40) 4-Methyl-2-pentanone	13.26	58	252922	11.93	ppbv #	91
41) Toluene	13.56	91	894475	11.93	ppbv	99
42) trans-1,3-Dichloropropene	13.87	75	385707	11.08	ppbv	98
43) 1,1,2-Trichloroethane	14.14	97	306570	11.75	ppbv	98
44) Tetrachloroethene	14.26	166	422389	11.45	ppbv	98
45) 2-Hexanone	14.34	43	415863	11.79	ppbv	78
46) Chlorodibromomethane	14.68	129	500690	11.81	ppbv	98
47) 1,2-Dibromoethane	14.92	107	449327	11.72	ppbv	99
49) Chlorobenzene	15.51	112	643250	11.99	ppbv	97
50) Ethylbenzene	15.55	91	1048740	11.93	ppbv	97
51) m,p-Xylene	15.71	91	1520339	23.68	ppbv	95
52) o-Xylene	16.30	91	822161	12.15	ppbv	95

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122012B\12201211.D Vial: 2
Acq On : 21 Dec 2012 4:58 am Operator: RACHEL HILL
Sample : ICV VOA1 122012 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 26 9:08 2012 Quant Results File: 122012V1.RES

Quant Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
Response via : Initial Calibration
DataAcq Meth : 122012V1

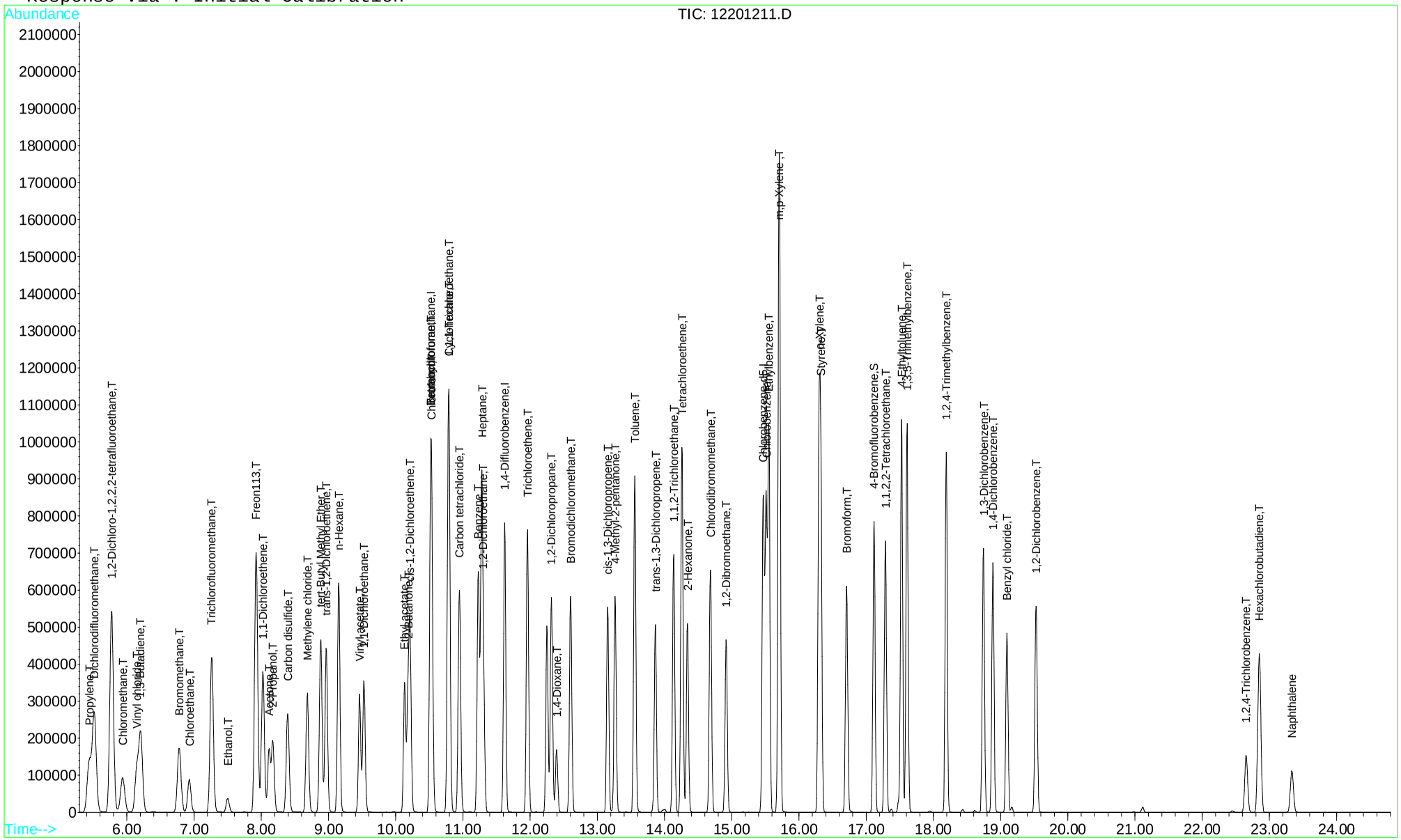
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.33	104	602601	12.28	ppbv	98
54)	Bromoform	16.71	173	430853	11.55	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.29	83	549675	11.91	ppbv	99
57)	4-Ethyltoluene	17.53	105	1007510	11.69	ppbv	98
58)	1,3,5-Trimethylbenzene	17.61	105	837941	11.50	ppbv	98
59)	1,2,4-Trimethylbenzene	18.19	105	786966	11.58	ppbv	99
60)	1,3-Dichlorobenzene	18.75	146	445636	11.29	ppbv	98
61)	1,4-Dichlorobenzene	18.89	146	417304	11.15	ppbv	98
62)	Benzyl chloride	19.10	91	538556	11.77	ppbv	99
63)	1,2-Dichlorobenzene	19.53	146	374067	11.09	ppbv	97
64)	1,2,4-Trichlorobenzene	22.66	180	107184	10.08	ppbv	98
65)	Hexachlorobutadiene	22.86	225	195053	10.28	ppbv	99
66)	Naphthalene	23.33	128	199657	10.44	ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122012B\12201211.D Vial: 2
Acq On : 21 Dec 2012 4:58 am Operator: RACHEL HILL
Sample : ICV VOA1 122012 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 26 9:08 2012 Quant Results File: 122012V1.RES

Method : C:\HPCHEM\1\METHODS\122012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Dec 21 12:12:59 2012
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
Response via : Initial Calibration

Calibration Files
2 =12311203.D 4 =12311204.D 5 =12311205.D
6 =12311206.D 7 =12311207.D 8 =12311208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.677	1.525	1.494	1.361	1.273	1.323	1.433	9.79
3)	T	Dichlorodifluoromet	3.101	3.958	3.928	3.631	3.414	3.578	3.616	8.21
4)	T	1,2-Dichloro-1,2,2,	2.210	2.854	2.820	2.589	2.461	2.530	2.564	8.62
5)	T	Chloromethane	1.419	1.602	1.567	1.397	1.311	1.341	1.430	7.82
6)	T	Vinyl chloride	1.566	1.966	1.895	1.752	1.614	1.641	1.725	8.86
7)	T	1,3-Butadiene	1.293	1.454	1.412	1.301	1.189	1.198	1.292	8.37
8)	T	Bromomethane	1.245	1.542	1.523	1.435	1.391	1.343	1.397	7.93
9)	T	Chloroethane	0.750	0.955	0.952	0.883	0.814	0.866	0.857	9.43
10)	T	Trichlorofluorometh	3.295	3.626	3.636	3.368	3.080	3.154	3.317	7.26
11)	T	Ethanol	0.670	0.519	0.526	0.479	0.424	0.446	0.503	16.33
12)	T	Freon113	2.183	2.757	2.755	2.581	2.276	2.261	2.412	11.70
13)	T	1,1-Dichloroethene	1.928	2.353	2.324	2.162	1.938	1.964	2.082	9.35
14)	T	Acetone	2.715	2.611	2.578	2.348	1.995	2.022	2.319	13.94
15)	T	Carbon disulfide	3.039	3.687	3.634	3.366	3.102	3.179	3.321	7.66
16)	T	2-Propanol	2.511	2.479	2.437	2.216	1.977	2.023	2.237	10.60
17)	T	Methylene chloride	1.799	1.745	1.715	1.579	1.390	1.410	1.578	11.22
18)	T	tert-Butyl Methyl E	3.169	3.837	3.775	3.432	2.918	2.995	3.286	12.22
19)	T	trans-1,2-Dichloroe	1.832	2.212	2.156	2.003	1.756	1.776	1.922	10.52
20)	T	n-Hexane	2.163	2.557	2.510	2.306	2.021	2.043	2.224	10.76
21)	T	1,1-Dichloroethane	2.352	2.802	2.754	2.500	2.169	2.195	2.414	11.57
22)	T	Vinyl acetate	2.676	4.338	4.263	3.840	3.236	3.276	3.538	17.58
23)	T	cis-1,2-Dichloroeth	1.207	1.524	1.510	1.399	1.248	1.282	1.342	10.02
24)	T	2-Butanone	2.173	2.818	2.814	2.570	2.236	2.053	2.376	14.96
25)	T	Ethyl acetate	2.713	3.706	3.641	3.281	2.785	2.821	3.088	14.49
26)	T	Tetrahydrofuran	1.493	1.805	1.784	1.616	1.391	1.396	1.541	12.86
27)	T	Chloroform	2.295	2.845	2.794	2.540	2.217	2.168	2.403	13.82
28)	T	1,1,1-Trichloroetha	2.270	2.918	2.879	2.595	2.235	2.110	2.405	16.88
29)	T	Cyclohexane	2.262	2.669	2.599	2.361	2.034	1.960	2.236	15.00
30)	T	Carbon tetrachlorid	2.151	2.898	2.888	2.650	2.336	2.306	2.471	13.79
31)	T	Benzene	3.714	4.526	4.475	4.058	3.497	3.566	3.884	12.23
32)	T	1,2-Dichloroethane	1.563	1.880	1.832	1.631	1.384	1.345	1.550	16.13
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.746	0.932	0.914	0.807	0.697	0.661	0.753	19.44
35)	T	Trichloroethene	0.441	0.607	0.611	0.552	0.493	0.476	0.506	17.86
36)	T	1,2-Dichloropropane	0.406	0.531	0.528	0.475	0.407	0.400	0.439	17.25
37)	T	1,4-Dioxane	0.186	0.260	0.265	0.240	0.211	0.217	0.224	14.02
38)	T	Bromodichloromethan	0.641	0.897	0.906	0.815	0.710	0.696	0.744	18.09
39)	T	cis-1,3-Dichloropro	0.542	0.785	0.792	0.712	0.621	0.619	0.654	17.21
40)	T	4-Methyl-2-pentanon	0.274	0.394	0.399	0.361	0.315	0.316	0.332	16.31
41)	T	Toluene	1.168	1.537	1.545	1.397	1.209	1.180	1.279	17.71
42)	T	trans-1,3-Dichlorop	0.451	0.704	0.714	0.638	0.563	0.563	0.585	18.07
43)	T	1,1,2-Trichloroetha	0.386	0.536	0.540	0.490	0.430	0.428	0.450	16.82
44)	T	Tetrachloroethene	0.573	0.774	0.775	0.695	0.603	0.544	0.622	22.19
45)	T	2-Hexanone	0.562	0.871	0.873	0.778	0.670	0.663	0.709	19.05
46)	T	Chlorodibromomethan	0.586	0.869	0.878	0.791	0.693	0.649	0.706	21.21
47)	T	1,2-Dibromoethane	0.545	0.792	0.803	0.716	0.630	0.619	0.655	18.63
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	1.003	1.344	1.345	1.204	1.067	0.998	1.101	19.58
50)	T	Ethylbenzene	1.756	2.226	2.207	1.968	1.703	1.554	1.791	21.69
51)	T	m,p-Xylene	1.397	1.703	1.641	1.412	1.163	0.970	1.278	29.23
52)	T	o-Xylene	1.401	1.775	1.744	1.549	1.330	1.175	1.402	23.45
53)	T	Styrene	0.869	1.350	1.334	1.197	1.042	0.924	1.054	24.22
54)	T	Bromoform	0.595	0.922	0.918	0.827	0.716	0.633	0.724	24.04
55)	S	4-Bromofluorobenzen	0.604	0.624	0.620	0.626	0.626	0.625	0.622	1.36
56)	T	1,1,2,2-Tetrachloro	0.891	1.154	1.146	1.033	0.919	0.861	0.953	18.18
57)	T	4-Ethyltoluene	1.718	2.198	2.167	1.963	1.717	1.563	1.784	20.38

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

Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
Response via : Initial Calibration

Calibration Files
2 =12311203.D 4 =12311204.D 5 =12311205.D
6 =12311206.D 7 =12311207.D 8 =12311208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.517	1.857	1.825	1.631	1.429	1.284	1.497	21.43
59)	T	1,2,4-Trimethylbenz	1.319	1.736	1.700	1.560	1.367	1.266	1.414	19.42
60)	T	1,3-Dichlorobenzene	0.704	0.964	0.955	0.868	0.795	0.771	0.811	15.65
61)	T	1,4-Dichlorobenzene	0.642	0.897	0.892	0.821	0.748	0.730	0.761	15.38
62)	T	Benzyl chloride	0.471	1.142	1.129	1.031	0.944	0.935	0.925	24.87
63)	T	1,2-Dichlorobenzene	0.609	0.792	0.782	0.722	0.654	0.645	0.680	12.97
64)	T	1,2,4-Trichlorobenz	0.205	0.232	0.238	0.232	0.190	0.196	0.215	8.91
65)	T	Hexachlorobutadiene	0.466	0.415	0.425	0.454	0.340	0.341	0.393	15.89
66)		Naphthalene	0.348	0.406	0.424	0.440	0.335	0.339	0.380	11.30

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.52	1.000	A	2	A	B
2	T	Propylene	41	5.44	0.517	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.51	0.524	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.77	0.549	A	2	A	B
5	T	Chloromethane	50	5.94	0.564	A	3	A	B
6	T	Vinyl chloride	62	6.15	0.585	A	2	A	B
7	T	1,3-Butadiene	39	6.20	0.589	A	2	A	B
8	T	Bromomethane	94	6.78	0.644	A	3	A	B
9	T	Chloroethane	64	6.93	0.659	A	3	A	B
10	T	Trichlorofluoromethane	101	7.27	0.690	A	3	A	B
11	T	Ethanol	45	7.50	0.713	A	2	A	B
12	T	Freon113	101	7.92	0.753	A	2	A	B
13	T	1,1-Dichloroethene	61	8.02	0.762	A	2	A	B
14	T	Acetone	43	8.12	0.771	A	2	A	B
15	T	Carbon disulfide	76	8.39	0.798	A	3	A	B
16	T	2-Propanol	45	8.18	0.777	A	2	A	B
17	T	Methylene chloride	49	8.69	0.826	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.89	0.844	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	8.96	0.852	A	2	A	B
20	T	n-Hexane	57	9.15	0.870	A	3	A	B
21	T	1,1-Dichloroethane	63	9.53	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.47	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.21	0.971	A	3	A	B
24	T	2-Butanone	43	10.18	0.968	A	2	A	B
25	T	Ethyl acetate	43	10.14	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.52	1.000	A	2	A	B
27	T	Chloroform	83	10.54	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.79	1.025	A	3	A	B
29	T	Cyclohexane	56	10.80	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	10.95	1.041	A	3	A	B
31	T	Benzene	78	11.23	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.31	1.075	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.62	1.000	A	2	A	B
34	T	Heptane	43	11.28	0.971	A	3	A	B
35	T	Trichloroethene	130	11.96	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.32	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.40	1.067	A	2	A	B
38	T	Bromodichloromethane	83	12.60	1.085	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.15	1.132	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.27	1.142	A	3	A	B
41	T	Toluene	91	13.56	1.167	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.87	1.193	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.14	1.216	A	3	A	B
44	T	Tetrachloroethene	166	14.26	1.227	A	3	A	B
45	T	2-Hexanone	43	14.34	1.234	A	2	A	B
46	T	Chlorodibromomethane	129	14.69	1.264	A	2	A	B
47	T	1,2-Dibromoethane	107	14.92	1.284	A	2	A	B
48	I	Chlorobenzene-d5	117	15.47	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.51	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.55	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.71	1.016	A	2	A	B
52	T	o-Xylene	91	16.30	1.054	A	2	A	B
53	T	Styrene	104	16.33	1.055	A	3	A	B
54	T	Bromoform	173	16.71	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.12	1.106	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.29	1.118	A	2	A	B
57	T	4-Ethyltoluene	105	17.53	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.61	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.20	1.176	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.75	1.212	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.89	1.221	A	3	A	B
62	T	Benzyl chloride	91	19.10	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.53	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.66	1.464	A	3	A	B
65	T	Hexachlorobutadiene	225	22.86	1.477	A	2	A	B
66		Naphthalene	128	23.34	1.508	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
-----------------------------------------------------------------------
          123112V1.M     Wed Jan 02 09:25:37 2013
```

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\123112\12311211.D Vial: 2
Acq On : 1 Jan 2013 9:18 am Operator: RACHEL HILL
Sample : ICV VOA1 123112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
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	1.000	1.000	0.0	104	0.00
2	T	Propylene	1.433	1.216	15.1	83	0.00
3	T	Dichlorodifluoromethane	3.616	3.291	9.0	87	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.564	2.337	8.9	85	0.00
5	T	Chloromethane	1.430	1.305	8.7	85	0.00
6	T	Vinyl chloride	1.725	1.593	7.7	84	0.00
7	T	1,3-Butadiene	1.292	1.192	7.7	85	0.00
8	T	Bromomethane	1.397	1.388	0.6	94	0.00
9	T	Chloroethane	0.857	0.796	7.1	87	0.00
10	T	Trichlorofluoromethane	3.317	3.068	7.5	88	0.00
11	T	Ethanol	0.503	0.449	10.7	90	0.00
12	T	Freon113	2.412	2.430	-0.7	92	0.00
13	T	1,1-Dichloroethene	2.082	2.059	1.1	91	0.00
14	T	Acetone	2.319	2.326	-0.3	93	0.00
15	T	Carbon disulfide	3.321	3.538	-6.5	100	0.00
16	T	2-Propanol	2.237	2.284	-2.1	96	0.00
17	T	Methylene chloride	1.578	1.481	6.1	88	0.00
18	T	tert-Butyl Methyl Ether	3.286	3.324	-1.2	90	0.00
19	T	trans-1,2-Dichloroethene	1.922	1.977	-2.9	93	0.00
20	T	n-Hexane	2.224	2.212	0.5	90	0.00
21	T	1,1-Dichloroethane	2.414	2.341	3.0	87	0.00
22	T	Vinyl acetate	3.538	3.698	-4.5	89	0.00
23	T	cis-1,2-Dichloroethene	1.342	1.287	4.1	88	0.00
24	T	2-Butanone	2.376	2.285	3.8	85	0.00
25	T	Ethyl acetate	3.088	3.213	-4.0	90	0.00
26	T	Tetrahydrofuran	1.541	1.564	-1.5	90	0.00
27	T	Chloroform	2.403	2.375	1.2	87	0.00
28	T	1,1,1-Trichloroethane	2.405	2.457	-2.2	88	0.00
29	T	Cyclohexane	2.236	2.312	-3.4	90	0.00
30	T	Carbon tetrachloride	2.471	2.474	-0.1	89	0.00
31	T	Benzene	3.884	3.764	3.1	87	0.00
32	T	1,2-Dichloroethane	1.550	1.567	-1.1	87	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
34	T	Heptane	0.753	0.760	-0.9	87	0.00
35	T	Trichloroethene	0.506	0.493	2.6	86	0.00
36	T	1,2-Dichloropropane	0.439	0.433	1.4	87	0.00
37	T	1,4-Dioxane	0.224	0.233	-4.0	96	0.00
38	T	Bromodichloromethane	0.744	0.759	-2.0	90	0.00
39	T	cis-1,3-Dichloropropene	0.654	0.609	6.9	83	0.00
40	T	4-Methyl-2-pentanone	0.332	0.348	-4.8	94	0.00
41	T	Toluene	1.279	1.386	-8.4	96	0.00
42	T	trans-1,3-Dichloropropene	0.585	0.618	-5.6	93	0.00
43	T	1,1,2-Trichloroethane	0.450	0.435	3.3	86	0.00
44	T	Tetrachloroethene	0.622	0.637	-2.4	88	0.00
45	T	2-Hexanone	0.709	0.781	-10.2	95	0.00
46	T	Chlorodibromomethane	0.706	0.718	-1.7	88	0.00
47	T	1,2-Dibromoethane	0.655	0.638	2.6	86	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
49	T	Chlorobenzene	1.101	1.117	-1.5	87	0.00
50	T	Ethylbenzene	1.791	1.844	-3.0	86	0.00
51	T	m,p-Xylene	1.278	1.456	-13.9	89	0.00
52	T	o-Xylene	1.402	1.480	-5.6	87	0.00
53	T	Styrene	1.054	1.130	-7.2	87	0.00
54	T	Bromoform	0.724	0.771	-6.5	87	0.00
55	S	4-Bromofluorobenzene	0.622	0.610	1.9	102	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\123112\12311211.D Vial: 2
Acq On : 1 Jan 2013 9:18 am Operator: RACHEL HILL
Sample : ICV VOA1 123112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
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)
56	T	1,1,2,2-Tetrachloroethane	0.953	0.944	0.9	85	0.00
57	T	4-Ethyltoluene	1.784	1.820	-2.0	86	0.00
58	T	1,3,5-Trimethylbenzene	1.497	1.524	-1.8	86	0.00
59	T	1,2,4-Trimethylbenzene	1.414	1.444	-2.1	87	0.00
60	T	1,3-Dichlorobenzene	0.811	0.790	2.6	86	0.00
61	T	1,4-Dichlorobenzene	0.761	0.748	1.7	87	0.00
62	T	Benzyl chloride	0.925	0.950	-2.7	87	0.00
63	T	1,2-Dichlorobenzene	0.680	0.647	4.9	85	0.00
64	T	1,2,4-Trichlorobenzene	0.215	0.205	4.7	92	0.00
65	T	Hexachlorobutadiene	0.393	0.351	10.7	88	0.00
66		Naphthalene	0.380	0.360	5.3	93	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\123112\12311211.D Vial: 2
Acq On : 1 Jan 2013 9:18 am Operator: RACHEL HILL
Sample : ICV VOA1 123112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 2 8:59 2013 Quant Results File: 123112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
Response via : Initial Calibration
DataAcq Meth : 123112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.53	130	230827	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	803439	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.47	117	658965	12.50	ppbv	0.00
System Monitoring Compounds						
55) 4-Bromofluorobenzene	17.12	95	401790	12.25	ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 98.00%			
Target Compounds						Qvalue
2) Propylene	5.44	41	229001	8.66	ppbv	97
3) Dichlorodifluoromethane	5.51	85	559026	8.37	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	409949	8.66	ppbv #	73
5) Chloromethane	5.93	50	228999	8.67	ppbv	99
6) Vinyl chloride	6.15	62	276499	8.68	ppbv	99
7) 1,3-Butadiene	6.21	39	215645	9.04	ppbv	99
8) Bromomethane	6.78	94	238324	9.24	ppbv	99
9) Chloroethane	6.92	64	135154	8.54	ppbv	100
10) Trichlorofluoromethane	7.26	101	543802	8.88	ppbv	99
11) Ethanol	7.50	45	76295	8.21	ppbv	99
12) Freon113	7.92	101	439843	9.88	ppbv	92
13) 1,1-Dichloroethene	8.03	61	376368	9.79	ppbv	90
14) Acetone	8.12	43	429546	10.03	ppbv #	94
15) Carbon disulfide	8.39	76	633724	10.33	ppbv #	99
16) 2-Propanol	8.17	45	425921	10.31	ppbv #	1
17) Methylene chloride	8.69	49	273543	9.39	ppbv	89
18) tert-Butyl Methyl Ether	8.88	73	607636	10.01	ppbv	93
19) trans-1,2-Dichloroethene	8.97	61	357837	10.08	ppbv	86
20) n-Hexane	9.16	57	412467	10.04	ppbv	97
21) 1,1-Dichloroethane	9.53	63	419314	9.41	ppbv	98
22) Vinyl acetate	9.46	43	676021	10.35	ppbv	97
23) cis-1,2-Dichloroethene	10.21	96	232848	9.39	ppbv	87
24) 2-Butanone	10.18	43	417817	9.52	ppbv	96
25) Ethyl acetate	10.13	43	581388	10.19	ppbv #	100
26) Tetrahydrofuran	10.52	42	288800	10.15	ppbv	94
27) Chloroform	10.54	83	429871	9.69	ppbv	100
28) 1,1,1-Trichloroethane	10.79	97	435610	9.81	ppbv	97
29) Cyclohexane	10.79	56	418455	10.14	ppbv	93
30) Carbon tetrachloride	10.95	117	434059	9.51	ppbv	99
31) Benzene	11.23	78	667187	9.30	ppbv	97
32) 1,2-Dichloroethane	11.31	62	280685	9.80	ppbv	98
34) Heptane	11.28	43	483310	9.98	ppbv	95
35) Trichloroethene	11.96	130	304367	9.35	ppbv	97
36) 1,2-Dichloropropane	12.32	63	272809	9.68	ppbv	97
37) 1,4-Dioxane	12.40	88	144041	10.00	ppbv	88
38) Bromodichloromethane	12.60	83	468162	9.79	ppbv	99
39) cis-1,3-Dichloropropene	13.16	75	372085	8.85	ppbv	99
40) 4-Methyl-2-pentanone	13.27	58	223616	10.48	ppbv	95
41) Toluene	13.56	91	872995	10.62	ppbv	99
42) trans-1,3-Dichloropropene	13.87	75	361623	9.61	ppbv	99
43) 1,1,2-Trichloroethane	14.14	97	273947	9.47	ppbv	98
44) Tetrachloroethene	14.26	166	393203	9.83	ppbv	98
45) 2-Hexanone	14.34	43	492203	10.80	ppbv	99
46) Chlorodibromomethane	14.68	129	452225	9.97	ppbv	99
47) 1,2-Dibromoethane	14.92	107	393646	9.35	ppbv	99
49) Chlorobenzene	15.52	112	582793	10.04	ppbv	94
50) Ethylbenzene	15.55	91	952561	10.09	ppbv	97
51) m,p-Xylene	15.71	91	1473650	21.88	ppbv	97
52) o-Xylene	16.30	91	780106	10.55	ppbv	96

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\123112\12311211.D Vial: 2
Acq On : 1 Jan 2013 9:18 am Operator: RACHEL HILL
Sample : ICV VOA1 123112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 2 8:59 2013 Quant Results File: 123112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
Response via : Initial Calibration
DataAcq Meth : 123112V1

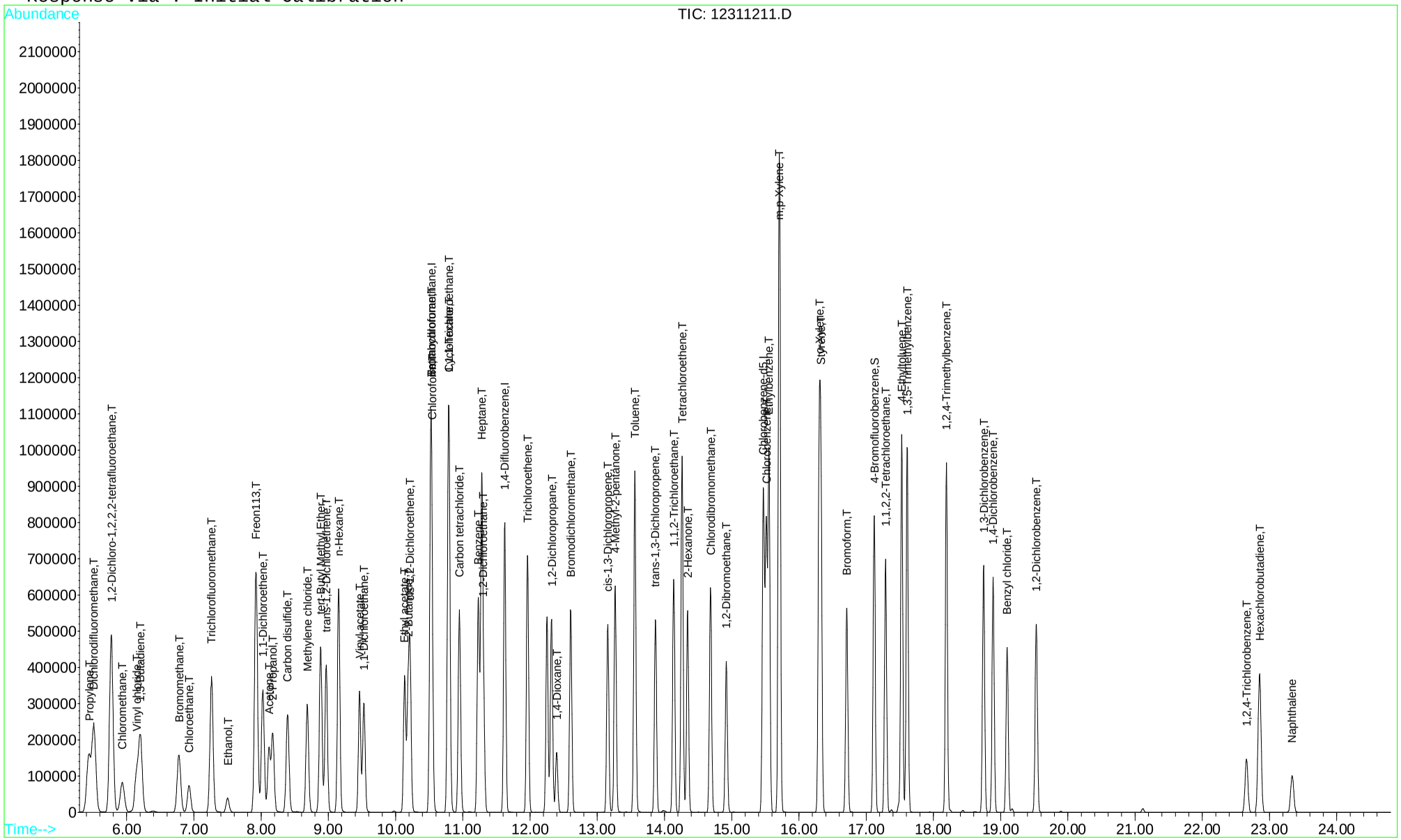
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53) Styrene	16.33	104	583652	10.50	ppbv	98
54) Bromoform	16.71	173	389954	10.21	ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.29	83	497558	9.91	ppbv	99
57) 4-Ethyltoluene	17.53	105	940405	10.00	ppbv	97
58) 1,3,5-Trimethylbenzene	17.61	105	779092	9.87	ppbv	96
59) 1,2,4-Trimethylbenzene	18.19	105	746041	10.01	ppbv	97
60) 1,3-Dichlorobenzene	18.75	146	403944	9.45	ppbv	98
61) 1,4-Dichlorobenzene	18.89	146	378339	9.43	ppbv	97
62) Benzyl chloride	19.10	91	485933	9.97	ppbv	98
63) 1,2-Dichlorobenzene	19.53	146	331094	9.23	ppbv	98
64) 1,2,4-Trichlorobenzene	22.65	180	98244	8.67	ppbv	98
65) Hexachlorobutadiene	22.85	225	173740	8.39	ppbv	99
66) Naphthalene	23.33	128	174733	8.71	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\123112\12311211.D Vial: 2
Acq On : 1 Jan 2013 9:18 am Operator: RACHEL HILL
Sample : ICV VOA1 123112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 2 8:59 2013 Quant Results File: 123112V1.RES

Method : C:\HPCHEM\1\METHODS\123112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 02 08:58:32 2013
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
Response via : Initial Calibration

Calibration Files
2 =01031303.D 4 =01031304.D 5 =01031305.D
6 =01031306.D 7 =01031307.D 8 =01031308.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.574	1.485	1.384	1.357	1.242	1.218	1.368	9.32
3)	T	Dichlorodifluoromet	3.399	4.005	3.722	3.686	3.387	3.347	3.598	6.59
4)	T	1,2-Dichloro-1,2,2,	2.093	2.540	2.381	2.362	2.207	2.213	2.309	6.40
5)	T	Chloromethane	1.610	1.605	1.448	1.447	1.290	1.230	1.418	10.80
6)	T	Vinyl chloride	1.881	2.098	1.937	1.871	1.686	1.587	1.812	10.28
7)	T	1,3-Butadiene	1.424	1.575	1.433	1.389	1.239	1.155	1.341	11.66
8)	T	Bromomethane	1.144	1.371	1.293	1.296	1.230	1.343	1.285	5.93
9)	T	Chloroethane	0.746	0.889	0.844	0.829	0.769	0.752	0.800	6.74
10)	T	Trichlorofluorometh	3.393	3.682	3.449	3.415	3.153	3.011	3.317	7.03
11)	T	Ethanol	0.589	0.500	0.479	0.475	0.424	0.396	0.471	13.43
12)	T	Freon113	2.097	2.691	2.532	2.517	2.311	2.121	2.335	10.60
13)	T	1,1-Dichloroethene	2.033	2.365	2.204	2.150	1.981	1.828	2.064	9.11
14)	T	Acetone	2.709	2.710	2.533	2.466	2.160	1.889	2.347	14.61
15)	T	Carbon disulfide	2.891	3.373	3.167	3.097	2.898	2.780	3.037	6.59
16)	T	2-Propanol	2.441	2.439	2.314	2.248	2.016	1.858	2.182	10.88
17)	T	Methylene chloride	1.995	1.798	1.665	1.625	1.463	1.323	1.610	14.65
18)	T	tert-Butyl Methyl E	3.215	3.835	3.596	3.544	3.133	2.723	3.277	12.24
19)	T	trans-1,2-Dichloroe	1.846	2.188	2.042	2.009	1.830	1.656	1.896	10.11
20)	T	n-Hexane	2.156	2.543	2.376	2.340	2.127	1.914	2.200	10.55
21)	T	1,1-Dichloroethane	2.340	2.773	2.595	2.542	2.277	2.032	2.384	11.12
22)	T	Vinyl acetate	3.016	4.484	4.193	4.083	3.602	3.062	3.656	16.46
23)	T	cis-1,2-Dichloroeth	1.108	1.407	1.327	1.328	1.222	1.159	1.254	8.37
24)	T	2-Butanone	2.253	2.949	2.804	2.716	2.430	2.028	2.467	14.71
25)	T	Ethyl acetate	2.838	3.641	3.654	3.345	3.124	2.636	3.149	13.06
26)	T	Tetrahydrofuran	1.657	1.994	1.841	1.775	1.544	1.344	1.637	15.64
27)	T	Chloroform	2.484	3.043	2.847	2.777	2.454	2.147	2.538	14.78
28)	T	1,1,1-Trichloroetha	2.341	3.136	2.941	2.859	2.491	2.107	2.538	18.11
29)	T	Cyclohexane	2.240	2.835	2.610	2.515	2.193	1.882	2.291	16.97
30)	T	Carbon tetrachlorid	2.152	2.924	2.748	2.725	2.466	2.215	2.473	13.49
31)	T	Benzene	3.481	4.302	4.065	4.006	3.587	3.214	3.711	11.15
32)	T	1,2-Dichloroethane	1.692	2.052	1.909	1.823	1.577	1.330	1.664	17.64
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.743	1.009	0.934	0.910	0.812	0.706	0.815	18.02
35)	T	Trichloroethene	0.376	0.556	0.534	0.542	0.509	0.481	0.486	14.45
36)	T	1,2-Dichloropropane	0.383	0.537	0.504	0.508	0.460	0.415	0.454	14.31
37)	T	1,4-Dioxane	0.159	0.234	0.226	0.226	0.210	0.200	0.207	12.40
38)	T	Bromodichloromethan	0.622	0.931	0.886	0.897	0.820	0.748	0.792	15.84
39)	T	cis-1,3-Dichloropro	0.505	0.760	0.731	0.735	0.679	0.627	0.659	14.39
40)	T	4-Methyl-2-pentanon	0.257	0.401	0.382	0.383	0.353	0.329	0.344	14.99
41)	T	Toluene	1.057	1.508	1.440	1.461	1.332	1.223	1.296	14.63
42)	T	trans-1,3-Dichlorop	0.427	0.685	0.667	0.671	0.620	0.581	0.597	15.62
43)	T	1,1,2-Trichloroetha	0.341	0.512	0.489	0.500	0.462	0.437	0.447	14.05
44)	T	Tetrachloroethene	0.479	0.728	0.700	0.716	0.652	0.574	0.614	18.84
45)	T	2-Hexanone	0.543	0.907	0.864	0.858	0.774	0.700	0.753	18.10
46)	T	Chlorodibromomethan	0.513	0.847	0.820	0.834	0.763	0.685	0.715	19.39
47)	T	1,2-Dibromoethane	0.468	0.735	0.719	0.733	0.681	0.636	0.646	15.92
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.915	1.328	1.271	1.254	1.162	1.062	1.120	16.54
50)	T	Ethylbenzene	1.676	2.343	2.234	2.175	1.970	1.715	1.917	19.33
51)	T	m,p-Xylene	1.355	1.955	1.820	1.671	1.403	1.109	1.443	28.41
52)	T	o-Xylene	1.338	1.892	1.803	1.755	1.559	1.320	1.521	21.39
53)	T	Styrene	0.790	1.362	1.311	1.304	1.180	1.018	1.104	22.79
54)	T	Bromoform	0.522	0.904	0.882	0.879	0.797	0.686	0.742	22.53
55)	S	4-Bromofluorobenzen	0.600	0.618	0.620	0.628	0.627	0.632	0.623	1.87
56)	T	1,1,2,2-Tetrachloro	0.842	1.162	1.093	1.096	1.007	0.924	0.983	15.07
57)	T	4-Ethyltoluene	1.597	2.221	2.068	2.070	1.879	1.661	1.828	17.71

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

Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
Response via : Initial Calibration

Calibration Files
2 =01031303.D 4 =01031304.D 5 =01031305.D
6 =01031306.D 7 =01031307.D 8 =01031308.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.432	1.914	1.771	1.745	1.579	1.401	1.560	18.14
59)	T	1,2,4-Trimethylbenz	1.258	1.806	1.614	1.631	1.487	1.345	1.459	17.14
60)	T	1,3-Dichlorobenzene	0.622	0.890	0.817	0.839	0.795	0.763	0.772	12.04
61)	T	1,4-Dichlorobenzene	0.562	0.835	0.756	0.785	0.743	0.715	0.720	12.66
62)	T	Benzyl chloride	0.486	1.132	0.970	0.999	0.941	0.907	0.902	22.29
63)	T	1,2-Dichlorobenzene	0.561	0.780	0.645	0.667	0.631	0.612	0.641	11.04
64)	T	1,2,4-Trichlorobenz	0.244	0.294	0.150	0.169	0.160	0.165	0.195	27.47
65)	T	Hexachlorobutadiene	0.617	0.557	0.311	0.354	0.328	0.335	0.404	31.34
66)		Naphthalene	0.507	0.618	0.265	0.304	0.285	0.292	0.369	37.06

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.52	1.000	A	2	A	B
2	T	Propylene	41	5.44	0.516	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.51	0.523	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.77	0.548	A	2	A	B
5	T	Chloromethane	50	5.94	0.564	A	3	A	B
6	T	Vinyl chloride	62	6.15	0.584	A	2	A	B
7	T	1,3-Butadiene	39	6.20	0.590	A	2	A	B
8	T	Bromomethane	94	6.78	0.644	A	3	A	B
9	T	Chloroethane	64	6.93	0.659	A	3	A	B
10	T	Trichlorofluoromethane	101	7.27	0.690	A	3	A	B
11	T	Ethanol	45	7.50	0.712	A	2	A	B
12	T	Freon113	101	7.92	0.753	A	2	A	B
13	T	1,1-Dichloroethene	61	8.02	0.762	A	2	A	B
14	T	Acetone	43	8.12	0.771	A	2	A	B
15	T	Carbon disulfide	76	8.40	0.798	A	3	A	B
16	T	2-Propanol	45	8.17	0.776	A	2	A	B
17	T	Methylene chloride	49	8.69	0.826	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.89	0.844	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	8.97	0.852	A	2	A	B
20	T	n-Hexane	57	9.15	0.870	A	3	A	B
21	T	1,1-Dichloroethane	63	9.53	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.46	0.899	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.22	0.971	A	3	A	B
24	T	2-Butanone	43	10.18	0.968	A	2	A	B
25	T	Ethyl acetate	43	10.14	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.52	1.000	A	2	A	B
27	T	Chloroform	83	10.54	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.79	1.025	A	3	A	B
29	T	Cyclohexane	56	10.80	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	10.95	1.040	A	3	A	B
31	T	Benzene	78	11.23	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.31	1.075	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.62	1.000	A	2	A	B
34	T	Heptane	43	11.28	0.971	A	3	A	B
35	T	Trichloroethene	130	11.96	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.32	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.40	1.067	A	2	A	B
38	T	Bromodichloromethane	83	12.61	1.085	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.16	1.132	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.27	1.142	A	3	A	B
41	T	Toluene	91	13.56	1.167	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.87	1.193	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.14	1.216	A	3	A	B
44	T	Tetrachloroethene	166	14.26	1.227	A	3	A	B
45	T	2-Hexanone	43	14.34	1.234	A	2	A	B
46	T	Chlorodibromomethane	129	14.69	1.264	A	2	A	B
47	T	1,2-Dibromoethane	107	14.92	1.284	A	2	A	B
48	I	Chlorobenzene-d5	117	15.47	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.51	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.56	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.71	1.016	A	2	A	B
52	T	o-Xylene	91	16.30	1.054	A	2	A	B
53	T	Styrene	104	16.33	1.055	A	3	A	B
54	T	Bromoform	173	16.71	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.12	1.106	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.29	1.118	A	2	A	B
57	T	4-Ethyltoluene	105	17.53	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.61	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.20	1.176	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.75	1.212	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.89	1.221	A	3	A	B
62	T	Benzyl chloride	91	19.10	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.53	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.66	1.464	A	3	A	B
65	T	Hexachlorobutadiene	225	22.86	1.477	A	2	A	B
66		Naphthalene	128	23.34	1.508	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
-----------------------------------------------------------------------
          010313V1.M     Sat Jan 05 08:44:09 2013
```

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010313B\01031311.D Vial: 2
Acq On : 4 Jan 2013 4:17 am Operator: RACHEL HILL
Sample : ICV VOA1 010313 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
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	1.000	1.000	0.0	105	0.00
2	T	Propylene	1.368	1.318	3.7	94	0.00
3	T	Dichlorodifluoromethane	3.598	3.584	0.4	94	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.309	2.299	0.4	95	0.00
5	T	Chloromethane	1.418	1.435	-1.2	94	0.00
6	T	Vinyl chloride	1.812	1.826	-0.8	92	0.00
7	T	1,3-Butadiene	1.341	1.360	-1.4	91	0.00
8	T	Bromomethane	1.285	1.288	-0.2	99	0.00
9	T	Chloroethane	0.800	0.815	-1.9	97	0.00
10	T	Trichlorofluoromethane	3.317	3.273	1.3	94	0.00
11	T	Ethanol	0.471	0.470	0.2	99	0.00
12	T	Freon113	2.335	2.460	-5.4	96	0.00
13	T	1,1-Dichloroethene	2.064	2.174	-5.3	97	0.00
14	T	Acetone	2.347	2.553	-8.8	99	0.00
15	T	Carbon disulfide	3.037	3.545	-16.7	111	0.00
16	T	2-Propanol	2.182	2.464	-12.9	107	0.00
17	T	Methylene chloride	1.610	1.605	0.3	94	0.00
18	T	tert-Butyl Methyl Ether	3.277	3.498	-6.7	96	0.00
19	T	trans-1,2-Dichloroethene	1.896	2.083	-9.9	100	0.00
20	T	n-Hexane	2.200	2.318	-5.4	96	0.00
21	T	1,1-Dichloroethane	2.384	2.467	-3.5	94	0.00
22	T	Vinyl acetate	3.656	4.003	-9.5	94	0.00
23	T	cis-1,2-Dichloroethene	1.254	1.285	-2.5	96	0.00
24	T	2-Butanone	2.467	2.626	-6.4	94	0.00
25	T	Ethyl acetate	3.149	3.394	-7.8	98	0.00
26	T	Tetrahydrofuran	1.637	1.743	-6.5	92	0.00
27	T	Chloroform	2.538	2.662	-4.9	92	0.00
28	T	1,1,1-Trichloroethane	2.538	2.741	-8.0	92	0.00
29	T	Cyclohexane	2.291	2.534	-10.6	94	0.00
30	T	Carbon tetrachloride	2.473	2.624	-6.1	95	0.00
31	T	Benzene	3.711	3.860	-4.0	95	0.00
32	T	1,2-Dichloroethane	1.664	1.784	-7.2	92	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
34	T	Heptane	0.815	0.884	-8.5	93	0.00
35	T	Trichloroethene	0.486	0.500	-2.9	96	0.00
36	T	1,2-Dichloropropane	0.454	0.473	-4.2	94	0.00
37	T	1,4-Dioxane	0.207	0.225	-8.7	102	0.00
38	T	Bromodichloromethane	0.792	0.847	-6.9	97	0.00
39	T	cis-1,3-Dichloropropene	0.659	0.653	0.9	91	0.00
40	T	4-Methyl-2-pentanone	0.344	0.380	-10.5	101	0.00
41	T	Toluene	1.296	1.491	-15.0	105	0.00
42	T	trans-1,3-Dichloropropene	0.597	0.676	-13.2	105	0.00
43	T	1,1,2-Trichloroethane	0.447	0.457	-2.2	95	0.00
44	T	Tetrachloroethene	0.614	0.660	-7.5	96	0.00
45	T	2-Hexanone	0.753	0.862	-14.5	101	0.00
46	T	Chlorodibromomethane	0.715	0.770	-7.7	97	0.00
47	T	1,2-Dibromoethane	0.646	0.670	-3.7	97	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00
49	T	Chlorobenzene	1.120	1.160	-3.6	96	0.00
50	T	Ethylbenzene	1.917	2.010	-4.9	94	0.00
51	T	m,p-Xylene	1.443	1.685	-16.8	95	0.00
52	T	o-Xylene	1.521	1.652	-8.6	96	0.00
53	T	Styrene	1.104	1.215	-10.1	98	0.00
54	T	Bromoform	0.742	0.810	-9.2	99	0.00
55	S	4-Bromofluorobenzene	0.623	0.613	1.6	109	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\010313B\01031311.D Vial: 2
Acq On : 4 Jan 2013 4:17 am Operator: RACHEL HILL
Sample : ICV VOA1 010313 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
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)
56	T	1,1,2,2-Tetrachloroethane	0.983	1.012	-3.0	96	0.00
57	T	4-Ethyltoluene	1.828	1.927	-5.4	96	0.00
58	T	1,3,5-Trimethylbenzene	1.560	1.644	-5.4	95	0.00
59	T	1,2,4-Trimethylbenzene	1.459	1.541	-5.6	94	0.00
60	T	1,3-Dichlorobenzene	0.772	0.784	-1.6	97	0.00
61	T	1,4-Dichlorobenzene	0.720	0.734	-1.9	97	0.00
62	T	Benzyl chloride	0.902	0.959	-6.3	93	0.00
63	T	1,2-Dichlorobenzene	0.641	0.626	2.3	88	0.00
64	T	1,2,4-Trichlorobenzene	0.195	0.178	8.7	67	0.00
65	T	Hexachlorobutadiene	0.404	0.326	19.3	64	0.00
66		Naphthalene	0.369	0.315	14.6	56	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010313B\01031311.D Vial: 2
Acq On : 4 Jan 2013 4:17 am Operator: RACHEL HILL
Sample : ICV VOA1 010313 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 4 10:32 2013 Quant Results File: 010313V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
Response via : Initial Calibration
DataAcq Meth : 010313V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.53	130	198375	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.62	114	665551	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.47	117	545186	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.12	95	334427	12.32	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 98.56%				
Target Compounds							Qvalue
2) Propylene	5.44	41	213349	9.83	ppbv		96
3) Dichlorodifluoromethane	5.51	85	523246	9.16	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	346638	9.46	ppbv	#	63
5) Chloromethane	5.93	50	216340	9.62	ppbv		99
6) Vinyl chloride	6.15	62	272466	9.48	ppbv		99
7) 1,3-Butadiene	6.20	39	211440	9.94	ppbv		100
8) Bromomethane	6.78	94	190144	9.33	ppbv		99
9) Chloroethane	6.93	64	119031	9.37	ppbv		98
10) Trichlorofluoromethane	7.26	101	498586	9.47	ppbv		98
11) Ethanol	7.50	45	68585	9.17	ppbv		100
12) Freon113	7.93	101	382573	10.32	ppbv		89
13) 1,1-Dichloroethene	8.03	61	341621	10.43	ppbv	#	86
14) Acetone	8.12	43	405127	10.88	ppbv	#	91
15) Carbon disulfide	8.39	76	545756	11.32	ppbv	#	99
16) 2-Propanol	8.17	45	395009	11.41	ppbv	#	1
17) Methylene chloride	8.68	49	254775	9.97	ppbv	#	83
18) tert-Butyl Methyl Ether	8.89	73	549649	10.57	ppbv	#	91
19) trans-1,2-Dichloroethene	8.97	61	323925	10.76	ppbv	#	81
20) n-Hexane	9.15	57	371617	10.64	ppbv		94
21) 1,1-Dichloroethane	9.53	63	379799	10.04	ppbv	#	97
22) Vinyl acetate	9.46	43	628955	10.84	ppbv	#	96
23) cis-1,2-Dichloroethene	10.22	96	199906	10.05	ppbv	#	80
24) 2-Butanone	10.19	43	412638	10.54	ppbv		92
25) Ethyl acetate	10.13	43	527835	10.56	ppbv	#	98
26) Tetrahydrofuran	10.52	42	276652	10.65	ppbv		92
27) Chloroform	10.54	83	413972	10.28	ppbv		99
28) 1,1,1-Trichloroethane	10.79	97	417668	10.37	ppbv		95
29) Cyclohexane	10.80	56	394125	10.84	ppbv		89
30) Carbon tetrachloride	10.95	117	395589	10.08	ppbv		98
31) Benzene	11.23	78	588107	9.99	ppbv		95
32) 1,2-Dichloroethane	11.31	62	274631	10.40	ppbv	#	97
34) Heptane	11.28	43	465831	10.74	ppbv	#	92
35) Trichloroethene	11.96	130	255662	9.88	ppbv		94
36) 1,2-Dichloropropane	12.32	63	246548	10.19	ppbv		97
37) 1,4-Dioxane	12.40	88	115151	10.45	ppbv	#	82
38) Bromodichloromethane	12.61	83	433041	10.28	ppbv		98
39) cis-1,3-Dichloropropene	13.16	75	330065	9.41	ppbv		98
40) 4-Methyl-2-pentanone	13.27	58	202427	11.06	ppbv	#	93
41) Toluene	13.56	91	777978	11.27	ppbv		98
42) trans-1,3-Dichloropropene	13.87	75	327394	10.29	ppbv		97
43) 1,1,2-Trichloroethane	14.14	97	238718	10.02	ppbv		97
44) Tetrachloroethene	14.26	166	337250	10.32	ppbv		97
45) 2-Hexanone	14.34	43	449609	11.22	ppbv		98
46) Chlorodibromomethane	14.69	129	401689	10.55	ppbv		99
47) 1,2-Dibromoethane	14.92	107	342479	9.96	ppbv		100
49) Chlorobenzene	15.51	112	500694	10.25	ppbv	#	89
50) Ethylbenzene	15.56	91	858936	10.27	ppbv		95
51) m,p-Xylene	15.71	91	1410912	22.42	ppbv		95
52) o-Xylene	16.30	91	720645	10.86	ppbv	#	93

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010313B\01031311.D Vial: 2
Acq On : 4 Jan 2013 4:17 am Operator: RACHEL HILL
Sample : ICV VOA1 010313 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 4 10:32 2013 Quant Results File: 010313V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
Response via : Initial Calibration
DataAcq Meth : 010313V1

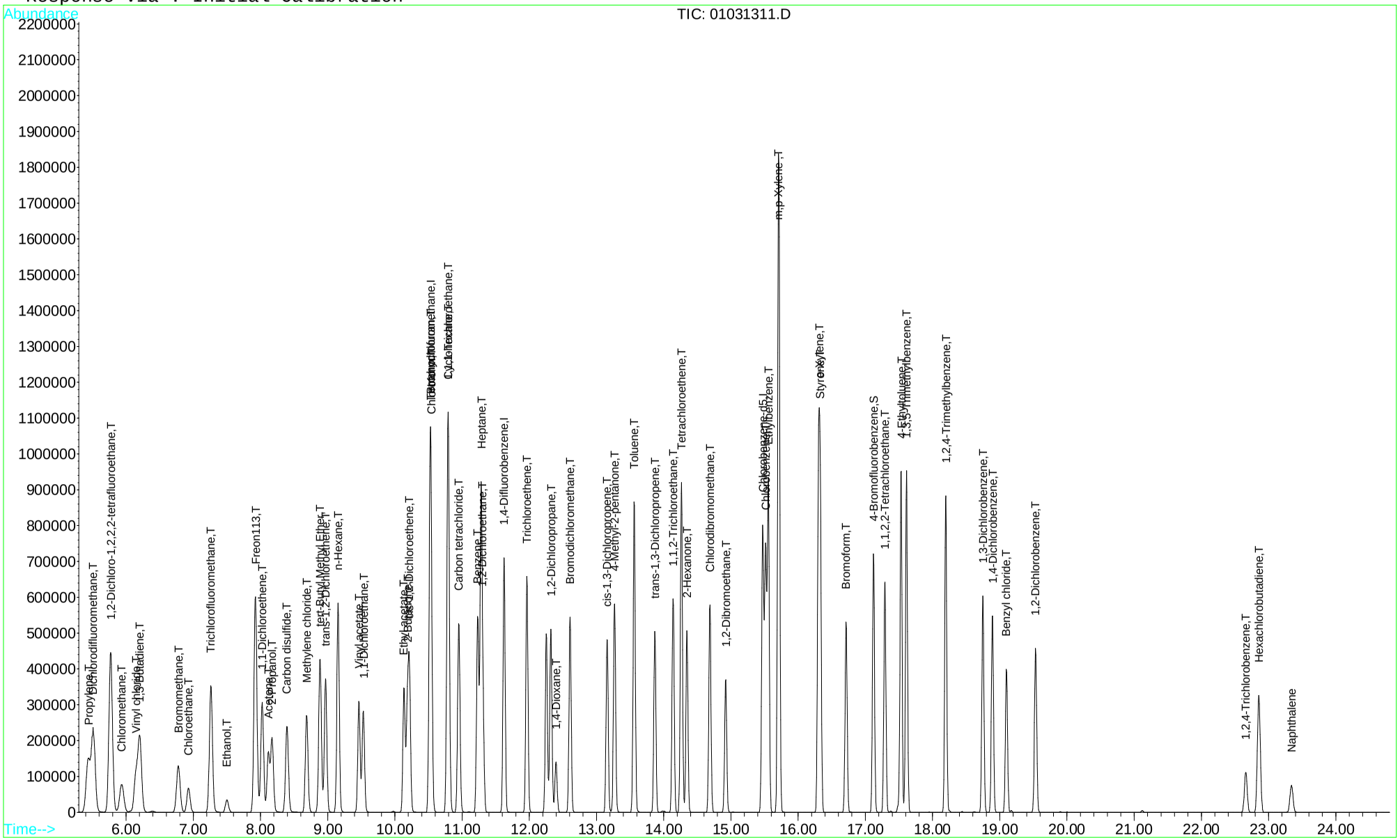
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53)	Styrene	16.33	104	519214	10.79	ppbv		97
54)	Bromoform	16.71	173	339286	10.48	ppbv		98
56)	1,1,2,2-Tetrachloroethane	17.29	83	441422	10.30	ppbv	#	98
57)	4-Ethyltoluene	17.53	105	823794	10.33	ppbv		95
58)	1,3,5-Trimethylbenzene	17.61	105	695692	10.23	ppbv		94
59)	1,2,4-Trimethylbenzene	18.20	105	658854	10.35	ppbv		95
60)	1,3-Dichlorobenzene	18.75	146	331601	9.85	ppbv		96
61)	1,4-Dichlorobenzene	18.89	146	307312	9.79	ppbv		95
62)	Benzyl chloride	19.10	91	405522	10.31	ppbv		95
63)	1,2-Dichlorobenzene	19.53	146	264873	9.48	ppbv		95
64)	1,2,4-Trichlorobenzene	22.66	180	70628	8.32	ppbv		98
65)	Hexachlorobutadiene	22.86	225	133679	7.59	ppbv		99
66)	Naphthalene	23.34	128	126338	7.84	ppbv		98

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010313B\01031311.D Vial: 2
Acq On : 4 Jan 2013 4:17 am Operator: RACHEL HILL
Sample : ICV VOA1 010313 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 4 10:32 2013 Quant Results File: 010313V1.RES

Method : C:\HPCHEM\1\METHODS\010313V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 04 10:30:43 2013
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
Response via : Initial Calibration

Calibration Files
2 =01051305.D 4 =01051306.D 5 =01051307.D
6 =01051308.D 7 =01051309.D 8 =01051310.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.617	1.554	1.496	1.417	1.287	1.289	1.423	9.59
3)	T	Dichlorodifluoromet	3.469	4.111	3.934	3.772	3.441	3.486	3.682	7.12
4)	T	1,2-Dichloro-1,2,2,	2.064	2.575	2.482	2.392	2.209	2.272	2.327	7.37
5)	T	Chloromethane	1.645	1.674	1.593	1.469	1.310	1.296	1.465	11.92
6)	T	Vinyl chloride	1.957	2.223	2.081	1.976	1.755	1.725	1.907	11.10
7)	T	1,3-Butadiene	1.511	1.689	1.585	1.490	1.314	1.276	1.437	12.53
8)	T	Bromomethane	1.167	1.424	1.376	1.380	1.407	1.463	1.368	6.95
9)	T	Chloroethane	0.754	0.921	0.895	0.848	0.772	0.859	0.836	7.45
10)	T	Trichlorofluorometh	3.445	3.758	3.656	3.510	3.168	3.207	3.406	7.49
11)	T	Ethanol	0.619	0.516	0.500	0.478	0.409	0.420	0.479	15.86
12)	T	Freon113	2.179	2.739	2.669	2.581	2.296	2.315	2.404	10.87
13)	T	1,1-Dichloroethene	2.132	2.434	2.346	2.233	1.990	1.972	2.139	9.79
14)	T	Acetone	2.863	2.781	2.679	2.495	2.099	2.065	2.405	16.56
15)	T	Carbon disulfide	2.963	3.455	3.307	3.178	2.871	2.921	3.094	7.19
16)	T	2-Propanol	2.557	2.518	2.436	2.280	1.983	1.999	2.238	12.41
17)	T	Methylene chloride	1.988	1.857	1.775	1.690	1.459	1.452	1.655	14.23
18)	T	tert-Butyl Methyl E	3.342	3.854	3.742	3.506	2.958	2.988	3.300	13.04
19)	T	trans-1,2-Dichloroe	1.910	2.255	2.159	2.079	1.808	1.809	1.956	10.89
20)	T	n-Hexane	2.225	2.610	2.557	2.410	2.103	2.098	2.274	11.42
21)	T	1,1-Dichloroethane	2.430	2.828	2.744	2.574	2.211	2.211	2.435	12.10
22)	T	Vinyl acetate	3.146	4.605	4.468	4.129	3.456	3.405	3.745	17.27
23)	T	cis-1,2-Dichloroeth	1.162	1.421	1.387	1.339	1.187	1.231	1.273	8.39
24)	T	2-Butanone	2.434	3.016	3.119	2.913	2.354	2.223	2.580	16.79
25)	T	Ethyl acetate	3.030	3.784	3.742	3.500	2.900	2.925	3.229	13.53
26)	T	Tetrahydrofuran	1.737	2.076	1.982	1.844	1.545	1.481	1.706	16.77
27)	T	Chloroform	2.570	3.137	3.029	2.861	2.467	2.363	2.633	15.20
28)	T	1,1,1-Trichloroetha	2.377	3.202	3.124	2.960	2.518	2.301	2.624	18.53
29)	T	Cyclohexane	2.332	2.932	2.800	2.664	2.227	2.070	2.399	17.52
30)	T	Carbon tetrachlorid	2.159	2.932	2.881	2.759	2.421	2.404	2.515	13.89
31)	T	Benzene	3.652	4.316	4.252	3.974	3.416	3.478	3.755	11.50
32)	T	1,2-Dichloroethane	1.789	2.109	2.043	1.874	1.563	1.474	1.728	18.25
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.776	1.066	1.039	1.021	0.858	0.855	0.894	17.42
35)	T	Trichloroethene	0.384	0.573	0.567	0.577	0.514	0.561	0.516	14.98
36)	T	1,2-Dichloropropane	0.402	0.553	0.544	0.541	0.462	0.495	0.485	13.80
37)	T	1,4-Dioxane	0.166	0.237	0.236	0.237	0.204	0.225	0.215	12.55
38)	T	Bromodichloromethan	0.634	0.959	0.954	0.958	0.830	0.886	0.844	15.98
39)	T	cis-1,3-Dichloropro	0.526	0.783	0.778	0.774	0.672	0.737	0.696	14.35
40)	T	4-Methyl-2-pentanon	0.272	0.409	0.408	0.408	0.352	0.385	0.365	14.57
41)	T	Toluene	1.086	1.536	1.530	1.531	1.319	1.432	1.364	14.33
42)	T	trans-1,3-Dichlorop	0.444	0.711	0.713	0.707	0.618	0.679	0.634	15.87
43)	T	1,1,2-Trichloroetha	0.354	0.520	0.516	0.524	0.458	0.510	0.470	14.06
44)	T	Tetrachloroethene	0.491	0.748	0.744	0.761	0.666	0.672	0.652	18.35
45)	T	2-Hexanone	0.578	0.933	0.930	0.920	0.771	0.827	0.803	17.59
46)	T	Chlorodibromomethan	0.518	0.865	0.868	0.877	0.767	0.807	0.755	19.32
47)	T	1,2-Dibromoethane	0.487	0.754	0.763	0.757	0.671	0.742	0.679	15.85
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.953	1.350	1.332	1.312	1.164	1.198	1.175	15.16
50)	T	Ethylbenzene	1.751	2.390	2.341	2.299	2.009	1.949	2.023	17.49
51)	T	m,p-Xylene	1.424	2.031	1.945	1.826	1.488	1.274	1.550	26.78
52)	T	o-Xylene	1.377	1.941	1.898	1.868	1.616	1.496	1.610	19.92
53)	T	Styrene	0.815	1.388	1.371	1.362	1.198	1.152	1.159	21.42
54)	T	Bromoform	0.537	0.915	0.922	0.913	0.809	0.775	0.776	21.26
55)	S	4-Bromofluorobenzen	0.592	0.615	0.619	0.627	0.625	0.622	0.619	2.09
56)	T	1,1,2,2-Tetrachloro	0.870	1.166	1.150	1.150	1.020	1.040	1.030	13.65
57)	T	4-Ethyltoluene	1.651	2.183	2.157	2.158	1.889	1.857	1.901	15.46

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

Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
Response via : Initial Calibration

Calibration Files
2 =01051305.D 4 =01051306.D 5 =01051307.D
6 =01051308.D 7 =01051309.D 8 =01051310.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.442	1.874	1.852	1.836	1.613	1.546	1.617	16.27
59)	T	1,2,4-Trimethylbenz	1.247	1.699	1.671	1.690	1.499	1.501	1.494	14.72
60)	T	1,3-Dichlorobenzene	0.638	0.835	0.847	0.849	0.773	0.831	0.783	10.46
61)	T	1,4-Dichlorobenzene	0.568	0.774	0.783	0.788	0.715	0.778	0.726	11.24
62)	T	Benzyl chloride	0.477	0.994	1.002	1.018	0.912	0.979	0.898	21.23
63)	T	1,2-Dichlorobenzene	0.543	0.663	0.667	0.688	0.612	0.655	0.634	7.84
64)	T	1,2,4-Trichlorobenz	0.175	0.164	0.170	0.223	0.157	0.169	0.183	14.98
65)	T	Hexachlorobutadiene	0.429	0.347	0.343	0.541	0.333	0.347	0.392	19.04
66)		Naphthalene	0.303	0.292	0.300	0.447	0.283	0.298	0.332	19.49

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.53	1.000	A	2	A	B
2	T	Propylene	41	5.44	0.517	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.52	0.524	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.77	0.548	A	2	A	B
5	T	Chloromethane	50	5.93	0.564	A	3	A	B
6	T	Vinyl chloride	62	6.15	0.584	A	2	A	B
7	T	1,3-Butadiene	39	6.21	0.590	A	2	A	B
8	T	Bromomethane	94	6.78	0.644	A	3	A	B
9	T	Chloroethane	64	6.93	0.659	A	3	A	B
10	T	Trichlorofluoromethane	101	7.26	0.690	A	3	A	B
11	T	Ethanol	45	7.50	0.713	A	2	A	B
12	T	Freon113	101	7.93	0.753	A	2	A	B
13	T	1,1-Dichloroethene	61	8.03	0.763	A	2	A	B
14	T	Acetone	43	8.12	0.771	A	2	A	B
15	T	Carbon disulfide	76	8.40	0.798	A	3	A	B
16	T	2-Propanol	45	8.17	0.776	A	2	A	B
17	T	Methylene chloride	49	8.69	0.825	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.89	0.844	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	8.97	0.852	A	2	A	B
20	T	n-Hexane	57	9.16	0.870	A	3	A	B
21	T	1,1-Dichloroethane	63	9.53	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.46	0.899	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.22	0.971	A	3	A	B
24	T	2-Butanone	43	10.19	0.968	A	2	A	B
25	T	Ethyl acetate	43	10.13	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.52	1.000	A	2	A	B
27	T	Chloroform	83	10.54	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.79	1.025	A	3	A	B
29	T	Cyclohexane	56	10.79	1.025	A	2	A	B
30	T	Carbon tetrachloride	117	10.96	1.041	A	3	A	B
31	T	Benzene	78	11.23	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.31	1.075	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.62	1.000	A	2	A	B
34	T	Heptane	43	11.28	0.971	A	3	A	B
35	T	Trichloroethene	130	11.96	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.32	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.40	1.067	A	2	A	B
38	T	Bromodichloromethane	83	12.61	1.085	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.16	1.132	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.27	1.141	A	3	A	B
41	T	Toluene	91	13.56	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.87	1.193	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.14	1.216	A	3	A	B
44	T	Tetrachloroethene	166	14.27	1.227	A	3	A	B
45	T	2-Hexanone	43	14.34	1.234	A	2	A	B
46	T	Chlorodibromomethane	129	14.69	1.264	A	2	A	B
47	T	1,2-Dibromoethane	107	14.92	1.283	A	2	A	B
48	I	Chlorobenzene-d5	117	15.47	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.52	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.56	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.71	1.015	A	2	A	B
52	T	o-Xylene	91	16.31	1.054	A	2	A	B
53	T	Styrene	104	16.33	1.055	A	3	A	B
54	T	Bromoform	173	16.71	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.12	1.106	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.29	1.117	A	2	A	B
57	T	4-Ethyltoluene	105	17.53	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.61	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.19	1.176	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.75	1.212	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.89	1.221	A	3	A	B
62	T	Benzyl chloride	91	19.10	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.53	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.66	1.464	A	3	A	B
65	T	Hexachlorobutadiene	225	22.85	1.477	A	2	A	B
66		Naphthalene	128	23.34	1.508	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
-----------------------------------------------------------------------
          010513V1.M     Sun Jan 06 22:24:08 2013
```

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010513\01051313.D Vial: 3
Acq On : 5 Jan 2013 7:15 pm Operator: RACHEL HILL
Sample : ICV VOA1 010513 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
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	1.000	1.000	0.0	110	0.00
2	T	Propylene	1.423	1.372	3.6	97	0.00
3	T	Dichlorodifluoromethane	3.682	3.654	0.8	97	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.327	2.303	1.0	98	0.00
5	T	Chloromethane	1.465	1.471	-0.4	96	0.00
6	T	Vinyl chloride	1.907	1.920	-0.7	95	0.00
7	T	1,3-Butadiene	1.437	1.454	-1.2	94	0.00
8	T	Bromomethane	1.368	1.357	0.8	104	0.00
9	T	Chloroethane	0.836	0.840	-0.5	100	0.00
10	T	Trichlorofluoromethane	3.406	3.395	0.3	99	0.00
11	T	Ethanol	0.479	0.478	0.2	102	0.00
12	T	Freon113	2.404	2.572	-7.0	103	0.00
13	T	1,1-Dichloroethene	2.139	2.302	-7.6	104	0.00
14	T	Acetone	2.405	2.612	-8.6	103	0.00
15	T	Carbon disulfide	3.094	3.659	-18.3	116	0.00
16	T	2-Propanol	2.238	2.522	-12.7	110	0.00
17	T	Methylene chloride	1.655	1.687	-1.9	100	0.00
18	T	tert-Butyl Methyl Ether	3.300	3.582	-8.5	102	0.00
19	T	trans-1,2-Dichloroethene	1.956	2.178	-11.3	106	0.00
20	T	n-Hexane	2.274	2.446	-7.6	103	0.00
21	T	1,1-Dichloroethane	2.435	2.545	-4.5	99	0.00
22	T	Vinyl acetate	3.745	4.163	-11.2	99	0.00
23	T	cis-1,2-Dichloroethene	1.273	1.306	-2.6	101	0.00
24	T	2-Butanone	2.580	2.801	-8.6	102	0.00
25	T	Ethyl acetate	3.229	3.715	-15.1	108	0.00
26	T	Tetrahydrofuran	1.706	1.846	-8.2	97	0.00
27	T	Chloroform	2.633	2.751	-4.5	96	0.00
28	T	1,1,1-Trichloroethane	2.624	2.805	-6.9	96	0.00
29	T	Cyclohexane	2.399	2.664	-11.0	100	0.00
30	T	Carbon tetrachloride	2.515	2.654	-5.5	99	0.00
31	T	Benzene	3.755	3.900	-3.9	99	0.00
32	T	1,2-Dichloroethane	1.728	1.851	-7.1	96	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
34	T	Heptane	0.894	0.925	-3.5	98	0.00
35	T	Trichloroethene	0.516	0.501	2.9	99	0.00
36	T	1,2-Dichloropropane	0.485	0.481	0.8	98	0.00
37	T	1,4-Dioxane	0.215	0.223	-3.7	107	0.00
38	T	Bromodichloromethane	0.844	0.861	-2.0	101	0.00
39	T	cis-1,3-Dichloropropene	0.696	0.657	5.6	95	0.00
40	T	4-Methyl-2-pentanone	0.365	0.385	-5.5	106	0.00
41	T	Toluene	1.364	1.500	-10.0	110	0.00
42	T	trans-1,3-Dichloropropene	0.634	0.679	-7.1	108	0.00
43	T	1,1,2-Trichloroethane	0.470	0.455	3.2	99	0.00
44	T	Tetrachloroethene	0.652	0.660	-1.2	100	0.00
45	T	2-Hexanone	0.803	0.884	-10.1	107	0.00
46	T	Chlorodibromomethane	0.755	0.762	-0.9	100	0.00
47	T	1,2-Dibromoethane	0.679	0.660	2.8	99	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00
49	T	Chlorobenzene	1.175	1.186	-0.9	100	0.00
50	T	Ethylbenzene	2.023	2.070	-2.3	98	0.00
51	T	m,p-Xylene	1.550	1.758	-13.4	98	0.00
52	T	o-Xylene	1.610	1.701	-5.7	100	0.00
53	T	Styrene	1.159	1.234	-6.5	101	0.00
54	T	Bromoform	0.776	0.820	-5.7	102	0.00
55	S	4-Bromofluorobenzene	0.619	0.614	0.8	114	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010513\01051313.D Vial: 3
Acq On : 5 Jan 2013 7:15 pm Operator: RACHEL HILL
Sample : ICV VOA1 010513 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
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)
56	T	1,1,2,2-Tetrachloroethane	1.030	1.039	-0.9	101	0.00
57	T	4-Ethyltoluene	1.901	1.969	-3.6	103	0.00
58	T	1,3,5-Trimethylbenzene	1.617	1.687	-4.3	102	0.00
59	T	1,2,4-Trimethylbenzene	1.494	1.560	-4.4	104	0.00
60	T	1,3-Dichlorobenzene	0.783	0.787	-0.5	107	0.00
61	T	1,4-Dichlorobenzene	0.726	0.735	-1.2	108	0.00
62	T	Benzyl chloride	0.898	0.970	-8.0	111	0.00
63	T	1,2-Dichlorobenzene	0.634	0.629	0.8	108	0.00
64	T	1,2,4-Trichlorobenzene	0.183	0.183	0.0	127	0.00
65	T	Hexachlorobutadiene	0.392	0.351	10.5	115	0.00
66		Naphthalene	0.332	0.329	0.9	128	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010513\01051313.D Vial: 3
Acq On : 5 Jan 2013 7:15 pm Operator: RACHEL HILL
Sample : ICV VOA1 010513 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 6 11:05 2013 Quant Results File: 010513V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
Response via : Initial Calibration
DataAcq Meth : 010513V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.53	130	196257	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.62	114	662025	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.47	117	527812	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.12	95	324183	12.41	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 99.28%				
Target Compounds							Qvalue
2) Propylene	5.44	41	219665	9.83	ppbv		96
3) Dichlorodifluoromethane	5.52	85	527777	9.13	ppbv		98
4) 1,2-Dichloro-1,2,2,2-tetra	5.78	135	343555	9.40	ppbv	#	62
5) Chloromethane	5.94	50	219366	9.53	ppbv		99
6) Vinyl chloride	6.15	62	283417	9.47	ppbv		99
7) 1,3-Butadiene	6.21	39	223714	9.92	ppbv		99
8) Bromomethane	6.78	94	198070	9.22	ppbv		100
9) Chloroethane	6.93	64	121374	9.25	ppbv		97
10) Trichlorofluoromethane	7.27	101	511673	9.57	ppbv		98
11) Ethanol	7.50	45	69114	9.20	ppbv		99
12) Freon113	7.93	101	395724	10.48	ppbv		87
13) 1,1-Dichloroethene	8.03	61	357773	10.65	ppbv	#	85
14) Acetone	8.12	43	410128	10.86	ppbv	#	91
15) Carbon disulfide	8.40	76	557225	11.47	ppbv	#	99
16) 2-Propanol	8.18	45	400006	11.39	ppbv	#	1
17) Methylene chloride	8.69	49	264858	10.20	ppbv	#	81
18) tert-Butyl Methyl Ether	8.89	73	556830	10.75	ppbv	#	90
19) trans-1,2-Dichloroethene	8.97	61	335129	10.91	ppbv	#	80
20) n-Hexane	9.16	57	387800	10.86	ppbv	#	92
21) 1,1-Dichloroethane	9.53	63	387614	10.14	ppbv	#	97
22) Vinyl acetate	9.46	43	647023	11.00	ppbv	#	95
23) cis-1,2-Dichloroethene	10.22	96	201014	10.06	ppbv	#	79
24) 2-Butanone	10.19	43	435326	10.75	ppbv	#	90
25) Ethyl acetate	10.14	43	571620	11.28	ppbv	#	99
26) Tetrahydrofuran	10.53	42	289803	10.82	ppbv		91
27) Chloroform	10.54	83	423272	10.24	ppbv		100
28) 1,1,1-Trichloroethane	10.79	97	422768	10.26	ppbv		95
29) Cyclohexane	10.80	56	409931	10.89	ppbv		88
30) Carbon tetrachloride	10.95	117	395820	10.02	ppbv		99
31) Benzene	11.23	78	587840	9.97	ppbv		94
32) 1,2-Dichloroethane	11.31	62	281841	10.39	ppbv	#	97
34) Heptane	11.28	43	485218	10.25	ppbv	#	91
35) Trichloroethene	11.96	130	254948	9.34	ppbv		94
36) 1,2-Dichloropropane	12.32	63	249842	9.74	ppbv		97
37) 1,4-Dioxane	12.40	88	113634	10.00	ppbv	#	81
38) Bromodichloromethane	12.61	83	437610	9.79	ppbv		98
39) cis-1,3-Dichloropropene	13.16	75	330574	8.96	ppbv		97
40) 4-Methyl-2-pentanone	13.27	58	204167	10.57	ppbv	#	92
41) Toluene	13.56	91	778310	10.77	ppbv		98
42) trans-1,3-Dichloropropene	13.87	75	327139	9.75	ppbv		96
43) 1,1,2-Trichloroethane	14.14	97	236306	9.48	ppbv		96
44) Tetrachloroethene	14.27	166	335402	9.72	ppbv		97
45) 2-Hexanone	14.34	43	459020	10.80	ppbv		98
46) Chlorodibromomethane	14.69	129	395685	9.89	ppbv		99
47) 1,2-Dibromoethane	14.92	107	335472	9.33	ppbv		100
49) Chlorobenzene	15.52	112	495656	9.99	ppbv	#	88
50) Ethylbenzene	15.56	91	856453	10.03	ppbv		95
51) m,p-Xylene	15.71	91	1425139	21.78	ppbv		95
52) o-Xylene	16.31	91	718096	10.57	ppbv	#	92

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010513\01051313.D Vial: 3
Acq On : 5 Jan 2013 7:15 pm Operator: RACHEL HILL
Sample : ICV VOA1 010513 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 6 11:05 2013 Quant Results File: 010513V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
Response via : Initial Calibration
DataAcq Meth : 010513V1

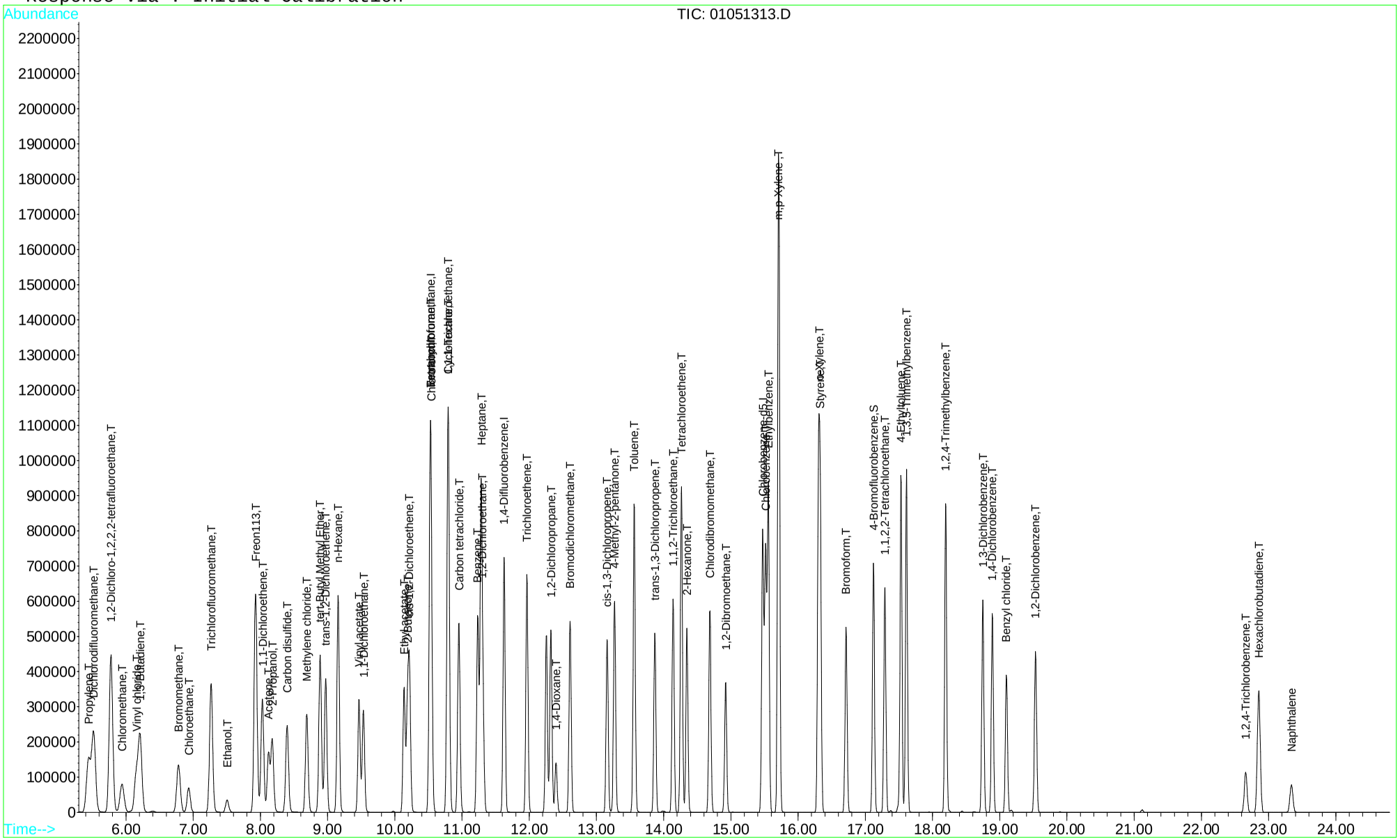
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53)	Styrene	16.33	104	510725	10.44	ppbv		97
54)	Bromoform	16.71	173	332318	10.14	ppbv		98
56)	1,1,2,2-Tetrachloroethane	17.29	83	438769	10.09	ppbv	#	98
57)	4-Ethyltoluene	17.53	105	814755	10.15	ppbv		94
58)	1,3,5-Trimethylbenzene	17.61	105	690766	10.12	ppbv		94
59)	1,2,4-Trimethylbenzene	18.19	105	645530	10.23	ppbv		95
60)	1,3-Dichlorobenzene	18.75	146	322161	9.75	ppbv	#	95
61)	1,4-Dichlorobenzene	18.89	146	297758	9.72	ppbv	#	95
62)	Benzyl chloride	19.10	91	397312	10.47	ppbv		95
63)	1,2-Dichlorobenzene	19.53	146	257497	9.62	ppbv	#	95
64)	1,2,4-Trichlorobenzene	22.66	180	70424	9.13	ppbv		97
65)	Hexachlorobutadiene	22.85	225	139424	8.43	ppbv		99
66)	Naphthalene	23.34	128	127724	9.10	ppbv		99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010513\01051313.D Vial: 3
Acq On : 5 Jan 2013 7:15 pm Operator: RACHEL HILL
Sample : ICV VOA1 010513 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 6 11:05 2013 Quant Results File: 010513V1.RES

Method : C:\HPCHEM\1\METHODS\010513V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Sun Jan 06 11:05:05 2013
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\010313B

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	01031301.d	1.	BFB VOA9 123112	TUNE BFB_TUNE	3 Jan 2013 21:58
2	2	01031302.d	1.	ICAL1 VOA9 123112	DATA NOT USED	3 Jan 2013 23:20
3	3	01031303.d	1.	ICAL1 VOA9 123112	ICAL1MA_APH	4 Jan 2013 00:03
4	4	01031304.d	1.	ICAL2 VOA9 123112	ICAL2MA_APH	4 Jan 2013 00:45
5	5	01031305.d	1.	ICAL3 VOA9 123112	ICAL3MA_APH	4 Jan 2013 01:28
6	6	01031306.d	1.	ICAL4 VOA9 123112	ICAL4MA_APH	4 Jan 2013 02:11
7	7	01031307.d	1.	ICAL5 VOA9 123112	ICAL5MA_APH	4 Jan 2013 02:55
8	8	01031308.d	1.	ICAL6 VOA9 123112	ICAL6MA_APH	4 Jan 2013 03:39
9	9	01031309.d	1.	ICAL7 VOA9 123112	ICAL7MA_APH	4 Jan 2013 04:24
10	2	01031310.d	1.	BFB2 VOA9 123112	TUNE BFB_TUNE	4 Jan 2013 05:06
11	2	01031311.d	1.	ICV VOA9 123112	data not used	4 Jan 2013 05:49
12	3	01031312.d	1.	RLVS VOA9 123112	data not used	4 Jan 2013 06:32
13	4	01031313.d	1.	ICV VOA9 123112	ICV MA_APH	4 Jan 2013 07:14
14	5	01031314.d	1.	RLVS VOA9 123112	RLVS MA_APH	4 Jan 2013 07:57
15	4	01031315.d	1.	MBLK VOA9 123112	MBLK MA_APH	4 Jan 2013 08:46
16	5	01031316.d	800.	1212373-023A	SAMP MA_APH	4 Jan 2013 09:31
17	6	01031317.d	800.	1212373-024A	SAMP MA_APH	4 Jan 2013 10:16
18	7	01031318.d	400.	1212437-023A	SAMP MA_APH	4 Jan 2013 11:06
19	8	01031319.d	80000.	1212437-003A	data not used	4 Jan 2013 11:48
20	9	01031320.d	80000.	1212437-004A	data not used	4 Jan 2013 12:31
21	10	01031321.d	160000.	1212437-005A	SAMP MA_APH	4 Jan 2013 13:13
22	11	01031322.d	8000.	1212437-025A	SAMP MA_APH	4 Jan 2013 13:56
23	12	01031323.d	400.	1212722-057A	SAMP MA_APH	4 Jan 2013 14:45
24	13	01031324.d	160000.	1212437-004A	SAMP MA_APH	4 Jan 2013 15:27
25	14	01031325.d	160000.	1212437-003A	SAMP MA_APH	4 Jan 2013 16:10
26	13	01031326.d	800.	1212722-059A	data not used	4 Jan 2013 16:55
27	9	01031327.d	800.	1212722-059A	data not used	4 Jan 2013 17:40
28	10	01031328.d	200.	1212722-061A	SAMP MA_APH	4 Jan 2013 18:29
29	11	01031329.d	200.	1212722-064A	SAMP MA_APH	4 Jan 2013 19:18
30	12	01031330.d	400.	1212722-065A	SAMP MA_APH	4 Jan 2013 20:06
31	21	01031331.d	400.	1212722-066A	data not used	4 Jan 2013 20:55
32	22	01031332.d	400.	1212722-068A	SAMP MA_APH	4 Jan 2013 21:44
33	23	01031333.d	400.	1212722-067A	data not used	4 Jan 2013 22:32
34	24	01031334.d	400.	1212722-069A	data not used	4 Jan 2013 23:21
35	25	01031335.d	800.	1212722-004A	SAMP MA_APH	5 Jan 2013 00:06
36	25	01031336.d	800.	1212722-004ADUP	DUP MA_APH	5 Jan 2013 00:52
37	26	01031337.d	400.	1212722-070A	data not used	5 Jan 2013 01:40
38	27	01031338.d	800.	1212722-005A	SAMP MA_APH	5 Jan 2013 02:25
39	28	01031339.d	800.	1212722-006A	SAMP MA_APH	5 Jan 2013 03:11
40	29	01031340.d	1600.	1212722-007A	data not used	5 Jan 2013 03:54
41	1	01031341.d	1.	RLVS VOA9 123112	data not used	5 Jan 2013 04:37
42	2	01031342.d	1.	RLVS VOA9 123112	RLVS MA_APH	5 Jan 2013 08:34

RTI Laboratories

ANALYTICAL RUN Summary

09-Jan-13

RunNo 55111

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086441	BFB2 VOA9 010313	BFB_TUNE	TUNE	.1\DATA\010313	E1/4/2013 5:06:00	1	R55111		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		64.5	64.5		100	0	0	0	0	0	65%	50	200	0%	
175	M		7.6	7.6		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.1	96.1		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		20	20		100	0	0	0	0	0	20%	8	40	0%	
75	M		41.6	41.6		100	0	0	0	0	0	42%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086442	ICV VOA9 010313	MA_APH	ICV	.1\DATA\010313	E1/4/2013 7:14:00	1	R55111		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	264.63	264.63		234	0	0	0	0	0	113%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	U
C9-C10 Aromatic HC - TOTAL	A	µg/m³	308.21	308.21		266	0	0	0	0	0	116%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	0%	0	0	0%	U
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	443.86	443.86		378	0	0	0	0	0	117%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	0%	0	0	0%	U
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	86.9	86.9		89.5	0	0	0	0	0	97%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010313B\01031313.D Vial: 4
Acq On : 4 Jan 2013 7:14 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\010313V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Jan 04 10:58:14 2013
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 : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	31.315	-7.2	99	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	41.377	-13.7	104	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	47.310	-13.2	104	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	40.582	-14.6	104	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	48.095	-14.0	103	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	56.339	-15.0	103	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	264.632	-13.1	103	0.00
8	L1	C9-C12 Aliphatic HC	54.600	63.630	-16.5	103	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	59.367	-8.7	107	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	71.572	-16.9	103	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	71.986	-18.4	105	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	84.261	-20.4	106	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	94.227	-22.4	104	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	443.860	-17.4	104	0.00
15	L1	C9-C10 Aromatic HC	51.700	59.757	-15.6	104	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	58.397	-14.1	101	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	60.464	-15.8	104	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	67.777	-15.5	102	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	60.816	-15.6	103	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	68.812	-17.2	104	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	308.212	-15.9	103	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.85#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.21#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.01#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.74#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.52#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-11.96#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.07#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.21#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.21#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.18#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.28#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.46#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.11#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.01#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.46#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.04#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.04#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.04#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	104	0.00
41	S	4-Bromofluorobenzene	89.500	86.903	2.9	103	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010313B\01031313.D Vial: 4
Acq On : 4 Jan 2013 7:14 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 11:52 2013 Quant Results File: 010313V9.RES

Quant Method : C:\HPCHEM\1\METHODS\010313V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Jan 04 10:58:14 2013
Response via : Initial Calibration
DataAcq Meth : 010313V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.18	117	800438	12.50	ug/m3	0.00

System Monitoring Compounds
41) 4-Bromofluorobenzene 18.01 95 512722 86.90 ug/m3 0.00
Spiked Amount 89.500 Range 70 - 130 Recovery = 97.09%

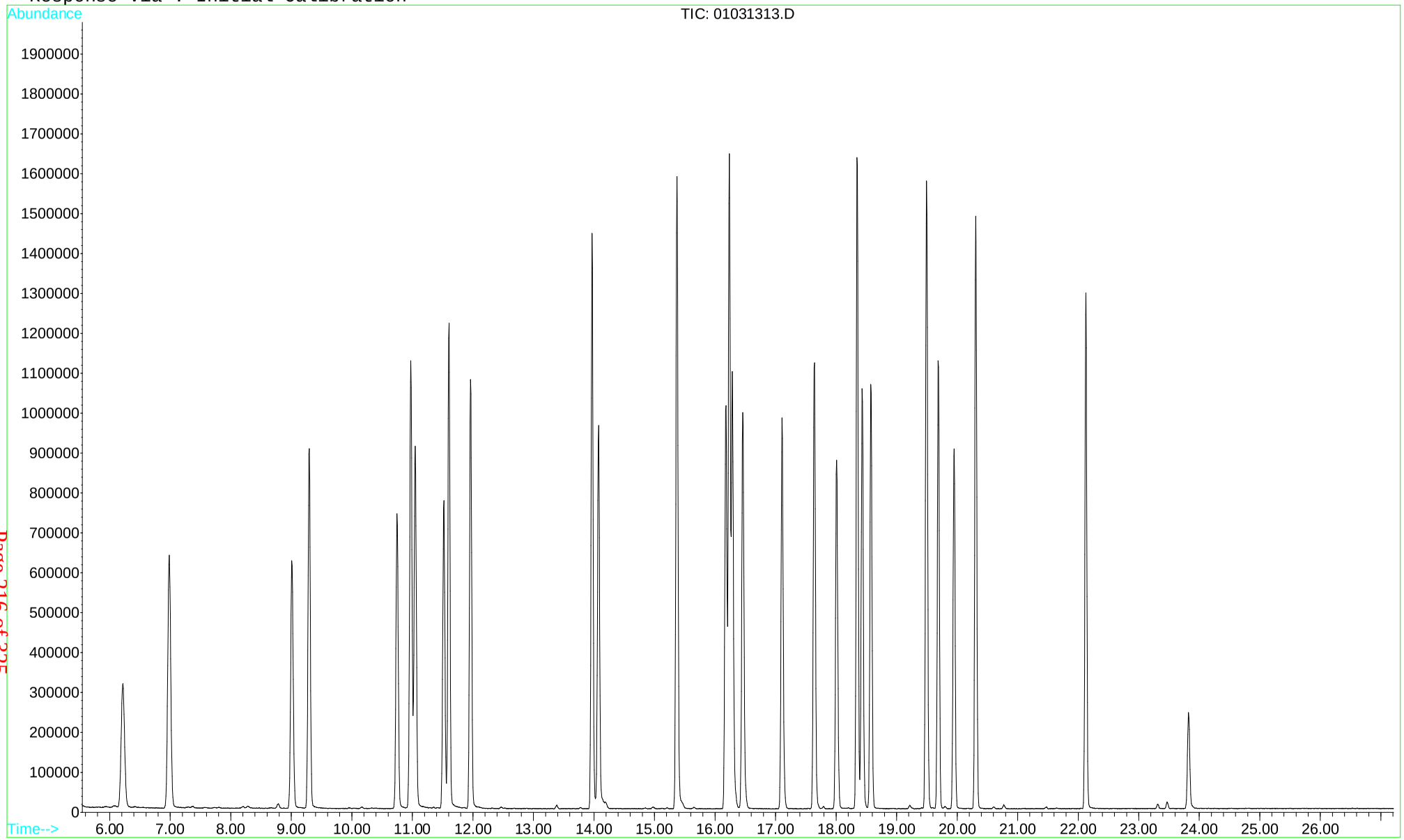
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	6.98	TIC	2205175	31.32	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.30	TIC	2370610	41.38	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.97	TIC	2975771	47.31	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.05	TIC	2392824	40.58	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.61	TIC	2878364	48.10	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.97	TIC	3249722	56.34	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	6.98	TIC	16072466m	264.63	ug/m3	
8) C9-C12 Aliphatic HC	15.37	TIC	3880223	63.63	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.24	TIC	2303613m	59.37	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.35	TIC	3676401	71.57	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.49	TIC	3694421	71.99	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.31	TIC	3308236	84.26	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.13	TIC	2791257	94.23	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.37	TIC	19654151m	443.86	ug/m3	
15) C9-C10 Aromatic HC	17.64	120	293193	59.76	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.43	120	297529	58.40	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.57	120	442668	60.46	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.69	120	95658	67.78	ug/m3	100
19) C9-C10 Aromatic HC {5}	19.95	120	333020	60.82	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.69	134	260150	68.81	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.01	TIC	1722218m	308.21	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010313B\01031313.D Vial: 4
Acq On : 4 Jan 2013 7:14 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 11:52 2013 Quant Results File: 010313V9.RES

Method : C:\HPCHEM\1\METHODS\010313V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Jan 04 10:58:14 2013
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\122112

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	12211201.d	1.	BFB VOA9 122112	TUNE BFB_TUNE	21 Dec 2012 08:44
2	2	12211202.d	1.	CCV VOA9 122112	CCV MA_APH	21 Dec 2012 09:31
3	3	12211203.d	1.	RLVS VOA9 122112	RLVS MA_APH	21 Dec 2012 10:20
4	4	12211204.d	1.	MBLK VOA9 122112	MBLK MA_APH	21 Dec 2012 11:21
5	5	12211205.d	8000.	1212373-035A	SAMP MA_APH	21 Dec 2012 12:06
6	6	12211206.d	800.	1212373-036A	SAMP MA_APH	21 Dec 2012 12:53
7	7	12211207.d	800.	1212373-036ADUP	DUP MA_APH	21 Dec 2012 13:42
8	7	12211208.d	800.	1212373-037A	SAMP MA_APH	21 Dec 2012 14:27
9	8	12211209.d	40.	1212373-017A	SAMP MA_APH	21 Dec 2012 15:13
10	15	12211210.d	40.	1212373-018A	SAMP MA_APH	21 Dec 2012 16:01
11	16	12211211.d	800.	1212373-024A	SAMP MA_APH	21 Dec 2012 16:51
12	17	12211212.d	800.	1212373-038A	SAMP MA_APH	21 Dec 2012 17:38
13	18	12211213.d	800.	1212373-039A	SAMP MA_APH	21 Dec 2012 18:27
14	19	12211214.d	800.	1212373-033A	DATA NOT USED	21 Dec 2012 19:15
15	10	12211215.d	8000.	1212373-034A	DATA NOT USED	21 Dec 2012 20:02
16	11	12211216.d	800.	1212373-040A	SAMP MA_APH	21 Dec 2012 20:50
17	12	12211217.d	400.	1212373-041A	SAMP MA_APH	21 Dec 2012 21:39
18	21	12211218.d	400.	1212373-006A	SAMP MA_APH	21 Dec 2012 22:28
19	22	12211219.d	400.	1212373-007A	SAMP MA_APH	21 Dec 2012 23:17
20	23	12211220.d	40.	1212373-032A	SAMP MA_APH	22 Dec 2012 00:06
21	24	12211221.d	400.	1212437-029A	SAMP MA_APH	22 Dec 2012 00:55
22	25	12211222.d	400.	1212437-030A	SAMP MA_APH	22 Dec 2012 01:44
23	26	12211223.d	400.	1212437-031A	SAMP MA_APH	22 Dec 2012 02:33
24	27	12211224.d	400.	1212437-032A	SAMP MA_APH	22 Dec 2012 03:21
25	28	12211225.d	400.	1212437-033A	SAMP MA_APH	22 Dec 2012 04:10
26	29	12211226.d	400.	1212437-034A	DATA NOT USED	22 Dec 2012 04:59
27	30	12211227.d	400.	1212437-006A	SAMP MA_APH	22 Dec 2012 05:48
28	31	12211228.d	400.	1212437-007A	SAMP MA_APH	22 Dec 2012 06:36
29	32	12211229.d	400.	1212437-008A	DATA NOT USED	22 Dec 2012 07:26
30	3	12211230.d	1.	RLVS2 VOA9 122112	RLVS MA_APH	22 Dec 2012 08:11

RTI Laboratories

ANALYTICAL RUN Summary

03-Jan-13

RunNo 54855

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081389	BFB VOA9 122112	BFB_TUNE	TUNE	\\1\DATA\122112\	12/21/2012 8:44:	1	R54855		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		56.3	56.3		100	0	0	0	0	0	56%	50	200	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		100.6	100.6		100	0	0	0	0	0	101%	93	101	0%	
177	M		6.2	6.2		100	0	0	0	0	0	6%	5	9	0%	
50	M		20.1	20.1		100	0	0	0	0	0	20%	8	40	0%	
75	M		40	40		100	0	0	0	0	0	40%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081390	CCV VOA9 122112	MA_APH	CCV	\\1\DATA\122112\	12/21/2012 9:31:	1	R54855		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	262.44	262.44		234	0	0	0	0	0	112%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	U
C9-C10 Aromatic HC - TOTAL	A	µg/m³	292.45	292.45		266	0	0	0	0	0	110%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	0%	0	0	0%	U
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	411.66	411.66		378	0	0	0	0	0	109%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	0%	0	0	0%	U
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	89.62	89.62		89.5	0	0	0	0	0	100%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122112\12211202.D Vial: 2
Acq On : 21 Dec 2012 9:31 am Operator: RACHEL HILL
Sample : CCV VOA9 122112 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\121912V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 21 09:13:14 2012
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 : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	32.845	-12.5	104	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	40.562	-11.4	97	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	46.643	-11.6	96	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	39.732	-12.2	99	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	47.479	-12.5	97	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	55.211	-12.7	96	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	262.435	-12.2	98	0.00
8	L1	C9-C12 Aliphatic HC	54.600	61.168	-12.0	94	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	56.891	-4.2	91	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	68.380	-11.7	94	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	67.286	-10.7	94	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	73.746	-5.4	84	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	82.461	-7.1	82	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	411.657	-8.9	90	0.00
15	L1	C9-C10 Aromatic HC	51.700	56.199	-8.7	94	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	55.994	-9.4	95	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	57.736	-10.6	95	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	64.293	-9.5	94	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	57.249	-8.8	95	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	65.176	-11.0	95	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	292.452	-9.9	95	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.95#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.27#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.15#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.92#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.70#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.15#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.28#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.27#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.41#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.39#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.49#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.67#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.32#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.23#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.67#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.40#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.40#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.40#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	104	0.00
41	S	4-Bromofluorobenzene	89.500	89.616	-0.1	106	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122112\12211202.D Vial: 2
Acq On : 21 Dec 2012 9:31 am Operator: RACHEL HILL
Sample : CCV VOA9 122112 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 21 14:42 2012 Quant Results File: 121912V9.RES

Quant Method : C:\HPCHEM\1\METHODS\121912V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 21 09:13:14 2012
Response via : Initial Calibration
DataAcq Meth : 121912V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.39	117	781016	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.23	95	524095	89.62	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 100.13%

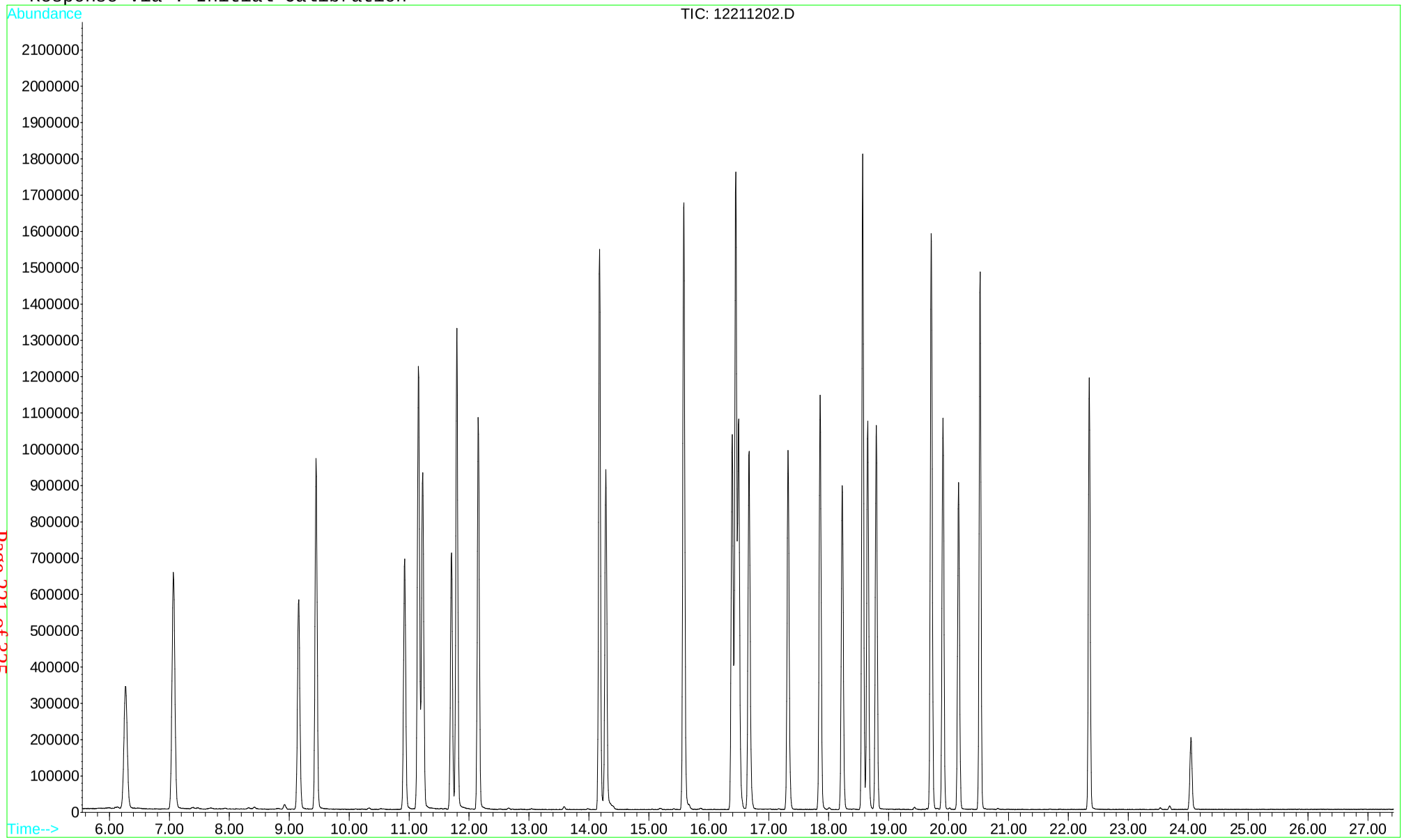
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.07	TIC	2232575	32.84	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.45	TIC	2433993	40.56	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.15	TIC	3127327	46.64	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.23	TIC	2411399	39.73	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.80	TIC	3035148	47.48	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.18	TIC	3403217	55.21	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.07	TIC	16643659m	262.44	ug/m3	
8) C9-C12 Aliphatic HC	15.59	TIC	3987142	61.17	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.45	TIC	2673734m	56.89	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.57	TIC	3825928	68.38	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.71	TIC	3620078	67.29	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.53	TIC	3149152	73.75	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.35	TIC	2470937	82.46	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.59	TIC	19726971m	411.66	ug/m3	
15) C9-C10 Aromatic HC	17.86	120	262044	56.20	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.65	120	268822	55.99	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.80	120	395717	57.74	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.91	120	85415	64.29	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.17	120	294245	57.25	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.91	134	220947	65.18	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.86	TIC	1527190m	292.45	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122112\12211202.D Vial: 2
Acq On : 21 Dec 2012 9:31 am Operator: RACHEL HILL
Sample : CCV VOA9 122112 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 21 14:42 2012 Quant Results File: 121912V9.RES

Method : C:\HPCHEM\1\METHODS\121912V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 21 09:13:14 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\122812

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12281201.d	1.	BFB VOA9 122812	TUNE BFB_TUNE	28 Dec 2012 12:05
2	2	12281202.d	1.	ICAL1 VOA9 122812	DATA NOT USED	28 Dec 2012 12:49
3	3	12281203.d	1.	ICAL1 VOA9 122812	ICAL1MA_APH	28 Dec 2012 13:33
4	4	12281204.d	1.	ICAL2 VOA9 122812	ICAL2MA_APH	28 Dec 2012 14:19
5	5	12281205.d	1.	ICAL3 VOA9 122812	ICAL3MA_APH	28 Dec 2012 15:05
6	6	12281206.d	1.	ICAL4 VOA9 122812	ICAL4MA_APH	28 Dec 2012 15:51
7	7	12281207.d	1.	ICAL5 VOA9 122812	ICAL5MA_APH	28 Dec 2012 16:37
8	8	12281208.d	1.	ICAL6 VOA9 122812	ICAL6MA_APH	28 Dec 2012 17:24
9	9	12281209.d	1.	ICAL7 VOA9 122812	ICAL7MA_APH	28 Dec 2012 18:10
10	2	12281210.d	1.	BFB2 VOA9 122812	TUNE BFB_TUNE	28 Dec 2012 18:58
11	2	12281211.d	1.	ICV VOA9 122812	ICV MA_APH	28 Dec 2012 19:45
12	3	12281212.d	1.	RLVS VOA9 122812	DATA NOT USED	28 Dec 2012 20:33
13	4	12281213.d	1.	RLVS VOA9 122812	RLVS MA_APH	28 Dec 2012 21:20
14	4	12281214.d	1.	MBLK VOA9 122812	MBLK MA_APH	28 Dec 2012 22:10
15	11	12281215.d	1600.	1212373-033A	SAMP MA_APH	28 Dec 2012 22:57
16	11	12281216.d	1600.	1212373-033ADUP	DUP MA_APH	28 Dec 2012 23:45
17	12	12281217.d	40000.	1212373-034A	SAMP MA_APH	29 Dec 2012 00:34
18	13	12281218.d	1600.	1212373-001A	SAMP MA_APH	29 Dec 2012 01:22
19	14	12281219.d	400.	1212373-008A	SAMP MA_APH	29 Dec 2012 02:11
20	15	12281220.d	80000.	1212373-002A	SAMP MA_APH	29 Dec 2012 02:59
21	16	12281221.d	80000.	1212373-003A	SAMP MA_APH	29 Dec 2012 03:47
22	17	12281222.d	400.	1212373-004A	SAMP MA_APH	29 Dec 2012 04:36
23	18	12281223.d	400.	1212373-009A	SAMP MA_APH	29 Dec 2012 05:25
24	19	12281224.d	8000.	1212373-010A	SAMP MA_APH	29 Dec 2012 06:13
25	10	12281225.d	800.	1212373-005A	SAMP MA_APH	29 Dec 2012 07:01
26	10	12281226.d	800.	1212373-005A	DATA NOT USED	29 Dec 2012 07:49
27	11	12281227.d	20000.	1212373-011A	SAMP MA_APH	29 Dec 2012 08:38
28	12	12281228.d	8000.	1212437-034A	SAMP MA_APH	29 Dec 2012 09:24
29	21	12281229.d	400.	1212437-012A	SAMP MA_APH	29 Dec 2012 10:13
30	22	12281230.d	400.	1212437-008A	SAMP MA_APH	29 Dec 2012 11:02
31	23	12281231.d	400.	1212437-013A	SAMP MA_APH	29 Dec 2012 11:51
32	24	12281232.d	800.	1212437-009A	SAMP MA_APH	29 Dec 2012 12:41
33	24	12281233.d	800.	1212437-009A	DATA NOT USED	29 Dec 2012 13:31
34	25	12281234.d	400.	1212437-014A	SAMP MA_APH	29 Dec 2012 14:19
35	26	12281235.d	800.	1212437-011A	DATA NOT USED	29 Dec 2012 15:09
36	27	12281236.d	8000.	1212437-017A	DATA NOT USED	29 Dec 2012 15:58
37	28	12281237.d	8000.	RLVS2 122812 VOA9	SAMP MA_APH	29 Dec 2012 16:49

RTI Laboratories

ANALYTICAL RUN Summary

15-Jan-13

RunNo 55005

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1084443	BFB2 VOA9 122812	BFB_TUNE	TUNE	\\1\DATA\122812\	12/28/2012 6:58:	1	R55005		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		64.5	64.5		100	0	0	0	0	0	65%	50	200	0%	
175	M		7.7	7.7		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.3	96.3		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		22	22		100	0	0	0	0	0	22%	8	40	0%	
75	M		44.6	44.6		100	0	0	0	0	0	45%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1084455	ICV VOA9 122812	MA_APH	ICV	\\1\DATA\122812\	12/28/2012 7:45:	1	R55005		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	260.58	260.58		234	0	0	0	0	0	111%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	U
C9-C10 Aromatic HC - TOTAL	A	µg/m³	294.36	294.36		266	0	0	0	0	0	111%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	0%	0	0	0%	U
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	422.88	422.88		378	0	0	0	0	0	112%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	0%	0	0	0%	U
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	88.47	88.47		89.5	0	0	0	0	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122812\12281211.D Vial: 2
Acq On : 28 Dec 2012 7:45 pm Operator: RACHEL HILL
Sample : ICV VOA9 122812 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\122812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Dec 31 11:27:24 2012
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 : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	34.041	-16.6	110	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	40.613	-11.6	106	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	45.439	-8.7	101	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	38.989	-10.1	106	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	46.536	-10.3	103	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	54.806	-11.8	104	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	260.581	-11.4	105	0.00
8	L1	C9-C12 Aliphatic HC	54.600	61.085	-11.9	104	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	53.508	2.0	107	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	69.177	-13.0	103	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	68.949	-13.4	104	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	79.780	-14.0	103	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	91.604	-19.0	102	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	422.880	-11.9	104	0.00
15	L1	C9-C10 Aromatic HC	51.700	56.412	-9.1	101	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	56.141	-9.7	101	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	57.735	-10.6	102	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	66.094	-12.6	102	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	58.249	-10.7	102	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	65.351	-11.3	102	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	294.358	-10.7	102	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.85#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.21#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.01#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.74#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.52#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-11.96#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.07#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.21#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.21#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.18#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.28#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.46#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.11#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.01#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.46#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.04#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.04#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.04#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	104	0.00
41	S	4-Bromofluorobenzene	89.500	88.474	1.1	103	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122812\12281211.D Vial: 2
Acq On : 28 Dec 2012 7:45 pm Operator: RACHEL HILL
Sample : ICV VOA9 122812 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 31 11:30 2012 Quant Results File: 122812V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Dec 31 11:27:24 2012
Response via : Initial Calibration
DataAcq Meth : 122812V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.18	117	830046	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.01	95	547826	88.47	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 98.85%

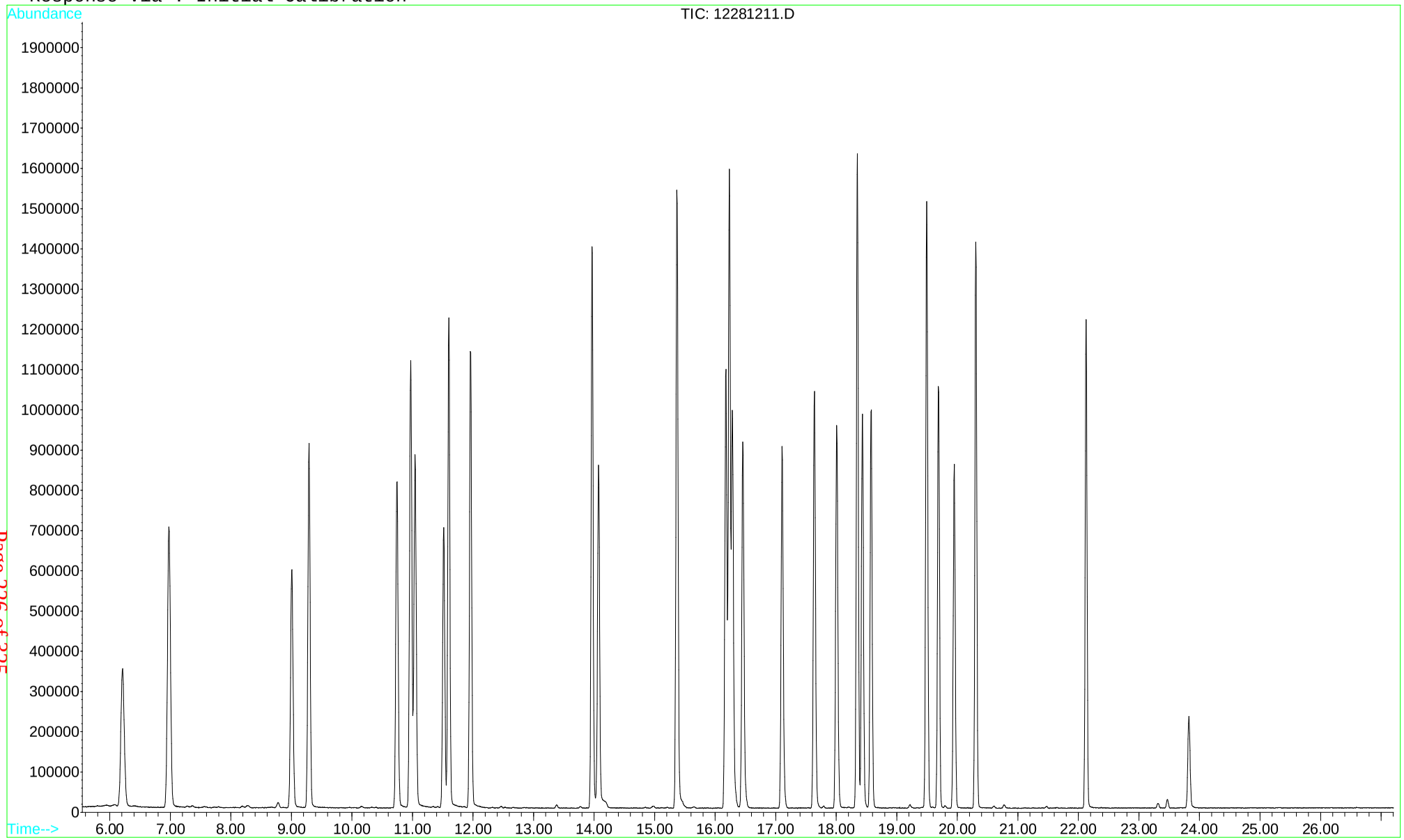
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	6.98	TIC	2435980	34.04	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.29	TIC	2361238	40.61	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.97	TIC	2937164	45.44	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.04	TIC	2316798	38.99	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.60	TIC	2834131	46.54	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.97	TIC	3207714	54.81	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	6.98	TIC	16093025m	260.58	ug/m3	
8) C9-C12 Aliphatic HC	15.37	TIC	3793075	61.09	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.23	TIC	2125030m	53.51	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.35	TIC	3616532	69.18	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.49	TIC	3531938	68.95	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.30	TIC	3092924	79.78	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.13	TIC	2603138	91.60	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.37	TIC	18762637m	422.88	ug/m3	
15) C9-C10 Aromatic HC	17.64	120	268611	56.41	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.43	120	278555	56.14	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.58	120	413527	57.73	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.69	120	90001	66.09	ug/m3	100
19) C9-C10 Aromatic HC {5}	19.95	120	311397	58.25	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.69	134	237090	65.35	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.01	TIC	1599181m	294.36	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122812\12281211.D Vial: 2
Acq On : 28 Dec 2012 7:45 pm Operator: RACHEL HILL
Sample : ICV VOA9 122812 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 31 11:30 2012 Quant Results File: 122812V9.RES

Method : C:\HPCHEM\1\METHODS\122812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Dec 31 11:27:24 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\123112B

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12311201.d	1.	BFB VOA9 123112	TUNE BFB_TUNE	1 Jan 2013 02:00
2	2	12311202.d	1.	ICAL1 VOA9 123112	DATA NOT USED	1 Jan 2013 02:46
3	3	12311203.d	1.	ICAL1 VOA9 123112	ICAL1MA_APH	1 Jan 2013 03:32
4	4	12311204.d	1.	ICAL2 VOA9 123112	ICAL2MA_APH	1 Jan 2013 04:18
5	5	12311205.d	1.	ICAL3 VOA9 123112	ICAL3MA_APH	1 Jan 2013 05:04
6	6	12311206.d	1.	ICAL4 VOA9 123112	ICAL4MA_APH	1 Jan 2013 05:49
7	7	12311207.d	1.	ICAL5 VOA9 123112	ICAL5MA_APH	1 Jan 2013 06:35
8	8	12311208.d	1.	ICAL6 VOA9 123112	ICAL6MA_APH	1 Jan 2013 07:20
9	9	12311209.d	1.	ICAL7 VOA9 123112	ICAL7MA_APH	1 Jan 2013 08:06
10	2	12311210.d	1.	BFB2 VOA9 123112	TUNE BFB_TUNE	1 Jan 2013 08:52
11	2	12311211.d	1.	ICV VOA9 123112	DATA NOT USED	1 Jan 2013 09:37
12	3	12311212.d	1.	ICV VOA9 123112	ICV MA_APH	1 Jan 2013 10:23
13	3	12311213.d	1.	RLVS VOA9 123112	RLVS MA_APH	1 Jan 2013 11:09
14	4	12311214.d	1.	MBLK VOA9 123112	MBLK MA_APH	1 Jan 2013 11:57
15	11	12311215.d	40.	1212437-016A	SAMP MA_APH	1 Jan 2013 12:45
16	12	12311216.d	40.	1212437-015A	SAMP MA_APH	1 Jan 2013 13:59
17	13	12311217.d	8000.	1212437-035A	SAMP MA_APH	1 Jan 2013 14:46
18	14	12311218.d	8000.	1212437-018A	DATA NOT USED	1 Jan 2013 15:35
19	15	12311219.d	8000.	1212437-037A	SAMP MA_APH	1 Jan 2013 16:23
20	16	12311220.d	8000.	1212437-036A	SAMP MA_APH	1 Jan 2013 17:11
21	17	12311221.d	1600.	1212437-038A	SAMP MA_APH	1 Jan 2013 17:57
22	17	12311222.d	1600.	1212437-038ADUP	DUP MA_APH	1 Jan 2013 18:43
23	18	12311223.d	1600.	1212437-039A	SAMP MA_APH	1 Jan 2013 19:29
24	19	12311224.d	400.	1212437-019A	SAMP MA_APH	1 Jan 2013 20:18
25	10	12311225.d	800.	1212437-040A	SAMP MA_APH	1 Jan 2013 21:03
26	10	12311226.d	800.	1212437-040A	DATA NOT USED	1 Jan 2013 21:48
27	11	12311227.d	400.	1212437-020A	DATA NOT USED	1 Jan 2013 22:37
28	12	12311228.d	400.	1212437-021A	DATA NOT USED	1 Jan 2013 23:26
29	21	12311229.d	800.	1212437-041A	SAMP MA_APH	2 Jan 2013 00:11
30	22	12311230.d	400.	1212437-022A	SAMP MA_APH	2 Jan 2013 01:00
31	23	12311231.d	400.	1212437-010A	SAMP MA_APH	2 Jan 2013 01:49
32	24	12311232.d	8000.	1212437-011A	SAMP MA_APH	2 Jan 2013 02:32
33	25	12311233.d	20000.	1212437-017A	SAMP MA_APH	2 Jan 2013 03:15
34	26	12311234.d	20000.	1212437-001A	DATA NOT USED	2 Jan 2013 03:58
35	27	12311235.d	160000.	1212437-002A	SAMP MA_APH	2 Jan 2013 04:41
36	28	12311236.d	1600.	1212437-004A	DATA NOT USED	2 Jan 2013 05:25
37	29	12311237.d	1600.	1212437-003A	DATA NOT USED	2 Jan 2013 06:08
38	3	12311238.d	1.	RLVS2 VOA9 123112	RLVS MA_APH	2 Jan 2013 06:51

RTI Laboratories

ANALYTICAL RUN Summary

15-Jan-13

RunNo 55049

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085354	BFB2 VOA9 123112	BFB_TUNE	TUNE	.1\DATA\123112	F1/1/2013 8:52:00	1	R55049		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		80.4	80.4		100	0	0	0	0	0	80%	50	200	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		98	98		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		15.2	15.2		100	0	0	0	0	0	15%	8	40	0%	
75	M		34.3	34.3		100	0	0	0	0	0	34%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085396	ICV VOA9 123112	MA_APH	ICV	.1\DATA\123112	F1/1/2013 10:23:0	1	R55049		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	248.06	248.06		234	0	0	0	0	0	106%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	U
C9-C10 Aromatic HC - TOTAL	A	µg/m³	281.47	281.47		266	0	0	0	0	0	106%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	0%	0	0	0%	U
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	401.26	401.26		378	0	0	0	0	0	106%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	0%	0	0	0%	U
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	87.97	87.97		89.5	0	0	0	0	0	98%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\123112B\12311212.D Vial: 3
Acq On : 1 Jan 2013 10:23 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
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 : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	31.341	-7.3	100	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	38.319	-5.3	91	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	43.418	-3.9	90	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	37.678	-6.4	93	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	44.792	-6.1	92	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	52.509	-7.2	92	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	248.059	-6.0	93	0.00
8	L1	C9-C12 Aliphatic HC	54.600	58.763	-7.6	92	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	48.559	11.1	83	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	65.432	-6.9	91	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	66.919	-10.1	96	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	75.196	-7.4	89	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	85.625	-11.2	88	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	401.258	-6.2	90	0.00
15	L1	C9-C10 Aromatic HC	51.700	54.010	-4.5	92	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	53.865	-5.2	94	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	55.264	-5.9	93	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	62.191	-5.9	93	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	55.738	-6.0	95	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	62.444	-6.4	93	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	281.470	-5.8	93	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.85#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.21#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.01#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.74#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.52#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-11.96#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.07#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.21#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.21#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.18#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.28#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.46#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.11#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.01#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.46#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.04#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.04#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.04#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	102	0.00
41	S	4-Bromofluorobenzene	89.500	87.969	1.7	101	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\123112B\12311212.D Vial: 3
Acq On : 1 Jan 2013 10:23 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 1 12:29 2013 Quant Results File: 123112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
Response via : Initial Calibration
DataAcq Meth : 123112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.18	117	822328	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.01	95	603897	87.97	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 98.29%			

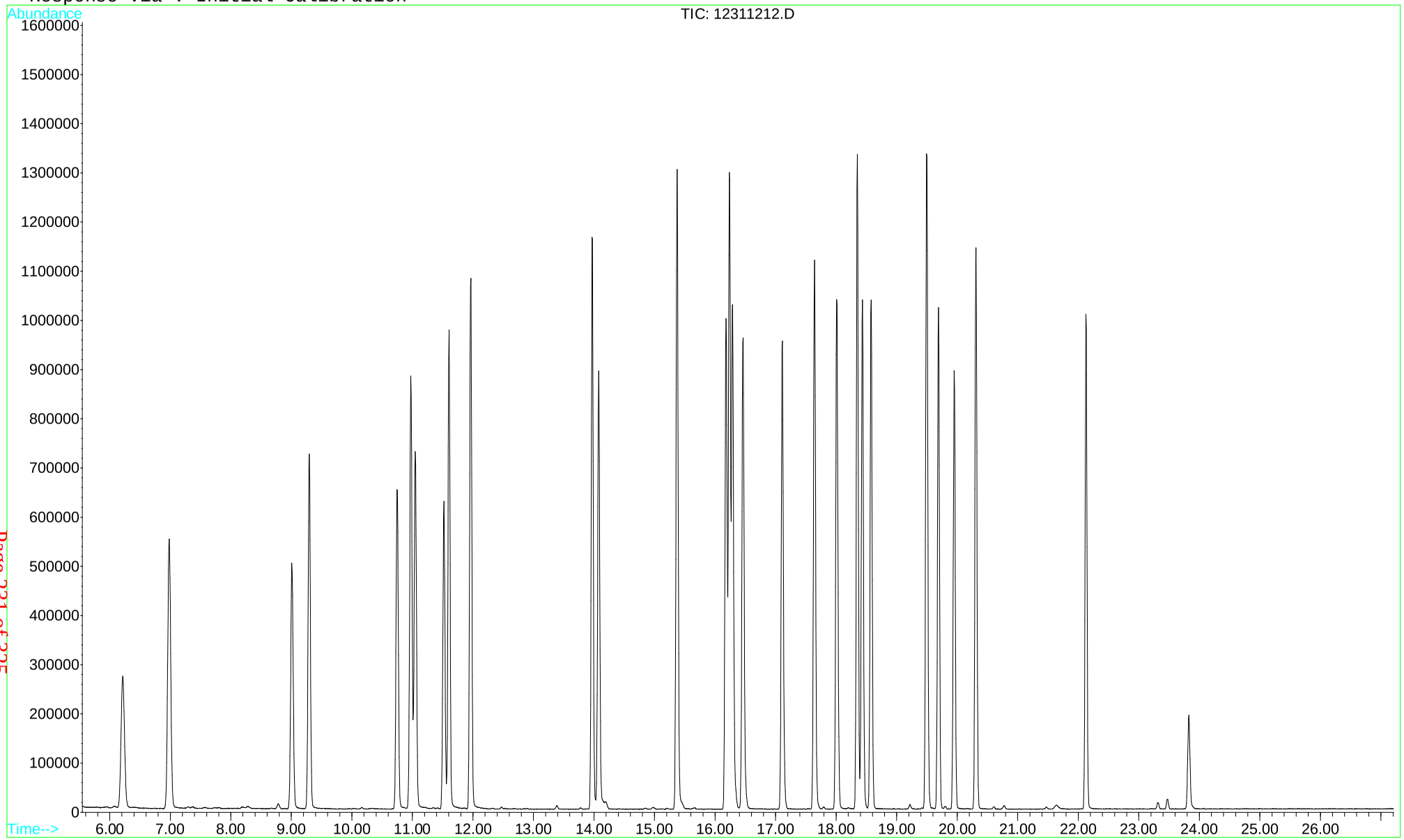
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	6.98	TIC	1907126	31.34	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.30	TIC	1874054	38.32	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.97	TIC	2314891	43.42	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.05	TIC	1916703	37.68	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.60	TIC	2287083	44.79	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.97	TIC	2646860	52.51	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	6.98	TIC	12946717m	248.06	ug/m3	
8) C9-C12 Aliphatic HC	15.37	TIC	3160341	58.76	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.23	TIC	1598858m	48.56	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.35	TIC	2941038	65.43	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.49	TIC	3175151	66.92	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.31	TIC	2567799	75.20	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.13	TIC	2181262	85.62	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.37	TIC	15624449m	401.26	ug/m3	
15) C9-C10 Aromatic HC	17.64	120	252828	54.01	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.44	120	262282	53.87	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.58	120	387553	55.26	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.69	120	84827	62.19	ug/m3	100
19) C9-C10 Aromatic HC {5}	19.95	120	290768	55.74	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.69	134	180812	62.44	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.01	TIC	1459070m	281.47	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\123112B\12311212.D Vial: 3
Acq On : 1 Jan 2013 10:23 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 1 12:29 2013 Quant Results File: 123112V9.RES

Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\010213

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	01021301.d	1.	BFB VOA9 010213	TUNE BFB_TUNE	2 Jan 2013 09:06
2	2	01021302.d	1.	CCV VOA9 010213	CCV MA_APH	2 Jan 2013 09:49
3	3	01021303.d	1.	RLVS VOA9 010213	RLVS MA_APH	2 Jan 2013 10:32
4	4	01021304.d	1.	MBLK VOA9 010213	MBLK MA_APH	2 Jan 2013 12:11
5	5	01021305.d	40000.	1212437-018A	DATA NOT USED	2 Jan 2013 12:53
6	6	01021306.d	800.	1212437-020A	SAMP MA_APH	2 Jan 2013 14:04
7	7	01021307.d	800.	1212437-020ADUP	DUP MA_APH	2 Jan 2013 14:49
8	8	01021308.d	800.	1212437-021A	SAMP MA_APH	2 Jan 2013 15:34
9	9	01021309.d	80000.	1212437-018A	SAMP MA_APH	2 Jan 2013 16:16
10	9	01021310.d	40000.	1212437-001A	SAMP MA_APH	2 Jan 2013 16:59
11	15	01021311.d	20000.	1212437-003A	DATA NOT USED	2 Jan 2013 17:42
12	16	01021312.d	20000.	1212437-004A	DATA NOT USED	2 Jan 2013 18:24
13	17	01021313.d	80000.	1212437-005A	DATA NOT USED	2 Jan 2013 19:06
14	18	01021314.d	800.	1212437-024A	SAMP MA_APH	2 Jan 2013 19:51
15	19	01021315.d	800.	1212437-025A	DATA NOT USED	2 Jan 2013 20:36
16	10	01021316.d	800.	1212437-026A	SAMP MA_APH	2 Jan 2013 21:22
17	11	01021317.d	800.	1212437-027A	SAMP MA_APH	2 Jan 2013 22:07
18	12	01021318.d	800.	1212437-028A	SAMP MA_APH	2 Jan 2013 22:52
19	21	01021319.d	800.	1212722-054A	SAMP MA_APH	2 Jan 2013 23:41
20	22	01021320.d	800.	1212722-055A	SAMP MA_APH	3 Jan 2013 00:26
21	23	01021321.d	800.	1212722-056A	SAMP MA_APH	3 Jan 2013 01:11
22	24	01021322.d	800.	1212722-057A	DATA NOT USED	3 Jan 2013 02:00
23	25	01021323.d	400.	1212722-058A	SAMP MA_APH	3 Jan 2013 02:49
24	26	01021324.d	400.	1212722-059A	DATA NOT USED	3 Jan 2013 03:38
25	27	01021325.d	400.	1212722-061A	DATA NOT USED	3 Jan 2013 04:27
26	28	01021326.d	800.	1212722-062A	SAMP MA_APH	3 Jan 2013 05:12
27	28	01021327.d	800.	1212722-062A	DATA NOT USED	3 Jan 2013 05:57
28	29	01021328.d	800.	1212722-063A	SAMP MA_APH	3 Jan 2013 06:42
29	11	01021329.d	400.	1212722-064A	DATA NOT USED	3 Jan 2013 07:31
30	1	01021330.d	1.	RLVS2 VOA9 010213	DATA NOT USED	3 Jan 2013 08:18
31	2	01021331.d	1.	RLVS2 VOA9 010213	RLVS MA_APH	3 Jan 2013 10:43

RTI Laboratories

ANALYTICAL RUN Summary

15-Jan-13

RunNo 55087

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086088	BFB VOA9 010213	BFB_TUNE	TUNE	\\1\DATA\010213\	1/2/2013 9:06:00	1	R55087		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		79.9	79.9		100	0	0	0	0	0	80%	50	200	0%	
175	M		7.6	7.6		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.9	96.9		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		15.1	15.1		100	0	0	0	0	0	15%	8	40	0%	
75	M		34.4	34.4		100	0	0	0	0	0	34%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086089	CCV VOA9 010213	MA_APH	CCV	\\1\DATA\010213\	1/2/2013 9:49:00	1	R55087		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	256.29	256.29		234	0	0	0	0	0	110%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	U
C9-C10 Aromatic HC - TOTAL	A	µg/m³	300.4	300.4		266	0	0	0	0	0	113%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	0%	0	0	0%	U
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	442.03	442.03		378	0	0	0	0	0	117%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	0%	0	0	0%	U
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	86.87	86.87		89.5	0	0	0	0	0	97%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010213\01021302.D Vial: 2
Acq On : 2 Jan 2013 9:49 am Operator: RACHEL HILL
Sample : CCV VOA9 010213 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
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 : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	28.192	3.5	90	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	40.002	-9.9	95	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	46.623	-11.5	96	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	40.036	-13.1	99	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	47.319	-12.1	97	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	54.871	-12.0	96	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	256.290	-9.5	96	0.00
8	L1	C9-C12 Aliphatic HC	54.600	62.559	-14.6	98	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	58.320	-6.8	100	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	70.403	-15.0	98	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	71.221	-17.1	102	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	85.459	-22.1	101	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	96.771	-25.7	100	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	442.028	-16.9	100	0.00
15	L1	C9-C10 Aromatic HC	51.700	58.440	-13.0	99	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	57.013	-11.4	99	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	58.932	-12.9	99	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	67.147	-14.4	100	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	59.430	-13.0	101	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	66.009	-12.5	99	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	300.400	-12.9	100	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.85#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.21#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.01#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.74#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.52#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-11.96#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.07#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.21#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.21#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.18#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.28#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.46#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.11#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.01#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.46#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.04#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.04#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.04#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	85	0.00
41	S	4-Bromofluorobenzene	89.500	86.870	2.9	84	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010213\01021302.D Vial: 2
Acq On : 2 Jan 2013 9:49 am Operator: RACHEL HILL
Sample : CCV VOA9 010213 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 3 12:26 2013 Quant Results File: 123112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
Response via : Initial Calibration
DataAcq Meth : 123112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.18	117	690799	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.01	95	500968	86.87	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 97.06%

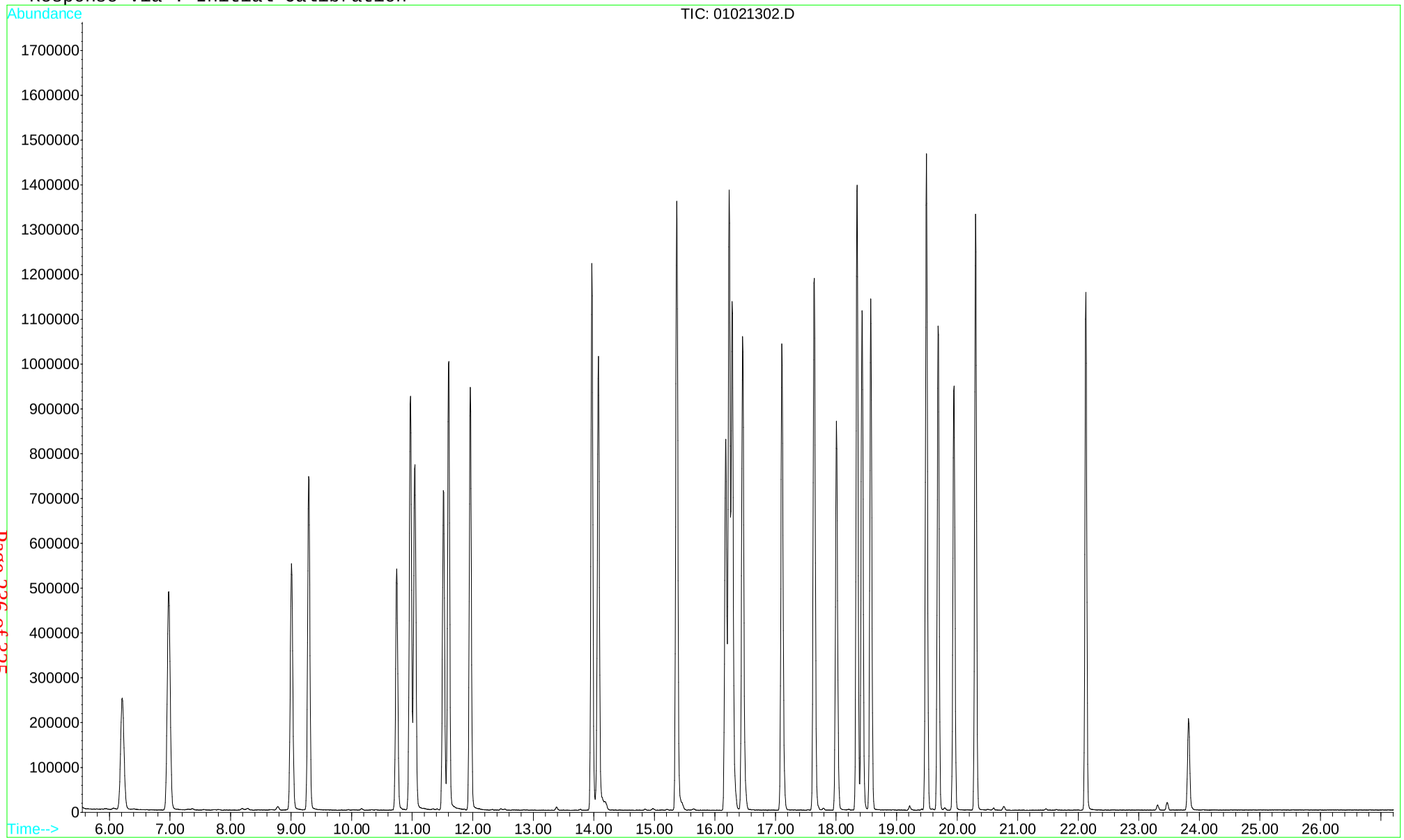
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	6.98	TIC	1715514	28.19	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.29	TIC	1956340	40.00	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.97	TIC	2485776	46.62	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.04	TIC	2036655	40.04	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.60	TIC	2416106	47.32	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.97	TIC	2765928	54.87	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	6.98	TIC	13376319m	256.29	ug/m3	
8) C9-C12 Aliphatic HC	15.37	TIC	3364521	62.56	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.23	TIC	1920256m	58.32	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.35	TIC	3164459	70.40	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.49	TIC	3379264	71.22	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.30	TIC	2918274	85.46	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.13	TIC	2465212	96.77	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.37	TIC	17211986m	442.03	ug/m3	
15) C9-C10 Aromatic HC	17.64	120	273565	58.44	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.43	120	277610	57.01	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.57	120	413273	58.93	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.69	120	91587	67.15	ug/m3	100
19) C9-C10 Aromatic HC {5}	19.95	120	310025	59.43	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.69	134	191134	66.01	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.01	TIC	1557194m	300.40	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010213\01021302.D Vial: 2
Acq On : 2 Jan 2013 9:49 am Operator: RACHEL HILL
Sample : CCV VOA9 010213 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 3 12:26 2013 Quant Results File: 123112V9.RES

Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\121912V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 21 09:13:14 2012
Response via : Initial Calibration

Calibration Files
1 =12191203.D 2 =12191204.D 3 =12191205.D
4 =12191206.D 5 =12191207.D 6 =12191208.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	L1	C5-C8 Aliphatic HC	7.261	7.325	7.181	6.877	6.587	6.297	6.797 E4	7.35
2)	L1	C5-C8 Aliphatic HC	6.435	6.899	6.598	6.133	5.709	5.320	6.001 E4	11.99
3)	L1	C5-C8 Aliphatic HC	7.162	7.800	7.373	6.841	6.392	5.937	6.705 E4	12.46
4)	L1	C5-C8 Aliphatic HC	6.522	6.893	6.651	6.174	5.722	5.428	6.069 E4	11.09
5)	L1	C5-C8 Aliphatic HC	6.883	7.387	7.047	6.516	6.130	5.662	6.393 E4	12.59
6)	L1	C5-C8 Aliphatic HC	6.876	7.226	6.832	6.328	5.801	5.391	6.164 E4	14.80
7)	L1	C5-C8 Aliphatic HC	6.854	7.269	6.943	6.476	6.043	5.641	6.342 E4	11.97
8)	L1	C9-C12 Aliphatic HC	7.273	7.733	7.215	6.716	6.166	5.670	6.518 E4	15.56
9)	L1	C9-C12 Aliphatic HC	3.556	5.380	5.221	4.964	4.804	4.840	4.700 E4	13.63
10)	L1	C9-C12 Aliphatic HC	6.104	6.671	6.295	5.874	5.293	4.876	5.595 E4	16.26
11)	L1	C9-C12 Aliphatic HC	5.970	6.349	5.917	5.610	5.036	4.643	5.380 E4	14.86
12)	L1	C9-C12 Aliphatic HC	4.333	5.346	4.733	4.605	4.198	3.566	4.270 E4	17.45
13)	L1	C9-C12 Aliphatic HC	2.814	3.893	3.561	3.329	2.757	2.330	2.996 E4	20.50
14)	L1	C9-C12 Aliphatic HC	4.888	5.778	5.369	5.070	4.590	4.188	4.792 E4	14.94
15)	L1	C9-C10 Aromatic HC	4.905	5.383	5.107	4.819	4.419	4.212	4.663 E3	11.80
16)	L1	C9-C10 Aromatic HC	4.834	5.546	5.215	4.976	4.580	4.453	4.801 E3	10.64
17)	L1	C9-C10 Aromatic HC	6.941	7.997	7.435	7.102	6.554	6.304	6.854 E3	11.25
18)	L1	C9-C10 Aromatic HC	1.279	1.554	1.460	1.402	1.271	1.237	1.329 E3	11.58
19)	L1	C9-C10 Aromatic HC	4.905	5.909	5.575	5.348	4.968	4.892	5.140 E3	9.88
20)	L1	C9-C10 Aromatic HC	3.246	3.964	3.723	3.572	3.259	3.157	3.390 E3	11.45
21)	L1	C9-C10 Aromatic HC	5.214	6.069	5.685	5.421	4.982	4.845	5.222 E3	10.93
22)		C5-C8 Aliphatic	6.854	7.269	6.943	6.476	6.043	5.641	6.342 E4	11.97
23)	L1	non C5-C8	5.154	5.251	5.195	5.100	4.986	4.784	5.024 E4	4.22
24)	L1	non C5-C8 {2}	3.942	4.744	4.537	4.169	3.805	3.488	3.984 E4	13.80
25)	L1	non C5-C8 {3}	2.684	2.621	2.737	2.797	2.794	2.864	2.782 E4	4.25
26)	L1	non C5-C8 {4}	5.394	5.999	5.624	4.979	4.549	4.241	4.964 E4	15.13
27)	L1	non C5-C8 {5}	4.228	4.162	4.317	4.419	4.465	4.550	4.416 E4	4.67
28)	L1	non C5-C8 {6}	5.584	6.332	5.987	5.382	5.015	4.686	5.325 E4	13.51
29)	L1	non C5-C8 - TOTAL	3.963	4.507	4.525	4.382	4.240	4.116	4.240 E4	5.69
30)		C9-C12 Aliphatic	4.888	5.778	5.369	5.070	4.590	4.188	4.792 E4	14.94
31)	L1	non C9-C12	4.092	3.889	4.025	4.175	4.265	4.465	4.229 E4	6.48
32)	L1	non C9-C12 {2}	4.788	5.555	4.670	4.440	3.914	5.798	4.874 E4	13.20
33)	L1	non C9-C12 {3}	5.223	5.658	5.385	5.037	4.609	4.386	4.891 E4	12.41
34)	L1	non C9-C12 {4}	5.070	5.540	5.212	4.874	4.482	4.274	4.760 E4	12.21
35)	L1	non C9-C12 {5}	2.378	2.317	2.413	2.527	2.528	2.692	2.526 E4	7.16
36)	L1	non C9-C12 - TOTAL	3.272	3.536	3.403	3.336	3.132	3.436	3.318 E4	4.73
37)	L1	C9-C10 Aromatic	5.214	6.069	5.685	5.421	4.982	4.845	5.222 E3	10.93
38)	L1	C9-C10 Aromatic {2}	5.214	6.069	5.685	5.421	4.982	4.845	5.222 E3	10.93
39)	L1	C9-C10 Aromatic - T	5.214	6.069	5.685	5.421	4.982	4.845	5.222 E3	10.93
40)	I	Chlorobenzene-d5	----------ISTD----------							
41)	S	4-Bromofluorobenzen	0.092	0.092	0.093	0.094	0.093	0.096	0.094	1.79

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\121912V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 21 09:13:14 2012
Response via : Initial Calibration
Total Cpnds : 41

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	L1	C5-C8 Aliphatic HC	TIC	7.07	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.45	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	11.16	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	11.23	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.80	1.000	A	0	A	B
6	L1	C5-C8 Aliphatic HC {6}	TIC	14.18	1.000	A	0	A	B
7	L1	C5-C8 Aliphatic HC - TOTAL	TIC	7.07	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	15.59	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	16.46	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	18.57	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	19.72	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	20.53	1.000	A	0	A	B
13	L1	C9-C12 Aliphatic HC {6}	TIC	22.34	1.000	A	0	A	B
14	L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.59	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	17.86	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	18.65	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	18.80	1.000	A	0	A	B
18	L1	C9-C10 Aromatic HC {4}	120	19.91	1.000	A	0	A	B
19	L1	C9-C10 Aromatic HC {5}	120	20.17	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	19.91	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	TIC	17.86	1.000	A	0	A	B
22		C5-C8 Aliphatic	TIC	6.95	1.000	A	0	A	B
23	L1	non C5-C8	TIC	6.27	1.000	A	0	A	B
24	L1	non C5-C8 {2}	TIC	9.15	1.000	A	0	A	B
25	L1	non C5-C8 {3}	TIC	10.92	1.000	A	0	A	B
26	L1	non C5-C8 {4}	TIC	11.70	1.000	A	0	A	B
27	L1	non C5-C8 {5}	TIC	12.15	1.000	A	0	A	B
28	L1	non C5-C8 {6}	TIC	14.28	1.000	A	0	A	B
29	L1	non C5-C8 - TOTAL	TIC	6.27	1.000	A	0	A	B
30		C9-C12 Aliphatic	TIC	16.41	1.000	A	0	A	B
31	L1	non C9-C12	TIC	16.39	1.000	A	0	A	B
32	L1	non C9-C12 {2}	TIC	16.49	1.000	A	0	A	B
33	L1	non C9-C12 {3}	TIC	16.67	1.000	A	0	A	B
34	L1	non C9-C12 {4}	TIC	17.32	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	18.23	1.000	A	0	A	B
36	L1	non C9-C12 - TOTAL	TIC	16.67	1.000	A	0	A	B
37	L1	C9-C10 Aromatic	120	17.40	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	17.40	1.000	A	0	A	B
39	L1	C9-C10 Aromatic - TOTAL	134	17.40	1.000	A	1	A	B
40	I	Chlorobenzene-d5	117	16.39	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	18.23	1.112	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

121912V9.M Fri Dec 21 09:40:42 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121912\12191211.D Vial: 2
Acq On : 20 Dec 2012 5:42 am Operator: RACHEL HILL
Sample : ICV VOA9 121912 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\121912V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 21 09:13:14 2012
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 : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	32.253	-10.5	102	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	42.253	-16.1	101	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	48.273	-15.5	99	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	40.784	-15.2	101	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	48.494	-14.9	99	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	56.756	-15.8	99	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	268.655	-14.8	100	0.00
8	L1	C9-C12 Aliphatic HC	54.600	63.862	-17.0	99	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	60.213	-10.3	96	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	72.775	-18.9	100	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	72.355	-19.0	101	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	83.141	-18.8	95	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	95.808	-24.4	96	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	446.119	-18.0	98	0.00
15	L1	C9-C10 Aromatic HC	51.700	60.111	-16.3	101	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	59.086	-15.4	100	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	60.538	-16.0	99	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	68.853	-17.3	100	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	61.030	-16.0	101	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	69.028	-17.6	101	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	309.848	-16.5	100	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.95#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.27#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.15#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.92#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.70#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.15#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.28#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.27#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.41#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.39#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.49#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.67#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.32#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.23#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.67#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.40#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.40#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.40#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	107	0.00
41	S	4-Bromofluorobenzene	89.500	87.524	2.2	107	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121912\12191211.D Vial: 2
Acq On : 20 Dec 2012 5:42 am Operator: RACHEL HILL
Sample : ICV VOA9 121912 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 21 9:21 2012 Quant Results File: 121912V9.RES

Quant Method : C:\HPCHEM\1\METHODS\121912V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 21 09:13:14 2012
Response via : Initial Calibration
DataAcq Meth : 121912V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.39	117	805193	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.22	95	527709	87.52	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 97.79%

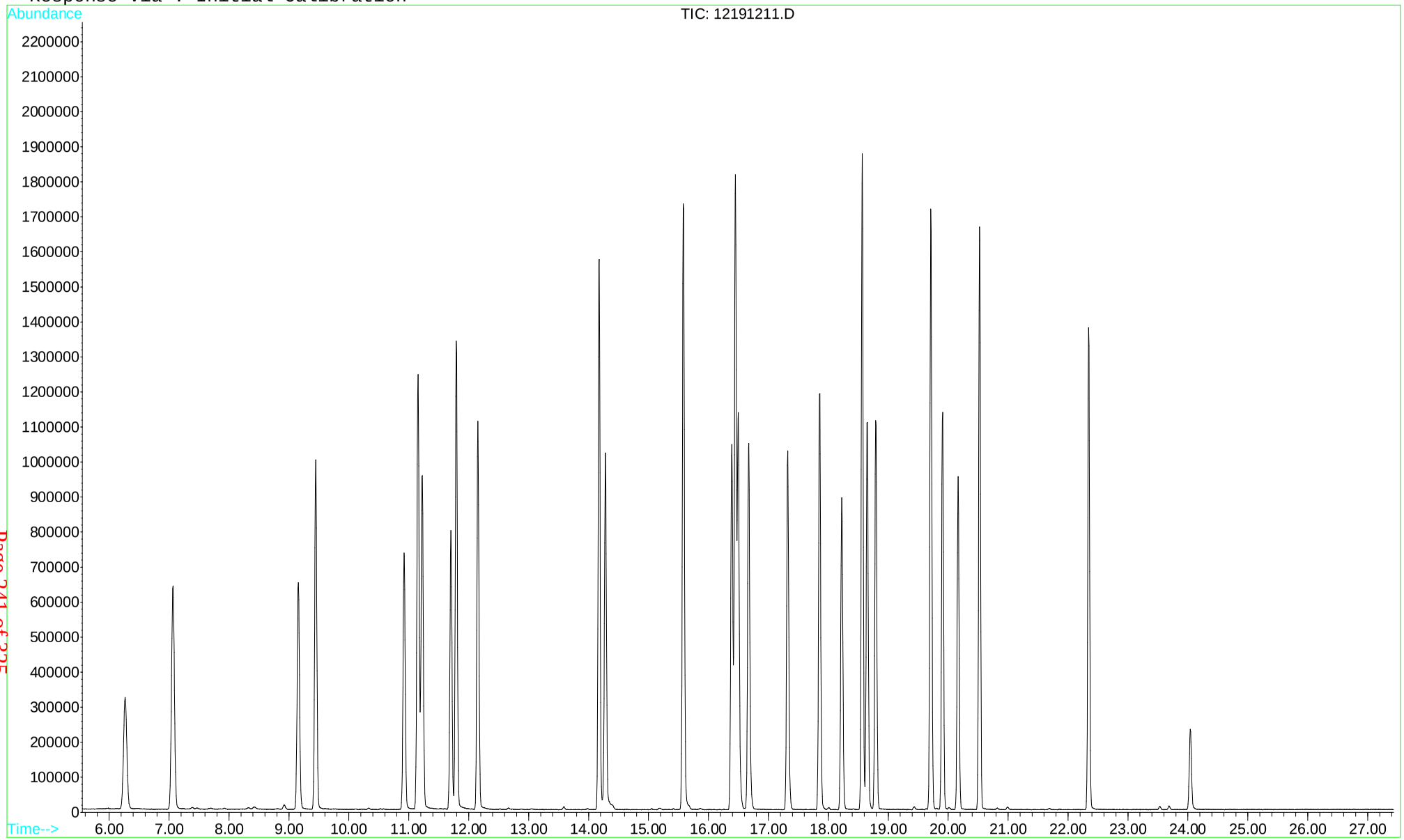
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.07	TIC	2192327	32.25	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.45	TIC	2535442	42.25	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.15	TIC	3236618	48.27	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.23	TIC	2475227	40.78	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.79	TIC	3100020	48.49	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.18	TIC	3498500	56.76	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.07	TIC	17038134m	268.66	ug/m3	
8) C9-C12 Aliphatic HC	15.58	TIC	4162743	63.86	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.45	TIC	2829883m	60.21	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.57	TIC	4071799	72.77	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.71	TIC	3892802	72.36	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.52	TIC	3550347	83.14	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.34	TIC	2870879	95.81	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.58	TIC	21378453m	446.12	ug/m3	
15) C9-C10 Aromatic HC	17.86	120	280283	60.11	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.65	120	283667	59.09	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.79	120	414924	60.54	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.91	120	91473	68.85	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.17	120	313680	61.03	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.91	134	234006	69.03	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.86	TIC	1618033m	309.85	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121912\12191211.D Vial: 2
Acq On : 20 Dec 2012 5:42 am Operator: RACHEL HILL
Sample : ICV VOA9 121912 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 21 9:21 2012 Quant Results File: 121912V9.RES

Method : C:\HPCHEM\1\METHODS\121912V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Dec 21 09:13:14 2012
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\122812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Dec 31 11:27:24 2012
Response via : Initial Calibration

Calibration Files
1 =12281203.D 2 =12281204.D 3 =12281205.D
4 =12281206.D 5 =12281207.D 6 =12281208.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	7.496	7.566	7.469	7.513	7.143	6.727	7.156	E4	7.33
2)	L1	C5-C8 Aliphatic HC	6.526	6.096	5.979	6.371	5.662	5.208	5.814	E4	10.49
3)	L1	C5-C8 Aliphatic HC	7.149	6.945	6.732	7.029	6.379	5.830	6.464	E4	11.19
4)	L1	C5-C8 Aliphatic HC	6.661	6.183	6.032	6.459	5.771	5.393	5.942	E4	9.46
5)	L1	C5-C8 Aliphatic HC	6.844	6.530	6.377	6.699	5.933	5.397	6.090	E4	12.09
6)	L1	C5-C8 Aliphatic HC	6.723	6.311	6.189	6.394	5.653	5.155	5.853	E4	13.25
7)	L1	C5-C8 Aliphatic HC	6.877	6.567	6.419	6.716	6.043	5.556	6.176	E4	10.78
8)	L1	C9-C12 Aliphatic HC	7.307	6.697	6.524	6.784	6.033	5.380	6.209	E4	14.32
9)	L1	C9-C12 Aliphatic HC	3.550	3.644	3.833	4.552	4.255	4.095	3.971	E4	8.89
10)	L1	C9-C12 Aliphatic HC	6.109	5.733	5.571	5.737	5.032	4.476	5.228	E4	14.98
11)	L1	C9-C12 Aliphatic HC	6.094	5.599	5.376	5.557	4.858	4.422	5.123	E4	14.60
12)	L1	C9-C12 Aliphatic HC	4.490	4.295	4.067	4.330	3.685	3.279	3.877	E4	14.78
13)	L1	C9-C12 Aliphatic HC	3.069	3.309	3.169	3.299	2.644	2.229	2.842	E4	17.29
14)	L1	C9-C12 Aliphatic HC	4.993	4.792	4.660	4.933	4.302	3.865	4.437	E4	12.79
15)	L1	C9-C10 Aromatic HC	5.367	5.132	4.974	5.283	4.647	4.171	4.762	E3	12.70
16)	L1	C9-C10 Aromatic HC	5.431	5.370	5.188	5.485	4.870	4.408	4.962	E3	11.60
17)	L1	C9-C10 Aromatic HC	8.042	7.761	7.425	7.950	7.014	6.307	7.163	E3	12.61
18)	L1	C9-C10 Aromatic HC	1.441	1.499	1.436	1.495	1.346	1.221	1.362	E3	11.21
19)	L1	C9-C10 Aromatic HC	5.618	5.821	5.616	5.907	5.251	4.808	5.346	E3	10.46
20)	L1	C9-C10 Aromatic HC	3.856	3.967	3.812	4.016	3.594	3.240	3.628	E3	11.35
21)	L1	C9-C10 Aromatic HC	5.947	5.911	5.674	6.002	5.317	4.827	5.433	E3	11.71
22)		C5-C8 Aliphatic	6.877	6.567	6.419	6.716	6.043	5.556	6.176	E4	10.78
23)	L1	non C5-C8	5.408	5.488	5.431	5.557	5.287	5.066	5.286	E4	5.32
24)	L1	non C5-C8 {2}	4.376	4.470	4.215	4.762	4.076	3.691	4.173	E4	9.92
25)	L1	non C5-C8 {3}	3.006	3.078	3.201	3.159	3.184	3.209	3.152	E4	2.57
26)	L1	non C5-C8 {4}	5.727	5.123	4.921	5.627	4.828	4.395	4.980	E4	11.33
27)	L1	non C5-C8 {5}	4.412	4.529	4.718	4.623	4.666	4.655	4.611	E4	2.29
28)	L1	non C5-C8 {6}	5.574	5.358	5.192	5.676	5.009	4.551	5.081	E4	10.58
29)	L1	non C5-C8 - TOTAL	4.217	4.430	4.460	4.796	4.470	4.249	4.390	E4	5.15
30)		C9-C12 Aliphatic	4.993	4.792	4.660	4.933	4.302	3.865	4.437	E4	12.79
31)	L1	non C9-C12	4.114	4.188	4.399	4.294	4.418	4.384	4.301	E4	2.66
32)	L1	non C9-C12 {2}	4.947	4.844	4.757	4.531	3.954	4.906	4.654	E4	7.35
33)	L1	non C9-C12 {3}	5.279	4.962	4.831	5.150	4.615	4.211	4.701	E4	10.91
34)	L1	non C9-C12 {4}	5.083	4.849	4.727	4.985	4.483	4.072	4.563	E4	10.89
35)	L1	non C9-C12 {5}	2.493	2.604	2.702	2.646	2.735	2.742	2.677	E4	3.99
36)	L1	non C9-C12 - TOTAL	3.341	3.384	3.393	3.426	3.192	3.194	3.273	E4	4.85
37)	L1	C9-C10 Aromatic	5.947	5.911	5.674	6.002	5.317	4.827	5.433	E3	11.71
38)	L1	C9-C10 Aromatic {2}	5.947	5.911	5.674	6.002	5.317	4.827	5.433	E3	11.71
39)	L1	C9-C10 Aromatic - T	5.947	5.911	5.674	6.002	5.317	4.827	5.433	E3	11.71
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.092	0.093	0.092	0.093	0.094	0.094	0.093		1.43

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\122812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Dec 31 11:27:24 2012
Response via : Initial Calibration
Total Cpnds : 41

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	L1	C5-C8 Aliphatic HC	TIC	6.98	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.29	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	10.97	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	11.04	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.60	1.000	A	0	A	B
6	L1	C5-C8 Aliphatic HC {6}	TIC	13.97	1.000	A	0	A	B
7	L1	C5-C8 Aliphatic HC - TOTAL	TIC	6.98	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	15.37	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	16.23	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	18.34	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	19.49	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	20.31	1.000	A	0	A	B
13	L1	C9-C12 Aliphatic HC {6}	TIC	22.12	1.000	A	0	A	B
14	L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.37	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	17.63	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	18.43	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	18.57	1.000	A	0	A	B
18	L1	C9-C10 Aromatic HC {4}	120	19.69	1.000	A	0	A	B
19	L1	C9-C10 Aromatic HC {5}	120	19.94	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	19.69	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	TIC	18.01	1.000	A	0	A	B
22		C5-C8 Aliphatic	TIC	6.85	1.000	A	0	A	B
23	L1	non C5-C8	TIC	6.21	1.000	A	0	A	B
24	L1	non C5-C8 {2}	TIC	9.01	1.000	A	0	A	B
25	L1	non C5-C8 {3}	TIC	10.74	1.000	A	0	A	B
26	L1	non C5-C8 {4}	TIC	11.52	1.000	A	0	A	B
27	L1	non C5-C8 {5}	TIC	11.96	1.000	A	0	A	B
28	L1	non C5-C8 {6}	TIC	14.07	1.000	A	0	A	B
29	L1	non C5-C8 - TOTAL	TIC	6.21	1.000	A	0	A	B
30		C9-C12 Aliphatic	TIC	16.21	1.000	A	0	A	B
31	L1	non C9-C12	TIC	16.18	1.000	A	0	A	B
32	L1	non C9-C12 {2}	TIC	16.28	1.000	A	0	A	B
33	L1	non C9-C12 {3}	TIC	16.46	1.000	A	0	A	B
34	L1	non C9-C12 {4}	TIC	17.11	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	18.01	1.000	A	0	A	B
36	L1	non C9-C12 - TOTAL	TIC	16.46	1.000	A	0	A	B
37	L1	C9-C10 Aromatic	120	17.04	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	17.04	1.000	A	0	A	B
39	L1	C9-C10 Aromatic - TOTAL	134	17.04	1.000	A	1	A	B
40	I	Chlorobenzene-d5	117	16.18	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	18.01	1.113	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

122812V9.M Mon Dec 31 14:55:26 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\122812\12281211.D Vial: 2
Acq On : 28 Dec 2012 7:45 pm Operator: RACHEL HILL
Sample : ICV VOA9 122812 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\122812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Dec 31 11:27:24 2012
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 : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	34.041	-16.6	110	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	40.613	-11.6	106	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	45.439	-8.7	101	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	38.989	-10.1	106	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	46.536	-10.3	103	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	54.806	-11.8	104	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	260.581	-11.4	105	0.00
8	L1	C9-C12 Aliphatic HC	54.600	61.085	-11.9	104	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	53.508	2.0	107	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	69.177	-13.0	103	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	68.949	-13.4	104	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	79.780	-14.0	103	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	91.604	-19.0	102	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	422.880	-11.9	104	0.00
15	L1	C9-C10 Aromatic HC	51.700	56.412	-9.1	101	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	56.141	-9.7	101	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	57.735	-10.6	102	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	66.094	-12.6	102	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	58.249	-10.7	102	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	65.351	-11.3	102	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	294.358	-10.7	102	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.85#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.21#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.01#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.74#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.52#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-11.96#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.07#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.21#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.21#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.18#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.28#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.46#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.11#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.01#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.46#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.04#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.04#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.04#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	104	0.00
41	S	4-Bromofluorobenzene	89.500	88.474	1.1	103	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122812\12281211.D Vial: 2
Acq On : 28 Dec 2012 7:45 pm Operator: RACHEL HILL
Sample : ICV VOA9 122812 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 31 11:30 2012 Quant Results File: 122812V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Dec 31 11:27:24 2012
Response via : Initial Calibration
DataAcq Meth : 122812V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.18	117	830046	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.01	95	547826	88.47	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 98.85%

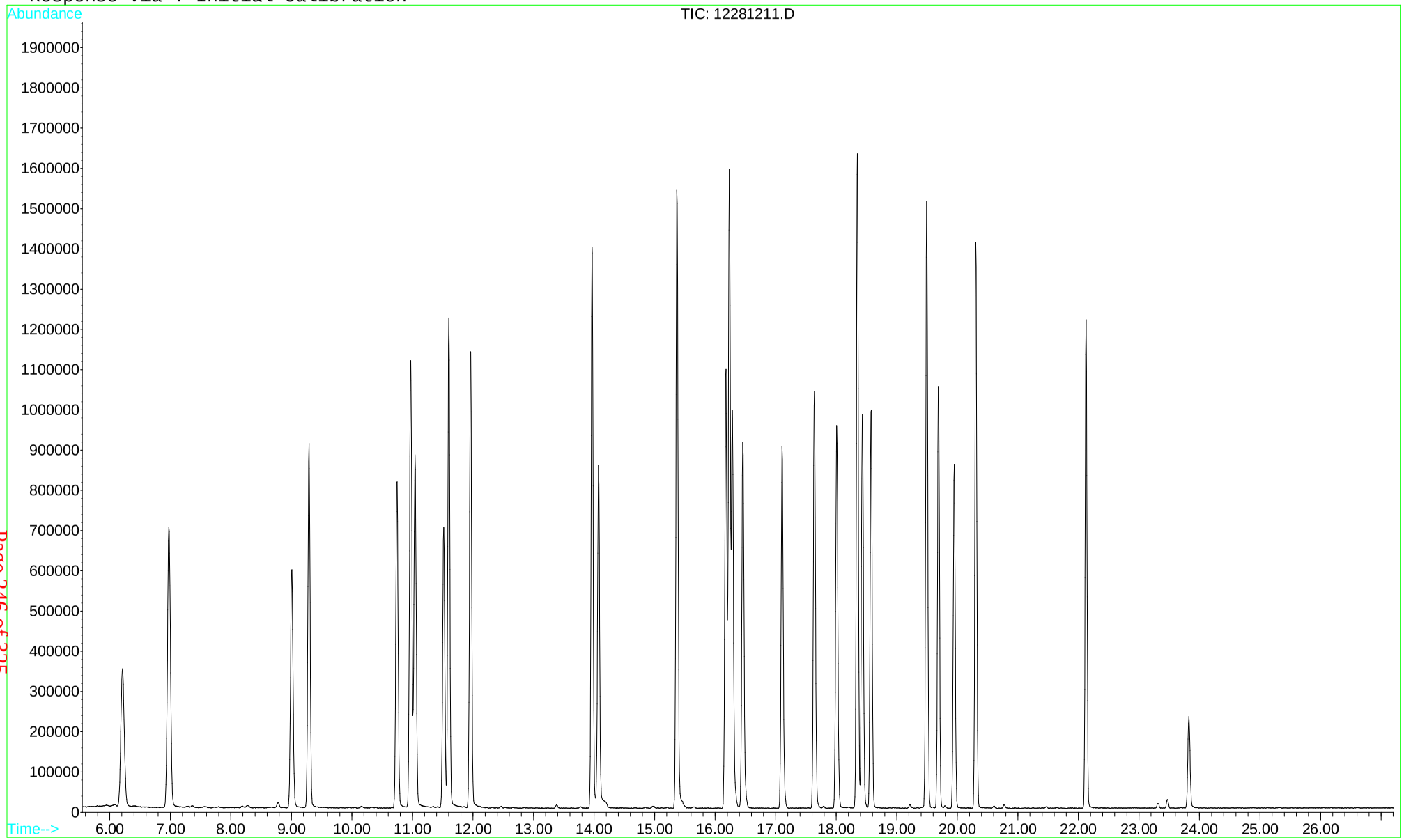
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	6.98	TIC	2435980	34.04	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.29	TIC	2361238	40.61	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.97	TIC	2937164	45.44	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.04	TIC	2316798	38.99	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.60	TIC	2834131	46.54	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.97	TIC	3207714	54.81	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	6.98	TIC	16093025m	260.58	ug/m3	
8) C9-C12 Aliphatic HC	15.37	TIC	3793075	61.09	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.23	TIC	2125030m	53.51	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.35	TIC	3616532	69.18	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.49	TIC	3531938	68.95	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.30	TIC	3092924	79.78	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.13	TIC	2603138	91.60	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.37	TIC	18762637m	422.88	ug/m3	
15) C9-C10 Aromatic HC	17.64	120	268611	56.41	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.43	120	278555	56.14	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.58	120	413527	57.73	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.69	120	90001	66.09	ug/m3	100
19) C9-C10 Aromatic HC {5}	19.95	120	311397	58.25	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.69	134	237090	65.35	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.01	TIC	1599181m	294.36	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122812\12281211.D Vial: 2
Acq On : 28 Dec 2012 7:45 pm Operator: RACHEL HILL
Sample : ICV VOA9 122812 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 31 11:30 2012 Quant Results File: 122812V9.RES

Method : C:\HPCHEM\1\METHODS\122812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Mon Dec 31 11:27:24 2012
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
Response via : Initial Calibration

Calibration Files
1 =12311203.D 2 =12311204.D 3 =12311205.D
4 =12311206.D 5 =12311207.D 6 =12311208.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	L1	C5-C8 Aliphatic HC	6.808	6.547	6.428	6.225	5.986	5.536	6.085 E4	10.01
2)	L1	C5-C8 Aliphatic HC	5.443	5.635	5.093	4.967	4.818	4.285	4.891 E4	12.04
3)	L1	C5-C8 Aliphatic HC	5.963	6.185	5.565	5.352	5.327	4.703	5.332 E4	12.81
4)	L1	C5-C8 Aliphatic HC	5.488	5.806	5.237	5.170	5.020	4.570	5.087 E4	10.05
5)	L1	C5-C8 Aliphatic HC	5.677	5.922	5.308	5.236	5.094	4.450	5.106 E4	12.85
6)	L1	C5-C8 Aliphatic HC	5.710	5.863	5.271	5.115	5.017	4.378	5.041 E4	13.68
7)	L1	C5-C8 Aliphatic HC	5.811	5.972	5.438	5.309	5.181	4.605	5.219 E4	12.00
8)	L1	C9-C12 Aliphatic HC	6.094	6.278	5.579	5.504	5.343	4.675	5.378 E4	13.84
9)	L1	C9-C12 Aliphatic HC	2.705	3.532	3.141	3.521	3.498	3.533	3.293 E4	9.67
10)	L1	C9-C12 Aliphatic HC	5.029	5.296	4.723	4.588	4.501	3.894	4.495 E4	14.30
11)	L1	C9-C12 Aliphatic HC	5.399	5.445	4.933	4.796	4.729	4.167	4.745 E4	13.02
12)	L1	C9-C12 Aliphatic HC	3.620	4.122	3.617	3.528	3.436	2.865	3.415 E4	14.08
13)	L1	C9-C12 Aliphatic HC	2.583	3.212	2.796	2.714	2.546	1.995	2.547 E4	17.20
14)	L1	C9-C12 Aliphatic HC	4.149	4.568	4.056	4.023	3.920	3.422	3.894 E4	12.35
15)	L1	C9-C10 Aromatic HC	4.776	5.319	4.726	4.783	4.849	4.315	4.681 E3	8.95
16)	L1	C9-C10 Aromatic HC	4.813	5.465	4.953	4.909	5.108	4.585	4.869 E3	7.89
17)	L1	C9-C10 Aromatic HC	7.076	7.987	7.101	7.148	7.298	6.507	7.013 E3	9.02
18)	L1	C9-C10 Aromatic HC	1.318	1.553	1.408	1.388	1.444	1.291	1.364 E3	9.45
19)	L1	C9-C10 Aromatic HC	4.991	5.822	5.358	5.295	5.438	4.970	5.217 E3	7.35
20)	L1	C9-C10 Aromatic HC	2.788	3.303	3.018	2.980	3.063	2.742	2.896 E3	10.19
21)	L1	C9-C10 Aromatic HC	5.136	5.876	5.287	5.266	5.399	4.866	5.184 E3	8.54
22)		C5-C8 Aliphatic	5.811	5.972	5.438	5.309	5.181	4.605	5.219 E4	12.00
23)	L1	non C5-C8	4.860	4.649	4.562	4.449	4.299	4.083	4.400 E4	7.56
24)	L1	non C5-C8 {2}	3.681	4.295	3.723	3.682	3.665	3.274	3.620 E4	11.02
25)	L1	non C5-C8 {3}	2.649	2.647	2.658	2.661	2.676	2.633	2.658 E4	0.64
26)	L1	non C5-C8 {4}	4.824	5.543	4.618	4.627	4.657	4.012	4.587 E4	12.22
27)	L1	non C5-C8 {5}	4.497	4.435	4.456	4.489	4.536	4.346	4.476 E4	1.63
28)	L1	non C5-C8 {6}	5.478	6.337	5.483	5.423	5.461	4.760	5.350 E4	11.02
29)	L1	non C5-C8 - TOTAL	3.931	4.401	4.124	4.167	4.231	3.899	4.076 E4	5.32
30)		C9-C12 Aliphatic	4.149	4.568	4.056	4.023	3.920	3.422	3.894 E4	12.35
31)	L1	non C9-C12	4.045	4.014	4.121	4.085	4.016	3.929	4.081 E4	3.33
32)	L1	non C9-C12 {2}	5.331	5.385	5.207	4.824	4.618	4.114	4.745 E4	13.34
33)	L1	non C9-C12 {3}	5.315	5.832	5.174	5.098	5.144	4.542	5.054 E4	10.12
34)	L1	non C9-C12 {4}	5.160	5.614	5.014	4.941	5.006	4.432	4.903 E4	9.79
35)	L1	non C9-C12 {5}	2.892	2.835	2.894	2.934	2.989	3.010	2.963 E4	3.87
36)	L1	non C9-C12 - TOTAL	3.515	3.705	3.550	3.487	3.483	3.170	3.416 E4	7.11
37)	L1	C9-C10 Aromatic	5.136	5.876	5.287	5.266	5.399	4.866	5.184 E3	8.54
38)	L1	C9-C10 Aromatic {2}	5.136	5.876	5.287	5.266	5.399	4.866	5.184 E3	8.54
39)	L1	C9-C10 Aromatic - T	5.136	5.876	5.287	5.266	5.399	4.866	5.184 E3	8.54
40)	I	Chlorobenzene-d5	----------ISTD----------							
41)	S	4-Bromofluorobenzen	0.102	0.103	0.103	0.104	0.104	0.106	0.104	1.91

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
Response via : Initial Calibration
Total Cpnds : 41

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	L1	C5-C8 Aliphatic HC	TIC	6.98	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.29	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	10.97	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	11.04	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.60	1.000	A	0	A	B
6	L1	C5-C8 Aliphatic HC {6}	TIC	13.97	1.000	A	0	A	B
7	L1	C5-C8 Aliphatic HC - TOTAL	TIC	6.98	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	15.37	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	16.23	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	18.34	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	19.49	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	20.31	1.000	A	0	A	B
13	L1	C9-C12 Aliphatic HC {6}	TIC	22.12	1.000	A	0	A	B
14	L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.37	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	17.63	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	18.43	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	18.57	1.000	A	0	A	B
18	L1	C9-C10 Aromatic HC {4}	120	19.69	1.000	A	0	A	B
19	L1	C9-C10 Aromatic HC {5}	120	19.94	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	19.69	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	TIC	18.01	1.000	A	0	A	B
22		C5-C8 Aliphatic	TIC	6.85	1.000	A	0	A	B
23	L1	non C5-C8	TIC	6.21	1.000	A	0	A	B
24	L1	non C5-C8 {2}	TIC	9.01	1.000	A	0	A	B
25	L1	non C5-C8 {3}	TIC	10.74	1.000	A	0	A	B
26	L1	non C5-C8 {4}	TIC	11.52	1.000	A	0	A	B
27	L1	non C5-C8 {5}	TIC	11.96	1.000	A	0	A	B
28	L1	non C5-C8 {6}	TIC	14.07	1.000	A	0	A	B
29	L1	non C5-C8 - TOTAL	TIC	6.21	1.000	A	0	A	B
30		C9-C12 Aliphatic	TIC	16.21	1.000	A	0	A	B
31	L1	non C9-C12	TIC	16.18	1.000	A	0	A	B
32	L1	non C9-C12 {2}	TIC	16.28	1.000	A	0	A	B
33	L1	non C9-C12 {3}	TIC	16.46	1.000	A	0	A	B
34	L1	non C9-C12 {4}	TIC	17.11	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	18.01	1.000	A	0	A	B
36	L1	non C9-C12 - TOTAL	TIC	16.46	1.000	A	0	A	B
37	L1	C9-C10 Aromatic	120	17.04	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	17.04	1.000	A	0	A	B
39	L1	C9-C10 Aromatic - TOTAL	134	17.04	1.000	A	1	A	B
40	I	Chlorobenzene-d5	117	16.18	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	18.01	1.113	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

123112V9.M Wed Jan 02 15:11:50 2013

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\123112B\12311212.D Vial: 3
Acq On : 1 Jan 2013 10:23 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
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 : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	31.341	-7.3	100	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	38.319	-5.3	91	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	43.418	-3.9	90	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	37.678	-6.4	93	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	44.792	-6.1	92	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	52.509	-7.2	92	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	248.059	-6.0	93	0.00
8	L1	C9-C12 Aliphatic HC	54.600	58.763	-7.6	92	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	48.559	11.1	83	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	65.432	-6.9	91	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	66.919	-10.1	96	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	75.196	-7.4	89	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	85.625	-11.2	88	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	401.258	-6.2	90	0.00
15	L1	C9-C10 Aromatic HC	51.700	54.010	-4.5	92	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	53.865	-5.2	94	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	55.264	-5.9	93	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	62.191	-5.9	93	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	55.738	-6.0	95	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	62.444	-6.4	93	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	281.470	-5.8	93	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.85#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.21#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.01#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.74#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.52#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-11.96#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.07#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.21#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.21#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.18#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.28#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.46#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.11#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.01#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.46#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.04#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.04#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.04#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	102	0.00
41	S	4-Bromofluorobenzene	89.500	87.969	1.7	101	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\123112B\12311212.D Vial: 3
Acq On : 1 Jan 2013 10:23 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 1 12:29 2013 Quant Results File: 123112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
Response via : Initial Calibration
DataAcq Meth : 123112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.18	117	822328	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.01	95	603897	87.97	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 98.29%			

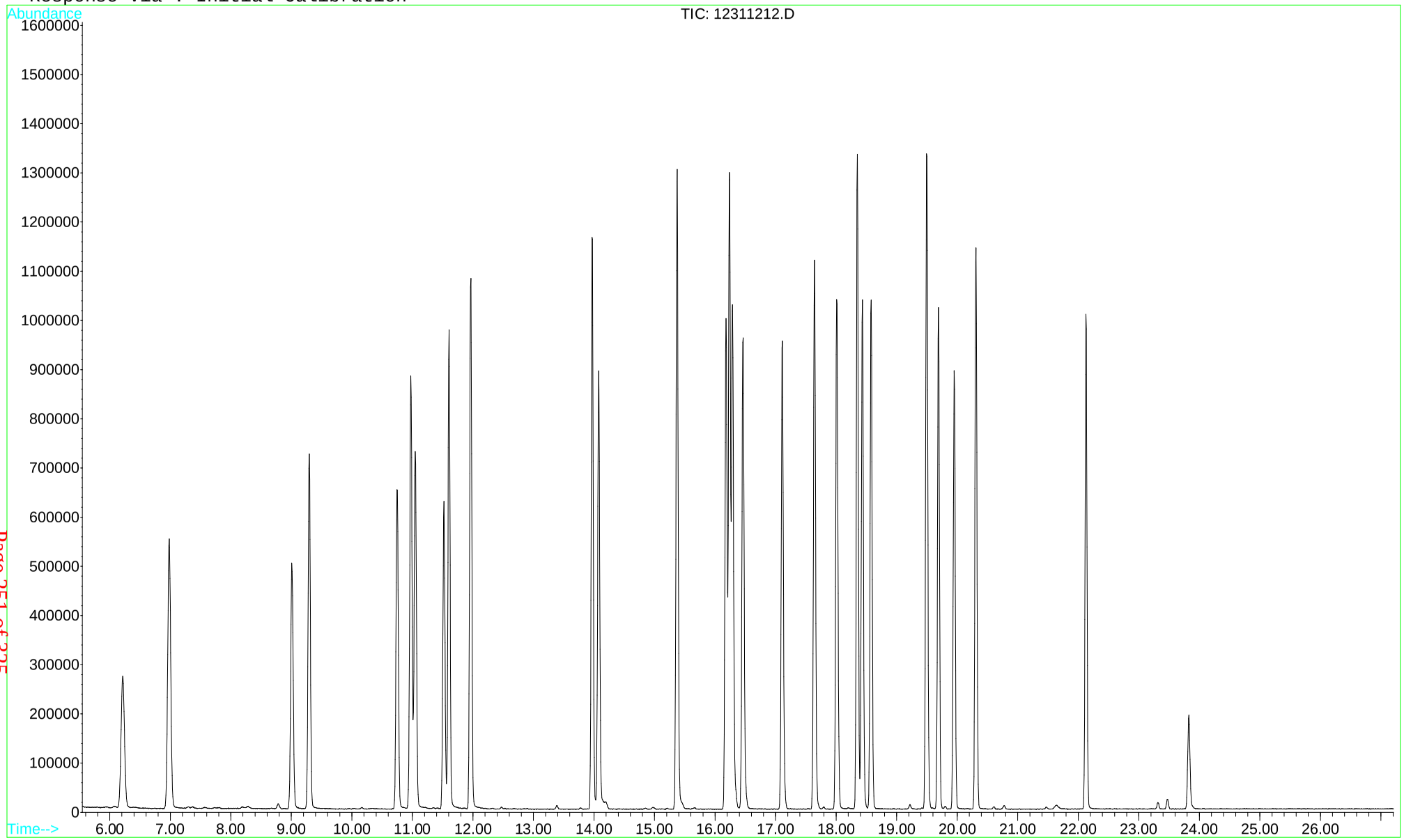
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	6.98	TIC	1907126	31.34	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.30	TIC	1874054	38.32	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.97	TIC	2314891	43.42	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.05	TIC	1916703	37.68	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.60	TIC	2287083	44.79	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.97	TIC	2646860	52.51	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	6.98	TIC	12946717m	248.06	ug/m3	
8) C9-C12 Aliphatic HC	15.37	TIC	3160341	58.76	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.23	TIC	1598858m	48.56	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.35	TIC	2941038	65.43	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.49	TIC	3175151	66.92	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.31	TIC	2567799	75.20	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.13	TIC	2181262	85.62	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.37	TIC	15624449m	401.26	ug/m3	
15) C9-C10 Aromatic HC	17.64	120	252828	54.01	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.44	120	262282	53.87	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.58	120	387553	55.26	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.69	120	84827	62.19	ug/m3	100
19) C9-C10 Aromatic HC {5}	19.95	120	290768	55.74	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.69	134	180812	62.44	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.01	TIC	1459070m	281.47	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\123112B\12311212.D Vial: 3
Acq On : 1 Jan 2013 10:23 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 1 12:29 2013 Quant Results File: 123112V9.RES

Method : C:\HPCHEM\1\METHODS\123112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 01 12:28:20 2013
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\010313V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Jan 04 10:58:14 2013
Response via : Initial Calibration

Calibration Files
1 =01031303.D 2 =01031304.D 3 =01031305.D
4 =01031306.D 5 =01031307.D 6 =01031308.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	L1	C5-C8 Aliphatic HC	7.677	7.596	7.451	7.278	6.915	6.485	7.042 E4	9.32
2)	L1	C5-C8 Aliphatic HC	6.315	6.270	5.989	6.166	5.434	5.172	5.729 E4	10.65
3)	L1	C5-C8 Aliphatic HC	6.974	6.868	6.681	6.687	5.953	5.695	6.290 E4	10.92
4)	L1	C5-C8 Aliphatic HC	6.511	6.480	6.045	6.395	5.659	5.258	5.896 E4	10.72
5)	L1	C5-C8 Aliphatic HC	6.606	6.604	6.319	6.486	5.744	5.326	5.985 E4	11.84
6)	L1	C5-C8 Aliphatic HC	6.535	6.466	6.126	6.190	5.495	5.059	5.768 E4	13.34
7)	L1	C5-C8 Aliphatic HC	6.731	6.675	6.387	6.503	5.819	5.443	6.074 E4	11.22
8)	L1	C9-C12 Aliphatic HC	7.004	6.887	6.433	6.604	5.772	5.279	6.098 E4	14.24
9)	L1	C9-C12 Aliphatic HC	3.171	3.960	3.725	4.422	3.987	4.160	3.880 E4	10.19
10)	L1	C9-C12 Aliphatic HC	5.780	5.833	5.494	5.600	4.912	4.417	5.137 E4	14.41
11)	L1	C9-C12 Aliphatic HC	5.924	5.811	5.473	5.529	4.820	4.392	5.132 E4	14.55
12)	L1	C9-C12 Aliphatic HC	4.244	4.475	4.153	4.344	3.746	3.366	3.926 E4	13.02
13)	L1	C9-C12 Aliphatic HC	2.905	3.473	3.250	3.397	2.914	2.478	2.962 E4	15.03
14)	L1	C9-C12 Aliphatic HC	4.735	4.982	4.667	4.884	4.266	3.912	4.428 E4	12.13
15)	L1	C9-C10 Aromatic HC	5.396	5.444	5.241	5.308	4.658	4.345	4.906 E3	12.02
16)	L1	C9-C10 Aromatic HC	5.426	5.736	5.355	5.504	4.860	4.586	5.095 E3	10.98
17)	L1	C9-C10 Aromatic HC	7.921	8.193	7.728	7.951	6.990	6.529	7.321 E3	11.61
18)	L1	C9-C10 Aromatic HC	1.416	1.598	1.519	1.530	1.372	1.282	1.411 E3	10.84
19)	L1	C9-C10 Aromatic HC	5.540	6.163	5.854	5.902	5.301	4.968	5.476 E3	10.14
20)	L1	C9-C10 Aromatic HC	3.871	4.281	4.088	4.127	3.642	3.399	3.781 E3	11.64
21)	L1	C9-C10 Aromatic HC	5.910	6.286	5.943	6.042	5.339	5.018	5.588 E3	11.16
22)		C5-C8 Aliphatic	6.731	6.675	6.387	6.503	5.819	5.443	6.074 E4	11.22
23)	L1	non C5-C8	5.449	5.447	5.312	5.162	4.987	4.778	5.089 E4	7.08
24)	L1	non C5-C8 {2}	4.238	4.664	4.487	4.641	3.958	3.834	4.209 E4	9.69
25)	L1	non C5-C8 {3}	2.864	2.889	2.893	2.921	2.941	2.955	2.923 E4	1.56
26)	L1	non C5-C8 {4}	5.708	5.619	5.234	5.727	4.662	4.570	5.115 E4	11.79
27)	L1	non C5-C8 {5}	4.302	4.324	4.333	4.362	4.456	4.501	4.394 E4	1.88
28)	L1	non C5-C8 {6}	5.576	5.874	5.483	5.841	4.955	4.705	5.261 E4	11.02
29)	L1	non C5-C8 - TOTAL	4.121	4.501	4.431	4.682	4.300	4.262	4.342 E4	4.85
30)		C9-C12 Aliphatic	4.735	4.982	4.667	4.884	4.266	3.912	4.428 E4	12.13
31)	L1	non C9-C12	3.892	3.906	4.213	4.140	4.199	4.204	4.100 E4	3.42
32)	L1	non C9-C12 {2}	5.041	5.236	4.597	4.970	4.294	3.785	4.628 E4	10.82
33)	L1	non C9-C12 {3}	5.294	5.368	5.087	5.276	4.536	4.321	4.838 E4	11.41
34)	L1	non C9-C12 {4}	5.101	5.167	4.937	5.066	4.423	4.201	4.679 E4	11.05
35)	L1	non C9-C12 {5}	2.370	2.377	2.459	2.430	2.500	2.586	2.474 E4	3.68
36)	L1	non C9-C12 - TOTAL	3.253	3.424	3.350	3.462	3.162	2.992	3.231 E4	6.10
37)	L1	C9-C10 Aromatic	5.910	6.286	5.943	6.042	5.339	5.018	5.588 E3	11.16
38)	L1	C9-C10 Aromatic {2}	5.910	6.286	5.943	6.042	5.339	5.018	5.588 E3	11.16
39)	L1	C9-C10 Aromatic - T	5.910	6.286	5.943	6.042	5.339	5.018	5.588 E3	11.16
40)	I	Chlorobenzene-d5	----------ISTD----------							
41)	S	4-Bromofluorobenzen	0.091	0.090	0.092	0.091	0.092	0.094	0.092	1.92

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\010313V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Jan 04 10:58:14 2013
Response via : Initial Calibration
Total Cpnds : 41

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	L1	C5-C8 Aliphatic HC	TIC	6.98	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.29	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	10.97	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	11.04	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.60	1.000	A	0	A	B
6	L1	C5-C8 Aliphatic HC {6}	TIC	13.97	1.000	A	0	A	B
7	L1	C5-C8 Aliphatic HC - TOTAL	TIC	6.98	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	15.37	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	16.23	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	18.34	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	19.49	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	20.31	1.000	A	0	A	B
13	L1	C9-C12 Aliphatic HC {6}	TIC	22.12	1.000	A	0	A	B
14	L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.37	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	17.63	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	18.43	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	18.57	1.000	A	0	A	B
18	L1	C9-C10 Aromatic HC {4}	120	19.69	1.000	A	0	A	B
19	L1	C9-C10 Aromatic HC {5}	120	19.94	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	19.69	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	TIC	18.01	1.000	A	0	A	B
22		C5-C8 Aliphatic	TIC	6.85	1.000	A	0	A	B
23	L1	non C5-C8	TIC	6.21	1.000	A	0	A	B
24	L1	non C5-C8 {2}	TIC	9.01	1.000	A	0	A	B
25	L1	non C5-C8 {3}	TIC	10.74	1.000	A	0	A	B
26	L1	non C5-C8 {4}	TIC	11.52	1.000	A	0	A	B
27	L1	non C5-C8 {5}	TIC	11.96	1.000	A	0	A	B
28	L1	non C5-C8 {6}	TIC	14.07	1.000	A	0	A	B
29	L1	non C5-C8 - TOTAL	TIC	6.21	1.000	A	0	A	B
30		C9-C12 Aliphatic	TIC	16.21	1.000	A	0	A	B
31	L1	non C9-C12	TIC	16.18	1.000	A	0	A	B
32	L1	non C9-C12 {2}	TIC	16.28	1.000	A	0	A	B
33	L1	non C9-C12 {3}	TIC	16.46	1.000	A	0	A	B
34	L1	non C9-C12 {4}	TIC	17.11	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	18.01	1.000	A	0	A	B
36	L1	non C9-C12 - TOTAL	TIC	16.46	1.000	A	0	A	B
37	L1	C9-C10 Aromatic	120	17.04	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	17.04	1.000	A	0	A	B
39	L1	C9-C10 Aromatic - TOTAL	134	17.04	1.000	A	1	A	B
40	I	Chlorobenzene-d5	117	16.18	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	18.01	1.113	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

010313V9.M Fri Jan 04 12:00:39 2013

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010313B\01031313.D Vial: 4
Acq On : 4 Jan 2013 7:14 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\010313V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Jan 04 10:58:14 2013
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 : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	31.315	-7.2	99	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	41.377	-13.7	104	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	47.310	-13.2	104	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	40.582	-14.6	104	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	48.095	-14.0	103	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	56.339	-15.0	103	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	264.632	-13.1	103	0.00
8	L1	C9-C12 Aliphatic HC	54.600	63.630	-16.5	103	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	59.367	-8.7	107	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	71.572	-16.9	103	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	71.986	-18.4	105	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	84.261	-20.4	106	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	94.227	-22.4	104	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	443.860	-17.4	104	0.00
15	L1	C9-C10 Aromatic HC	51.700	59.757	-15.6	104	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	58.397	-14.1	101	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	60.464	-15.8	104	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	67.777	-15.5	102	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	60.816	-15.6	103	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	68.812	-17.2	104	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	308.212	-15.9	103	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.85#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.21#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.01#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.74#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.52#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-11.96#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.07#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.21#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.21#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.18#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.28#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.46#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.11#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.01#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.46#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.04#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.04#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.04#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	104	0.00
41	S	4-Bromofluorobenzene	89.500	86.903	2.9	103	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010313B\01031313.D Vial: 4
Acq On : 4 Jan 2013 7:14 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 11:52 2013 Quant Results File: 010313V9.RES

Quant Method : C:\HPCHEM\1\METHODS\010313V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Jan 04 10:58:14 2013
Response via : Initial Calibration
DataAcq Meth : 010313V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.18	117	800438	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.01	95	512722	86.90	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 97.09%

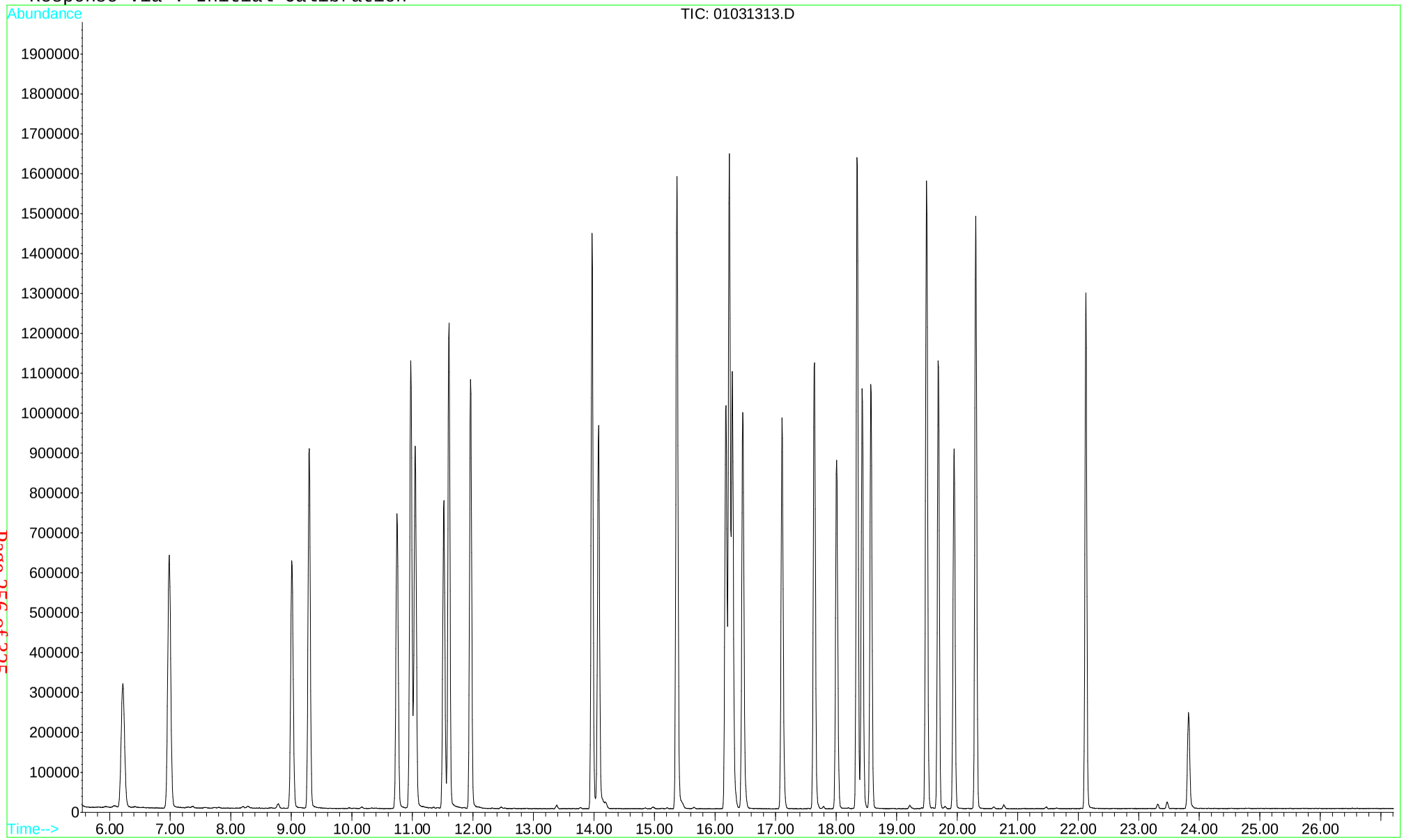
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	6.98	TIC	2205175	31.32	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.30	TIC	2370610	41.38	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.97	TIC	2975771	47.31	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.05	TIC	2392824	40.58	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.61	TIC	2878364	48.10	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.97	TIC	3249722	56.34	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	6.98	TIC	16072466m	264.63	ug/m3	
8) C9-C12 Aliphatic HC	15.37	TIC	3880223	63.63	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.24	TIC	2303613m	59.37	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.35	TIC	3676401	71.57	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.49	TIC	3694421	71.99	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.31	TIC	3308236	84.26	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.13	TIC	2791257	94.23	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.37	TIC	19654151m	443.86	ug/m3	
15) C9-C10 Aromatic HC	17.64	120	293193	59.76	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.43	120	297529	58.40	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.57	120	442668	60.46	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.69	120	95658	67.78	ug/m3	100
19) C9-C10 Aromatic HC {5}	19.95	120	333020	60.82	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.69	134	260150	68.81	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.01	TIC	1722218m	308.21	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010313B\01031313.D Vial: 4
Acq On : 4 Jan 2013 7:14 am Operator: RACHEL HILL
Sample : ICV VOA9 123112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 11:52 2013 Quant Results File: 010313V9.RES

Method : C:\HPCHEM\1\METHODS\010313V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Jan 04 10:58:14 2013
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\2\DATA\122012

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12201201.d	1.	MBLK-122012 TCD-A		20 Dec 2012 11:08
2	1	12201202.d	1.	CCV-122012 TCD-A		20 Dec 2012 11:28
3	1	12201203.d	1.	CRQL-122012 TCD		20 Dec 2012 11:50
4	1	12201204.d	1.	LCS-122012 TCD-A		20 Dec 2012 12:04
5	1	12201205.d	1.	1212185-051B		20 Dec 2012 12:30
6	1	12201206.d	1.	1212185-052B		20 Dec 2012 14:02
7	1	12201207.d	1.	1212185-053B		20 Dec 2012 14:20
8	1	12201208.d	1.	1212185-054B		20 Dec 2012 14:35
9	1	12201209.d	1.	1212185-055B		20 Dec 2012 14:53
10	1	12201210.d	1.	1212185-056B		20 Dec 2012 15:10
11	1	12201211.d	1.	1212185-057B		20 Dec 2012 15:28
12	1	12201212.d	1.	1212185-058B		20 Dec 2012 15:43
13	1	12201213.d	1.	1212185-059B		20 Dec 2012 16:01
14	1	12201214.d	1.	1212185-060B		20 Dec 2012 16:15
15	1	12201215.d	1.	1212185-060BDUP		20 Dec 2012 16:36
16	1	12201216.d	1.	CCV-122012 TCD-B		20 Dec 2012 16:50
17	1	12201217.d	1.	1212185-061B		20 Dec 2012 17:04
18	1	12201218.d	1.	1212185-062B		20 Dec 2012 17:19
19	1	12201219.d	1.	1212185-063B		20 Dec 2012 17:33
20	1	12201220.d	1.	1212185-064B		20 Dec 2012 17:55
21	1	12201221.d	1.	1212185-064BDUP		20 Dec 2012 18:11
22	1	12201222.d	1.	1212437-041B		20 Dec 2012 18:25
23	1	12201223.d	1.	CCV-121812 TCD-C		20 Dec 2012 18:41
24	1	12201224.d	1.	CRQL-121812 TCD-B		20 Dec 2012 18:56

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54812

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1080441	MBLK-122012 TCD-A	ASTM-D2504	MBLK	ıTA\122012\1220	12/20/2012 11:0	1	R54812		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Oxygen	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1080442	CCV-122012 TCD-A	ASTM-D2504	CCV	ıTA\122012\1220	12/20/2012 11:2	1	R54812		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.502	2.502		2.5	0	0	0.025	0.1	0	100%	85	115	0%	
Carbon Monoxide	A	% v/v	2.617	2.617		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	2.013	2.013		2	0	0	0.025	0.5	0	101%	85	115	0%	
Nitrogen	A	% v/v	2.671	2.671		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	% v/v	2.545	2.545		2.5	0	0	0.025	0.1	0	102%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1080443	CRQL-122012 TCD	ASTM-D2504	CRQL	ıTA\122012\1220	12/20/2012 11:5	1	R54812		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.289	0.289		0.3	0	0	0.025	0.1	0	96%	80	120	0%	
Carbon Monoxide	A	% v/v	0.136	0.136		0.14	0	0	0.025	0.1	0	97%	80	120	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	80	120	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	80	120	0%	U

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1080456	CCV-122012 TCD-B	ASTM-D2504	CCV	ıTA\122012\1220	12/20/2012 4:50:	1	R54812		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.463	2.463		2.5	0	0	0.025	0.1	0	99%	85	115	0%	
Carbon Monoxide	A	% v/v	2.572	2.572		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	1.982	1.982		2	0	0	0.025	0.5	0	99%	85	115	0%	
Nitrogen	A	% v/v	2.612	2.612		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Oxygen	A	% v/v	2.493	2.493		2.5	0	0	0.025	0.1	0	100%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1080457	1212185-061B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\122012\1220	12/20/2012 5:04:	1	R54812		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.055	0.055		0	0	0	0.025	0.1	0	0%	0	0	0%	J
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	77.265	77.265		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	20.905	20.905		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1080458	1212185-062B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\122012\1220	12/20/2012 5:19:	1	R54812		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.097	0.097		0	0	0	0.025	0.1	0	0%	0	0	0%	J
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	77.285	77.285		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1080461	1212185-064BDUP	ASTM-D2504	DUP	ıTA\122012\1220	12/20/2012 6:11:	1	R54812		0	1E+06	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.101	0.101		0	0	0.101	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	77.468	77.468		0	0	77.972	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	% v/v	20.831	20.831		0	0	21.141	0.025	0.1	0	0%	0	0	1%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1080462	1212437-041B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\122012\1220	12/20/2012 6:25:	1	R54812		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.163	0.163		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	77.51	77.51		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	20.674	20.674		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1080463	CCV-121812 TCD-C	ASTM-D2504	CCV	ıTA\122012\1220	12/20/2012 6:41:	1	R54812		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.461	2.461		2.5	0	0	0.025	0.1	0	98%	85	115	0%	
Carbon Monoxide	A	% v/v	2.572	2.572		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	1.976	1.976		2	0	0	0.025	0.5	0	99%	85	115	0%	
Nitrogen	A	% v/v	2.687	2.687		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	% v/v	2.517	2.517		2.5	0	0	0.025	0.1	0	101%	85	115	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122012\12201202.D Vial: 1
Acq On : 20 Dec 2012 11:28 am Operator:
Sample : CCV-122012 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.545	-1.8	0	0.03
2	Nitrogen	2.500	2.671	-6.8	0	0.02
3	Carbon Monoxide	2.500	2.617	-4.7	0	0.03
4	Methane	2.000	2.013	-0.6	0	0.02
5	Carbon dioxide	2.500	2.502	-0.1	0	0.02

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

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\122012\12201202.D          Vial: 1
Acq On    : 20 Dec 2012  11:28 am                   Operator:
Sample    : CCV-122012 TCD-A                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : AUTOINT1.E

Method       : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title        :
Last Update  : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122012\12201202.D Vial: 1
Acq On : 20 Dec 2012 11:28 am Operator:
Sample : CCV-122012 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 11:49 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	381298	2.545 % v/v
2)	Nitrogen	2.32	464522	2.671 % v/v
3)	Carbon Monoxide	3.01	426206	2.617 % v/v
4)	Methane	5.62	288417	2.013 % v/v
5)	Carbon dioxide	9.20	517980	2.502 % v/v

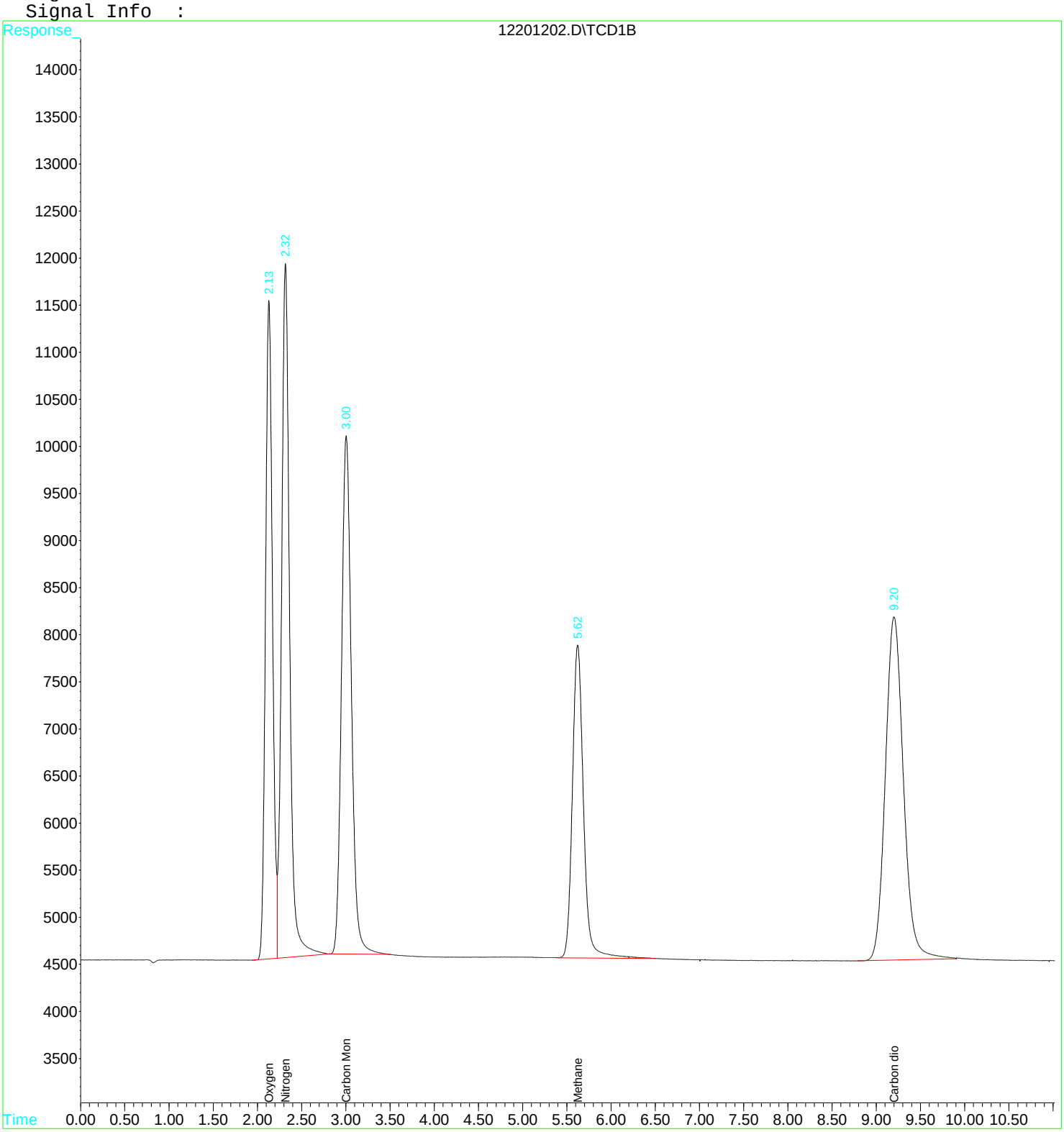
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122012\12201202.D Vial: 1
Acq On : 20 Dec 2012 11:28 am Operator:
Sample : CCV-122012 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 20 11:49 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122012\12201216.D Vial: 1
Acq On : 20 Dec 2012 4:50 pm Operator:
Sample : CCV-122012 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.493	0.3	0	0.03
2	Nitrogen	2.500	2.612	-4.5	0	0.02
3	Carbon Monoxide	2.500	2.572	-2.9	0	0.03
4	Methane	2.000	1.982	0.9	0	0.03
5	Carbon dioxide	2.500	2.463	1.5	0	0.03

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

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\122012\12201216.D          Vial: 1
Acq On    : 20 Dec 2012   4:50 pm                   Operator:
Sample    : CCV-122012 TCD-B                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : AUTOINT1.E

Method       : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title        :
Last Update  : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122012\12201216.D Vial: 1
Acq On : 20 Dec 2012 4:50 pm Operator:
Sample : CCV-122012 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 17:03 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	373580	2.493 % v/v
2)	Nitrogen	2.32	454318	2.612 % v/v
3)	Carbon Monoxide	3.01	418784	2.572 % v/v
4)	Methane	5.63	284034	1.982 % v/v
5)	Carbon dioxide	9.21	509868	2.463 % v/v

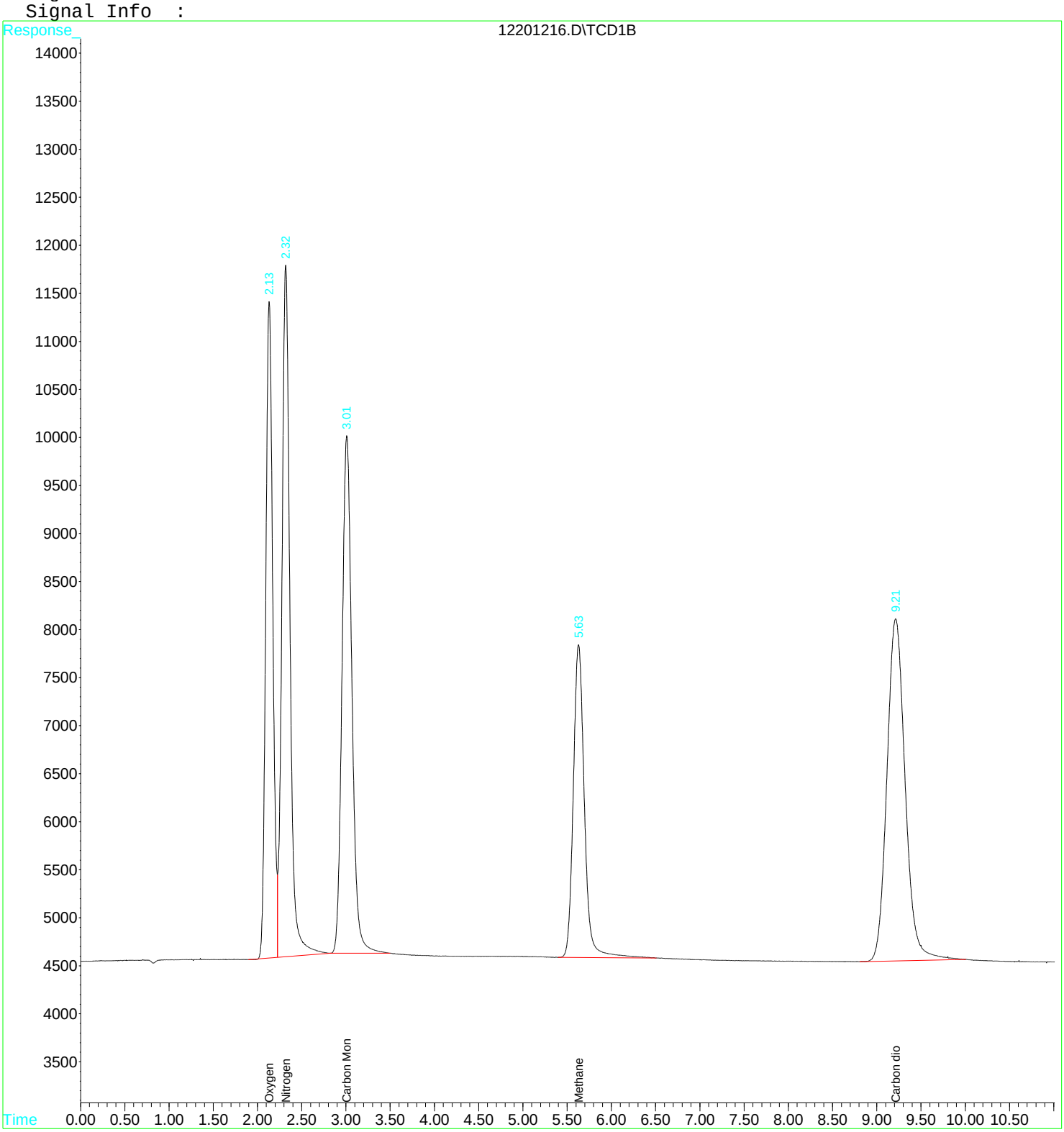
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122012\12201216.D Vial: 1
Acq On : 20 Dec 2012 4:50 pm Operator:
Sample : CCV-122012 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 20 17:03 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122012\12201223.D Vial: 1
Acq On : 20 Dec 2012 6:41 pm Operator:
Sample : CCV-121812 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.517	-0.7	0	0.04
2	Nitrogen	2.500	2.687	-7.5	0	0.02
3	Carbon Monoxide	2.500	2.572	-2.9	0	0.03
4	Methane	2.000	1.976	1.2	0	0.03
5	Carbon dioxide	2.500	2.461	1.6	0	0.03

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

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\122012\12201223.D          Vial: 1
Acq On    : 20 Dec 2012   6:41 pm                   Operator:
Sample    : CCV-121812 TCD-C                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : AUTOINT1.E

Method       : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title        :
Last Update  : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122012\12201223.D Vial: 1
Acq On : 20 Dec 2012 6:41 pm Operator:
Sample : CCV-121812 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 20 18:54 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	377162	2.517 % v/v
2)	Nitrogen	2.32	467476	2.687 % v/v
3)	Carbon Monoxide	3.01	418880	2.572 % v/v
4)	Methane	5.63	283249	1.976 % v/v
5)	Carbon dioxide	9.21	509470	2.461 % v/v

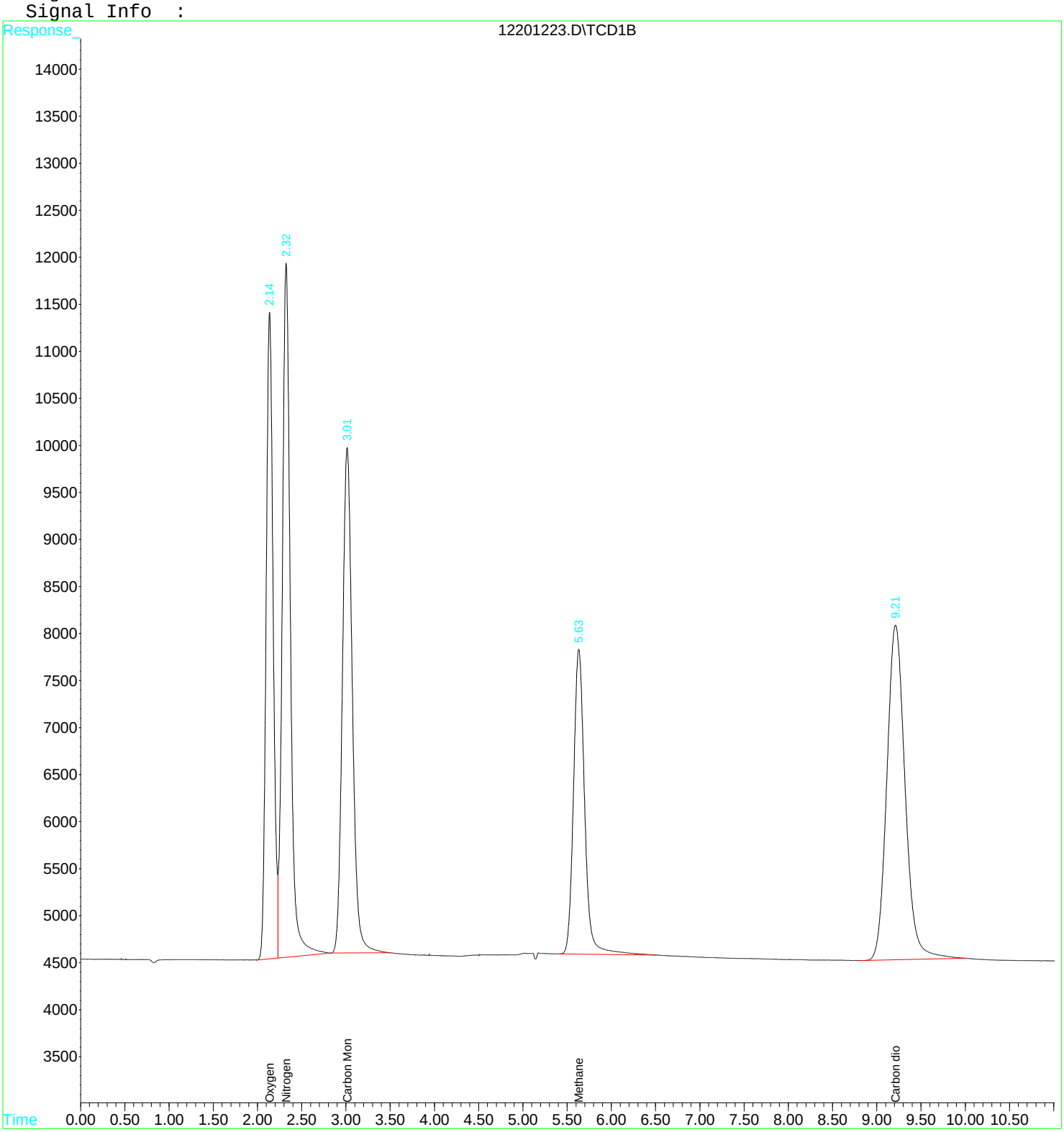
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122012\12201223.D Vial: 1
Acq On : 20 Dec 2012 6:41 pm Operator:
Sample : CCV-121812 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 20 18:54 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Injection Log

Directory: C:\HPCHEM\2\DATA\122112

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12211201.d	1.	MBLK-122112 TCD-A		21 Dec 2012 10:56
2	1	12211202.d	1.	CCV-122112 TCD-A		21 Dec 2012 11:11
3	1	12211203.d	1.	LCS-122112 TCD		21 Dec 2012 11:25
4	1	12211204.d	1.	CRQL-122112 TCD-A		21 Dec 2012 11:46
5	1	12211205.d	1.	1212437-001B		21 Dec 2012 12:08
6	1	12211206.d	1.	1212437-002B		21 Dec 2012 12:27
7	1	12211207.d	1.	1212437-003B		21 Dec 2012 12:44
8	1	12211208.d	1.	1212437-004B		21 Dec 2012 12:59
9	1	12211209.d	1.	1212437-005B		21 Dec 2012 13:38
10	1	12211210.d	1.	1212437-006B		21 Dec 2012 13:56
11	1	12211211.d	1.	1212437-007B		21 Dec 2012 14:14
12	1	12211212.d	1.	1212437-008B		21 Dec 2012 14:29
13	1	12211213.d	1.	1212437-009B		21 Dec 2012 14:43
14	1	12211214.d	1.	1212437-010B		21 Dec 2012 14:58
15	1	12211215.d	1.	1212437-010BDUP		21 Dec 2012 15:12
16	1	12211216.d	1.	CCV-122112 TCD-B		21 Dec 2012 15:43
17	1	12211217.d	1.	1212437-011B		21 Dec 2012 16:00
18	1	12211218.d	1.	1212437-012B		21 Dec 2012 16:15
19	1	12211219.d	1.	1212437-013B		21 Dec 2012 16:39
20	1	12211220.d	1.	1212437-014B		21 Dec 2012 16:54
21	2	12211221.d	1.	1212437-015B		21 Dec 2012 17:09
22	3	12211222.d	1.	1212437-016B		21 Dec 2012 17:24
23	4	12211223.d	1.	1212437-017B		21 Dec 2012 17:38
24	5	12211224.d	1.	1212437-018B		21 Dec 2012 17:54
25	6	12211225.d	1.	1212437-019B		21 Dec 2012 18:08
26	7	12211226.d	1.	1212437-020B		21 Dec 2012 18:23
27	8	12211227.d	1.	1212437-020BDUP		21 Dec 2012 18:37
28	1	12211228.d	1.	CCV-122112 TCD-C		21 Dec 2012 19:08
29	2	12211229.d	1.	CRQL-122112 TCD-B		21 Dec 2012 19:47

RTI Laboratories

ANALYTICAL RUN Summary

15-Jan-13

RunNo 54853

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081312	MBLK-122112 TCD-A	ASTM-D2504	MBLK	ıTA\122112\1221	12/21/2012 10:5	1	R54853		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	0.031	0.031		0	0	0	0.025	0.1	0	0%	0	0	0%	J
Oxygen	A	% v/v	0.015	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081313	CCV-122112 TCD-A	ASTM-D2504	CCV	ıTA\122112\1221	12/21/2012 11:1	1	R54853		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.406	2.406		2.5	0	0	0.025	0.1	0	96%	85	115	0%	
Carbon Monoxide	A	% v/v	2.592	2.592		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	1.989	1.989		2	0	0	0.025	0.5	0	99%	85	115	0%	
Nitrogen	A	% v/v	2.616	2.616		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Oxygen	A	% v/v	2.503	2.503		2.5	0	0	0.025	0.1	0	100%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081314	LCS-122112 TCD	ASTM-D2504	LCS	ıTA\122112\1221	12/21/2012 11:2	1	R54853		0	1E+06	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.46	2.46		2.5	0	2.406	0.025	0.1	0	98%	70	130	2%	
Carbon Monoxide	A	% v/v	2.58	2.58		2.5	0	2.592	0.025	0.1	0	103%	70	130	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	70	130	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	70	130	0%	U

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081329	CCV-122112 TCD-B	ASTM-D2504	CCV	ıTA\122112\1221	12/21/2012 3:43:	1	R54853		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.476	2.476		2.5	0	0	0.025	0.1	0	99%	85	115	0%	
Carbon Monoxide	A	% v/v	2.602	2.602		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	1.951	1.951		2	0	0	0.025	0.5	0	98%	85	115	0%	
Nitrogen	A	% v/v	2.654	2.654		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	% v/v	2.531	2.531		2.5	0	0	0.025	0.1	0	101%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081330	1212437-011B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\122112\1221	12/21/2012 4:00:	1	R54853		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.132	0.132		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	79.287	79.287		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	20.541	20.541		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081331	1212437-012B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\122112\1221	12/21/2012 4:15:	1	R54853		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.686	0.686		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	78.145	78.145		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081339	1212437-020B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\122112\1221	12/21/2012 6:23:	1	R54853		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	1.208	1.208		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	79.742	79.742		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	18.666	18.666		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081340	1212437-020BDUP	ASTM-D2504	DUP	ıTA\122112\1221	12/21/2012 6:37:	1	R54853		0	1E+06	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	1.212	1.212		0	0	1.208	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	79.754	79.754		0	0	79.742	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	18.655	18.655		0	0	18.666	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1081341	CCV-122112 TCD-C	ASTM-D2504	CCV	ıTA\122112\1221	12/21/2012 7:08:	1	R54853		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.495	2.495		2.5	0	0	0.025	0.1	0	100%	85	115	0%	
Carbon Monoxide	A	% v/v	2.613	2.613		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	1.939	1.939		2	0	0	0.025	0.5	0	97%	85	115	0%	
Nitrogen	A	% v/v	2.677	2.677		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	% v/v	2.535	2.535		2.5	0	0	0.025	0.1	0	101%	85	115	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122112\12211202.D Vial: 1
Acq On : 21 Dec 2012 11:11 am Operator:
Sample : CCV-122112 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.503	-0.1	0	0.04
2	Nitrogen	2.500	2.616	-4.6	0	0.03
3	Carbon Monoxide	2.500	2.592	-3.7	0	0.04
4	Methane	2.000	1.989	0.5	0	0.04
5	Carbon dioxide	2.500	2.406	3.8	0	0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12211202.D 062512.M Wed Dec 26 11:33:09 2012

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\122112\12211202.D          Vial: 1
Acq On    : 21 Dec 2012  11:11 am                   Operator:
Sample    : CCV-122112 TCD-A                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : AUTOINT1.E

Method       : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title        :
Last Update  : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122112\12211202.D Vial: 1
Acq On : 21 Dec 2012 11:11 am Operator:
Sample : CCV-122112 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 21 11:45 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	375079	2.503 % v/v
2)	Nitrogen	2.33	454978	2.616 % v/v
3)	Carbon Monoxide	3.02	422119	2.592 % v/v
4)	Methane	5.64	284988	1.989 % v/v
5)	Carbon dioxide	9.23f	498113	2.406 % v/v

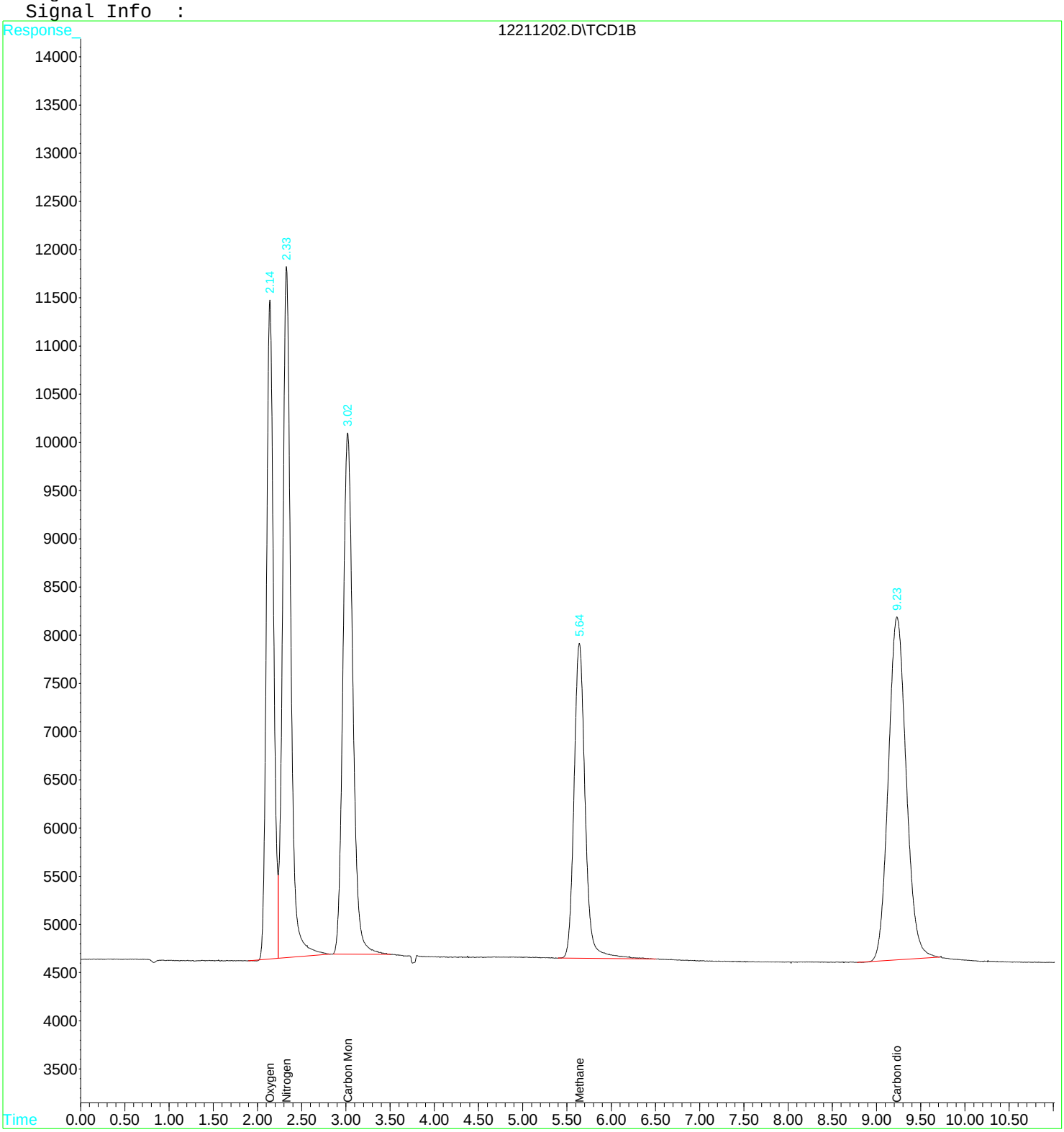
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122112\12211202.D Vial: 1
Acq On : 21 Dec 2012 11:11 am Operator:
Sample : CCV-122112 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 21 11:45 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122112\12211216.D Vial: 1
Acq On : 21 Dec 2012 3:43 pm Operator:
Sample : CCV-122112 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.531	-1.2	0	0.05
2	Nitrogen	2.500	2.654	-6.2	0	0.03
3	Carbon Monoxide	2.500	2.602	-4.1	0	0.05
4	Methane	2.000	1.951	2.4	0	0.05
5	Carbon dioxide	2.500	2.476	1.0	0	0.06

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

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\122112\12211216.D          Vial: 1
Acq On    : 21 Dec 2012   3:43 pm                   Operator:
Sample    : CCV-122112 TCD-B                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : AUTOINT1.E

Method       : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title        :
Last Update  : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122112\12211216.D Vial: 1
Acq On : 21 Dec 2012 3:43 pm Operator:
Sample : CCV-122112 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 21 15:56 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	379176	2.531 % v/v
2)	Nitrogen	2.33	461584	2.654 % v/v
3)	Carbon Monoxide	3.03	423735	2.602 % v/v
4)	Methane	5.65	279643	1.951 % v/v
5)	Carbon dioxide	9.24f	512535	2.476 % v/v

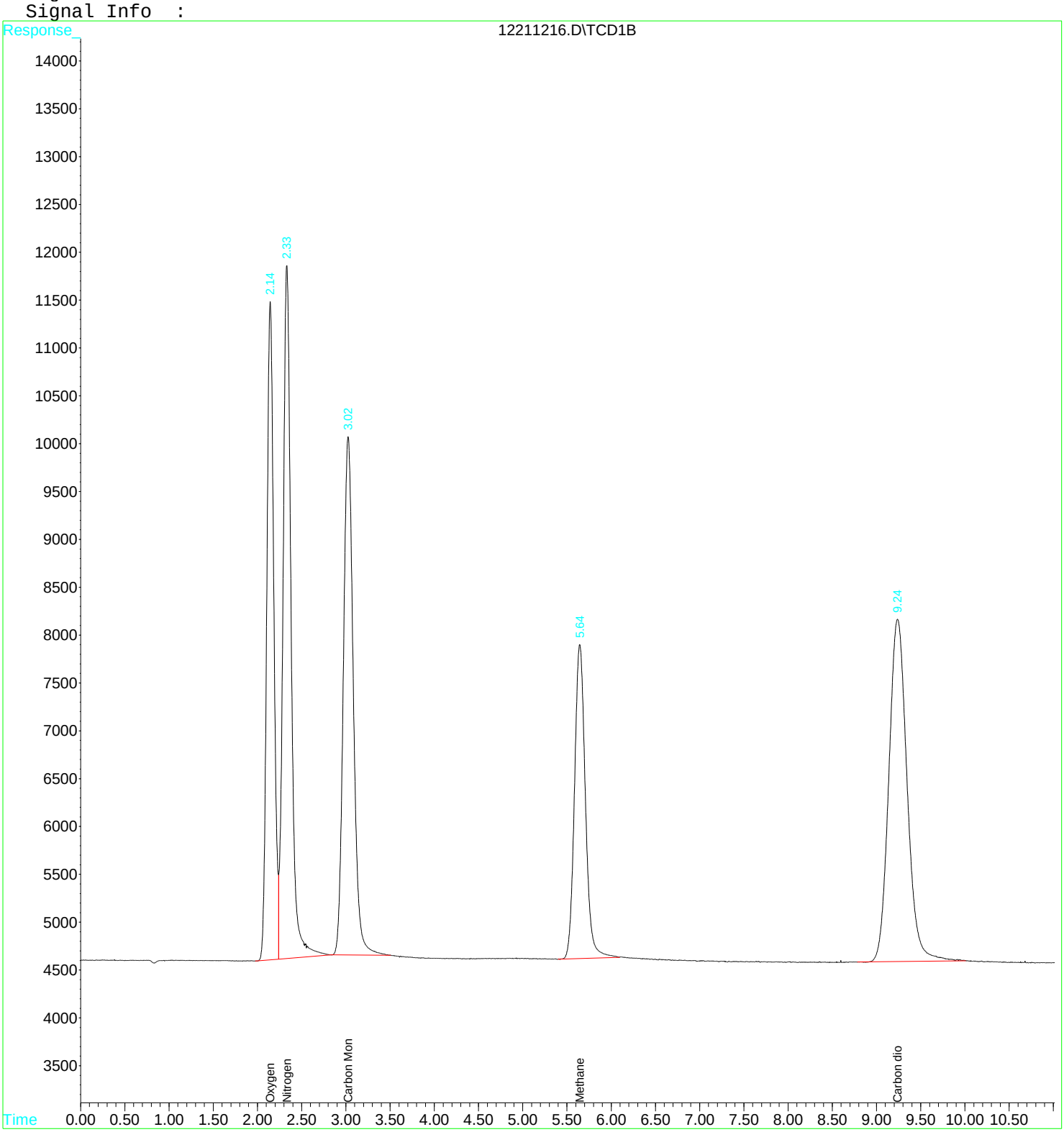
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122112\12211216.D Vial: 1
Acq On : 21 Dec 2012 3:43 pm Operator:
Sample : CCV-122112 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 21 15:56 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122112\12211228.D Vial: 1
Acq On : 21 Dec 2012 7:08 pm Operator:
Sample : CCV-122112 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.535	-1.4	0	0.04
2	Nitrogen	2.500	2.677	-7.1	0	0.03
3	Carbon Monoxide	2.500	2.613	-4.5	0	0.04
4	Methane	2.000	1.939	3.0	0	0.04
5	Carbon dioxide	2.500	2.495	0.2	0	0.06

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

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\122112\12211228.D          Vial: 1
Acq On    : 21 Dec 2012   7:08 pm                   Operator:
Sample    : CCV-122112 TCD-C                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : AUTOINT1.E

Method       : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title        :
Last Update  : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122112\12211228.D Vial: 1
Acq On : 21 Dec 2012 7:08 pm Operator:
Sample : CCV-122112 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 26 11:12 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	379785	2.535 % v/v
2)	Nitrogen	2.33	465691	2.677 % v/v
3)	Carbon Monoxide	3.02	425523	2.613 % v/v
4)	Methane	5.64	277919	1.939 % v/v
5)	Carbon dioxide	9.24f	516458	2.495 % v/v

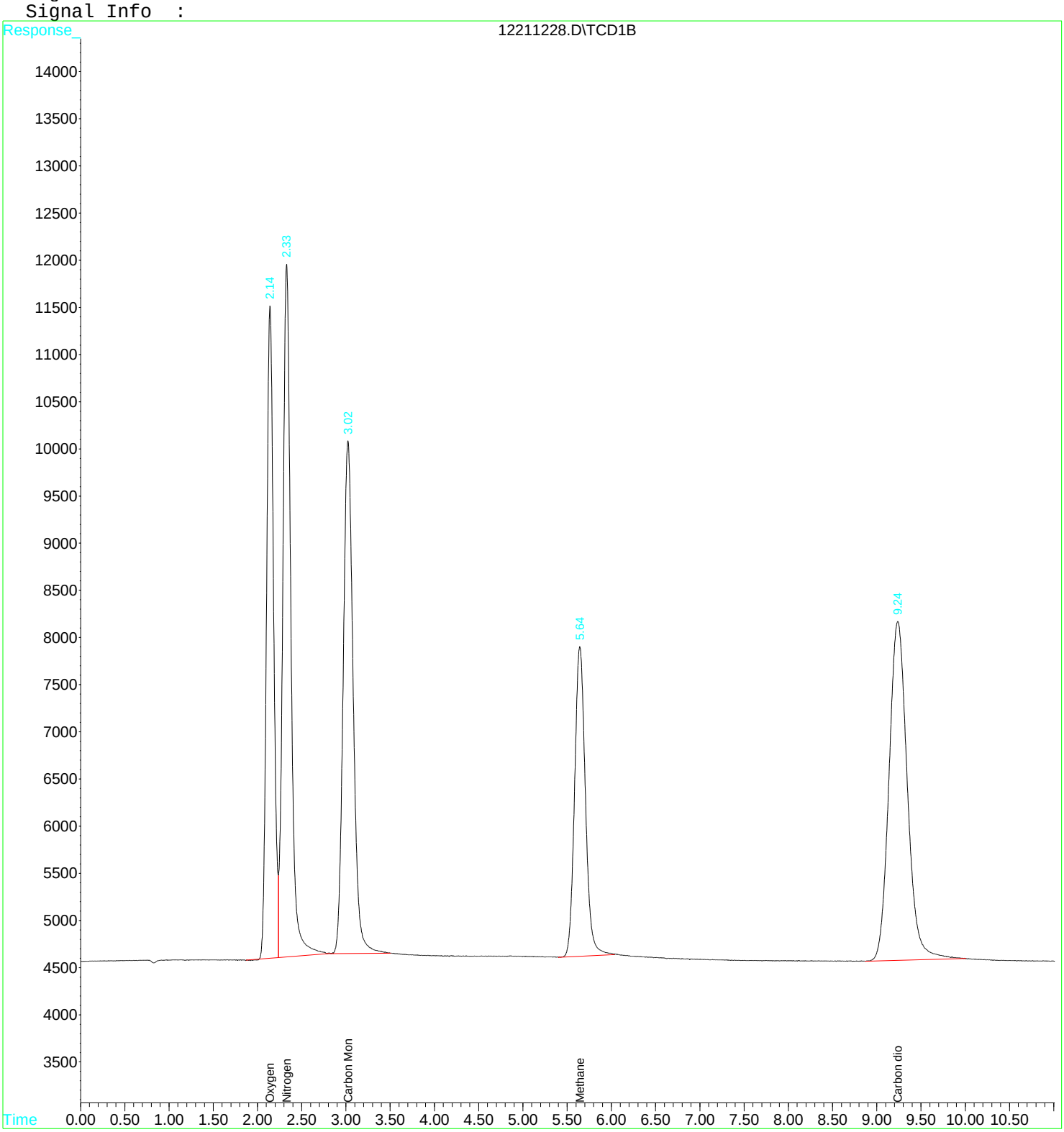
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122112\12211228.D Vial: 1
Acq On : 21 Dec 2012 7:08 pm Operator:
Sample : CCV-122112 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 26 11:12 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 04 10:15:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Injection Log

Directory: C:\HPCHEM\2\DATA\010213

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	01021301.d	1.	MBLK-010213 TCD-A		2 Jan 2013 10:57
2	1	01021302.d	1.	CCV-010213 TCD-A		2 Jan 2013 11:29
3	2	01021303.d	1.	LCS-010213 TCD		2 Jan 2013 11:44
4	1	01021304.d	1.	CRQL-010213 TCD-A		2 Jan 2013 11:58
5	1	01021305.d	1.	1212437-021B		2 Jan 2013 12:18
6	2	01021306.d	1.	1212437-022B		2 Jan 2013 13:13
7	1	01021307.d	1.	1212437-023B		2 Jan 2013 13:45
8	1	01021308.d	1.	1212437-024B		2 Jan 2013 13:59
9	1	01021309.d	1.	1212437-025B		2 Jan 2013 14:13
10	1	01021310.d	1.	1212437-026B		2 Jan 2013 14:27
11	1	01021311.d	1.	1212437-027B		2 Jan 2013 14:46
12	1	01021312.d	1.	1212437-028B		2 Jan 2013 15:04
13	1	01021313.d	1.	1212437-029B		2 Jan 2013 15:39
14	1	01021314.d	1.	1212437-030B		2 Jan 2013 16:03
15	1	01021315.d	1.	1212437-030BDUP		2 Jan 2013 16:17
16	1	01021316.d	1.	CCV-010213 TCD-B		2 Jan 2013 16:31
17	1	01021317.d	1.	1212437-031B		2 Jan 2013 16:47
18	2	01021318.d	1.	1212437-032B		2 Jan 2013 17:01
19	3	01021319.d	1.	1212437-033B		2 Jan 2013 17:22
20	4	01021320.d	1.	1212437-034B		2 Jan 2013 17:37
21	5	01021321.d	1.	1212437-034BDUP		2 Jan 2013 17:52
22	6	01021322.d	1.	1212437-035B		2 Jan 2013 18:07
23	13	01021323.d	1.	CCV-010213 TCD-C		2 Jan 2013 18:44
24	1	01021324.d	1.	CRQL-010213 TCD-B		2 Jan 2013 20:40

RTI Laboratories

ANALYTICAL RUN Summary

15-Jan-13

RunNo 55072

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085804	MBLK-010213 TCD-A	ASTM-D2504	MBLK	ıTA\010213\0102	1/2/2013 10:57:0	1	R55072		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	0.024	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Oxygen	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085805	CCV-010213 TCD-A	ASTM-D2504	CCV	ıTA\010213\0102	1/2/2013 11:29:0	1	R55072		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.552	2.552		2.5	0	0	0.025	0.1	0	102%	85	115	0%	
Carbon Monoxide	A	% v/v	2.669	2.669		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	2.061	2.061		2	0	0	0.025	0.5	0	103%	85	115	0%	
Nitrogen	A	% v/v	2.79	2.79		2.5	0	0	0.025	0.1	0	112%	85	115	0%	
Oxygen	A	% v/v	2.673	2.673		2.5	0	0	0.025	0.1	0	107%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085806	LCS-010213 TCD	ASTM-D2504	LCS	ıTA\010213\0102	1/2/2013 11:44:0	1	R55072		0	1E+06	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.564	2.564		2.5	0	2.552	0.025	0.1	0	103%	70	130	0%	
Carbon Monoxide	A	% v/v	2.675	2.675		2.5	0	2.669	0.025	0.1	0	107%	70	130	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	70	130	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	70	130	0%	U

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085819	CCV-010213 TCD-B	ASTM-D2504	CCV	ıTA\010213\0102	1/2/2013 4:31:00	1	R55072		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.568	2.568		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Carbon Monoxide	A	% v/v	2.666	2.666		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	2.07	2.07		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	% v/v	2.852	2.852		2.5	0	0	0.025	0.1	0	114%	85	115	0%	
Oxygen	A	% v/v	2.689	2.689		2.5	0	0	0.025	0.1	0	108%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085820	1212437-031B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\010213\0102	1/2/2013 4:47:00	1	R55072		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.18	0.18		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	82.92	82.92		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	21.518	21.518		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085821	1212437-032B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\010213\0102	1/2/2013 5:01:00	1	R55072		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.273	0.273		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	82.972	82.972		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085824	1212437-034BDUP	ASTM-D2504	DUP	ıTA\010213\0102	1/2/2013 5:52:00	1	R55072		0	1E+06	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.417	0.417		0	0	0.415	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	82.926	82.926		0	0	82.987	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	21.201	21.201		0	0	21.21	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085825	1212437-035B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\010213\0102	1/2/2013 6:07:00	1	R55072		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.047	0.047		0	0	0	0.025	0.1	0	0%	0	0	0%	J
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	82.001	82.001		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	22.54	22.54		0	0	0	0.025	0.1	0	0%	0	0	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1085826	CCV-010213 TCD-C	ASTM-D2504	CCV	ıTA\010213\0102	1/2/2013 6:44:00	1	R55072		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.585	2.585		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Carbon Monoxide	A	% v/v	2.687	2.687		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	2.091	2.091		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	% v/v	2.75	2.75		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Oxygen	A	% v/v	2.681	2.681		2.5	0	0	0.025	0.1	0	107%	85	115	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\010213\01021302.D Vial: 1
Acq On : 2 Jan 2013 11:29 am Operator:
Sample : CCV-010213 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.673	-6.9	0	0.05
2	Nitrogen	2.500	2.790	-11.6	0	0.04
3	Carbon Monoxide	2.500	2.669	-6.8	0	0.06
4	Methane	2.000	2.061	-3.0	0	0.06
5	Carbon dioxide	2.500	2.552	-2.1	0	0.08

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\010213\01021302.D          Vial: 1
Acq On    :  2 Jan 2013  11:29 am                   Operator:
Sample    : CCV-010213 TCD-A                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : autoint1.e

Method       : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title        :
Last Update  : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010213\01021302.D Vial: 1
Acq On : 2 Jan 2013 11:29 am Operator:
Sample : CCV-010213 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 2 16:55 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 02 16:55:28 2013
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	384233	2.673 % v/v
2)	Nitrogen	2.34	473498	2.790 % v/v
3)	Carbon Monoxide	3.04f	429322	2.669 % v/v
4)	Methane	5.66f	288738	2.061 % v/v
5)	Carbon dioxide	9.26f	516646	2.552 % v/v

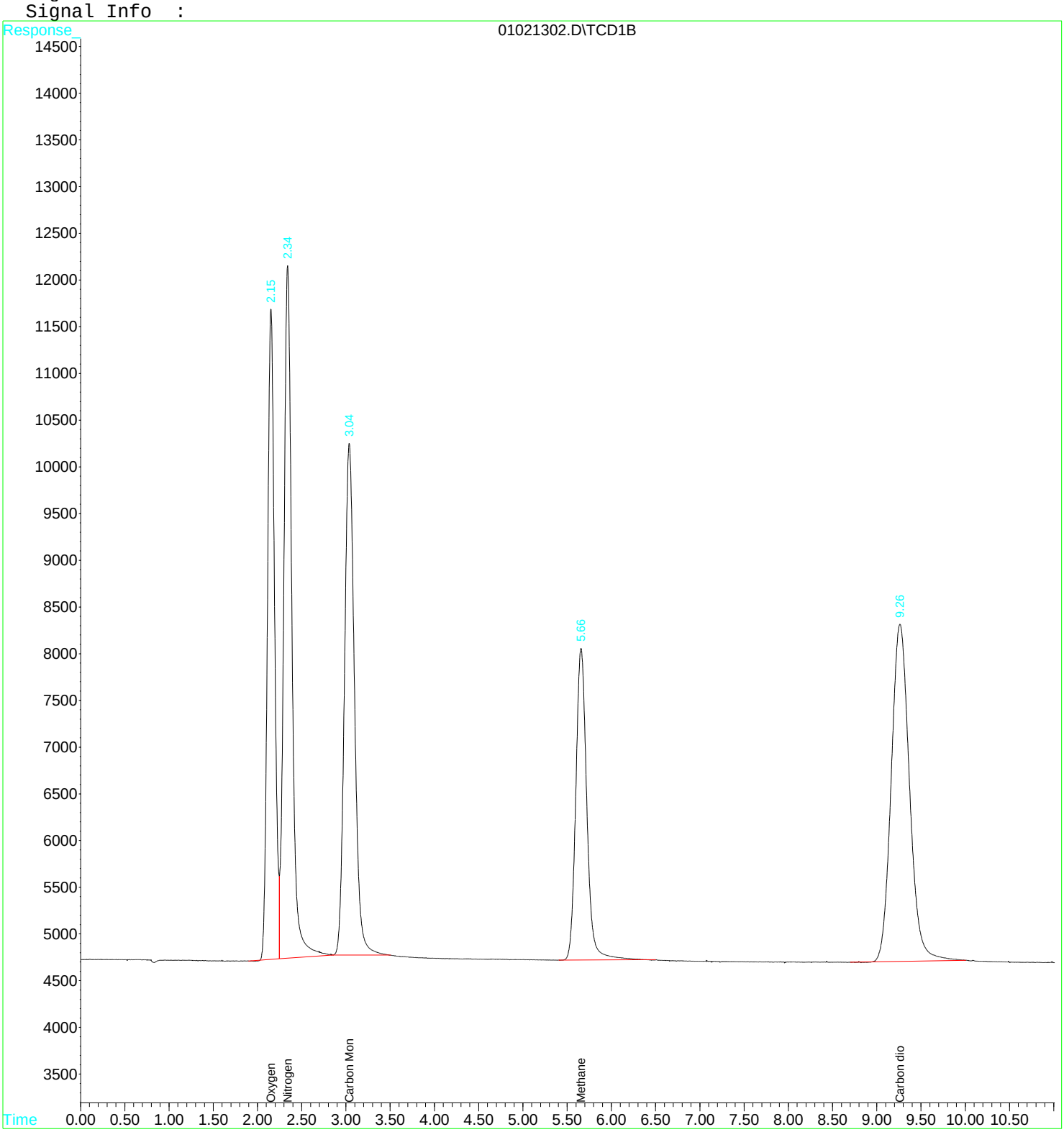
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010213\01021302.D Vial: 1
Acq On : 2 Jan 2013 11:29 am Operator:
Sample : CCV-010213 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 2 16:55 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 02 16:55:28 2013
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\010213\01021316.D Vial: 1
Acq On : 2 Jan 2013 4:31 pm Operator:
Sample : CCV-010213 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.689	-7.6	0	0.05
2	Nitrogen	2.500	2.852	-14.1	0	0.04
3	Carbon Monoxide	2.500	2.666	-6.6	0	0.05
4	Methane	2.000	2.070	-3.5	0	0.06
5	Carbon dioxide	2.500	2.568	-2.7	0	0.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
01021316.D 122712.M Thu Jan 03 11:00:54 2013

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\010213\01021316.D          Vial: 1
Acq On    :  2 Jan 2013   4:31 pm                   Operator:
Sample    : CCV-010213 TCD-B                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : autoint1.e

Method       : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title        :
Last Update  : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010213\01021316.D Vial: 1
Acq On : 2 Jan 2013 4:31 pm Operator:
Sample : CCV-010213 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 2 16:44 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	386581	2.689 % v/v
2)	Nitrogen	2.34	484017	2.852 % v/v
3)	Carbon Monoxide	3.03f	428953	2.666 % v/v
4)	Methane	5.66f	289922	2.070 % v/v
5)	Carbon dioxide	9.26f	519848	2.568 % v/v

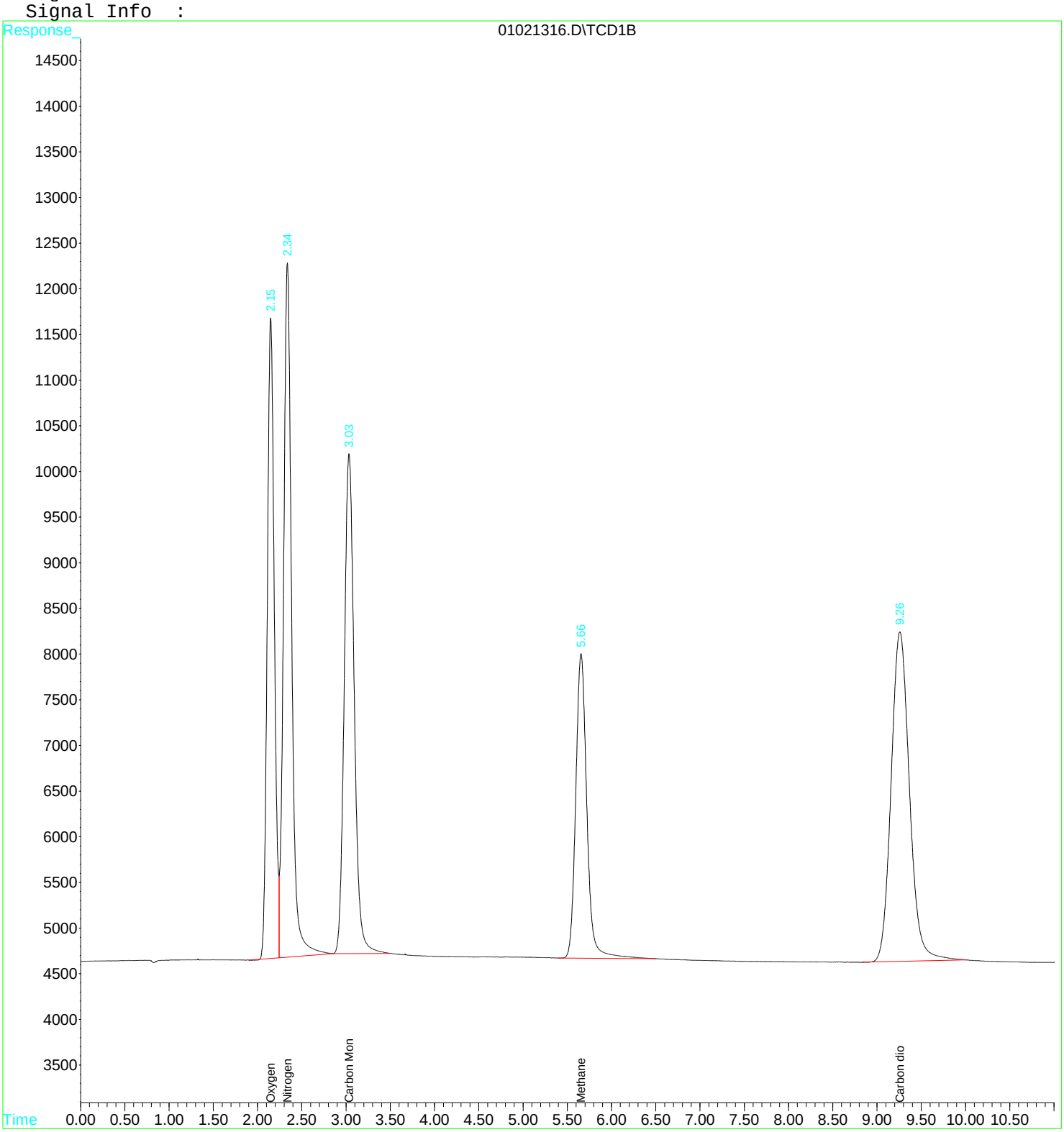
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010213\01021316.D Vial: 1
Acq On : 2 Jan 2013 4:31 pm Operator:
Sample : CCV-010213 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 2 16:44 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\010213\01021323.D Vial: 13
Acq On : 2 Jan 2013 6:44 pm Operator:
Sample : CCV-010213 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.681	-7.2	0	0.05
2	Nitrogen	2.500	2.750	-10.0	0	0.04
3	Carbon Monoxide	2.500	2.687	-7.5	0	0.06
4	Methane	2.000	2.091	-4.6	0	0.06
5	Carbon dioxide	2.500	2.585	-3.4	0	0.08

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\010213\01021323.D          Vial: 13
Acq On    :  2 Jan 2013   6:44 pm                   Operator:
Sample    : CCV-010213 TCD-C                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : autoint1.e

Method       : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title        :
Last Update  : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010213\01021323.D Vial: 13
Acq On : 2 Jan 2013 6:44 pm Operator:
Sample : CCV-010213 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 2 18:55 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 02 16:55:28 2013
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	385346	2.681 % v/v
2)	Nitrogen	2.34	466751	2.750 % v/v
3)	Carbon Monoxide	3.04f	432343	2.687 % v/v
4)	Methane	5.66f	292832	2.091 % v/v
5)	Carbon dioxide	9.26f	523303	2.585 % v/v

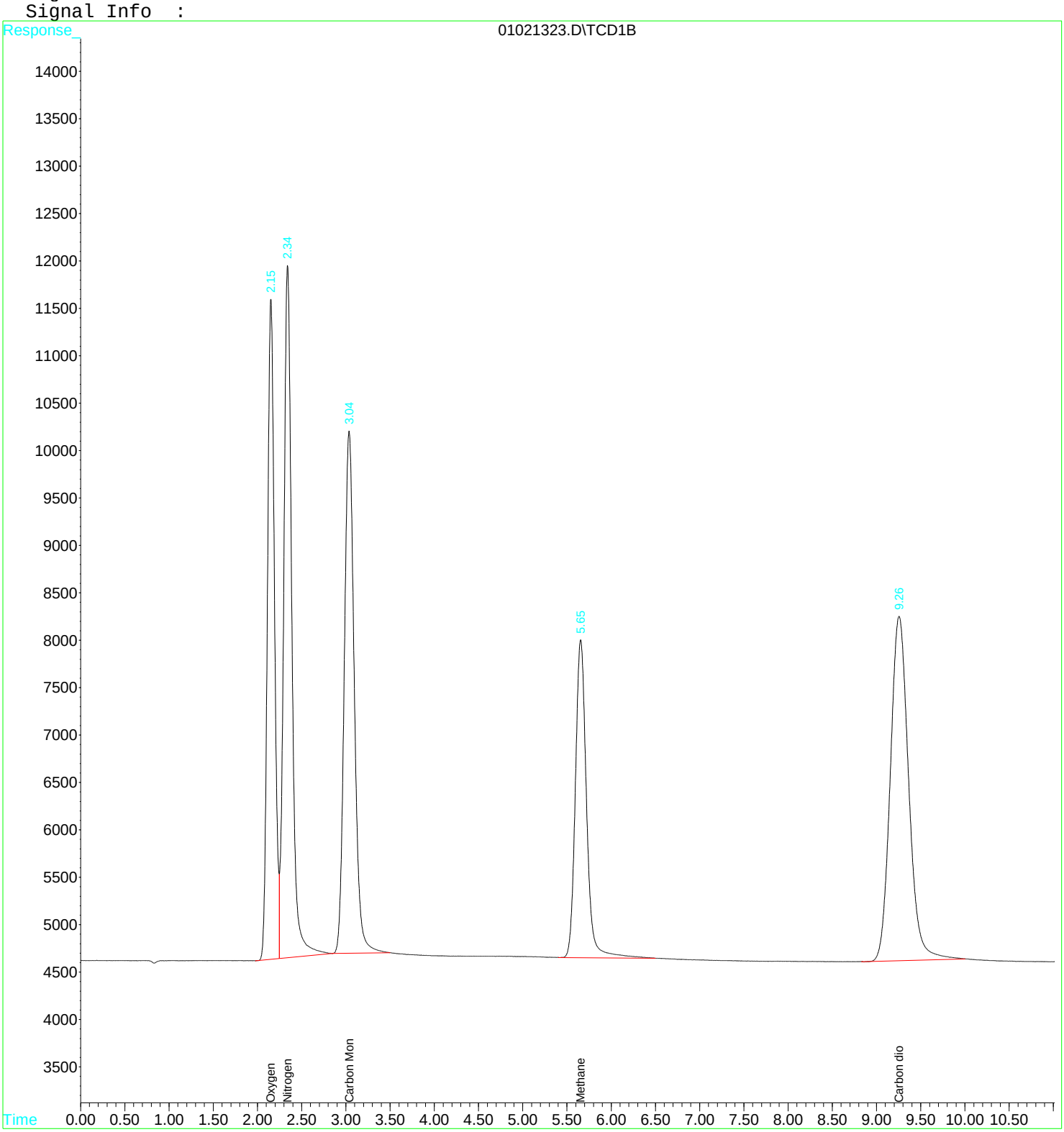
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010213\01021323.D Vial: 13
Acq On : 2 Jan 2013 6:44 pm Operator:
Sample : CCV-010213 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 2 18:55 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 02 16:55:28 2013
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Injection Log

Directory: C:\HPCHEM\2\DATA\010313

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	01031301.d	1.	MBLK-010313 TCD-A		3 Jan 2013 11:06
2	1	01031302.d	1.	CCV-010313 TCD-A		3 Jan 2013 11:21
3	1	01031303.d	1.	LCS-010313 TCD		3 Jan 2013 11:39
4	2	01031304.d	1.	CRQL-010313 TCD-A		3 Jan 2013 12:26
5	3	01031305.d	1.	1212437-036B		3 Jan 2013 12:48
6	2	01031306.d	1.	1212437-037B		3 Jan 2013 13:04
7	1	01031307.d	1.	1212437-038B		3 Jan 2013 13:24
8	1	01031308.d	1.	1212437-039B		3 Jan 2013 14:12
9	1	01031309.d	1.	1212437-040B		3 Jan 2013 14:26
10	1	01031310.d	1.	1212722-054B		3 Jan 2013 14:40
11	1	01031311.d	1.	1212722-055B		3 Jan 2013 14:54
12	1	01031312.d	1.	1212722-063B		3 Jan 2013 15:08
13	2	01031313.d	1.	1212722-063BDUP		3 Jan 2013 15:22
14	2	01031314.d	1.	CCV-010313 TCD-B		3 Jan 2013 15:52
15	15	01031315.d	1.	CRQL-010313 TCD-B		3 Jan 2013 16:41

RTI Laboratories

ANALYTICAL RUN Summary

15-Jan-13

RunNo 55105

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086344	MBLK-010313 TCD-A	ASTM-D2504	MBLK	ıTA\010313\0103	1/3/2013 11:06:0	1	R55105		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	0.011	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Oxygen	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086345	CCV-010313 TCD-A	ASTM-D2504	CCV	ıTA\010313\0103	1/3/2013 11:21:0	1	R55105		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.573	2.573		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Carbon Monoxide	A	% v/v	2.672	2.672		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	2.063	2.063		2	0	0	0.025	0.5	0	103%	85	115	0%	
Nitrogen	A	% v/v	2.818	2.818		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Oxygen	A	% v/v	2.689	2.689		2.5	0	0	0.025	0.1	0	108%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086346	LCS-010313 TCD	ASTM-D2504	LCS	ıTA\010313\0103	1/3/2013 11:39:0	1	R55105		0	1E+06	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.58	2.58		2.5	0	2.573	0.025	0.1	0	103%	70	130	0%	
Carbon Monoxide	A	% v/v	2.689	2.689		2.5	0	2.672	0.025	0.1	0	108%	70	130	1%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	70	130	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	70	130	0%	U

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086356	1212722-063BDUP	ASTM-D2504	DUP	ıTA\010313\0103	1/3/2013 3:22:00	1	R55105		0	1E+06	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	% v/v	22.32	22.32		0	0	22.479	0.025	0.1	0	0%	0	0	1%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086357	CCV-010313 TCD-B	ASTM-D2504	CCV	ıTA\010313\0103	1/3/2013 3:52:00	1	R55105		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.565	2.565		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Carbon Monoxide	A	% v/v	2.668	2.668		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	85	115	0%	U
Methane	A	% v/v	2.072	2.072		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	% v/v	2.744	2.744		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Oxygen	A	% v/v	2.664	2.664		2.5	0	0	0.025	0.1	0	107%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1086358	CRQL-010313 TCD-B	ASTM-D2504	CRQL	ıTA\010313\0103	1/3/2013 4:41:00	1	R55105		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.344	0.344		0.3	0	0	0.025	0.1	0	115%	80	120	0%	
Carbon Monoxide	A	% v/v	0.166	0.166		0.14	0	0	0.025	0.1	0	119%	80	120	0%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	80	120	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	80	120	0%	U
Methane	A	% v/v	0.106	0.106		0.09	0	0	0.025	0.5	0	118%	80	120	0%	
Nitrogen	A	% v/v	1.621	1.621		1.39	0	0	0.025	0.1	0	117%	80	120	0%	
Oxygen	A	% v/v	0.081	0.081		0.08	0	0	0.025	0.1	0	101%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\010313\01031302.D Vial: 1
Acq On : 3 Jan 2013 11:21 am Operator:
Sample : CCV-010313 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.689	-7.6	0	0.05
2	Nitrogen	2.500	2.818	-12.7	0	0.04
3	Carbon Monoxide	2.500	2.672	-6.9	0	0.06
4	Methane	2.000	2.063	-3.2	0	0.06
5	Carbon dioxide	2.500	2.573	-2.9	0	0.08

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\010313\01031302.D          Vial: 1
Acq On    :  3 Jan 2013  11:21 am                   Operator:
Sample    : CCV-010313 TCD-A                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : autoint1.e

Method       : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title        :
Last Update  : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010313\01031302.D Vial: 1
Acq On : 3 Jan 2013 11:21 am Operator:
Sample : CCV-010313 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 3 11:37 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 02 16:55:28 2013
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	386570	2.689 % v/v
2)	Nitrogen	2.34	478277	2.818 % v/v
3)	Carbon Monoxide	3.04f	429810	2.672 % v/v
4)	Methane	5.66f	289002	2.063 % v/v
5)	Carbon dioxide	9.26f	520900	2.573 % v/v

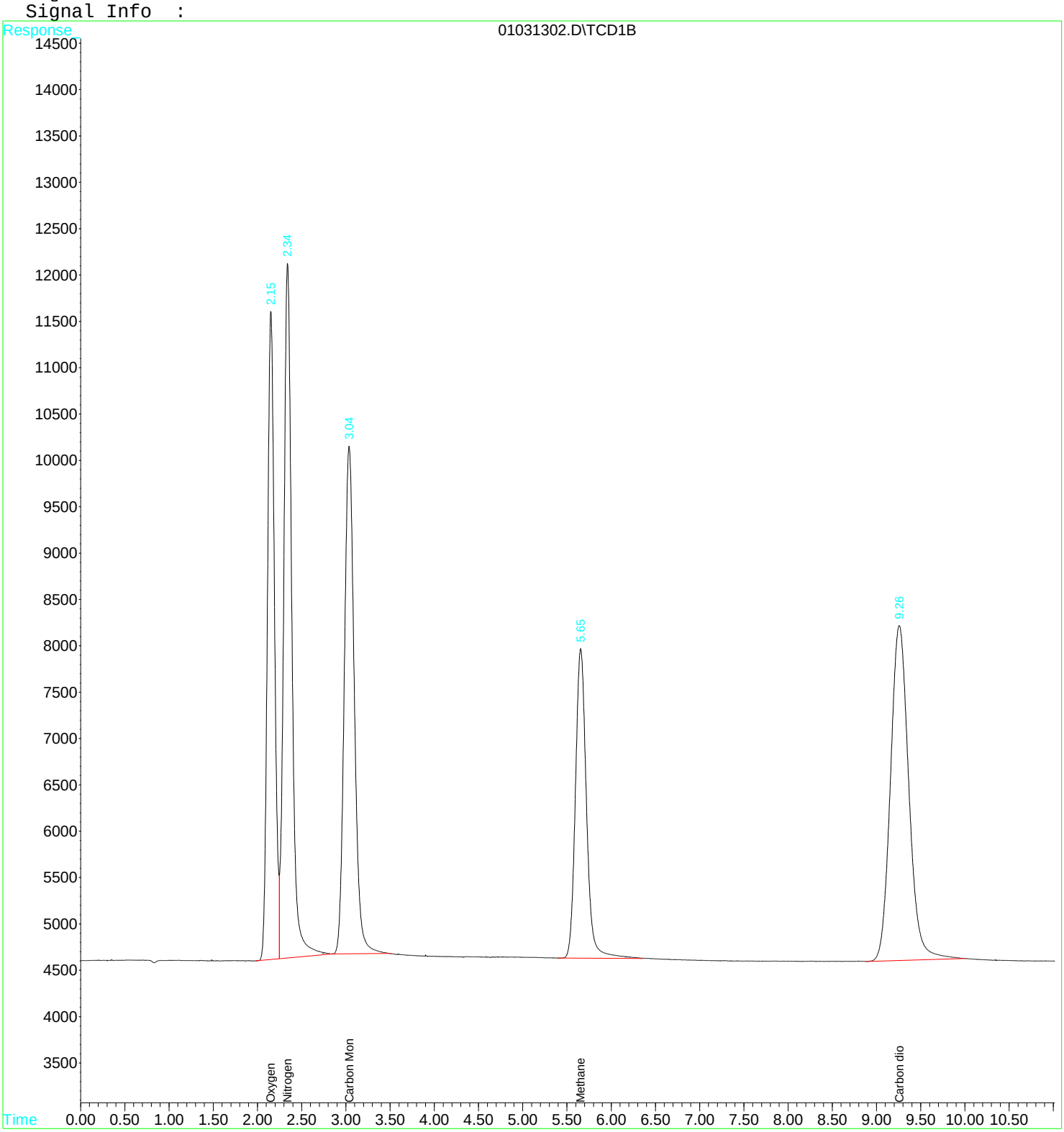
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010313\01031302.D Vial: 1
Acq On : 3 Jan 2013 11:21 am Operator:
Sample : CCV-010313 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 3 11:37 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 02 16:55:28 2013
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\010313\01031314.D Vial: 2
Acq On : 3 Jan 2013 3:52 pm Operator:
Sample : CCV-010313 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.664	-6.6	0	0.05
2	Nitrogen	2.500	2.744	-9.8	0	0.04
3	Carbon Monoxide	2.500	2.668	-6.7	0	0.06
4	Methane	2.000	2.072	-3.6	0	0.06
5	Carbon dioxide	2.500	2.565	-2.6	0	0.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
01031314.D 122712.M Fri Jan 04 11:03:28 2013

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\010313\01031314.D          Vial: 2
Acq On    :  3 Jan 2013   3:52 pm                   Operator:
Sample    : CCV-010313 TCD-B                        Inst    : GC/TCD
Misc      :                                         Multiplr: 1.00
IntFile   : autoint1.e

Method       : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title        :
Last Update  : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010313\01031314.D Vial: 2
Acq On : 3 Jan 2013 3:52 pm Operator:
Sample : CCV-010313 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 3 16:03 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 02 16:55:28 2013
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	383007	2.664 % v/v
2)	Nitrogen	2.34	465770	2.744 % v/v
3)	Carbon Monoxide	3.04f	429204	2.668 % v/v
4)	Methane	5.66f	290294	2.072 % v/v
5)	Carbon dioxide	9.26f	519202	2.565 % v/v

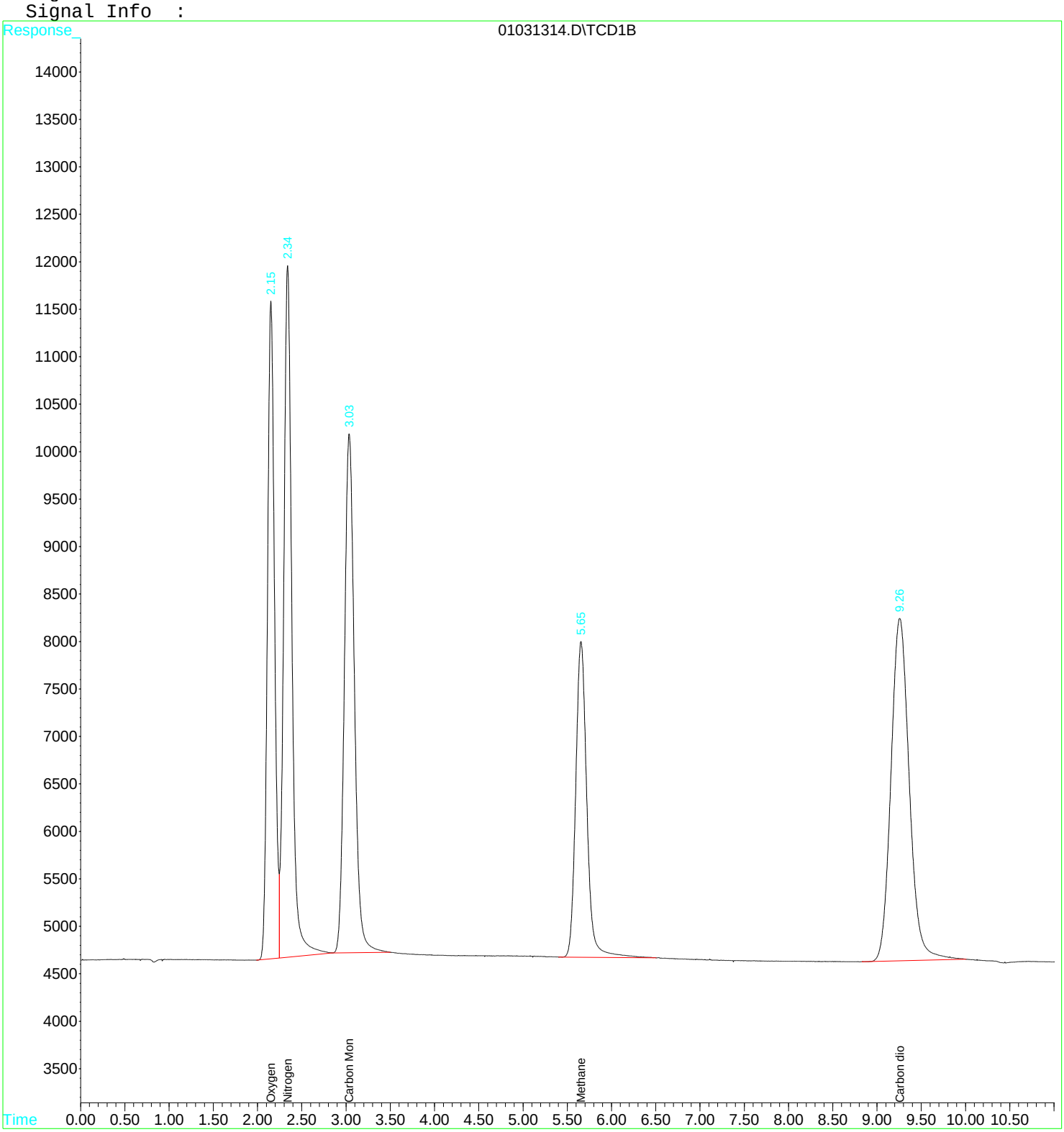
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010313\01031314.D Vial: 2
Acq On : 3 Jan 2013 3:52 pm Operator:
Sample : CCV-010313 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 3 16:03 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 02 16:55:28 2013
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report GC/TCD

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jun 26 10:08:21 2012

Calibration Files
1 =06251202.D 2 =06251203.D 3 =06251204.D
4 =06251205.D 5 =06251206.D 6 =06251207.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1)	Oxygen	1.438	1.499	1.479	1.481	1.430	1.632	1.498	E5	4.54
2)	Nitrogen	1.776	1.733	1.737	1.720	1.663	1.790	1.739	E5	2.40
3)	Carbon Monoxide	1.695	1.642	1.639	1.623	1.559	1.612	1.628	E5	2.72
4)	Methane	1.499	1.452	1.448	1.443	1.416	1.341	1.433	E5	3.67
5)	Carbon dioxide	2.156	2.072	2.078	2.053	1.983	2.079	2.070	E5	2.68

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

062512.M Tue Jun 26 10:10:16 2012

Compound List Report GC/TCD

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Tue Jun 26 10:08:21 2012
Response via : Initial Calibration
Total Cpnds : 5

PK#	Type	Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1		Oxygen	2.21	1.000	A	A	R
2		Nitrogen	2.38	1.000	A	A	R
3		Carbon Monoxide	3.13	1.000	A	A	R
4		Methane	5.75	1.000	A	A	R
5		Carbon dioxide	9.41	1.000	A	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

062512.M Tue Jun 26 10:10:22 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\062512\06251210.D Vial: 1
Acq On : 25 Jun 2012 5:24 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.613	-4.5	0	0.00
2	Nitrogen	2.500	2.746	-9.8	0	0.02
3	Carbon Monoxide	2.500	2.664	-6.6	0	-0.01
4	Methane	2.000	2.139	-6.9	0	-0.01
5	Carbon dioxide	2.500	2.623	-4.9	0	-0.02

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062512\06251210.D Vial: 1
Acq On : 25 Jun 2012 5:24 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 16:36 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.20	391497	2.613	%
2)	Nitrogen	2.40	477577	2.746	%
3)	Carbon Monoxide	3.11	433851	2.664	%
4)	Methane	5.74	306500	2.139	%
5)	Carbon dioxide	9.39	542989	2.623	%

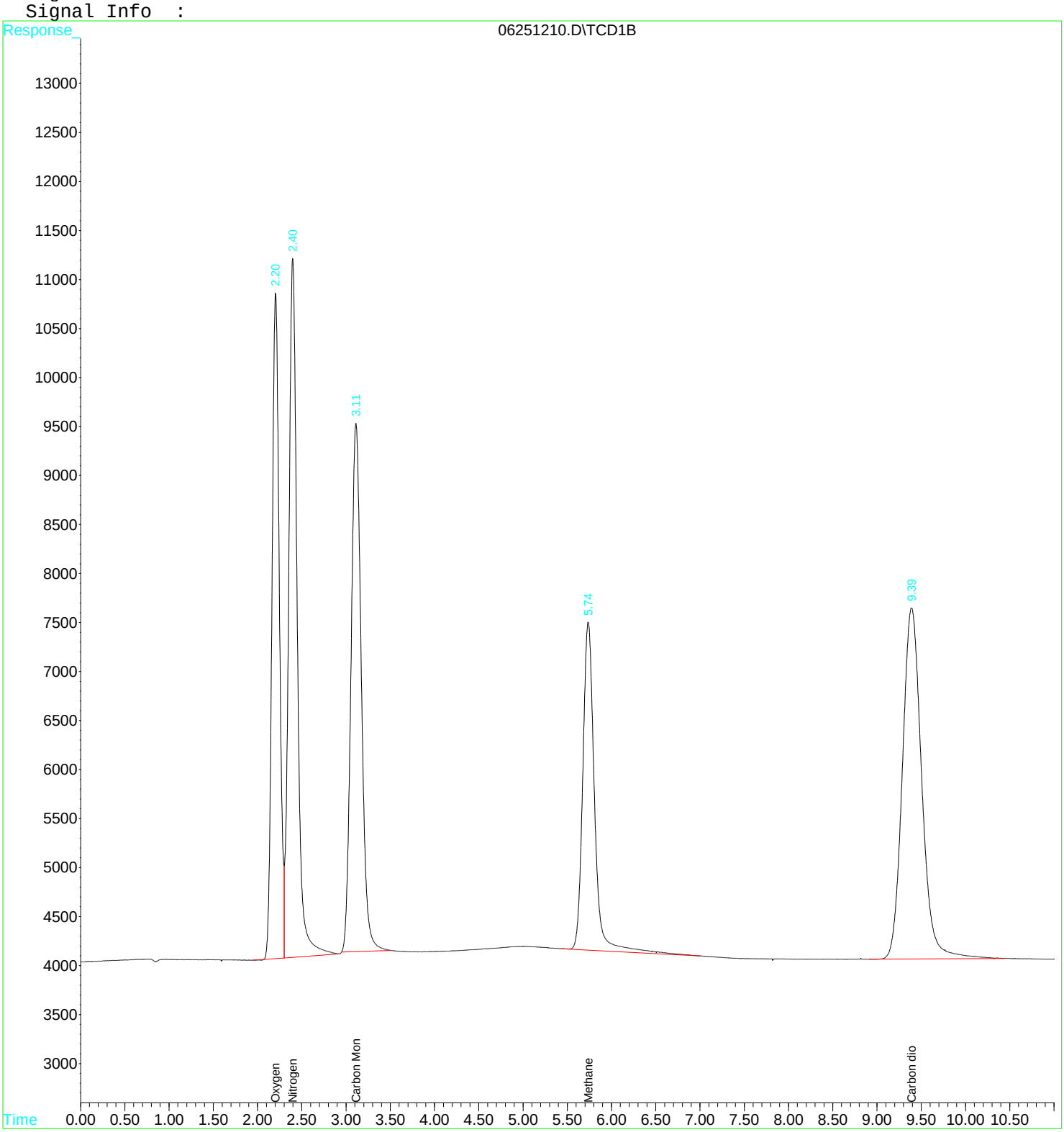
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062512\06251210.D Vial: 1
Acq On : 25 Jun 2012 5:24 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 25 16:36 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report GC/TCD

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012

Calibration Files
1 =12271202.D 2 =12271203.D 3 =12271204.D
4 =12271205.D 5 =12271206.D 6 =12271207.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1)	Oxygen	1.410	1.434	1.387	1.407	1.380	1.419	1.437	E5	5.91
2)	Nitrogen	1.726	1.705	1.684	1.662	1.628	1.708	1.697	E5	2.65
3)	Carbon Monoxide	1.667	1.631	1.610	1.584	1.547	1.614	1.609	E5	2.55
4)	Methane	1.447	1.416	1.401	1.379	1.352	1.409	1.401	E5	2.32
5)	Carbon dioxide	2.098	2.066	2.016	1.985	1.938	2.043	2.024	E5	2.85

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

122712.M Mon Dec 31 12:30:47 2012

Compound List Report GC/TCD

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Initial Calibration
Total Cpnds : 5

PK#	Type	Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1		Oxygen	2.10	1.000	A	A	R
2		Nitrogen	2.30	1.000	A	A	R
3		Carbon Monoxide	2.98	1.000	A	A	R
4		Methane	5.60	1.000	A	A	R
5		Carbon dioxide	9.18	1.000	A	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

122712.M Mon Dec 31 12:30:38 2012

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\2\DATA\122712CA\12271210.D         Vial: 10
Acq On    : 27 Dec 2012   5:55 pm                    Operator:
Sample    : ICV STD 1-2                              Inst    : GC/TCD
Misc      : ICV  ASTM-D2504                          Multiplr: 1.00
IntFile   : autoint1.e

Method       : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title        :
Last Update  : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.720	-8.8	0	0.04
2	Nitrogen	2.500	2.866	-14.6	0	0.03
3	Carbon Monoxide	2.500	2.697	-7.9	0	0.04
4	Methane	2.000	2.094	-4.7	0	0.04
5	Carbon dioxide	2.500	2.595	-3.8	0	0.05

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\122712CA\12271210.D         Vial: 10
Acq On    : 27 Dec 2012   5:55 pm                    Operator:
Sample    : ICV STD 1-2                              Inst    : GC/TCD
Misc      : ICV  ASTM-D2504                          Multiplr: 1.00
IntFile   : autoint1.e

Method       : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title        :
Last Update  : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
09141202.D 122712.M Mon Dec 31 12:30:21 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122712CA\12271210.D Vial: 10
Acq On : 27 Dec 2012 5:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 27 18:16 2012 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

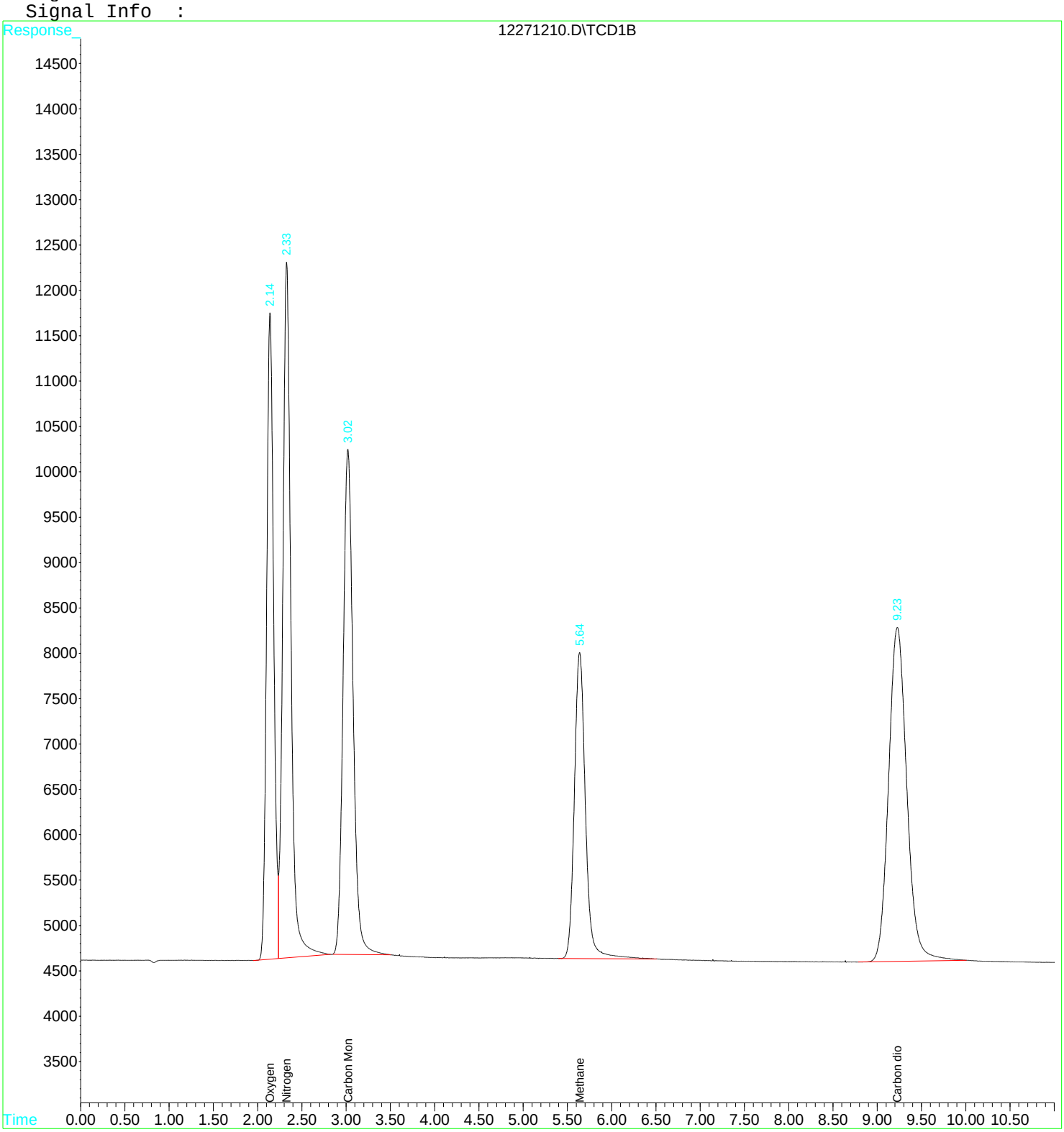
Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	391029	2.720 % v/v
2)	Nitrogen	2.33	486424	2.866 % v/v
3)	Carbon Monoxide	3.02	433862	2.697 % v/v
4)	Methane	5.64	293278	2.094 % v/v
5)	Carbon dioxide	9.23	525284	2.595 % v/v

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122712CA\12271210.D Vial: 10
Acq On : 27 Dec 2012 5:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 27 18:16 2012 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :