RTI LABORATORIES, INC.

Analytical Report

Level III Data Package

Work Order #: 1212185

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: 1/3/2013

Charles O`Bryan, Director, Quality Management

RTI Laboratories
31628 Glendale St.
Livonia, MI 48150

TEL: (734) 422-8000
FAX: (734) 422-5342
Website: www.rtilab.com

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Shaw Environmental & Infrastructure, Inc

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Contract #: W912DY-10-D0014

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RTI Laboratories, Inc.

Date: *3-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: 1212185

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 12/5/2012 in good condition. The sample set consisted of 65 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

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 except as noted below:

Sample ID	4-Bromofluorobenzene
1212185-007	141%
1212185-021	164%
1212185-022	163%
1212185-023	157%
1212185-024	166%
1212185-035	174%
1212185-036	161%
1212185-037	160%

Analytical Sequence ID 54386:

- Surrogate failure on Sample IDs 1212185-007, -021 and -022 due to samples being highly contaminated and co-elution with nontarget analytes.

Analytical Sequence ID 54460:

- Sample IDs 1212185-023 and –024 exhibited surrogate failures due to high level of contamination in the samples. Coelution with non-target analytes occurred.

Volatile Organic Compounds Analyses (cont'd):

Analytical Sequence ID 54613:

- Sample IDs 1212185-035, -036 and –037 exhibited surrogate failures due to high level of contamination in the samples. Coelution with non-target analytes occurred**.**

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 54602:

- Sample ID 1212185-015A DUP: The % RPD was outside the acceptance criteria for C9-C12 Aliphatic Hydrocarbons (200%) due to concentrations at or below the PQL.

Analytical Sequence ID 54540:

- Analytical Comments for METHOD MA_APH, SAMPLE 1212185-032A: Under-diluted sample analyte concentrations exceeded calibration range. Sample was the parent sample for the duplicate analysis and analyzed at the same dilution as the batch duplicate. Sample results at this dilution are not reported. Batch duplicate is reported. Sample results are reported are at a different dilution than the batch duplicate.

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

RTI Laboratories, Inc. **Date:** *3-Jan.-13*

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CASE NARRATIVE

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 3, 2013____
Charles O'Bryan, Director, Quality Management

RTI Laboratories - Definitions and Acronyms

WO#: 1212185

Date Reported: 1/2/2013
Original

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

1212185

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV106

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

Samples Shipment Date: 29 NOV 2012
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/2323121511

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 Nagle	Date: 11/28/12 Time: 1130	1. Received By (Signature/Affiliation) Andrea Flores / RTI Labs	Date: 12-5-12 Time: 10:42
2. Relinquished By (Signature/Affiliation)	Date: Time:	2. Received By (Signature/Affiliation)	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:	3. Received By (Signature/Affiliation)	Date: Time:

Comments: VA 1954 11-21-12 @ 0900; not on chain, in box which read "dud" -5.5" Hg collected by KT bottle: 814

*out of range at -8" Hg VA1974, VA1976 - samples to be ran per Susan Huang's authority

	Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
1 *	VA1974	SVMW-08-050-GS-VA1974-REG	28 NOV 2012	13:04	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-8		N	629	
	VA1974	SVMW-08-050-GS-VA1974-REG	28 NOV 2012	13:04	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
2	VA1975	SVMW-08-100-GS-VA1975-REG	28 NOV 2012	13:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-7		N	743	
	VA1975	SVMW-08-100-GS-VA1975-REG	28 NOV 2012	13:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
3 *	VA1976	SVMW-08-250-GS-VA1976-REG	28 NOV 2012	13:53	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-8		N	793	
	VA1976	SVMW-08-250-GS-VA1976-REG	28 NOV 2012	13:53	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
4	VA1983	SVMW-10-050-GS-VA1983-REG	26 NOV 2012	12:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by	-6.5		N	417	

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV106

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
								MA DEP, VOCs / TPH by TO-15					
4	VA1983	SVMW-10-050-GS-VA1983-REG	26 NOV 2012	12:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
5	VA1984	SVMW-10-100-GS-VA1984-REG	26 NOV 2012	13:04	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	811	
	VA1984	SVMW-10-100-GS-VA1984-REG	26 NOV 2012	13:04	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
6	VA1985	SVMW-10-150-GS-VA1985-REG	26 NOV 2012	13:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	1158	
	VA1985	SVMW-10-150-GS-VA1985-REG	26 NOV 2012	13:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
7	VA1986	SVMW-10-250-GS-VA1986-REG	26 NOV 2012	14:10	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	588	
	VA1986	SVMW-10-250-GS-VA1986-REG	26 NOV 2012	14:10	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
8	VA2028	KAFB-106108-025-GS-VA2028-REG	26 NOV 2012	15:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	1220	
	VA2028	KAFB-106108-025-GS-VA2028-REG	26 NOV 2012	15:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
9	VA2029	KAFB-106108-050-GS-VA2029-REG	26 NOV 2012	16:21	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	768	
	VA2029	KAFB-106108-050-GS-VA2029-REG	26 NOV 2012	16:21	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
10	VA2030	KAFB-106108-150-GS-VA2030-REG	27 NOV 2012	09:07	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	735	
	VA2030	KAFB-106108-150-GS-VA2030-REG	27 NOV 2012	09:07	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
11	VA2031	KAFB-106108-250-GS-VA2031-REG	27 NOV 2012	10:26	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	597	
	VA2031	KAFB-106108-250-GS-VA2031-REG	27 NOV 2012	10:26	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
12	VA2032	KAFB-106108-350-GS-VA2032-REG	27 NOV 2012	11:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	1171	
	VA2032	KAFB-106108-350-GS-VA2032-REG	27 NOV 2012	11:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
13	VA2033	KAFB-106108-350-GS-VA2033-FD	27 NOV 2012	11:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	694	
	VA2033	KAFB-106108-350-GS-VA2033-FD	27 NOV 2012	11:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
14	VA2034	KAFB-106108-450-GS-VA2034-REG	27 NOV 2012	11:54	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1095	
	VA2034	KAFB-106108-450-GS-VA2034-REG	27 NOV 2012	11:54	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
15	VA2061	KAFB-106113-020-GS-VA2061-REG	27 NOV 2012	08:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	691	
	VA2061	KAFB-106113-020-GS-VA2061-REG	27 NOV 2012	08:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
16	VA2062	KAFB-106113-050-GS-VA2062-REG	27 NOV 2012	09:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5		N	1098	
	VA2062	KAFB-106113-050-GS-VA2062-REG	27 NOV 2012	09:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
17	VA2063	KAFB-106113-150-GS-VA2063-REG	27 NOV 2012	10:02	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	829	
	VA2063	KAFB-106113-150-GS-VA2063-REG	27 NOV 2012	10:02	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good

• dup •

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV106

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
18	VA2064	KAFB-106113-250-GS-VA2064-REG	27 NOV 2012	10:37	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5.5		N	773	
	VA2064	KAFB-106113-250-GS-VA2064-REG	27 NOV 2012	10:37	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
19	VA2065	KAFB-106113-350-GS-VA2065-REG	27 NOV 2012	11:09	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	534	
	VA2065	KAFB-106113-350-GS-VA2065-REG	27 NOV 2012	11:09	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
20	VA2066	KAFB-106113-450-GS-VA2066-REG	27 NOV 2012	11:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	747	
	VA2066	KAFB-106113-450-GS-VA2066-REG	27 NOV 2012	11:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
21	VA2067	KAFB-106114-025-GS-VA2067-REG	27 NOV 2012	12:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	592	
	VA2067	KAFB-106114-025-GS-VA2067-REG	27 NOV 2012	12:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
22	VA2068	KAFB-106114-050-GS-VA2068-REG	27 NOV 2012	13:09	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	607	
	VA2068	KAFB-106114-050-GS-VA2068-REG	27 NOV 2012	13:09	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
23	VA2069	KAFB-106114-150-GS-VA2069-REG	27 NOV 2012	13:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	618	
	VA2069	KAFB-106114-150-GS-VA2069-REG	27 NOV 2012	13:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
dup. 24	VA2070	KAFB-106114-150-GS-VA2070-FD	27 NOV 2012	13:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	796	
	VA2070	KAFB-106114-150-GS-VA2070-FD	27 NOV 2012	13:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
25	VA2071	KAFB-106114-250-GS-VA2071-REG	27 NOV 2012	14:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	715	
	VA2071	KAFB-106114-250-GS-VA2071-REG	27 NOV 2012	14:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
26	VA2072	KAFB-106114-350-GS-VA2072-REG	27 NOV 2012	15:27	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	633	
	VA2072	KAFB-106114-350-GS-VA2072-REG	27 NOV 2012	15:27	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
27	VA2073	KAFB-106114-450-GS-VA2073-REG	27 NOV 2012	16:03	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	838	
	VA2073	KAFB-106114-450-GS-VA2073-REG	27 NOV 2012	16:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
28	VA2080	KAFB-106116-025-GS-VA2080-REG	26 NOV 2012	08:40	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	696	
	VA2080	KAFB-106116-025-GS-VA2080-REG	26 NOV 2012	08:40	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
29	VA2081	KAFB-106116-050-GS-VA2081-REG	26 NOV 2012	09:07	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	770	
	VA2081	KAFB-106116-050-GS-VA2081-REG	26 NOV 2012	09:07	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
dup. 30	VA2082	KAFB-106116-050-GS-VA2082-FD	26 NOV 2012	09:07	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	783	
	VA2082	KAFB-106116-050-GS-VA2082-FD	26 NOV 2012	09:07	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
31	VA2083	KAFB-106116-150-GS-VA2083-REG	26 NOV 2012	09:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1174	
	VA2083	KAFB-106116-150-GS-VA2083-REG	26 NOV 2012	09:50	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-SV106

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
32	VA2084	KAFB-106116-250-GS-VA2084-REG	26 NOV 2012	10:24	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	598	
	VA2084	KAFB-106116-250-GS-VA2084-REG	26 NOV 2012	10:24	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
33	VA2085	KAFB-106116-350-GS-VA2085-REG	26 NOV 2012	10:58	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1183	
	VA2085	KAFB-106116-350-GS-VA2085-REG	26 NOV 2012	10:58	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
34	VA2086	KAFB-106116-450-GS-VA2086-REG	26 NOV 2012	11:33	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	733	
	VA2086	KAFB-106116-450-GS-VA2086-REG	26 NOV 2012	11:33	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
35	VA2087	KAFB-106117-025-GS-VA2087-REG	28 NOV 2012	14:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-7		N	1139	
	VA2087	KAFB-106117-025-GS-VA2087-REG	28 NOV 2012	14:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
36	VA2088	KAFB-106117-050-GS-VA2088-REG	28 NOV 2012	15:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1221	
	VA2088	KAFB-106117-050-GS-VA2088-REG	28 NOV 2012	15:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
37	VA2089	KAFB-106117-150-GS-VA2089-REG	28 NOV 2012	15:56	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	1141	
	VA2089	KAFB-106117-150-GS-VA2089-REG	28 NOV 2012	15:56	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
38	VA2107	KAFB-106120-025-GS-VA2107-REG	27 NOV 2012	12:56	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1204	
	VA2107	KAFB-106120-025-GS-VA2107-REG	27 NOV 2012	12:56	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
39	VA2108	KAFB-106120-050-GS-VA2108-REG	27 NOV 2012	13:28	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	769	
	VA2108	KAFB-106120-050-GS-VA2108-REG	27 NOV 2012	13:28	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
40	VA2109	KAFB-106120-150-GS-VA2109-REG	27 NOV 2012	13:59	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	543	
	VA2109	KAFB-106120-150-GS-VA2109-REG	27 NOV 2012	13:59	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
41	VA2110	KAFB-106120-250-GS-VA2110-REG	27 NOV 2012	14:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	845	
	VA2110	KAFB-106120-250-GS-VA2110-REG	27 NOV 2012	14:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
42	VA2111	KAFB-106120-350-GS-VA2111-REG	27 NOV 2012	15:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	1099	
	VA2111	KAFB-106120-350-GS-VA2111-REG	27 NOV 2012	15:06	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
43	VA2112	KAFB-106120-450-GS-VA2112-REG	27 NOV 2012	15:44	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	524	
	VA2112	KAFB-106120-450-GS-VA2112-REG	27 NOV 2012	15:44	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
44	VA2113	KAFB-106121-025-GS-VA2113-REG	28 NOV 2012	08:40	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-5.5		N	816	
	VA2113	KAFB-106121-025-GS-VA2113-REG	28 NOV 2012	08:40	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
45	VA2114	KAFB-106121-050-GS-VA2114-REG	28 NOV 2012	09:08	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1137	
	VA2114	KAFB-106121-050-GS-VA2114-REG	28 NOV 2012	09:08	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV106

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
46	VA2115	KAFB-106121-145-GS-VA2115-REG	28 NOV 2012	09:45	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1226	
	VA2115	KAFB-106121-145-GS-VA2115-REG	28 NOV 2012	09:45	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
dup. 47	VA2116	KAFB-106121-145-GS-VA2116-FD	28 NOV 2012	09:45	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	707	
	VA2116	KAFB-106121-145-GS-VA2116-FD	28 NOV 2012	09:45	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
48	VA2117	KAFB-106121-250-GS-VA2117-REG	28 NOV 2012	10:36	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	705	
	VA2117	KAFB-106121-250-GS-VA2117-REG	28 NOV 2012	10:36	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
49	VA2118	KAFB-106121-350-GS-VA2118-REG	28 NOV 2012	11:10	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	580	
	VA2118	KAFB-106121-350-GS-VA2118-REG	28 NOV 2012	11:10	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
50	VA2119	KAFB-106121-440-GS-VA2119-REG	28 NOV 2012	11:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	723	
	VA2119	KAFB-106121-440-GS-VA2119-REG	28 NOV 2012	11:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
51	VA2120	KAFB-106122-025-GS-VA2120-REG	28 NOV 2012	12:48	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1129	
	VA2120	KAFB-106122-025-GS-VA2120-REG	28 NOV 2012	12:48	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
52	VA2121	KAFB-106122-050-GS-VA2121-REG	28 NOV 2012	13:16	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	688	
	VA2121	KAFB-106122-050-GS-VA2121-REG	28 NOV 2012	13:16	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
53	VA2122	KAFB-106122-150-GS-VA2122-REG	28 NOV 2012	13:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	565	
	VA2122	KAFB-106122-150-GS-VA2122-REG	28 NOV 2012	13:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
54	VA2123	KAFB-106122-250-GS-VA2123-REG	28 NOV 2012	14:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1162	
	VA2123	KAFB-106122-250-GS-VA2123-REG	28 NOV 2012	14:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
55	VA2124	KAFB-106122-350-GS-VA2124-REG	28 NOV 2012	14:56	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	686	
	VA2124	KAFB-106122-350-GS-VA2124-REG	28 NOV 2012	14:56	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
dup.	VA2125	KAFB-106122-350-GS-VA2125-FD	28 NOV 2012	14:56	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
56	VA2125	KAFB-106122-350-GS-VA2125-FD	28 NOV 2012	14:56	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	665	
57	VA2126	KAFB-106122-450-GS-VA2126-REG	28 NOV 2012	15:48	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	807	
	VA2126	KAFB-106122-450-GS-VA2126-REG	28 NOV 2012	15:48	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
58	VA2212	KAFB-106136-025-GS-VA2212-REG	28 NOV 2012	08:46	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	682	
	VA2212	KAFB-106136-025-GS-VA2212-REG	28 NOV 2012	08:46	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
59	VA2213	KAFB-106136-050-GS-VA2213-REG	28 NOV 2012	09:12	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1140	
	VA2213	KAFB-106136-050-GS-VA2213-REG	28 NOV 2012	09:12	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV106

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
60	VA2214	KAFB-106136-150-GS-VA2214-REG	28 NOV 2012	09:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	847	
	VA2214	KAFB-106136-150-GS-VA2214-REG	28 NOV 2012	09:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
61	VA2215	KAFB-106136-250-GS-VA2215-REG	28 NOV 2012	10:14	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6.5		N	1222	
	VA2215	KAFB-106136-250-GS-VA2215-REG	28 NOV 2012	10:14	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
62	VA2216	KAFB-106136-350-GS-VA2216-REG	28 NOV 2012	10:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	1214	
	VA2216	KAFB-106136-350-GS-VA2216-REG	28 NOV 2012	10:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
63	VA2217	KAFB-106136-350-GS-VA2217-FD	28 NOV 2012	10:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	520	
	VA2217	KAFB-106136-350-GS-VA2217-FD	28 NOV 2012	10:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
64	VA2218	KAFB-106136-450-GS-VA2218-REG	28 NOV 2012	11:40	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15	-6		N	784	
	VA2218	KAFB-106136-450-GS-VA2218-REG	28 NOV 2012	11:40	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
65	VA8106-TB	FIELDQC-AQ-VA8106-TB-TB	26 NOV 2012	08:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-27.5		N	767	

FROM:
DIANE OSHLO
(505) 259-5669
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS **1 OF 10**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4215 5129

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-4100
1Z10335E034215 5129
ZR08QGB MILIV138 DEC 05 05:06:25 2012
US 4821 HIP 12.1.6 OKILE810

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

12- amber vacs

RD2 05dec12

T - 10 Door: 1250
MI 48150
UPST 397930 MI 482 9-02

UPS GROUND

1Z10335E0342155129

P14D019 3575507 Dec 03 23:00:47 2012 US

SS1013 HIP 11.1.3 BTLP2844L 6059 N

nd place

Account Number	Emergency Contact Number	For Air Services Only (This shipment is within the limitations prescribed for: (Delete Non-Applicable Mode))	
10335E	(800) 424-9300	~~Passenger Aircraft~~	~~Cargo Aircraft Only~~
Reference Number	ER Registrant	XXXX	XXXX
1Z10335E0342155129	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 11/29/12 Date

Carrier Use Only
Initials DAS
SLIC 8710
Date 11/23/12

Page 1 of 1 | 1 Package

CUSTODY SEAL
DATE 11/29/12
SIGNATURE

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

FROM:
DIANE OSHLO
(505) 259-5669
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS **2 OF 10**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4017 3934

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 – 4100

1Z10335E034017 3934

ZRQ8OGB MILIV138 DEC 05 05:05:28 2012
US 4821 HIP 12.1.6 OKILE810

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

12 amber vacs - RD2 05dec12

T – 10 **Door: 1250**
MI 48150
UPST 397930 **MI 482 9-02**

UPS GROUND

1Z10335E0340173934

P14D019 3575507 Dec 03 23:00:01 2012 US

SS1013 HIP 11.1.3 BTLP2844L 6059 N

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
1Z10335E0340173934	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 — Date 11/29/12

Carrier Use Only
Initials DLD
SLIC 3MO
Date 11/29/12

Page 1 of 1 — 1 Package

CUSTODY SEAL
DATE 11/29/12
SIGNATURE

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

FROM:
DIANE OSHLO
(505) 259-5669
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

3 LBS **3 OF 10**
DWT: 18,18,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4189 5340

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-4100

1Z10335E034189 5340

ZR08GGB MILIV13B DEC 05 05:07:01 2012
US 4821 HIP 12.1.6 OKILE810

BILLING: P/P
HAZARDOUS MATERIALS - GROUND ONLY
HAZ#: 176
31 - tedlar bags. RD2 05dec12

T - 10 Door: 1250
MI 48150
UPST 397930 MI 482 9-02

Fold here and place

Account Number	Emergency Contact Number	For Air Services Only (This shipment is within the limitations prescribed for: (Delete Non-Applicable Mode))
10335E	(800) 424-9300	~~Passenger Aircraft~~ XXXX / ~~Cargo Aircraft Only~~ XXXX
Reference Number: 1Z10335E0341895340	ER Registrant: 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 _____ Date 11/29/12

Carrier Use Only
Initials DCO
SLIC 8710
Date 11/29/12
1 Package

UPS GROUND

1Z10335E0341895340

P14D019 3575507 Dec 03 22:59:33 2012 US
SS1013 HIP 11.1.3 BTLP2844L

6059 N

CUSTODY SEAL
DATE 11/29/12
SIGNATURE _____

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

THIS E

FROM:
DIANE OSHLO
(505) 259-5669
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

3 LBS **4 OF 10**
DWT: 18,18,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4051 5350

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-4100

1Z10335E034051 5350

ZRQ8QGB MILIV138 DEC 05 05:07:53 2012
US 4821 HIP 12.1.6 OKILE810

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

33 tedlar bags - RD2 05dec12

T - 10 Door: 1250
MI 48150
UPST 397930 MI 482 9-02

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
1Z10335E0340515350	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 11/29/12 Date

Carrier Use Only
Initials DLO
SLIC 9110
Date 11/29/12

Page 1 of 1 | 1 Package

UPS GROUND

1Z10335E0340515350

P14D019 3575507 Dec 03 22:59:19 2012 US

SS1013 HIP 11.1.3 BTLP2844L 6059 N

CUSTODY SEAL
DATE 11/29/12
SIGNATURE

QEC
Quality Environmental Contain
800-255-3950 • 304-255-39

FROM:
DIANE OSHLO
(505) 259-5669
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS **5 OF 10**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4038 9961

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-4100

1Z10335E034038 9961

ZRQBQGB MILIV13B DEC 05 05:16:43 2012
US 4821 HIP 12.1.6 OKILE810

BILLING: P/P

12 amber vacs - RD2 05dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 11/29/12
SIGNATURE TN

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

FROM:
DIANE OSHLO
(505) 259-5669
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS **6 OF 10**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4263 5173

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-4100

1Z10335E034263 5173

ZR08GGB MILIV138 DEC 05 05:19:17 2012
US 4821 HIP 12.1.6 OKILE810

BILLING: P/P

12 amber
Vacs - RD2
05dec 12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

CUSTODY SEAL
DATE 11/29/12
SIGNATURE

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

FROM:
DIANE OSHLO
(505) 259-5669
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS **7 OF 10**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4272 6986

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-4100

1Z10335E034272 6986

ZRQ80GB MILIV138 DEC 05 05:19:53 2012
US 4821 HIP 12.1.6 OKILE810

BILLING: P/P

12 - amber vacs RD2 05dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 11/29/12
SIGNATURE

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

FROM:
DIANE OSHLO
(505) 259-5669
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS **8 OF 10**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4010 1396

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-4100

1Z10335E034010 1396

ZR0BGGB MILIV13B DEC 05 05:20:27 2012
US 4821 HIP 12.1.6 OKILE810

BILLING: P/P

12 - amber vacs. - RD2 05dec12

6 - duds 6 - samples

1 - not on COC VA1954

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 11/29/12
SIGNATURE TRDear

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

THIS

FROM:
DIANE OSHLO
(505) 259-5669
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS **9 OF 10**
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4175 4402

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-4100

1Z10335E034175 4402

ZRQ80GB MILIV138 DEC 05 05:16:27 2012
US 4821 HIP 12.1.6 OKILE810

BILLING: P/P

12 "duds" - RD2
05dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 11/29/12
SIGNATURE TR[illegible]

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

FROM:
DIANE OSHLO
(505) 259-5669
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

16 LBS **10 OF 10**
DWT: 12,9,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4184 2012

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-4100

1Z10335E034184 2012

ZR080GB MILIV13B DEC 05 05:19:16 2012
US 4821 HIP 12.1.6 OKILE810

BILLING: P/P

Regulators - RD2
05dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 11/29/12
SIGNATURE TT Nagy

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

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:	**1212185**
RCPNo: **1**	Date and Time Received: **12/5/2012 10:12:00 AM**	Received by:	**Armando Flores**
Completed By:	Rachel Dean	Reviewed By:	Kathryn Griffin
Completed Date:	**12/5/2012 2:44:32 PM**	Reviewed Date:	**12/5/2012 8:09 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 [ ]	No [ ]	NA [x]
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: **1212185**

Comment:
1 of 10: 1Z 103 35E 03 4215 5129
2 of 10: 1Z 103 35E 03 4017 3934
3 of 10: 1Z 103 35E 03 4189 5340
4 of 10: 1Z 103 35E 03 4051 5350
5 of 10: 1Z 103 35E 03 4038 9961
6 of 10: 1Z 103 35E 03 4263 5173
7 of 10: 1Z 103 35E 03 4272 6986
8 of 10: 1Z 103 35E 03 4010 1396
9 of 10: 1Z 103 35E 03 4175 4402
10 of 10: 1Z 103 35E 03 4184 2012

Client Contacted: Yes [x] No [ ] NA [ ] Person Contacted: David/Susan

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

Date Contacted: **12/5/2012 12:00:00 AM** Contacted By: **Rachel Dear**

Regarding: Pressure checks @ - 8 " Hg and Dud bottle

Client Instructions: Analyze two samples ar -8" Hg; disregard Dud amber

CorrectiveAction: Client labeld one bottle Dud and with a site ID, will not do that in future, OK to analyze samples at -8 " Hg, see attached email

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
1212185-001A	629	Canister	-8" Hg				
1212185-001B	Container-01 of 01	Bottle					
1212185-002A	743	Canister	-7" Hg				
1212185-002B	Container-01 of 01	Bottle					
1212185-003A	793	Canister	-8" Hg				
1212185-003B	Container-01 of 01	Bottle					
1212185-004A	617	Canister	-6.5" Hg				
1212185-004B	Container-01 of 01	Bottle					
1212185-005A	811	Canister	-6.5" Hg				
1212185-005B	Container-01 of 01	Bottle					
1212185-006A	1158	Canister	-6.5" Hg				
1212185-006B	Container-01 of 01	Bottle					
1212185-007A	588	Canister	-6.5" Hg				
1212185-007B	Container-01 of 01	Bottle					
1212185-008A	1220	Canister	-6.5" Hg				
1212185-008B	Container-01 of 01	Bottle					
1212185-009A	768	Canister	-6" Hg				
1212185-009B	Container-01 of 01	Bottle					
1212185-010A	735	Canister	-6" Hg				
1212185-010B	Container-01 of 01	Bottle					
1212185-011A	597	Canister	-6" Hg				
1212185-011B	Container-01 of 01	Bottle					
1212185-012A	1171	Canister	-6.5" Hg				

1212185-012B	Container-01 of 01	Bottle					
1212185-013A	694	Canister	-6.5" Hg				
1212185-013B	Container-01 of 01	Bottle					
1212185-014A	1095	Canister	-6" Hg				
1212185-014B	Container-01 of 01	Bottle					
1212185-015A	691	Canister	-6" Hg				
1212185-015B	Container-01 of 01	Bottle					
1212185-016A	1098	Canister	-5" Hg				
1212185-016B	Container-01 of 01	Bottle					
1212185-017A	829	Canister	-6" Hg				
1212185-017B	Container-01 of 01	Bottle					
1212185-018A	773	Canister	-5.5" Hg				
1212185-018B	Container-01 of 01	Bottle					
1212185-019A	534	Canister	-6" Hg				
1212185-019B	Container-01 of 01	Bottle					
1212185-020A	747	Canister	-6" Hg				
1212185-020B	Container-01 of 01	Bottle					
1212185-021A	592	Canister	-6" Hg				
1212185-021B	Container-01 of 01	Bottle					
1212185-022A	602	Canister	-6" Hg				
1212185-022B	Container-01 of 01	Bottle					
1212185-023A	618	Canister	-6" Hg				
1212185-023B	Container-01 of 01	Bottle					
1212185-024A	796	Canister	-6" Hg				
1212185-024B	Container-01 of 01	Bottle					
1212185-025A	715	Canister	-6" Hg				
1212185-025B	Container-01 of 01	Bottle					
1212185-026A	633	Canister	-6" Hg				
1212185-026B	Container-01 of 01	Bottle					
1212185-027A	838	Canister	-6" Hg				
1212185-027B	Container-01 of 01	Bottle					
1212185-028A	696	Canister	-6" Hg				
1212185-028B	Container-01 of 01	Bottle					
1212185-029A	770	Canister	-6" Hg				
1212185-029B	Container-01 of 01	Bottle					
1212185-030A	783	Canister	-6" Hg				
1212185-030B	Container-01 of 01	Bottle					
1212185-031A	1174	Canister	-6" Hg				
1212185-031B	Container-01 of 01	Bottle					
1212185-032A	598	Canister	-6" Hg				
1212185-032B	Container-01 of 01	Bottle					
1212185-033A	1183	Canister	-6" Hg				
1212185-033B	Container-01 of 01	Bottle					
1212185-034A	733	Canister	-6.5" Hg				
1212185-034B	Container-01 of 01	Bottle					
1212185-035A	1139	Canister	-7" Hg				
1212185-035B	Container-01 of 01	Bottle					
1212185-036A	1221	Canister	-6" Hg				
1212185-036B	Container-01 of 01	Bottle					

1212185-037A	1141	Canister	-6.5" Hg				
1212185-037B	Container-01 of 01	Bottle					
1212185-038A	1204	Canister	-6" Hg				
1212185-038B	Container-01 of 01	Bottle					
1212185-039A	769	Canister	-6" Hg				
1212185-039B	Container-01 of 01	Bottle					
1212185-040A	543	Canister	-6.5" Hg				
1212185-040B	Container-01 of 01	Bottle					
1212185-041A	845	Canister	-6.5" Hg				
1212185-041B	Container-01 of 01	Bottle					
1212185-042A	1099	Canister	-6.5" Hg				
1212185-042B	Container-01 of 01	Bottle					
1212185-043A	524	Canister	-6" Hg				
1212185-043B	Container-01 of 01	Bottle					
1212185-044A	816	Canister	-5.5" Hg				
1212185-044B	Container-01 of 01	Bottle					
1212185-045A	1137	Canister	-6" Hg				
1212185-045B	Container-01 of 01	Bottle					
1212185-046A	1226	Canister	-6" Hg				
1212185-046B	Container-01 of 01	Bottle					
1212185-047A	702	Canister	-6" Hg				
1212185-047B	Container-01 of 01	Bottle					
1212185-048A	705	Canister	-6.5" Hg				
1212185-048B	Container-01 of 01	Bottle					
1212185-049A	580	Canister	-6" Hg				
1212185-049B	Container-01 of 01	Bottle					
1212185-050A	723	Canister	-6.5" Hg				
1212185-050B	Container-01 of 01	Bottle					
1212185-051A	1129	Canister	-6" Hg				
1212185-051B	Container-01 of 01	Bottle					
1212185-052A	688	Canister	-6" Hg				
1212185-052B	Container-01 of 01	Bottle					
1212185-053A	565	Canister	-6" Hg				
1212185-053B	Container-01 of 01	Bottle					
1212185-054A	1162	Canister	-6" Hg				
1212185-054B	Container-01 of 01	Bottle					
1212185-055A	686	Canister	-6" Hg				
1212185-055B	Container-01 of 01	Bottle					
1212185-056A	665	Canister	-6" Hg				
1212185-056B	Container-01 of 01	Bottle					
1212185-057A	807	Canister	-6.5" Hg				
1212185-057B	Container-01 of 01	Bottle					
1212185-058A	682	Canister	-6" Hg				
1212185-058B	Container-01 of 01	Bottle					
1212185-059A	1140	Canister	-6" Hg				
1212185-059B	Container-01 of 01	Bottle					
1212185-060A	847	Canister	-6.5" Hg				
1212185-060B	Container-01 of 01	Bottle					
1212185-061A	1222	Canister	-6.5" Hg				

1212185-061B	Container-01 of 01	Bottle					
1212185-062A	1214	Canister	-6" Hg				
1212185-062B	Container-01 of 01	Bottle					
1212185-063A	520	Canister	-6" Hg				
1212185-063B	Container-01 of 01	Bottle					
1212185-064A	784	Canister	-6" Hg				
1212185-064B	Container-01 of 01	Bottle					
1212185-065A	767	Canister	-27.5" Hg				

RTI Laboratories - Workorder Sample Summary

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1212185-001A	VA1974		11/28/2012 1:04 PM	12/5/2012 10:12 AM	Air
1212185-001B	VA1974		11/28/2012 1:04 PM	12/5/2012 10:12 AM	Air
1212185-002A	VA1975		11/28/2012 1:32 PM	12/5/2012 10:12 AM	Air
1212185-002B	VA1975		11/28/2012 1:32 PM	12/5/2012 10:12 AM	Air
1212185-003A	VA1976		11/28/2012 1:53 PM	12/5/2012 10:12 AM	Air
1212185-003B	VA1976		11/28/2012 1:53 PM	12/5/2012 10:12 AM	Air
1212185-004A	VA1983		11/26/2012 12:42 PM	12/5/2012 10:12 AM	Air
1212185-004B	VA1983		11/26/2012 12:42 PM	12/5/2012 10:12 AM	Air
1212185-005A	VA1984		11/26/2012 1:04 PM	12/5/2012 10:12 AM	Air
1212185-005B	VA1984		11/26/2012 1:04 PM	12/5/2012 10:12 AM	Air
1212185-006A	VA1985		11/26/2012 1:41 PM	12/5/2012 10:12 AM	Air
1212185-006B	VA1985		11/26/2012 1:41 PM	12/5/2012 10:12 AM	Air
1212185-007A	VA1986		11/26/2012 2:10 PM	12/5/2012 10:12 AM	Air
1212185-007B	VA1986		11/26/2012 2:10 PM	12/5/2012 10:12 AM	Air
1212185-008A	VA2028		11/26/2012 3:50 PM	12/5/2012 10:12 AM	Air
1212185-008B	VA2028		11/26/2012 3:50 PM	12/5/2012 10:12 AM	Air
1212185-009A	VA2029		11/26/2012 4:21 PM	12/5/2012 10:12 AM	Air
1212185-009B	VA2029		11/26/2012 4:21 PM	12/5/2012 10:12 AM	Air
1212185-010A	VA2030		11/27/2012 9:07 AM	12/5/2012 10:12 AM	Air
1212185-010B	VA2030		11/27/2012 9:07 AM	12/5/2012 10:12 AM	Air
1212185-011A	VA2031		11/27/2012 10:26 AM	12/5/2012 10:12 AM	Air
1212185-011B	VA2031		11/27/2012 10:26 AM	12/5/2012 10:12 AM	Air
1212185-012A	VA2032		11/27/2012 11:00 AM	12/5/2012 10:12 AM	Air
1212185-012B	VA2032		11/27/2012 11:00 AM	12/5/2012 10:12 AM	Air
1212185-013A	VA2033		11/27/2012 11:00 AM	12/5/2012 10:12 AM	Air
1212185-013B	VA2033		11/27/2012 11:00 AM	12/5/2012 10:12 AM	Air
1212185-014A	VA2034		11/27/2012 11:54 AM	12/5/2012 10:12 AM	Air
1212185-014B	VA2034		11/27/2012 11:54 AM	12/5/2012 10:12 AM	Air
1212185-015A	VA2061		11/27/2012 8:52 AM	12/5/2012 10:12 AM	Air
1212185-015B	VA2061		11/27/2012 8:52 AM	12/5/2012 10:12 AM	Air
1212185-016A	VA2062		11/27/2012 9:32 AM	12/5/2012 10:12 AM	Air
1212185-016B	VA2062		11/27/2012 9:32 AM	12/5/2012 10:12 AM	Air
1212185-017A	VA2063		11/27/2012 10:02 AM	12/5/2012 10:12 AM	Air
1212185-017B	VA2063		11/27/2012 10:02 AM	12/5/2012 10:12 AM	Air
1212185-018A	VA2064		11/27/2012 10:37 AM	12/5/2012 10:12 AM	Air
1212185-018B	VA2064		11/27/2012 10:37 AM	12/5/2012 10:12 AM	Air
1212185-019A	VA2065		11/27/2012 11:09 AM	12/5/2012 10:12 AM	Air
1212185-019B	VA2065		11/27/2012 11:09 AM	12/5/2012 10:12 AM	Air
1212185-020A	VA2066		11/27/2012 11:47 AM	12/5/2012 10:12 AM	Air
1212185-020B	VA2066		11/27/2012 11:47 AM	12/5/2012 10:12 AM	Air
1212185-021A	VA2067		11/27/2012 12:42 PM	12/5/2012 10:12 AM	Air
1212185-021B	VA2067		11/27/2012 12:42 PM	12/5/2012 10:12 AM	Air
1212185-022A	VA2068		11/27/2012 1:09 PM	12/5/2012 10:12 AM	Air
1212185-022B	VA2068		11/27/2012 1:09 PM	12/5/2012 10:12 AM	Air
1212185-023A	VA2069		11/27/2012 1:42 PM	12/5/2012 10:12 AM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1212185-023B	VA2069		11/27/2012 1:42 PM	12/5/2012 10:12 AM	Air
1212185-024A	VA2070		11/27/2012 1:42 PM	12/5/2012 10:12 AM	Air
1212185-024B	VA2070		11/27/2012 1:42 PM	12/5/2012 10:12 AM	Air
1212185-025A	VA2071		11/27/2012 2:41 PM	12/5/2012 10:12 AM	Air
1212185-025B	VA2071		11/27/2012 2:41 PM	12/5/2012 10:12 AM	Air
1212185-026A	VA2072		11/27/2012 3:27 PM	12/5/2012 10:12 AM	Air
1212185-026B	VA2072		11/27/2012 3:27 PM	12/5/2012 10:12 AM	Air
1212185-027A	VA2073		11/27/2012 4:03 PM	12/5/2012 10:12 AM	Air
1212185-027B	VA2073		11/27/2012 4:03 PM	12/5/2012 10:12 AM	Air
1212185-028A	VA2080		11/26/2012 8:40 AM	12/5/2012 10:12 AM	Air
1212185-028B	VA2080		11/26/2012 8:40 AM	12/5/2012 10:12 AM	Air
1212185-029A	VA2081		11/26/2012 9:07 AM	12/5/2012 10:12 AM	Air
1212185-029B	VA2081		11/26/2012 9:07 AM	12/5/2012 10:12 AM	Air
1212185-030A	VA2082		11/26/2012 9:07 AM	12/5/2012 10:12 AM	Air
1212185-030B	VA2082		11/26/2012 9:07 AM	12/5/2012 10:12 AM	Air
1212185-031A	VA2083		11/26/2012 9:50 AM	12/5/2012 10:12 AM	Air
1212185-031B	VA2083		11/26/2012 9:50 AM	12/5/2012 10:12 AM	Air
1212185-032A	VA2084		11/26/2012 10:24 AM	12/5/2012 10:12 AM	Air
1212185-032B	VA2084		11/26/2012 10:24 AM	12/5/2012 10:12 AM	Air
1212185-033A	VA2085		11/26/2012 10:58 AM	12/5/2012 10:12 AM	Air
1212185-033B	VA2085		11/26/2012 10:58 AM	12/5/2012 10:12 AM	Air
1212185-034A	VA2086		11/26/2012 11:33 AM	12/5/2012 10:12 AM	Air
1212185-034B	VA2086		11/26/2012 11:33 AM	12/5/2012 10:12 AM	Air
1212185-035A	VA2087		11/28/2012 2:42 PM	12/5/2012 10:12 AM	Air
1212185-035B	VA2087		11/28/2012 2:42 PM	12/5/2012 10:12 AM	Air
1212185-036A	VA2088		11/28/2012 3:20 PM	12/5/2012 10:12 AM	Air
1212185-036B	VA2088		11/28/2012 3:20 PM	12/5/2012 10:12 AM	Air
1212185-037A	VA2089		11/28/2012 3:56 PM	12/5/2012 10:12 AM	Air
1212185-037B	VA2089		11/28/2012 3:56 PM	12/5/2012 10:12 AM	Air
1212185-038A	VA2107		11/27/2012 12:56 PM	12/5/2012 10:12 AM	Air
1212185-038B	VA2107		11/27/2012 12:56 PM	12/5/2012 10:12 AM	Air
1212185-039A	VA2108		11/27/2012 1:28 PM	12/5/2012 10:12 AM	Air
1212185-039B	VA2108		11/27/2012 1:28 PM	12/5/2012 10:12 AM	Air
1212185-040A	VA2109		11/27/2012 1:59 PM	12/5/2012 10:12 AM	Air
1212185-040B	VA2109		11/27/2012 1:59 PM	12/5/2012 10:12 AM	Air
1212185-041A	VA2110		11/27/2012 2:32 PM	12/5/2012 10:12 AM	Air
1212185-041B	VA2110		11/27/2012 2:32 PM	12/5/2012 10:12 AM	Air
1212185-042A	VA2111		11/27/2012 3:06 PM	12/5/2012 10:12 AM	Air
1212185-042B	VA2111		11/27/2012 3:06 PM	12/5/2012 10:12 AM	Air
1212185-043A	VA2112		11/27/2012 3:44 PM	12/5/2012 10:12 AM	Air
1212185-043B	VA2112		11/27/2012 3:44 PM	12/5/2012 10:12 AM	Air
1212185-044A	VA2113		11/28/2012 8:40 AM	12/5/2012 10:12 AM	Air
1212185-044B	VA2113		11/28/2012 8:40 AM	12/5/2012 10:12 AM	Air
1212185-045A	VA2114		11/28/2012 9:08 AM	12/5/2012 10:12 AM	Air
1212185-045B	VA2114		11/28/2012 9:08 AM	12/5/2012 10:12 AM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1212185-046A	VA2115		11/28/2012 9:45 AM	12/5/2012 10:12 AM	Air
1212185-046B	VA2115		11/28/2012 9:45 AM	12/5/2012 10:12 AM	Air
1212185-047A	VA2116		11/28/2012 9:45 AM	12/5/2012 10:12 AM	Air
1212185-047B	VA2116		11/28/2012 9:45 AM	12/5/2012 10:12 AM	Air
1212185-048A	VA2117		11/28/2012 10:36 AM	12/5/2012 10:12 AM	Air
1212185-048B	VA2117		11/28/2012 10:36 AM	12/5/2012 10:12 AM	Air
1212185-049A	VA2118		11/28/2012 11:10 AM	12/5/2012 10:12 AM	Air
1212185-049B	VA2118		11/28/2012 11:10 AM	12/5/2012 10:12 AM	Air
1212185-050A	VA2119		11/28/2012 11:52 AM	12/5/2012 10:12 AM	Air
1212185-050B	VA2119		11/28/2012 11:52 AM	12/5/2012 10:12 AM	Air
1212185-051A	VA2120		11/28/2012 12:48 PM	12/5/2012 10:12 AM	Air
1212185-051B	VA2120		11/28/2012 12:48 PM	12/5/2012 10:12 AM	Air
1212185-052A	VA2121		11/28/2012 1:16 PM	12/5/2012 10:12 AM	Air
1212185-052B	VA2121		11/28/2012 1:16 PM	12/5/2012 10:12 AM	Air
1212185-053A	VA2122		11/28/2012 1:47 PM	12/5/2012 10:12 AM	Air
1212185-053B	VA2122		11/28/2012 1:47 PM	12/5/2012 10:12 AM	Air
1212185-054A	VA2123		11/28/2012 2:22 PM	12/5/2012 10:12 AM	Air
1212185-054B	VA2123		11/28/2012 2:22 PM	12/5/2012 10:12 AM	Air
1212185-055A	VA2124		11/28/2012 2:56 PM	12/5/2012 10:12 AM	Air
1212185-055B	VA2124		11/28/2012 2:56 PM	12/5/2012 10:12 AM	Air
1212185-056A	VA2125		11/28/2012 2:56 PM	12/5/2012 10:12 AM	Air
1212185-056B	VA2125		11/28/2012 2:56 PM	12/5/2012 10:12 AM	Air
1212185-057A	VA2126		11/28/2012 3:48 PM	12/5/2012 10:12 AM	Air
1212185-057B	VA2126		11/28/2012 3:48 PM	12/5/2012 10:12 AM	Air
1212185-058A	VA2212		11/28/2012 8:46 AM	12/5/2012 10:12 AM	Air
1212185-058B	VA2212		11/28/2012 8:46 AM	12/5/2012 10:12 AM	Air
1212185-059A	VA2213		11/28/2012 9:12 AM	12/5/2012 10:12 AM	Air
1212185-059B	VA2213		11/28/2012 9:12 AM	12/5/2012 10:12 AM	Air
1212185-060A	VA2214		11/28/2012 9:41 AM	12/5/2012 10:12 AM	Air
1212185-060B	VA2214		11/28/2012 9:41 AM	12/5/2012 10:12 AM	Air
1212185-061A	VA2215		11/28/2012 10:14 AM	12/5/2012 10:12 AM	Air
1212185-061B	VA2215		11/28/2012 10:14 AM	12/5/2012 10:12 AM	Air
1212185-062A	VA2216		11/28/2012 10:47 AM	12/5/2012 10:12 AM	Air
1212185-062B	VA2216		11/28/2012 10:47 AM	12/5/2012 10:12 AM	Air
1212185-063A	VA2217		11/28/2012 10:47 AM	12/5/2012 10:12 AM	Air
1212185-063B	VA2217		11/28/2012 10:47 AM	12/5/2012 10:12 AM	Air
1212185-064A	VA2218		11/28/2012 11:40 AM	12/5/2012 10:12 AM	Air
1212185-064B	VA2218		11/28/2012 11:40 AM	12/5/2012 10:12 AM	Air
1212185-065A	VA8106-TB		11/26/2012 8:00 AM	12/5/2012 10:12 AM	Air

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-001A	VA1974	11/28/2012 1:04 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/18/2012 6:07 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 2:53 AM
1212185-001B	VA1974	11/28/2012 1:04 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/17/2012 11:51 AM
1212185-002A	VA1975	11/28/2012 1:32 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2012 1:18 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 4:17 AM
1212185-002B	VA1975	11/28/2012 1:32 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/17/2012 12:11 PM
1212185-003A	VA1976	11/28/2012 1:53 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2012 2:48 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 5:43 AM
1212185-003B	VA1976	11/28/2012 1:53 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/17/2012 12:26 PM
1212185-004A	VA1983	11/26/2012 12:42 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 4:55 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/8/2012 2:04 AM
1212185-004B	VA1983	11/26/2012 12:42 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/17/2012 1:19 PM
1212185-005A	VA1984	11/26/2012 1:04 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 5:22 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 10:40 PM

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-005B	VA1984	11/26/2012 1:04 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/17/2012 1:35 PM
1212185-006A	VA1985	11/26/2012 1:41 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 6:07 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 11:22 PM
				EPA_TO15-Volatile Organic Compounds			12/8/2012 2:47 AM
1212185-006B	VA1985	11/26/2012 1:41 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/17/2012 1:52 PM
1212185-007A	VA1986	11/26/2012 2:10 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 6:51 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/7/2012 12:07 AM
				EPA_TO15-Volatile Organic Compounds			12/10/2012 8:41 PM
				EPA_TO15-Volatile Organic Compounds			12/11/2012 1:11 PM
1212185-007B	VA1986	11/26/2012 2:10 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/17/2012 2:07 PM
1212185-008A	VA2028	11/26/2012 3:50 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 8:25 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 7:04 AM
1212185-008B	VA2028	11/26/2012 3:50 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/17/2012 2:22 PM
1212185-009A	VA2029	11/26/2012 4:21 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 9:15 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/8/2012 4:13 AM
1212185-009B	VA2029	11/26/2012 4:21 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/17/2012 2:37 PM

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-010A	VA2030	11/27/2012 9:07 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 9:09 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/8/2012 4:59 AM
1212185-010B	VA2030	11/27/2012 9:07 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/17/2012 2:53 PM
1212185-011A	VA2031	11/27/2012 10:26 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 7:19 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/8/2012 7:58 AM
1212185-011B	VA2031	11/27/2012 10:26 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 11:43 AM
1212185-012A	VA2032	11/27/2012 11:00 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 9:39 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/10/2012 10:54 PM
1212185-012B	VA2032	11/27/2012 11:00 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 11:58 AM
1212185-013A	VA2033	11/27/2012 11:00 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 10:25 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/10/2012 11:40 PM
1212185-013B	VA2033	11/27/2012 11:00 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 12:17 PM
1212185-014A	VA2034	11/27/2012 11:54 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 12:51 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/11/2012 12:29 AM

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-014B	VA2034	11/27/2012 11:54 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 12:41 PM
1212185-015A	VA2061	11/27/2012 8:52 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 7:35 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/7/2012 2:18 AM
1212185-015B	VA2061	11/27/2012 8:52 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 1:01 PM
1212185-016A	VA2062	11/27/2012 9:32 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 9:19 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/8/2012 6:30 AM
1212185-016B	VA2062	11/27/2012 9:32 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 1:15 PM
1212185-017A	VA2063	11/27/2012 10:02 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 9:57 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/8/2012 7:13 AM
1212185-017B	VA2063	11/27/2012 10:02 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 1:30 PM
1212185-018A	VA2064	11/27/2012 10:37 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 8:54 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/10/2012 2:46 PM
				EPA_TO15-Volatile Organic Compounds			12/11/2012 2:00 PM
1212185-018B	VA2064	11/27/2012 10:37 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 1:44 PM
1212185-019A	VA2065	11/27/2012 11:09 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 11:14 PM

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-019A	VA2065	11/27/2012 11:09 AM	Air				
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 3:59 AM
1212185-019B	VA2065	11/27/2012 11:09 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 1:59 PM
1212185-020A	VA2066	11/27/2012 11:47 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 12:03 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/7/2012 3:42 AM
1212185-020B	VA2066	11/27/2012 11:47 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 2:14 PM
1212185-021A	VA2067	11/27/2012 12:42 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 10:41 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/7/2012 4:23 AM
				EPA_TO15-Volatile Organic Compounds			12/8/2012 9:30 AM
				EPA_TO15-Volatile Organic Compounds			12/11/2012 1:15 AM
1212185-021B	VA2067	11/27/2012 12:42 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 12:14 PM
1212185-022A	VA2068	11/27/2012 1:09 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 12:11 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/7/2012 5:05 AM
				EPA_TO15-Volatile Organic Compounds			12/8/2012 10:19 AM
				EPA_TO15-Volatile Organic Compounds			12/11/2012 2:01 AM
1212185-022B	VA2068	11/27/2012 1:09 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 12:32 PM
1212185-023A	VA2069	11/27/2012 1:42 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 5:28 AM

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-023A	VA2069	11/27/2012 1:42 PM	Air				
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/10/2012 3:34 PM
				EPA_TO15-Volatile Organic Compounds			12/11/2012 4:20 PM
1212185-023B	VA2069	11/27/2012 1:42 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 12:46 PM
1212185-024A	VA2070	11/27/2012 1:42 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 6:14 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/10/2012 4:17 PM
				EPA_TO15-Volatile Organic Compounds			12/11/2012 5:05 PM
1212185-024B	VA2070	11/27/2012 1:42 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 1:01 PM
1212185-025A	VA2071	11/27/2012 2:41 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 7:49 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 5:24 AM
				EPA_TO15-Volatile Organic Compounds			12/11/2012 8:08 PM
1212185-025B	VA2071	11/27/2012 2:41 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 1:46 PM
1212185-026A	VA2072	11/27/2012 3:27 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 2:30 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/11/2012 2:46 AM
1212185-026B	VA2072	11/27/2012 3:27 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 2:00 PM
1212185-027A	VA2073	11/27/2012 4:03 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 4:46 AM
				FIELD-Field Parameters			

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-027A	VA2073	11/27/2012 4:03 PM	Air				
				EPA_TO15-Volatile Organic Compounds			12/12/2012 5:22 PM
1212185-027B	VA2073	11/27/2012 4:03 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 2:16 PM
1212185-028A	VA2080	11/26/2012 8:40 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/11/2012 10:31 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/8/2012 11:05 AM
1212185-028B	VA2080	11/26/2012 8:40 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 2:30 PM
1212185-029A	VA2081	11/26/2012 9:07 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/11/2012 11:20 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 4:32 PM
1212185-029B	VA2081	11/26/2012 9:07 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 2:48 PM
1212185-030A	VA2082	11/26/2012 9:07 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 12:08 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 5:22 PM
1212185-030B	VA2082	11/26/2012 9:07 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 3:03 PM
1212185-031A	VA2083	11/26/2012 9:50 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 12:57 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 6:10 PM
1212185-031B	VA2083	11/26/2012 9:50 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 3:03 PM

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-032A	VA2084	11/26/2012 10:24 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 1:43 AM
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 4:35 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 6:58 PM
				EPA_TO15-Volatile Organic Compounds			12/7/2012 11:11 PM
1212185-032B	VA2084	11/26/2012 10:24 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 3:17 PM
1212185-033A	VA2085	11/26/2012 10:58 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 3:13 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 7:47 PM
				EPA_TO15-Volatile Organic Compounds			12/8/2012 12:39 AM
1212185-033B	VA2085	11/26/2012 10:58 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 3:39 PM
1212185-034A	VA2086	11/26/2012 11:33 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/12/2012 4:02 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/6/2012 8:31 PM
				EPA_TO15-Volatile Organic Compounds			12/8/2012 1:22 AM
1212185-034B	VA2086	11/26/2012 11:33 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 3:54 PM
1212185-035A	VA2087	11/28/2012 2:42 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2012 4:21 AM
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/18/2012 6:52 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 6:39 PM
				EPA_TO15-Volatile Organic Compounds			12/18/2012 3:53 PM

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-035B	VA2087	11/28/2012 2:42 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 4:08 PM
1212185-036A	VA2088	11/28/2012 3:20 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/20/2012 5:41 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 7:21 PM
				EPA_TO15-Volatile Organic Compounds			12/18/2012 4:38 PM
1212185-036B	VA2088	11/28/2012 3:20 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 4:23 PM
1212185-037A	VA2089	11/28/2012 3:56 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/18/2012 9:54 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 8:04 PM
				EPA_TO15-Volatile Organic Compounds			12/18/2012 3:16 AM
				EPA_TO15-Volatile Organic Compounds			12/18/2012 5:23 PM
1212185-037B	VA2089	11/28/2012 3:56 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 4:37 PM
1212185-038A	VA2107	11/27/2012 12:56 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 11:26 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/11/2012 2:49 PM
1212185-038B	VA2107	11/27/2012 12:56 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 4:52 PM
1212185-039A	VA2108	11/27/2012 1:28 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 12:57 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/12/2012 3:56 PM
1212185-039B	VA2108	11/27/2012 1:28 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 5:08 PM

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-040A	VA2109	11/27/2012 1:59 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 1:44 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/12/2012 4:39 PM
1212185-040B	VA2109	11/27/2012 1:59 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/18/2012 5:22 PM
1212185-041A	VA2110	11/27/2012 2:32 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 7:01 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/11/2012 7:20 PM
1212185-041B	VA2110	11/27/2012 2:32 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 3:47 PM
1212185-042A	VA2111	11/27/2012 3:06 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/13/2012 8:35 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/11/2012 4:16 AM
1212185-042B	VA2111	11/27/2012 3:06 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 4:04 PM
1212185-043A	VA2112	11/27/2012 3:44 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 4:01 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/10/2012 6:28 PM
1212185-043B	VA2112	11/27/2012 3:44 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 4:18 PM
1212185-044A	VA2113	11/28/2012 8:40 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 5:31 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/12/2012 6:04 PM

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WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-044B	VA2113	11/28/2012 8:40 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 4:34 PM
1212185-045A	VA2114	11/28/2012 9:08 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 7:03 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/12/2012 7:27 PM
1212185-045B	VA2114	11/28/2012 9:08 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 4:49 PM
1212185-046A	VA2115	11/28/2012 9:45 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 3:10 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/12/2012 8:09 PM
1212185-046B	VA2115	11/28/2012 9:45 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 5:04 PM
1212185-047A	VA2116	11/28/2012 9:45 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 3:56 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/12/2012 8:50 PM
1212185-047B	VA2116	11/28/2012 9:45 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 5:18 PM
1212185-048A	VA2117	11/28/2012 10:36 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 5:29 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/12/2012 9:32 PM
1212185-048B	VA2117	11/28/2012 10:36 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 5:32 PM
1212185-049A	VA2118	11/28/2012 11:10 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 8:32 PM
				FIELD-Field Parameters			

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-049A	VA2118	11/28/2012 11:10 AM	Air				
				EPA_TO15-Volatile Organic Compounds			12/12/2012 11:05 PM
1212185-049B	VA2118	11/28/2012 11:10 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 5:47 PM
1212185-050A	VA2119	11/28/2012 11:52 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 10:10 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/17/2012 4:15 PM
1212185-050B	VA2119	11/28/2012 11:52 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/19/2012 6:02 PM
1212185-051A	VA2120	11/28/2012 12:48 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 10:57 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/17/2012 4:56 PM
1212185-051B	VA2120	11/28/2012 12:48 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 12:30 PM
1212185-052A	VA2121	11/28/2012 1:16 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2012 12:31 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 3:35 AM
1212185-052B	VA2121	11/28/2012 1:16 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 2:02 PM
1212185-053A	VA2122	11/28/2012 1:47 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2012 2:04 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 4:59 AM
1212185-053B	VA2122	11/28/2012 1:47 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 2:20 PM

RTI Laboratories - DATES REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-054A	VA2123	11/28/2012 2:22 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2012 3:33 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 11:08 PM
1212185-054B	VA2123	11/28/2012 2:22 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 2:35 PM
1212185-055A	VA2124	11/28/2012 2:56 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/15/2012 5:52 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 11:54 PM
1212185-055B	VA2124	11/28/2012 2:56 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 2:53 PM
1212185-056A	VA2125	11/28/2012 2:56 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/18/2012 7:38 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/14/2012 12:39 AM
1212185-056B	VA2125	11/28/2012 2:56 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 3:10 PM
1212185-057A	VA2126	11/28/2012 3:48 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/18/2012 9:08 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/14/2012 1:25 AM
1212185-057B	VA2126	11/28/2012 3:48 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 3:28 PM
1212185-058A	VA2212	11/28/2012 8:46 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 6:17 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/10/2012 7:13 PM

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WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-058B	VA2212	11/28/2012 8:46 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 3:43 PM
1212185-059A	VA2213	11/28/2012 9:12 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 7:50 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/11/2012 11:53 PM
1212185-059B	VA2213	11/28/2012 9:12 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 4:01 PM
1212185-060A	VA2214	11/28/2012 9:41 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 8:37 AM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/12/2012 12:41 AM
1212185-060B	VA2214	11/28/2012 9:41 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 4:15 PM
1212185-061A	VA2215	11/28/2012 10:14 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/18/2012 3:04 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/12/2012 2:59 AM
1212185-061B	VA2215	11/28/2012 10:14 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 5:04 PM
1212185-062A	VA2216	11/28/2012 10:47 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/18/2012 3:53 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/12/2012 4:29 AM
1212185-062B	VA2216	11/28/2012 10:47 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 5:19 PM
1212185-063A	VA2217	11/28/2012 10:47 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/14/2012 7:46 PM
				FIELD-Field Parameters			

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WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1212185-063A	VA2217	11/28/2012 10:47 AM	Air				
				EPA_TO15-Volatile Organic Compounds			12/12/2012 5:11 AM
				EPA_TO15-Volatile Organic Compounds			12/12/2012 10:20 PM
1212185-063B	VA2217	11/28/2012 10:47 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 5:33 PM
1212185-064A	VA2218	11/28/2012 11:40 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/18/2012 4:38 PM
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 12:38 AM
				EPA_TO15-Volatile Organic Compounds			12/14/2012 2:57 AM
1212185-064B	VA2218	11/28/2012 11:40 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			12/20/2012 5:55 PM
1212185-065A	VA8106-TB	11/26/2012 8:00 AM	Air				
				FIELD-Field Parameters			
				EPA_TO15-Volatile Organic Compounds			12/13/2012 5:56 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 1:04:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-001	**Matrix:**	Air
Client Sample ID:	VA1974		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-8			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	11	0.10		% v/v	1	12/17/2012 11:51 AM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/17/2012 11:51 AM
Methane	ND	0.50	U	% v/v	1	12/17/2012 11:51 AM
Nitrogen	84	0.10		% v/v	1	12/17/2012 11:51 AM
Oxygen	3.1	0.10		% v/v	1	12/17/2012 11:51 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,1,2,2-Tetrachloroethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,1,2-Trichloroethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,1-Dichloroethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,1-Dichloroethene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,2,4-Trichlorobenzene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,2,4-Trimethylbenzene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,2-Dibromoethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,2-Dichlorobenzene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,2-Dichloroethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,2-Dichloropropane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,3,5-Trimethylbenzene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,3-Butadiene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,3-Dichlorobenzene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
1,4-Dichlorobenzene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
2-Butanone	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
2-Hexanone	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
4-Methyl-2-pentanone	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Acetone	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Benzene	330,000	40,000		ppbv	40000	12/13/2012 2:53 AM
Benzyl chloride	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Bromodichloromethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Bromoform	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Bromomethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Carbon disulfide	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Carbon tetrachloride	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Chlorobenzene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Chlorodibromomethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Chloroethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Chloroform	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 1:04:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-001	**Matrix:**	Air
Client Sample ID:	VA1974		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
cis-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
cis-1,3-dichloropropene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Cyclohexane	1,000,000	80,000		ppbv	40000	12/13/2012 2:53 AM
Dichlorodifluoromethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Ethyl acetate	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Ethylbenzene	ND	80,000	U	ppbv	40000	12/13/2012 2:53 AM
Heptane	280,000	40,000		ppbv	40000	12/13/2012 2:53 AM
Hexachlorobutadiene	ND	80,000	U	ppbv	40000	12/13/2012 2:53 AM
m,p-Xylene	ND	80,000	U	ppbv	40000	12/13/2012 2:53 AM
Methylene chloride	ND	200,000	U	ppbv	40000	12/13/2012 2:53 AM
n-Hexane	840,000	80,000		ppbv	40000	12/13/2012 2:53 AM
Naphthalene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
o-Xylene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Propylene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Styrene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
tert-Butyl Methyl Ether	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Tetrachloroethene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Tetrahydrofuran	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Toluene	270,000	40,000		ppbv	40000	12/13/2012 2:53 AM
trans-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
trans-1,3-dichloropropene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Trichloroethene	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Trichlorofluoromethane	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Vinyl acetate	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Vinyl chloride	ND	40,000	U	ppbv	40000	12/13/2012 2:53 AM
Xylenes, Total	ND	120,000	U	ppbv	40000	12/13/2012 2:53 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	40000	12/13/2012 2:53 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	38,000,000	19,000,000		µg/m³	160000	12/18/2012 6:07 PM
C9-C10 Aromatic Hydrocarbons	ND	21,000,000	U	µg/m³	160000	12/18/2012 6:07 PM
C9-C12 Aliphatic Hydrocarbons	ND	30,000,000	U	µg/m³	160000	12/18/2012 6:07 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	160000	12/18/2012 6:07 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 1:32:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-002	**Matrix:**	Air
Client Sample ID:	VA1975		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-7			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	8.9	0.10		% v/v	1	12/17/2012 12:11 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/17/2012 12:11 PM
Methane	ND	0.50	U	% v/v	1	12/17/2012 12:11 PM
Nitrogen	81	0.10		% v/v	1	12/17/2012 12:11 PM
Oxygen	9.8	0.10		% v/v	1	12/17/2012 12:11 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,3-Butadiene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
2-Butanone	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
2-Hexanone	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Acetone	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Benzene	49,000	8,000		ppbv	8000	12/13/2012 4:17 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Bromoform	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Bromomethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Chloroethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Chloroform	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 1:32:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-002	**Matrix:**	Air
Client Sample ID:	VA1975		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Cyclohexane	100,000	16,000		ppbv	8000	12/13/2012 4:17 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Ethylbenzene	9,800	16,000	J	ppbv	8000	12/13/2012 4:17 AM
Heptane	82,000	8,000		ppbv	8000	12/13/2012 4:17 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	12/13/2012 4:17 AM
m,p-Xylene	23,000	16,000		ppbv	8000	12/13/2012 4:17 AM
Methylene chloride	19,000	40,000	J	ppbv	8000	12/13/2012 4:17 AM
n-Hexane	58,000	16,000		ppbv	8000	12/13/2012 4:17 AM
Naphthalene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
o-Xylene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Propylene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Styrene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Toluene	140,000	8,000		ppbv	8000	12/13/2012 4:17 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Trichloroethene	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	12/13/2012 4:17 AM
Xylenes, Total	23,000	24,000	J	ppbv	8000	12/13/2012 4:17 AM
Surr: 4-Bromofluorobenzene	99.8	70-130		%REC	8000	12/13/2012 4:17 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,400,000	940,000		µg/m³	8000	12/15/2012 1:18 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/15/2012 1:18 AM
C9-C12 Aliphatic Hydrocarbons	300,000	1,500,000	J	µg/m³	8000	12/15/2012 1:18 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	8000	12/15/2012 1:18 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 1:53:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-003	**Matrix:**	Air
Client Sample ID:	VA1976		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-8			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.90	0.10		% v/v	1	12/17/2012 12:26 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/17/2012 12:26 PM
Methane	ND	0.50	U	% v/v	1	12/17/2012 12:26 PM
Nitrogen	80	0.10		% v/v	1	12/17/2012 12:26 PM
Oxygen	19	0.10		% v/v	1	12/17/2012 12:26 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
2-Butanone	ND	800	U	ppbv	800	12/13/2012 5:43 AM
2-Hexanone	ND	800	U	ppbv	800	12/13/2012 5:43 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Acetone	840	800		ppbv	800	12/13/2012 5:43 AM
Benzene	15,000	800		ppbv	800	12/13/2012 5:43 AM
Benzyl chloride	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Bromoform	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Bromomethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Carbon disulfide	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Chlorobenzene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Chloroethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Chloroform	ND	800	U	ppbv	800	12/13/2012 5:43 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 1:53:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-003	**Matrix:**	Air
Client Sample ID:	VA1976		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Cyclohexane	26,000	1,600		ppbv	800	12/13/2012 5:43 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Ethyl acetate	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Ethylbenzene	2,400	1,600		ppbv	800	12/13/2012 5:43 AM
Heptane	18,000	800		ppbv	800	12/13/2012 5:43 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/13/2012 5:43 AM
m,p-Xylene	5,700	1,600		ppbv	800	12/13/2012 5:43 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/13/2012 5:43 AM
n-Hexane	16,000	1,600		ppbv	800	12/13/2012 5:43 AM
Naphthalene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
o-Xylene	1,700	800		ppbv	800	12/13/2012 5:43 AM
Propylene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Styrene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Toluene	29,000	800		ppbv	800	12/13/2012 5:43 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Trichloroethene	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Vinyl acetate	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Vinyl chloride	ND	800	U	ppbv	800	12/13/2012 5:43 AM
Xylenes, Total	7,400	2,400		ppbv	800	12/13/2012 5:43 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	800	12/13/2012 5:43 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,900,000	940,000		µg/m³	8000	12/15/2012 2:48 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/15/2012 2:48 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/15/2012 2:48 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	8000	12/15/2012 2:48 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 12:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-004	**Matrix:**	Air
Client Sample ID:	VA1983		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.3	0.10		% v/v	1	12/17/2012 1:19 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/17/2012 1:19 PM
Methane	ND	0.50	U	% v/v	1	12/17/2012 1:19 PM
Nitrogen	82	0.10		% v/v	1	12/17/2012 1:19 PM
Oxygen	18	0.10		% v/v	1	12/17/2012 1:19 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,1,2,2-Tetrachloroethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,1,2-Trichloroethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,1-Dichloroethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,1-Dichloroethene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,2,4-Trichlorobenzene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,2,4-Trimethylbenzene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,2-Dibromoethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,2-Dichlorobenzene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,2-Dichloroethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,2-Dichloropropane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,3,5-Trimethylbenzene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,3-Butadiene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,3-Dichlorobenzene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
1,4-Dichlorobenzene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
2-Butanone	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
2-Hexanone	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
4-Methyl-2-pentanone	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Acetone	71,000	40,000		ppbv	40000	12/8/2012 2:04 AM
Benzene	80,000	40,000		ppbv	40000	12/8/2012 2:04 AM
Benzyl chloride	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Bromodichloromethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Bromoform	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Bromomethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Carbon disulfide	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Carbon tetrachloride	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Chlorobenzene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Chlorodibromomethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Chloroethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Chloroform	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 12:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-004	**Matrix:**	Air
Client Sample ID:	VA1983		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
cis-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
cis-1,3-dichloropropene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Cyclohexane	220,000	80,000		ppbv	40000	12/8/2012 2:04 AM
Dichlorodifluoromethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Ethyl acetate	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Ethylbenzene	ND	80,000	U	ppbv	40000	12/8/2012 2:04 AM
Heptane	250,000	40,000		ppbv	40000	12/8/2012 2:04 AM
Hexachlorobutadiene	ND	80,000	U	ppbv	40000	12/8/2012 2:04 AM
m,p-Xylene	56,000	80,000	J	ppbv	40000	12/8/2012 2:04 AM
Methylene chloride	ND	200,000	U	ppbv	40000	12/8/2012 2:04 AM
n-Hexane	220,000	80,000		ppbv	40000	12/8/2012 2:04 AM
Naphthalene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
o-Xylene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Propylene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Styrene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
tert-Butyl Methyl Ether	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Tetrachloroethene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Tetrahydrofuran	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Toluene	260,000	40,000		ppbv	40000	12/8/2012 2:04 AM
trans-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
trans-1,3-dichloropropene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Trichloroethene	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Trichlorofluoromethane	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Vinyl acetate	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Vinyl chloride	ND	40,000	U	ppbv	40000	12/8/2012 2:04 AM
Xylenes, Total	56,000	120,000	J	ppbv	40000	12/8/2012 2:04 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	40000	12/8/2012 2:04 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	19,000,000	4,700,000		µg/m³	40000	12/12/2012 4:55 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000	U	µg/m³	40000	12/12/2012 4:55 AM
C9-C12 Aliphatic Hydrocarbons	1,100,000	7,600,000	J	µg/m³	40000	12/12/2012 4:55 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40000	12/12/2012 4:55 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 1:04:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-005	**Matrix:**	Air
Client Sample ID:	VA1984		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	11	0.10		% v/v	1	12/17/2012 1:35 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/17/2012 1:35 PM
Methane	ND	0.50	U	% v/v	1	12/17/2012 1:35 PM
Nitrogen	81	0.10		% v/v	1	12/17/2012 1:35 PM
Oxygen	4.8	0.10		% v/v	1	12/17/2012 1:35 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,1,2,2-Tetrachloroethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,1,2-Trichloroethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,1-Dichloroethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,1-Dichloroethene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,2,4-Trichlorobenzene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,2,4-Trimethylbenzene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,2-Dibromoethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,2-Dichlorobenzene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,2-Dichloroethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,2-Dichloropropane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,3,5-Trimethylbenzene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,3-Butadiene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,3-Dichlorobenzene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
1,4-Dichlorobenzene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
2-Butanone	550,000	80,000		ppbv	80000	12/6/2012 10:40 PM
2-Hexanone	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
4-Methyl-2-pentanone	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Acetone	1,900,000	80,000		ppbv	80000	12/6/2012 10:40 PM
Benzene	1,000,000	80,000		ppbv	80000	12/6/2012 10:40 PM
Benzyl chloride	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Bromodichloromethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Bromoform	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Bromomethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Carbon disulfide	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Carbon tetrachloride	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Chlorobenzene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Chlorodibromomethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Chloroethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Chloroform	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 1:04:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-005	**Matrix:**	Air
Client Sample ID:	VA1984		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
cis-1,2-Dichloroethene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
cis-1,3-dichloropropene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Cyclohexane	2,900,000	160,000		ppbv	80000	12/6/2012 10:40 PM
Dichlorodifluoromethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Ethyl acetate	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Ethylbenzene	ND	160,000	U	ppbv	80000	12/6/2012 10:40 PM
Heptane	1,400,000	80,000		ppbv	80000	12/6/2012 10:40 PM
Hexachlorobutadiene	ND	160,000	U	ppbv	80000	12/6/2012 10:40 PM
m,p-Xylene	ND	160,000	U	ppbv	80000	12/6/2012 10:40 PM
Methylene chloride	ND	400,000	U	ppbv	80000	12/6/2012 10:40 PM
n-Hexane	3,500,000	160,000		ppbv	80000	12/6/2012 10:40 PM
Naphthalene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
o-Xylene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Propylene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Styrene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
tert-Butyl Methyl Ether	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Tetrachloroethene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Tetrahydrofuran	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Toluene	960,000	80,000		ppbv	80000	12/6/2012 10:40 PM
trans-1,2-Dichloroethene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
trans-1,3-dichloropropene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Trichloroethene	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Trichlorofluoromethane	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Vinyl acetate	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Vinyl chloride	ND	80,000	U	ppbv	80000	12/6/2012 10:40 PM
Xylenes, Total	ND	240,000	U	ppbv	80000	12/6/2012 10:40 PM
Surr: 4-Bromofluorobenzene	99.6	70-130		%REC	80000	12/6/2012 10:40 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	150,000,000	19,000,000		µg/m³	160000	12/13/2012 5:22 PM
C9-C10 Aromatic Hydrocarbons	ND	21,000,000	U	µg/m³	160000	12/13/2012 5:22 PM
C9-C12 Aliphatic Hydrocarbons	ND	30,000,000	U	µg/m³	160000	12/13/2012 5:22 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	160000	12/13/2012 5:22 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 1:41:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-006	**Matrix:**	Air
Client Sample ID:	VA1985		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	6.3	0.10		% v/v	1	12/17/2012 1:52 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/17/2012 1:52 PM
Methane	ND	0.50	U	% v/v	1	12/17/2012 1:52 PM
Nitrogen	83	0.10		% v/v	1	12/17/2012 1:52 PM
Oxygen	7.6	0.10		% v/v	1	12/17/2012 1:52 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,1,2,2-Tetrachloroethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,1,2-Trichloroethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,1-Dichloroethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,1-Dichloroethene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,2,4-Trichlorobenzene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,2,4-Trimethylbenzene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,2-Dibromoethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,2-Dichlorobenzene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,2-Dichloroethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,2-Dichloropropane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,3,5-Trimethylbenzene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,3-Butadiene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,3-Dichlorobenzene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
1,4-Dichlorobenzene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
2-Butanone	230,000	40,000		ppbv	40000	12/6/2012 11:22 PM
2-Hexanone	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
4-Methyl-2-pentanone	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Acetone	1,100,000	40,000		ppbv	40000	12/6/2012 11:22 PM
Benzene	830,000	40,000		ppbv	40000	12/6/2012 11:22 PM
Benzyl chloride	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Bromodichloromethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Bromoform	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Bromomethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Carbon disulfide	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Carbon tetrachloride	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Chlorobenzene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Chlorodibromomethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Chloroethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Chloroform	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 1:41:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-006	**Matrix:**	Air
Client Sample ID:	VA1985		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
cis-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
cis-1,3-dichloropropene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Cyclohexane	1,800,000	80,000		ppbv	40000	12/6/2012 11:22 PM
Dichlorodifluoromethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Ethyl acetate	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Ethylbenzene	ND	80,000	U	ppbv	40000	12/6/2012 11:22 PM
Heptane	940,000	40,000		ppbv	40000	12/6/2012 11:22 PM
Hexachlorobutadiene	ND	80,000	U	ppbv	40000	12/6/2012 11:22 PM
m,p-Xylene	55,000	80,000	J	ppbv	40000	12/6/2012 11:22 PM
Methylene chloride	ND	200,000	U	ppbv	40000	12/6/2012 11:22 PM
n-Hexane	3,000,000	160,000		ppbv	80000	12/8/2012 2:47 AM
Naphthalene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
o-Xylene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Propylene	47,000	40,000		ppbv	40000	12/6/2012 11:22 PM
Styrene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
tert-Butyl Methyl Ether	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Tetrachloroethene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Tetrahydrofuran	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Toluene	850,000	40,000		ppbv	40000	12/6/2012 11:22 PM
trans-1,2-Dichloroethene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
trans-1,3-dichloropropene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Trichloroethene	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Trichlorofluoromethane	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Vinyl acetate	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Vinyl chloride	ND	40,000	U	ppbv	40000	12/6/2012 11:22 PM
Xylenes, Total	55,000	120,000	J	ppbv	40000	12/6/2012 11:22 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40000	12/6/2012 11:22 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	140,000,000	19,000,000		µg/m³	160000	12/13/2012 6:07 PM
C9-C10 Aromatic Hydrocarbons	ND	21,000,000	U	µg/m³	160000	12/13/2012 6:07 PM
C9-C12 Aliphatic Hydrocarbons	ND	30,000,000	U	µg/m³	160000	12/13/2012 6:07 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	160000	12/13/2012 6:07 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 2:10:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-007	**Matrix:**	Air
Client Sample ID:	VA1986		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	7.9	0.10		% v/v	1	12/17/2012 2:07 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/17/2012 2:07 PM
Methane	ND	0.50	U	% v/v	1	12/17/2012 2:07 PM
Nitrogen	79	0.10		% v/v	1	12/17/2012 2:07 PM
Oxygen	11	0.10		% v/v	1	12/17/2012 2:07 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,2-Dibromoethane	1,800	800		ppbv	800	12/7/2012 12:07 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
2-Butanone	230,000	20,000		ppbv	20000	12/10/2012 8:41 PM
2-Hexanone	3,600	800		ppbv	800	12/7/2012 12:07 AM
4-Methyl-2-pentanone	4,500	800		ppbv	800	12/7/2012 12:07 AM
Acetone	730,000	20,000		ppbv	20000	12/10/2012 8:41 PM
Benzene	520,000	20,000		ppbv	20000	12/10/2012 8:41 PM
Benzyl chloride	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Bromoform	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Bromomethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Carbon disulfide	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Chlorobenzene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Chloroethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Chloroform	ND	800	U	ppbv	800	12/7/2012 12:07 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 2:10:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-007	**Matrix:**	Air
Client Sample ID:	VA1986		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Cyclohexane	2,500,000	160,000		ppbv	80000	12/11/2012 1:11 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Ethyl acetate	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Ethylbenzene	14,000	1,600		ppbv	800	12/7/2012 12:07 AM
Heptane	580,000	20,000		ppbv	20000	12/10/2012 8:41 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/7/2012 12:07 AM
m,p-Xylene	26,000	1,600		ppbv	800	12/7/2012 12:07 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/7/2012 12:07 AM
n-Hexane	2,000,000	160,000		ppbv	80000	12/11/2012 1:11 PM
Naphthalene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
o-Xylene	7,700	800		ppbv	800	12/7/2012 12:07 AM
Propylene	5,100	800		ppbv	800	12/7/2012 12:07 AM
Styrene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Toluene	730,000	20,000		ppbv	20000	12/10/2012 8:41 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Trichloroethene	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Vinyl acetate	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Vinyl chloride	ND	800	U	ppbv	800	12/7/2012 12:07 AM
Xylenes, Total	33,000	2,400		ppbv	800	12/7/2012 12:07 AM
Surr: 4-Bromofluorobenzene	141	70-130	S	%REC	800	12/7/2012 12:07 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	130,000,000	19,000,000		µg/m³	160000	12/13/2012 6:51 PM
C9-C10 Aromatic Hydrocarbons	ND	21,000,000	U	µg/m³	160000	12/13/2012 6:51 PM
C9-C12 Aliphatic Hydrocarbons	ND	30,000,000	U	µg/m³	160000	12/13/2012 6:51 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	160000	12/13/2012 6:51 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 3:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-008	**Matrix:**	Air
Client Sample ID:	VA2028		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.33	0.10		% v/v	1	12/17/2012 2:22 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/17/2012 2:22 PM
Methane	ND	0.50	U	% v/v	1	12/17/2012 2:22 PM
Nitrogen	78	0.10		% v/v	1	12/17/2012 2:22 PM
Oxygen	21	0.10		% v/v	1	12/17/2012 2:22 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,1,2,2-Tetrachloroethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,1,2-Trichloroethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,1-Dichloroethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,1-Dichloroethene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,2,4-Trichlorobenzene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,2,4-Trimethylbenzene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,2-Dibromoethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,2-Dichlorobenzene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,2-Dichloroethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,2-Dichloropropane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,3,5-Trimethylbenzene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,3-Butadiene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,3-Dichlorobenzene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
1,4-Dichlorobenzene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
2-Butanone	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
2-Hexanone	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
4-Methyl-2-pentanone	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Acetone	6.2	4.0		ppbv	4	12/6/2012 7:04 AM
Benzene	16	4.0		ppbv	4	12/6/2012 7:04 AM
Benzyl chloride	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Bromodichloromethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Bromoform	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Bromomethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Carbon disulfide	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Carbon tetrachloride	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Chlorobenzene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Chlorodibromomethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Chloroethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Chloroform	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 3:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-008	**Matrix:**	Air
Client Sample ID:	VA2028		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
cis-1,2-Dichloroethene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
cis-1,3-dichloropropene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Cyclohexane	72	8.0		ppbv	4	12/6/2012 7:04 AM
Dichlorodifluoromethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Ethyl acetate	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Ethylbenzene	5.0	8.0	J	ppbv	4	12/6/2012 7:04 AM
Heptane	58	4.0		ppbv	4	12/6/2012 7:04 AM
Hexachlorobutadiene	ND	8.0	U	ppbv	4	12/6/2012 7:04 AM
m,p-Xylene	14	8.0		ppbv	4	12/6/2012 7:04 AM
Methylene chloride	ND	20	U	ppbv	4	12/6/2012 7:04 AM
n-Hexane	26	8.0		ppbv	4	12/6/2012 7:04 AM
Naphthalene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
o-Xylene	5.2	4.0		ppbv	4	12/6/2012 7:04 AM
Propylene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Styrene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
tert-Butyl Methyl Ether	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Tetrachloroethene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Tetrahydrofuran	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Toluene	60	4.0		ppbv	4	12/6/2012 7:04 AM
trans-1,2-Dichloroethene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
trans-1,3-dichloropropene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Trichloroethene	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Trichlorofluoromethane	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Vinyl acetate	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Vinyl chloride	ND	4.0	U	ppbv	4	12/6/2012 7:04 AM
Xylenes, Total	19	12		ppbv	4	12/6/2012 7:04 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	4	12/6/2012 7:04 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	5,300	940		µg/m³	8	12/12/2012 8:25 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	12/12/2012 8:25 AM
C9-C12 Aliphatic Hydrocarbons	780	1,500	J	µg/m³	8	12/12/2012 8:25 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8	12/12/2012 8:25 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 4:21:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-009	**Matrix:**	Air
Client Sample ID:	VA2029		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.047	0.10	J	% v/v	1	12/17/2012 2:37 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/17/2012 2:37 PM
Methane	ND	0.50	U	% v/v	1	12/17/2012 2:37 PM
Nitrogen	79	0.10		% v/v	1	12/17/2012 2:37 PM
Oxygen	21	0.10		% v/v	1	12/17/2012 2:37 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
2-Butanone	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
2-Hexanone	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Acetone	11	8.0		ppbv	8	12/8/2012 4:13 AM
Benzene	11	8.0		ppbv	8	12/8/2012 4:13 AM
Benzyl chloride	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Bromodichloromethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Bromoform	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Bromomethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Carbon disulfide	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Carbon tetrachloride	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Chlorobenzene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Chloroethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Chloroform	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 4:21:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-009	**Matrix:**	Air
Client Sample ID:	VA2029		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Cyclohexane	54	16		ppbv	8	12/8/2012 4:13 AM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Ethyl acetate	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Ethylbenzene	ND	16	U	ppbv	8	12/8/2012 4:13 AM
Heptane	25	8.0		ppbv	8	12/8/2012 4:13 AM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/8/2012 4:13 AM
m,p-Xylene	ND	16	U	ppbv	8	12/8/2012 4:13 AM
Methylene chloride	ND	40	U	ppbv	8	12/8/2012 4:13 AM
n-Hexane	30	16		ppbv	8	12/8/2012 4:13 AM
Naphthalene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
o-Xylene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Propylene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Styrene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Toluene	24	8.0		ppbv	8	12/8/2012 4:13 AM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Trichloroethene	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Vinyl acetate	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Vinyl chloride	ND	8.0	U	ppbv	8	12/8/2012 4:13 AM
Xylenes, Total	ND	24	U	ppbv	8	12/8/2012 4:13 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	8	12/8/2012 4:13 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,800	940		µg/m³	8	12/12/2012 9:15 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	12/12/2012 9:15 AM
C9-C12 Aliphatic Hydrocarbons	400	1,500	J	µg/m³	8	12/12/2012 9:15 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8	12/12/2012 9:15 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 9:07:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-010	**Matrix:**	Air
Client Sample ID:	VA2030		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	2.7	0.10		% v/v	1	12/17/2012 2:53 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/17/2012 2:53 PM
Methane	ND	0.50	U	% v/v	1	12/17/2012 2:53 PM
Nitrogen	79	0.10		% v/v	1	12/17/2012 2:53 PM
Oxygen	18	0.10		% v/v	1	12/17/2012 2:53 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
2-Butanone	ND	800	U	ppbv	800	12/8/2012 4:59 AM
2-Hexanone	ND	800	U	ppbv	800	12/8/2012 4:59 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Acetone	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Benzene	2,300	800		ppbv	800	12/8/2012 4:59 AM
Benzyl chloride	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Bromoform	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Bromomethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Carbon disulfide	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Chlorobenzene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Chloroethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Chloroform	ND	800	U	ppbv	800	12/8/2012 4:59 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 9:07:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-010	**Matrix:**	Air
Client Sample ID:	VA2030		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Cyclohexane	7,700	1,600		ppbv	800	12/8/2012 4:59 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Ethyl acetate	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Ethylbenzene	ND	1,600	U	ppbv	800	12/8/2012 4:59 AM
Heptane	1,400	800		ppbv	800	12/8/2012 4:59 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/8/2012 4:59 AM
m,p-Xylene	ND	1,600	U	ppbv	800	12/8/2012 4:59 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/8/2012 4:59 AM
n-Hexane	2,200	1,600		ppbv	800	12/8/2012 4:59 AM
Naphthalene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
o-Xylene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Propylene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Styrene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Toluene	2,900	800		ppbv	800	12/8/2012 4:59 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Trichloroethene	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Vinyl acetate	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Vinyl chloride	ND	800	U	ppbv	800	12/8/2012 4:59 AM
Xylenes, Total	ND	2,400	U	ppbv	800	12/8/2012 4:59 AM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	800	12/8/2012 4:59 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	170,000	47,000		µg/m³	400	12/13/2012 9:09 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/13/2012 9:09 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/13/2012 9:09 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	400	12/13/2012 9:09 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 10:26:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-011	**Matrix:**	Air
Client Sample ID:	VA2031		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.39	0.10		% v/v	1	12/18/2012 11:43 AM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 11:43 AM
Methane	ND	0.50	U	% v/v	1	12/18/2012 11:43 AM
Nitrogen	80	0.10		% v/v	1	12/18/2012 11:43 AM
Oxygen	20	0.10		% v/v	1	12/18/2012 11:43 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
2-Butanone	ND	800	U	ppbv	800	12/8/2012 7:58 AM
2-Hexanone	ND	800	U	ppbv	800	12/8/2012 7:58 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Acetone	1,000	800		ppbv	800	12/8/2012 7:58 AM
Benzene	35,000	800		ppbv	800	12/8/2012 7:58 AM
Benzyl chloride	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Bromoform	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Bromomethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Carbon disulfide	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Chlorobenzene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Chloroethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Chloroform	ND	800	U	ppbv	800	12/8/2012 7:58 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 10:26:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-011	**Matrix:**	Air
Client Sample ID:	VA2031		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Cyclohexane	6,100	1,600		ppbv	800	12/8/2012 7:58 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Ethyl acetate	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Ethylbenzene	ND	1,600	U	ppbv	800	12/8/2012 7:58 AM
Heptane	800	800		ppbv	800	12/8/2012 7:58 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/8/2012 7:58 AM
m,p-Xylene	1,600	1,600	J	ppbv	800	12/8/2012 7:58 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/8/2012 7:58 AM
n-Hexane	5,600	1,600		ppbv	800	12/8/2012 7:58 AM
Naphthalene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
o-Xylene	940	800		ppbv	800	12/8/2012 7:58 AM
Propylene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Styrene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Toluene	29,000	800		ppbv	800	12/8/2012 7:58 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Trichloroethene	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Vinyl acetate	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Vinyl chloride	ND	800	U	ppbv	800	12/8/2012 7:58 AM
Xylenes, Total	2,500	2,400		ppbv	800	12/8/2012 7:58 AM
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	800	12/8/2012 7:58 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	680,000	94,000		µg/m³	800	12/12/2012 7:19 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/12/2012 7:19 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/12/2012 7:19 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	800	12/12/2012 7:19 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 11:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-012	**Matrix:**	Air
Client Sample ID:	VA2032		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.22	0.10		% v/v	1	12/18/2012 11:58 AM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 11:58 AM
Methane	ND	0.50	U	% v/v	1	12/18/2012 11:58 AM
Nitrogen	80	0.10		% v/v	1	12/18/2012 11:58 AM
Oxygen	20	0.10		% v/v	1	12/18/2012 11:58 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
2-Butanone	ND	800	U	ppbv	800	12/10/2012 10:54 PM
2-Hexanone	ND	800	U	ppbv	800	12/10/2012 10:54 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Acetone	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Benzene	3,700	800		ppbv	800	12/10/2012 10:54 PM
Benzyl chloride	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Bromoform	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Bromomethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Carbon disulfide	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Chlorobenzene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Chloroethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Chloroform	ND	800	U	ppbv	800	12/10/2012 10:54 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 11:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-012	**Matrix:**	Air
Client Sample ID:	VA2032		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Cyclohexane	2,800	1,600		ppbv	800	12/10/2012 10:54 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Ethyl acetate	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Ethylbenzene	ND	1,600	U	ppbv	800	12/10/2012 10:54 PM
Heptane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/10/2012 10:54 PM
m,p-Xylene	ND	1,600	U	ppbv	800	12/10/2012 10:54 PM
Methylene chloride	ND	4,000	U	ppbv	800	12/10/2012 10:54 PM
n-Hexane	2,600	1,600		ppbv	800	12/10/2012 10:54 PM
Naphthalene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
o-Xylene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Propylene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Styrene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Toluene	5,100	800		ppbv	800	12/10/2012 10:54 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Trichloroethene	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Vinyl acetate	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Vinyl chloride	ND	800	U	ppbv	800	12/10/2012 10:54 PM
Xylenes, Total	ND	2,400	U	ppbv	800	12/10/2012 10:54 PM
Surr: 4-Bromofluorobenzene	98.8	70-130		%REC	800	12/10/2012 10:54 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	760,000	94,000		µg/m³	800	12/12/2012 9:39 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/12/2012 9:39 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/12/2012 9:39 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	800	12/12/2012 9:39 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 11:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-013	**Matrix:**	Air
Client Sample ID:	VA2033		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.24	0.10		% v/v	1	12/18/2012 12:17 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 12:17 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 12:17 PM
Nitrogen	80	0.10		% v/v	1	12/18/2012 12:17 PM
Oxygen	21	0.10		% v/v	1	12/18/2012 12:17 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
2-Butanone	ND	800	U	ppbv	800	12/10/2012 11:40 PM
2-Hexanone	ND	800	U	ppbv	800	12/10/2012 11:40 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Acetone	980	800		ppbv	800	12/10/2012 11:40 PM
Benzene	5,000	800		ppbv	800	12/10/2012 11:40 PM
Benzyl chloride	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Bromoform	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Bromomethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Carbon disulfide	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Chlorobenzene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Chloroethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Chloroform	ND	800	U	ppbv	800	12/10/2012 11:40 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 11:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-013	**Matrix:**	Air
Client Sample ID:	VA2033		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Cyclohexane	4,000	1,600		ppbv	800	12/10/2012 11:40 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Ethyl acetate	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Ethylbenzene	ND	1,600	U	ppbv	800	12/10/2012 11:40 PM
Heptane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/10/2012 11:40 PM
m,p-Xylene	ND	1,600	U	ppbv	800	12/10/2012 11:40 PM
Methylene chloride	ND	4,000	U	ppbv	800	12/10/2012 11:40 PM
n-Hexane	3,600	1,600		ppbv	800	12/10/2012 11:40 PM
Naphthalene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
o-Xylene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Propylene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Styrene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Toluene	7,400	800		ppbv	800	12/10/2012 11:40 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Trichloroethene	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Vinyl acetate	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Vinyl chloride	ND	800	U	ppbv	800	12/10/2012 11:40 PM
Xylenes, Total	ND	2,400	U	ppbv	800	12/10/2012 11:40 PM
Surr: 4-Bromofluorobenzene	95.9	70-130		%REC	800	12/10/2012 11:40 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	620,000	94,000		µg/m³	800	12/12/2012 10:25 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/12/2012 10:25 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/12/2012 10:25 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	800	12/12/2012 10:25 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 11:54:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-014	**Matrix:**	Air
Client Sample ID:	VA2034		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.21	0.10		% v/v	1	12/18/2012 12:41 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 12:41 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 12:41 PM
Nitrogen	80	0.10		% v/v	1	12/18/2012 12:41 PM
Oxygen	21	0.10		% v/v	1	12/18/2012 12:41 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,3-Butadiene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
2-Butanone	ND	400	U	ppbv	400	12/11/2012 12:29 AM
2-Hexanone	ND	400	U	ppbv	400	12/11/2012 12:29 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Acetone	1,100	400		ppbv	400	12/11/2012 12:29 AM
Benzene	890	400		ppbv	400	12/11/2012 12:29 AM
Benzyl chloride	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Bromodichloromethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Bromoform	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Bromomethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Carbon disulfide	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Carbon tetrachloride	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Chlorobenzene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Chlorodibromomethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Chloroethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Chloroform	ND	400	U	ppbv	400	12/11/2012 12:29 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 11:54:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-014	**Matrix:**	Air
Client Sample ID:	VA2034		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Cyclohexane	640	800	J	ppbv	400	12/11/2012 12:29 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Ethyl acetate	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Ethylbenzene	ND	800	U	ppbv	400	12/11/2012 12:29 AM
Heptane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/11/2012 12:29 AM
m,p-Xylene	ND	800	U	ppbv	400	12/11/2012 12:29 AM
Methylene chloride	ND	2,000	U	ppbv	400	12/11/2012 12:29 AM
n-Hexane	490	800	J	ppbv	400	12/11/2012 12:29 AM
Naphthalene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
o-Xylene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Propylene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Styrene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Tetrachloroethene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Tetrahydrofuran	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Toluene	2,200	400		ppbv	400	12/11/2012 12:29 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Trichloroethene	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Vinyl acetate	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Vinyl chloride	ND	400	U	ppbv	400	12/11/2012 12:29 AM
Xylenes, Total	ND	1,200	U	ppbv	400	12/11/2012 12:29 AM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	400	12/11/2012 12:29 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	110,000	47,000		µg/m³	400	12/13/2012 12:51 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/13/2012 12:51 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/13/2012 12:51 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	12/13/2012 12:51 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 8:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-015	**Matrix:**	Air
Client Sample ID:	VA2061		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.33	0.10		% v/v	1	12/18/2012 1:01 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 1:01 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 1:01 PM
Nitrogen	80	0.10		% v/v	1	12/18/2012 1:01 PM
Oxygen	21	0.10		% v/v	1	12/18/2012 1:01 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
2-Butanone	1,400	800		ppbv	800	12/7/2012 2:18 AM
2-Hexanone	ND	800	U	ppbv	800	12/7/2012 2:18 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Acetone	1,200	800		ppbv	800	12/7/2012 2:18 AM
Benzene	11,000	800		ppbv	800	12/7/2012 2:18 AM
Benzyl chloride	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Bromoform	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Bromomethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Carbon disulfide	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Chlorobenzene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Chloroethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Chloroform	ND	800	U	ppbv	800	12/7/2012 2:18 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 8:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-015	**Matrix:**	Air
Client Sample ID:	VA2061		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Cyclohexane	20,000	1,600		ppbv	800	12/7/2012 2:18 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Ethyl acetate	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Ethylbenzene	1,300	1,600	J	ppbv	800	12/7/2012 2:18 AM
Heptane	18,000	800		ppbv	800	12/7/2012 2:18 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/7/2012 2:18 AM
m,p-Xylene	3,000	1,600		ppbv	800	12/7/2012 2:18 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/7/2012 2:18 AM
n-Hexane	15,000	1,600		ppbv	800	12/7/2012 2:18 AM
Naphthalene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
o-Xylene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Propylene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Styrene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Toluene	26,000	800		ppbv	800	12/7/2012 2:18 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Trichloroethene	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Vinyl acetate	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Vinyl chloride	ND	800	U	ppbv	800	12/7/2012 2:18 AM
Xylenes, Total	3,000	2,400		ppbv	800	12/7/2012 2:18 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	800	12/7/2012 2:18 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,600,000	190,000		µg/m³	1600	12/13/2012 7:35 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	12/13/2012 7:35 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	12/13/2012 7:35 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1600	12/13/2012 7:35 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 9:32:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-016	**Matrix:**	Air
Client Sample ID:	VA2062		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.30	0.10		% v/v	1	12/18/2012 1:15 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 1:15 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 1:15 PM
Nitrogen	79	0.10		% v/v	1	12/18/2012 1:15 PM
Oxygen	20	0.10		% v/v	1	12/18/2012 1:15 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
2-Butanone	930	800		ppbv	800	12/8/2012 6:30 AM
2-Hexanone	ND	800	U	ppbv	800	12/8/2012 6:30 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Acetone	1,000	800		ppbv	800	12/8/2012 6:30 AM
Benzene	11,000	800		ppbv	800	12/8/2012 6:30 AM
Benzyl chloride	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Bromoform	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Bromomethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Carbon disulfide	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Chlorobenzene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Chloroethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Chloroform	ND	800	U	ppbv	800	12/8/2012 6:30 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 9:32:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-016	**Matrix:**	Air
Client Sample ID:	VA2062		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Cyclohexane	20,000	1,600		ppbv	800	12/8/2012 6:30 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Ethyl acetate	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Ethylbenzene	1,900	1,600		ppbv	800	12/8/2012 6:30 AM
Heptane	21,000	800		ppbv	800	12/8/2012 6:30 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/8/2012 6:30 AM
m,p-Xylene	4,400	1,600		ppbv	800	12/8/2012 6:30 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/8/2012 6:30 AM
n-Hexane	13,000	1,600		ppbv	800	12/8/2012 6:30 AM
Naphthalene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
o-Xylene	1,100	800		ppbv	800	12/8/2012 6:30 AM
Propylene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Styrene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Toluene	33,000	800		ppbv	800	12/8/2012 6:30 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Trichloroethene	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Vinyl acetate	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Vinyl chloride	ND	800	U	ppbv	800	12/8/2012 6:30 AM
Xylenes, Total	5,500	2,400		ppbv	800	12/8/2012 6:30 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	800	12/8/2012 6:30 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,000,000	940,000		µg/m³	8000	12/13/2012 9:19 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/13/2012 9:19 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/13/2012 9:19 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	8000	12/13/2012 9:19 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 10:02:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-017	**Matrix:**	Air
Client Sample ID:	VA2063		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.23	0.10		% v/v	1	12/18/2012 1:30 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 1:30 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 1:30 PM
Nitrogen	80	0.10		% v/v	1	12/18/2012 1:30 PM
Oxygen	19	0.10		% v/v	1	12/18/2012 1:30 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,2,4-Trimethylbenzene	46	40		ppbv	40	12/8/2012 7:13 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
2-Butanone	44	40		ppbv	40	12/8/2012 7:13 AM
2-Hexanone	ND	40	U	ppbv	40	12/8/2012 7:13 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Acetone	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Benzene	360	40		ppbv	40	12/8/2012 7:13 AM
Benzyl chloride	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Bromoform	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Bromomethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Carbon disulfide	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Chlorobenzene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Chloroethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Chloroform	ND	40	U	ppbv	40	12/8/2012 7:13 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 10:02:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-017	**Matrix:**	Air
Client Sample ID:	VA2063		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Cyclohexane	730	80		ppbv	40	12/8/2012 7:13 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Ethyl acetate	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Ethylbenzene	270	80		ppbv	40	12/8/2012 7:13 AM
Heptane	920	40		ppbv	40	12/8/2012 7:13 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/8/2012 7:13 AM
m,p-Xylene	720	80		ppbv	40	12/8/2012 7:13 AM
Methylene chloride	ND	200	U	ppbv	40	12/8/2012 7:13 AM
n-Hexane	380	80		ppbv	40	12/8/2012 7:13 AM
Naphthalene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
o-Xylene	210	40		ppbv	40	12/8/2012 7:13 AM
Propylene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Styrene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Toluene	1,900	40		ppbv	40	12/8/2012 7:13 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Trichloroethene	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Vinyl acetate	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Vinyl chloride	ND	40	U	ppbv	40	12/8/2012 7:13 AM
Xylenes, Total	940	120		ppbv	40	12/8/2012 7:13 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	40	12/8/2012 7:13 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	93,000	47,000		µg/m³	400	12/13/2012 9:57 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/13/2012 9:57 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/13/2012 9:57 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	400	12/13/2012 9:57 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 10:37:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-018	**Matrix:**	Air
Client Sample ID:	VA2064		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-5.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.50	0.10		% v/v	1	12/18/2012 1:44 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 1:44 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 1:44 PM
Nitrogen	80	0.10		% v/v	1	12/18/2012 1:44 PM
Oxygen	20	0.10		% v/v	1	12/18/2012 1:44 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,2,4-Trimethylbenzene	53	40		ppbv	40	12/10/2012 2:46 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
2-Butanone	280	40		ppbv	40	12/10/2012 2:46 PM
2-Hexanone	ND	40	U	ppbv	40	12/10/2012 2:46 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Acetone	270	40		ppbv	40	12/10/2012 2:46 PM
Benzene	1,400	40		ppbv	40	12/10/2012 2:46 PM
Benzyl chloride	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Bromoform	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Bromomethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Carbon disulfide	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Chlorobenzene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Chloroethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Chloroform	ND	40	U	ppbv	40	12/10/2012 2:46 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 10:37:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-018	**Matrix:**	Air
Client Sample ID:	VA2064		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Cyclohexane	4,200	800		ppbv	400	12/11/2012 2:00 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Ethyl acetate	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Ethylbenzene	320	80		ppbv	40	12/10/2012 2:46 PM
Heptane	1,700	40		ppbv	40	12/10/2012 2:46 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/10/2012 2:46 PM
m,p-Xylene	820	80		ppbv	40	12/10/2012 2:46 PM
Methylene chloride	ND	200	U	ppbv	40	12/10/2012 2:46 PM
n-Hexane	12,000	800		ppbv	400	12/11/2012 2:00 PM
Naphthalene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
o-Xylene	240	40		ppbv	40	12/10/2012 2:46 PM
Propylene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Styrene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Toluene	4,100	400		ppbv	400	12/11/2012 2:00 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Trichloroethene	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Vinyl acetate	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Vinyl chloride	ND	40	U	ppbv	40	12/10/2012 2:46 PM
Xylenes, Total	1,100	120		ppbv	40	12/10/2012 2:46 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	40	12/10/2012 2:46 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	310,000	47,000		µg/m³	400	12/12/2012 8:54 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/12/2012 8:54 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/12/2012 8:54 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	12/12/2012 8:54 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 11:09:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-019	**Matrix:**	Air
Client Sample ID:	VA2065		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.41	0.10		% v/v	1	12/18/2012 1:59 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 1:59 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 1:59 PM
Nitrogen	80	0.10		% v/v	1	12/18/2012 1:59 PM
Oxygen	19	0.10		% v/v	1	12/18/2012 1:59 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,2,4-Trimethylbenzene	42	40		ppbv	40	12/6/2012 3:59 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
2-Butanone	ND	40	U	ppbv	40	12/6/2012 3:59 AM
2-Hexanone	ND	40	U	ppbv	40	12/6/2012 3:59 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Acetone	42	40		ppbv	40	12/6/2012 3:59 AM
Benzene	320	40		ppbv	40	12/6/2012 3:59 AM
Benzyl chloride	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Bromoform	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Bromomethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Carbon disulfide	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Chlorobenzene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Chloroethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Chloroform	ND	40	U	ppbv	40	12/6/2012 3:59 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 11:09:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-019	**Matrix:**	Air
Client Sample ID:	VA2065		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Cyclohexane	660	80		ppbv	40	12/6/2012 3:59 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Ethyl acetate	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Ethylbenzene	220	80		ppbv	40	12/6/2012 3:59 AM
Heptane	960	40		ppbv	40	12/6/2012 3:59 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/6/2012 3:59 AM
m,p-Xylene	630	80		ppbv	40	12/6/2012 3:59 AM
Methylene chloride	ND	200	U	ppbv	40	12/6/2012 3:59 AM
n-Hexane	320	80		ppbv	40	12/6/2012 3:59 AM
Naphthalene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
o-Xylene	180	40		ppbv	40	12/6/2012 3:59 AM
Propylene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Styrene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Toluene	2,000	40		ppbv	40	12/6/2012 3:59 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Trichloroethene	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Vinyl acetate	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Vinyl chloride	ND	40	U	ppbv	40	12/6/2012 3:59 AM
Xylenes, Total	810	120		ppbv	40	12/6/2012 3:59 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	40	12/6/2012 3:59 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	74,000	47,000		µg/m³	400	12/12/2012 11:14 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/12/2012 11:14 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/12/2012 11:14 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	12/12/2012 11:14 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 11:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-020	**Matrix:**	Air
Client Sample ID:	VA2066		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.22	0.10		% v/v	1	12/18/2012 2:14 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 2:14 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 2:14 PM
Nitrogen	80	0.10		% v/v	1	12/18/2012 2:14 PM
Oxygen	20	0.10		% v/v	1	12/18/2012 2:14 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,2,4-Trimethylbenzene	64	40		ppbv	40	12/7/2012 3:42 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
2-Butanone	ND	40	U	ppbv	40	12/7/2012 3:42 AM
2-Hexanone	ND	40	U	ppbv	40	12/7/2012 3:42 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Acetone	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Benzene	370	40		ppbv	40	12/7/2012 3:42 AM
Benzyl chloride	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Bromoform	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Bromomethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Carbon disulfide	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Chlorobenzene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Chloroethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Chloroform	ND	40	U	ppbv	40	12/7/2012 3:42 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 11:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-020	**Matrix:**	Air
Client Sample ID:	VA2066		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Cyclohexane	650	80		ppbv	40	12/7/2012 3:42 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Ethyl acetate	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Ethylbenzene	310	80		ppbv	40	12/7/2012 3:42 AM
Heptane	710	40		ppbv	40	12/7/2012 3:42 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/7/2012 3:42 AM
m,p-Xylene	750	80		ppbv	40	12/7/2012 3:42 AM
Methylene chloride	ND	200	U	ppbv	40	12/7/2012 3:42 AM
n-Hexane	390	80		ppbv	40	12/7/2012 3:42 AM
Naphthalene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
o-Xylene	250	40		ppbv	40	12/7/2012 3:42 AM
Propylene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Styrene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Toluene	1,900	40		ppbv	40	12/7/2012 3:42 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Trichloroethene	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Vinyl acetate	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Vinyl chloride	ND	40	U	ppbv	40	12/7/2012 3:42 AM
Xylenes, Total	1,000	120		ppbv	40	12/7/2012 3:42 AM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	40	12/7/2012 3:42 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	100,000	47,000		µg/m³	400	12/13/2012 12:03 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/13/2012 12:03 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/13/2012 12:03 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	12/13/2012 12:03 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 12:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-021	**Matrix:**	Air
Client Sample ID:	VA2067		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.44	0.10		% v/v	1	12/19/2012 12:14 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 12:14 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 12:14 PM
Nitrogen	80	0.10		% v/v	1	12/19/2012 12:14 PM
Oxygen	21	0.10		% v/v	1	12/19/2012 12:14 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,2,4-Trimethylbenzene	170	40		ppbv	40	12/7/2012 4:23 AM
1,2-Dibromoethane	170	40		ppbv	40	12/7/2012 4:23 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,3,5-Trimethylbenzene	100	40		ppbv	40	12/7/2012 4:23 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
2-Butanone	820	40		ppbv	40	12/7/2012 4:23 AM
2-Hexanone	190	40		ppbv	40	12/7/2012 4:23 AM
4-Methyl-2-pentanone	140	40		ppbv	40	12/7/2012 4:23 AM
Acetone	580	40		ppbv	40	12/7/2012 4:23 AM
Benzene	8,500	400		ppbv	400	12/8/2012 9:30 AM
Benzyl chloride	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Bromoform	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Bromomethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Carbon disulfide	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Chlorobenzene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Chloroethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Chloroform	ND	40	U	ppbv	40	12/7/2012 4:23 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 12:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-021	**Matrix:**	Air
Client Sample ID:	VA2067		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Cyclohexane	16,000	800		ppbv	400	12/8/2012 9:30 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Ethyl acetate	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Ethylbenzene	1,800	80		ppbv	40	12/7/2012 4:23 AM
Heptane	13,000	400		ppbv	400	12/8/2012 9:30 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/7/2012 4:23 AM
m,p-Xylene	3,300	80		ppbv	40	12/7/2012 4:23 AM
Methylene chloride	ND	200	U	ppbv	40	12/7/2012 4:23 AM
n-Hexane	12,000	800		ppbv	400	12/8/2012 9:30 AM
Naphthalene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
o-Xylene	1,300	40		ppbv	40	12/7/2012 4:23 AM
Propylene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Styrene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Toluene	33,000	800		ppbv	800	12/11/2012 1:15 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Trichloroethene	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Vinyl acetate	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Vinyl chloride	ND	40	U	ppbv	40	12/7/2012 4:23 AM
Xylenes, Total	4,600	120		ppbv	40	12/7/2012 4:23 AM
Surr: 4-Bromofluorobenzene	164	70-130	S	%REC	40	12/7/2012 4:23 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,400,000	190,000		µg/m³	1600	12/13/2012 10:41 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	12/13/2012 10:41 PM
C9-C12 Aliphatic Hydrocarbons	58,000	300,000	J	µg/m³	1600	12/13/2012 10:41 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1600	12/13/2012 10:41 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 1:09:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-022	**Matrix:**	Air
Client Sample ID:	VA2068		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.48	0.10		% v/v	1	12/19/2012 12:32 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 12:32 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 12:32 PM
Nitrogen	80	0.10		% v/v	1	12/19/2012 12:32 PM
Oxygen	21	0.10		% v/v	1	12/19/2012 12:32 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,2,4-Trimethylbenzene	260	40		ppbv	40	12/7/2012 5:05 AM
1,2-Dibromoethane	190	40		ppbv	40	12/7/2012 5:05 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,3,5-Trimethylbenzene	150	40		ppbv	40	12/7/2012 5:05 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
2-Butanone	660	40		ppbv	40	12/7/2012 5:05 AM
2-Hexanone	200	40		ppbv	40	12/7/2012 5:05 AM
4-Methyl-2-pentanone	130	40		ppbv	40	12/7/2012 5:05 AM
Acetone	430	40		ppbv	40	12/7/2012 5:05 AM
Benzene	6,600	400		ppbv	400	12/8/2012 10:19 AM
Benzyl chloride	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Bromoform	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Bromomethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Carbon disulfide	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Chlorobenzene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Chloroethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Chloroform	ND	40	U	ppbv	40	12/7/2012 5:05 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 1:09:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-022	**Matrix:**	Air
Client Sample ID:	VA2068		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Cyclohexane	13,000	800		ppbv	400	12/8/2012 10:19 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Ethyl acetate	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Ethylbenzene	1,900	800		ppbv	400	12/8/2012 10:19 AM
Heptane	12,000	400		ppbv	400	12/8/2012 10:19 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/7/2012 5:05 AM
m,p-Xylene	3,600	80		ppbv	40	12/7/2012 5:05 AM
Methylene chloride	ND	200	U	ppbv	40	12/7/2012 5:05 AM
n-Hexane	8,900	800		ppbv	400	12/8/2012 10:19 AM
Naphthalene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
o-Xylene	1,600	40		ppbv	40	12/7/2012 5:05 AM
Propylene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Styrene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Toluene	25,000	800		ppbv	800	12/11/2012 2:01 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Trichloroethene	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Vinyl acetate	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Vinyl chloride	ND	40	U	ppbv	40	12/7/2012 5:05 AM
Xylenes, Total	5,200	120		ppbv	40	12/7/2012 5:05 AM
Surr: 4-Bromofluorobenzene	163	70-130	S	%REC	40	12/7/2012 5:05 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,200,000	190,000		µg/m³	1600	12/14/2012 12:11 AM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	12/14/2012 12:11 AM
C9-C12 Aliphatic Hydrocarbons	49,000	300,000	J	µg/m³	1600	12/14/2012 12:11 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1600	12/14/2012 12:11 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 1:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-023	**Matrix:**	Air
Client Sample ID:	VA2069		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.33	0.10		% v/v	1	12/19/2012 12:46 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 12:46 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 12:46 PM
Nitrogen	81	0.10		% v/v	1	12/19/2012 12:46 PM
Oxygen	20	0.10		% v/v	1	12/19/2012 12:46 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,2,4-Trimethylbenzene	190	40		ppbv	40	12/10/2012 3:34 PM
1,2-Dibromoethane	120	40		ppbv	40	12/10/2012 3:34 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,3,5-Trimethylbenzene	100	40		ppbv	40	12/10/2012 3:34 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
2-Butanone	520	40		ppbv	40	12/10/2012 3:34 PM
2-Hexanone	ND	40	U	ppbv	40	12/10/2012 3:34 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Acetone	430	40		ppbv	40	12/10/2012 3:34 PM
Benzene	6,800	800		ppbv	800	12/11/2012 4:20 PM
Benzyl chloride	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Bromoform	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Bromomethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Carbon disulfide	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Chlorobenzene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Chloroethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Chloroform	ND	40	U	ppbv	40	12/10/2012 3:34 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 1:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-023	**Matrix:**	Air
Client Sample ID:	VA2069		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Cyclohexane	17,000	1,600		ppbv	800	12/11/2012 4:20 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Ethyl acetate	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Ethylbenzene	1,400	80		ppbv	40	12/10/2012 3:34 PM
Heptane	20,000	800		ppbv	800	12/11/2012 4:20 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/10/2012 3:34 PM
m,p-Xylene	2,800	80		ppbv	40	12/10/2012 3:34 PM
Methylene chloride	ND	200	U	ppbv	40	12/10/2012 3:34 PM
n-Hexane	13,000	1,600		ppbv	800	12/11/2012 4:20 PM
Naphthalene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
o-Xylene	1,000	40		ppbv	40	12/10/2012 3:34 PM
Propylene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Styrene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Toluene	28,000	800		ppbv	800	12/11/2012 4:20 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Trichloroethene	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Vinyl acetate	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Vinyl chloride	ND	40	U	ppbv	40	12/10/2012 3:34 PM
Xylenes, Total	3,800	120		ppbv	40	12/10/2012 3:34 PM
Surr: 4-Bromofluorobenzene	157	70-130	S	%REC	40	12/10/2012 3:34 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,400,000	940,000		µg/m³	8000	12/13/2012 5:28 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/13/2012 5:28 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/13/2012 5:28 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	8000	12/13/2012 5:28 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 1:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-024	**Matrix:**	Air
Client Sample ID:	VA2070		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.30	0.10		% v/v	1	12/19/2012 1:01 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 1:01 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 1:01 PM
Nitrogen	81	0.10		% v/v	1	12/19/2012 1:01 PM
Oxygen	20	0.10		% v/v	1	12/19/2012 1:01 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,2,4-Trimethylbenzene	110	40		ppbv	40	12/10/2012 4:17 PM
1,2-Dibromoethane	75	40		ppbv	40	12/10/2012 4:17 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,3,5-Trimethylbenzene	59	40		ppbv	40	12/10/2012 4:17 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
2-Butanone	680	40		ppbv	40	12/10/2012 4:17 PM
2-Hexanone	ND	40	U	ppbv	40	12/10/2012 4:17 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Acetone	490	40		ppbv	40	12/10/2012 4:17 PM
Benzene	3,800	800		ppbv	800	12/11/2012 5:05 PM
Benzyl chloride	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Bromoform	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Bromomethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Carbon disulfide	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Chlorobenzene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Chloroethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Chloroform	ND	40	U	ppbv	40	12/10/2012 4:17 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 1:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-024	**Matrix:**	Air
Client Sample ID:	VA2070		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Cyclohexane	12,000	1,600		ppbv	800	12/11/2012 5:05 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Ethyl acetate	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Ethylbenzene	950	80		ppbv	40	12/10/2012 4:17 PM
Heptane	13,000	800		ppbv	800	12/11/2012 5:05 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/10/2012 4:17 PM
m,p-Xylene	1,900	80		ppbv	40	12/10/2012 4:17 PM
Methylene chloride	ND	200	U	ppbv	40	12/10/2012 4:17 PM
n-Hexane	6,300	1,600		ppbv	800	12/11/2012 5:05 PM
Naphthalene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
o-Xylene	660	40		ppbv	40	12/10/2012 4:17 PM
Propylene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Styrene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Toluene	14,000	800		ppbv	800	12/11/2012 5:05 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Trichloroethene	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Vinyl acetate	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Vinyl chloride	ND	40	U	ppbv	40	12/10/2012 4:17 PM
Xylenes, Total	2,600	120		ppbv	40	12/10/2012 4:17 PM
Surr: 4-Bromofluorobenzene	166	70-130	S	%REC	40	12/10/2012 4:17 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,700,000	940,000		µg/m³	8000	12/13/2012 6:14 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/13/2012 6:14 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/13/2012 6:14 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	8000	12/13/2012 6:14 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 2:41:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-025	**Matrix:**	Air
Client Sample ID:	VA2071		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.54	0.10		% v/v	1	12/19/2012 1:46 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 1:46 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 1:46 PM
Nitrogen	81	0.10		% v/v	1	12/19/2012 1:46 PM
Oxygen	21	0.10		% v/v	1	12/19/2012 1:46 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,2,4-Trimethylbenzene	68	40		ppbv	40	12/6/2012 5:24 AM
1,2-Dibromoethane	53	40		ppbv	40	12/6/2012 5:24 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
2-Butanone	380	40		ppbv	40	12/6/2012 5:24 AM
2-Hexanone	ND	40	U	ppbv	40	12/6/2012 5:24 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Acetone	380	40		ppbv	40	12/6/2012 5:24 AM
Benzene	2,800	400		ppbv	400	12/11/2012 8:08 PM
Benzyl chloride	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Bromoform	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Bromomethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Carbon disulfide	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Chlorobenzene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Chloroethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Chloroform	ND	40	U	ppbv	40	12/6/2012 5:24 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 2:41:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-025	**Matrix:**	Air
Client Sample ID:	VA2071		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Cyclohexane	6,700	800		ppbv	400	12/11/2012 8:08 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Ethyl acetate	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Ethylbenzene	660	80		ppbv	40	12/6/2012 5:24 AM
Heptane	7,400	400		ppbv	400	12/11/2012 8:08 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/6/2012 5:24 AM
m,p-Xylene	1,400	80		ppbv	40	12/6/2012 5:24 AM
Methylene chloride	ND	200	U	ppbv	40	12/6/2012 5:24 AM
n-Hexane	3,900	800		ppbv	400	12/11/2012 8:08 PM
Naphthalene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
o-Xylene	440	40		ppbv	40	12/6/2012 5:24 AM
Propylene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Styrene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Toluene	9,700	400		ppbv	400	12/11/2012 8:08 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Trichloroethene	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Vinyl acetate	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Vinyl chloride	ND	40	U	ppbv	40	12/6/2012 5:24 AM
Xylenes, Total	1,900	120		ppbv	40	12/6/2012 5:24 AM
Surr: 4-Bromofluorobenzene	124	70-130		%REC	40	12/6/2012 5:24 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	460,000	47,000		µg/m³	400	12/13/2012 7:49 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/13/2012 7:49 AM
C9-C12 Aliphatic Hydrocarbons	20,000	76,000	J	µg/m³	400	12/13/2012 7:49 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	400	12/13/2012 7:49 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 3:27:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-026	**Matrix:**	Air
Client Sample ID:	VA2072		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.31	0.10		% v/v	1	12/19/2012 2:00 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 2:00 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 2:00 PM
Nitrogen	81	0.10		% v/v	1	12/19/2012 2:00 PM
Oxygen	20	0.10		% v/v	1	12/19/2012 2:00 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
2-Butanone	ND	800	U	ppbv	800	12/11/2012 2:46 AM
2-Hexanone	ND	800	U	ppbv	800	12/11/2012 2:46 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Acetone	1,700	800		ppbv	800	12/11/2012 2:46 AM
Benzene	2,400	800		ppbv	800	12/11/2012 2:46 AM
Benzyl chloride	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Bromoform	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Bromomethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Carbon disulfide	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Chlorobenzene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Chloroethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Chloroform	ND	800	U	ppbv	800	12/11/2012 2:46 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 3:27:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-026	**Matrix:**	Air
Client Sample ID:	VA2072		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Cyclohexane	5,500	1,600		ppbv	800	12/11/2012 2:46 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Ethyl acetate	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Ethylbenzene	ND	1,600	U	ppbv	800	12/11/2012 2:46 AM
Heptane	5,800	800		ppbv	800	12/11/2012 2:46 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/11/2012 2:46 AM
m,p-Xylene	990	1,600	J	ppbv	800	12/11/2012 2:46 AM
Methylene chloride	13,000	4,000		ppbv	800	12/11/2012 2:46 AM
n-Hexane	4,900	1,600		ppbv	800	12/11/2012 2:46 AM
Naphthalene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
o-Xylene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Propylene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Styrene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Toluene	6,600	800		ppbv	800	12/11/2012 2:46 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Trichloroethene	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Vinyl acetate	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Vinyl chloride	ND	800	U	ppbv	800	12/11/2012 2:46 AM
Xylenes, Total	990	2,400	J	ppbv	800	12/11/2012 2:46 AM
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	800	12/11/2012 2:46 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	360,000	94,000		µg/m³	800	12/14/2012 2:30 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/14/2012 2:30 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/14/2012 2:30 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	800	12/14/2012 2:30 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 4:03:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-027	**Matrix:**	Air
Client Sample ID:	VA2073		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.24	0.10		% v/v	1	12/19/2012 2:16 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 2:16 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 2:16 PM
Nitrogen	81	0.10		% v/v	1	12/19/2012 2:16 PM
Oxygen	19	0.10		% v/v	1	12/19/2012 2:16 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
2-Butanone	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
2-Hexanone	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Acetone	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Benzene	18,000	8,000		ppbv	8000	12/12/2012 5:22 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Bromoform	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Bromomethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Chloroethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Chloroform	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 4:03:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-027	**Matrix:**	Air
Client Sample ID:	VA2073		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Cyclohexane	19,000	16,000		ppbv	8000	12/12/2012 5:22 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	12/12/2012 5:22 PM
Heptane	22,000	8,000		ppbv	8000	12/12/2012 5:22 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	12/12/2012 5:22 PM
m,p-Xylene	ND	16,000	U	ppbv	8000	12/12/2012 5:22 PM
Methylene chloride	ND	40,000	U	ppbv	8000	12/12/2012 5:22 PM
n-Hexane	12,000	16,000	J	ppbv	8000	12/12/2012 5:22 PM
Naphthalene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
o-Xylene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Propylene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Styrene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Toluene	58,000	8,000		ppbv	8000	12/12/2012 5:22 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Trichloroethene	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	12/12/2012 5:22 PM
Xylenes, Total	ND	24,000	U	ppbv	8000	12/12/2012 5:22 PM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	8000	12/12/2012 5:22 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,000,000	940,000		µg/m³	8000	12/14/2012 4:46 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/14/2012 4:46 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/14/2012 4:46 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	8000	12/14/2012 4:46 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 8:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-028	**Matrix:**	Air
Client Sample ID:	VA2080		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.33	0.10		% v/v	1	12/19/2012 2:30 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 2:30 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 2:30 PM
Nitrogen	79	0.10		% v/v	1	12/19/2012 2:30 PM
Oxygen	21	0.10		% v/v	1	12/19/2012 2:30 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
2-Butanone	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
2-Hexanone	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Acetone	9.4	8.0		ppbv	8	12/8/2012 11:05 AM
Benzene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Benzyl chloride	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Bromodichloromethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Bromoform	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Bromomethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Carbon disulfide	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Carbon tetrachloride	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Chlorobenzene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Chloroethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Chloroform	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 8:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-028	**Matrix:**	Air
Client Sample ID:	VA2080		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Cyclohexane	ND	16	U	ppbv	8	12/8/2012 11:05 AM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Ethyl acetate	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Ethylbenzene	ND	16	U	ppbv	8	12/8/2012 11:05 AM
Heptane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/8/2012 11:05 AM
m,p-Xylene	9.1	16	J	ppbv	8	12/8/2012 11:05 AM
Methylene chloride	ND	40	U	ppbv	8	12/8/2012 11:05 AM
n-Hexane	ND	16	U	ppbv	8	12/8/2012 11:05 AM
Naphthalene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
o-Xylene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Propylene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Styrene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Toluene	23	8.0		ppbv	8	12/8/2012 11:05 AM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Trichloroethene	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Vinyl acetate	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Vinyl chloride	ND	8.0	U	ppbv	8	12/8/2012 11:05 AM
Xylenes, Total	9.1	24	J	ppbv	8	12/8/2012 11:05 AM
Surr: 4-Bromofluorobenzene	97.6	70-130		%REC	8	12/8/2012 11:05 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,400	940		µg/m³	8	12/11/2012 10:31 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	12/11/2012 10:31 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	12/11/2012 10:31 PM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	8	12/11/2012 10:31 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 9:07:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-029	**Matrix:**	Air
Client Sample ID:	VA2081		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.60	0.10		% v/v	1	12/19/2012 2:48 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 2:48 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 2:48 PM
Nitrogen	80	0.10		% v/v	1	12/19/2012 2:48 PM
Oxygen	21	0.10		% v/v	1	12/19/2012 2:48 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
2-Butanone	ND	400	U	ppbv	400	12/6/2012 4:32 PM
2-Hexanone	ND	400	U	ppbv	400	12/6/2012 4:32 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Acetone	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Benzene	690	400		ppbv	400	12/6/2012 4:32 PM
Benzyl chloride	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Bromoform	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Bromomethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Carbon disulfide	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Chlorobenzene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Chloroethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Chloroform	ND	400	U	ppbv	400	12/6/2012 4:32 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 9:07:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-029	**Matrix:**	Air
Client Sample ID:	VA2081		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Cyclohexane	1,500	800		ppbv	400	12/6/2012 4:32 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Ethyl acetate	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Ethylbenzene	ND	800	U	ppbv	400	12/6/2012 4:32 PM
Heptane	1,100	400		ppbv	400	12/6/2012 4:32 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/6/2012 4:32 PM
m,p-Xylene	ND	800	U	ppbv	400	12/6/2012 4:32 PM
Methylene chloride	ND	2,000	U	ppbv	400	12/6/2012 4:32 PM
n-Hexane	740	800	J	ppbv	400	12/6/2012 4:32 PM
Naphthalene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
o-Xylene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Propylene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Styrene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Toluene	1,400	400		ppbv	400	12/6/2012 4:32 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Trichloroethene	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Vinyl acetate	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Vinyl chloride	ND	400	U	ppbv	400	12/6/2012 4:32 PM
Xylenes, Total	ND	1,200	U	ppbv	400	12/6/2012 4:32 PM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	400	12/6/2012 4:32 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	180,000	47,000		µg/m³	400	12/11/2012 11:20 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/11/2012 11:20 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/11/2012 11:20 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	400	12/11/2012 11:20 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 9:07:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-030	**Matrix:**	Air
Client Sample ID:	VA2082		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.61	0.10		% v/v	1	12/19/2012 3:03 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 3:03 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 3:03 PM
Nitrogen	80	0.10		% v/v	1	12/19/2012 3:03 PM
Oxygen	21	0.10		% v/v	1	12/19/2012 3:03 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
2-Butanone	ND	400	U	ppbv	400	12/6/2012 5:22 PM
2-Hexanone	ND	400	U	ppbv	400	12/6/2012 5:22 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Acetone	460	400		ppbv	400	12/6/2012 5:22 PM
Benzene	880	400		ppbv	400	12/6/2012 5:22 PM
Benzyl chloride	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Bromoform	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Bromomethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Carbon disulfide	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Chlorobenzene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Chloroethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Chloroform	ND	400	U	ppbv	400	12/6/2012 5:22 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 9:07:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-030	**Matrix:**	Air
Client Sample ID:	VA2082		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Cyclohexane	2,100	800		ppbv	400	12/6/2012 5:22 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Ethyl acetate	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Ethylbenzene	ND	800	U	ppbv	400	12/6/2012 5:22 PM
Heptane	1,500	400		ppbv	400	12/6/2012 5:22 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/6/2012 5:22 PM
m,p-Xylene	450	800	J	ppbv	400	12/6/2012 5:22 PM
Methylene chloride	1,300	2,000	J	ppbv	400	12/6/2012 5:22 PM
n-Hexane	1,100	800		ppbv	400	12/6/2012 5:22 PM
Naphthalene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
o-Xylene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Propylene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Styrene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Toluene	1,900	400		ppbv	400	12/6/2012 5:22 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Trichloroethene	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Vinyl acetate	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Vinyl chloride	ND	400	U	ppbv	400	12/6/2012 5:22 PM
Xylenes, Total	450	1,200	J	ppbv	400	12/6/2012 5:22 PM
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	400	12/6/2012 5:22 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	390,000	47,000		µg/m³	400	12/12/2012 12:08 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/12/2012 12:08 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/12/2012 12:08 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	400	12/12/2012 12:08 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 9:50:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-031	**Matrix:**	Air
Client Sample ID:	VA2083		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.49	0.10		% v/v	1	12/18/2012 3:03 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 3:03 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 3:03 PM
Nitrogen	81	0.10		% v/v	1	12/18/2012 3:03 PM
Oxygen	19	0.10		% v/v	1	12/18/2012 3:03 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,1,2,2-Tetrachloroethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,1,2-Trichloroethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,1-Dichloroethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,1-Dichloroethene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,2,4-Trichlorobenzene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,2,4-Trimethylbenzene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,2-Dibromoethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,2-Dichlorobenzene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,2-Dichloroethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,2-Dichloropropane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,3,5-Trimethylbenzene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,3-Butadiene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,3-Dichlorobenzene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
1,4-Dichlorobenzene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
2-Butanone	ND	200	U	ppbv	200	12/6/2012 6:10 PM
2-Hexanone	ND	200	U	ppbv	200	12/6/2012 6:10 PM
4-Methyl-2-pentanone	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Acetone	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Benzene	300	200		ppbv	200	12/6/2012 6:10 PM
Benzyl chloride	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Bromodichloromethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Bromoform	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Bromomethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Carbon disulfide	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Carbon tetrachloride	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Chlorobenzene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Chlorodibromomethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Chloroethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Chloroform	ND	200	U	ppbv	200	12/6/2012 6:10 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 9:50:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-031	**Matrix:**	Air
Client Sample ID:	VA2083		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
cis-1,2-Dichloroethene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
cis-1,3-dichloropropene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Cyclohexane	600	400		ppbv	200	12/6/2012 6:10 PM
Dichlorodifluoromethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Ethyl acetate	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Ethylbenzene	ND	400	U	ppbv	200	12/6/2012 6:10 PM
Heptane	520	200		ppbv	200	12/6/2012 6:10 PM
Hexachlorobutadiene	ND	400	U	ppbv	200	12/6/2012 6:10 PM
m,p-Xylene	230	400	J	ppbv	200	12/6/2012 6:10 PM
Methylene chloride	590	1,000	J	ppbv	200	12/6/2012 6:10 PM
n-Hexane	360	400	J	ppbv	200	12/6/2012 6:10 PM
Naphthalene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
o-Xylene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Propylene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Styrene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
tert-Butyl Methyl Ether	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Tetrachloroethene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Tetrahydrofuran	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Toluene	780	200		ppbv	200	12/6/2012 6:10 PM
trans-1,2-Dichloroethene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
trans-1,3-dichloropropene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Trichloroethene	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Trichlorofluoromethane	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Vinyl acetate	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Vinyl chloride	ND	200	U	ppbv	200	12/6/2012 6:10 PM
Xylenes, Total	230	600	J	ppbv	200	12/6/2012 6:10 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	200	12/6/2012 6:10 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	110,000	23,000		µg/m³	200	12/12/2012 12:57 AM
C9-C10 Aromatic Hydrocarbons	ND	27,000	U	µg/m³	200	12/12/2012 12:57 AM
C9-C12 Aliphatic Hydrocarbons	15,000	38,000	J	µg/m³	200	12/12/2012 12:57 AM
Surr: 4-Bromofluorobenzene	99.3	70-130		%REC	200	12/12/2012 12:57 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 10:24:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-032	**Matrix:**	Air
Client Sample ID:	VA2084		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.48	0.10		% v/v	1	12/18/2012 3:17 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 3:17 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 3:17 PM
Nitrogen	81	0.10		% v/v	1	12/18/2012 3:17 PM
Oxygen	19	0.10		% v/v	1	12/18/2012 3:17 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,1,2,2-Tetrachloroethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,1,2-Trichloroethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,1-Dichloroethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,1-Dichloroethene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,2,4-Trichlorobenzene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,2,4-Trimethylbenzene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,2-Dibromoethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,2-Dichlorobenzene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,2-Dichloroethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,2-Dichloropropane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,3,5-Trimethylbenzene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,3-Butadiene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,3-Dichlorobenzene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
1,4-Dichlorobenzene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
2-Butanone	ND	200	U	ppbv	200	12/6/2012 6:58 PM
2-Hexanone	ND	200	U	ppbv	200	12/6/2012 6:58 PM
4-Methyl-2-pentanone	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Acetone	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Benzene	8,900	200		ppbv	200	12/6/2012 6:58 PM
Benzyl chloride	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Bromodichloromethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Bromoform	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Bromomethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Carbon disulfide	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Carbon tetrachloride	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Chlorobenzene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Chlorodibromomethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Chloroethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Chloroform	ND	200	U	ppbv	200	12/6/2012 6:58 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 10:24:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-032	**Matrix:**	Air
Client Sample ID:	VA2084		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
cis-1,2-Dichloroethene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
cis-1,3-dichloropropene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Cyclohexane	20,000	1,600		ppbv	800	12/7/2012 11:11 PM
Dichlorodifluoromethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Ethyl acetate	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Ethylbenzene	240	400	J	ppbv	200	12/6/2012 6:58 PM
Heptane	5,100	200		ppbv	200	12/6/2012 6:58 PM
Hexachlorobutadiene	ND	400	U	ppbv	200	12/6/2012 6:58 PM
m,p-Xylene	460	400		ppbv	200	12/6/2012 6:58 PM
Methylene chloride	460	1,000	J	ppbv	200	12/6/2012 6:58 PM
n-Hexane	15,000	1,600		ppbv	800	12/7/2012 11:11 PM
Naphthalene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
o-Xylene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Propylene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Styrene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
tert-Butyl Methyl Ether	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Tetrachloroethene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Tetrahydrofuran	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Toluene	9,600	200		ppbv	200	12/6/2012 6:58 PM
trans-1,2-Dichloroethene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
trans-1,3-dichloropropene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Trichloroethene	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Trichlorofluoromethane	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Vinyl acetate	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Vinyl chloride	ND	200	U	ppbv	200	12/6/2012 6:58 PM
Xylenes, Total	460	600	J	ppbv	200	12/6/2012 6:58 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%REC	200	12/6/2012 6:58 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,000,000	190,000		µg/m³	1600	12/13/2012 4:35 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	12/13/2012 4:35 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	12/13/2012 4:35 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1600	12/13/2012 4:35 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 10:58:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-033	**Matrix:**	Air
Client Sample ID:	VA2085		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.70	0.10		% v/v	1	12/18/2012 3:39 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 3:39 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 3:39 PM
Nitrogen	83	0.10		% v/v	1	12/18/2012 3:39 PM
Oxygen	18	0.10		% v/v	1	12/18/2012 3:39 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
2-Butanone	ND	400	U	ppbv	400	12/6/2012 7:47 PM
2-Hexanone	ND	400	U	ppbv	400	12/6/2012 7:47 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Acetone	430	400		ppbv	400	12/6/2012 7:47 PM
Benzene	200,000	8,000		ppbv	8000	12/8/2012 12:39 AM
Benzyl chloride	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Bromoform	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Bromomethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Carbon disulfide	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Chlorobenzene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Chloroethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Chloroform	ND	400	U	ppbv	400	12/6/2012 7:47 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 10:58:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-033	**Matrix:**	Air
Client Sample ID:	VA2085		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Cyclohexane	180,000	16,000		ppbv	8000	12/8/2012 12:39 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Ethyl acetate	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Ethylbenzene	4,600	800		ppbv	400	12/6/2012 7:47 PM
Heptane	14,000	400		ppbv	400	12/6/2012 7:47 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/6/2012 7:47 PM
m,p-Xylene	7,700	800		ppbv	400	12/6/2012 7:47 PM
Methylene chloride	1,500	2,000	J	ppbv	400	12/6/2012 7:47 PM
n-Hexane	180,000	16,000		ppbv	8000	12/8/2012 12:39 AM
Naphthalene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
o-Xylene	2,100	400		ppbv	400	12/6/2012 7:47 PM
Propylene	5,100	400		ppbv	400	12/6/2012 7:47 PM
Styrene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Toluene	240,000	8,000		ppbv	8000	12/8/2012 12:39 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Trichloroethene	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Vinyl acetate	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Vinyl chloride	ND	400	U	ppbv	400	12/6/2012 7:47 PM
Xylenes, Total	9,800	1,200		ppbv	400	12/6/2012 7:47 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	400	12/6/2012 7:47 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	8,500,000	940,000		µg/m³	8000	12/12/2012 3:13 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/12/2012 3:13 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/12/2012 3:13 AM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	8000	12/12/2012 3:13 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 11:33:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-034	**Matrix:**	Air
Client Sample ID:	VA2086		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.53	0.10		% v/v	1	12/18/2012 3:54 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 3:54 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 3:54 PM
Nitrogen	81	0.10		% v/v	1	12/18/2012 3:54 PM
Oxygen	18	0.10		% v/v	1	12/18/2012 3:54 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
2-Butanone	ND	800	U	ppbv	800	12/6/2012 8:31 PM
2-Hexanone	ND	800	U	ppbv	800	12/6/2012 8:31 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Acetone	1,500	800		ppbv	800	12/6/2012 8:31 PM
Benzene	120,000	8,000		ppbv	8000	12/8/2012 1:22 AM
Benzyl chloride	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Bromoform	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Bromomethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Carbon disulfide	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Chlorobenzene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Chloroethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Chloroform	ND	800	U	ppbv	800	12/6/2012 8:31 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 11:33:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-034	**Matrix:**	Air
Client Sample ID:	VA2086		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Cyclohexane	160,000	16,000		ppbv	8000	12/8/2012 1:22 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Ethyl acetate	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Ethylbenzene	6,600	1,600		ppbv	800	12/6/2012 8:31 PM
Heptane	32,000	800		ppbv	800	12/6/2012 8:31 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/6/2012 8:31 PM
m,p-Xylene	14,000	1,600		ppbv	800	12/6/2012 8:31 PM
Methylene chloride	3,200	4,000	J	ppbv	800	12/6/2012 8:31 PM
n-Hexane	96,000	16,000		ppbv	8000	12/8/2012 1:22 AM
Naphthalene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
o-Xylene	3,800	800		ppbv	800	12/6/2012 8:31 PM
Propylene	2,400	800		ppbv	800	12/6/2012 8:31 PM
Styrene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Toluene	280,000	8,000		ppbv	8000	12/8/2012 1:22 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Trichloroethene	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Vinyl acetate	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Vinyl chloride	ND	800	U	ppbv	800	12/6/2012 8:31 PM
Xylenes, Total	18,000	2,400		ppbv	800	12/6/2012 8:31 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	800	12/6/2012 8:31 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	22,000,000	2,300,000		µg/m³	20000	12/12/2012 4:02 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	12/12/2012 4:02 AM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	12/12/2012 4:02 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	20000	12/12/2012 4:02 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 2:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-035	**Matrix:**	Air
Client Sample ID:	VA2087		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-7			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.65	0.10		% v/v	1	12/18/2012 4:08 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 4:08 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 4:08 PM
Nitrogen	79	0.10		% v/v	1	12/18/2012 4:08 PM
Oxygen	21	0.10		% v/v	1	12/18/2012 4:08 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,2,4-Trimethylbenzene	730	40		ppbv	40	12/13/2012 6:39 PM
1,2-Dibromoethane	250	40		ppbv	40	12/13/2012 6:39 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,3,5-Trimethylbenzene	350	40		ppbv	40	12/13/2012 6:39 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
2-Butanone	660	40		ppbv	40	12/13/2012 6:39 PM
2-Hexanone	ND	40	U	ppbv	40	12/13/2012 6:39 PM
4-Methyl-2-pentanone	140	40		ppbv	40	12/13/2012 6:39 PM
Acetone	570	40		ppbv	40	12/13/2012 6:39 PM
Benzene	13,000	800		ppbv	800	12/18/2012 3:53 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Bromoform	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Chloroform	ND	40	U	ppbv	40	12/13/2012 6:39 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 2:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-035	**Matrix:**	Air
Client Sample ID:	VA2087		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Cyclohexane	24,000	1,600		ppbv	800	12/18/2012 3:53 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Ethylbenzene	4,400	1,600		ppbv	800	12/18/2012 3:53 PM
Heptane	19,000	800		ppbv	800	12/18/2012 3:53 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2012 6:39 PM
m,p-Xylene	9,800	1,600		ppbv	800	12/18/2012 3:53 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2012 6:39 PM
n-Hexane	24,000	1,600		ppbv	800	12/18/2012 3:53 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
o-Xylene	3,000	800		ppbv	800	12/18/2012 3:53 PM
Propylene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Styrene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Toluene	36,000	800		ppbv	800	12/18/2012 3:53 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2012 6:39 PM
Xylenes, Total	13,000	2,400		ppbv	800	12/18/2012 3:53 PM
Surr: 4-Bromofluorobenzene	174	70-130	S	%REC	40	12/13/2012 6:39 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,000,000	940,000		µg/m³	8000	12/18/2012 6:52 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/18/2012 6:52 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/18/2012 6:52 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	8000	12/18/2012 6:52 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 3:20:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-036	**Matrix:**	Air
Client Sample ID:	VA2088		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	2.0	0.10		% v/v	1	12/18/2012 4:23 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 4:23 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 4:23 PM
Nitrogen	78	0.10		% v/v	1	12/18/2012 4:23 PM
Oxygen	20	0.10		% v/v	1	12/18/2012 4:23 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,2,4-Trimethylbenzene	430	40		ppbv	40	12/13/2012 7:21 PM
1,2-Dibromoethane	130	40		ppbv	40	12/13/2012 7:21 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,3,5-Trimethylbenzene	210	40		ppbv	40	12/13/2012 7:21 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
2-Butanone	310	40		ppbv	40	12/13/2012 7:21 PM
2-Hexanone	110	40		ppbv	40	12/13/2012 7:21 PM
4-Methyl-2-pentanone	56	40		ppbv	40	12/13/2012 7:21 PM
Acetone	200	40		ppbv	40	12/13/2012 7:21 PM
Benzene	4,000	800		ppbv	800	12/18/2012 4:38 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Bromodichloromethane	98	40		ppbv	40	12/13/2012 7:21 PM
Bromoform	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Chloroform	ND	40	U	ppbv	40	12/13/2012 7:21 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 3:20:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-036	**Matrix:**	Air
Client Sample ID:	VA2088		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Cyclohexane	7,200	1,600		ppbv	800	12/18/2012 4:38 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Ethylbenzene	1,800	80		ppbv	40	12/13/2012 7:21 PM
Heptane	7,700	800		ppbv	800	12/18/2012 4:38 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2012 7:21 PM
m,p-Xylene	3,400	80		ppbv	40	12/13/2012 7:21 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2012 7:21 PM
n-Hexane	16,000	1,600		ppbv	800	12/18/2012 4:38 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
o-Xylene	1,400	40		ppbv	40	12/13/2012 7:21 PM
Propylene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Styrene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Toluene	15,000	800		ppbv	800	12/18/2012 4:38 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2012 7:21 PM
Xylenes, Total	4,800	120		ppbv	40	12/13/2012 7:21 PM
Surr: 4-Bromofluorobenzene	161	70-130	S	%REC	40	12/13/2012 7:21 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	270,000	94,000		µg/m³	800	12/20/2012 5:41 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/20/2012 5:41 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/20/2012 5:41 PM
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	800	12/20/2012 5:41 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 3:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-037	**Matrix:**	Air
Client Sample ID:	VA2089		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.2	0.10		% v/v	1	12/18/2012 4:37 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 4:37 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 4:37 PM
Nitrogen	79	0.10		% v/v	1	12/18/2012 4:37 PM
Oxygen	20	0.10		% v/v	1	12/18/2012 4:37 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,2,4-Trimethylbenzene	510	40		ppbv	40	12/13/2012 8:04 PM
1,2-Dibromoethane	150	40		ppbv	40	12/13/2012 8:04 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,3,5-Trimethylbenzene	240	40		ppbv	40	12/13/2012 8:04 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
2-Butanone	350	40		ppbv	40	12/13/2012 8:04 PM
2-Hexanone	130	40		ppbv	40	12/13/2012 8:04 PM
4-Methyl-2-pentanone	70	40		ppbv	40	12/13/2012 8:04 PM
Acetone	230	40		ppbv	40	12/13/2012 8:04 PM
Benzene	8,700	8,000		ppbv	8000	12/18/2012 3:16 AM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Bromoform	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Chloroform	ND	40	U	ppbv	40	12/13/2012 8:04 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 3:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-037	**Matrix:**	Air
Client Sample ID:	VA2089		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Cyclohexane	7,000	1,600		ppbv	800	12/18/2012 5:23 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Ethylbenzene	2,000	80		ppbv	40	12/13/2012 8:04 PM
Heptane	15,000	8,000		ppbv	8000	12/18/2012 3:16 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2012 8:04 PM
m,p-Xylene	3,600	80		ppbv	40	12/13/2012 8:04 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2012 8:04 PM
n-Hexane	12,000	1,600		ppbv	800	12/18/2012 5:23 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
o-Xylene	1,600	40		ppbv	40	12/13/2012 8:04 PM
Propylene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Styrene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Toluene	35,000	8,000		ppbv	8000	12/18/2012 3:16 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2012 8:04 PM
Xylenes, Total	5,300	120		ppbv	40	12/13/2012 8:04 PM
Surr: 4-Bromofluorobenzene	160	70-130	S	%REC	40	12/13/2012 8:04 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	720,000	94,000		µg/m³	800	12/18/2012 9:54 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/18/2012 9:54 PM
C9-C12 Aliphatic Hydrocarbons	65,000	150,000	J	µg/m³	800	12/18/2012 9:54 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	800	12/18/2012 9:54 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 12:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-038	**Matrix:**	Air
Client Sample ID:	VA2107		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.61	0.10		% v/v	1	12/18/2012 4:52 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 4:52 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 4:52 PM
Nitrogen	79	0.10		% v/v	1	12/18/2012 4:52 PM
Oxygen	21	0.10		% v/v	1	12/18/2012 4:52 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
2-Butanone	ND	400	U	ppbv	400	12/11/2012 2:49 PM
2-Hexanone	ND	400	U	ppbv	400	12/11/2012 2:49 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Acetone	2,100	400		ppbv	400	12/11/2012 2:49 PM
Benzene	580	400		ppbv	400	12/11/2012 2:49 PM
Benzyl chloride	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Bromoform	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Bromomethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Carbon disulfide	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Chlorobenzene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Chloroethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Chloroform	ND	400	U	ppbv	400	12/11/2012 2:49 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 12:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-038	**Matrix:**	Air
Client Sample ID:	VA2107		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Cyclohexane	460	800	J	ppbv	400	12/11/2012 2:49 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Ethyl acetate	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Ethylbenzene	ND	800	U	ppbv	400	12/11/2012 2:49 PM
Heptane	520	400		ppbv	400	12/11/2012 2:49 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/11/2012 2:49 PM
m,p-Xylene	ND	800	U	ppbv	400	12/11/2012 2:49 PM
Methylene chloride	15,000	2,000		ppbv	400	12/11/2012 2:49 PM
n-Hexane	2,200	800		ppbv	400	12/11/2012 2:49 PM
Naphthalene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
o-Xylene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Propylene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Styrene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Toluene	1,600	400		ppbv	400	12/11/2012 2:49 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Trichloroethene	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Vinyl acetate	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Vinyl chloride	ND	400	U	ppbv	400	12/11/2012 2:49 PM
Xylenes, Total	ND	1,200	U	ppbv	400	12/11/2012 2:49 PM
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	400	12/11/2012 2:49 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	13,000	4,700		µg/m³	40	12/13/2012 11:26 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/13/2012 11:26 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/13/2012 11:26 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	40	12/13/2012 11:26 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 1:28:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-039	**Matrix:**	Air
Client Sample ID:	VA2108		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.6	0.10		% v/v	1	12/18/2012 5:08 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 5:08 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 5:08 PM
Nitrogen	80	0.10		% v/v	1	12/18/2012 5:08 PM
Oxygen	19	0.10		% v/v	1	12/18/2012 5:08 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2012 3:56 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2012 3:56 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Acetone	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Benzene	260	40		ppbv	40	12/12/2012 3:56 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Bromoform	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Carbon tetrachloride	64	40		ppbv	40	12/12/2012 3:56 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Chloroform	140	40		ppbv	40	12/12/2012 3:56 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 1:28:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-039	**Matrix:**	Air
Client Sample ID:	VA2108		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Cyclohexane	98	80		ppbv	40	12/12/2012 3:56 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Ethylbenzene	ND	80	U	ppbv	40	12/12/2012 3:56 PM
Heptane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2012 3:56 PM
m,p-Xylene	73	80	J	ppbv	40	12/12/2012 3:56 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2012 3:56 PM
n-Hexane	44	80	J	ppbv	40	12/12/2012 3:56 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
o-Xylene	44	40		ppbv	40	12/12/2012 3:56 PM
Propylene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Styrene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Toluene	640	40		ppbv	40	12/12/2012 3:56 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2012 3:56 PM
Xylenes, Total	120	120	J	ppbv	40	12/12/2012 3:56 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40	12/12/2012 3:56 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	14,000	4,700		µg/m³	40	12/14/2012 12:57 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2012 12:57 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2012 12:57 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	12/14/2012 12:57 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 1:59:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-040	**Matrix:**	Air
Client Sample ID:	VA2109		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.33	0.10		% v/v	1	12/18/2012 5:22 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/18/2012 5:22 PM
Methane	ND	0.50	U	% v/v	1	12/18/2012 5:22 PM
Nitrogen	80	0.10		% v/v	1	12/18/2012 5:22 PM
Oxygen	20	0.10		% v/v	1	12/18/2012 5:22 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2012 4:39 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2012 4:39 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Acetone	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Benzene	280	40		ppbv	40	12/12/2012 4:39 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Bromoform	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Chloroform	ND	40	U	ppbv	40	12/12/2012 4:39 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 1:59:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-040	**Matrix:**	Air
Client Sample ID:	VA2109		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Cyclohexane	110	80		ppbv	40	12/12/2012 4:39 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Ethylbenzene	ND	80	U	ppbv	40	12/12/2012 4:39 PM
Heptane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2012 4:39 PM
m,p-Xylene	69	80	J	ppbv	40	12/12/2012 4:39 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2012 4:39 PM
n-Hexane	40	80	J	ppbv	40	12/12/2012 4:39 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
o-Xylene	42	40		ppbv	40	12/12/2012 4:39 PM
Propylene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Styrene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Toluene	700	40		ppbv	40	12/12/2012 4:39 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2012 4:39 PM
Xylenes, Total	110	120	J	ppbv	40	12/12/2012 4:39 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	40	12/12/2012 4:39 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	9,500	4,700		µg/m³	40	12/14/2012 1:44 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2012 1:44 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2012 1:44 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	40	12/14/2012 1:44 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 2:32:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-041	**Matrix:**	Air
Client Sample ID:	VA2110		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.31	0.10		% v/v	1	12/19/2012 3:47 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 3:47 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 3:47 PM
Nitrogen	79	0.10		% v/v	1	12/19/2012 3:47 PM
Oxygen	20	0.10		% v/v	1	12/19/2012 3:47 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
2-Butanone	ND	40	U	ppbv	40	12/11/2012 7:20 PM
2-Hexanone	ND	40	U	ppbv	40	12/11/2012 7:20 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Acetone	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Benzene	300	40		ppbv	40	12/11/2012 7:20 PM
Benzyl chloride	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Bromoform	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Bromomethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Carbon disulfide	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Chlorobenzene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Chloroethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Chloroform	ND	40	U	ppbv	40	12/11/2012 7:20 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 2:32:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-041	**Matrix:**	Air
Client Sample ID:	VA2110		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Cyclohexane	140	80		ppbv	40	12/11/2012 7:20 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Ethyl acetate	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Ethylbenzene	ND	80	U	ppbv	40	12/11/2012 7:20 PM
Heptane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/11/2012 7:20 PM
m,p-Xylene	72	80	J	ppbv	40	12/11/2012 7:20 PM
Methylene chloride	ND	200	U	ppbv	40	12/11/2012 7:20 PM
n-Hexane	46	80	J	ppbv	40	12/11/2012 7:20 PM
Naphthalene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
o-Xylene	45	40		ppbv	40	12/11/2012 7:20 PM
Propylene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Styrene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Toluene	740	40		ppbv	40	12/11/2012 7:20 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Trichloroethene	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Vinyl acetate	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Vinyl chloride	ND	40	U	ppbv	40	12/11/2012 7:20 PM
Xylenes, Total	120	120	J	ppbv	40	12/11/2012 7:20 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	40	12/11/2012 7:20 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	12,000	4,700		µg/m³	40	12/13/2012 7:01 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/13/2012 7:01 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/13/2012 7:01 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	40	12/13/2012 7:01 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 3:06:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-042	**Matrix:**	Air
Client Sample ID:	VA2111		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.31	0.10		% v/v	1	12/19/2012 4:04 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 4:04 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 4:04 PM
Nitrogen	81	0.10		% v/v	1	12/19/2012 4:04 PM
Oxygen	20	0.10		% v/v	1	12/19/2012 4:04 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
2-Butanone	ND	800	U	ppbv	800	12/11/2012 4:16 AM
2-Hexanone	ND	800	U	ppbv	800	12/11/2012 4:16 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Acetone	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Benzene	4,300	800		ppbv	800	12/11/2012 4:16 AM
Benzyl chloride	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Bromoform	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Bromomethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Carbon disulfide	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Chlorobenzene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Chloroethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Chloroform	ND	800	U	ppbv	800	12/11/2012 4:16 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 3:06:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-042	**Matrix:**	Air
Client Sample ID:	VA2111		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Cyclohexane	11,000	1,600		ppbv	800	12/11/2012 4:16 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Ethyl acetate	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Ethylbenzene	910	1,600	J	ppbv	800	12/11/2012 4:16 AM
Heptane	12,000	800		ppbv	800	12/11/2012 4:16 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/11/2012 4:16 AM
m,p-Xylene	2,300	1,600		ppbv	800	12/11/2012 4:16 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/11/2012 4:16 AM
n-Hexane	6,000	1,600		ppbv	800	12/11/2012 4:16 AM
Naphthalene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
o-Xylene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Propylene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Styrene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Toluene	18,000	800		ppbv	800	12/11/2012 4:16 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Trichloroethene	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Vinyl acetate	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Vinyl chloride	ND	800	U	ppbv	800	12/11/2012 4:16 AM
Xylenes, Total	2,300	2,400	J	ppbv	800	12/11/2012 4:16 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	800	12/11/2012 4:16 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	430,000	94,000		µg/m³	800	12/13/2012 8:35 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/13/2012 8:35 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/13/2012 8:35 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	800	12/13/2012 8:35 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 3:44:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-043	**Matrix:**	Air
Client Sample ID:	VA2112		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.24	0.10		% v/v	1	12/19/2012 4:18 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 4:18 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 4:18 PM
Nitrogen	81	0.10		% v/v	1	12/19/2012 4:18 PM
Oxygen	20	0.10		% v/v	1	12/19/2012 4:18 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
2-Butanone	ND	800	U	ppbv	800	12/10/2012 6:28 PM
2-Hexanone	ND	800	U	ppbv	800	12/10/2012 6:28 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Acetone	1,200	800		ppbv	800	12/10/2012 6:28 PM
Benzene	6,800	800		ppbv	800	12/10/2012 6:28 PM
Benzyl chloride	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Bromoform	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Bromomethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Carbon disulfide	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Chlorobenzene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Chloroethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Chloroform	ND	800	U	ppbv	800	12/10/2012 6:28 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/27/2012 3:44:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-043	**Matrix:**	Air
Client Sample ID:	VA2112		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Cyclohexane	18,000	1,600		ppbv	800	12/10/2012 6:28 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Ethyl acetate	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Ethylbenzene	ND	1,600	U	ppbv	800	12/10/2012 6:28 PM
Heptane	4,800	800		ppbv	800	12/10/2012 6:28 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/10/2012 6:28 PM
m,p-Xylene	ND	1,600	U	ppbv	800	12/10/2012 6:28 PM
Methylene chloride	1,900	4,000	J	ppbv	800	12/10/2012 6:28 PM
n-Hexane	22,000	1,600		ppbv	800	12/10/2012 6:28 PM
Naphthalene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
o-Xylene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Propylene	1,600	800		ppbv	800	12/10/2012 6:28 PM
Styrene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Toluene	13,000	800		ppbv	800	12/10/2012 6:28 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Trichloroethene	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Vinyl acetate	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Vinyl chloride	ND	800	U	ppbv	800	12/10/2012 6:28 PM
Xylenes, Total	ND	2,400	U	ppbv	800	12/10/2012 6:28 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	800	12/10/2012 6:28 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,800,000	2,300,000		µg/m³	20000	12/14/2012 4:01 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	12/14/2012 4:01 AM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	12/14/2012 4:01 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	20000	12/14/2012 4:01 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 8:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-044	**Matrix:**	Air
Client Sample ID:	VA2113		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-5.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.1	0.10		% v/v	1	12/19/2012 4:34 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 4:34 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 4:34 PM
Nitrogen	80	0.10		% v/v	1	12/19/2012 4:34 PM
Oxygen	20	0.10		% v/v	1	12/19/2012 4:34 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2012 6:04 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2012 6:04 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Acetone	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Benzene	76	40		ppbv	40	12/12/2012 6:04 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Bromoform	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Chloroform	270	40		ppbv	40	12/12/2012 6:04 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 8:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-044	**Matrix:**	Air
Client Sample ID:	VA2113		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Cyclohexane	80	80		ppbv	40	12/12/2012 6:04 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Ethylbenzene	ND	80	U	ppbv	40	12/12/2012 6:04 PM
Heptane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2012 6:04 PM
m,p-Xylene	ND	80	U	ppbv	40	12/12/2012 6:04 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2012 6:04 PM
n-Hexane	48	80	J	ppbv	40	12/12/2012 6:04 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
o-Xylene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Propylene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Styrene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Toluene	220	40		ppbv	40	12/12/2012 6:04 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2012 6:04 PM
Xylenes, Total	ND	120	U	ppbv	40	12/12/2012 6:04 PM
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	40	12/12/2012 6:04 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	14,000	4,700		µg/m³	40	12/14/2012 5:31 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2012 5:31 AM
C9-C12 Aliphatic Hydrocarbons	2,400	7,600	J	µg/m³	40	12/14/2012 5:31 AM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	40	12/14/2012 5:31 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 9:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-045	**Matrix:**	Air
Client Sample ID:	VA2114		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.0	0.10		% v/v	1	12/19/2012 4:49 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 4:49 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 4:49 PM
Nitrogen	80	0.10		% v/v	1	12/19/2012 4:49 PM
Oxygen	20	0.10		% v/v	1	12/19/2012 4:49 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2012 7:27 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2012 7:27 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Acetone	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Benzene	82	40		ppbv	40	12/12/2012 7:27 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Bromoform	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Chloroform	170	40		ppbv	40	12/12/2012 7:27 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 9:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-045	**Matrix:**	Air
Client Sample ID:	VA2114		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Cyclohexane	88	80		ppbv	40	12/12/2012 7:27 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Ethylbenzene	ND	80	U	ppbv	40	12/12/2012 7:27 PM
Heptane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2012 7:27 PM
m,p-Xylene	ND	80	U	ppbv	40	12/12/2012 7:27 PM
Methylene chloride	110	200	J	ppbv	40	12/12/2012 7:27 PM
n-Hexane	58	80	J	ppbv	40	12/12/2012 7:27 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
o-Xylene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Propylene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Styrene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Toluene	250	40		ppbv	40	12/12/2012 7:27 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2012 7:27 PM
Xylenes, Total	ND	120	U	ppbv	40	12/12/2012 7:27 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%REC	40	12/12/2012 7:27 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	15,000	4,700		µg/m³	40	12/14/2012 7:03 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2012 7:03 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2012 7:03 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	12/14/2012 7:03 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 9:45:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-046	**Matrix:**	Air
Client Sample ID:	VA2115		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.052	0.10	J	% v/v	1	12/19/2012 5:04 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 5:04 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 5:04 PM
Nitrogen	79	0.10		% v/v	1	12/19/2012 5:04 PM
Oxygen	21	0.10		% v/v	1	12/19/2012 5:04 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2012 8:09 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2012 8:09 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Acetone	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Benzene	100	40		ppbv	40	12/12/2012 8:09 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Bromoform	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Chloroform	ND	40	U	ppbv	40	12/12/2012 8:09 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 9:45:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-046	**Matrix:**	Air
Client Sample ID:	VA2115		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Cyclohexane	120	80		ppbv	40	12/12/2012 8:09 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Ethylbenzene	ND	80	U	ppbv	40	12/12/2012 8:09 PM
Heptane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2012 8:09 PM
m,p-Xylene	ND	80	U	ppbv	40	12/12/2012 8:09 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2012 8:09 PM
n-Hexane	60	80	J	ppbv	40	12/12/2012 8:09 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
o-Xylene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Propylene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Styrene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Toluene	310	40		ppbv	40	12/12/2012 8:09 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2012 8:09 PM
Xylenes, Total	ND	120	U	ppbv	40	12/12/2012 8:09 PM
Surr: 4-Bromofluorobenzene	99.6	70-130		%REC	40	12/12/2012 8:09 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	13,000	4,700		µg/m³	40	12/14/2012 3:10 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2012 3:10 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2012 3:10 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	40	12/14/2012 3:10 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 9:45:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-047	**Matrix:**	Air
Client Sample ID:	VA2116		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.25	0.10		% v/v	1	12/19/2012 5:18 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 5:18 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 5:18 PM
Nitrogen	80	0.10		% v/v	1	12/19/2012 5:18 PM
Oxygen	20	0.10		% v/v	1	12/19/2012 5:18 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2012 8:50 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2012 8:50 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Acetone	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Benzene	96	40		ppbv	40	12/12/2012 8:50 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Bromoform	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Chloroform	ND	40	U	ppbv	40	12/12/2012 8:50 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 9:45:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-047	**Matrix:**	Air
Client Sample ID:	VA2116		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Cyclohexane	120	80		ppbv	40	12/12/2012 8:50 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Ethylbenzene	ND	80	U	ppbv	40	12/12/2012 8:50 PM
Heptane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2012 8:50 PM
m,p-Xylene	ND	80	U	ppbv	40	12/12/2012 8:50 PM
Methylene chloride	160	200	J	ppbv	40	12/12/2012 8:50 PM
n-Hexane	71	80	J	ppbv	40	12/12/2012 8:50 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
o-Xylene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Propylene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Styrene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Toluene	300	40		ppbv	40	12/12/2012 8:50 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2012 8:50 PM
Xylenes, Total	ND	120	U	ppbv	40	12/12/2012 8:50 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	40	12/12/2012 8:50 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	12,000	4,700		µg/m³	40	12/14/2012 3:56 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2012 3:56 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2012 3:56 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	40	12/14/2012 3:56 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 10:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-048	**Matrix:**	Air
Client Sample ID:	VA2117		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.17	0.10		% v/v	1	12/19/2012 5:32 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 5:32 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 5:32 PM
Nitrogen	80	0.10		% v/v	1	12/19/2012 5:32 PM
Oxygen	21	0.10		% v/v	1	12/19/2012 5:32 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
2-Butanone	ND	40	U	ppbv	40	12/12/2012 9:32 PM
2-Hexanone	ND	40	U	ppbv	40	12/12/2012 9:32 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Acetone	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Benzene	170	40		ppbv	40	12/12/2012 9:32 PM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Bromoform	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Bromomethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Chloroethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Chloroform	ND	40	U	ppbv	40	12/12/2012 9:32 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 10:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-048	**Matrix:**	Air
Client Sample ID:	VA2117		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Cyclohexane	210	80		ppbv	40	12/12/2012 9:32 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Ethylbenzene	ND	80	U	ppbv	40	12/12/2012 9:32 PM
Heptane	80	40		ppbv	40	12/12/2012 9:32 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2012 9:32 PM
m,p-Xylene	58	80	J	ppbv	40	12/12/2012 9:32 PM
Methylene chloride	ND	200	U	ppbv	40	12/12/2012 9:32 PM
n-Hexane	100	80		ppbv	40	12/12/2012 9:32 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
o-Xylene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Propylene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Styrene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Toluene	550	40		ppbv	40	12/12/2012 9:32 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Trichloroethene	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2012 9:32 PM
Xylenes, Total	58	120	J	ppbv	40	12/12/2012 9:32 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	40	12/12/2012 9:32 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	15,000	4,700		µg/m³	40	12/14/2012 5:29 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2012 5:29 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2012 5:29 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	40	12/14/2012 5:29 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 11:10:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-049	**Matrix:**	Air
Client Sample ID:	VA2118		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.26	0.10		% v/v	1	12/19/2012 5:47 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 5:47 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 5:47 PM
Nitrogen	81	0.10		% v/v	1	12/19/2012 5:47 PM
Oxygen	20	0.10		% v/v	1	12/19/2012 5:47 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
2-Butanone	ND	800	U	ppbv	800	12/12/2012 11:05 PM
2-Hexanone	ND	800	U	ppbv	800	12/12/2012 11:05 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Acetone	1,600	800		ppbv	800	12/12/2012 11:05 PM
Benzene	1,500	800		ppbv	800	12/12/2012 11:05 PM
Benzyl chloride	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Bromoform	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Bromomethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Carbon disulfide	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Chlorobenzene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Chloroethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Chloroform	ND	800	U	ppbv	800	12/12/2012 11:05 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 11:10:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-049	**Matrix:**	Air
Client Sample ID:	VA2118		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Cyclohexane	7,000	1,600		ppbv	800	12/12/2012 11:05 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Ethyl acetate	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Ethylbenzene	ND	1,600	U	ppbv	800	12/12/2012 11:05 PM
Heptane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/12/2012 11:05 PM
m,p-Xylene	ND	1,600	U	ppbv	800	12/12/2012 11:05 PM
Methylene chloride	7,400	4,000		ppbv	800	12/12/2012 11:05 PM
n-Hexane	7,400	1,600		ppbv	800	12/12/2012 11:05 PM
Naphthalene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
o-Xylene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Propylene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Styrene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Toluene	1,800	800		ppbv	800	12/12/2012 11:05 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Trichloroethene	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Vinyl acetate	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Vinyl chloride	ND	800	U	ppbv	800	12/12/2012 11:05 PM
Xylenes, Total	ND	2,400	U	ppbv	800	12/12/2012 11:05 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	800	12/12/2012 11:05 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,900,000	940,000		µg/m³	8000	12/14/2012 8:32 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/14/2012 8:32 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/14/2012 8:32 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8000	12/14/2012 8:32 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 11:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-050	**Matrix:**	Air
Client Sample ID:	VA2119		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.099	0.10	J	% v/v	1	12/19/2012 6:02 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/19/2012 6:02 PM
Methane	ND	0.50	U	% v/v	1	12/19/2012 6:02 PM
Nitrogen	80	0.10		% v/v	1	12/19/2012 6:02 PM
Oxygen	21	0.10		% v/v	1	12/19/2012 6:02 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
2-Butanone	ND	40	U	ppbv	40	12/17/2012 4:15 PM
2-Hexanone	ND	40	U	ppbv	40	12/17/2012 4:15 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Acetone	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Benzene	290	40		ppbv	40	12/17/2012 4:15 PM
Benzyl chloride	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Bromoform	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Bromomethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Carbon disulfide	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Chlorobenzene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Chloroethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Chloroform	ND	40	U	ppbv	40	12/17/2012 4:15 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 11:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-050	**Matrix:**	Air
Client Sample ID:	VA2119		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Cyclohexane	660	80		ppbv	40	12/17/2012 4:15 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Ethyl acetate	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Ethylbenzene	ND	80	U	ppbv	40	12/17/2012 4:15 PM
Heptane	190	40		ppbv	40	12/17/2012 4:15 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/17/2012 4:15 PM
m,p-Xylene	69	80	J	ppbv	40	12/17/2012 4:15 PM
Methylene chloride	ND	200	U	ppbv	40	12/17/2012 4:15 PM
n-Hexane	620	80		ppbv	40	12/17/2012 4:15 PM
Naphthalene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
o-Xylene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Propylene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Styrene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Toluene	670	40		ppbv	40	12/17/2012 4:15 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Trichloroethene	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Vinyl acetate	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Vinyl chloride	ND	40	U	ppbv	40	12/17/2012 4:15 PM
Xylenes, Total	69	120	J	ppbv	40	12/17/2012 4:15 PM
Surr: 4-Bromofluorobenzene	99.3	70-130		%REC	40	12/17/2012 4:15 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	140,000	47,000		µg/m³	400	12/14/2012 10:10 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/14/2012 10:10 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/14/2012 10:10 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	400	12/14/2012 10:10 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 12:48:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-051	**Matrix:**	Air
Client Sample ID:	VA2120		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.2	0.10		% v/v	1	12/20/2012 12:30 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 12:30 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 12:30 PM
Nitrogen	79	0.10		% v/v	1	12/20/2012 12:30 PM
Oxygen	20	0.10		% v/v	1	12/20/2012 12:30 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
2-Butanone	ND	40	U	ppbv	40	12/17/2012 4:56 PM
2-Hexanone	ND	40	U	ppbv	40	12/17/2012 4:56 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Acetone	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Benzene	120	40		ppbv	40	12/17/2012 4:56 PM
Benzyl chloride	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Bromoform	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Bromomethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Carbon disulfide	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Chlorobenzene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Chloroethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Chloroform	47	40		ppbv	40	12/17/2012 4:56 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 12:48:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-051	**Matrix:**	Air
Client Sample ID:	VA2120		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Cyclohexane	200	80		ppbv	40	12/17/2012 4:56 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Ethyl acetate	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Ethylbenzene	ND	80	U	ppbv	40	12/17/2012 4:56 PM
Heptane	140	40		ppbv	40	12/17/2012 4:56 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/17/2012 4:56 PM
m,p-Xylene	43	80	J	ppbv	40	12/17/2012 4:56 PM
Methylene chloride	ND	200	U	ppbv	40	12/17/2012 4:56 PM
n-Hexane	130	80		ppbv	40	12/17/2012 4:56 PM
Naphthalene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
o-Xylene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Propylene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Styrene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Toluene	370	40		ppbv	40	12/17/2012 4:56 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Trichloroethene	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Vinyl acetate	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Vinyl chloride	ND	40	U	ppbv	40	12/17/2012 4:56 PM
Xylenes, Total	43	120	J	ppbv	40	12/17/2012 4:56 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	40	12/17/2012 4:56 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	12,000	4,700		µg/m³	40	12/14/2012 10:57 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/14/2012 10:57 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/14/2012 10:57 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	12/14/2012 10:57 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 1:16:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-052	**Matrix:**	Air
Client Sample ID:	VA2121		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.1	0.10		% v/v	1	12/20/2012 2:02 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 2:02 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 2:02 PM
Nitrogen	80	0.10		% v/v	1	12/20/2012 2:02 PM
Oxygen	20	0.10		% v/v	1	12/20/2012 2:02 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
2-Butanone	ND	40	U	ppbv	40	12/13/2012 3:35 AM
2-Hexanone	ND	40	U	ppbv	40	12/13/2012 3:35 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Acetone	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Benzene	74	40		ppbv	40	12/13/2012 3:35 AM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Bromoform	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Bromomethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Carbon tetrachloride	41	40		ppbv	40	12/13/2012 3:35 AM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Chloroethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Chloroform	59	40		ppbv	40	12/13/2012 3:35 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 1:16:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-052	**Matrix:**	Air
Client Sample ID:	VA2121		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Cyclohexane	93	80		ppbv	40	12/13/2012 3:35 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2012 3:35 AM
Heptane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2012 3:35 AM
m,p-Xylene	ND	80	U	ppbv	40	12/13/2012 3:35 AM
Methylene chloride	ND	200	U	ppbv	40	12/13/2012 3:35 AM
n-Hexane	58	80	J	ppbv	40	12/13/2012 3:35 AM
Naphthalene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
o-Xylene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Propylene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Styrene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Toluene	230	40		ppbv	40	12/13/2012 3:35 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Trichloroethene	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2012 3:35 AM
Xylenes, Total	ND	120	U	ppbv	40	12/13/2012 3:35 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	40	12/13/2012 3:35 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	11,000	4,700		µg/m³	40	12/15/2012 12:31 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2012 12:31 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/15/2012 12:31 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	40	12/15/2012 12:31 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 1:47:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-053	**Matrix:**	Air
Client Sample ID:	VA2122		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.29	0.10		% v/v	1	12/20/2012 2:20 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 2:20 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 2:20 PM
Nitrogen	79	0.10		% v/v	1	12/20/2012 2:20 PM
Oxygen	20	0.10		% v/v	1	12/20/2012 2:20 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
2-Butanone	ND	40	U	ppbv	40	12/13/2012 4:59 AM
2-Hexanone	ND	40	U	ppbv	40	12/13/2012 4:59 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Acetone	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Benzene	66	40		ppbv	40	12/13/2012 4:59 AM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Bromoform	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Bromomethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Chloroethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Chloroform	ND	40	U	ppbv	40	12/13/2012 4:59 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 1:47:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-053	**Matrix:**	Air
Client Sample ID:	VA2122		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Cyclohexane	79	80	J	ppbv	40	12/13/2012 4:59 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2012 4:59 AM
Heptane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2012 4:59 AM
m,p-Xylene	ND	80	U	ppbv	40	12/13/2012 4:59 AM
Methylene chloride	ND	200	U	ppbv	40	12/13/2012 4:59 AM
n-Hexane	49	80	J	ppbv	40	12/13/2012 4:59 AM
Naphthalene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
o-Xylene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Propylene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Styrene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Toluene	200	40		ppbv	40	12/13/2012 4:59 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Trichloroethene	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2012 4:59 AM
Xylenes, Total	ND	120	U	ppbv	40	12/13/2012 4:59 AM
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	40	12/13/2012 4:59 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	9,900	4,700		µg/m³	40	12/15/2012 2:04 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2012 2:04 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/15/2012 2:04 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	12/15/2012 2:04 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 2:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-054	**Matrix:**	Air
Client Sample ID:	VA2123		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.25	0.10		% v/v	1	12/20/2012 2:35 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 2:35 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 2:35 PM
Nitrogen	78	0.10		% v/v	1	12/20/2012 2:35 PM
Oxygen	20	0.10		% v/v	1	12/20/2012 2:35 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,3-Butadiene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
2-Butanone	ND	40	U	ppbv	40	12/13/2012 11:08 PM
2-Hexanone	ND	40	U	ppbv	40	12/13/2012 11:08 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Acetone	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Benzene	68	40		ppbv	40	12/13/2012 11:08 PM
Benzyl chloride	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Bromodichloromethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Bromoform	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Bromomethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Carbon disulfide	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Carbon tetrachloride	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Chlorobenzene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Chlorodibromomethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Chloroethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Chloroform	ND	40	U	ppbv	40	12/13/2012 11:08 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 2:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-054	**Matrix:**	Air
Client Sample ID:	VA2123		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Cyclohexane	78	80	J	ppbv	40	12/13/2012 11:08 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Ethyl acetate	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Ethylbenzene	ND	80	U	ppbv	40	12/13/2012 11:08 PM
Heptane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/13/2012 11:08 PM
m,p-Xylene	ND	80	U	ppbv	40	12/13/2012 11:08 PM
Methylene chloride	ND	200	U	ppbv	40	12/13/2012 11:08 PM
n-Hexane	46	80	J	ppbv	40	12/13/2012 11:08 PM
Naphthalene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
o-Xylene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Propylene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Styrene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Tetrachloroethene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Tetrahydrofuran	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Toluene	220	40		ppbv	40	12/13/2012 11:08 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Trichloroethene	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Vinyl acetate	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Vinyl chloride	ND	40	U	ppbv	40	12/13/2012 11:08 PM
Xylenes, Total	ND	120	U	ppbv	40	12/13/2012 11:08 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	40	12/13/2012 11:08 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	9,800	4,700		µg/m³	40	12/15/2012 3:33 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	12/15/2012 3:33 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	12/15/2012 3:33 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	40	12/15/2012 3:33 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 2:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-055	**Matrix:**	Air
Client Sample ID:	VA2124		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.20	0.10		% v/v	1	12/20/2012 2:53 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 2:53 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 2:53 PM
Nitrogen	78	0.10		% v/v	1	12/20/2012 2:53 PM
Oxygen	20	0.10		% v/v	1	12/20/2012 2:53 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
2-Butanone	ND	800	U	ppbv	800	12/13/2012 11:54 PM
2-Hexanone	ND	800	U	ppbv	800	12/13/2012 11:54 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Acetone	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Benzene	850	800		ppbv	800	12/13/2012 11:54 PM
Benzyl chloride	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Bromoform	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Bromomethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Carbon disulfide	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Chlorobenzene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Chloroethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Chloroform	ND	800	U	ppbv	800	12/13/2012 11:54 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 2:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-055	**Matrix:**	Air
Client Sample ID:	VA2124		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Cyclohexane	3,200	1,600		ppbv	800	12/13/2012 11:54 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Ethyl acetate	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Ethylbenzene	ND	1,600	U	ppbv	800	12/13/2012 11:54 PM
Heptane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/13/2012 11:54 PM
m,p-Xylene	ND	1,600	U	ppbv	800	12/13/2012 11:54 PM
Methylene chloride	ND	4,000	U	ppbv	800	12/13/2012 11:54 PM
n-Hexane	2,200	1,600		ppbv	800	12/13/2012 11:54 PM
Naphthalene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
o-Xylene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Propylene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Styrene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Toluene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Trichloroethene	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Vinyl acetate	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Vinyl chloride	ND	800	U	ppbv	800	12/13/2012 11:54 PM
Xylenes, Total	ND	2,400	U	ppbv	800	12/13/2012 11:54 PM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	800	12/13/2012 11:54 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,400,000	940,000		µg/m³	8000	12/15/2012 5:52 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/15/2012 5:52 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/15/2012 5:52 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	8000	12/15/2012 5:52 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 2:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-056	**Matrix:**	Air
Client Sample ID:	VA2125		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.34	0.10		% v/v	1	12/20/2012 3:10 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 3:10 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 3:10 PM
Nitrogen	79	0.10		% v/v	1	12/20/2012 3:10 PM
Oxygen	19	0.10		% v/v	1	12/20/2012 3:10 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
2-Butanone	ND	800	U	ppbv	800	12/14/2012 12:39 AM
2-Hexanone	ND	800	U	ppbv	800	12/14/2012 12:39 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Acetone	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Benzene	1,100	800		ppbv	800	12/14/2012 12:39 AM
Benzyl chloride	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Bromoform	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Bromomethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Carbon disulfide	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Chlorobenzene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Chloroethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Chloroform	ND	800	U	ppbv	800	12/14/2012 12:39 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 2:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-056	**Matrix:**	Air
Client Sample ID:	VA2125		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Cyclohexane	4,500	1,600		ppbv	800	12/14/2012 12:39 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Ethyl acetate	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Ethylbenzene	ND	1,600	U	ppbv	800	12/14/2012 12:39 AM
Heptane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/14/2012 12:39 AM
m,p-Xylene	ND	1,600	U	ppbv	800	12/14/2012 12:39 AM
Methylene chloride	ND	4,000	U	ppbv	800	12/14/2012 12:39 AM
n-Hexane	3,100	1,600		ppbv	800	12/14/2012 12:39 AM
Naphthalene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
o-Xylene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Propylene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Styrene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Toluene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Trichloroethene	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Vinyl acetate	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Vinyl chloride	ND	800	U	ppbv	800	12/14/2012 12:39 AM
Xylenes, Total	ND	2,400	U	ppbv	800	12/14/2012 12:39 AM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	800	12/14/2012 12:39 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,000,000	940,000		µg/m³	8000	12/18/2012 7:38 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/18/2012 7:38 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/18/2012 7:38 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8000	12/18/2012 7:38 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 3:48:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-057	**Matrix:**	Air
Client Sample ID:	VA2126		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.42	0.10		% v/v	1	12/20/2012 3:28 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 3:28 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 3:28 PM
Nitrogen	79	0.10		% v/v	1	12/20/2012 3:28 PM
Oxygen	19	0.10		% v/v	1	12/20/2012 3:28 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,3-Butadiene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
2-Butanone	ND	800	U	ppbv	800	12/14/2012 1:25 AM
2-Hexanone	ND	800	U	ppbv	800	12/14/2012 1:25 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Acetone	1,200	800		ppbv	800	12/14/2012 1:25 AM
Benzene	4,200	800		ppbv	800	12/14/2012 1:25 AM
Benzyl chloride	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Bromodichloromethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Bromoform	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Bromomethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Carbon disulfide	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Carbon tetrachloride	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Chlorobenzene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Chlorodibromomethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Chloroethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Chloroform	ND	800	U	ppbv	800	12/14/2012 1:25 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 3:48:00 PM
Project:	Kirtland AFB		
Lab ID:	1212185-057	**Matrix:**	Air
Client Sample ID:	VA2126		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Cyclohexane	15,000	1,600		ppbv	800	12/14/2012 1:25 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Ethyl acetate	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Ethylbenzene	ND	1,600	U	ppbv	800	12/14/2012 1:25 AM
Heptane	3,500	800		ppbv	800	12/14/2012 1:25 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/14/2012 1:25 AM
m,p-Xylene	ND	1,600	U	ppbv	800	12/14/2012 1:25 AM
Methylene chloride	20,000	4,000		ppbv	800	12/14/2012 1:25 AM
n-Hexane	19,000	1,600		ppbv	800	12/14/2012 1:25 AM
Naphthalene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
o-Xylene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Propylene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Styrene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Tetrachloroethene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Tetrahydrofuran	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Toluene	8,800	800		ppbv	800	12/14/2012 1:25 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Trichloroethene	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Vinyl acetate	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Vinyl chloride	ND	800	U	ppbv	800	12/14/2012 1:25 AM
Xylenes, Total	ND	2,400	U	ppbv	800	12/14/2012 1:25 AM
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	800	12/14/2012 1:25 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,400,000	940,000		µg/m³	8000	12/18/2012 9:08 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/18/2012 9:08 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/18/2012 9:08 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	8000	12/18/2012 9:08 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 8:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-058	**Matrix:**	Air
Client Sample ID:	VA2212		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.20	0.10		% v/v	1	12/20/2012 3:43 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 3:43 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 3:43 PM
Nitrogen	78	0.10		% v/v	1	12/20/2012 3:43 PM
Oxygen	21	0.10		% v/v	1	12/20/2012 3:43 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
2-Butanone	1,100	800		ppbv	800	12/10/2012 7:13 PM
2-Hexanone	ND	800	U	ppbv	800	12/10/2012 7:13 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Acetone	3,000	800		ppbv	800	12/10/2012 7:13 PM
Benzene	6,300	800		ppbv	800	12/10/2012 7:13 PM
Benzyl chloride	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Bromoform	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Bromomethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Carbon disulfide	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Chlorobenzene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Chloroethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Chloroform	ND	800	U	ppbv	800	12/10/2012 7:13 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 8:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-058	**Matrix:**	Air
Client Sample ID:	VA2212		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Cyclohexane	13,000	1,600		ppbv	800	12/10/2012 7:13 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Ethyl acetate	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Ethylbenzene	1,400	1,600	J	ppbv	800	12/10/2012 7:13 PM
Heptane	15,000	800		ppbv	800	12/10/2012 7:13 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/10/2012 7:13 PM
m,p-Xylene	3,300	1,600		ppbv	800	12/10/2012 7:13 PM
Methylene chloride	3,000	4,000	J	ppbv	800	12/10/2012 7:13 PM
n-Hexane	8,300	1,600		ppbv	800	12/10/2012 7:13 PM
Naphthalene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
o-Xylene	860	800		ppbv	800	12/10/2012 7:13 PM
Propylene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Styrene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Toluene	24,000	800		ppbv	800	12/10/2012 7:13 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Trichloroethene	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Vinyl acetate	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Vinyl chloride	ND	800	U	ppbv	800	12/10/2012 7:13 PM
Xylenes, Total	4,100	2,400		ppbv	800	12/10/2012 7:13 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	800	12/10/2012 7:13 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,900,000	940,000		µg/m³	8000	12/14/2012 6:17 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/14/2012 6:17 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/14/2012 6:17 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	8000	12/14/2012 6:17 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 9:12:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-059	**Matrix:**	Air
Client Sample ID:	VA2213		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.12	0.10		% v/v	1	12/20/2012 4:01 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 4:01 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 4:01 PM
Nitrogen	78	0.10		% v/v	1	12/20/2012 4:01 PM
Oxygen	21	0.10		% v/v	1	12/20/2012 4:01 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
2-Butanone	1,000	800		ppbv	800	12/11/2012 11:53 PM
2-Hexanone	ND	800	U	ppbv	800	12/11/2012 11:53 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Acetone	2,000	800		ppbv	800	12/11/2012 11:53 PM
Benzene	11,000	800		ppbv	800	12/11/2012 11:53 PM
Benzyl chloride	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Bromoform	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Bromomethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Carbon disulfide	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Chlorobenzene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Chloroethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Chloroform	ND	800	U	ppbv	800	12/11/2012 11:53 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 9:12:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-059	**Matrix:**	Air
Client Sample ID:	VA2213		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Cyclohexane	23,000	1,600		ppbv	800	12/11/2012 11:53 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Ethyl acetate	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Ethylbenzene	2,600	1,600		ppbv	800	12/11/2012 11:53 PM
Heptane	24,000	800		ppbv	800	12/11/2012 11:53 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/11/2012 11:53 PM
m,p-Xylene	6,000	1,600		ppbv	800	12/11/2012 11:53 PM
Methylene chloride	4,600	4,000		ppbv	800	12/11/2012 11:53 PM
n-Hexane	14,000	1,600		ppbv	800	12/11/2012 11:53 PM
Naphthalene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
o-Xylene	1,500	800		ppbv	800	12/11/2012 11:53 PM
Propylene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Styrene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Toluene	38,000	800		ppbv	800	12/11/2012 11:53 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Trichloroethene	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Vinyl acetate	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Vinyl chloride	ND	800	U	ppbv	800	12/11/2012 11:53 PM
Xylenes, Total	7,500	2,400		ppbv	800	12/11/2012 11:53 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	800	12/11/2012 11:53 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,900,000	940,000		µg/m³	8000	12/14/2012 7:50 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/14/2012 7:50 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/14/2012 7:50 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	8000	12/14/2012 7:50 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 9:41:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-060	**Matrix:**	Air
Client Sample ID:	VA2214		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.11	0.10		% v/v	1	12/20/2012 4:15 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 4:15 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 4:15 PM
Nitrogen	78	0.10		% v/v	1	12/20/2012 4:15 PM
Oxygen	20	0.10		% v/v	1	12/20/2012 4:15 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,3-Butadiene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
2-Butanone	ND	400	U	ppbv	400	12/12/2012 12:41 AM
2-Hexanone	ND	400	U	ppbv	400	12/12/2012 12:41 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Acetone	2,100	400		ppbv	400	12/12/2012 12:41 AM
Benzene	2,100	400		ppbv	400	12/12/2012 12:41 AM
Benzyl chloride	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Bromodichloromethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Bromoform	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Bromomethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Carbon disulfide	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Carbon tetrachloride	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Chlorobenzene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Chlorodibromomethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Chloroethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Chloroform	ND	400	U	ppbv	400	12/12/2012 12:41 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 9:41:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-060	**Matrix:**	Air
Client Sample ID:	VA2214		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Cyclohexane	4,900	800		ppbv	400	12/12/2012 12:41 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Ethyl acetate	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Ethylbenzene	ND	800	U	ppbv	400	12/12/2012 12:41 AM
Heptane	5,400	400		ppbv	400	12/12/2012 12:41 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/12/2012 12:41 AM
m,p-Xylene	850	800		ppbv	400	12/12/2012 12:41 AM
Methylene chloride	11,000	2,000		ppbv	400	12/12/2012 12:41 AM
n-Hexane	4,800	800		ppbv	400	12/12/2012 12:41 AM
Naphthalene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
o-Xylene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Propylene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Styrene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Tetrachloroethene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Tetrahydrofuran	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Toluene	6,400	400		ppbv	400	12/12/2012 12:41 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Trichloroethene	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Vinyl acetate	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Vinyl chloride	ND	400	U	ppbv	400	12/12/2012 12:41 AM
Xylenes, Total	850	1,200	J	ppbv	400	12/12/2012 12:41 AM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	400	12/12/2012 12:41 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	360,000	94,000		µg/m³	800	12/14/2012 8:37 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/14/2012 8:37 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/14/2012 8:37 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	800	12/14/2012 8:37 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 10:14:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-061	**Matrix:**	Air
Client Sample ID:	VA2215		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6.5			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.055	0.10	J	% v/v	1	12/20/2012 5:04 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 5:04 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 5:04 PM
Nitrogen	77	0.10		% v/v	1	12/20/2012 5:04 PM
Oxygen	21	0.10		% v/v	1	12/20/2012 5:04 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,3-Butadiene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
2-Butanone	ND	400	U	ppbv	400	12/12/2012 2:59 AM
2-Hexanone	ND	400	U	ppbv	400	12/12/2012 2:59 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Acetone	720	400		ppbv	400	12/12/2012 2:59 AM
Benzene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Benzyl chloride	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Bromodichloromethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Bromoform	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Bromomethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Carbon disulfide	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Carbon tetrachloride	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Chlorobenzene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Chlorodibromomethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Chloroethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Chloroform	ND	400	U	ppbv	400	12/12/2012 2:59 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 10:14:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-061	**Matrix:**	Air
Client Sample ID:	VA2215		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Cyclohexane	570	800	J	ppbv	400	12/12/2012 2:59 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Ethyl acetate	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Ethylbenzene	ND	800	U	ppbv	400	12/12/2012 2:59 AM
Heptane	830	400		ppbv	400	12/12/2012 2:59 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/12/2012 2:59 AM
m,p-Xylene	730	800	J	ppbv	400	12/12/2012 2:59 AM
Methylene chloride	1,100	2,000	J	ppbv	400	12/12/2012 2:59 AM
n-Hexane	470	800	J	ppbv	400	12/12/2012 2:59 AM
Naphthalene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
o-Xylene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Propylene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Styrene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Tetrachloroethene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Tetrahydrofuran	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Toluene	2,400	400		ppbv	400	12/12/2012 2:59 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Trichloroethene	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Vinyl acetate	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Vinyl chloride	ND	400	U	ppbv	400	12/12/2012 2:59 AM
Xylenes, Total	730	1,200	J	ppbv	400	12/12/2012 2:59 AM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	400	12/12/2012 2:59 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	130,000	23,000		µg/m³	200	12/18/2012 3:04 PM
C9-C10 Aromatic Hydrocarbons	ND	27,000	U	µg/m³	200	12/18/2012 3:04 PM
C9-C12 Aliphatic Hydrocarbons	11,000	38,000	J	µg/m³	200	12/18/2012 3:04 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	200	12/18/2012 3:04 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 10:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-062	**Matrix:**	Air
Client Sample ID:	VA2216		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.097	0.10	J	% v/v	1	12/20/2012 5:19 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 5:19 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 5:19 PM
Nitrogen	77	0.10		% v/v	1	12/20/2012 5:19 PM
Oxygen	21	0.10		% v/v	1	12/20/2012 5:19 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,2,4-Trimethylbenzene	48	40		ppbv	40	12/12/2012 4:29 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
2-Butanone	92	40		ppbv	40	12/12/2012 4:29 AM
2-Hexanone	ND	40	U	ppbv	40	12/12/2012 4:29 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Acetone	110	40		ppbv	40	12/12/2012 4:29 AM
Benzene	690	40		ppbv	40	12/12/2012 4:29 AM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Bromoform	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Bromomethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Chloroethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Chloroform	ND	40	U	ppbv	40	12/12/2012 4:29 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 10:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-062	**Matrix:**	Air
Client Sample ID:	VA2216		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Cyclohexane	1,800	80		ppbv	40	12/12/2012 4:29 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Ethylbenzene	210	80		ppbv	40	12/12/2012 4:29 AM
Heptane	1,300	40		ppbv	40	12/12/2012 4:29 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2012 4:29 AM
m,p-Xylene	570	80		ppbv	40	12/12/2012 4:29 AM
Methylene chloride	ND	200	U	ppbv	40	12/12/2012 4:29 AM
n-Hexane	1,200	80		ppbv	40	12/12/2012 4:29 AM
Naphthalene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
o-Xylene	160	40		ppbv	40	12/12/2012 4:29 AM
Propylene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Styrene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Toluene	1,900	40		ppbv	40	12/12/2012 4:29 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Trichloroethene	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2012 4:29 AM
Xylenes, Total	730	120		ppbv	40	12/12/2012 4:29 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	40	12/12/2012 4:29 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	190,000	47,000		µg/m³	400	12/18/2012 3:53 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/18/2012 3:53 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/18/2012 3:53 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	400	12/18/2012 3:53 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 10:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-063	**Matrix:**	Air
Client Sample ID:	VA2217		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.097	0.10	J	% v/v	1	12/20/2012 5:33 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 5:33 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 5:33 PM
Nitrogen	77	0.10		% v/v	1	12/20/2012 5:33 PM
Oxygen	21	0.10		% v/v	1	12/20/2012 5:33 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,2,4-Trimethylbenzene	53	40		ppbv	40	12/12/2012 5:11 AM
1,2-Dibromoethane	41	40		ppbv	40	12/12/2012 5:11 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
2-Butanone	310	40		ppbv	40	12/12/2012 5:11 AM
2-Hexanone	56	40		ppbv	40	12/12/2012 5:11 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Acetone	260	40		ppbv	40	12/12/2012 5:11 AM
Benzene	1,900	40		ppbv	40	12/12/2012 5:11 AM
Benzyl chloride	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Bromoform	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Bromomethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Carbon disulfide	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Chlorobenzene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Chloroethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Chloroform	ND	40	U	ppbv	40	12/12/2012 5:11 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 10:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-063	**Matrix:**	Air
Client Sample ID:	VA2217		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Cyclohexane	8,700	800		ppbv	400	12/12/2012 10:20 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Ethyl acetate	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Ethylbenzene	510	80		ppbv	40	12/12/2012 5:11 AM
Heptane	9,100	400		ppbv	400	12/12/2012 10:20 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/12/2012 5:11 AM
m,p-Xylene	1,100	80		ppbv	40	12/12/2012 5:11 AM
Methylene chloride	ND	200	U	ppbv	40	12/12/2012 5:11 AM
n-Hexane	4,700	800		ppbv	400	12/12/2012 10:20 PM
Naphthalene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
o-Xylene	330	40		ppbv	40	12/12/2012 5:11 AM
Propylene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Styrene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Toluene	12,000	400		ppbv	400	12/12/2012 10:20 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Trichloroethene	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Vinyl acetate	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Vinyl chloride	ND	40	U	ppbv	40	12/12/2012 5:11 AM
Xylenes, Total	1,400	120		ppbv	40	12/12/2012 5:11 AM
Surr: 4-Bromofluorobenzene	127	70-130		%REC	40	12/12/2012 5:11 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	560,000	94,000		µg/m³	800	12/14/2012 7:46 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/14/2012 7:46 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/14/2012 7:46 PM
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	800	12/14/2012 7:46 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 11:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-064	**Matrix:**	Air
Client Sample ID:	VA2218		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-6			"Hg		
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	0.10	0.10		% v/v	1	12/20/2012 5:55 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	12/20/2012 5:55 PM
Methane	ND	0.50	U	% v/v	1	12/20/2012 5:55 PM
Nitrogen	78	0.10		% v/v	1	12/20/2012 5:55 PM
Oxygen	21	0.10		% v/v	1	12/20/2012 5:55 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,3-Butadiene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
2-Butanone	ND	400	U	ppbv	400	12/13/2012 12:38 AM
2-Hexanone	ND	400	U	ppbv	400	12/13/2012 12:38 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Acetone	5,500	400		ppbv	400	12/13/2012 12:38 AM
Benzene	2,300	400		ppbv	400	12/13/2012 12:38 AM
Benzyl chloride	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Bromodichloromethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Bromoform	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Bromomethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Carbon disulfide	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Carbon tetrachloride	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Chlorobenzene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Chlorodibromomethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Chloroethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Chloroform	ND	400	U	ppbv	400	12/13/2012 12:38 AM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/28/2012 11:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-064	**Matrix:**	Air
Client Sample ID:	VA2218		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Chloromethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Cyclohexane	4,900	800		ppbv	400	12/13/2012 12:38 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Ethyl acetate	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Ethylbenzene	ND	800	U	ppbv	400	12/13/2012 12:38 AM
Heptane	5,700	400		ppbv	400	12/13/2012 12:38 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/13/2012 12:38 AM
m,p-Xylene	980	800		ppbv	400	12/13/2012 12:38 AM
Methylene chloride	2,300	4,000	J	ppbv	800	12/14/2012 2:57 AM
n-Hexane	9,500	800		ppbv	400	12/13/2012 12:38 AM
Naphthalene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
o-Xylene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Propylene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Styrene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Tetrachloroethene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Tetrahydrofuran	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Toluene	8,000	400		ppbv	400	12/13/2012 12:38 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Trichloroethene	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Vinyl acetate	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Vinyl chloride	ND	400	U	ppbv	400	12/13/2012 12:38 AM
Xylenes, Total	980	1,200	J	ppbv	400	12/13/2012 12:38 AM
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	400	12/13/2012 12:38 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	400,000	94,000		µg/m³	800	12/18/2012 4:38 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/18/2012 4:38 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/18/2012 4:38 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	800	12/18/2012 4:38 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-065	**Matrix:**	Air
Client Sample ID:	VA8106-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Field Parameters	**Method:**					**Analyst:**
Vacuum	-27.5			"Hg		
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,1,2,2-Tetrachloroethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,1,2-Trichloroethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,1-Dichloroethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,1-Dichloroethene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,2,4-Trichlorobenzene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,2,4-Trimethylbenzene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,2-Dibromoethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,2-Dichlorobenzene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,2-Dichloroethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,2-Dichloropropane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,3,5-Trimethylbenzene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,3-Butadiene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,3-Dichlorobenzene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
1,4-Dichlorobenzene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
2-Butanone	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
2-Hexanone	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
4-Methyl-2-pentanone	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Acetone	2.2	1.0		ppbv	1	12/13/2012 5:56 PM
Benzene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Benzyl chloride	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Bromodichloromethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Bromoform	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Bromomethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Carbon disulfide	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Carbon tetrachloride	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Chlorobenzene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Chlorodibromomethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Chloroethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Chloroform	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Chloromethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
cis-1,2-Dichloroethene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
cis-1,3-dichloropropene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Cyclohexane	1.2	2.0	J	ppbv	1	12/13/2012 5:56 PM
Dichlorodifluoromethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Ethyl acetate	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Ethylbenzene	ND	2.0	U	ppbv	1	12/13/2012 5:56 PM
Heptane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM

RTI Laboratories - Analytical Report

WO#: 1212185

Date Reported: 1/2/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	11/26/2012 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1212185-065	**Matrix:**	Air
Client Sample ID:	VA8106-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Hexachlorobutadiene	ND	2.0	U	ppbv	1	12/13/2012 5:56 PM
m,p-Xylene	ND	2.0	U	ppbv	1	12/13/2012 5:56 PM
Methylene chloride	3.5	5.0	J	ppbv	1	12/13/2012 5:56 PM
n-Hexane	1.8	2.0	J	ppbv	1	12/13/2012 5:56 PM
Naphthalene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
o-Xylene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Propylene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Styrene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
tert-Butyl Methyl Ether	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Tetrachloroethene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Tetrahydrofuran	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Toluene	2.7	1.0		ppbv	1	12/13/2012 5:56 PM
trans-1,2-Dichloroethene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
trans-1,3-dichloropropene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Trichloroethene	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Trichlorofluoromethane	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Vinyl acetate	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Vinyl chloride	ND	1.0	U	ppbv	1	12/13/2012 5:56 PM
Xylenes, Total	ND	3.0	U	ppbv	1	12/13/2012 5:56 PM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	1	12/13/2012 5:56 PM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54337**

Sample ID:	**MBLK VOA1 120512**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54337**
Client ID:	**PBW**	Batch ID:	**R54337**	TestNo:	**TO-15**			Analysis Date:	**12/5/2012**	SeqNo:	**1070475**

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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54337**

Sample ID:	**MBLK VOA1 120512**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54337**
Client ID:	**PBW**	Batch ID:	**R54337**	TestNo:	**TO-15**			Analysis Date:	**12/5/2012**	SeqNo:	**1070475**

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		95.0	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R54337**

Sample ID:	**1211986-029ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54337**
Client ID:	**ZZZZZZ**	Batch ID:	**R54337**	TestNo:	**TO-15**			Analysis Date:	**12/5/2012**	SeqNo:	**1070484**

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	3,800	800						3,528	6.79	25	
Benzene	1,900	800						1,824	5.54	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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54337**

Sample ID:	**1211986-029ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54337**
Client ID:	**ZZZZZZ**	Batch ID:	**R54337**	TestNo:	**TO-15**			Analysis Date:	**12/5/2012**	SeqNo:	**1070484**

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	3,800	1,600						3,608	3.91	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	4,900	800						4,704	3.34	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	1,300	1,600						1,272	4.91	25	J
Methylene chloride	6,300	4,000						6,224	1.40	25	
n-Hexane	4,200	1,600						4,016	4.10	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	6,500	800						6,160	5.31	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	1,300	2,400						1,272	4.91	25	J
Surr: 4-Bromofluorobenzene	9,800		10,000		98.2	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54386**

Sample ID:	**MBLK\DBV 45 CC V**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54386**
Client ID:	**PBW**	Batch ID:	**R54386**	TestNo:	**TO-15**			Analysis Date:	**12/6/2012**	SeqNo:	**1071564**

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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54386**

Sample ID:	**MBLK\DBV 45 CC V**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54386**
Client ID:	**PBW**	Batch ID:	**R54386**	TestNo:	**TO-15**			Analysis Date:	**12/6/2012**	SeqNo:	**1071564**

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		94.8	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54386**

Sample ID:	**1212185-034ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54386**
Client ID:	**VA2086**	Batch ID:	**R54386**	TestNo:	**TO-15**			Analysis Date:	**12/6/2012**	SeqNo:	**1071579**

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	1,700	800						1,512	11.0	25	
Benzene	43,000	800						40,390	6.53	25	E
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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54386**

Sample ID:	**1212185-034ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54386**
Client ID:	**VA2086**	Batch ID:	**R54386**	TestNo:	**TO-15**			Analysis Date:	**12/6/2012**	SeqNo:	**1071579**

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	42,000	1,600						41,540	0.595	25	E
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	7,900	1,600						6,632	17.9	25	
Heptane	36,000	800						32,250	10.0	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	17,000	1,600						14,430	15.2	25	
Methylene chloride	3,300	4,000						3,232	0.985	25	J
n-Hexane	45,000	1,600						42,700	4.93	25	E
Naphthalene	ND	800						0	0	25	U
o-Xylene	4,600	800						3,800	18.7	25	
Propylene	2,400	800						2,440	0	25	
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	71,000	800						66,420	7.10	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	21,000	2,400						18,230	15.9	25	
Surr: 4-Bromofluorobenzene	12,000		10,000		120	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54432**

Sample ID:	**MBLK\BV0680 CC V**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54432**
Client ID:	**PBW**	Batch ID:	**R54432**	TestNo:	**TO-15**			Analysis Date:	**12/7/2012**	SeqNo:	**1072720**

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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54432**

Sample ID:	**MBLK\BV0680 CC V**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54432**
Client ID:	**PBW**	Batch ID:	**R54432**	TestNo:	**TO-15**			Analysis Date:	**12/7/2012**	SeqNo:	**1072720**

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		95.5	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54432**

Sample ID:	**1212185-032ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54432**
Client ID:	**VA2084**	Batch ID:	**R54432**	TestNo:	**TO-15**			Analysis Date:	**12/7/2012**	SeqNo:	**1072722**

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	12,000	800						11,250	4.52	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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54432**

Sample ID:	**1212185-032ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54432**
Client ID:	**VA2084**	Batch ID:	**R54432**	TestNo:	**TO-15**			Analysis Date:	**12/7/2012**	SeqNo:	**1072722**

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	21,000	1,600						20,300	3.37	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	9,200	800						8,864	3.55	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	900	1,600						848.0	6.39	25	J
Methylene chloride	ND	4,000						0	0	25	U
n-Hexane	16,000	1,600						15,430	4.16	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	15,000	800						14,220	3.37	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	900	2,400						848.0	6.39	25	J
Surr: 4-Bromofluorobenzene	9,900		10,000		99.3	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54460**

Sample ID:	**MBLK\BV0700 CC V**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54460**
Client ID:	**PBW**	Batch ID:	**R54460**	TestNo:	**TO-15**			Analysis Date:	**12/10/2012**	SeqNo:	**1073225**

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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54460**

Sample ID:	**MBLK\BV0700 CC V**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54460**
Client ID:	**PBW**	Batch ID:	**R54460**	TestNo:	**TO-15**			Analysis Date:	**12/10/2012**	SeqNo:	**1073225**

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		95.3	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54460**

Sample ID:	**1212185-058ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54460**
Client ID:	**VA2212**	Batch ID:	**R54460**	TestNo:	**TO-15**			Analysis Date:	**12/10/2012**	SeqNo:	**1073232**

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	1,300	800						1,088	14.3	25	
2-Hexanone	ND	800						0	0	25	U
4-Methyl-2-pentanone	ND	800						0	0	25	U
Acetone	3,300	800						2,976	9.96	25	
Benzene	6,800	800						6,264	7.85	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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54460**

Sample ID:	**1212185-058ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54460**
Client ID:	**VA2212**	Batch ID:	**R54460**	TestNo:	**TO-15**			Analysis Date:	**12/10/2012**	SeqNo:	**1073232**

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	14,000	1,600						12,760	8.00	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	1,500	1,600						1,432	6.49	25	J
Heptane	15,000	800						14,640	4.54	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	3,500	1,600						3,272	6.62	25	
Methylene chloride	3,100	4,000						2,952	5.28	25	J
n-Hexane	9,000	1,600						8,264	8.17	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	910	800						864.0	5.41	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	25,000	800						23,870	3.49	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	4,400	2,400						4,136	6.37	25	
Surr: 4-Bromofluorobenzene	10,000		10,000		102	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54518**

Sample ID:	**MBLK VOA1 121112**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54518**
Client ID:	**PBW**	Batch ID:	**R54518**	TestNo:	**TO-15**			Analysis Date:	**12/11/2012**	SeqNo:	**1074253**

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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54518**

Sample ID:	**MBLK VOA1 121112**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54518**
Client ID:	**PBW**	Batch ID:	**R54518**	TestNo:	**TO-15**			Analysis Date:	**12/11/2012**	SeqNo:	**1074253**

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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54518**

Sample ID:	**1212185-024ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54518**
Client ID:	**VA2070**	Batch ID:	**R54518**	TestNo:	**TO-15**			Analysis Date:	**12/11/2012**	SeqNo:	**1074259**

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	1,900	800						1,632	17.4	25	
Benzene	4,400	800						3,808	14.1	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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54518**

Sample ID:	**1212185-024ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54518**
Client ID:	**VA2070**	Batch ID:	**R54518**	TestNo:	**TO-15**			Analysis Date:	**12/11/2012**	SeqNo:	**1074259**

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	14,000	1,600						12,340	12.2	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	15,000	800						13,480	7.98	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	1,400	1,600						1,176	14.5	25	J
Methylene chloride	3,500	4,000						3,056	13.4	25	J
n-Hexane	7,200	1,600						6,280	14.3	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						14,020	14.0	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	1,400	2,400						1,176	14.5	25	J
Surr: 4-Bromofluorobenzene	9,900		10,000		99.2	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54540**

Sample ID:	**1212185-032ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54540**
Client ID:	**VA2084**	Batch ID:	**R54540**	TestNo:	**MA_APH**			Analysis Date:	**12/12/2012**	SeqNo:	**1074665**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,300,000	94,000						1,255,000	4.78	30	E
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	71,000		71,600		99.3	70	130		0	30	

Sample ID:	**MBLK VOA9 121112**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54540**
Client ID:	**PBW**	Batch ID:	**R54540**	TestNo:	**MA_APH**			Analysis Date:	**12/11/2012**	SeqNo:	**1074690**

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	87		89.50		97.8	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R54567**

Sample ID:	**MBLK/DBV17 CC VO**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54567**
Client ID:	**PBW**	Batch ID:	**R54567**	TestNo:	**TO-15**			Analysis Date:	**12/12/2012**	SeqNo:	**1075019**

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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54567**

Sample ID:	**MBLK/DBV17 CC VO**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54567**
Client ID:	**PBW**	Batch ID:	**R54567**	TestNo:	**TO-15**			Analysis Date:	**12/12/2012**	SeqNo:	**1075019**

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		94.9	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54567**

Sample ID:	**1212185-044ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54567**
Client ID:	**VA2113**	Batch ID:	**R54567**	TestNo:	**TO-15**			Analysis Date:	**12/12/2012**	SeqNo:	**1075024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	40						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	U
1,1,2-Trichloroethane	ND	40						0	0	25	U
1,1-Dichloroethane	ND	40						0	0	25	U
1,1-Dichloroethene	ND	40						0	0	25	U
1,2,4-Trichlorobenzene	ND	40						0	0	25	U
1,2,4-Trimethylbenzene	ND	40						0	0	25	U
1,2-Dibromoethane	ND	40						0	0	25	U
1,2-Dichlorobenzene	ND	40						0	0	25	U
1,2-Dichloroethane	ND	40						0	0	25	U
1,2-Dichloropropane	ND	40						0	0	25	U
1,3,5-Trimethylbenzene	ND	40						0	0	25	U
1,3-Butadiene	ND	40						0	0	25	U
1,3-Dichlorobenzene	ND	40						0	0	25	U
1,4-Dichlorobenzene	ND	40						0	0	25	U
2-Butanone	ND	40						0	0	25	U
2-Hexanone	ND	40						0	0	25	U
4-Methyl-2-pentanone	ND	40						0	0	25	U
Acetone	ND	40						0	0	25	U
Benzene	76	40						75.60	0.528	25	
Benzyl chloride	ND	40						0	0	25	U
Bromodichloromethane	ND	40						0	0	25	U
Bromoform	ND	40						0	0	25	U
Bromomethane	ND	40						0	0	25	U
Carbon disulfide	ND	40						0	0	25	U
Carbon tetrachloride	ND	40						0	0	25	U
Chlorobenzene	ND	40						0	0	25	U
Chlorodibromomethane	ND	40						0	0	25	U
Chloroethane	ND	40						0	0	25	U
Chloroform	260	40						265.2	1.37	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54567**

Sample ID:	**1212185-044ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54567**
Client ID:	**VA2113**	Batch ID:	**R54567**	TestNo:	**TO-15**			Analysis Date:	**12/12/2012**	SeqNo:	**1075024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	40						0	0	25	U
cis-1,2-Dichloroethene	ND	40						0	0	25	U
cis-1,3-dichloropropene	ND	40						0	0	25	U
Cyclohexane	82	80						80.00	2.47	25	
Dichlorodifluoromethane	ND	40						0	0	25	U
Ethyl acetate	ND	40						0	0	25	U
Ethylbenzene	ND	80						0	0	25	U
Heptane	ND	40						0	0	25	U
Hexachlorobutadiene	ND	80						0	0	25	U
m,p-Xylene	ND	80						0	0	25	U
Methylene chloride	ND	200						0	0	25	U
n-Hexane	49	80						48.00	2.47	25	J
Naphthalene	ND	40						0	0	25	U
o-Xylene	ND	40						0	0	25	U
Propylene	ND	40						0	0	25	U
Styrene	ND	40						0	0	25	U
tert-Butyl Methyl Ether	ND	40						0	0	25	U
Tetrachloroethene	ND	40						0	0	25	U
Tetrahydrofuran	ND	40						0	0	25	U
Toluene	230	40						221.2	5.45	25	
trans-1,2-Dichloroethene	ND	40						0	0	25	U
trans-1,3-dichloropropene	ND	40						0	0	25	U
Trichloroethene	ND	40						0	0	25	U
Trichlorofluoromethane	ND	40						0	0	25	U
Vinyl acetate	ND	40						0	0	25	U
Vinyl chloride	ND	40						0	0	25	U
Xylenes, Total	ND	120						0	0	25	U
Surr: 4-Bromofluorobenzene	500		500.0		100	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R54583

Sample ID:	**MBLK VOA9 121212**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54583**
Client ID:	**PBW**	Batch ID:	**R54583**	TestNo:	**MA_APH**			Analysis Date:	**12/12/2012**	SeqNo:	**1075545**

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	89		89.50		99.7	70	130				

Sample ID:	**1212185-011ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54583**
Client ID:	**VA2031**	Batch ID:	**R54583**	TestNo:	**MA_APH**			Analysis Date:	**12/12/2012**	SeqNo:	**1075565**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	680,000	94,000						679,700	0.0683	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	73,000		71,600		102	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54602**

Sample ID:	**MBLK VOA9 121312**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54602**
Client ID:	**PBW**	Batch ID:	**R54602**	TestNo:	**MA_APH**			Analysis Date:	**12/13/2012**	SeqNo:	**1075883**

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	90		89.50		100	70	130				

Sample ID:	**1212185-015ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54602**
Client ID:	**VA2061**	Batch ID:	**R54602**	TestNo:	**MA_APH**			Analysis Date:	**12/13/2012**	SeqNo:	**1075889**

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						1,607,000	1.59	30	
C9-C10 Aromatic Hydrocarbons	ND	210,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	43,000	300,000						0	200	30	JR
Surr: 4-Bromofluorobenzene	150,000		143,200		103	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54613**

Sample ID:	**MBLK VOA1 121312**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54613**
Client ID:	**PBW**	Batch ID:	**R54613**	TestNo:	**TO-15**			Analysis Date:	**12/13/2012**	SeqNo:	**1076253**

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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54613**

Sample ID:	**MBLK VOA1 121312**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54613**
Client ID:	**PBW**	Batch ID:	**R54613**	TestNo:	**TO-15**			Analysis Date:	**12/13/2012**	SeqNo:	**1076253**

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		96.7	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54613**

Sample ID:	**1212185-057ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54613**
Client ID:	**VA2126**	Batch ID:	**R54613**	TestNo:	**TO-15**			Analysis Date:	**12/14/2012**	SeqNo:	**1076262**

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	1,300	800						1,192	12.0	25	
Benzene	4,500	800						4,200	6.99	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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54613**

Sample ID:	**1212185-057ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54613**
Client ID:	**VA2126**	Batch ID:	**R54613**	TestNo:	**TO-15**			Analysis Date:	**12/14/2012**	SeqNo:	**1076262**

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	15,000	1,600						14,950	3.11	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	3,600	800						3,504	2.70	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	ND	1,600						0	0	25	U
Methylene chloride	21,000	4,000						19,820	5.15	25	
n-Hexane	20,000	1,600						19,210	6.10	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	9,100	800						8,768	4.11	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	ND	2,400						0	0	25	U
Surr: 4-Bromofluorobenzene	9,900		10,000		99.3	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54666**

Sample ID: **MBLK-121712 TCD-A** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54666**

Client ID: **PBW** Batch ID: **R54666** TestNo: **ASTM-D2504** Analysis Date: **12/17/2012** SeqNo: **1077575**

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-121712 TCD** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54666**

Client ID: **LCSW** Batch ID: **R54666** TestNo: **ASTM-D2504** Analysis Date: **12/17/2012** SeqNo: **1077578**

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	100	70	130				
Carbon Monoxide	2.6	0.10	2.500	0	104	70	130				
Methane	2.0	0.50	2.000	0	100	70	130				
Nitrogen	2.6	0.10	2.500	0	105	70	130				
Oxygen	2.5	0.10	2.500	0	101	70	130				

Sample ID: **1212185-010BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54666**

Client ID: **VA2030** Batch ID: **R54666** TestNo: **ASTM-D2504** Analysis Date: **12/17/2012** SeqNo: **1077596**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10						2.673	0.262	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	80	0.10						79.36	0.263	20	
Oxygen	18	0.10						17.75	0.242	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54678**

Sample ID:	**MBLK/DBVCC 128 1**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54678**
Client ID:	**PBW**	Batch ID:	**R54678**	TestNo:	**TO-15**			Analysis Date:	**12/17/2012**	SeqNo:	**1077780**

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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54678**

Sample ID:	**MBLK/DBVCC 128 1**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54678**
Client ID:	**PBW**	Batch ID:	**R54678**	TestNo:	**TO-15**			Analysis Date:	**12/17/2012**	SeqNo:	**1077780**

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	11		12.50		90.4	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54678**

Sample ID:	**1212373-043ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54678**
Client ID:	**ZZZZZZ**	Batch ID:	**R54678**	TestNo:	**TO-15**			Analysis Date:	**12/18/2012**	SeqNo:	**1077790**

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	2,000	800						1,800	10.9	25	
Benzene	5,400	800						4,896	10.5	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#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54678**

Sample ID:	**1212373-043ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**54678**
Client ID:	**ZZZZZZ**	Batch ID:	**R54678**	TestNo:	**TO-15**			Analysis Date:	**12/18/2012**	SeqNo:	**1077790**

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						10,900	11.7	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	1,200	1,600						1,096	9.06	25	J
Heptane	12,000	800						10,820	6.51	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	3,000	1,600						2,776	7.76	25	
Methylene chloride	13,000	4,000						12,350	7.66	25	
n-Hexane	8,600	1,600						7,640	11.6	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	860	800						800.0	7.69	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	18,000	800						16,310	7.51	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	3,900	2,400						3,576	7.74	25	
Surr: 4-Bromofluorobenzene	9,900		10,000		99.4	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54690**

Sample ID:	**MBLK VOA9 121412**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54690**
Client ID:	**PBW**	Batch ID:	**R54690**	TestNo:	**MA_APH**			Analysis Date:	**12/14/2012**	SeqNo:	**1078016**

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	94		89.50		105	70	130				

Sample ID:	**1212185-035ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54690**
Client ID:	**VA2087**	Batch ID:	**R54690**	TestNo:	**MA_APH**			Analysis Date:	**12/15/2012**	SeqNo:	**1078030**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	2,000,000	94,000						1,850,000	6.97	30	E
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	230,000	150,000						216,700	4.06	30	
Surr: 4-Bromofluorobenzene	76,000		71,600		106	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54721**

Sample ID: **MBLK-121812 TCD-A** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54721**
Client ID: **PBW** Batch ID: **R54721** TestNo: **ASTM-D2504** Analysis Date: **12/18/2012** SeqNo: **1078484**

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-121812 TCD** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54721**
Client ID: **LCSW** Batch ID: **R54721** TestNo: **ASTM-D2504** Analysis Date: **12/18/2012** SeqNo: **1078486**

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	99.8	70	130	2.532	1.51	20	
Carbon Monoxide	2.6	0.10	2.500	0	105	70	130	2.653	1.06	20	
Methane	2.0	0.50	2.000	0	101	70	130	2.036	1.09	20	
Nitrogen	2.6	0.10	2.500	0	106	70	130	2.690	1.54	20	
Oxygen	2.5	0.10	2.500	0	101	70	130	2.573	1.41	20	

Sample ID: **1212185-020BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54721**
Client ID: **VA2066** Batch ID: **R54721** TestNo: **ASTM-D2504** Analysis Date: **12/18/2012** SeqNo: **1078498**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.22	0.10						0.2200	0.913	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	80	0.10						80.12	0.176	20	
Oxygen	20	0.10						19.76	0.172	20	

Sample ID: **1212185-040BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54721**
Client ID: **VA2109** Batch ID: **R54721** TestNo: **ASTM-D2504** Analysis Date: **12/18/2012** SeqNo: **1078510**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.34	0.10						0.3270	2.71	20	
Carbon Monoxide	ND	0.10						0	0	20	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54721**

Sample ID:	**1212185-040BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**% v/v**	Prep Date:		RunNo:	**54721**
Client ID:	**VA2109**	Batch ID:	**R54721**	TestNo:	**ASTM-D2504**			Analysis Date:	**12/18/2012**	SeqNo:	**1078510**

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						80.02	0.249	20	
Oxygen	20	0.10						19.89	0.242	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54727**

Sample ID: **MBLK VOA1 121812** Samp Type: **MBLK** Test Code: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **54727**

Client ID: **PBW** Batch ID: **R54727** TestNo: **TO-15** Analysis Date: **12/18/2012** SeqNo: **1078623**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	ND	1.0									U
Cyclohexane	ND	2.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
m,p-Xylene	ND	2.0									U
n-Hexane	ND	2.0									U
o-Xylene	ND	1.0									U
Toluene	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		94.2	70	130				

Sample ID: **1212373-027ADUP** Samp Type: **DUP** Test Code: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **54727**

Client ID: **ZZZZZZ** Batch ID: **R54727** TestNo: **TO-15** Analysis Date: **12/19/2012** SeqNo: **1078635**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Benzene	920	800						896.0	2.64	25	
Cyclohexane	4,300	1,600						4,112	4.93	25	
Ethylbenzene	ND	1,600						0	0	25	U
Heptane	ND	800						0	0	25	U
m,p-Xylene	ND	1,600						0	0	25	U
n-Hexane	13,000	1,600						12,410	5.27	25	
o-Xylene	ND	800						0	0	25	U
Toluene	2,600	800						2,568	0.621	25	
Xylenes, Total	ND	2,400						0	0	25	U
Surr: 4-Bromofluorobenzene	9,600		10,000		96.3	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54762**

Sample ID:	**MBLK VOA9 121812**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54762**
Client ID:	**PBW**	Batch ID:	**R54762**	TestNo:	**MA_APH**			Analysis Date:	**12/18/2012**	SeqNo:	**1079174**

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	93		89.50		104	70	130				

Sample ID:	**1212185-064ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54762**
Client ID:	**VA2218**	Batch ID:	**R54762**	TestNo:	**MA_APH**			Analysis Date:	**12/18/2012**	SeqNo:	**1079178**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	420,000	94,000						403,600	4.57	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	75,000		71,600		104	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R54771

Sample ID: **MBLK-121912 TCD-A** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54771**

Client ID: **PBW** Batch ID: **R54771** TestNo: **ASTM-D2504** Analysis Date: **12/19/2012** SeqNo: **1079356**

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-121912 TCD** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54771**

Client ID: **LCSW** Batch ID: **R54771** TestNo: **ASTM-D2504** Analysis Date: **12/19/2012** SeqNo: **1079358**

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	100	70	130	2.513	0.479	20	
Carbon Monoxide	2.6	0.10	2.500	0	105	70	130	2.635	0.304	20	
Methane	2.0	0.50	2.000	0	101	70	130	2.022	0.347	20	
Nitrogen	2.6	0.10	2.500	0	106	70	130	2.699	2.21	20	
Oxygen	2.5	0.10	2.500	0	99.8	70	130	2.557	2.45	20	

Sample ID: **1212185-030BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54771**

Client ID: **VA2082** Batch ID: **R54771** TestNo: **ASTM-D2504** Analysis Date: **12/19/2012** SeqNo: **1079370**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.61	0.10						0.6140	0.818	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	80	0.10						79.70	0.0866	20	
Oxygen	21	0.10						20.61	0.116	20	

Sample ID: **1212185-050BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **54771**

Client ID: **VA2119** Batch ID: **R54771** TestNo: **ASTM-D2504** Analysis Date: **12/19/2012** SeqNo: **1079382**

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						0.09900	2.00	20	
Carbon Monoxide	ND	0.10						0	0	20	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R54771

Sample ID:	**1212185-050BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**% v/v**	Prep Date:		RunNo:	**54771**
Client ID:	**VA2119**	Batch ID:	**R54771**	TestNo:	**ASTM-D2504**			Analysis Date:	**12/19/2012**	SeqNo:	**1079382**

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						79.87	0.443	20	
Oxygen	21	0.10						21.23	0.400	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R54799**

Sample ID:	**MBLK VOA9 121912**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54799**
Client ID:	**PBW**	Batch ID:	**R54799**	TestNo:	**MA_APH**			Analysis Date:	**12/20/2012**	SeqNo:	**1080238**

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		94.4	70	130				

Sample ID:	**1212373-046ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**54799**
Client ID:	**ZZZZZZ**	Batch ID:	**R54799**	TestNo:	**MA_APH**			Analysis Date:	**12/20/2012**	SeqNo:	**1080310**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	880,000	94,000						864,900	1.57	30	
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	90,000	150,000						89,340	0.206	30	J
Surr: 4-Bromofluorobenzene	71,000		71,600		99.6	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212185

Date Reported: 1/2/2013
Original

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: **VA2214** 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: **VA2218** 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#: 1212185

Date Reported: 1/2/2013
Original

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:	**VA2218**	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	

Injection Log

Directory: C:\HPCHEM\1\DATA\120512

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12051201.d	1.	BFB VOA1 120512	TUNE BFB_TUNE	5 Dec 2012 12:16
2	2	12051202.d	1.	CCV VOA1 120512	ICV EPA_TO15	5 Dec 2012 12:59
3	3	12051203.d	1.	RLVS VOA1 120512	RLVS EPA_TO15	5 Dec 2012 13:43
4	4	12051204.d	1.	MBLK VOA1 120512	MBLK EPA_TO15	5 Dec 2012 14:33
5	5	12051205.d	40.	1211986-001A	SAMP EPA_TO15	5 Dec 2012 15:14
6	2	12051206.d	20000.	1211986-002A	SAMP EPA_TO15	5 Dec 2012 15:56
7	3	12051207.d	800.	1211986-003A	SAMP EPA_TO15	5 Dec 2012 16:42
8	4	12051208.d	40.	1211986-004A	SAMP EPA_TO15	5 Dec 2012 17:24
9	6	12051209.d	400.	1211986-023A	SAMP EPA_TO15	5 Dec 2012 18:14
10	7	12051210.d	400.	1211986-024A	SAMP EPA_TO15	5 Dec 2012 19:03
11	8	12051211.d	40.	1211986-028A	SAMP EPA_TO15	5 Dec 2012 19:45
12	9	12051212.d	800.	1211986-029A	SAMP EPA_TO15	5 Dec 2012 20:31
13	9	12051213.d	800.	1211986-029ADUP	DUP EPA_TO15	5 Dec 2012 21:17
14	10	12051214.d	40.	1211986-032A	SAMP EPA_TO15	5 Dec 2012 21:59
15	11	12051215.d	40.	1211986-033A	SAMP EPA_TO15	5 Dec 2012 22:42
16	12	12051216.d	800.	1211986-030A	SAMP EPA_TO15	5 Dec 2012 23:28
17	12	12051217.d	800.	1211986-030A	DATA NOT USED	6 Dec 2012 00:14
18	13	12051218.d	800.	1211986-031A	SAMP EPA_TO15	6 Dec 2012 00:59
19	14	12051219.d	800.	1211986-034A	DATA NOT USED	6 Dec 2012 01:45
20	15	12051220.d	800.	1211986-035A	SAMP EPA_TO15	6 Dec 2012 02:31
21	16	12051221.d	800.	1211986-009A	SAMP EPA_TO15	6 Dec 2012 03:16
22	1	12051222.d	40.	1212185-019A	SAMP EPA_TO15	6 Dec 2012 03:59
23	2	12051223.d	40.	1212185-008A	DATA NOT USED	6 Dec 2012 04:41
24	3	12051224.d	40.	1212185-025A	SAMP EPA_TO15	6 Dec 2012 05:24
25	4	12051225.d	4.	1212185-008A	SAMP EPA_TO15	6 Dec 2012 07:04
26	3	12051226.d	1.	RLVS2 VOA1 120512	RLVS EPA_TO15	6 Dec 2012 08:26
27		12051227.d	1.	No MS or GC data present		

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54337

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1070472	BFB VOA1 120512	BFB_TUNE	TUNE	\\1\DATA\120512\	12/5/2012 12:16:	1	R54337		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		84.3	84.3		100	0	0	0	0	0	84%	50	200	0%	
175	M		6.8	6.8		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.7	96.7		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	
50	M		21.6	21.6		100	0	0	0	0	0	22%	8	40	0%	
75	M		48.1	48.1		100	0	0	0	0	0	48%	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
1070473	CCV VOA1 120512	EPA_TO15	CCV	\\1\DATA\120512\	12/5/2012 12:59:	1	R54337		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	10.75	10.75		9.6	0	0	0.107	1	50	112%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.02	11.02		10	0	0	0.211	1	50	110%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.64	10.64		9.8	0	0	0.108	1	50	109%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.91	10.91		9.8	0	0	0.2	1	50	111%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.94	10.94		9.7	0	0	0.111	1	50	113%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.7	10.7		9.9	0	0	0.097	1	50	108%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.6	9.6		9.1	0	0	0.271	1	50	105%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	11.2	11.2		9.8	0	0	0.245	1	50	114%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.89	10.89		9.6	0	0	0.186	1	50	113%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.89	10.89		9.7	0	0	0.208	1	50	112%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.15	11.15		9.7	0	0	0.196	1	50	115%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.28	11.28		9.8	0	0	0.224	1	50	115%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	11.12	11.12		9.7	0	0	0.24	1	50	115%	70	130	0%	
1,3-Butadiene	A	ppbv	10.02	10.02		9.8	0	0	0.152	1	50	102%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.97	10.97		9.7	0	0	0.202	1	50	113%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1070473	CCV VOA1 120512	EPA_TO15	CCV	\\1\DATA\120512\	12/5/2012 12:59:	1	R54337		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.97	10.97		9.6	0	0	0.194	1	50	114%	70	130	0%	
1,4-Dioxane	A	ppbv	10.77	10.77		9.6	0	0	0.128	1	50	112%	70	130	0%	
2-Butanone	A	ppbv	11.66	11.66		9.9	0	0	0.287	1	50	118%	70	130	0%	
2-Hexanone	A	ppbv	11.34	11.34		9.8	0	0	0.135	1	50	116%	70	130	0%	
2-Propanol	A	ppbv	10.7	10.7		10.1	0	0	0.329	1	50	106%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.42	11.42		10	0	0	0.157	1	50	114%	70	130	0%	
Acetone	A	ppbv	10.91	10.91		10	0	0	0.43	1	50	109%	70	130	0%	
Benzene	A	ppbv	10.58	10.58		9.6	0	0	0.126	1	50	110%	70	130	0%	
Benzyl chloride	A	ppbv	11.01	11.01		9.7	0	0	0.155	1	50	114%	70	130	0%	
Bromodichloromethane	A	ppbv	10.85	10.85		9.6	0	0	0.156	1	50	113%	70	130	0%	
Bromoform	A	ppbv	11.1	11.1		9.6	0	0	0.197	1	50	116%	70	130	0%	
Bromomethane	A	ppbv	9.51	9.51		9.3	0	0	0.075	1	50	102%	70	130	0%	
Carbon disulfide	A	ppbv	9.88	9.88		9.7	0	0	0.093	1	50	102%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.47	10.47		9.5	0	0	0.114	1	50	110%	70	130	0%	
Chlorobenzene	A	ppbv	11.29	11.29		9.9	0	0	0.275	1	50	114%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.09	11.09		9.2	0	0	0.165	1	50	121%	70	130	0%	
Chloroethane	A	ppbv	9.31	9.31		9.8	0	0	0.063	1	50	95%	70	130	0%	
Chloroform	A	ppbv	11.12	11.12		9.4	0	0	0.126	1	50	118%	70	130	0%	
Chloromethane	A	ppbv	9.26	9.26		9.8	0	0	0.104	1	50	94%	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	10.86	10.86		9.5	0	0	0.166	1	50	114%	70	130	0%	
Cyclohexane	A	ppbv	11.21	11.21		9.8	0	0	0.684	2	50	114%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.38	9.38		9.2	0	0	0.086	1	50	102%	70	130	0%	
Ethanol	A	ppbv	9.26	9.26		9.2	0	0	1.962	5	50	101%	70	130	0%	
Ethyl acetate	A	ppbv	11.35	11.35		9.8	0	0	0.157	1	50	116%	70	130	0%	
Ethylbenzene	A	ppbv	11.29	11.29		9.8	0	0	0.737	2	50	115%	70	130	0%	
Heptane	A	ppbv	11.39	11.39		9.9	0	0	0.249	1	50	115%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.68	9.68		9.4	0	0	0.374	2	50	103%	70	130	0%	
m,p-Xylene	A	ppbv	23.01	23.01		19.2	0	0	0.524	2	100	120%	70	130	0%	
Methylene chloride	A	ppbv	10.43	10.43		10	0	0	2.077	5	50	104%	70	130	0%	
n-Hexane	A	ppbv	10.97	10.97		10.1	0	0	0.692	2	50	109%	70	130	0%	
Naphthalene	A	ppbv	9.07	9.07		9.2	0	0	0.247	1	50	99%	70	130	0%	
o-Xylene	A	ppbv	11.66	11.66		10	0	0	0.258	1	50	117%	70	130	0%	
Propylene	A	ppbv	9.25	9.25		10.2	0	0	0.075	1	50	91%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1070473	CCV VOA1 120512	EPA_TO15	CCV	\1\DATA\120512\	12/5/2012 12:59:	1	R54337		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.65	11.65		9.8	0	0	0.263	1	50	119%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.13	11.13		9.9	0	0	0.228	1	50	112%	70	130	0%	
Tetrachloroethene	A	ppbv	11.1	11.1		9.6	0	0	0.148	1	50	116%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.59	11.59		10	0	0	0.201	1	50	116%	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	10.69	10.69		9.8	0	0	0.117	1	50	109%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.46	10.46		9.1	0	0	0.171	1	50	115%	70	130	0%	
Trichloroethene	A	ppbv	10.69	10.69		9.6	0	0	0.119	1	50	111%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.04	10.04		9.6	0	0	0.148	1	50	105%	70	130	0%	
Vinyl acetate	A	ppbv	11.84	11.84		9.9	0	0	0.266	1	50	120%	70	130	0%	
Vinyl chloride	A	ppbv	9.62	9.62		9.4	0	0	0.072	1	50	102%	70	130	0%	
Xylenes, Total	C	ppbv	34.67	34.67		29.2	0	0	0.782	3	150	119%	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	12.52	12.52		12.5	0	0	0	0	0	100%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1070474	RLVS VOA1 120512	EPA_TO15	RLVS	\1\DATA\120512\	12/5/2012 1:43:0	1	R54337		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	0.99	0.99		1	0	0	0.211	1	50	99%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.01	1.01		0.98	0	0	0.108	1	50	103%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.92	0.92		0.98	0	0	0.2	1	50	94%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1	1		0.97	0	0	0.111	1	50	103%	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	0.89	0.89		0.91	0	0	0.271	1	50	98%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.96	0.96		0.98	0	0	0.245	1	50	98%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.88	0.88		0.96	0	0	0.186	1	50	92%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.98	0.98		0.97	0	0	0.208	1	50	101%	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	0.96	0.96		0.98	0	0	0.224	1	50	98%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\120512\12051202.D Vial: 2
Acq On : 5 Dec 2012 12:59 pm Operator: RACHEL HILL
Sample : CCV VOA1 120512 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	113	0.00
2	T	Propylene	1.422	1.290	9.3	89	0.00
3	T	Dichlorodifluoromethane	4.303	4.385	-1.9	99	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.793	2.855	-2.2	101	0.01
5	T	Chloromethane	1.728	1.684	2.5	94	0.00
6	T	Vinyl chloride	2.126	2.176	-2.4	101	0.00
7	T	1,3-Butadiene	1.234	1.261	-2.2	97	0.01
8	T	Bromomethane	1.588	1.623	-2.2	101	0.00
9	T	Chloroethane	0.988	1.000	-1.2	100	0.00
10	T	Trichlorofluoromethane	4.039	4.223	-4.6	104	0.00
11	T	Ethanol	0.500	0.504	-0.8	104	0.00
12	T	Freon113	2.723	2.956	-8.6	106	0.00
13	T	1,1-Dichloroethene	2.517	2.721	-8.1	104	0.00
14	T	Acetone	2.403	2.622	-9.1	105	0.00
15	T	Carbon disulfide	3.567	3.634	-1.9	101	0.00
16	T	2-Propanol	2.345	2.483	-5.9	103	0.00
17	T	Methylene chloride	1.891	1.972	-4.3	102	0.00
18	T	tert-Butyl Methyl Ether	3.502	3.939	-12.5	108	0.00
19	T	trans-1,2-Dichloroethene	2.279	2.486	-9.1	107	0.00
20	T	n-Hexane	2.742	2.977	-8.6	107	0.00
21	T	1,1-Dichloroethane	2.869	3.238	-12.9	109	0.00
22	T	Vinyl acetate	3.601	4.304	-19.5	107	0.00
23	T	cis-1,2-Dichloroethene	1.449	1.575	-8.7	106	0.00
24	T	2-Butanone	2.457	2.895	-17.8	111	0.00
25	T	Ethyl acetate	3.135	3.630	-15.8	110	0.00
26	T	Tetrahydrofuran	1.562	1.810	-15.9	106	0.00
27	T	Chloroform	2.762	3.134	-13.5	109	0.00
28	T	1,1,1-Trichloroethane	2.932	3.283	-12.0	108	0.00
29	T	Cyclohexane	2.831	3.239	-14.4	106	0.00
30	T	Carbon tetrachloride	3.022	3.329	-10.2	104	0.00
31	T	Benzene	4.074	4.489	-10.2	106	0.00
32	T	1,2-Dichloroethane	2.025	2.328	-15.0	109	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	112	0.00
34	T	Heptane	0.771	0.887	-15.0	103	0.00
35	T	Trichloroethene	0.537	0.598	-11.4	107	0.00
36	T	1,2-Dichloropropane	0.507	0.583	-15.0	109	0.00
37	T	1,4-Dioxane	0.229	0.257	-12.2	110	0.00
38	T	Bromodichloromethane	0.826	0.934	-13.1	106	0.00
39	T	cis-1,3-Dichloropropene	0.681	0.778	-14.2	107	0.00
40	T	4-Methyl-2-pentanone	0.400	0.457	-14.2	108	0.00
41	T	Toluene	1.376	1.582	-15.0	108	0.00
42	T	trans-1,3-Dichloropropene	0.630	0.724	-14.9	107	0.00
43	T	1,1,2-Trichloroethane	0.480	0.534	-11.3	106	0.00
44	T	Tetrachloroethene	0.677	0.782	-15.5	111	0.00
45	T	2-Hexanone	0.738	0.854	-15.7	104	0.00
46	T	Chlorodibromomethane	0.803	0.909	-13.2	105	0.00
47	T	1,2-Dibromoethane	0.702	0.797	-13.5	105	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00
49	T	Chlorobenzene	1.205	1.375	-14.1	107	0.00
50	T	Ethylbenzene	2.002	2.307	-15.2	107	0.00
51	T	m,p-Xylene	1.538	1.844	-19.9	106	0.00
52	T	o-Xylene	1.584	1.848	-16.7	107	0.00
53	T	Styrene	1.155	1.374	-19.0	108	0.00
54	T	Bromoform	0.845	0.976	-15.5	108	0.00
55	S	4-Bromofluorobenzene	0.608	0.609	-0.2	111	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\120512\12051202.D Vial: 2
Acq On : 5 Dec 2012 12:59 pm Operator: RACHEL HILL
Sample : CCV VOA1 120512 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.042	1.148	-10.2	104	0.00
57	T	4-Ethyltoluene	1.949	2.239	-14.9	106	0.00
58	T	1,3,5-Trimethylbenzene	1.664	1.908	-14.7	106	0.00
59	T	1,2,4-Trimethylbenzene	1.549	1.770	-14.3	106	0.00
60	T	1,3-Dichlorobenzene	0.858	0.970	-13.1	107	0.00
61	T	1,4-Dichlorobenzene	0.807	0.922	-14.3	108	0.00
62	T	Benzyl chloride	1.005	1.141	-13.5	102	0.00
63	T	1,2-Dichlorobenzene	0.727	0.816	-12.2	107	0.00
64	T	1,2,4-Trichlorobenzene	0.228	0.240	-5.3	110	0.00
65	T	Hexachlorobutadiene	0.412	0.425	-3.2	110	0.00
66		Naphthalene	0.427	0.421	1.4	101	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\120512\12051202.D Vial: 2
Acq On : 5 Dec 2012 12:59 pm Operator: RACHEL HILL
Sample : CCV VOA1 120512 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 5 13:24 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.52	130	210933	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.62	114	735601	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.46	117	618583	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.11	95	377007	12.52	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 100.16%				
Target Compounds							Qvalue
2) Propylene	5.43	41	221999	9.25	ppbv		99
3) Dichlorodifluoromethane	5.51	85	680817	9.38	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	457629	9.71	ppbv	#	71
5) Chloromethane	5.92	50	270029	9.26	ppbv		99
6) Vinyl chloride	6.14	62	345141	9.62	ppbv		96
7) 1,3-Butadiene	6.21	39	208609	10.02	ppbv	#	67
8) Bromomethane	6.77	94	254743	9.51	ppbv	#	98
9) Chloroethane	6.92	64	155236	9.31	ppbv		98
10) Trichlorofluoromethane	7.26	101	684154	10.04	ppbv		98
11) Ethanol	7.50	45	78183	9.26	ppbv		100
12) Freon113	7.92	101	488851	10.64	ppbv		88
13) 1,1-Dichloroethene	8.02	61	454553	10.70	ppbv	#	84
14) Acetone	8.11	43	442395	10.91	ppbv	#	93
15) Carbon disulfide	8.39	76	594852	9.88	ppbv	#	100
16) 2-Propanol	8.17	45	423252	10.70	ppbv	#	1
17) Methylene chloride	8.68	49	332837	10.43	ppbv	#	80
18) tert-Butyl Methyl Ether	8.88	73	658038	11.13	ppbv	#	91
19) trans-1,2-Dichloroethene	8.96	61	411185	10.69	ppbv	#	80
20) n-Hexane	9.15	57	507422	10.97	ppbv	#	86
21) 1,1-Dichloroethane	9.52	63	529949	10.94	ppbv	#	95
22) Vinyl acetate	9.46	43	719084	11.84	ppbv		98
23) cis-1,2-Dichloroethene	10.21	96	260541	10.66	ppbv	#	77
24) 2-Butanone	10.18	43	483604	11.66	ppbv		93
25) Ethyl acetate	10.13	43	600378	11.35	ppbv	#	100
26) Tetrahydrofuran	10.52	42	305379	11.59	ppbv		95
27) Chloroform	10.53	83	518326	11.12	ppbv		100
28) 1,1,1-Trichloroethane	10.78	97	531863	10.75	ppbv	#	93
29) Cyclohexane	10.79	56	535638	11.21	ppbv	#	77
30) Carbon tetrachloride	10.94	117	533749	10.47	ppbv		99
31) Benzene	11.23	78	727234	10.58	ppbv		93
32) 1,2-Dichloroethane	11.30	62	381037	11.15	ppbv	#	96
34) Heptane	11.27	43	516789	11.39	ppbv	#	89
35) Trichloroethene	11.96	130	337672	10.69	ppbv		96
36) 1,2-Dichloropropane	12.31	63	336236	11.28	ppbv		95
37) 1,4-Dioxane	12.39	88	145395	10.77	ppbv	#	81
38) Bromodichloromethane	12.60	83	527671	10.85	ppbv		99
39) cis-1,3-Dichloropropene	13.15	75	434959	10.86	ppbv		97
40) 4-Methyl-2-pentanone	13.26	58	269031	11.42	ppbv	#	90
41) Toluene	13.55	91	912470	11.27	ppbv		99
42) trans-1,3-Dichloropropene	13.86	75	387757	10.46	ppbv		97
43) 1,1,2-Trichloroethane	14.13	97	307946	10.91	ppbv		98
44) Tetrachloroethene	14.26	166	441784	11.10	ppbv		98
45) 2-Hexanone	14.34	43	492410	11.34	ppbv		87
46) Chlorodibromomethane	14.68	129	524084	11.09	ppbv		99
47) 1,2-Dibromoethane	14.91	107	449991	10.89	ppbv		99
49) Chlorobenzene	15.51	112	673453	11.29	ppbv	#	93
50) Ethylbenzene	15.55	91	1118762	11.29	ppbv		94
51) m,p-Xylene	15.70	91	1752070	23.01	ppbv		93
52) o-Xylene	16.30	91	914447	11.66	ppbv	#	91

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\120512\12051202.D Vial: 2
Acq On : 5 Dec 2012 12:59 pm Operator: RACHEL HILL
Sample : CCV VOA1 120512 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 5 13:24 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

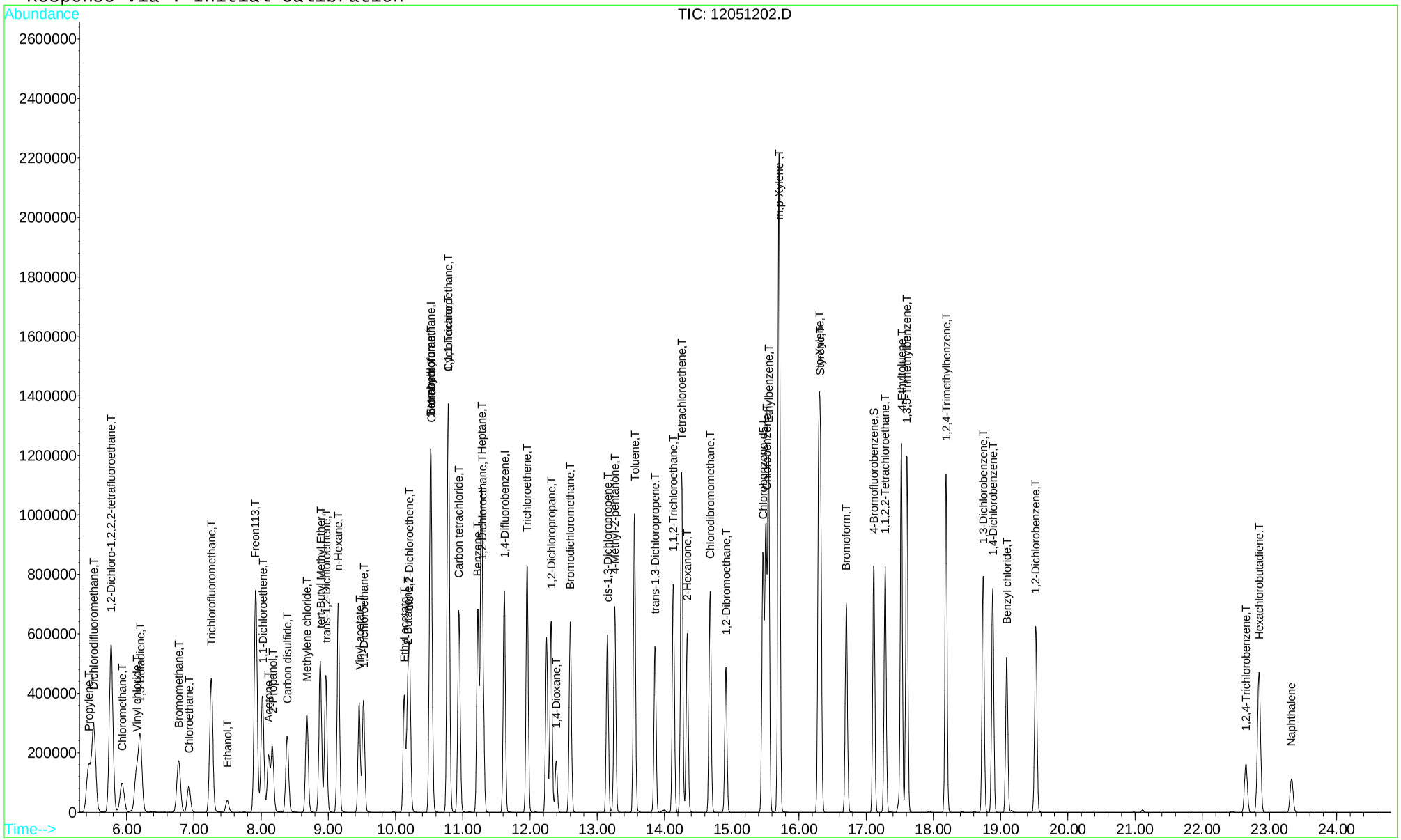
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.32	104	666372	11.65	ppbv	97
54)	Bromoform	16.70	173	463890	11.10	ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.28	83	568075	11.02	ppbv	100
57)	4-Ethyltoluene	17.52	105	1086074	11.26	ppbv	97
58)	1,3,5-Trimethylbenzene	17.61	105	915661	11.12	ppbv	96
59)	1,2,4-Trimethylbenzene	18.19	105	858496	11.20	ppbv	98
60)	1,3-Dichlorobenzene	18.74	146	465610	10.97	ppbv	97
61)	1,4-Dichlorobenzene	18.88	146	437834	10.97	ppbv	97
62)	Benzyl chloride	19.09	91	547803	11.01	ppbv	98
63)	1,2-Dichlorobenzene	19.52	146	391652	10.89	ppbv	97
64)	1,2,4-Trichlorobenzene	22.65	180	108215	9.60	ppbv	98
65)	Hexachlorobutadiene	22.84	225	197570	9.68	ppbv	99
66)	Naphthalene	23.32	128	191678	9.07	ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120512\12051202.D Vial: 2
Acq On : 5 Dec 2012 12:59 pm Operator: RACHEL HILL
Sample : CCV VOA1 120512 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 5 13:24 2012 Quant Results File: 112812V1.RES

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\120612

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12061201.d	1.	BFB VOA1 120612	TUNE BFB_TUNE	6 Dec 2012 10:43
2	2	12061202.d	1.	CCV VOA1 120612	CCV EPA_TO15	6 Dec 2012 11:25
3	3	12061203.d	1.	RLVS VOA1 120612	RLVS EPA_TO15	6 Dec 2012 12:15
4	4	12061204.d	1.	MBLK\DBV 45 CC VOA1 120612	MBLK EPA_TO15	6 Dec 2012 13:04
5	5	12061205.d	4.	1211986-013A	SAMP EPA_TO15	6 Dec 2012 13:57
6	6	12061206.d	400.	1211986-034A	SAMP EPA_TO15	6 Dec 2012 14:45
7	3	12061207.d	400.	1212185-028A	DATA NOT USED	6 Dec 2012 15:34
8	4	12061208.d	400.	1212185-029A	SAMP EPA_TO15	6 Dec 2012 16:32
9	6	12061209.d	400.	1212185-030A	SAMP EPA_TO15	6 Dec 2012 17:22
10	7	12061210.d	200.	1212185-031A	SAMP EPA_TO15	6 Dec 2012 18:10
11	8	12061211.d	200.	1212185-032A	SAMP EPA_TO15	6 Dec 2012 18:58
12	9	12061212.d	400.	1212185-033A	SAMP EPA_TO15	6 Dec 2012 19:47
13	10	12061213.d	800.	1212185-034A	SAMP EPA_TO15	6 Dec 2012 20:31
14	10	12061214.d	800.	1212185-034ADUP	DUP EPA_TO15	6 Dec 2012 21:16
15	11	12061215.d	80000.	1212185-004A	DATA NOT USED	6 Dec 2012 21:58
16	12	12061216.d	80000.	1212185-005A	SAMP EPA_TO15	6 Dec 2012 22:40
17	13	12061217.d	40000.	1212185-006A	SAMP EPA_TO15	6 Dec 2012 23:22
18	14	12061218.d	800.	1212185-007A	SAMP EPA_TO15	7 Dec 2012 00:07
19	14	12061219.d	800.	1212185-007A	DATA NOT USED	7 Dec 2012 00:52
20	15	12061220.d	40.	1212185-009A	DATA NOT USED	7 Dec 2012 01:33
21	16	12061221.d	800.	1212185-015A	SAMP EPA_TO15	7 Dec 2012 02:18
22	17	12061222.d	40.	1212185-019A	SAMP EPA_TO15	7 Dec 2012 03:00
23	18	12061223.d	40.	1212185-020A	SAMP EPA_TO15	7 Dec 2012 03:42
24	19	12061224.d	40.	1212185-021A	SAMP EPA_TO15	7 Dec 2012 04:23
25	20	12061225.d	40.	1212185-022A	SAMP EPA_TO15	7 Dec 2012 05:05
26	3	12061226.d	1.	RLVS2 VOA1 120612	RLVS EPA_TO15	7 Dec 2012 09:14

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54386

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1071561	BFB VOA1 120612	BFB_TUNE	TUNE	\\1\DATA\120612\	12/6/2012 10:43:	1	R54386		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		82.5	82.5		100	0	0	0	0	0	83%	50	200	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	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		20.5	20.5		100	0	0	0	0	0	21%	8	40	0%	
75	M		47.5	47.5		100	0	0	0	0	0	48%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		7	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
1071562	CCV VOA1 120612	EPA_TO15	CCV	\\1\DATA\120612\	12/6/2012 11:25:	1	R54386		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	10.48	10.48		9.6	0	0	0.107	1	50	109%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.82	10.82		10	0	0	0.211	1	50	108%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.45	10.45		9.8	0	0	0.108	1	50	107%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.69	10.69		9.8	0	0	0.2	1	50	109%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.76	10.76		9.7	0	0	0.111	1	50	111%	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	9.77	9.77		9.1	0	0	0.271	1	50	107%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.9	10.9		9.8	0	0	0.245	1	50	111%	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	10.77	10.77		9.7	0	0	0.208	1	50	111%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.62	10.62		9.7	0	0	0.196	1	50	109%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.99	10.99		9.8	0	0	0.224	1	50	112%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.72	10.72		9.7	0	0	0.24	1	50	111%	70	130	0%	
1,3-Butadiene	A	ppbv	9.71	9.71		9.8	0	0	0.152	1	50	99%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.83	10.83		9.7	0	0	0.202	1	50	112%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1071562	CCV VOA1 120612	EPA_TO15	CCV	\\1\DATA\120612\	12/6/2012 11:25:	1	R54386		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.8	10.8		9.6	0	0	0.194	1	50	113%	70	130	0%	
1,4-Dioxane	A	ppbv	10.7	10.7		9.6	0	0	0.128	1	50	111%	70	130	0%	
2-Butanone	A	ppbv	10.44	10.44		9.9	0	0	0.287	1	50	105%	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	10.45	10.45		10.1	0	0	0.329	1	50	103%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.09	11.09		10	0	0	0.157	1	50	111%	70	130	0%	
Acetone	A	ppbv	10.34	10.34		10	0	0	0.43	1	50	103%	70	130	0%	
Benzene	A	ppbv	10.53	10.53		9.6	0	0	0.126	1	50	110%	70	130	0%	
Benzyl chloride	A	ppbv	10.96	10.96		9.7	0	0	0.155	1	50	113%	70	130	0%	
Bromodichloromethane	A	ppbv	10.54	10.54		9.6	0	0	0.156	1	50	110%	70	130	0%	
Bromoform	A	ppbv	10.74	10.74		9.6	0	0	0.197	1	50	112%	70	130	0%	
Bromomethane	A	ppbv	9.55	9.55		9.3	0	0	0.075	1	50	103%	70	130	0%	
Carbon disulfide	A	ppbv	9.94	9.94		9.7	0	0	0.093	1	50	102%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.28	10.28		9.5	0	0	0.114	1	50	108%	70	130	0%	
Chlorobenzene	A	ppbv	10.94	10.94		9.9	0	0	0.275	1	50	111%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.92	10.92		9.2	0	0	0.165	1	50	119%	70	130	0%	
Chloroethane	A	ppbv	9.39	9.39		9.8	0	0	0.063	1	50	96%	70	130	0%	
Chloroform	A	ppbv	10.8	10.8		9.4	0	0	0.126	1	50	115%	70	130	0%	
Chloromethane	A	ppbv	9.37	9.37		9.8	0	0	0.104	1	50	96%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.61	10.61		9.8	0	0	0.107	1	50	108%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.66	10.66		9.5	0	0	0.166	1	50	112%	70	130	0%	
Cyclohexane	A	ppbv	10.88	10.88		9.8	0	0	0.684	2	50	111%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.17	9.17		9.2	0	0	0.086	1	50	100%	70	130	0%	
Ethanol	A	ppbv	8.95	8.95		9.2	0	0	1.962	5	50	97%	70	130	0%	
Ethyl acetate	A	ppbv	10.52	10.52		9.8	0	0	0.157	1	50	107%	70	130	0%	
Ethylbenzene	A	ppbv	10.88	10.88		9.8	0	0	0.737	2	50	111%	70	130	0%	
Heptane	A	ppbv	10.98	10.98		9.9	0	0	0.249	1	50	111%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.68	9.68		9.4	0	0	0.374	2	50	103%	70	130	0%	
m,p-Xylene	A	ppbv	21.8	21.8		19.2	0	0	0.524	2	100	114%	70	130	0%	
Methylene chloride	A	ppbv	10.08	10.08		10	0	0	2.077	5	50	101%	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	9.26	9.26		9.2	0	0	0.247	1	50	101%	70	130	0%	
o-Xylene	A	ppbv	11.14	11.14		10	0	0	0.258	1	50	111%	70	130	0%	
Propylene	A	ppbv	9.06	9.06		10.2	0	0	0.075	1	50	89%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1071562	CCV VOA1 120612	EPA_TO15	CCV	\\1\DATA\120612\	12/6/2012 11:25:	1	R54386		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.11	11.11		9.8	0	0	0.263	1	50	113%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.96	10.96		9.9	0	0	0.228	1	50	111%	70	130	0%	
Tetrachloroethene	A	ppbv	10.94	10.94		9.6	0	0	0.148	1	50	114%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.82	10.82		10	0	0	0.201	1	50	108%	70	130	0%	
Toluene	A	ppbv	10.95	10.95		9.8	0	0	0.158	1	50	112%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.59	10.59		9.8	0	0	0.117	1	50	108%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.28	10.28		9.1	0	0	0.171	1	50	113%	70	130	0%	
Trichloroethene	A	ppbv	10.52	10.52		9.6	0	0	0.119	1	50	110%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.87	9.87		9.6	0	0	0.148	1	50	103%	70	130	0%	
Vinyl acetate	A	ppbv	11.26	11.26		9.9	0	0	0.266	1	50	114%	70	130	0%	
Vinyl chloride	A	ppbv	9.51	9.51		9.4	0	0	0.072	1	50	101%	70	130	0%	
Xylenes, Total	C	ppbv	32.94	32.94		29.2	0	0	0.782	3	150	113%	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	12.57	12.57		12.5	0	0	0	0	0	101%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1071563	RLVS VOA1 120612	EPA_TO15	RLVS	\\1\DATA\120612\	12/6/2012 12:15:	1	R54386		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	0.95	0.95		0.996	0	0	0.107	1	50	95%	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	0.99	0.99		0.98	0	0	0.108	1	50	101%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.92	0.92		0.98	0	0	0.2	1	50	94%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1	1		0.97	0	0	0.111	1	50	103%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.97	0.97		0.99	0	0	0.097	1	50	98%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.86	0.86		0.91	0	0	0.271	1	50	95%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.93	0.93		0.98	0	0	0.245	1	50	95%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.87	0.87		0.96	0	0	0.186	1	50	91%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.94	0.94		0.97	0	0	0.208	1	50	97%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1	1		0.97	0	0	0.196	1	50	103%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.96	0.96		0.98	0	0	0.224	1	50	98%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\120612\12061202.D Vial: 2
Acq On : 6 Dec 2012 11:25 am Operator: RACHEL HILL
Sample : CCV VOA1 120612 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	116	0.00
2	T	Propylene	1.422	1.264	11.1	90	0.00
3	T	Dichlorodifluoromethane	4.303	4.287	0.4	100	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.793	2.866	-2.6	104	0.00
5	T	Chloromethane	1.728	1.705	1.3	98	0.00
6	T	Vinyl chloride	2.126	2.151	-1.2	103	0.00
7	T	1,3-Butadiene	1.234	1.222	1.0	97	0.00
8	T	Bromomethane	1.588	1.631	-2.7	104	0.00
9	T	Chloroethane	0.988	1.008	-2.0	104	0.00
10	T	Trichlorofluoromethane	4.039	4.151	-2.8	105	0.00
11	T	Ethanol	0.500	0.487	2.6	104	0.00
12	T	Freon113	2.723	2.903	-6.6	107	0.00
13	T	1,1-Dichloroethene	2.517	2.695	-7.1	106	0.00
14	T	Acetone	2.403	2.484	-3.4	102	0.00
15	T	Carbon disulfide	3.567	3.655	-2.5	104	0.00
16	T	2-Propanol	2.345	2.427	-3.5	103	0.00
17	T	Methylene chloride	1.891	1.905	-0.7	101	0.00
18	T	tert-Butyl Methyl Ether	3.502	3.879	-10.8	109	0.00
19	T	trans-1,2-Dichloroethene	2.279	2.463	-8.1	108	0.00
20	T	n-Hexane	2.742	2.949	-7.5	109	0.00
21	T	1,1-Dichloroethane	2.869	3.182	-10.9	110	0.00
22	T	Vinyl acetate	3.601	4.094	-13.7	105	0.00
23	T	cis-1,2-Dichloroethene	1.449	1.569	-8.3	108	0.00
24	T	2-Butanone	2.457	2.591	-5.5	102	0.00
25	T	Ethyl acetate	3.135	3.366	-7.4	104	0.00
26	T	Tetrahydrofuran	1.562	1.690	-8.2	101	0.00
27	T	Chloroform	2.762	3.045	-10.2	109	0.00
28	T	1,1,1-Trichloroethane	2.932	3.200	-9.1	108	0.00
29	T	Cyclohexane	2.831	3.143	-11.0	106	0.00
30	T	Carbon tetrachloride	3.022	3.270	-8.2	105	0.00
31	T	Benzene	4.074	4.470	-9.7	108	0.00
32	T	1,2-Dichloroethane	2.025	2.218	-9.5	106	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	115	0.00
34	T	Heptane	0.771	0.855	-10.9	102	0.00
35	T	Trichloroethene	0.537	0.588	-9.5	108	0.00
36	T	1,2-Dichloropropane	0.507	0.569	-12.2	109	0.00
37	T	1,4-Dioxane	0.229	0.256	-11.8	112	0.00
38	T	Bromodichloromethane	0.826	0.907	-9.8	105	0.00
39	T	cis-1,3-Dichloropropene	0.681	0.764	-12.2	108	0.00
40	T	4-Methyl-2-pentanone	0.400	0.444	-11.0	107	0.00
41	T	Toluene	1.376	1.538	-11.8	108	0.00
42	T	trans-1,3-Dichloropropene	0.630	0.712	-13.0	107	0.00
43	T	1,1,2-Trichloroethane	0.480	0.523	-9.0	106	0.00
44	T	Tetrachloroethene	0.677	0.771	-13.9	112	0.00
45	T	2-Hexanone	0.738	0.813	-10.2	102	0.00
46	T	Chlorodibromomethane	0.803	0.895	-11.5	106	0.00
47	T	1,2-Dibromoethane	0.702	0.792	-12.8	107	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	116	0.00
49	T	Chlorobenzene	1.205	1.332	-10.5	109	0.00
50	T	Ethylbenzene	2.002	2.223	-11.0	108	0.00
51	T	m,p-Xylene	1.538	1.746	-13.5	105	0.00
52	T	o-Xylene	1.584	1.765	-11.4	107	0.00
53	T	Styrene	1.155	1.310	-13.4	107	0.00
54	T	Bromoform	0.845	0.945	-11.8	109	0.00
55	S	4-Bromofluorobenzene	0.608	0.612	-0.7	116	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\120612\12061202.D Vial: 2
Acq On : 6 Dec 2012 11:25 am Operator: RACHEL HILL
Sample : CCV VOA1 120612 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.042	1.127	-8.2	107	0.00
57	T	4-Ethyltoluene	1.949	2.158	-10.7	107	0.00
58	T	1,3,5-Trimethylbenzene	1.664	1.838	-10.5	107	0.00
59	T	1,2,4-Trimethylbenzene	1.549	1.723	-11.2	108	0.00
60	T	1,3-Dichlorobenzene	0.858	0.957	-11.5	111	0.00
61	T	1,4-Dichlorobenzene	0.807	0.908	-12.5	111	0.00
62	T	Benzyl chloride	1.005	1.135	-12.9	106	0.00
63	T	1,2-Dichlorobenzene	0.727	0.807	-11.0	110	0.00
64	T	1,2,4-Trichlorobenzene	0.228	0.245	-7.5	117	0.00
65	T	Hexachlorobutadiene	0.412	0.425	-3.2	116	0.00
66		Naphthalene	0.427	0.430	-0.7	108	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\120612\12061202.D Vial: 2
Acq On : 6 Dec 2012 11:25 am Operator: RACHEL HILL
Sample : CCV VOA1 120612 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 6 11:50 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.52	130	216550	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	754148	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.47	117	647533	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.11	95	396171	12.57	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 100.56%

Target Compounds						Qvalue
2) Propylene	5.43	41	223322	9.06	ppbv	98
3) Dichlorodifluoromethane	5.51	85	683287	9.17	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	471696	9.75	ppbv #	71
5) Chloromethane	5.93	50	280550	9.37	ppbv	99
6) Vinyl chloride	6.15	62	350200	9.51	ppbv	95
7) 1,3-Butadiene	6.20	39	207446	9.71	ppbv #	68
8) Bromomethane	6.78	94	262735	9.55	ppbv #	98
9) Chloroethane	6.93	64	160700	9.39	ppbv	98
10) Trichlorofluoromethane	7.26	101	690363	9.87	ppbv	98
11) Ethanol	7.50	45	77558	8.95	ppbv	99
12) Freon113	7.92	101	492874	10.45	ppbv	88
13) 1,1-Dichloroethene	8.02	61	462134	10.60	ppbv #	85
14) Acetone	8.11	43	430343	10.34	ppbv #	92
15) Carbon disulfide	8.39	76	614267	9.94	ppbv #	100
16) 2-Propanol	8.17	45	424671	10.45	ppbv #	1
17) Methylene chloride	8.68	49	330047	10.08	ppbv #	83
18) tert-Butyl Methyl Ether	8.89	73	665200	10.96	ppbv #	93
19) trans-1,2-Dichloroethene	8.96	61	418125	10.59	ppbv #	80
20) n-Hexane	9.15	57	516050	10.86	ppbv #	85
21) 1,1-Dichloroethane	9.52	63	534704	10.76	ppbv #	95
22) Vinyl acetate	9.46	43	702120	11.26	ppbv	98
23) cis-1,2-Dichloroethene	10.21	96	266363	10.61	ppbv #	78
24) 2-Butanone	10.18	43	444340	10.44	ppbv #	96
25) Ethyl acetate	10.13	43	571428	10.52	ppbv #	100
26) Tetrahydrofuran	10.52	42	292804	10.82	ppbv	97
27) Chloroform	10.54	83	517048	10.80	ppbv	100
28) 1,1,1-Trichloroethane	10.78	97	532217	10.48	ppbv #	93
29) Cyclohexane	10.79	56	533664	10.88	ppbv #	78
30) Carbon tetrachloride	10.95	117	538088	10.28	ppbv	98
31) Benzene	11.23	78	743386	10.53	ppbv	94
32) 1,2-Dichloroethane	11.31	62	372659	10.62	ppbv #	96
34) Heptane	11.28	43	510780	10.98	ppbv #	89
35) Trichloroethene	11.96	130	340675	10.52	ppbv	96
36) 1,2-Dichloropropane	12.32	63	336128	10.99	ppbv	95
37) 1,4-Dioxane	12.40	88	148157	10.70	ppbv #	83
38) Bromodichloromethane	12.60	83	525107	10.54	ppbv	100
39) cis-1,3-Dichloropropene	13.15	75	437843	10.66	ppbv	98
40) 4-Methyl-2-pentanone	13.26	58	267731	11.09	ppbv #	90
41) Toluene	13.56	91	909419	10.95	ppbv	99
42) trans-1,3-Dichloropropene	13.86	75	390918	10.28	ppbv	98
43) 1,1,2-Trichloroethane	14.13	97	309230	10.69	ppbv	98
44) Tetrachloroethene	14.26	166	446717	10.94	ppbv	98
45) 2-Hexanone	14.34	43	480792	10.80	ppbv	85
46) Chlorodibromomethane	14.68	129	529354	10.92	ppbv	99
47) 1,2-Dibromoethane	14.92	107	458679	10.83	ppbv	100
49) Chlorobenzene	15.51	112	682964	10.94	ppbv #	94
50) Ethylbenzene	15.55	91	1128367	10.88	ppbv	95
51) m,p-Xylene	15.71	91	1736993	21.80	ppbv	94
52) o-Xylene	16.30	91	914443	11.14	ppbv #	92

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\120612\12061202.D Vial: 2
Acq On : 6 Dec 2012 11:25 am Operator: RACHEL HILL
Sample : CCV VOA1 120612 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 6 11:50 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

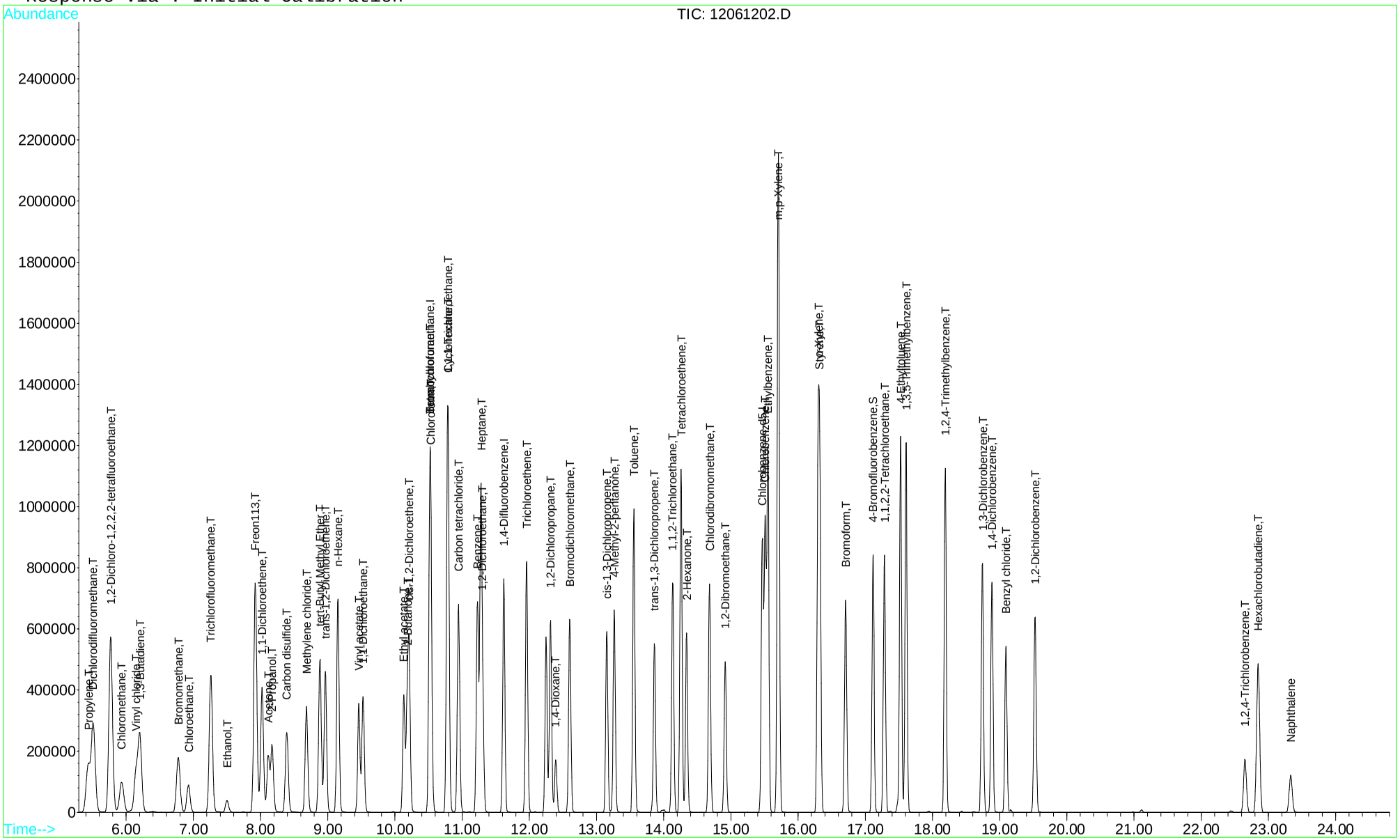
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.32	104	664910	11.11	ppbv	98
54)	Bromoform	16.71	173	470019	10.74	ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.29	83	583831	10.82	ppbv	99
57)	4-Ethyltoluene	17.53	105	1095616	10.85	ppbv	97
58)	1,3,5-Trimethylbenzene	17.61	105	923706	10.72	ppbv	97
59)	1,2,4-Trimethylbenzene	18.19	105	874929	10.90	ppbv	97
60)	1,3-Dichlorobenzene	18.74	146	481044	10.83	ppbv	97
61)	1,4-Dichlorobenzene	18.89	146	451322	10.80	ppbv	97
62)	Benzyl chloride	19.10	91	570439	10.96	ppbv	99
63)	1,2-Dichlorobenzene	19.53	146	405574	10.77	ppbv	97
64)	1,2,4-Trichlorobenzene	22.65	180	115284	9.77	ppbv	97
65)	Hexachlorobutadiene	22.85	225	206710	9.68	ppbv	99
66)	Naphthalene	23.33	128	204897	9.26	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120612\12061202.D Vial: 2
Acq On : 6 Dec 2012 11:25 am Operator: RACHEL HILL
Sample : CCV VOA1 120612 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 6 11:50 2012 Quant Results File: 112812V1.RES

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\120712

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12071201.d	1.	BFB VOA1 120712	TUNE BFB_TUNE	7 Dec 2012 17:51
2	2	12071202.d	1.	CCV VOA1 120712	DATA NOT USED	7 Dec 2012 18:33
3	3	12071203.d	1.	CCV VOA1 120712	ICV EPA_TO15	7 Dec 2012 19:16
4	3	12071204.d	1.	RLVS VOA1 120712	RLVS EPA_TO15	7 Dec 2012 20:04
5	4	12071205.d	1.	BV0622 CC VOA1 120712	DATA NOT USED	7 Dec 2012 20:54
6	5	12071206.d	1.	MBLK\BV0680 CC VOA1 120712	MBLK EPA_TO15	7 Dec 2012 21:43
7	1	12071207.d	40.	1212185-028A	DATA NOT USED	7 Dec 2012 22:25
8	2	12071208.d	800.	1212185-032A	SAMP EPA_TO15	7 Dec 2012 23:11
9	2	12071209.d	800.	1212185-032ADUP	DUP EPA_TO15	7 Dec 2012 23:57
10	3	12071210.d	8000.	1212185-033A	SAMP EPA_TO15	8 Dec 2012 00:39
11	4	12071211.d	8000.	1212185-034A	SAMP EPA_TO15	8 Dec 2012 01:22
12	6	12071212.d	40000.	1212185-004A	SAMP EPA_TO15	8 Dec 2012 02:04
13	7	12071213.d	80000.	1212185-006A	SAMP EPA_TO15	8 Dec 2012 02:47
14	8	12071214.d	8000.	1212185-007A	DATA NOT USED	8 Dec 2012 03:29
15	9	12071215.d	8.	1212185-009A	SAMP EPA_TO15	8 Dec 2012 04:13
16	10	12071216.d	800.	1212185-010A	SAMP EPA_TO15	8 Dec 2012 04:59
17	10	12071217.d	800.	1212185-010A	DATA NOT USED	8 Dec 2012 05:44
18	11	12071218.d	800.	1212185-016A	SAMP EPA_TO15	8 Dec 2012 06:30
19	12	12071219.d	40.	1212185-017A	SAMP EPA_TO15	8 Dec 2012 07:13
20	13	12071220.d	800.	1212185-011A	SAMP EPA_TO15	8 Dec 2012 07:58
21	14	12071221.d	800.	1212185-018A	DATA NOT USED	8 Dec 2012 08:41
22	15	12071222.d	400.	1212185-021A	SAMP EPA_TO15	8 Dec 2012 09:30
23	16	12071223.d	400.	1212185-022A	SAMP EPA_TO15	8 Dec 2012 10:19
24	17	12071224.d	8.	1212185-028A	SAMP EPA_TO15	8 Dec 2012 11:05
25	3	12071225.d	1.	RLVS2 VOA1 120712	RLVS EPA_TO15	8 Dec 2012 13:01

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54432

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1072717	BFB VOA1 120712	BFB_TUNE	TUNE	\\1\DATA\120712\	12/7/2012 5:51:0	1	R54432		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		80.8	80.8		100	0	0	0	0	0	81%	50	200	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.3	96.3		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		19	19		100	0	0	0	0	0	19%	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		6.9	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
1072718	CCV VOA1 120712	EPA_TO15	CCV	\\1\DATA\120712\	12/7/2012 7:16:0	1	R54432		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	10.24	10.24		9.6	0	0	0.107	1	50	107%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.13	10.13		10	0	0	0.211	1	50	101%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.44	10.44		9.8	0	0	0.108	1	50	107%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.08	10.08		9.8	0	0	0.2	1	50	103%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.67	10.67		9.7	0	0	0.111	1	50	110%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.51	10.51		9.9	0	0	0.097	1	50	106%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.01	9.01		9.1	0	0	0.271	1	50	99%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.17	10.17		9.8	0	0	0.245	1	50	104%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.08	10.08		9.6	0	0	0.186	1	50	105%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.07	10.07		9.7	0	0	0.208	1	50	104%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.56	10.56		9.7	0	0	0.196	1	50	109%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.36	10.36		9.8	0	0	0.224	1	50	106%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10	10		9.7	0	0	0.24	1	50	103%	70	130	0%	
1,3-Butadiene	A	ppbv	9.14	9.14		9.8	0	0	0.152	1	50	93%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.21	10.21		9.7	0	0	0.202	1	50	105%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1072718	CCV VOA1 120712	EPA_TO15	CCV	\\1\DATA\120712\	12/7/2012 7:16:0	1	R54432		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.21	10.21		9.6	0	0	0.194	1	50	106%	70	130	0%	
1,4-Dioxane	A	ppbv	9.69	9.69		9.6	0	0	0.128	1	50	101%	70	130	0%	
2-Butanone	A	ppbv	10.48	10.48		9.9	0	0	0.287	1	50	106%	70	130	0%	
2-Hexanone	A	ppbv	9.76	9.76		9.8	0	0	0.135	1	50	100%	70	130	0%	
2-Propanol	A	ppbv	10.02	10.02		10.1	0	0	0.329	1	50	99%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.17	10.17		10	0	0	0.157	1	50	102%	70	130	0%	
Acetone	A	ppbv	10.1	10.1		10	0	0	0.43	1	50	101%	70	130	0%	
Benzene	A	ppbv	10.74	10.74		9.6	0	0	0.126	1	50	112%	70	130	0%	
Benzyl chloride	A	ppbv	10.43	10.43		9.7	0	0	0.155	1	50	108%	70	130	0%	
Bromodichloromethane	A	ppbv	9.98	9.98		9.6	0	0	0.156	1	50	104%	70	130	0%	
Bromoform	A	ppbv	10.11	10.11		9.6	0	0	0.197	1	50	105%	70	130	0%	
Bromomethane	A	ppbv	9.58	9.58		9.3	0	0	0.075	1	50	103%	70	130	0%	
Carbon disulfide	A	ppbv	10.08	10.08		9.7	0	0	0.093	1	50	104%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.21	10.21		9.5	0	0	0.114	1	50	107%	70	130	0%	
Chlorobenzene	A	ppbv	10.48	10.48		9.9	0	0	0.275	1	50	106%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.07	10.07		9.2	0	0	0.165	1	50	109%	70	130	0%	
Chloroethane	A	ppbv	9.5	9.5		9.8	0	0	0.063	1	50	97%	70	130	0%	
Chloroform	A	ppbv	10.57	10.57		9.4	0	0	0.126	1	50	112%	70	130	0%	
Chloromethane	A	ppbv	9.18	9.18		9.8	0	0	0.104	1	50	94%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.68	10.68		9.8	0	0	0.107	1	50	109%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.21	10.21		9.5	0	0	0.166	1	50	107%	70	130	0%	
Cyclohexane	A	ppbv	10.54	10.54		9.8	0	0	0.684	2	50	108%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	8.97	8.97		9.2	0	0	0.086	1	50	98%	70	130	0%	
Ethanol	A	ppbv	8.73	8.73		9.2	0	0	1.962	5	50	95%	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	10.36	10.36		9.8	0	0	0.737	2	50	106%	70	130	0%	
Heptane	A	ppbv	9.92	9.92		9.9	0	0	0.249	1	50	100%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.28	9.28		9.4	0	0	0.374	2	50	99%	70	130	0%	
m,p-Xylene	A	ppbv	20.34	20.34		19.2	0	0	0.524	2	100	106%	70	130	0%	
Methylene chloride	A	ppbv	9.69	9.69		10	0	0	2.077	5	50	97%	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	8.42	8.42		9.2	0	0	0.247	1	50	92%	70	130	0%	
o-Xylene	A	ppbv	10.42	10.42		10	0	0	0.258	1	50	104%	70	130	0%	
Propylene	A	ppbv	8.57	8.57		10.2	0	0	0.075	1	50	84%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1072718	CCV VOA1 120712	EPA_TO15	CCV	\1\DATA\120712\	12/7/2012 7:16:0	1	R54432		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.36	10.36		9.8	0	0	0.263	1	50	106%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.32	11.32		9.9	0	0	0.228	1	50	114%	70	130	0%	
Tetrachloroethene	A	ppbv	10.21	10.21		9.6	0	0	0.148	1	50	106%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.29	10.29		10	0	0	0.201	1	50	103%	70	130	0%	
Toluene	A	ppbv	10.28	10.28		9.8	0	0	0.158	1	50	105%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.59	10.59		9.8	0	0	0.117	1	50	108%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.73	9.73		9.1	0	0	0.171	1	50	107%	70	130	0%	
Trichloroethene	A	ppbv	9.9	9.9		9.6	0	0	0.119	1	50	103%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.8	9.8		9.6	0	0	0.148	1	50	102%	70	130	0%	
Vinyl acetate	A	ppbv	10.88	10.88		9.9	0	0	0.266	1	50	110%	70	130	0%	
Vinyl chloride	A	ppbv	9.73	9.73		9.4	0	0	0.072	1	50	104%	70	130	0%	
Xylenes, Total	C	ppbv	30.76	30.76		29.2	0	0	0.782	3	150	105%	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	12.67	12.67		12.5	0	0	0	0	0	101%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1072719	RLVS VOA1 120712	EPA_TO15	RLVS	\1\DATA\120712\	12/7/2012 8:04:0	1	R54432		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	0.79	0.79		0.996	0	0	0.107	1	50	79%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	0.8	0.8		1	0	0	0.211	1	50	80%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.83	0.83		0.98	0	0	0.108	1	50	85%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.77	0.77		0.98	0	0	0.2	1	50	79%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.84	0.84		0.97	0	0	0.111	1	50	87%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.83	0.83		0.99	0	0	0.097	1	50	84%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.83	0.83		0.91	0	0	0.271	1	50	91%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.77	0.77		0.98	0	0	0.245	1	50	79%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.71	0.71		0.96	0	0	0.186	1	50	74%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.82	0.82		0.97	0	0	0.208	1	50	85%	70	130	0%	
1,2-Dichloroethane	A	ppbv	0.84	0.84		0.97	0	0	0.196	1	50	87%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.78	0.78		0.98	0	0	0.224	1	50	80%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\120712\12071203.D Vial: 3
Acq On : 7 Dec 2012 7:16 pm Operator: RACHEL HILL
Sample : CCV VOA1 120712 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	132	0.00
2	T	Propylene	1.422	1.195	16.0	96	0.00
3	T	Dichlorodifluoromethane	4.303	4.198	2.4	111	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.793	2.857	-2.3	117	0.00
5	T	Chloromethane	1.728	1.669	3.4	109	0.00
6	T	Vinyl chloride	2.126	2.201	-3.5	120	0.00
7	T	1,3-Butadiene	1.234	1.150	6.8	104	0.00
8	T	Bromomethane	1.588	1.635	-3.0	119	0.00
9	T	Chloroethane	0.988	1.020	-3.2	119	0.00
10	T	Trichlorofluoromethane	4.039	4.122	-2.1	119	0.00
11	T	Ethanol	0.500	0.475	5.0	115	0.00
12	T	Freon113	2.723	2.900	-6.5	122	0.00
13	T	1,1-Dichloroethene	2.517	2.671	-6.1	119	0.00
14	T	Acetone	2.403	2.426	-1.0	114	0.00
15	T	Carbon disulfide	3.567	3.707	-3.9	120	0.00
16	T	2-Propanol	2.345	2.327	0.8	112	0.00
17	T	Methylene chloride	1.891	1.832	3.1	110	0.00
18	T	tert-Butyl Methyl Ether	3.502	4.006	-14.4	128	0.00
19	T	trans-1,2-Dichloroethene	2.279	2.462	-8.0	123	0.00
20	T	n-Hexane	2.742	2.890	-5.4	121	0.00
21	T	1,1-Dichloroethane	2.869	3.157	-10.0	124	0.00
22	T	Vinyl acetate	3.601	3.956	-9.9	115	0.00
23	T	cis-1,2-Dichloroethene	1.449	1.579	-9.0	124	0.00
24	T	2-Butanone	2.457	2.601	-5.9	116	0.00
25	T	Ethyl acetate	3.135	3.378	-7.8	119	0.00
26	T	Tetrahydrofuran	1.562	1.606	-2.8	109	0.00
27	T	Chloroform	2.762	2.978	-7.8	121	0.00
28	T	1,1,1-Trichloroethane	2.932	3.129	-6.7	120	0.00
29	T	Cyclohexane	2.831	3.044	-7.5	117	0.00
30	T	Carbon tetrachloride	3.022	3.249	-7.5	119	0.00
31	T	Benzene	4.074	4.558	-11.9	125	0.00
32	T	1,2-Dichloroethane	2.025	2.205	-8.9	120	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	138	0.00
34	T	Heptane	0.771	0.772	-0.1	111	0.00
35	T	Trichloroethene	0.537	0.554	-3.2	122	0.00
36	T	1,2-Dichloropropane	0.507	0.536	-5.7	124	0.00
37	T	1,4-Dioxane	0.229	0.232	-1.3	122	0.00
38	T	Bromodichloromethane	0.826	0.859	-4.0	121	0.00
39	T	cis-1,3-Dichloropropene	0.681	0.732	-7.5	125	0.00
40	T	4-Methyl-2-pentanone	0.400	0.407	-1.7	119	0.00
41	T	Toluene	1.376	1.443	-4.9	122	0.00
42	T	trans-1,3-Dichloropropene	0.630	0.673	-6.8	123	0.00
43	T	1,1,2-Trichloroethane	0.480	0.493	-2.7	121	0.00
44	T	Tetrachloroethene	0.677	0.719	-6.2	127	0.00
45	T	2-Hexanone	0.738	0.735	0.4	111	0.00
46	T	Chlorodibromomethane	0.803	0.825	-2.7	118	0.00
47	T	1,2-Dibromoethane	0.702	0.737	-5.0	120	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	135	0.00
49	T	Chlorobenzene	1.205	1.275	-5.8	121	0.00
50	T	Ethylbenzene	2.002	2.117	-5.7	120	0.00
51	T	m,p-Xylene	1.538	1.630	-6.0	114	0.00
52	T	o-Xylene	1.584	1.651	-4.2	117	0.00
53	T	Styrene	1.155	1.222	-5.8	117	0.00
54	T	Bromoform	0.845	0.889	-5.2	120	0.00
55	S	4-Bromofluorobenzene	0.608	0.617	-1.5	137	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\120712\12071203.D Vial: 3
Acq On : 7 Dec 2012 7:16 pm Operator: RACHEL HILL
Sample : CCV VOA1 120712 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.042	1.055	-1.2	116	0.00
57	T	4-Ethyltoluene	1.949	2.010	-3.1	117	0.00
58	T	1,3,5-Trimethylbenzene	1.664	1.715	-3.1	116	0.00
59	T	1,2,4-Trimethylbenzene	1.549	1.607	-3.7	118	0.00
60	T	1,3-Dichlorobenzene	0.858	0.903	-5.2	122	0.00
61	T	1,4-Dichlorobenzene	0.807	0.858	-6.3	123	0.00
62	T	Benzyl chloride	1.005	1.081	-7.6	118	0.00
63	T	1,2-Dichlorobenzene	0.727	0.755	-3.9	121	0.00
64	T	1,2,4-Trichlorobenzene	0.228	0.226	0.9	126	0.00
65	T	Hexachlorobutadiene	0.412	0.407	1.2	129	0.00
66		Naphthalene	0.427	0.391	8.4	115	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\120712\12071203.D Vial: 3
Acq On : 7 Dec 2012 7:16 pm Operator: RACHEL HILL
Sample : CCV VOA1 120712 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 7 19:41 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.52	130	245873	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	910822	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.47	117	755687	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	466088	12.67	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 101.36%

Target Compounds						Qvalue
2) Propylene	5.44	41	239675	8.57	ppbv	98
3) Dichlorodifluoromethane	5.51	85	759611	8.97	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	533827	9.72	ppbv #	72
5) Chloromethane	5.94	50	311905	9.18	ppbv	99
6) Vinyl chloride	6.15	62	407029	9.73	ppbv	95
7) 1,3-Butadiene	6.21	39	221717	9.14	ppbv #	61
8) Bromomethane	6.78	94	299159	9.58	ppbv	99
9) Chloroethane	6.93	64	184591	9.50	ppbv	99
10) Trichlorofluoromethane	7.26	101	778416	9.80	ppbv	99
11) Ethanol	7.50	45	85884	8.73	ppbv	99
12) Freon113	7.92	101	558987	10.44	ppbv	89
13) 1,1-Dichloroethene	8.02	61	520132	10.51	ppbv #	85
14) Acetone	8.11	43	477265	10.10	ppbv #	91
15) Carbon disulfide	8.39	76	707338	10.08	ppbv #	99
16) 2-Propanol	8.17	45	462260	10.02	ppbv #	1
17) Methylene chloride	8.69	49	360399	9.69	ppbv	86
18) tert-Butyl Methyl Ether	8.88	73	780160	11.32	ppbv #	95
19) trans-1,2-Dichloroethene	8.97	61	474623	10.59	ppbv #	81
20) n-Hexane	9.15	57	574130	10.64	ppbv #	85
21) 1,1-Dichloroethane	9.53	63	602324	10.67	ppbv #	95
22) Vinyl acetate	9.46	43	770334	10.88	ppbv	99
23) cis-1,2-Dichloroethene	10.21	96	304418	10.68	ppbv #	80
24) 2-Butanone	10.18	43	506516	10.48	ppbv	97
25) Ethyl acetate	10.13	43	651231	10.56	ppbv #	100
26) Tetrahydrofuran	10.52	42	315939	10.29	ppbv	100
27) Chloroform	10.54	83	574069	10.57	ppbv	100
28) 1,1,1-Trichloroethane	10.78	97	590789	10.24	ppbv #	94
29) Cyclohexane	10.79	56	586722	10.54	ppbv #	79
30) Carbon tetrachloride	10.94	117	607147	10.21	ppbv	98
31) Benzene	11.23	78	860652	10.74	ppbv	95
32) 1,2-Dichloroethane	11.31	62	420628	10.56	ppbv #	96
34) Heptane	11.28	43	557075	9.92	ppbv #	91
35) Trichloroethene	11.96	130	387424	9.90	ppbv	96
36) 1,2-Dichloropropane	12.31	63	382455	10.36	ppbv	95
37) 1,4-Dioxane	12.39	88	161998	9.69	ppbv #	83
38) Bromodichloromethane	12.60	83	600691	9.98	ppbv	99
39) cis-1,3-Dichloropropene	13.16	75	506588	10.21	ppbv	98
40) 4-Methyl-2-pentanone	13.27	58	296648	10.17	ppbv #	91
41) Toluene	13.56	91	1030266	10.28	ppbv	99
42) trans-1,3-Dichloropropene	13.86	75	446506	9.73	ppbv	97
43) 1,1,2-Trichloroethane	14.13	97	352248	10.08	ppbv	97
44) Tetrachloroethene	14.26	166	503268	10.21	ppbv	98
45) 2-Hexanone	14.34	43	524745	9.76	ppbv	84
46) Chlorodibromomethane	14.68	129	589282	10.07	ppbv	99
47) 1,2-Dibromoethane	14.92	107	515509	10.08	ppbv	100
49) Chlorobenzene	15.51	112	763152	10.48	ppbv	94
50) Ethylbenzene	15.55	91	1254155	10.36	ppbv	95
51) m,p-Xylene	15.70	91	1891459	20.34	ppbv	95
52) o-Xylene	16.30	91	998296	10.42	ppbv #	93

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\120712\12071203.D Vial: 3
Acq On : 7 Dec 2012 7:16 pm Operator: RACHEL HILL
Sample : CCV VOA1 120712 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 7 19:41 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

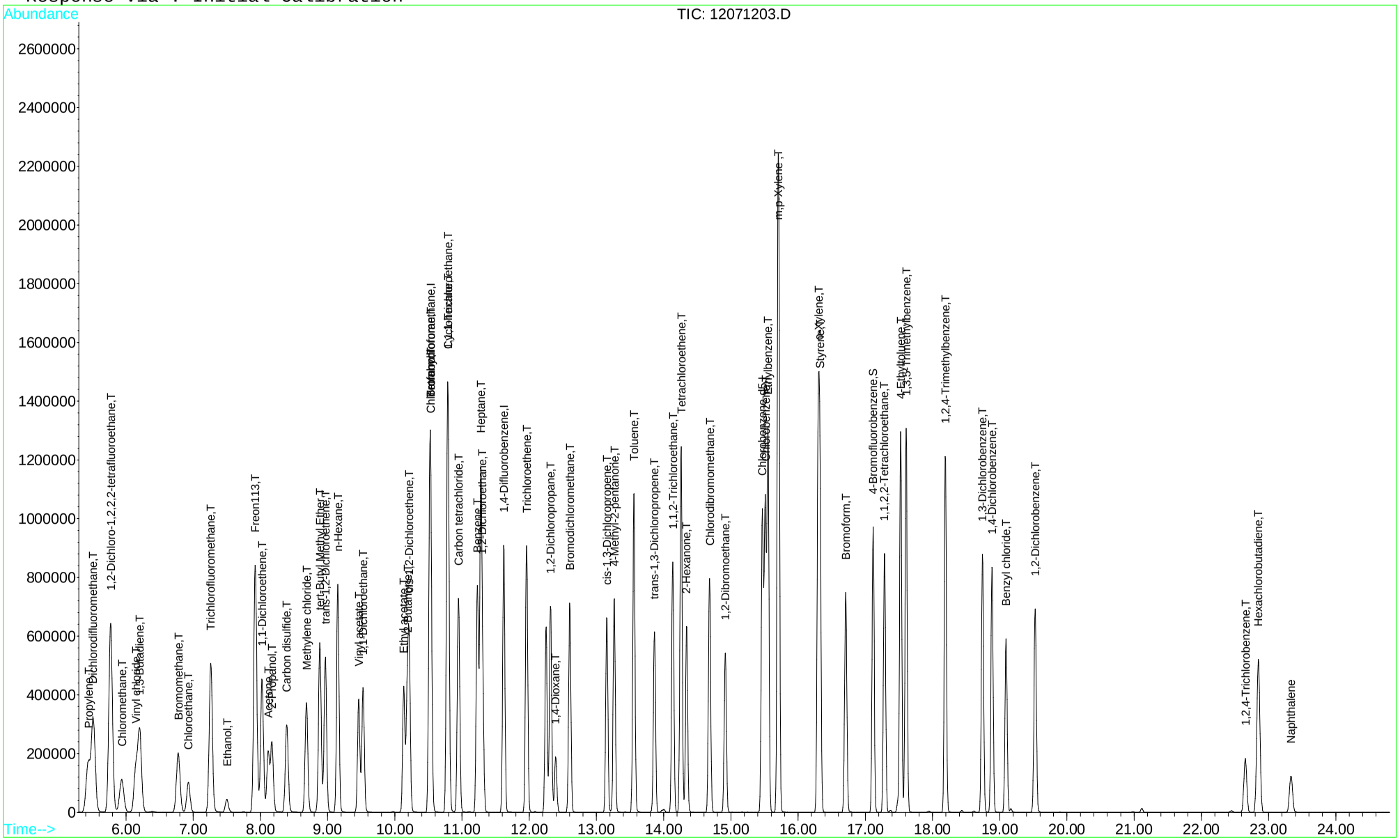
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.33	104	723967	10.36	ppbv	97
54)	Bromoform	16.71	173	515989	10.11	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.28	83	637951	10.13	ppbv	99
57)	4-Ethyltoluene	17.52	105	1190886	10.10	ppbv	97
58)	1,3,5-Trimethylbenzene	17.61	105	1005547	10.00	ppbv	98
59)	1,2,4-Trimethylbenzene	18.19	105	952321	10.17	ppbv	98
60)	1,3-Dichlorobenzene	18.74	146	529424	10.21	ppbv	97
61)	1,4-Dichlorobenzene	18.88	146	498024	10.21	ppbv	97
62)	Benzyl chloride	19.09	91	633629	10.43	ppbv	99
63)	1,2-Dichlorobenzene	19.53	146	442779	10.07	ppbv	97
64)	1,2,4-Trichlorobenzene	22.65	180	124124	9.01	ppbv	97
65)	Hexachlorobutadiene	22.85	225	231302	9.28	ppbv	98
66)	Naphthalene	23.33	128	217420	8.42	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120712\12071203.D Vial: 3
Acq On : 7 Dec 2012 7:16 pm Operator: RACHEL HILL
Sample : CCV VOA1 120712 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 7 19:41 2012 Quant Results File: 112812V1.RES

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121012

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12101201.d	1.	BFB VOA1 121012	TUNE BFB_TUNE	10 Dec 2012 09:50
2	2	12101202.d	1.	CCV VOA1 121012	CCV EPA_TO15	10 Dec 2012 10:33
3	3	12101203.d	1.	RLVS VOA1 121012	RLVS EPA_TO15	10 Dec 2012 11:16
4	4	12101204.d	1.	MBLK\BV0700 CC VOA1 121012	MBLK EPA_TO15	10 Dec 2012 12:04
5	5	12101205.d	1.	MBLK\BV0759 CC VOA1 121012	DATA NOT USED	10 Dec 2012 12:53
6	6	12101206.d	1.	MBLK\DBV0100 CC VOA1 121012	DATA NOT USED	10 Dec 2012 13:42
7	7	12101207.d	40.	1212185-018A	SAMP EPA_TO15	10 Dec 2012 14:46
8	8	12101208.d	40.	1212185-023A	SAMP EPA_TO15	10 Dec 2012 15:34
9	9	12101209.d	40.	1212185-024A	SAMP EPA_TO15	10 Dec 2012 16:17
10	10	12101210.d	40.	1212185-025A	DATA NOT USED	10 Dec 2012 16:59
11	6	12101211.d	40.	1212185-041A	DATA NOT USED	10 Dec 2012 17:42
12	7	12101212.d	800.	1212185-043A	SAMP EPA_TO15	10 Dec 2012 18:28
13	8	12101213.d	800.	1212185-058A	SAMP EPA_TO15	10 Dec 2012 19:13
14	8	12101214.d	800.	1212185-058ADUP	DUP EPA_TO15	10 Dec 2012 19:59
15	9	12101215.d	20000.	1212185-007A	SAMP EPA_TO15	10 Dec 2012 20:41
16	10	12101216.d	1600.	1212185-040A	DATA NOT USED	10 Dec 2012 21:25
17	10	12101217.d	1600.	1212185-040A	DATA NOT USED	10 Dec 2012 22:09
18	11	12101218.d	800.	1212185-012A	SAMP EPA_TO15	10 Dec 2012 22:54
19	12	12101219.d	800.	1212185-013A	SAMP EPA_TO15	10 Dec 2012 23:40
20	13	12101220.d	400.	1212185-014A	SAMP EPA_TO15	11 Dec 2012 00:29
21	14	12101221.d	800.	1212185-021A	SAMP EPA_TO15	11 Dec 2012 01:15
22	15	12101222.d	800.	1212185-022A	SAMP EPA_TO15	11 Dec 2012 02:01
23	16	12101223.d	800.	1212185-026A	SAMP EPA_TO15	11 Dec 2012 02:46
24	17	12101224.d	1600.	1212185-038A	DATA NOT USED	11 Dec 2012 03:30
25	18	12101225.d	800.	1212185-042A	SAMP EPA_TO15	11 Dec 2012 04:16
26	19	12101226.d	800.	1212185-044A	DATA NOT USED	11 Dec 2012 05:02
27	3	12101227.d	1.	RLVS2 VOA1 121012	RLVS EPA_TO15	11 Dec 2012 08:22

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54460

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1073222	BFB VOA1 121012	BFB_TUNE	TUNE	\\1\DATA\121012\	12/10/2012 9:50:	1	R54460		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		79.7	79.7		100	0	0	0	0	0	80%	50	200	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		97.2	97.2		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		19.9	19.9		100	0	0	0	0	0	20%	8	40	0%	
75	M		47.3	47.3		100	0	0	0	0	0	47%	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
1073223	CCV VOA1 121012	EPA_TO15	CCV	\\1\DATA\121012\	12/10/2012 10:3	1	R54460		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	10.98	10.98		9.6	0	0	0.107	1	50	114%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.89	10.89		10	0	0	0.211	1	50	109%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.09	11.09		9.8	0	0	0.108	1	50	113%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.59	10.59		9.8	0	0	0.2	1	50	108%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.45	11.45		9.7	0	0	0.111	1	50	118%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.35	11.35		9.9	0	0	0.097	1	50	115%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.86	9.86		9.1	0	0	0.271	1	50	108%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	11.03	11.03		9.8	0	0	0.245	1	50	113%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.6	10.6		9.6	0	0	0.186	1	50	110%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	11.02	11.02		9.7	0	0	0.208	1	50	114%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.35	11.35		9.7	0	0	0.196	1	50	117%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.15	11.15		9.8	0	0	0.224	1	50	114%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.85	10.85		9.7	0	0	0.24	1	50	112%	70	130	0%	
1,3-Butadiene	A	ppbv	9.93	9.93		9.8	0	0	0.152	1	50	101%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	11	11		9.7	0	0	0.202	1	50	113%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1073223	CCV VOA1 121012	EPA_TO15	CCV	\\1\DATA\121012\	12/10/2012 10:3	1	R54460		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	11.03	11.03		9.6	0	0	0.194	1	50	115%	70	130	0%	
1,4-Dioxane	A	ppbv	10.53	10.53		9.6	0	0	0.128	1	50	110%	70	130	0%	
2-Butanone	A	ppbv	11.64	11.64		9.9	0	0	0.287	1	50	118%	70	130	0%	
2-Hexanone	A	ppbv	10.65	10.65		9.8	0	0	0.135	1	50	109%	70	130	0%	
2-Propanol	A	ppbv	11.06	11.06		10.1	0	0	0.329	1	50	110%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.05	11.05		10	0	0	0.157	1	50	111%	70	130	0%	
Acetone	A	ppbv	11.08	11.08		10	0	0	0.43	1	50	111%	70	130	0%	
Benzene	A	ppbv	11.24	11.24		9.6	0	0	0.126	1	50	117%	70	130	0%	
Benzyl chloride	A	ppbv	11.54	11.54		9.7	0	0	0.155	1	50	119%	70	130	0%	
Bromodichloromethane	A	ppbv	10.65	10.65		9.6	0	0	0.156	1	50	111%	70	130	0%	
Bromoform	A	ppbv	10.89	10.89		9.6	0	0	0.197	1	50	113%	70	130	0%	
Bromomethane	A	ppbv	9.96	9.96		9.3	0	0	0.075	1	50	107%	70	130	0%	
Carbon disulfide	A	ppbv	10.68	10.68		9.7	0	0	0.093	1	50	110%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.94	10.94		9.5	0	0	0.114	1	50	115%	70	130	0%	
Chlorobenzene	A	ppbv	11.01	11.01		9.9	0	0	0.275	1	50	111%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.65	10.65		9.2	0	0	0.165	1	50	116%	70	130	0%	
Chloroethane	A	ppbv	10.12	10.12		9.8	0	0	0.063	1	50	103%	70	130	0%	
Chloroform	A	ppbv	11.24	11.24		9.4	0	0	0.126	1	50	120%	70	130	0%	
Chloromethane	A	ppbv	10.06	10.06		9.8	0	0	0.104	1	50	103%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.19	11.19		9.8	0	0	0.107	1	50	114%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.86	10.86		9.5	0	0	0.166	1	50	114%	70	130	0%	
Cyclohexane	A	ppbv	11.34	11.34		9.8	0	0	0.684	2	50	116%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.71	9.71		9.2	0	0	0.086	1	50	106%	70	130	0%	
Ethanol	A	ppbv	9.73	9.73		9.2	0	0	1.962	5	50	106%	70	130	0%	
Ethyl acetate	A	ppbv	11.1	11.1		9.8	0	0	0.157	1	50	113%	70	130	0%	
Ethylbenzene	A	ppbv	10.98	10.98		9.8	0	0	0.737	2	50	112%	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	10.2	10.2		9.4	0	0	0.374	2	50	109%	70	130	0%	
m,p-Xylene	A	ppbv	21.29	21.29		19.2	0	0	0.524	2	100	111%	70	130	0%	
Methylene chloride	A	ppbv	10.76	10.76		10	0	0	2.077	5	50	108%	70	130	0%	
n-Hexane	A	ppbv	11.48	11.48		10.1	0	0	0.692	2	50	114%	70	130	0%	
Naphthalene	A	ppbv	9.3	9.3		9.2	0	0	0.247	1	50	101%	70	130	0%	
o-Xylene	A	ppbv	11.14	11.14		10	0	0	0.258	1	50	111%	70	130	0%	
Propylene	A	ppbv	9.47	9.47		10.2	0	0	0.075	1	50	93%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1073223	CCV VOA1 121012	EPA_TO15	CCV	[\1\DATA\121012]12/10/2012 10:3		1	R54460		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.08	11.08		9.8	0	0	0.263	1	50	113%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	12.08	12.08		9.9	0	0	0.228	1	50	122%	70	130	0%	
Tetrachloroethene	A	ppbv	10.64	10.64		9.6	0	0	0.148	1	50	111%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.33	11.33		10	0	0	0.201	1	50	113%	70	130	0%	
Toluene	A	ppbv	10.83	10.83		9.8	0	0	0.158	1	50	111%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.35	11.35		9.8	0	0	0.117	1	50	116%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.28	10.28		9.1	0	0	0.171	1	50	113%	70	130	0%	
Trichloroethene	A	ppbv	10.28	10.28		9.6	0	0	0.119	1	50	107%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.5	10.5		9.6	0	0	0.148	1	50	109%	70	130	0%	
Vinyl acetate	A	ppbv	12.2	12.2		9.9	0	0	0.266	1	50	123%	70	130	0%	
Vinyl chloride	A	ppbv	10.03	10.03		9.4	0	0	0.072	1	50	107%	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	12.96	12.96		12.5	0	0	0	0	0	104%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1073224	RLVS VOA1 121012	EPA_TO15	RLVS	[\1\DATA\121012]12/10/2012 11:1		1	R54460		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	0.96	0.96		1	0	0	0.211	1	50	96%	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	0.9	0.9		0.98	0	0	0.2	1	50	92%	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	0.85	0.85		0.91	0	0	0.271	1	50	93%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.92	0.92		0.98	0	0	0.245	1	50	94%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.83	0.83		0.96	0	0	0.186	1	50	86%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.91	0.91		0.97	0	0	0.208	1	50	94%	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	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\121012\12101202.D Vial: 2
Acq On : 10 Dec 2012 10:33 am Operator: RACHEL HILL
Sample : CCV VOA1 121012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	122	0.00
2	T	Propylene	1.422	1.320	7.2	98	0.00
3	T	Dichlorodifluoromethane	4.303	4.544	-5.6	111	0.01
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.793	3.048	-9.1	116	0.01
5	T	Chloromethane	1.728	1.830	-5.9	110	0.00
6	T	Vinyl chloride	2.126	2.268	-6.7	114	0.01
7	T	1,3-Butadiene	1.234	1.250	-1.3	104	0.01
8	T	Bromomethane	1.588	1.701	-7.1	114	0.01
9	T	Chloroethane	0.988	1.087	-10.0	117	0.00
10	T	Trichlorofluoromethane	4.039	4.418	-9.4	117	0.01
11	T	Ethanol	0.500	0.529	-5.8	118	0.00
12	T	Freon113	2.723	3.082	-13.2	119	0.00
13	T	1,1-Dichloroethene	2.517	2.886	-14.7	119	0.00
14	T	Acetone	2.403	2.661	-10.7	115	0.01
15	T	Carbon disulfide	3.567	3.927	-10.1	117	0.00
16	T	2-Propanol	2.345	2.569	-9.6	114	0.01
17	T	Methylene chloride	1.891	2.034	-7.6	113	0.01
18	T	tert-Butyl Methyl Ether	3.502	4.274	-22.0	126	0.00
19	T	trans-1,2-Dichloroethene	2.279	2.639	-15.8	122	0.00
20	T	n-Hexane	2.742	3.117	-13.7	120	0.00
21	T	1,1-Dichloroethane	2.869	3.388	-18.1	123	0.00
22	T	Vinyl acetate	3.601	4.436	-23.2	119	0.01
23	T	cis-1,2-Dichloroethene	1.449	1.654	-14.1	120	0.01
24	T	2-Butanone	2.457	2.888	-17.5	119	0.00
25	T	Ethyl acetate	3.135	3.550	-13.2	115	0.01
26	T	Tetrahydrofuran	1.562	1.769	-13.3	111	0.00
27	T	Chloroform	2.762	3.168	-14.7	118	0.00
28	T	1,1,1-Trichloroethane	2.932	3.353	-14.4	118	0.00
29	T	Cyclohexane	2.831	3.276	-15.7	116	0.00
30	T	Carbon tetrachloride	3.022	3.481	-15.2	117	0.00
31	T	Benzene	4.074	4.770	-17.1	121	0.00
32	T	1,2-Dichloroethane	2.025	2.369	-17.0	119	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	128	0.00
34	T	Heptane	0.771	0.836	-8.4	112	0.00
35	T	Trichloroethene	0.537	0.575	-7.1	118	0.00
36	T	1,2-Dichloropropane	0.507	0.576	-13.6	124	0.00
37	T	1,4-Dioxane	0.229	0.252	-10.0	123	0.00
38	T	Bromodichloromethane	0.826	0.916	-10.9	119	0.00
39	T	cis-1,3-Dichloropropene	0.681	0.778	-14.2	123	0.00
40	T	4-Methyl-2-pentanone	0.400	0.442	-10.5	120	0.00
41	T	Toluene	1.376	1.521	-10.5	119	0.00
42	T	trans-1,3-Dichloropropene	0.630	0.712	-13.0	120	0.00
43	T	1,1,2-Trichloroethane	0.480	0.518	-7.9	118	0.00
44	T	Tetrachloroethene	0.677	0.750	-10.8	122	0.00
45	T	2-Hexanone	0.738	0.802	-8.7	112	0.00
46	T	Chlorodibromomethane	0.803	0.873	-8.7	116	0.01
47	T	1,2-Dibromoethane	0.702	0.775	-10.4	117	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	124	0.00
49	T	Chlorobenzene	1.205	1.341	-11.3	118	0.00
50	T	Ethylbenzene	2.002	2.243	-12.0	117	0.00
51	T	m,p-Xylene	1.538	1.706	-10.9	111	0.00
52	T	o-Xylene	1.584	1.765	-11.4	116	0.00
53	T	Styrene	1.155	1.306	-13.1	115	0.00
54	T	Bromoform	0.845	0.958	-13.4	119	0.00
55	S	4-Bromofluorobenzene	0.608	0.631	-3.8	129	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\121012\12101202.D Vial: 2
Acq On : 10 Dec 2012 10:33 am Operator: RACHEL HILL
Sample : CCV VOA1 121012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.042	1.134	-8.8	115	0.00
57	T	4-Ethyltoluene	1.949	2.170	-11.3	116	0.00
58	T	1,3,5-Trimethylbenzene	1.664	1.860	-11.8	116	0.00
59	T	1,2,4-Trimethylbenzene	1.549	1.745	-12.7	118	0.00
60	T	1,3-Dichlorobenzene	0.858	0.973	-13.4	121	0.00
61	T	1,4-Dichlorobenzene	0.807	0.927	-14.9	123	0.00
62	T	Benzyl chloride	1.005	1.195	-18.9	120	0.00
63	T	1,2-Dichlorobenzene	0.727	0.826	-13.6	122	0.00
64	T	1,2,4-Trichlorobenzene	0.228	0.247	-8.3	127	0.00
65	T	Hexachlorobutadiene	0.412	0.447	-8.5	131	0.00
66		Naphthalene	0.427	0.432	-1.2	117	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121012\12101202.D Vial: 2
Acq On : 10 Dec 2012 10:33 am Operator: RACHEL HILL
Sample : CCV VOA1 121012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 10 10:58 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.52	130	226925	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	845189	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.47	117	697502	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	439860	12.96	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 103.68%

Target Compounds						Qvalue
2) Propylene	5.44	41	244491	9.47	ppbv	99
3) Dichlorodifluoromethane	5.52	85	758949	9.71	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	525691	10.37	ppbv #	71
5) Chloromethane	5.93	50	315537	10.06	ppbv	99
6) Vinyl chloride	6.15	62	387102	10.03	ppbv	95
7) 1,3-Butadiene	6.21	39	222363	9.93	ppbv #	63
8) Bromomethane	6.78	94	287208	9.96	ppbv	98
9) Chloroethane	6.93	64	181586	10.12	ppbv	98
10) Trichlorofluoromethane	7.26	101	769889	10.50	ppbv	98
11) Ethanol	7.50	45	88403	9.73	ppbv	99
12) Freon113	7.92	101	548279	11.09	ppbv	89
13) 1,1-Dichloroethene	8.02	61	518683	11.35	ppbv #	84
14) Acetone	8.12	43	483124	11.08	ppbv #	91
15) Carbon disulfide	8.39	76	691570	10.68	ppbv #	99
16) 2-Propanol	8.17	45	470960	11.06	ppbv #	1
17) Methylene chloride	8.69	49	369260	10.76	ppbv #	82
18) tert-Butyl Methyl Ether	8.88	73	768204	12.08	ppbv #	94
19) trans-1,2-Dichloroethene	8.97	61	469467	11.35	ppbv #	80
20) n-Hexane	9.15	57	571561	11.48	ppbv #	85
21) 1,1-Dichloroethane	9.53	63	596604	11.45	ppbv #	95
22) Vinyl acetate	9.46	43	797268	12.20	ppbv	98
23) cis-1,2-Dichloroethene	10.21	96	294273	11.19	ppbv #	78
24) 2-Butanone	10.18	43	519051	11.64	ppbv	95
25) Ethyl acetate	10.13	43	631511	11.10	ppbv #	99
26) Tetrahydrofuran	10.52	42	321123	11.33	ppbv	97
27) Chloroform	10.54	83	563575	11.24	ppbv	100
28) 1,1,1-Trichloroethane	10.78	97	584425	10.98	ppbv #	93
29) Cyclohexane	10.79	56	582868	11.34	ppbv #	77
30) Carbon tetrachloride	10.94	117	600405	10.94	ppbv	98
31) Benzene	11.23	78	831242	11.24	ppbv	94
32) 1,2-Dichloroethane	11.31	62	417098	11.35	ppbv #	96
34) Heptane	11.28	43	559710	10.74	ppbv #	90
35) Trichloroethene	11.96	130	373057	10.28	ppbv	95
36) 1,2-Dichloropropane	12.32	63	381974	11.15	ppbv	95
37) 1,4-Dioxane	12.39	88	163291	10.53	ppbv #	81
38) Bromodichloromethane	12.60	83	594741	10.65	ppbv	100
39) cis-1,3-Dichloropropene	13.15	75	499916	10.86	ppbv	97
40) 4-Methyl-2-pentanone	13.27	58	299136	11.05	ppbv #	91
41) Toluene	13.55	91	1007956	10.83	ppbv	99
42) trans-1,3-Dichloropropene	13.86	75	437835	10.28	ppbv	97
43) 1,1,2-Trichloroethane	14.14	97	343567	10.59	ppbv	97
44) Tetrachloroethene	14.26	166	486922	10.64	ppbv	98
45) 2-Hexanone	14.34	43	531307	10.65	ppbv	85
46) Chlorodibromomethane	14.68	129	578637	10.65	ppbv	99
47) 1,2-Dibromoethane	14.91	107	503064	10.60	ppbv	100
49) Chlorobenzene	15.51	112	740646	11.01	ppbv #	94
50) Ethylbenzene	15.55	91	1226710	10.98	ppbv	95
51) m,p-Xylene	15.70	91	1828010	21.29	ppbv	94
52) o-Xylene	16.30	91	984618	11.14	ppbv #	92

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121012\12101202.D Vial: 2
Acq On : 10 Dec 2012 10:33 am Operator: RACHEL HILL
Sample : CCV VOA1 121012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 10 10:58 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

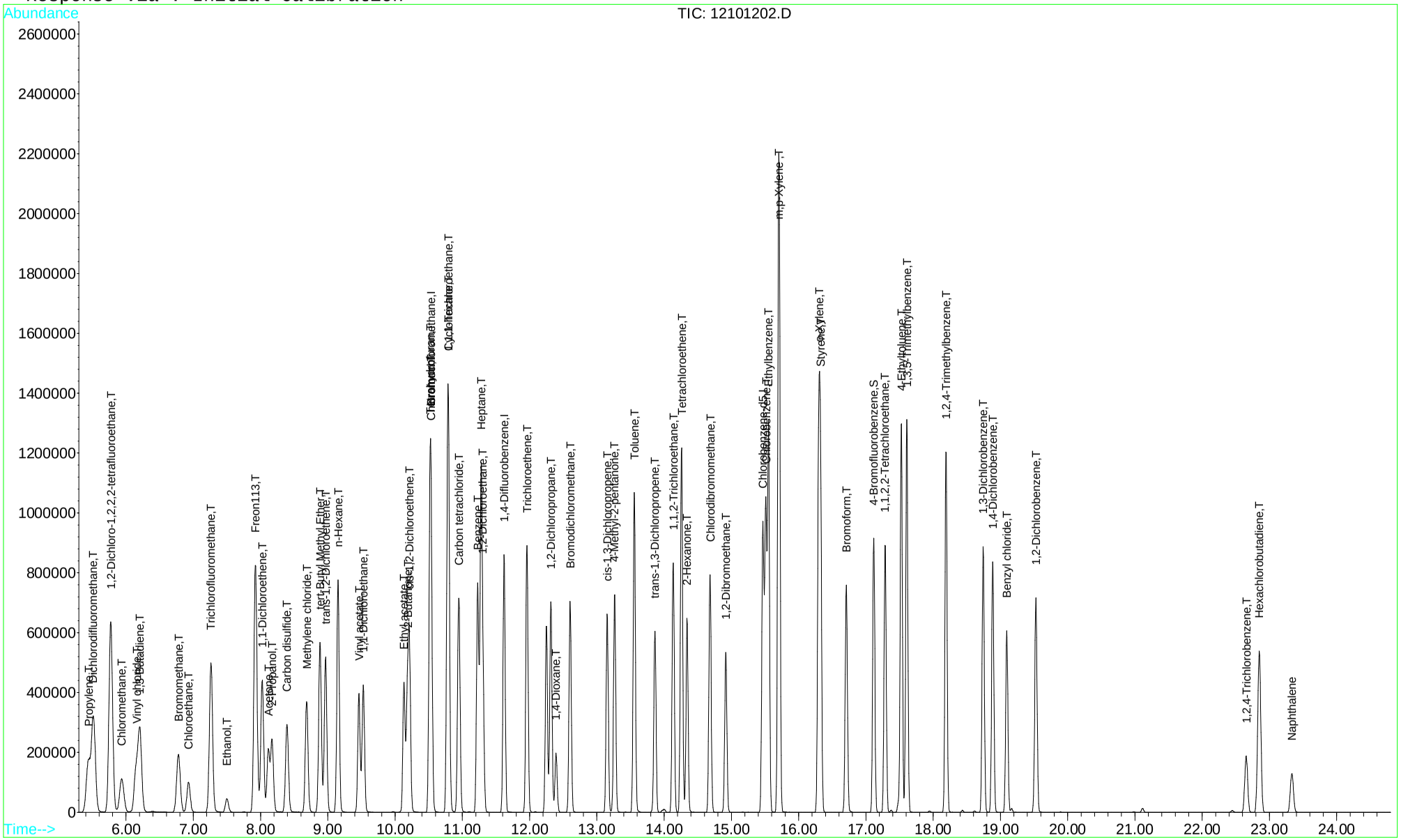
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.33	104	714058	11.08	ppbv	97
54)	Bromoform	16.71	173	513084	10.89	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.28	83	632812	10.89	ppbv	100
57)	4-Ethyltoluene	17.53	105	1186421	10.91	ppbv	97
58)	1,3,5-Trimethylbenzene	17.61	105	1006979	10.85	ppbv	97
59)	1,2,4-Trimethylbenzene	18.19	105	954051	11.03	ppbv	98
60)	1,3-Dichlorobenzene	18.74	146	526429	11.00	ppbv	97
61)	1,4-Dichlorobenzene	18.89	146	496512	11.03	ppbv	96
62)	Benzyl chloride	19.09	91	647023	11.54	ppbv	98
63)	1,2-Dichlorobenzene	19.53	146	446935	11.02	ppbv	97
64)	1,2,4-Trichlorobenzene	22.66	180	125250	9.86	ppbv	98
65)	Hexachlorobutadiene	22.85	225	234597	10.20	ppbv	99
66)	Naphthalene	23.33	128	221697	9.30	ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121012\12101202.D Vial: 2
Acq On : 10 Dec 2012 10:33 am Operator: RACHEL HILL
Sample : CCV VOA1 121012 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 10 10:58 2012 Quant Results File: 112812V1.RES

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121112

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12111201.d	1.	BFB VOA1 121112	TUNE BFB_TUNE	11 Dec 2012 09:05
2	2	12111202.d	1.	CCV VOA1 121112	ICV EPA_TO15	11 Dec 2012 10:06
3	3	12111203.d	1.	RLVS VOA1 121112	RLVS EPA_TO15	11 Dec 2012 10:51
4	6	12111204.d	1.	DBV13 CC VOA1 121112	DATA NOT USED	11 Dec 2012 11:40
5	7	12111205.d	1.	MBLK VOA1 121112	MBLK EPA_TO15	11 Dec 2012 12:29
6	8	12111206.d	80000.	1212185-007A	SAMP EPA_TO15	11 Dec 2012 13:11
7	9	12111207.d	400.	1212185-018A	SAMP EPA_TO15	11 Dec 2012 14:00
8	10	12111208.d	400.	1212185-038A	SAMP EPA_TO15	11 Dec 2012 14:49
9	4	12111209.d	800.	1212185-039A	DATA NOT USED	11 Dec 2012 15:35
10	6	12111210.d	800.	1212185-023A	SAMP EPA_TO15	11 Dec 2012 16:20
11	7	12111211.d	800.	1212185-024A	SAMP EPA_TO15	11 Dec 2012 17:05
12	7	12111212.d	800.	1212185-024ADUP	DUP EPA_TO15	11 Dec 2012 17:50
13	8	12111213.d	400.	1212185-040A	DATA NOT USED	11 Dec 2012 18:38
14	9	12111214.d	40.	1212185-041A	SAMP EPA_TO15	11 Dec 2012 19:20
15	10	12111215.d	400.	1212185-025A	SAMP EPA_TO15	11 Dec 2012 20:08
16	11	12111216.d	20000.	1212185-027A	DATA NOT USED	11 Dec 2012 20:50
17	12	12111217.d	800.	1212185-044A	DATA NOT USED	11 Dec 2012 21:35
18	12	12111218.d	800.	1212185-044A	DATA NOT USED	11 Dec 2012 22:19
19	13	12111219.d	400.	1212185-045A	DATA NOT USED	11 Dec 2012 23:08
20	14	12111220.d	800.	1212185-059A	SAMP EPA_TO15	11 Dec 2012 23:53
21	15	12111221.d	400.	1212185-060A	SAMP EPA_TO15	12 Dec 2012 00:41
22	16	12111222.d	800.	1212185-046A	DATA NOT USED	12 Dec 2012 01:26
23	1	12111223.d	800.	1212185-047A	DATA NOT USED	12 Dec 2012 02:11
24	2	12111224.d	400.	1212185-061A	SAMP EPA_TO15	12 Dec 2012 02:59
25	3	12111225.d	400.	1212185-048A	DATA NOT USED	12 Dec 2012 03:48
26	4	12111226.d	40.	1212185-062A	SAMP EPA_TO15	12 Dec 2012 04:29
27	6	12111227.d	40.	1212185-063A	SAMP EPA_TO15	12 Dec 2012 05:11
28	3	12111228.d	1.	RLVS2 VOA1 121112	RLVS EPA_TO15	12 Dec 2012 05:54

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54518

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1074249	BFB VOA1 121112	BFB_TUNE	TUNE	\\1\DATA\121112\	12/11/2012 9:05:	1	R54518		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	80		100	0	0	0	0	0	80%	50	200	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.9	96.9		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.4	6.4		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		47.5	47.5		100	0	0	0	0	0	48%	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
1074251	CCV VOA1 121112	EPA_TO15	CCV	\\1\DATA\121112\	12/11/2012 10:0	1	R54518		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	10.8	10.8		9.6	0	0	0.107	1	50	113%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.8	10.8		10	0	0	0.211	1	50	108%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.93	10.93		9.8	0	0	0.108	1	50	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.55	10.55		9.8	0	0	0.2	1	50	108%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.16	11.16		9.7	0	0	0.111	1	50	115%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.95	10.95		9.9	0	0	0.097	1	50	111%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	10.19	10.19		9.1	0	0	0.271	1	50	112%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.85	10.85		9.8	0	0	0.245	1	50	111%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.67	10.67		9.6	0	0	0.186	1	50	111%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.93	10.93		9.7	0	0	0.208	1	50	113%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.02	11.02		9.7	0	0	0.196	1	50	114%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.96	10.96		9.8	0	0	0.224	1	50	112%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.75	10.75		9.7	0	0	0.24	1	50	111%	70	130	0%	
1,3-Butadiene	A	ppbv	9.85	9.85		9.8	0	0	0.152	1	50	101%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.96	10.96		9.7	0	0	0.202	1	50	113%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1074251	CCV VOA1 121112	EPA_TO15	CCV	\1\DATA\121112\	12/11/2012 10:0	1	R54518		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.89	10.89		9.6	0	0	0.194	1	50	113%	70	130	0%	
1,4-Dioxane	A	ppbv	10.43	10.43		9.6	0	0	0.128	1	50	109%	70	130	0%	
2-Butanone	A	ppbv	10.78	10.78		9.9	0	0	0.287	1	50	109%	70	130	0%	
2-Hexanone	A	ppbv	10.53	10.53		9.8	0	0	0.135	1	50	107%	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	10.86	10.86		10	0	0	0.157	1	50	109%	70	130	0%	
Acetone	A	ppbv	10.66	10.66		10	0	0	0.43	1	50	107%	70	130	0%	
Benzene	A	ppbv	10.88	10.88		9.6	0	0	0.126	1	50	113%	70	130	0%	
Benzyl chloride	A	ppbv	11.35	11.35		9.7	0	0	0.155	1	50	117%	70	130	0%	
Bromodichloromethane	A	ppbv	10.55	10.55		9.6	0	0	0.156	1	50	110%	70	130	0%	
Bromoform	A	ppbv	10.69	10.69		9.6	0	0	0.197	1	50	111%	70	130	0%	
Bromomethane	A	ppbv	9.63	9.63		9.3	0	0	0.075	1	50	104%	70	130	0%	
Carbon disulfide	A	ppbv	10.34	10.34		9.7	0	0	0.093	1	50	107%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.74	10.74		9.5	0	0	0.114	1	50	113%	70	130	0%	
Chlorobenzene	A	ppbv	10.88	10.88		9.9	0	0	0.275	1	50	110%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.81	10.81		9.2	0	0	0.165	1	50	118%	70	130	0%	
Chloroethane	A	ppbv	9.89	9.89		9.8	0	0	0.063	1	50	101%	70	130	0%	
Chloroform	A	ppbv	11.06	11.06		9.4	0	0	0.126	1	50	118%	70	130	0%	
Chloromethane	A	ppbv	9.69	9.69		9.8	0	0	0.104	1	50	99%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.9	10.9		9.8	0	0	0.107	1	50	111%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.66	10.66		9.5	0	0	0.166	1	50	112%	70	130	0%	
Cyclohexane	A	ppbv	11.21	11.21		9.8	0	0	0.684	2	50	114%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.55	9.55		9.2	0	0	0.086	1	50	104%	70	130	0%	
Ethanol	A	ppbv	9.28	9.28		9.2	0	0	1.962	5	50	101%	70	130	0%	
Ethyl acetate	A	ppbv	10.9	10.9		9.8	0	0	0.157	1	50	111%	70	130	0%	
Ethylbenzene	A	ppbv	10.75	10.75		9.8	0	0	0.737	2	50	110%	70	130	0%	
Heptane	A	ppbv	10.71	10.71		9.9	0	0	0.249	1	50	108%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.69	9.69		9.4	0	0	0.374	2	50	103%	70	130	0%	
m,p-Xylene	A	ppbv	21.32	21.32		19.2	0	0	0.524	2	100	111%	70	130	0%	
Methylene chloride	A	ppbv	10.48	10.48		10	0	0	2.077	5	50	105%	70	130	0%	
n-Hexane	A	ppbv	11.29	11.29		10.1	0	0	0.692	2	50	112%	70	130	0%	
Naphthalene	A	ppbv	9.43	9.43		9.2	0	0	0.247	1	50	103%	70	130	0%	
o-Xylene	A	ppbv	11	11		10	0	0	0.258	1	50	110%	70	130	0%	
Propylene	A	ppbv	9.16	9.16		10.2	0	0	0.075	1	50	90%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1074251	CCV VOA1 121112	EPA_TO15	CCV	[\1\DATA\121112]12/11/2012 10:0		1	R54518		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.97	10.97		9.8	0	0	0.263	1	50	112%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.59	11.59		9.9	0	0	0.228	1	50	117%	70	130	0%	
Tetrachloroethene	A	ppbv	10.71	10.71		9.6	0	0	0.148	1	50	112%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.97	10.97		10	0	0	0.201	1	50	110%	70	130	0%	
Toluene	A	ppbv	10.9	10.9		9.8	0	0	0.158	1	50	111%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.06	11.06		9.8	0	0	0.117	1	50	113%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.36	10.36		9.1	0	0	0.171	1	50	114%	70	130	0%	
Trichloroethene	A	ppbv	10.35	10.35		9.6	0	0	0.119	1	50	108%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.32	10.32		9.6	0	0	0.148	1	50	108%	70	130	0%	
Vinyl acetate	A	ppbv	11.73	11.73		9.9	0	0	0.266	1	50	118%	70	130	0%	
Vinyl chloride	A	ppbv	9.85	9.85		9.4	0	0	0.072	1	50	105%	70	130	0%	
Xylenes, Total	C	ppbv	32.32	32.32		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	12.76	12.76		12.5	0	0	0	0	0	102%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1074252	RLVS VOA1 121112	EPA_TO15	RLVS	[\1\DATA\121112]12/11/2012 10:5		1	R54518		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	0.85	0.85		0.996	0	0	0.107	1	50	85%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	0.88	0.88		1	0	0	0.211	1	50	88%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.88	0.88		0.98	0	0	0.108	1	50	90%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.84	0.84		0.98	0	0	0.2	1	50	86%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.89	0.89		0.97	0	0	0.111	1	50	92%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.87	0.87		0.99	0	0	0.097	1	50	88%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.83	0.83		0.91	0	0	0.271	1	50	91%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.86	0.86		0.98	0	0	0.245	1	50	88%	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	0.88	0.88		0.97	0	0	0.208	1	50	91%	70	130	0%	
1,2-Dichloroethane	A	ppbv	0.91	0.91		0.97	0	0	0.196	1	50	94%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.86	0.86		0.98	0	0	0.224	1	50	88%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121112\12111202.D Vial: 2
Acq On : 11 Dec 2012 10:06 am Operator: RACHEL HILL
Sample : CCV VOA1 121112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	108	0.00
2	T	Propylene	1.422	1.277	10.2	84	0.00
3	T	Dichlorodifluoromethane	4.303	4.467	-3.8	96	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.793	3.003	-7.5	101	0.00
5	T	Chloromethane	1.728	1.762	-2.0	94	0.00
6	T	Vinyl chloride	2.126	2.227	-4.8	99	0.00
7	T	1,3-Butadiene	1.234	1.240	-0.5	91	0.00
8	T	Bromomethane	1.588	1.645	-3.6	97	0.00
9	T	Chloroethane	0.988	1.063	-7.6	101	0.00
10	T	Trichlorofluoromethane	4.039	4.342	-7.5	102	0.00
11	T	Ethanol	0.500	0.504	-0.8	99	0.00
12	T	Freon113	2.723	3.038	-11.6	104	0.00
13	T	1,1-Dichloroethene	2.517	2.785	-10.6	101	0.00
14	T	Acetone	2.403	2.561	-6.6	98	0.00
15	T	Carbon disulfide	3.567	3.802	-6.6	100	0.00
16	T	2-Propanol	2.345	2.477	-5.6	97	0.00
17	T	Methylene chloride	1.891	1.981	-4.8	97	0.00
18	T	tert-Butyl Methyl Ether	3.502	4.100	-17.1	107	0.00
19	T	trans-1,2-Dichloroethene	2.279	2.571	-12.8	105	0.00
20	T	n-Hexane	2.742	3.066	-11.8	105	0.00
21	T	1,1-Dichloroethane	2.869	3.302	-15.1	106	0.00
22	T	Vinyl acetate	3.601	4.265	-18.4	101	0.00
23	T	cis-1,2-Dichloroethene	1.449	1.612	-11.2	103	0.00
24	T	2-Butanone	2.457	2.676	-8.9	98	0.00
25	T	Ethyl acetate	3.135	3.487	-11.2	100	0.00
26	T	Tetrahydrofuran	1.562	1.713	-9.7	95	0.00
27	T	Chloroform	2.762	3.118	-12.9	103	0.00
28	T	1,1,1-Trichloroethane	2.932	3.299	-12.5	103	0.00
29	T	Cyclohexane	2.831	3.238	-14.4	101	0.00
30	T	Carbon tetrachloride	3.022	3.415	-13.0	102	0.00
31	T	Benzene	4.074	4.616	-13.3	103	0.00
32	T	1,2-Dichloroethane	2.025	2.301	-13.6	102	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	111	0.00
34	T	Heptane	0.771	0.834	-8.2	97	0.00
35	T	Trichloroethene	0.537	0.579	-7.8	103	0.00
36	T	1,2-Dichloropropane	0.507	0.567	-11.8	106	0.00
37	T	1,4-Dioxane	0.229	0.249	-8.7	106	0.00
38	T	Bromodichloromethane	0.826	0.908	-9.9	103	0.00
39	T	cis-1,3-Dichloropropene	0.681	0.764	-12.2	105	0.00
40	T	4-Methyl-2-pentanone	0.400	0.435	-8.7	102	0.00
41	T	Toluene	1.376	1.531	-11.3	104	0.00
42	T	trans-1,3-Dichloropropene	0.630	0.717	-13.8	105	0.00
43	T	1,1,2-Trichloroethane	0.480	0.516	-7.5	102	0.00
44	T	Tetrachloroethene	0.677	0.755	-11.5	107	0.00
45	T	2-Hexanone	0.738	0.793	-7.5	96	0.00
46	T	Chlorodibromomethane	0.803	0.886	-10.3	102	0.00
47	T	1,2-Dibromoethane	0.702	0.780	-11.1	102	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	112	0.00
49	T	Chlorobenzene	1.205	1.324	-9.9	104	0.00
50	T	Ethylbenzene	2.002	2.196	-9.7	103	0.00
51	T	m,p-Xylene	1.538	1.708	-11.1	99	0.00
52	T	o-Xylene	1.584	1.742	-10.0	102	0.00
53	T	Styrene	1.155	1.294	-12.0	102	0.00
54	T	Bromoform	0.845	0.941	-11.4	105	0.00
55	S	4-Bromofluorobenzene	0.608	0.621	-2.1	114	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\121112\12111202.D Vial: 2
Acq On : 11 Dec 2012 10:06 am Operator: RACHEL HILL
Sample : CCV VOA1 121112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.042	1.125	-8.0	103	0.00
57	T	4-Ethyltoluene	1.949	2.157	-10.7	104	0.00
58	T	1,3,5-Trimethylbenzene	1.664	1.844	-10.8	103	0.00
59	T	1,2,4-Trimethylbenzene	1.549	1.715	-10.7	104	0.00
60	T	1,3-Dichlorobenzene	0.858	0.969	-12.9	108	0.00
61	T	1,4-Dichlorobenzene	0.807	0.915	-13.4	108	0.00
62	T	Benzyl chloride	1.005	1.176	-17.0	106	0.00
63	T	1,2-Dichlorobenzene	0.727	0.819	-12.7	108	0.00
64	T	1,2,4-Trichlorobenzene	0.228	0.255	-11.8	118	0.00
65	T	Hexachlorobutadiene	0.412	0.425	-3.2	112	0.00
66		Naphthalene	0.427	0.438	-2.6	106	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121112\12111202.D Vial: 2
Acq On : 11 Dec 2012 10:06 am Operator: RACHEL HILL
Sample : CCV VOA1 121112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 11 10:31 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.52	130	200513	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.62	114	732828	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.47	117	625314	12.50	ppbv		0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	388485	12.76	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 102.08%				

Target Compounds							Qvalue
2) Propylene	5.43	41	209012	9.16	ppbv		98
3) Dichlorodifluoromethane	5.51	85	659285	9.55	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	457597	10.21	ppbv	#	70
5) Chloromethane	5.93	50	268530	9.69	ppbv		99
6) Vinyl chloride	6.14	62	335852	9.85	ppbv		96
7) 1,3-Butadiene	6.20	39	194886	9.85	ppbv	#	63
8) Bromomethane	6.77	94	245379	9.63	ppbv		99
9) Chloroethane	6.92	64	156831	9.89	ppbv		98
10) Trichlorofluoromethane	7.26	101	668594	10.32	ppbv		98
11) Ethanol	7.50	45	74441	9.28	ppbv		99
12) Freon113	7.92	101	477572	10.93	ppbv		88
13) 1,1-Dichloroethene	8.02	61	442216	10.95	ppbv	#	85
14) Acetone	8.11	43	410853	10.66	ppbv	#	91
15) Carbon disulfide	8.39	76	591635	10.34	ppbv	#	99
16) 2-Propanol	8.17	45	401390	10.67	ppbv	#	1
17) Methylene chloride	8.68	49	317709	10.48	ppbv	#	82
18) tert-Butyl Methyl Ether	8.88	73	651138	11.59	ppbv	#	93
19) trans-1,2-Dichloroethene	8.96	61	404153	11.06	ppbv	#	80
20) n-Hexane	9.15	57	496697	11.29	ppbv	#	85
21) 1,1-Dichloroethane	9.52	63	513761	11.16	ppbv	#	95
22) Vinyl acetate	9.46	43	677249	11.73	ppbv		98
23) cis-1,2-Dichloroethene	10.21	96	253349	10.90	ppbv	#	78
24) 2-Butanone	10.17	43	424974	10.78	ppbv	#	96
25) Ethyl acetate	10.13	43	548118	10.90	ppbv	#	99
26) Tetrahydrofuran	10.51	42	274760	10.97	ppbv		98
27) Chloroform	10.54	83	490103	11.06	ppbv		100
28) 1,1,1-Trichloroethane	10.78	97	507987	10.80	ppbv	#	93
29) Cyclohexane	10.79	56	509067	11.21	ppbv	#	78
30) Carbon tetrachloride	10.94	117	520363	10.74	ppbv		99
31) Benzene	11.23	78	710764	10.88	ppbv		94
32) 1,2-Dichloroethane	11.30	62	357973	11.02	ppbv	#	96
34) Heptane	11.27	43	483983	10.71	ppbv	#	90
35) Trichloroethene	11.96	130	325860	10.35	ppbv		95
36) 1,2-Dichloropropane	12.31	63	325523	10.96	ppbv		94
37) 1,4-Dioxane	12.39	88	140353	10.43	ppbv	#	82
38) Bromodichloromethane	12.60	83	511109	10.55	ppbv		99
39) cis-1,3-Dichloropropene	13.15	75	425339	10.66	ppbv		98
40) 4-Methyl-2-pentanone	13.26	58	254833	10.86	ppbv	#	91
41) Toluene	13.55	91	879346	10.90	ppbv		98
42) trans-1,3-Dichloropropene	13.86	75	382580	10.36	ppbv		97
43) 1,1,2-Trichloroethane	14.13	97	296675	10.55	ppbv		98
44) Tetrachloroethene	14.26	166	424968	10.71	ppbv		98
45) 2-Hexanone	14.34	43	455673	10.53	ppbv		85
46) Chlorodibromomethane	14.68	129	509133	10.81	ppbv		99
47) 1,2-Dibromoethane	14.91	107	439242	10.67	ppbv		100
49) Chlorobenzene	15.51	112	655948	10.88	ppbv	#	94
50) Ethylbenzene	15.55	91	1076550	10.75	ppbv		95
51) m,p-Xylene	15.70	91	1640835	21.32	ppbv		94
52) o-Xylene	16.30	91	871611	11.00	ppbv	#	92

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121112\12111202.D Vial: 2
Acq On : 11 Dec 2012 10:06 am Operator: RACHEL HILL
Sample : CCV VOA1 121112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 11 10:31 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

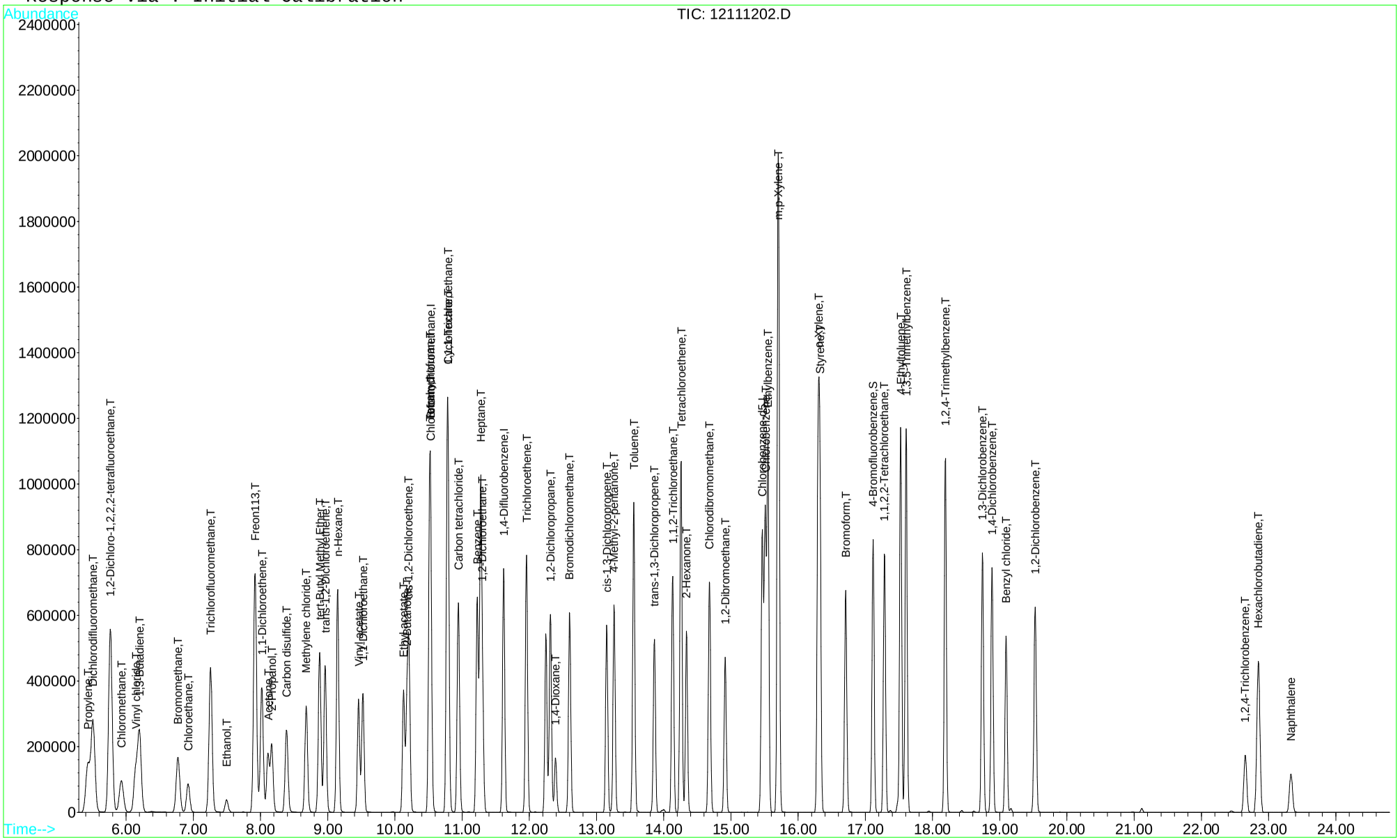
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.33	104	634241	10.97	ppbv	97
54)	Bromoform	16.71	173	451744	10.69	ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.28	83	562727	10.80	ppbv	99
57)	4-Ethyltoluene	17.52	105	1057440	10.84	ppbv	97
58)	1,3,5-Trimethylbenzene	17.61	105	894612	10.75	ppbv	97
59)	1,2,4-Trimethylbenzene	18.19	105	840783	10.85	ppbv	98
60)	1,3-Dichlorobenzene	18.74	146	470095	10.96	ppbv	97
61)	1,4-Dichlorobenzene	18.88	146	439302	10.89	ppbv	97
62)	Benzyl chloride	19.09	91	570421	11.35	ppbv	98
63)	1,2-Dichlorobenzene	19.53	146	397363	10.93	ppbv	97
64)	1,2,4-Trichlorobenzene	22.65	180	116085	10.19	ppbv	98
65)	Hexachlorobutadiene	22.85	225	199853	9.69	ppbv	99
66)	Naphthalene	23.33	128	201454	9.43	ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121112\12111202.D Vial: 2
Acq On : 11 Dec 2012 10:06 am Operator: RACHEL HILL
Sample : CCV VOA1 121112 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 11 10:31 2012 Quant Results File: 112812V1.RES

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121212

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12121201.d	1.	BFB VOA1 121212	TUNE BFB_TUNE	12 Dec 2012 10:16
2	2	12121202.d	1.	CCV VOA1 121212	CCV EPA_TO15	12 Dec 2012 10:58
3	3	12121203.d	1.	RLVS VOA1 121212	DATA NOT USED	12 Dec 2012 11:40
4	4	12121204.d	1.	RLVS VOA1 121212	RLVS EPA_TO15	12 Dec 2012 12:25
5	6	12121205.d	1.	DBV13 CC VOA1 121112	DATA NOT USED	12 Dec 2012 13:15
6	7	12121206.d	1.	MBLK/DBV17 CC VOA1 121112	MBLK EPA_TO15	12 Dec 2012 14:05
7	8	12121207.d	1.	BV0622 CC VOA1 121112	DATA NOT USED	12 Dec 2012 14:57
8	9	12121208.d	40.	1212185-039A	SAMP EPA_TO15	12 Dec 2012 15:56
9	10	12121209.d	40.	1212185-040A	SAMP EPA_TO15	12 Dec 2012 16:39
10	1	12121210.d	8000.	1212185-027A	SAMP EPA_TO15	12 Dec 2012 17:22
11	2	12121211.d	40.	1212185-044A	SAMP EPA_TO15	12 Dec 2012 18:04
12	2	12121212.d	40.	1212185-044ADUP	DUP EPA_TO15	12 Dec 2012 18:45
13	3	12121213.d	40.	1212185-045A	SAMP EPA_TO15	12 Dec 2012 19:27
14	4	12121214.d	40.	1212185-046A	SAMP EPA_TO15	12 Dec 2012 20:09
15	6	12121215.d	40.	1212185-047A	SAMP EPA_TO15	12 Dec 2012 20:50
16	7	12121216.d	40.	1212185-048A	SAMP EPA_TO15	12 Dec 2012 21:32
17	8	12121217.d	400.	1212185-063A	SAMP EPA_TO15	12 Dec 2012 22:20
18	9	12121218.d	800.	1212185-049A	SAMP EPA_TO15	12 Dec 2012 23:05
19	9	12121219.d	800.	1212185-049A	DATA NOT USED	12 Dec 2012 23:50
20	10	12121220.d	400.	1212185-064A	SAMP EPA_TO15	13 Dec 2012 00:38
21	11	12121221.d	800.	1212185-050A	DATA NOT USED	13 Dec 2012 01:23
22	12	12121222.d	400.	1212185-051A	DATA NOT USED	13 Dec 2012 02:11
23	13	12121223.d	40000.	1212185-001A	SAMP EPA_TO15	13 Dec 2012 02:53
24	14	12121224.d	40.	1212185-052A	SAMP EPA_TO15	13 Dec 2012 03:35
25	15	12121225.d	8000.	1212185-002A	SAMP EPA_TO15	13 Dec 2012 04:17
26	16	12121226.d	40.	1212185-053A	SAMP EPA_TO15	13 Dec 2012 04:59
27	1	12121227.d	800.	1212185-003A	SAMP EPA_TO15	13 Dec 2012 05:43
28	4	12121228.d	1.	RLVS2 VOA1 121212	RLVS EPA_TO15	13 Dec 2012 08:08

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54567

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1075015	BFB VOA1 121212	BFB_TUNE	TUNE	\\1\DATA\121212\	12/12/2012 10:1	1	R54567		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		82.3	82.3		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		97.3	97.3		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		19	19		100	0	0	0	0	0	19%	8	40	0%	
75	M		47.2	47.2		100	0	0	0	0	0	47%	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
1075017	CCV VOA1 121212	EPA_TO15	CCV	\\1\DATA\121212\	12/12/2012 10:5	1	R54567		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	10.05	10.05		9.6	0	0	0.107	1	50	105%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.35	10.35		10	0	0	0.211	1	50	104%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.25	10.25		9.8	0	0	0.108	1	50	105%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.14	10.14		9.8	0	0	0.2	1	50	103%	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	10.38	10.38		9.9	0	0	0.097	1	50	105%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.37	9.37		9.1	0	0	0.271	1	50	103%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.34	10.34		9.8	0	0	0.245	1	50	106%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.26	10.26		9.6	0	0	0.186	1	50	107%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.37	10.37		9.7	0	0	0.208	1	50	107%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.24	10.24		9.7	0	0	0.196	1	50	106%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.52	10.52		9.8	0	0	0.224	1	50	107%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.16	10.16		9.7	0	0	0.24	1	50	105%	70	130	0%	
1,3-Butadiene	A	ppbv	8.87	8.87		9.8	0	0	0.152	1	50	91%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.3	10.3		9.7	0	0	0.202	1	50	106%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1075017	CCV VOA1 121212	EPA_TO15	CCV	\\1\DATA\121212\	12/12/2012 10:5	1	R54567		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.35	10.35		9.6	0	0	0.194	1	50	108%	70	130	0%	
1,4-Dioxane	A	ppbv	9.89	9.89		9.6	0	0	0.128	1	50	103%	70	130	0%	
2-Butanone	A	ppbv	10.43	10.43		9.9	0	0	0.287	1	50	105%	70	130	0%	
2-Hexanone	A	ppbv	9.78	9.78		9.8	0	0	0.135	1	50	100%	70	130	0%	
2-Propanol	A	ppbv	9.9	9.9		10.1	0	0	0.329	1	50	98%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.42	10.42		10	0	0	0.157	1	50	104%	70	130	0%	
Acetone	A	ppbv	9.79	9.79		10	0	0	0.43	1	50	98%	70	130	0%	
Benzene	A	ppbv	10.38	10.38		9.6	0	0	0.126	1	50	108%	70	130	0%	
Benzyl chloride	A	ppbv	10.59	10.59		9.7	0	0	0.155	1	50	109%	70	130	0%	
Bromodichloromethane	A	ppbv	10.04	10.04		9.6	0	0	0.156	1	50	105%	70	130	0%	
Bromoform	A	ppbv	10.06	10.06		9.6	0	0	0.197	1	50	105%	70	130	0%	
Bromomethane	A	ppbv	9.42	9.42		9.3	0	0	0.075	1	50	101%	70	130	0%	
Carbon disulfide	A	ppbv	9.97	9.97		9.7	0	0	0.093	1	50	103%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.99	9.99		9.5	0	0	0.114	1	50	105%	70	130	0%	
Chlorobenzene	A	ppbv	10.33	10.33		9.9	0	0	0.275	1	50	104%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.19	10.19		9.2	0	0	0.165	1	50	111%	70	130	0%	
Chloroethane	A	ppbv	9.53	9.53		9.8	0	0	0.063	1	50	97%	70	130	0%	
Chloroform	A	ppbv	10.37	10.37		9.4	0	0	0.126	1	50	110%	70	130	0%	
Chloromethane	A	ppbv	9.39	9.39		9.8	0	0	0.104	1	50	96%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.44	10.44		9.8	0	0	0.107	1	50	107%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.28	10.28		9.5	0	0	0.166	1	50	108%	70	130	0%	
Cyclohexane	A	ppbv	10.37	10.37		9.8	0	0	0.684	2	50	106%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	8.95	8.95		9.2	0	0	0.086	1	50	97%	70	130	0%	
Ethanol	A	ppbv	8.77	8.77		9.2	0	0	1.962	5	50	95%	70	130	0%	
Ethyl acetate	A	ppbv	10.41	10.41		9.8	0	0	0.157	1	50	106%	70	130	0%	
Ethylbenzene	A	ppbv	10.3	10.3		9.8	0	0	0.737	2	50	105%	70	130	0%	
Heptane	A	ppbv	10.01	10.01		9.9	0	0	0.249	1	50	101%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.03	9.03		9.4	0	0	0.374	2	50	96%	70	130	0%	
m,p-Xylene	A	ppbv	20.06	20.06		19.2	0	0	0.524	2	100	104%	70	130	0%	
Methylene chloride	A	ppbv	9.79	9.79		10	0	0	2.077	5	50	98%	70	130	0%	
n-Hexane	A	ppbv	10.59	10.59		10.1	0	0	0.692	2	50	105%	70	130	0%	
Naphthalene	A	ppbv	8.64	8.64		9.2	0	0	0.247	1	50	94%	70	130	0%	
o-Xylene	A	ppbv	10.41	10.41		10	0	0	0.258	1	50	104%	70	130	0%	
Propylene	A	ppbv	8.57	8.57		10.2	0	0	0.075	1	50	84%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1075017	CCV VOA1 121212	EPA_TO15	CCV	[\1\DATA\121212\	12/12/2012 10:5	1	R54567		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.3	10.3		9.8	0	0	0.263	1	50	105%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.89	10.89		9.9	0	0	0.228	1	50	110%	70	130	0%	
Tetrachloroethene	A	ppbv	10.21	10.21		9.6	0	0	0.148	1	50	106%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.03	10.03		10	0	0	0.201	1	50	100%	70	130	0%	
Toluene	A	ppbv	10.46	10.46		9.8	0	0	0.158	1	50	107%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.43	10.43		9.8	0	0	0.117	1	50	106%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.83	9.83		9.1	0	0	0.171	1	50	108%	70	130	0%	
Trichloroethene	A	ppbv	9.94	9.94		9.6	0	0	0.119	1	50	104%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.72	9.72		9.6	0	0	0.148	1	50	101%	70	130	0%	
Vinyl acetate	A	ppbv	10.76	10.76		9.9	0	0	0.266	1	50	109%	70	130	0%	
Vinyl chloride	A	ppbv	9.32	9.32		9.4	0	0	0.072	1	50	99%	70	130	0%	
Xylenes, Total	C	ppbv	30.47	30.47		29.2	0	0	0.782	3	150	104%	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	12.86	12.86		12.5	0	0	0	0	0	103%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1075018	RLVS VOA1 121212	EPA_TO15	RLVS	[\1\DATA\121212\	12/12/2012 12:2	1	R54567		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	0.84	0.84		0.996	0	0	0.107	1	50	84%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	0.83	0.83		1	0	0	0.211	1	50	83%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.89	0.89		0.98	0	0	0.108	1	50	91%	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	0.89	0.89		0.97	0	0	0.111	1	50	92%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.88	0.88		0.99	0	0	0.097	1	50	89%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.67	0.67		0.91	0	0	0.271	1	50	74%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.8	0.8		0.98	0	0	0.245	1	50	82%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.74	0.74		0.96	0	0	0.186	1	50	77%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.8	0.8		0.97	0	0	0.208	1	50	82%	70	130	0%	
1,2-Dichloroethane	A	ppbv	0.87	0.87		0.97	0	0	0.196	1	50	90%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.83	0.83		0.98	0	0	0.224	1	50	85%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121212\12121202.D Vial: 2
Acq On : 12 Dec 2012 10:58 am Operator: RACHEL HILL
Sample : CCV VOA1 121212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.422	1.195	16.0	84	0.00
3	T	Dichlorodifluoromethane	4.303	4.187	2.7	96	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.793	2.785	0.3	100	0.00
5	T	Chloromethane	1.728	1.707	1.2	97	0.00
6	T	Vinyl chloride	2.126	2.109	0.8	100	0.00
7	T	1,3-Butadiene	1.234	1.117	9.5	87	0.00
8	T	Bromomethane	1.588	1.609	-1.3	102	0.00
9	T	Chloroethane	0.988	1.024	-3.6	104	0.00
10	T	Trichlorofluoromethane	4.039	4.090	-1.3	102	0.00
11	T	Ethanol	0.500	0.477	4.6	100	0.00
12	T	Freon113	2.723	2.847	-4.6	104	0.00
13	T	1,1-Dichloroethene	2.517	2.639	-4.8	102	0.00
14	T	Acetone	2.403	2.352	2.1	96	0.00
15	T	Carbon disulfide	3.567	3.667	-2.8	103	0.00
16	T	2-Propanol	2.345	2.298	2.0	96	0.00
17	T	Methylene chloride	1.891	1.852	2.1	97	0.00
18	T	tert-Butyl Methyl Ether	3.502	3.852	-10.0	107	0.00
19	T	trans-1,2-Dichloroethene	2.279	2.425	-6.4	105	0.00
20	T	n-Hexane	2.742	2.875	-4.9	105	0.00
21	T	1,1-Dichloroethane	2.869	3.117	-8.6	106	0.00
22	T	Vinyl acetate	3.601	3.915	-8.7	99	0.00
23	T	cis-1,2-Dichloroethene	1.449	1.544	-6.6	105	0.00
24	T	2-Butanone	2.457	2.587	-5.3	101	0.00
25	T	Ethyl acetate	3.135	3.329	-6.2	102	0.00
26	T	Tetrahydrofuran	1.562	1.566	-0.3	93	0.00
27	T	Chloroform	2.762	2.922	-5.8	103	0.00
28	T	1,1,1-Trichloroethane	2.932	3.070	-4.7	102	0.00
29	T	Cyclohexane	2.831	2.996	-5.8	100	0.00
30	T	Carbon tetrachloride	3.022	3.179	-5.2	101	0.00
31	T	Benzene	4.074	4.407	-8.2	105	0.00
32	T	1,2-Dichloroethane	2.025	2.138	-5.6	101	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	117	0.00
34	T	Heptane	0.771	0.779	-1.0	95	0.00
35	T	Trichloroethene	0.537	0.556	-3.5	104	0.00
36	T	1,2-Dichloropropane	0.507	0.544	-7.3	106	0.00
37	T	1,4-Dioxane	0.229	0.236	-3.1	105	0.00
38	T	Bromodichloromethane	0.826	0.864	-4.6	102	0.00
39	T	cis-1,3-Dichloropropene	0.681	0.737	-8.2	106	0.00
40	T	4-Methyl-2-pentanone	0.400	0.417	-4.2	103	0.00
41	T	Toluene	1.376	1.469	-6.8	105	0.00
42	T	trans-1,3-Dichloropropene	0.630	0.680	-7.9	105	0.00
43	T	1,1,2-Trichloroethane	0.480	0.496	-3.3	103	0.00
44	T	Tetrachloroethene	0.677	0.720	-6.4	107	0.00
45	T	2-Hexanone	0.738	0.736	0.3	94	0.00
46	T	Chlorodibromomethane	0.803	0.835	-4.0	101	0.00
47	T	1,2-Dibromoethane	0.702	0.750	-6.8	103	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	117	0.00
49	T	Chlorobenzene	1.205	1.257	-4.3	104	0.00
50	T	Ethylbenzene	2.002	2.104	-5.1	103	0.00
51	T	m,p-Xylene	1.538	1.607	-4.5	98	0.00
52	T	o-Xylene	1.584	1.649	-4.1	101	0.00
53	T	Styrene	1.155	1.214	-5.1	101	0.00
54	T	Bromoform	0.845	0.885	-4.7	103	0.00
55	S	4-Bromofluorobenzene	0.608	0.626	-3.0	120	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121212\12121202.D Vial: 2
Acq On : 12 Dec 2012 10:58 am Operator: RACHEL HILL
Sample : CCV VOA1 121212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.042	1.078	-3.5	103	0.00
57	T	4-Ethyltoluene	1.949	2.057	-5.5	103	0.00
58	T	1,3,5-Trimethylbenzene	1.664	1.742	-4.7	102	0.00
59	T	1,2,4-Trimethylbenzene	1.549	1.635	-5.6	104	0.00
60	T	1,3-Dichlorobenzene	0.858	0.911	-6.2	106	0.00
61	T	1,4-Dichlorobenzene	0.807	0.870	-7.8	108	0.00
62	T	Benzyl chloride	1.005	1.097	-9.2	103	0.00
63	T	1,2-Dichlorobenzene	0.727	0.777	-6.9	108	0.00
64	T	1,2,4-Trichlorobenzene	0.228	0.235	-3.1	113	0.00
65	T	Hexachlorobutadiene	0.412	0.396	3.9	109	0.00
66		Naphthalene	0.427	0.401	6.1	102	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121212\12121202.D Vial: 2
Acq On : 12 Dec 2012 10:58 am Operator: RACHEL HILL
Sample : CCV VOA1 121212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 12 11:23 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.52	130	213763	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.62	114	768362	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.47	117	654859	12.50	ppbv		0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	410036	12.86	ppbv		0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 102.88%

Target Compounds							Qvalue
2) Propylene	5.43	41	208395	8.57	ppbv		99
3) Dichlorodifluoromethane	5.51	85	658801	8.95	ppbv		100
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	452407	9.47	ppbv	#	70
5) Chloromethane	5.93	50	277379	9.39	ppbv		99
6) Vinyl chloride	6.15	62	339013	9.32	ppbv		95
7) 1,3-Butadiene	6.20	39	187207	8.87	ppbv	#	60
8) Bromomethane	6.78	94	255821	9.42	ppbv		99
9) Chloroethane	6.93	64	161119	9.53	ppbv		99
10) Trichlorofluoromethane	7.26	101	671399	9.72	ppbv		99
11) Ethanol	7.50	45	74988	8.77	ppbv		99
12) Freon113	7.92	101	477096	10.25	ppbv		88
13) 1,1-Dichloroethene	8.02	61	446839	10.38	ppbv	#	85
14) Acetone	8.11	43	402191	9.79	ppbv	#	90
15) Carbon disulfide	8.39	76	608307	9.97	ppbv	#	100
16) 2-Propanol	8.17	45	396868	9.90	ppbv	#	1
17) Methylene chloride	8.68	49	316662	9.79	ppbv		85
18) tert-Butyl Methyl Ether	8.88	73	652204	10.89	ppbv	#	94
19) trans-1,2-Dichloroethene	8.97	61	406478	10.43	ppbv	#	81
20) n-Hexane	9.15	57	496556	10.59	ppbv	#	84
21) 1,1-Dichloroethane	9.52	63	517045	10.54	ppbv	#	95
22) Vinyl acetate	9.46	43	662817	10.76	ppbv		99
23) cis-1,2-Dichloroethene	10.21	96	258746	10.44	ppbv	#	78
24) 2-Butanone	10.18	43	438056	10.43	ppbv		96
25) Ethyl acetate	10.13	43	557951	10.41	ppbv	#	100
26) Tetrahydrofuran	10.51	42	267857	10.03	ppbv		99
27) Chloroform	10.53	83	489764	10.37	ppbv		100
28) 1,1,1-Trichloroethane	10.79	97	504031	10.05	ppbv	#	94
29) Cyclohexane	10.79	56	502099	10.37	ppbv	#	77
30) Carbon tetrachloride	10.95	117	516388	9.99	ppbv		99
31) Benzene	11.23	78	723418	10.38	ppbv		95
32) 1,2-Dichloroethane	11.30	62	354703	10.24	ppbv	#	96
34) Heptane	11.28	43	474165	10.01	ppbv	#	90
35) Trichloroethene	11.96	130	328118	9.94	ppbv		96
36) 1,2-Dichloropropane	12.31	63	327559	10.52	ppbv		94
37) 1,4-Dioxane	12.40	88	139542	9.89	ppbv	#	82
38) Bromodichloromethane	12.60	83	509692	10.04	ppbv		99
39) cis-1,3-Dichloropropene	13.15	75	430320	10.28	ppbv		98
40) 4-Methyl-2-pentanone	13.26	58	256250	10.42	ppbv	#	90
41) Toluene	13.56	91	885097	10.46	ppbv		99
42) trans-1,3-Dichloropropene	13.86	75	380642	9.83	ppbv		97
43) 1,1,2-Trichloroethane	14.13	97	298900	10.14	ppbv		98
44) Tetrachloroethene	14.26	166	424628	10.21	ppbv		98
45) 2-Hexanone	14.34	43	443391	9.78	ppbv		83
46) Chlorodibromomethane	14.68	129	503135	10.19	ppbv		99
47) 1,2-Dibromoethane	14.92	107	442621	10.26	ppbv		99
49) Chlorobenzene	15.51	112	652190	10.33	ppbv		94
50) Ethylbenzene	15.55	91	1080370	10.30	ppbv		95
51) m,p-Xylene	15.71	91	1616546	20.06	ppbv		94
52) o-Xylene	16.30	91	863957	10.41	ppbv	#	92

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121212\12121202.D Vial: 2
Acq On : 12 Dec 2012 10:58 am Operator: RACHEL HILL
Sample : CCV VOA1 121212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 12 11:23 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

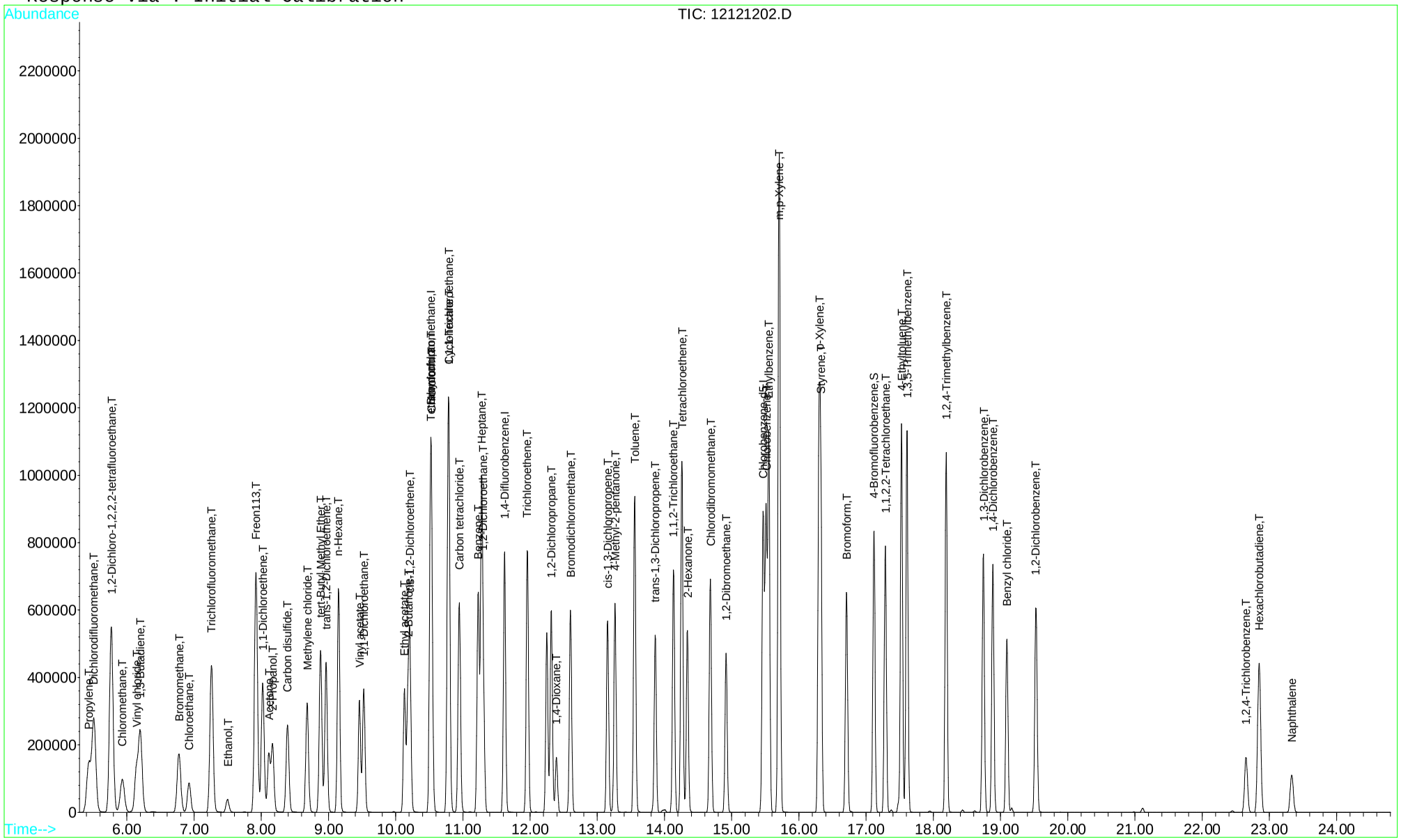
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.33	104	623444	10.30	ppbv	97
54)	Bromoform	16.71	173	445283	10.06	ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.29	83	564815	10.35	ppbv	99
57)	4-Ethyltoluene	17.53	105	1056284	10.34	ppbv	97
58)	1,3,5-Trimethylbenzene	17.61	105	885457	10.16	ppbv	97
59)	1,2,4-Trimethylbenzene	18.19	105	839299	10.34	ppbv	97
60)	1,3-Dichlorobenzene	18.75	146	462803	10.30	ppbv	97
61)	1,4-Dichlorobenzene	18.89	146	437588	10.35	ppbv	97
62)	Benzyl chloride	19.10	91	557520	10.59	ppbv	99
63)	1,2-Dichlorobenzene	19.53	146	395010	10.37	ppbv	97
64)	1,2,4-Trichlorobenzene	22.65	180	111806	9.37	ppbv	98
65)	Hexachlorobutadiene	22.85	225	194996	9.03	ppbv	99
66)	Naphthalene	23.33	128	193278	8.64	ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121212\12121202.D Vial: 2
Acq On : 12 Dec 2012 10:58 am Operator: RACHEL HILL
Sample : CCV VOA1 121212 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 12 11:23 2012 Quant Results File: 112812V1.RES

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121312

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12131201.d	1.	BFB VOA1 121312	TUNE BFB_TUNE	13 Dec 2012 12:06
2	2	12131202.d	1.	CCV VOA1 121312	ICV EPA_TO15	13 Dec 2012 12:49
3	3	12131203.d	1.	RLVS VOA1 121312	RLVS EPA_TO15	13 Dec 2012 13:33
4	4	12131204.d	1.	DBV118 CC VOA1 121312	DATA NOT USED	13 Dec 2012 14:22
5	5	12131205.d	1.	BV1216 CC VOA1 121312	DATA NOT USED	13 Dec 2012 15:21
6	6	12131206.d	1.	DBV128 CC VOA1 121312	DATA NOT USED	13 Dec 2012 16:09
7	7	12131207.d	1.	MBLK VOA1 121312	MBLK EPA_TO15	13 Dec 2012 17:07
8	1	12131208.d	1.	1212185-065A	SAMP EPA_TO15	13 Dec 2012 17:56
9	2	12131209.d	40.	1212185-035A	SAMP EPA_TO15	13 Dec 2012 18:39
10	3	12131210.d	40.	1212185-036A	SAMP EPA_TO15	13 Dec 2012 19:21
11	4	12131211.d	40.	1212185-037A	SAMP EPA_TO15	13 Dec 2012 20:04
12	6	12131212.d	800.	1212185-050A	DATA NOT USED	13 Dec 2012 20:50
13	6	12131213.d	800.	1212185-050A	DATA NOT USED	13 Dec 2012 21:36
14	7	12131214.d	400.	1212185-051A	DATA NOT USED	13 Dec 2012 22:25
15	8	12131215.d	40.	1212185-054A	SAMP EPA_TO15	13 Dec 2012 23:08
16	9	12131216.d	800.	1212185-055A	SAMP EPA_TO15	13 Dec 2012 23:54
17	10	12131217.d	800.	1212185-056A	SAMP EPA_TO15	14 Dec 2012 00:39
18	11	12131218.d	800.	1212185-057A	SAMP EPA_TO15	14 Dec 2012 01:25
19	11	12131219.d	800.	1212185-057ADUP	DUP EPA_TO15	14 Dec 2012 02:11
20	12	12131220.d	800.	1212185-064A	SAMP EPA_TO15	14 Dec 2012 02:57
21	13	12131221.d	40.	1212373-012A	SAMP EPA_TO15	14 Dec 2012 03:39
22	14	12131222.d	800.	1212373-013A	SAMP EPA_TO15	14 Dec 2012 04:25
23	15	12131223.d	800.	1212373-014A	SAMP EPA_TO15	14 Dec 2012 05:11
24	16	12131224.d	40000.	1212373-015A	DATA NOT USED	14 Dec 2012 05:53
25	4	12131225.d	1.	DBV118 CC RERUN 121312	DATA NOT USED	14 Dec 2012 08:40
26	5	12131226.d	1.	DBV42 CC 121312	DATA NOT USED	14 Dec 2012 09:29
27	6	12131227.d	1.	DBV29 CC 121312	DATA NOT USED	14 Dec 2012 10:45
28	3	12131228.d	1.	RLVS2 VOA1 121312	RLVS EPA_TO15	14 Dec 2012 11:28

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54613

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1076250	BFB VOA1 121312	BFB_TUNE	TUNE	\\1\DATA\121312\	12/13/2012 12:0	1	R54613		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		82.4	82.4		100	0	0	0	0	0	82%	50	200	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.2	96.2		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		19.5	19.5		100	0	0	0	0	0	20%	8	40	0%	
75	M		46.7	46.7		100	0	0	0	0	0	47%	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
1076251	CCV VOA1 121312	EPA_TO15	CCV	\\1\DATA\121312\	12/13/2012 12:4	1	R54613		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	11.03	11.03		9.6	0	0	0.107	1	50	115%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.95	10.95		10	0	0	0.211	1	50	110%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.2	11.2		9.8	0	0	0.108	1	50	114%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.71	10.71		9.8	0	0	0.2	1	50	109%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.55	11.55		9.7	0	0	0.111	1	50	119%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.27	11.27		9.9	0	0	0.097	1	50	114%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	10.06	10.06		9.1	0	0	0.271	1	50	111%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	11.06	11.06		9.8	0	0	0.245	1	50	113%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.84	10.84		9.6	0	0	0.186	1	50	113%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	11.14	11.14		9.7	0	0	0.208	1	50	115%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.31	11.31		9.7	0	0	0.196	1	50	117%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.3	11.3		9.8	0	0	0.224	1	50	115%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.89	10.89		9.7	0	0	0.24	1	50	112%	70	130	0%	
1,3-Butadiene	A	ppbv	9.54	9.54		9.8	0	0	0.152	1	50	97%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.95	10.95		9.7	0	0	0.202	1	50	113%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1076251	CCV VOA1 121312	EPA_TO15	CCV	\\1\DATA\121312\	12/13/2012 12:4	1	R54613		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	11.11	11.11		9.6	0	0	0.194	1	50	116%	70	130	0%	
1,4-Dioxane	A	ppbv	10.62	10.62		9.6	0	0	0.128	1	50	111%	70	130	0%	
2-Butanone	A	ppbv	11.14	11.14		9.9	0	0	0.287	1	50	113%	70	130	0%	
2-Hexanone	A	ppbv	10.7	10.7		9.8	0	0	0.135	1	50	109%	70	130	0%	
2-Propanol	A	ppbv	10.99	10.99		10.1	0	0	0.329	1	50	109%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.19	11.19		10	0	0	0.157	1	50	112%	70	130	0%	
Acetone	A	ppbv	10.86	10.86		10	0	0	0.43	1	50	109%	70	130	0%	
Benzene	A	ppbv	11.36	11.36		9.6	0	0	0.126	1	50	118%	70	130	0%	
Benzyl chloride	A	ppbv	11.4	11.4		9.7	0	0	0.155	1	50	118%	70	130	0%	
Bromodichloromethane	A	ppbv	10.73	10.73		9.6	0	0	0.156	1	50	112%	70	130	0%	
Bromoform	A	ppbv	10.75	10.75		9.6	0	0	0.197	1	50	112%	70	130	0%	
Bromomethane	A	ppbv	9.97	9.97		9.3	0	0	0.075	1	50	107%	70	130	0%	
Carbon disulfide	A	ppbv	10.68	10.68		9.7	0	0	0.093	1	50	110%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.9	10.9		9.5	0	0	0.114	1	50	115%	70	130	0%	
Chlorobenzene	A	ppbv	10.96	10.96		9.9	0	0	0.275	1	50	111%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.84	10.84		9.2	0	0	0.165	1	50	118%	70	130	0%	
Chloroethane	A	ppbv	10.04	10.04		9.8	0	0	0.063	1	50	102%	70	130	0%	
Chloroform	A	ppbv	11.36	11.36		9.4	0	0	0.126	1	50	121%	70	130	0%	
Chloromethane	A	ppbv	9.96	9.96		9.8	0	0	0.104	1	50	102%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.47	11.47		9.8	0	0	0.107	1	50	117%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.83	10.83		9.5	0	0	0.166	1	50	114%	70	130	0%	
Cyclohexane	A	ppbv	11.36	11.36		9.8	0	0	0.684	2	50	116%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.64	9.64		9.2	0	0	0.086	1	50	105%	70	130	0%	
Ethanol	A	ppbv	9.66	9.66		9.2	0	0	1.962	5	50	105%	70	130	0%	
Ethyl acetate	A	ppbv	11.27	11.27		9.8	0	0	0.157	1	50	115%	70	130	0%	
Ethylbenzene	A	ppbv	10.91	10.91		9.8	0	0	0.737	2	50	111%	70	130	0%	
Heptane	A	ppbv	10.66	10.66		9.9	0	0	0.249	1	50	108%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.89	9.89		9.4	0	0	0.374	2	50	105%	70	130	0%	
m,p-Xylene	A	ppbv	21.28	21.28		19.2	0	0	0.524	2	100	111%	70	130	0%	
Methylene chloride	A	ppbv	10.77	10.77		10	0	0	2.077	5	50	108%	70	130	0%	
n-Hexane	A	ppbv	11.6	11.6		10.1	0	0	0.692	2	50	115%	70	130	0%	
Naphthalene	A	ppbv	9.37	9.37		9.2	0	0	0.247	1	50	102%	70	130	0%	
o-Xylene	A	ppbv	11.03	11.03		10	0	0	0.258	1	50	110%	70	130	0%	
Propylene	A	ppbv	9.36	9.36		10.2	0	0	0.075	1	50	92%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1076251	CCV VOA1 121312	EPA_TO15	CCV	\1\DATA\121312\	12/13/2012 12:4	1	R54613		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.99	10.99		9.8	0	0	0.263	1	50	112%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.88	11.88		9.9	0	0	0.228	1	50	120%	70	130	0%	
Tetrachloroethene	A	ppbv	10.81	10.81		9.6	0	0	0.148	1	50	113%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.32	11.32		10	0	0	0.201	1	50	113%	70	130	0%	
Toluene	A	ppbv	11	11		9.8	0	0	0.158	1	50	112%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.31	11.31		9.8	0	0	0.117	1	50	115%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.45	10.45		9.1	0	0	0.171	1	50	115%	70	130	0%	
Trichloroethene	A	ppbv	10.47	10.47		9.6	0	0	0.119	1	50	109%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.48	10.48		9.6	0	0	0.148	1	50	109%	70	130	0%	
Vinyl acetate	A	ppbv	12.06	12.06		9.9	0	0	0.266	1	50	122%	70	130	0%	
Vinyl chloride	A	ppbv	9.82	9.82		9.4	0	0	0.072	1	50	104%	70	130	0%	
Xylenes, Total	C	ppbv	32.31	32.31		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	12.65	12.65		12.5	0	0	0	0	0	101%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1076252	RLVS VOA1 121312	EPA_TO15	RLVS	\1\DATA\121312\	12/13/2012 1:33:	1	R54613		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	1	1		0.996	0	0	0.107	1	50	100%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.02	1.02		1	0	0	0.211	1	50	102%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.03	1.03		0.98	0	0	0.108	1	50	105%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.95	0.95		0.98	0	0	0.2	1	50	97%	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	1.03	1.03		0.99	0	0	0.097	1	50	104%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.89	0.89		0.91	0	0	0.271	1	50	98%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.98	0.98		0.98	0	0	0.245	1	50	100%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.93	0.93		0.96	0	0	0.186	1	50	97%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.99	0.99		0.97	0	0	0.208	1	50	102%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.06	1.06		0.97	0	0	0.196	1	50	109%	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\121312\12131202.D Vial: 2
Acq On : 13 Dec 2012 12:49 pm Operator: RACHEL HILL
Sample : CCV VOA1 121312 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	104	0.00
2	T	Propylene	1.422	1.305	8.2	82	0.00
3	T	Dichlorodifluoromethane	4.303	4.509	-4.8	93	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.793	3.063	-9.7	99	0.01
5	T	Chloromethane	1.728	1.812	-4.9	92	0.00
6	T	Vinyl chloride	2.126	2.221	-4.5	94	0.00
7	T	1,3-Butadiene	1.234	1.201	2.7	85	0.00
8	T	Bromomethane	1.588	1.702	-7.2	97	0.00
9	T	Chloroethane	0.988	1.079	-9.2	99	0.00
10	T	Trichlorofluoromethane	4.039	4.411	-9.2	99	0.00
11	T	Ethanol	0.500	0.525	-5.0	99	0.01
12	T	Freon113	2.723	3.112	-14.3	102	0.00
13	T	1,1-Dichloroethene	2.517	2.865	-13.8	100	0.00
14	T	Acetone	2.403	2.610	-8.6	96	0.01
15	T	Carbon disulfide	3.567	3.926	-10.1	99	0.00
16	T	2-Propanol	2.345	2.551	-8.8	96	0.00
17	T	Methylene chloride	1.891	2.036	-7.7	96	0.01
18	T	tert-Butyl Methyl Ether	3.502	4.202	-20.0	105	0.00
19	T	trans-1,2-Dichloroethene	2.279	2.629	-15.4	103	0.00
20	T	n-Hexane	2.742	3.150	-14.9	103	0.00
21	T	1,1-Dichloroethane	2.869	3.417	-19.1	105	0.00
22	T	Vinyl acetate	3.601	4.387	-21.8	100	0.00
23	T	cis-1,2-Dichloroethene	1.449	1.696	-17.0	104	0.01
24	T	2-Butanone	2.457	2.764	-12.5	97	0.00
25	T	Ethyl acetate	3.135	3.605	-15.0	99	0.00
26	T	Tetrahydrofuran	1.562	1.767	-13.1	94	0.00
27	T	Chloroform	2.762	3.201	-15.9	101	0.00
28	T	1,1,1-Trichloroethane	2.932	3.368	-14.9	101	0.00
29	T	Cyclohexane	2.831	3.281	-15.9	98	0.00
30	T	Carbon tetrachloride	3.022	3.467	-14.7	99	0.00
31	T	Benzene	4.074	4.820	-18.3	104	0.00
32	T	1,2-Dichloroethane	2.025	2.361	-16.6	100	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	109	0.00
34	T	Heptane	0.771	0.830	-7.7	94	0.00
35	T	Trichloroethene	0.537	0.586	-9.1	102	0.00
36	T	1,2-Dichloropropane	0.507	0.584	-15.2	106	0.00
37	T	1,4-Dioxane	0.229	0.254	-10.9	105	0.00
38	T	Bromodichloromethane	0.826	0.923	-11.7	102	0.00
39	T	cis-1,3-Dichloropropene	0.681	0.777	-14.1	104	0.00
40	T	4-Methyl-2-pentanone	0.400	0.448	-12.0	103	0.00
41	T	Toluene	1.376	1.545	-12.3	103	0.00
42	T	trans-1,3-Dichloropropene	0.630	0.723	-14.8	103	0.00
43	T	1,1,2-Trichloroethane	0.480	0.524	-9.2	101	0.00
44	T	Tetrachloroethene	0.677	0.762	-12.6	105	0.00
45	T	2-Hexanone	0.738	0.806	-9.2	96	0.00
46	T	Chlorodibromomethane	0.803	0.889	-10.7	100	0.00
47	T	1,2-Dibromoethane	0.702	0.793	-13.0	101	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	109	0.00
49	T	Chlorobenzene	1.205	1.335	-10.8	103	0.00
50	T	Ethylbenzene	2.002	2.229	-11.3	102	0.00
51	T	m,p-Xylene	1.538	1.705	-10.9	97	0.00
52	T	o-Xylene	1.584	1.748	-10.4	100	0.00
53	T	Styrene	1.155	1.296	-12.2	100	0.00
54	T	Bromoform	0.845	0.946	-12.0	103	0.00
55	S	4-Bromofluorobenzene	0.608	0.616	-1.3	110	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\121312\12131202.D Vial: 2
Acq On : 13 Dec 2012 12:49 pm Operator: RACHEL HILL
Sample : CCV VOA1 121312 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.042	1.140	-9.4	102	0.00
57	T	4-Ethyltoluene	1.949	2.198	-12.8	103	0.00
58	T	1,3,5-Trimethylbenzene	1.664	1.867	-12.2	102	0.00
59	T	1,2,4-Trimethylbenzene	1.549	1.749	-12.9	104	0.00
60	T	1,3-Dichlorobenzene	0.858	0.968	-12.8	106	0.00
61	T	1,4-Dichlorobenzene	0.807	0.934	-15.7	108	0.00
62	T	Benzyl chloride	1.005	1.181	-17.5	104	0.00
63	T	1,2-Dichlorobenzene	0.727	0.835	-14.9	108	0.00
64	T	1,2,4-Trichlorobenzene	0.228	0.252	-10.5	114	0.00
65	T	Hexachlorobutadiene	0.412	0.434	-5.3	111	0.00
66		Naphthalene	0.427	0.435	-1.9	103	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121312\12131202.D Vial: 2
Acq On : 13 Dec 2012 12:49 pm Operator: RACHEL HILL
Sample : CCV VOA1 121312 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 13 13:14 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.52	130	192446	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	715159	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.47	117	610744	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	375939	12.65	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 101.20%

Target Compounds						Qvalue
2) Propylene	5.43	41	204862	9.36	ppbv	99
3) Dichlorodifluoromethane	5.51	85	638726	9.64	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	447921	10.42	ppbv #	71
5) Chloromethane	5.94	50	265062	9.96	ppbv	99
6) Vinyl chloride	6.15	62	321449	9.82	ppbv	96
7) 1,3-Butadiene	6.20	39	181246	9.54	ppbv #	62
8) Bromomethane	6.77	94	243658	9.97	ppbv	98
9) Chloroethane	6.93	64	152771	10.04	ppbv	98
10) Trichlorofluoromethane	7.26	101	651958	10.48	ppbv	98
11) Ethanol	7.51	45	74430	9.66	ppbv	98
12) Freon113	7.92	101	469572	11.20	ppbv	88
13) 1,1-Dichloroethene	8.02	61	436638	11.27	ppbv #	85
14) Acetone	8.12	43	401798	10.86	ppbv #	90
15) Carbon disulfide	8.39	76	586351	10.68	ppbv #	100
16) 2-Propanol	8.17	45	396647	10.99	ppbv #	1
17) Methylene chloride	8.69	49	313440	10.77	ppbv #	83
18) tert-Butyl Methyl Ether	8.89	73	640509	11.88	ppbv #	94
19) trans-1,2-Dichloroethene	8.96	61	396693	11.31	ppbv #	81
20) n-Hexane	9.15	57	489844	11.60	ppbv #	84
21) 1,1-Dichloroethane	9.53	63	510274	11.55	ppbv #	95
22) Vinyl acetate	9.46	43	668720	12.06	ppbv	98
23) cis-1,2-Dichloroethene	10.21	96	255852	11.47	ppbv #	79
24) 2-Butanone	10.18	43	421332	11.14	ppbv #	97
25) Ethyl acetate	10.13	43	543972	11.27	ppbv #	99
26) Tetrahydrofuran	10.52	42	272070	11.32	ppbv	97
27) Chloroform	10.54	83	482898	11.36	ppbv	100
28) 1,1,1-Trichloroethane	10.78	97	497855	11.03	ppbv #	93
29) Cyclohexane	10.79	56	494983	11.36	ppbv #	77
30) Carbon tetrachloride	10.95	117	507041	10.90	ppbv	98
31) Benzene	11.23	78	712424	11.36	ppbv	94
32) 1,2-Dichloroethane	11.31	62	352585	11.31	ppbv #	96
34) Heptane	11.28	43	470178	10.66	ppbv #	90
35) Trichloroethene	11.96	130	321651	10.47	ppbv	95
36) 1,2-Dichloropropane	12.32	63	327483	11.30	ppbv	94
37) 1,4-Dioxane	12.40	88	139419	10.62	ppbv #	81
38) Bromodichloromethane	12.60	83	507030	10.73	ppbv	99
39) cis-1,3-Dichloropropene	13.15	75	422051	10.83	ppbv	98
40) 4-Methyl-2-pentanone	13.26	58	256257	11.19	ppbv #	90
41) Toluene	13.56	91	866048	11.00	ppbv	99
42) trans-1,3-Dichloropropene	13.86	75	376628	10.45	ppbv	97
43) 1,1,2-Trichloroethane	14.14	97	293995	10.71	ppbv	97
44) Tetrachloroethene	14.26	166	418335	10.81	ppbv	98
45) 2-Hexanone	14.34	43	451705	10.70	ppbv	84
46) Chlorodibromomethane	14.68	129	498309	10.84	ppbv	98
47) 1,2-Dibromoethane	14.92	107	435346	10.84	ppbv	100
49) Chlorobenzene	15.51	112	645582	10.96	ppbv	94
50) Ethylbenzene	15.55	91	1067153	10.91	ppbv	96
51) m,p-Xylene	15.71	91	1599669	21.28	ppbv	93
52) o-Xylene	16.30	91	853958	11.03	ppbv #	92

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121312\12131202.D Vial: 2
Acq On : 13 Dec 2012 12:49 pm Operator: RACHEL HILL
Sample : CCV VOA1 121312 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 13 13:14 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

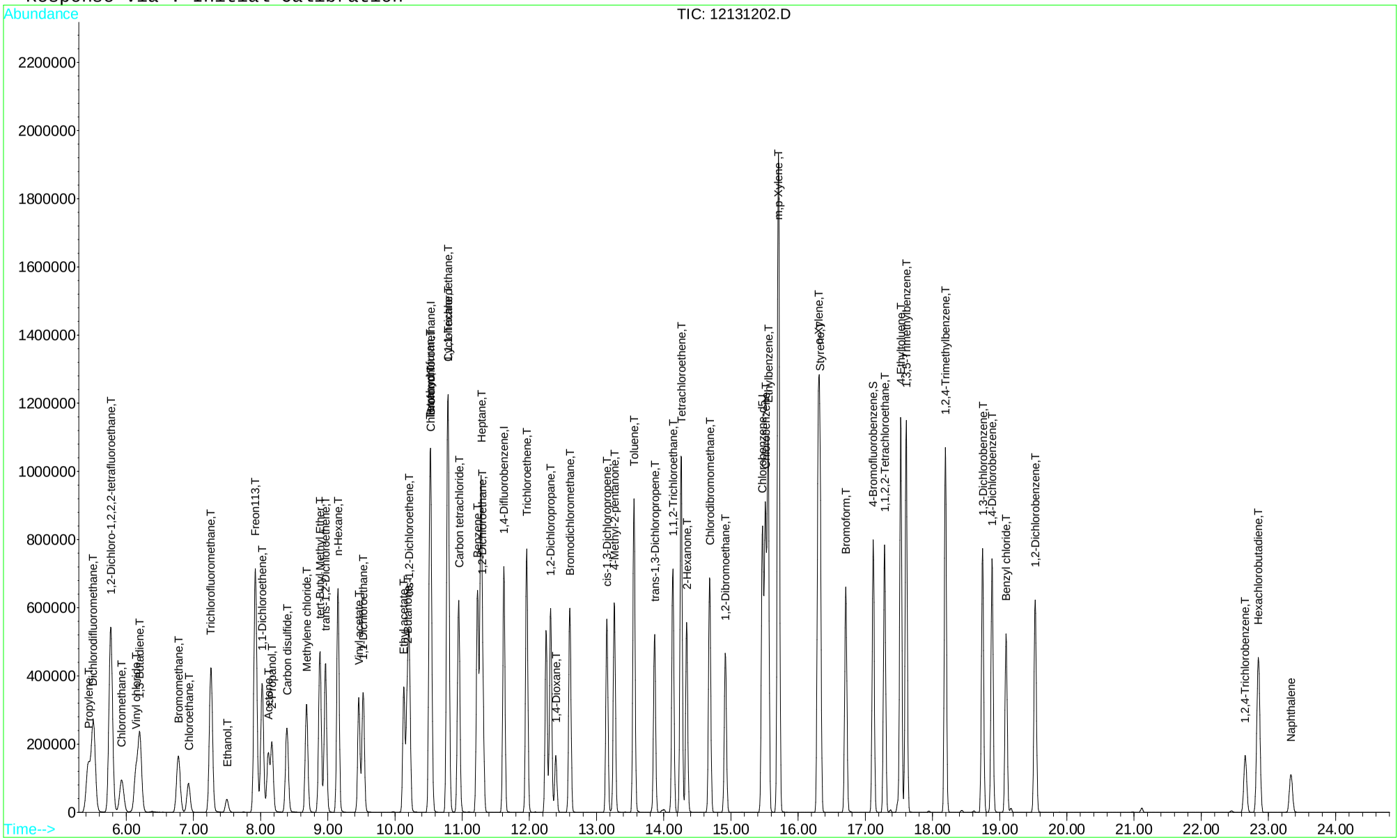
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.33	104	620675	10.99	ppbv	97
54)	Bromoform	16.71	173	443695	10.75	ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.29	83	557016	10.95	ppbv	99
57)	4-Ethyltoluene	17.53	105	1052359	11.05	ppbv	97
58)	1,3,5-Trimethylbenzene	17.61	105	885026	10.89	ppbv	97
59)	1,2,4-Trimethylbenzene	18.19	105	837459	11.06	ppbv	97
60)	1,3-Dichlorobenzene	18.74	146	458707	10.95	ppbv	97
61)	1,4-Dichlorobenzene	18.89	146	438040	11.11	ppbv	97
62)	Benzyl chloride	19.10	91	559765	11.40	ppbv	99
63)	1,2-Dichlorobenzene	19.53	146	395671	11.14	ppbv	97
64)	1,2,4-Trichlorobenzene	22.65	180	111981	10.06	ppbv	99
65)	Hexachlorobutadiene	22.85	225	199265	9.89	ppbv	99
66)	Naphthalene	23.34	128	195483	9.37	ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121312\12131202.D Vial: 2
Acq On : 13 Dec 2012 12:49 pm Operator: RACHEL HILL
Sample : CCV VOA1 121312 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 13 13:14 2012 Quant Results File: 112812V1.RES

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121712

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12171201.d	1.	BFB VOA1 121712	TUNE BFB_TUNE	17 Dec 2012 10:44
2	2	12171202.d	1.	CCV VOA1 121712	CCV EPA_TO15	17 Dec 2012 11:26
3	3	12171203.d	1.	MBLK/DBVCC 128 121712	MBLK EPA_TO15	17 Dec 2012 12:15
4	4	12171204.d	1.	DBVCC 30	DATA NOT USED	17 Dec 2012 13:04
5	5	12171205.d	1.	DBVCC 118	DATA NOT USED	17 Dec 2012 13:58
6	6	12171206.d	1.	BVCC 1216	DATA NOT USED	17 Dec 2012 14:49
7	2	12171207.d	1.	RLVS VOA1 121712	RLVS EPA_TO15	17 Dec 2012 15:32
8	3	12171208.d	40.	1212185-050A	SAMP EPA_TO15	17 Dec 2012 16:15
9	2	12171209.d	40.	1212185-051A	SAMP EPA_TO15	17 Dec 2012 16:56
10	3	12171210.d	400.	1212373-018A	DATA NOT USED	17 Dec 2012 17:45
11	4	12171211.d	400.	1212373-017A	DATA NOT USED	17 Dec 2012 18:33
12	6	12171212.d	40000.	1212373-015A	SAMP EPA_TO15	17 Dec 2012 19:15
13	7	12171213.d	400.	1212373-016A	SAMP EPA_TO15	17 Dec 2012 20:03
14	8	12171214.d	8000.	1212373-012A	SAMP EPA_TO15	17 Dec 2012 20:44
15	9	12171215.d	8000.	1212185-035A	DATA NOT USED	17 Dec 2012 21:31
16	10	12171216.d	8000.	1212373-021A	SAMP EPA_TO15	17 Dec 2012 22:12
17	11	12171217.d	800.	1212373-042A	SAMP EPA_TO15	17 Dec 2012 22:57
18	11	12171218.d	800.	1212373-042A	DATA NOT USED	17 Dec 2012 23:42
19	12	12171219.d	8000.	1212185-036A	DATA NOT USED	18 Dec 2012 00:23
20	13	12171220.d	800.	1212373-043A	SAMP EPA_TO15	18 Dec 2012 01:08
21	13	12171221.d	800.	1212373-043ADUP	DUP EPA_TO15	18 Dec 2012 01:53
22	14	12171222.d	40.	1212373-023A	SAMP EPA_TO15	18 Dec 2012 02:34
23	15	12171223.d	8000.	1212185-037A	SAMP EPA_TO15	18 Dec 2012 03:16
24	16	12171224.d	40.	1212373-022A	SAMP EPA_TO15	18 Dec 2012 03:58
25	1	12171225.d	40.	1212373-019A	SAMP EPA_TO15	18 Dec 2012 04:39
26	2	12171226.d	40.	1212373-020A	SAMP EPA_TO15	18 Dec 2012 05:21
27	2	12171227.d	1.	RLVS2 VOA1 121712	RLVS EPA_TO15	18 Dec 2012 08:51

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54678

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1077778	BFB VOA1 121712	BFB_TUNE	TUNE	\\1\DATA\121712\	12/17/2012 10:4	1	R54678		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		82.6	82.6		100	0	0	0	0	0	83%	50	200	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	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		19	19		100	0	0	0	0	0	19%	8	40	0%	
75	M		46.8	46.8		100	0	0	0	0	0	47%	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
1077779	CCV VOA1 121712	EPA_TO15	CCV	\\1\DATA\121712\	12/17/2012 11:2	1	R54678		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	9.71	9.71		9.6	0	0	0.107	1	50	101%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.13	10.13		10	0	0	0.211	1	50	101%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.18	10.18		9.8	0	0	0.108	1	50	104%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.58	9.58		9.8	0	0	0.2	1	50	98%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10	10		9.7	0	0	0.111	1	50	103%	70	130	0%	
1,1-Dichloroethene	A	ppbv	9.74	9.74		9.9	0	0	0.097	1	50	98%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	10.27	10.27		9.1	0	0	0.271	1	50	113%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.89	9.89		9.8	0	0	0.245	1	50	101%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.76	9.76		9.6	0	0	0.186	1	50	102%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.54	10.54		9.7	0	0	0.208	1	50	109%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.63	9.63		9.7	0	0	0.196	1	50	99%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.75	9.75		9.8	0	0	0.224	1	50	99%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.72	9.72		9.7	0	0	0.24	1	50	100%	70	130	0%	
1,3-Butadiene	A	ppbv	8.21	8.21		9.8	0	0	0.152	1	50	84%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.37	10.37		9.7	0	0	0.202	1	50	107%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1077779	CCV VOA1 121712	EPA_TO15	CCV	\\1\DATA\121712\	12/17/2012 11:2	1	R54678		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.37	10.37		9.6	0	0	0.194	1	50	108%	70	130	0%	
1,4-Dioxane	A	ppbv	9.48	9.48		9.6	0	0	0.128	1	50	99%	70	130	0%	
2-Butanone	A	ppbv	10.49	10.49		9.9	0	0	0.287	1	50	106%	70	130	0%	
2-Hexanone	A	ppbv	9.06	9.06		9.8	0	0	0.135	1	50	92%	70	130	0%	
2-Propanol	A	ppbv	9.42	9.42		10.1	0	0	0.329	1	50	93%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.52	9.52		10	0	0	0.157	1	50	95%	70	130	0%	
Acetone	A	ppbv	9.24	9.24		10	0	0	0.43	1	50	92%	70	130	0%	
Benzene	A	ppbv	10.29	10.29		9.6	0	0	0.126	1	50	107%	70	130	0%	
Benzyl chloride	A	ppbv	10.67	10.67		9.7	0	0	0.155	1	50	110%	70	130	0%	
Bromodichloromethane	A	ppbv	9.34	9.34		9.6	0	0	0.156	1	50	97%	70	130	0%	
Bromoform	A	ppbv	10.03	10.03		9.6	0	0	0.197	1	50	104%	70	130	0%	
Bromomethane	A	ppbv	8.52	8.52		9.3	0	0	0.075	1	50	92%	70	130	0%	
Carbon disulfide	A	ppbv	9.93	9.93		9.7	0	0	0.093	1	50	102%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.69	9.69		9.5	0	0	0.114	1	50	102%	70	130	0%	
Chlorobenzene	A	ppbv	9.87	9.87		9.9	0	0	0.275	1	50	100%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.61	9.61		9.2	0	0	0.165	1	50	104%	70	130	0%	
Chloroethane	A	ppbv	8.18	8.18		9.8	0	0	0.063	1	50	83%	70	130	0%	
Chloroform	A	ppbv	10	10		9.4	0	0	0.126	1	50	106%	70	130	0%	
Chloromethane	A	ppbv	8.89	8.89		9.8	0	0	0.104	1	50	91%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.2	10.2		9.8	0	0	0.107	1	50	104%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.53	9.53		9.5	0	0	0.166	1	50	100%	70	130	0%	
Cyclohexane	A	ppbv	9.63	9.63		9.8	0	0	0.684	2	50	98%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	8.55	8.55		9.2	0	0	0.086	1	50	93%	70	130	0%	
Ethanol	A	ppbv	8.8	8.8		9.2	0	0	1.962	5	50	96%	70	130	0%	
Ethyl acetate	A	ppbv	9.84	9.84		9.8	0	0	0.157	1	50	100%	70	130	0%	
Ethylbenzene	A	ppbv	9.72	9.72		9.8	0	0	0.737	2	50	99%	70	130	0%	
Heptane	A	ppbv	8.91	8.91		9.9	0	0	0.249	1	50	90%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.44	9.44		9.4	0	0	0.374	2	50	100%	70	130	0%	
m,p-Xylene	A	ppbv	18.81	18.81		19.2	0	0	0.524	2	100	98%	70	130	0%	
Methylene chloride	A	ppbv	9.38	9.38		10	0	0	2.077	5	50	94%	70	130	0%	
n-Hexane	A	ppbv	9.9	9.9		10.1	0	0	0.692	2	50	98%	70	130	0%	
Naphthalene	A	ppbv	9.56	9.56		9.2	0	0	0.247	1	50	104%	70	130	0%	
o-Xylene	A	ppbv	9.8	9.8		10	0	0	0.258	1	50	98%	70	130	0%	
Propylene	A	ppbv	8.33	8.33		10.2	0	0	0.075	1	50	82%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1077779	CCV VOA1 121712	EPA_TO15	CCV	[\1\DATA\121712`12/17/2012 11:2		1	R54678		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.85	9.85		9.8	0	0	0.263	1	50	101%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.28	10.28		9.9	0	0	0.228	1	50	104%	70	130	0%	
Tetrachloroethene	A	ppbv	9.55	9.55		9.6	0	0	0.148	1	50	99%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.73	9.73		10	0	0	0.201	1	50	97%	70	130	0%	
Toluene	A	ppbv	9.65	9.65		9.8	0	0	0.158	1	50	98%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.7	9.7		9.8	0	0	0.117	1	50	99%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.99	8.99		9.1	0	0	0.171	1	50	99%	70	130	0%	
Trichloroethene	A	ppbv	9.31	9.31		9.6	0	0	0.119	1	50	97%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.12	9.12		9.6	0	0	0.148	1	50	95%	70	130	0%	
Vinyl acetate	A	ppbv	10.36	10.36		9.9	0	0	0.266	1	50	105%	70	130	0%	
Vinyl chloride	A	ppbv	8.42	8.42		9.4	0	0	0.072	1	50	90%	70	130	0%	
Xylenes, Total	C	ppbv	28.61	28.61		29.2	0	0	0.782	3	150	98%	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	12.65	12.65		12.5	0	0	0	0	0	101%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1077780	MBLK/DBVCC 128 1	EPA_TO15	MBLK	[\1\DATA\121712`12/17/2012 12:1		1	R54678		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		0	0	0	0.107	1	50	0%	0	0	0%	U
1,1,2,2-Tetrachloroethane	A	ppbv		0		0	0	0	0.211	1	50	0%	0	0	0%	U
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv		0		0	0	0	0.108	1	50	0%	0	0	0%	U
1,1,2-Trichloroethane	A	ppbv		0		0	0	0	0.2	1	50	0%	0	0	0%	U
1,1-Dichloroethane	A	ppbv		0		0	0	0	0.111	1	50	0%	0	0	0%	U
1,1-Dichloroethene	A	ppbv		0		0	0	0	0.097	1	50	0%	0	0	0%	U
1,2,4-Trichlorobenzene	A	ppbv		0		0	0	0	0.271	1	50	0%	0	0	0%	U
1,2,4-Trimethylbenzene	A	ppbv		0		0	0	0	0.245	1	50	0%	0	0	0%	U
1,2-Dibromoethane	A	ppbv		0		0	0	0	0.186	1	50	0%	0	0	0%	U
1,2-Dichlorobenzene	A	ppbv		0		0	0	0	0.208	1	50	0%	0	0	0%	U
1,2-Dichloroethane	A	ppbv		0		0	0	0	0.196	1	50	0%	0	0	0%	U
1,2-Dichloropropane	A	ppbv		0		0	0	0	0.224	1	50	0%	0	0	0%	U

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121712\12171202.D Vial: 2
Acq On : 17 Dec 2012 11:26 am Operator: RACHEL HILL
Sample : CCV VOA1 121712 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	93	-0.01
2	T	Propylene	1.422	1.162	18.3	66	-0.02
3	T	Dichlorodifluoromethane	4.303	3.998	7.1	74	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.793	2.839	-1.6	82	-0.01
5	T	Chloromethane	1.728	1.617	6.4	74	-0.02
6	T	Vinyl chloride	2.126	1.906	10.3	73	-0.02
7	T	1,3-Butadiene	1.234	1.034	16.2	65	-0.01
8	T	Bromomethane	1.588	1.455	8.4	74	-0.01
9	T	Chloroethane	0.988	0.878	11.1	72	-0.01
10	T	Trichlorofluoromethane	4.039	3.837	5.0	78	-0.01
11	T	Ethanol	0.500	0.478	4.4	81	0.00
12	T	Freon113	2.723	2.827	-3.8	83	-0.01
13	T	1,1-Dichloroethene	2.517	2.478	1.5	77	-0.01
14	T	Acetone	2.403	2.221	7.6	73	0.00
15	T	Carbon disulfide	3.567	3.653	-2.4	83	-0.01
16	T	2-Propanol	2.345	2.188	6.7	74	0.00
17	T	Methylene chloride	1.891	1.774	6.2	75	0.00
18	T	tert-Butyl Methyl Ether	3.502	3.636	-3.8	82	0.00
19	T	trans-1,2-Dichloroethene	2.279	2.257	1.0	79	-0.01
20	T	n-Hexane	2.742	2.688	2.0	79	-0.01
21	T	1,1-Dichloroethane	2.869	2.959	-3.1	81	-0.01
22	T	Vinyl acetate	3.601	3.769	-4.7	77	0.00
23	T	cis-1,2-Dichloroethene	1.449	1.507	-4.0	83	0.00
24	T	2-Butanone	2.457	2.602	-5.9	82	0.00
25	T	Ethyl acetate	3.135	3.149	-0.4	78	0.00
26	T	Tetrahydrofuran	1.562	1.519	2.8	73	-0.01
27	T	Chloroform	2.762	2.819	-2.1	80	0.00
28	T	1,1,1-Trichloroethane	2.932	2.964	-1.1	79	0.00
29	T	Cyclohexane	2.831	2.783	1.7	75	-0.01
30	T	Carbon tetrachloride	3.022	3.082	-2.0	79	0.00
31	T	Benzene	4.074	4.365	-7.1	84	-0.01
32	T	1,2-Dichloroethane	2.025	2.010	0.7	77	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	99	0.00
34	T	Heptane	0.771	0.693	10.1	72	-0.01
35	T	Trichloroethene	0.537	0.521	3.0	83	-0.01
36	T	1,2-Dichloropropane	0.507	0.504	0.6	84	0.00
37	T	1,4-Dioxane	0.229	0.226	1.3	86	0.00
38	T	Bromodichloromethane	0.826	0.804	2.7	81	0.00
39	T	cis-1,3-Dichloropropene	0.681	0.683	-0.3	84	0.00
40	T	4-Methyl-2-pentanone	0.400	0.381	4.8	80	-0.01
41	T	Toluene	1.376	1.355	1.5	82	0.00
42	T	trans-1,3-Dichloropropene	0.630	0.622	1.3	81	0.00
43	T	1,1,2-Trichloroethane	0.480	0.469	2.3	83	0.00
44	T	Tetrachloroethene	0.677	0.673	0.6	85	-0.01
45	T	2-Hexanone	0.738	0.682	7.6	74	0.00
46	T	Chlorodibromomethane	0.803	0.788	1.9	81	0.00
47	T	1,2-Dibromoethane	0.702	0.714	-1.7	84	-0.01
48	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
49	T	Chlorobenzene	1.205	1.201	0.3	82	0.00
50	T	Ethylbenzene	2.002	1.986	0.8	80	0.00
51	T	m,p-Xylene	1.538	1.507	2.0	76	-0.01
52	T	o-Xylene	1.584	1.552	2.0	79	-0.01
53	T	Styrene	1.155	1.162	-0.6	79	0.00
54	T	Bromoform	0.845	0.882	-4.4	85	0.00
55	S	4-Bromofluorobenzene	0.608	0.616	-1.3	98	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\121712\12171202.D Vial: 2
Acq On : 17 Dec 2012 11:26 am Operator: RACHEL HILL
Sample : CCV VOA1 121712 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.042	1.055	-1.2	83	-0.01
57	T	4-Ethyltoluene	1.949	1.977	-1.4	82	-0.01
58	T	1,3,5-Trimethylbenzene	1.664	1.667	-0.2	81	0.00
59	T	1,2,4-Trimethylbenzene	1.549	1.564	-1.0	82	-0.01
60	T	1,3-Dichlorobenzene	0.858	0.917	-6.9	88	-0.01
61	T	1,4-Dichlorobenzene	0.807	0.871	-7.9	89	-0.01
62	T	Benzyl chloride	1.005	1.105	-10.0	86	0.00
63	T	1,2-Dichlorobenzene	0.727	0.790	-8.7	90	0.00
64	T	1,2,4-Trichlorobenzene	0.228	0.257	-12.7	102	-0.02
65	T	Hexachlorobutadiene	0.412	0.414	-0.5	94	-0.02
66		Naphthalene	0.427	0.444	-4.0	93	-0.02

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121712\12171202.D Vial: 2
Acq On : 17 Dec 2012 11:26 am Operator: RACHEL HILL
Sample : CCV VOA1 121712 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 17 11:51 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.51	130	172415	12.50	ppbv	-0.01
33) 1,4-Difluorobenzene	11.61	114	653971	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.46	117	539706	12.50	ppbv	0.00
System Monitoring Compounds						
55) 4-Bromofluorobenzene	17.11	95	332233	12.65	ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.20%			
Target Compounds						Qvalue
2) Propylene	5.42	41	163434	8.33	ppbv	100
3) Dichlorodifluoromethane	5.50	85	507369	8.55	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.75	135	371959	9.65	ppbv #	71
5) Chloromethane	5.91	50	211863	8.89	ppbv #	97
6) Vinyl chloride	6.13	62	247095	8.42	ppbv	96
7) 1,3-Butadiene	6.19	39	139800	8.21	ppbv #	63
8) Bromomethane	6.76	94	186629	8.52	ppbv #	99
9) Chloroethane	6.91	64	111438	8.18	ppbv	98
10) Trichlorofluoromethane	7.24	101	508015	9.12	ppbv	99
11) Ethanol	7.49	45	60690	8.80	ppbv	98
12) Freon113	7.91	101	382139	10.18	ppbv	89
13) 1,1-Dichloroethene	8.01	61	338324	9.74	ppbv	88
14) Acetone	8.10	43	306386	9.24	ppbv #	87
15) Carbon disulfide	8.38	76	488701	9.93	ppbv #	99
16) 2-Propanol	8.16	45	304754	9.42	ppbv #	1
17) Methylene chloride	8.67	49	244730	9.38	ppbv	87
18) tert-Butyl Methyl Ether	8.87	73	496535	10.28	ppbv #	94
19) trans-1,2-Dichloroethene	8.95	61	305040	9.70	ppbv	85
20) n-Hexane	9.13	57	374422	9.90	ppbv #	83
21) 1,1-Dichloroethane	9.51	63	395926	10.00	ppbv	95
22) Vinyl acetate	9.45	43	514730	10.36	ppbv	99
23) cis-1,2-Dichloroethene	10.20	96	203764	10.20	ppbv #	83
24) 2-Butanone	10.17	43	355371	10.49	ppbv	95
25) Ethyl acetate	10.12	43	425659	9.84	ppbv #	99
26) Tetrahydrofuran	10.51	42	209516	9.73	ppbv	98
27) Chloroform	10.53	83	380994	10.00	ppbv	100
28) 1,1,1-Trichloroethane	10.77	97	392530	9.71	ppbv #	95
29) Cyclohexane	10.78	56	376129	9.63	ppbv #	79
30) Carbon tetrachloride	10.93	117	403834	9.69	ppbv	99
31) Benzene	11.21	78	577965	10.29	ppbv	96
32) 1,2-Dichloroethane	11.29	62	268869	9.63	ppbv #	97
34) Heptane	11.26	43	359121	8.91	ppbv #	91
35) Trichloroethene	11.95	130	261464	9.31	ppbv	96
36) 1,2-Dichloropropane	12.30	63	258448	9.75	ppbv	94
37) 1,4-Dioxane	12.38	88	113756	9.48	ppbv #	86
38) Bromodichloromethane	12.59	83	403592	9.34	ppbv	99
39) cis-1,3-Dichloropropene	13.14	75	339470	9.53	ppbv	99
40) 4-Methyl-2-pentanone	13.25	58	199271	9.52	ppbv #	90
41) Toluene	13.54	91	694598	9.65	ppbv	99
42) trans-1,3-Dichloropropene	13.85	75	296347	8.99	ppbv	99
43) 1,1,2-Trichloroethane	14.12	97	240369	9.58	ppbv	97
44) Tetrachloroethene	14.24	166	338061	9.55	ppbv	98
45) 2-Hexanone	14.33	43	349871	9.06	ppbv	83
46) Chlorodibromomethane	14.67	129	404086	9.61	ppbv	99
47) 1,2-Dibromoethane	14.90	107	358419	9.76	ppbv	100
49) Chlorobenzene	15.50	112	513535	9.87	ppbv	96
50) Ethylbenzene	15.54	91	840496	9.72	ppbv	96
51) m,p-Xylene	15.69	91	1249514	18.81	ppbv	93
52) o-Xylene	16.28	91	670298	9.80	ppbv #	93

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121712\12171202.D Vial: 2
Acq On : 17 Dec 2012 11:26 am Operator: RACHEL HILL
Sample : CCV VOA1 121712 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 17 11:51 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

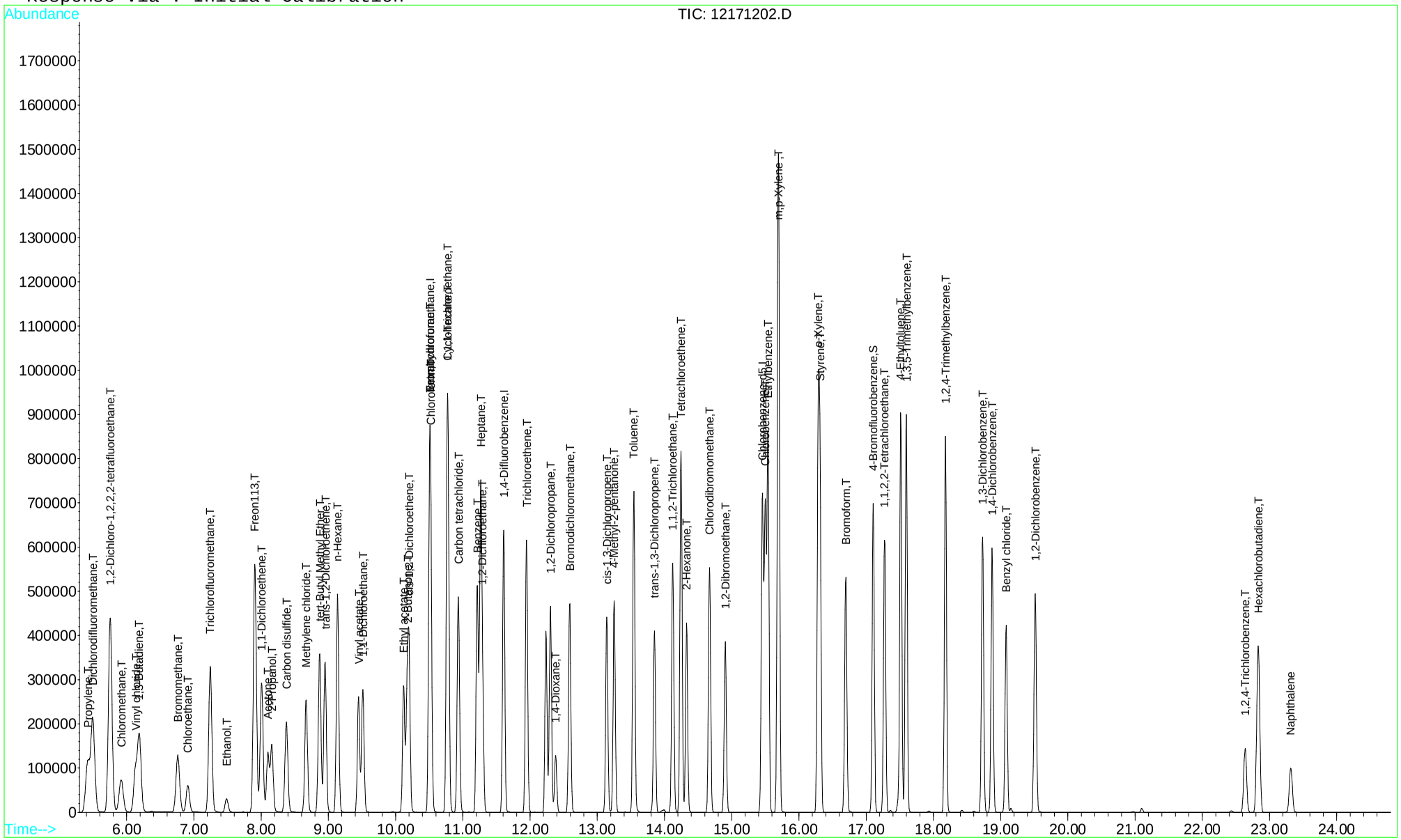
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.32	104	491611	9.85	ppbv	98
54)	Bromoform	16.70	173	365758	10.03	ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.27	83	455584	10.13	ppbv	99
57)	4-Ethyltoluene	17.51	105	836558	9.94	ppbv	98
58)	1,3,5-Trimethylbenzene	17.60	105	698260	9.72	ppbv	97
59)	1,2,4-Trimethylbenzene	18.18	105	661712	9.89	ppbv	98
60)	1,3-Dichlorobenzene	18.73	146	384073	10.37	ppbv	98
61)	1,4-Dichlorobenzene	18.87	146	361151	10.37	ppbv	98
62)	Benzyl chloride	19.08	91	462878	10.67	ppbv	100
63)	1,2-Dichlorobenzene	19.52	146	330746	10.54	ppbv	99
64)	1,2,4-Trichlorobenzene	22.63	180	100969	10.27	ppbv	98
65)	Hexachlorobutadiene	22.83	225	168098	9.44	ppbv	99
66)	Naphthalene	23.31	128	176330	9.56	ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121712\12171202.D Vial: 2
Acq On : 17 Dec 2012 11:26 am Operator: RACHEL HILL
Sample : CCV VOA1 121712 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 17 11:51 2012 Quant Results File: 112812V1.RES

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121812

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12181201.d	1.	BFB VOA1 121812	TUNE BFB_TUNE	18 Dec 2012 09:34
2	2	12181202.d	1.	CCV VOA1 121812	CCV EPA_TO15	18 Dec 2012 10:17
3	2	12181203.d	1.	RLVS VOA1 121812	RLVS EPA_TO15	18 Dec 2012 11:04
4	3	12181204.d	1.	DBV67 CC VOA1 121812	DATA NOT USED	18 Dec 2012 11:52
5	4	12181205.d	1.	DBV42 CC VOA1 121812	DATA NOT USED	18 Dec 2012 12:42
6	5	12181206.d	400.	1212185-035A	DATA NOT USED	18 Dec 2012 14:14
7	4	12181207.d	1.	MBLK VOA1 121812	MBLK EPA_TO15	18 Dec 2012 15:06
8	6	12181208.d	800.	1212185-035A	SAMP EPA_TO15	18 Dec 2012 15:53
9	7	12181209.d	800.	1212185-036A	SAMP EPA_TO15	18 Dec 2012 16:38
10	8	12181210.d	800.	1212185-037A	SAMP EPA_TO15	18 Dec 2012 17:23
11	9	12181211.d	800.	1212373-012A	SAMP EPA_TO15	18 Dec 2012 18:09
12	10	12181212.d	40.	1212373-017A	SAMP EPA_TO15	18 Dec 2012 18:51
13	11	12181213.d	40.	1212373-018A	SAMP EPA_TO15	18 Dec 2012 19:34
14	12	12181214.d	400.	1212373-022A	SAMP EPA_TO15	18 Dec 2012 20:23
15	13	12181215.d	40.	1212373-024A	SAMP EPA_TO15	18 Dec 2012 21:05
16	14	12181216.d	40.	1212373-025A	SAMP EPA_TO15	18 Dec 2012 21:48
17	15	12181217.d	40.	1212373-026A	SAMP EPA_TO15	18 Dec 2012 22:31
18	16	12181218.d	800.	1212373-027A	SAMP EPA_TO15	18 Dec 2012 23:17
19	17	12181219.d	800.	1212373-027ADUP	DUP EPA_TO15	19 Dec 2012 00:02
20	18	12181220.d	800.	1212373-028A	SAMP EPA_TO15	19 Dec 2012 00:48
21	19	12181221.d	40.	1212373-029A	SAMP EPA_TO15	19 Dec 2012 01:31
22	20	12181222.d	40.	1212373-030A	SAMP EPA_TO15	19 Dec 2012 02:14
23	21	12181223.d	40.	1212373-031A	SAMP EPA_TO15	19 Dec 2012 02:56
24	22	12181224.d	40.	1212373-032A	SAMP EPA_TO15	19 Dec 2012 03:39
25	23	12181225.d	800.	1212373-033A	SAMP EPA_TO15	19 Dec 2012 04:24
26	24	12181226.d	800.	1212373-033A	DATA NOT USED	19 Dec 2012 05:10
27	2	12181227.d	1.	RLVS2 VOA1 121812	RLVS EPA_TO15	19 Dec 2012 07:52

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54727

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1078620	BFB VOA1 121812	BFB_TUNE	TUNE	\\1\DATA\121812\	12/18/2012 9:34:	1	R54727		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		83.8	83.8		100	0	0	0	0	0	84%	50	200	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		99.3	99.3		100	0	0	0	0	0	99%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		18.3	18.3		100	0	0	0	0	0	18%	8	40	0%	
75	M		46.3	46.3		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
1078621	CCV VOA1 121812	EPA_TO15	CCV	\\1\DATA\121812\	12/18/2012 10:1	1	R54727		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	10.9	10.9		9.6	0	0	0.107	1	50	114%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.82	10.82		10	0	0	0.211	1	50	108%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.45	11.45		9.8	0	0	0.108	1	50	117%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.49	10.49		9.8	0	0	0.2	1	50	107%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.55	11.55		9.7	0	0	0.111	1	50	119%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.22	11.22		9.9	0	0	0.097	1	50	113%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.82	9.82		9.1	0	0	0.271	1	50	108%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.53	10.53		9.8	0	0	0.245	1	50	107%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.49	10.49		9.6	0	0	0.186	1	50	109%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.94	10.94		9.7	0	0	0.208	1	50	113%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.11	11.11		9.7	0	0	0.196	1	50	115%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.67	10.67		9.8	0	0	0.224	1	50	109%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.32	10.32		9.7	0	0	0.24	1	50	106%	70	130	0%	
1,3-Butadiene	A	ppbv	8.85	8.85		9.8	0	0	0.152	1	50	90%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.9	10.9		9.7	0	0	0.202	1	50	112%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1078621	CCV VOA1 121812	EPA_TO15	CCV	\\1\DATA\121812\	12/18/2012 10:1	1	R54727		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.89	10.89		9.6	0	0	0.194	1	50	113%	70	130	0%	
1,4-Dioxane	A	ppbv	10.5	10.5		9.6	0	0	0.128	1	50	109%	70	130	0%	
2-Butanone	A	ppbv	11.15	11.15		9.9	0	0	0.287	1	50	113%	70	130	0%	
2-Hexanone	A	ppbv	9.84	9.84		9.8	0	0	0.135	1	50	100%	70	130	0%	
2-Propanol	A	ppbv	10.68	10.68		10.1	0	0	0.329	1	50	106%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.42	10.42		10	0	0	0.157	1	50	104%	70	130	0%	
Acetone	A	ppbv	10.52	10.52		10	0	0	0.43	1	50	105%	70	130	0%	
Benzene	A	ppbv	11.89	11.89		9.6	0	0	0.126	1	50	124%	70	130	0%	
Benzyl chloride	A	ppbv	10.98	10.98		9.7	0	0	0.155	1	50	113%	70	130	0%	
Bromodichloromethane	A	ppbv	10.19	10.19		9.6	0	0	0.156	1	50	106%	70	130	0%	
Bromoform	A	ppbv	10.65	10.65		9.6	0	0	0.197	1	50	111%	70	130	0%	
Bromomethane	A	ppbv	10.37	10.37		9.3	0	0	0.075	1	50	112%	70	130	0%	
Carbon disulfide	A	ppbv	11.28	11.28		9.7	0	0	0.093	1	50	116%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.1	11.1		9.5	0	0	0.114	1	50	117%	70	130	0%	
Chlorobenzene	A	ppbv	10.74	10.74		9.9	0	0	0.275	1	50	108%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.34	10.34		9.2	0	0	0.165	1	50	112%	70	130	0%	
Chloroethane	A	ppbv	10.62	10.62		9.8	0	0	0.063	1	50	108%	70	130	0%	
Chloroform	A	ppbv	11.1	11.1		9.4	0	0	0.126	1	50	118%	70	130	0%	
Chloromethane	A	ppbv	10.2	10.2		9.8	0	0	0.104	1	50	104%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.48	11.48		9.8	0	0	0.107	1	50	117%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.37	10.37		9.5	0	0	0.166	1	50	109%	70	130	0%	
Cyclohexane	A	ppbv	10.85	10.85		9.8	0	0	0.684	2	50	111%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.77	9.77		9.2	0	0	0.086	1	50	106%	70	130	0%	
Ethanol	A	ppbv	10.02	10.02		9.2	0	0	1.962	5	50	109%	70	130	0%	
Ethyl acetate	A	ppbv	11.36	11.36		9.8	0	0	0.157	1	50	116%	70	130	0%	
Ethylbenzene	A	ppbv	10.57	10.57		9.8	0	0	0.737	2	50	108%	70	130	0%	
Heptane	A	ppbv	9.54	9.54		9.9	0	0	0.249	1	50	96%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.9	9.9		9.4	0	0	0.374	2	50	105%	70	130	0%	
m,p-Xylene	A	ppbv	19.81	19.81		19.2	0	0	0.524	2	100	103%	70	130	0%	
Methylene chloride	A	ppbv	10.78	10.78		10	0	0	2.077	5	50	108%	70	130	0%	
n-Hexane	A	ppbv	11.62	11.62		10.1	0	0	0.692	2	50	115%	70	130	0%	
Naphthalene	A	ppbv	9.23	9.23		9.2	0	0	0.247	1	50	100%	70	130	0%	
o-Xylene	A	ppbv	10.48	10.48		10	0	0	0.258	1	50	105%	70	130	0%	
Propylene	A	ppbv	9.73	9.73		10.2	0	0	0.075	1	50	95%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1078621	CCV VOA1 121812	EPA_TO15	CCV	[\1\DATA\121812]12/18/2012 10:1		1	R54727		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.51	10.51		9.8	0	0	0.263	1	50	107%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	12.08	12.08		9.9	0	0	0.228	1	50	122%	70	130	0%	
Tetrachloroethene	A	ppbv	10.27	10.27		9.6	0	0	0.148	1	50	107%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.54	10.54		10	0	0	0.201	1	50	105%	70	130	0%	
Toluene	A	ppbv	10.5	10.5		9.8	0	0	0.158	1	50	107%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.26	11.26		9.8	0	0	0.117	1	50	115%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.8	9.8		9.1	0	0	0.171	1	50	108%	70	130	0%	
Trichloroethene	A	ppbv	10.03	10.03		9.6	0	0	0.119	1	50	104%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.54	10.54		9.6	0	0	0.148	1	50	110%	70	130	0%	
Vinyl acetate	A	ppbv	11.67	11.67		9.9	0	0	0.266	1	50	118%	70	130	0%	
Vinyl chloride	A	ppbv	9.42	9.42		9.4	0	0	0.072	1	50	100%	70	130	0%	
Xylenes, Total	C	ppbv	30.29	30.29		29.2	0	0	0.782	3	150	104%	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	12.59	12.59		12.5	0	0	0	0	0	101%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1078622	RLVS VOA1 121812	EPA_TO15	RLVS	[\1\DATA\121812]12/18/2012 11:0		1	R54727		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	0.91	0.91		0.996	0	0	0.107	1	50	91%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	0.96	0.96		1	0	0	0.211	1	50	96%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.01	1.01		0.98	0	0	0.108	1	50	103%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.91	0.91		0.98	0	0	0.2	1	50	93%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.98	0.98		0.97	0	0	0.111	1	50	101%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.95	0.95		0.99	0	0	0.097	1	50	96%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.86	0.86		0.91	0	0	0.271	1	50	95%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.9	0.9		0.98	0	0	0.245	1	50	92%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.87	0.87		0.96	0	0	0.186	1	50	91%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.93	0.93		0.97	0	0	0.208	1	50	96%	70	130	0%	
1,2-Dichloroethane	A	ppbv	0.91	0.91		0.97	0	0	0.196	1	50	94%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.94	0.94		0.98	0	0	0.224	1	50	96%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121812\12181202.D Vial: 2
Acq On : 18 Dec 2012 10:17 am Operator: RACHEL HILL
Sample : CCV VOA1 121812 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	94	0.00
2	T	Propylene	1.422	1.357	4.6	78	0.00
3	T	Dichlorodifluoromethane	4.303	4.568	-6.2	86	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.793	3.161	-13.2	93	0.00
5	T	Chloromethane	1.728	1.856	-7.4	86	0.00
6	T	Vinyl chloride	2.126	2.131	-0.2	83	0.00
7	T	1,3-Butadiene	1.234	1.115	9.6	72	0.00
8	T	Bromomethane	1.588	1.770	-11.5	92	0.00
9	T	Chloroethane	0.988	1.141	-15.5	95	0.00
10	T	Trichlorofluoromethane	4.039	4.434	-9.8	91	0.00
11	T	Ethanol	0.500	0.545	-9.0	94	0.00
12	T	Freon113	2.723	3.180	-16.8	95	0.00
13	T	1,1-Dichloroethene	2.517	2.854	-13.4	91	0.00
14	T	Acetone	2.403	2.528	-5.2	84	0.00
15	T	Carbon disulfide	3.567	4.149	-16.3	96	0.00
16	T	2-Propanol	2.345	2.479	-5.7	85	0.00
17	T	Methylene chloride	1.891	2.037	-7.7	88	0.00
18	T	tert-Butyl Methyl Ether	3.502	4.272	-22.0	98	0.00
19	T	trans-1,2-Dichloroethene	2.279	2.619	-14.9	93	0.00
20	T	n-Hexane	2.742	3.155	-15.1	94	0.00
21	T	1,1-Dichloroethane	2.869	3.417	-19.1	96	0.00
22	T	Vinyl acetate	3.601	4.245	-17.9	88	0.00
23	T	cis-1,2-Dichloroethene	1.449	1.697	-17.1	95	0.00
24	T	2-Butanone	2.457	2.767	-12.6	88	0.00
25	T	Ethyl acetate	3.135	3.634	-15.9	91	0.00
26	T	Tetrahydrofuran	1.562	1.647	-5.4	80	0.00
27	T	Chloroform	2.762	3.130	-13.3	90	0.00
28	T	1,1,1-Trichloroethane	2.932	3.328	-13.5	91	0.00
29	T	Cyclohexane	2.831	3.135	-10.7	86	0.00
30	T	Carbon tetrachloride	3.022	3.532	-16.9	92	0.00
31	T	Benzene	4.074	5.046	-23.9	99	0.00
32	T	1,2-Dichloroethane	2.025	2.320	-14.6	90	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
34	T	Heptane	0.771	0.743	3.6	82	0.00
35	T	Trichloroethene	0.537	0.561	-4.5	95	0.00
36	T	1,2-Dichloropropane	0.507	0.552	-8.9	98	0.00
37	T	1,4-Dioxane	0.229	0.251	-9.6	102	0.00
38	T	Bromodichloromethane	0.826	0.877	-6.2	94	0.00
39	T	cis-1,3-Dichloropropene	0.681	0.743	-9.1	97	0.00
40	T	4-Methyl-2-pentanone	0.400	0.417	-4.2	93	0.00
41	T	Toluene	1.376	1.474	-7.1	95	0.00
42	T	trans-1,3-Dichloropropene	0.630	0.679	-7.8	95	0.00
43	T	1,1,2-Trichloroethane	0.480	0.513	-6.9	96	0.00
44	T	Tetrachloroethene	0.677	0.724	-6.9	97	0.00
45	T	2-Hexanone	0.738	0.741	-0.4	86	0.00
46	T	Chlorodibromomethane	0.803	0.848	-5.6	93	0.00
47	T	1,2-Dibromoethane	0.702	0.767	-9.3	96	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
49	T	Chlorobenzene	1.205	1.307	-8.5	93	0.00
50	T	Ethylbenzene	2.002	2.159	-7.8	91	0.00
51	T	m,p-Xylene	1.538	1.588	-3.3	83	0.00
52	T	o-Xylene	1.584	1.660	-4.8	88	0.00
53	T	Styrene	1.155	1.239	-7.3	89	0.00
54	T	Bromoform	0.845	0.937	-10.9	94	0.00
55	S	4-Bromofluorobenzene	0.608	0.613	-0.8	102	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\121812\12181202.D Vial: 2
Acq On : 18 Dec 2012 10:17 am Operator: RACHEL HILL
Sample : CCV VOA1 121812 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.042	1.127	-8.2	93	0.00
57	T	4-Ethyltoluene	1.949	2.119	-8.7	92	0.00
58	T	1,3,5-Trimethylbenzene	1.664	1.769	-6.3	90	0.00
59	T	1,2,4-Trimethylbenzene	1.549	1.665	-7.5	91	0.00
60	T	1,3-Dichlorobenzene	0.858	0.964	-12.4	97	0.00
61	T	1,4-Dichlorobenzene	0.807	0.915	-13.4	98	0.00
62	T	Benzyl chloride	1.005	1.137	-13.1	93	0.00
63	T	1,2-Dichlorobenzene	0.727	0.820	-12.8	98	0.00
64	T	1,2,4-Trichlorobenzene	0.228	0.246	-7.9	103	0.00
65	T	Hexachlorobutadiene	0.412	0.434	-5.3	103	0.00
66		Naphthalene	0.427	0.429	-0.5	94	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121812\12181202.D Vial: 2
Acq On : 18 Dec 2012 10:17 am Operator: RACHEL HILL
Sample : CCV VOA1 121812 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 18 10:41 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.52	130	175581	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	696987	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.46	117	565252	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.11	95	346505	12.59	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 100.72%

Target Compounds						Qvalue
2) Propylene	5.43	41	194367	9.73	ppbv	98
3) Dichlorodifluoromethane	5.51	85	590269	9.77	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	421842	10.75	ppbv #	72
5) Chloromethane	5.92	50	247691	10.20	ppbv	99
6) Vinyl chloride	6.14	62	281340	9.42	ppbv	96
7) 1,3-Butadiene	6.20	39	153422	8.85	ppbv #	60
8) Bromomethane	6.77	94	231249	10.37	ppbv	99
9) Chloroethane	6.92	64	147399	10.62	ppbv	99
10) Trichlorofluoromethane	7.25	101	597903	10.54	ppbv	99
11) Ethanol	7.49	45	70385	10.02	ppbv	97
12) Freon113	7.92	101	437780	11.45	ppbv	90
13) 1,1-Dichloroethene	8.02	61	396834	11.22	ppbv #	87
14) Acetone	8.11	43	355096	10.52	ppbv #	85
15) Carbon disulfide	8.39	76	565345	11.28	ppbv #	99
16) 2-Propanol	8.17	45	351744	10.68	ppbv #	1
17) Methylene chloride	8.67	49	286164	10.78	ppbv	87
18) tert-Butyl Methyl Ether	8.88	73	594110	12.08	ppbv #	93
19) trans-1,2-Dichloroethene	8.96	61	360512	11.26	ppbv #	84
20) n-Hexane	9.15	57	447568	11.62	ppbv #	81
21) 1,1-Dichloroethane	9.52	63	465636	11.55	ppbv	95
22) Vinyl acetate	9.45	43	590288	11.67	ppbv	99
23) cis-1,2-Dichloroethene	10.21	96	233662	11.48	ppbv #	82
24) 2-Butanone	10.18	43	384738	11.15	ppbv #	97
25) Ethyl acetate	10.13	43	500220	11.36	ppbv #	100
26) Tetrahydrofuran	10.51	42	231286	10.54	ppbv	99
27) Chloroform	10.53	83	430823	11.10	ppbv	100
28) 1,1,1-Trichloroethane	10.78	97	448815	10.90	ppbv	95
29) Cyclohexane	10.78	56	431496	10.85	ppbv #	78
30) Carbon tetrachloride	10.94	117	471250	11.10	ppbv	98
31) Benzene	11.22	78	680407	11.89	ppbv	96
32) 1,2-Dichloroethane	11.30	62	316125	11.11	ppbv #	96
34) Heptane	11.27	43	409982	9.54	ppbv #	91
35) Trichloroethene	11.95	130	300257	10.03	ppbv	96
36) 1,2-Dichloropropane	12.31	63	301582	10.67	ppbv	94
37) 1,4-Dioxane	12.39	88	134373	10.50	ppbv #	86
38) Bromodichloromethane	12.60	83	469382	10.19	ppbv	99
39) cis-1,3-Dichloropropene	13.15	75	393628	10.37	ppbv	98
40) 4-Methyl-2-pentanone	13.26	58	232562	10.42	ppbv #	91
41) Toluene	13.55	91	805334	10.50	ppbv	99
42) trans-1,3-Dichloropropene	13.86	75	344300	9.80	ppbv	99
43) 1,1,2-Trichloroethane	14.13	97	280518	10.49	ppbv	98
44) Tetrachloroethene	14.26	166	387434	10.27	ppbv	98
45) 2-Hexanone	14.33	43	405026	9.84	ppbv	81
46) Chlorodibromomethane	14.68	129	463241	10.34	ppbv	98
47) 1,2-Dibromoethane	14.91	107	410808	10.49	ppbv	100
49) Chlorobenzene	15.51	112	585024	10.74	ppbv	96
50) Ethylbenzene	15.55	91	956867	10.57	ppbv	97
51) m,p-Xylene	15.70	91	1378484	19.81	ppbv	94
52) o-Xylene	16.29	91	750862	10.48	ppbv #	93

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121812\12181202.D Vial: 2
Acq On : 18 Dec 2012 10:17 am Operator: RACHEL HILL
Sample : CCV VOA1 121812 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 18 10:41 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

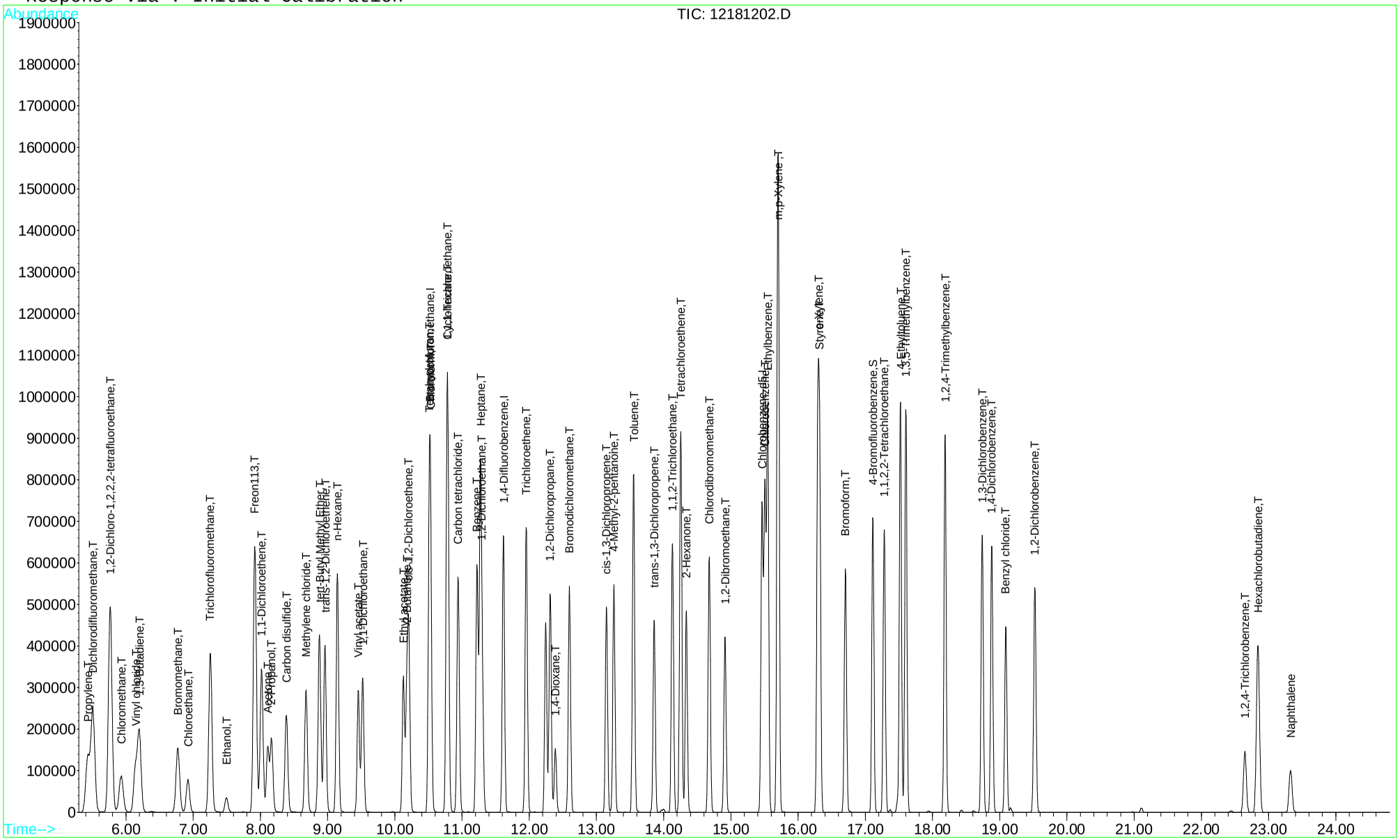
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.32	104	549248	10.51	ppbv	97
54)	Bromoform	16.70	173	406885	10.65	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.28	83	509536	10.82	ppbv	99
57)	4-Ethyltoluene	17.52	105	938943	10.65	ppbv	97
58)	1,3,5-Trimethylbenzene	17.60	105	776141	10.32	ppbv	98
59)	1,2,4-Trimethylbenzene	18.19	105	738054	10.53	ppbv	98
60)	1,3-Dichlorobenzene	18.74	146	422785	10.90	ppbv	98
61)	1,4-Dichlorobenzene	18.88	146	397341	10.89	ppbv	98
62)	Benzyl chloride	19.09	91	498934	10.98	ppbv	99
63)	1,2-Dichlorobenzene	19.52	146	359631	10.94	ppbv	98
64)	1,2,4-Trichlorobenzene	22.65	180	101091	9.82	ppbv	98
65)	Hexachlorobutadiene	22.84	225	184614	9.90	ppbv	99
66)	Naphthalene	23.32	128	178318	9.23	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121812\12181202.D Vial: 2
Acq On : 18 Dec 2012 10:17 am Operator: RACHEL HILL
Sample : CCV VOA1 121812 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Dec 18 10:41 2012 Quant Results File: 112812V1.RES

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration

Calibration Files
2 =11281203.D 4 =11281204.D 5 =11281205.D
6 =11281206.D 7 =11281207.D 8 =11281208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.721	1.640	1.499	1.387	1.306	1.220	1.422	14.55
3)	T	Dichlorodifluoromet	4.464	5.016	4.644	4.332	4.096	3.830	4.303	10.53
4)	T	1,2-Dichloro-1,2,2,	2.863	3.216	3.024	2.834	2.687	2.518	2.793	10.04
5)	T	Chloromethane	1.888	2.031	1.855	1.734	1.626	1.509	1.728	12.21
6)	T	Vinyl chloride	2.073	2.435	2.297	2.225	2.075	1.930	2.126	9.68
7)	T	1,3-Butadiene	1.238	1.469	1.365	1.299	1.189	1.080	1.234	13.17
8)	T	Bromomethane	1.623	1.820	1.695	1.598	1.557	1.466	1.588	9.50
9)	T	Chloroethane	0.956	1.130	1.073	0.994	0.956	0.926	0.988	8.72
10)	T	Trichlorofluorometh	4.746	4.590	4.324	3.993	3.768	3.510	4.039	13.29
11)	T	Ethanol	0.542	0.547	0.543	0.522	0.498	0.426	0.500	10.83
12)	T	Freon113	2.907	3.154	2.980	2.800	2.661	2.380	2.723	12.66
13)	T	1,1-Dichloroethene	2.611	2.968	2.750	2.551	2.431	2.209	2.517	11.96
14)	T	Acetone	2.933	2.826	2.678	2.475	2.319	1.861	2.403	19.37
15)	T	Carbon disulfide	3.820	4.102	3.849	3.573	3.375	3.183	3.567	10.63
16)	T	2-Propanol	2.293	2.747	2.624	2.461	2.332	2.031	2.345	12.66
17)	T	Methylene chloride	2.359	2.197	2.031	1.885	1.761	1.545	1.891	17.51
18)	T	tert-Butyl Methyl E	3.762	4.134	3.913	3.684	3.517	2.819	3.502	15.62
19)	T	trans-1,2-Dichloroe	2.408	2.646	2.495	2.345	2.220	1.964	2.279	12.28
20)	T	n-Hexane	2.870	3.163	3.023	2.814	2.690	2.382	2.742	12.00
21)	T	1,1-Dichloroethane	3.093	3.369	3.178	2.947	2.839	2.387	2.869	14.15
22)	T	Vinyl acetate	2.893	4.544	4.306	3.964	3.766	2.956	3.601	20.11
23)	T	cis-1,2-Dichloroeth	1.531	1.686	1.584	1.493	1.420	1.241	1.449	12.45
24)	T	2-Butanone	2.518	2.957	2.778	2.685	2.450	1.986	2.457	16.88
25)	T	Ethyl acetate	2.943	3.759	3.608	3.427	3.101	2.659	3.135	15.60
26)	T	Tetrahydrofuran	1.514	1.943	1.834	1.695	1.577	1.275	1.562	19.23
27)	T	Chloroform	2.893	3.268	3.085	2.898	2.730	2.327	2.762	14.62
28)	T	1,1,1-Trichloroetha	3.103	3.459	3.279	3.068	2.891	2.474	2.932	14.73
29)	T	Cyclohexane	2.950	3.454	3.233	3.029	2.827	2.408	2.831	18.39
30)	T	Carbon tetrachlorid	2.975	3.621	3.391	3.166	2.993	2.605	3.022	14.03
31)	T	Benzene	4.423	4.814	4.521	4.228	4.028	3.359	4.074	15.11
32)	T	1,2-Dichloroethane	2.192	2.434	2.297	2.114	2.000	1.640	2.025	16.92
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.789	0.961	0.918	0.829	0.774	0.643	0.771	21.36
35)	T	Trichloroethene	0.533	0.626	0.609	0.567	0.533	0.475	0.537	13.70
36)	T	1,2-Dichloropropane	0.512	0.597	0.582	0.531	0.510	0.430	0.507	15.10
37)	T	1,4-Dioxane	0.192	0.262	0.270	0.252	0.238	0.204	0.229	14.87
38)	T	Bromodichloromethan	0.806	0.985	0.951	0.872	0.827	0.714	0.826	15.28
39)	T	cis-1,3-Dichloropro	0.612	0.812	0.789	0.724	0.696	0.599	0.681	15.10
40)	T	4-Methyl-2-pentanon	0.316	0.474	0.469	0.430	0.418	0.364	0.400	15.99
41)	T	Toluene	1.398	1.636	1.578	1.447	1.385	1.174	1.376	15.84
42)	T	trans-1,3-Dichlorop	0.506	0.759	0.739	0.683	0.651	0.560	0.630	16.69
43)	T	1,1,2-Trichloroetha	0.478	0.563	0.544	0.504	0.480	0.417	0.480	14.15
44)	T	Tetrachloroethene	0.657	0.787	0.774	0.722	0.688	0.608	0.677	14.74
45)	T	2-Hexanone	0.518	0.915	0.902	0.827	0.779	0.656	0.738	21.52
46)	T	Chlorodibromomethan	0.736	0.967	0.930	0.858	0.816	0.709	0.803	15.86
47)	T	1,2-Dibromoethane	0.652	0.849	0.821	0.746	0.709	0.608	0.702	16.26
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	1.245	1.418	1.368	1.270	1.215	1.039	1.205	15.56
50)	T	Ethylbenzene	2.122	2.381	2.311	2.125	2.007	1.681	2.002	17.71
51)	T	m,p-Xylene	1.691	1.921	1.876	1.676	1.518	1.190	1.538	24.23
52)	T	o-Xylene	1.650	1.900	1.847	1.698	1.599	1.326	1.584	18.53
53)	T	Styrene	1.004	1.410	1.378	1.277	1.208	1.007	1.155	19.35
54)	T	Bromoform	0.712	1.002	0.982	0.918	0.871	0.765	0.845	15.82
55)	S	4-Bromofluorobenzen	0.590	0.608	0.611	0.614	0.604	0.605	0.608	1.81
56)	T	1,1,2,2-Tetrachloro	1.056	1.223	1.193	1.102	1.034	0.908	1.042	15.13
57)	T	4-Ethyltoluene	1.936	2.324	2.256	2.093	1.962	1.683	1.949	16.72

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration

Calibration Files
2 =11281203.D 4 =11281204.D 5 =11281205.D
6 =11281206.D 7 =11281207.D 8 =11281208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.700	1.990	1.942	1.773	1.654	1.415	1.664	17.36
59)	T	1,2,4-Trimethylbenz	1.459	1.842	1.794	1.674	1.565	1.361	1.549	15.91
60)	T	1,3-Dichlorobenzene	0.780	1.000	0.977	0.917	0.857	0.770	0.858	13.07
61)	T	1,4-Dichlorobenzene	0.690	0.942	0.923	0.874	0.807	0.734	0.807	13.60
62)	T	Benzyl chloride	0.448	1.239	1.220	1.152	1.068	0.984	1.005	27.06
63)	T	1,2-Dichlorobenzene	0.658	0.845	0.829	0.776	0.710	0.663	0.727	12.54
64)	T	1,2,4-Trichlorobenz	0.165	0.242	0.249	0.249	0.215	0.254	0.228	13.79
65)	T	Hexachlorobutadiene	0.398	0.425	0.439	0.426	0.364	0.473	0.412	9.79
66)		Naphthalene	0.239	0.460	0.474	0.475	0.398	0.525	0.427	21.69

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	5.43	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	5.76	0.548	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	6.20	0.589	A	2	A	B
8		T	Bromomethane	94	6.77	0.644	A	3	A	B
9		T	Chloroethane	64	6.92	0.658	A	3	A	B
10		T	Trichlorofluoromethane	101	7.25	0.690	A	3	A	B
11		T	Ethanol	45	7.49	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	8.11	0.771	A	2	A	B
15		T	Carbon disulfide	76	8.39	0.798	A	3	A	B
16		T	2-Propanol	45	8.16	0.776	A	2	A	B
17		T	Methylene chloride	49	8.68	0.825	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	9.52	0.906	A	3	A	B
22		T	Vinyl acetate	43	9.45	0.899	A	2	A	B
23		T	cis-1,2-Dichloroethene	96	10.20	0.970	A	3	A	B
24		T	2-Butanone	43	10.18	0.968	A	2	A	B
25		T	Ethyl acetate	43	10.12	0.963	A	3	A	B
26		T	Tetrahydrofuran	42	10.52	1.000	A	2	A	B
27		T	Chloroform	83	10.53	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	10.94	1.040	A	3	A	B
31		T	Benzene	78	11.22	1.067	A	3	A	B
32		T	1,2-Dichloroethane	62	11.30	1.075	A	3	A	B
33	I		1,4-Difluorobenzene	114	11.61	1.000	A	2	A	B
34		T	Heptane	43	11.27	0.971	A	3	A	B
35		T	Trichloroethene	130	11.96	1.030	A	3	A	B
36		T	1,2-Dichloropropane	63	12.31	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	13.26	1.142	A	3	A	B
41		T	Toluene	91	13.55	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	14.13	1.217	A	3	A	B
44		T	Tetrachloroethene	166	14.26	1.227	A	3	A	B
45		T	2-Hexanone	43	14.33	1.234	A	2	A	B
46		T	Chlorodibromomethane	129	14.67	1.263	A	2	A	B
47		T	1,2-Dibromoethane	107	14.91	1.284	A	2	A	B
48	I		Chlorobenzene-d5	117	15.46	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	1.016	A	2	A	B
52		T	o-Xylene	91	16.30	1.054	A	2	A	B
53		T	Styrene	104	16.32	1.055	A	3	A	B
54		T	Bromoform	173	16.70	1.080	A	3	A	B
55		S	4-Bromofluorobenzene	95	17.11	1.107	A	2	A	B
56		T	1,1,2,2-Tetrachloroethane	83	17.28	1.118	A	2	A	B
57		T	4-Ethyltoluene	105	17.52	1.133	A	1	A	B
58		T	1,3,5-Trimethylbenzene	105	17.60	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	19.52	1.262	A	3	A	B
64		T	1,2,4-Trichlorobenzene	180	22.65	1.465	A	3	A	B
65		T	Hexachlorobutadiene	225	22.85	1.478	A	2	A	B
66			Naphthalene	128	23.33	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
-----------------------------------------------------------------------
          112812V1.M     Fri Nov 30 09:14:35 2012
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Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\112812\11281211.D Vial: 11
Acq On : 29 Nov 2012 1:52 am Operator: RACHEL HILL
Sample : ICV VOA1 112812 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	134	0.00
2	T	Propylene	1.422	1.254	11.8	103	0.00
3	T	Dichlorodifluoromethane	4.303	4.089	5.0	109	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.793	2.698	3.4	113	0.00
5	T	Chloromethane	1.728	1.601	7.3	106	0.00
6	T	Vinyl chloride	2.126	2.056	3.3	113	0.00
7	T	1,3-Butadiene	1.234	1.179	4.5	108	0.00
8	T	Bromomethane	1.588	1.608	-1.3	119	0.00
9	T	Chloroethane	0.988	0.996	-0.8	118	0.00
10	T	Trichlorofluoromethane	4.039	3.922	2.9	115	0.00
11	T	Ethanol	0.500	0.498	0.4	122	0.00
12	T	Freon113	2.723	2.804	-3.0	119	0.00
13	T	1,1-Dichloroethene	2.517	2.602	-3.4	118	0.00
14	T	Acetone	2.403	2.510	-4.5	119	0.00
15	T	Carbon disulfide	3.567	4.055	-13.7	133	0.00
16	T	2-Propanol	2.345	2.537	-8.2	124	0.00
17	T	Methylene chloride	1.891	1.795	5.1	110	0.00
18	T	tert-Butyl Methyl Ether	3.502	3.829	-9.3	124	0.00
19	T	trans-1,2-Dichloroethene	2.279	2.430	-6.6	123	0.00
20	T	n-Hexane	2.742	2.792	-1.8	119	0.00
21	T	1,1-Dichloroethane	2.869	2.927	-2.0	117	0.00
22	T	Vinyl acetate	3.601	3.900	-8.3	115	0.00
23	T	cis-1,2-Dichloroethene	1.449	1.479	-2.1	118	0.00
24	T	2-Butanone	2.457	2.459	-0.1	112	0.00
25	T	Ethyl acetate	3.135	3.407	-8.7	122	0.00
26	T	Tetrahydrofuran	1.562	1.618	-3.6	112	0.00
27	T	Chloroform	2.762	2.783	-0.8	114	0.00
28	T	1,1,1-Trichloroethane	2.932	2.959	-0.9	115	0.00
29	T	Cyclohexane	2.831	2.929	-3.5	114	0.00
30	T	Carbon tetrachloride	3.022	3.101	-2.6	115	0.00
31	T	Benzene	4.074	4.224	-3.7	118	0.00
32	T	1,2-Dichloroethane	2.025	2.084	-2.9	115	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	134	0.00
34	T	Heptane	0.771	0.793	-2.9	111	0.00
35	T	Trichloroethene	0.537	0.543	-1.1	117	0.00
36	T	1,2-Dichloropropane	0.507	0.524	-3.4	118	0.00
37	T	1,4-Dioxane	0.229	0.253	-10.5	130	0.00
38	T	Bromodichloromethane	0.826	0.871	-5.4	119	0.00
39	T	cis-1,3-Dichloropropene	0.681	0.685	-0.6	113	0.00
40	T	4-Methyl-2-pentanone	0.400	0.431	-7.7	122	0.00
41	T	Toluene	1.376	1.551	-12.7	127	0.00
42	T	trans-1,3-Dichloropropene	0.630	0.711	-12.9	126	0.00
43	T	1,1,2-Trichloroethane	0.480	0.482	-0.4	115	0.00
44	T	Tetrachloroethene	0.677	0.706	-4.3	121	0.00
45	T	2-Hexanone	0.738	0.807	-9.3	119	0.00
46	T	Chlorodibromomethane	0.803	0.826	-2.9	115	0.00
47	T	1,2-Dibromoethane	0.702	0.722	-2.8	114	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	130	0.00
49	T	Chlorobenzene	1.205	1.258	-4.4	115	0.00
50	T	Ethylbenzene	2.002	2.092	-4.5	114	0.00
51	T	m,p-Xylene	1.538	1.669	-8.5	113	0.00
52	T	o-Xylene	1.584	1.680	-6.1	115	0.00
53	T	Styrene	1.155	1.245	-7.8	115	0.00
54	T	Bromoform	0.845	0.888	-5.1	115	0.00
55	S	4-Bromofluorobenzene	0.608	0.613	-0.8	131	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\112812\11281211.D Vial: 11
Acq On : 29 Nov 2012 1:52 am Operator: RACHEL HILL
Sample : ICV VOA1 112812 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 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	1.042	1.057	-1.4	112	0.00
57	T	4-Ethyltoluene	1.949	2.046	-5.0	114	0.00
58	T	1,3,5-Trimethylbenzene	1.664	1.730	-4.0	113	0.00
59	T	1,2,4-Trimethylbenzene	1.549	1.635	-5.6	115	0.00
60	T	1,3-Dichlorobenzene	0.858	0.900	-4.9	117	0.00
61	T	1,4-Dichlorobenzene	0.807	0.856	-6.1	118	0.00
62	T	Benzyl chloride	1.005	1.110	-10.4	116	0.00
63	T	1,2-Dichlorobenzene	0.727	0.749	-3.0	115	0.00
64	T	1,2,4-Trichlorobenzene	0.228	0.241	-5.7	129	0.00
65	T	Hexachlorobutadiene	0.412	0.396	3.9	121	0.00
66		Naphthalene	0.427	0.433	-1.4	122	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\112812\11281211.D Vial: 11
Acq On : 29 Nov 2012 1:52 am Operator: RACHEL HILL
Sample : ICV VOA1 112812 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 30 9:01 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.51	130	249572	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	885435	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.46	117	727069	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	445576	12.59	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 100.72%

Target Compounds						Qvalue
2) Propylene	5.43	41	255410	8.99	ppbv	100
3) Dichlorodifluoromethane	5.51	85	751136	8.74	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	511665	9.17	ppbv #	71
5) Chloromethane	5.93	50	303718	8.80	ppbv	99
6) Vinyl chloride	6.14	62	385959	9.09	ppbv	96
7) 1,3-Butadiene	6.20	39	230782	9.37	ppbv #	68
8) Bromomethane	6.77	94	298491	9.42	ppbv	99
9) Chloroethane	6.92	64	182969	9.27	ppbv	99
10) Trichlorofluoromethane	7.26	101	751664	9.32	ppbv	99
11) Ethanol	7.50	45	91497	9.16	ppbv #	92
12) Freon113	7.92	101	548682	10.09	ppbv	89
13) 1,1-Dichloroethene	8.02	61	514257	10.23	ppbv #	86
14) Acetone	8.11	43	501163	10.45	ppbv #	92
15) Carbon disulfide	8.39	76	785237	11.02	ppbv #	100
16) 2-Propanol	8.17	45	511544	10.93	ppbv #	1
17) Methylene chloride	8.68	49	358462	9.50	ppbv	85
18) tert-Butyl Methyl Ether	8.88	73	756798	10.82	ppbv #	93
19) trans-1,2-Dichloroethene	8.96	61	475503	10.45	ppbv #	82
20) n-Hexane	9.15	57	563085	10.28	ppbv #	86
21) 1,1-Dichloroethane	9.52	63	566795	9.89	ppbv #	96
22) Vinyl acetate	9.46	43	770835	10.72	ppbv	98
23) cis-1,2-Dichloroethene	10.21	96	289314	10.00	ppbv #	80
24) 2-Butanone	10.17	43	486090	9.91	ppbv #	97
25) Ethyl acetate	10.13	43	666638	10.65	ppbv #	100
26) Tetrahydrofuran	10.51	42	323022	10.36	ppbv	98
27) Chloroform	10.54	83	544497	9.87	ppbv	100
28) 1,1,1-Trichloroethane	10.78	97	567246	9.69	ppbv #	94
29) Cyclohexane	10.79	56	573067	10.14	ppbv #	80
30) Carbon tetrachloride	10.94	117	588177	9.75	ppbv	98
31) Benzene	11.23	78	809684	9.96	ppbv	94
32) 1,2-Dichloroethane	11.30	62	403546	9.98	ppbv #	96
34) Heptane	11.27	43	555900	10.18	ppbv #	91
35) Trichloroethene	11.96	130	369555	9.72	ppbv	96
36) 1,2-Dichloropropane	12.31	63	363417	10.12	ppbv	95
37) 1,4-Dioxane	12.39	88	171850	10.57	ppbv #	84
38) Bromodichloromethane	12.60	83	592426	10.12	ppbv	99
39) cis-1,3-Dichloropropene	13.15	75	461122	9.56	ppbv	98
40) 4-Methyl-2-pentanone	13.26	58	305072	10.76	ppbv #	91
41) Toluene	13.55	91	1076726	11.05	ppbv	99
42) trans-1,3-Dichloropropene	13.86	75	458257	10.27	ppbv	98
43) 1,1,2-Trichloroethane	14.13	97	334672	9.85	ppbv	98
44) Tetrachloroethene	14.25	166	480310	10.02	ppbv	98
45) 2-Hexanone	14.34	43	560323	10.72	ppbv	86
46) Chlorodibromomethane	14.68	129	573262	10.07	ppbv	99
47) 1,2-Dibromoethane	14.91	107	490684	9.87	ppbv	99
49) Chlorobenzene	15.51	112	724327	10.33	ppbv #	95
50) Ethylbenzene	15.55	91	1192722	10.24	ppbv	95
51) m,p-Xylene	15.70	91	1864280	20.83	ppbv	94
52) o-Xylene	16.29	91	977471	10.61	ppbv #	93

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\112812\11281211.D Vial: 11
Acq On : 29 Nov 2012 1:52 am Operator: RACHEL HILL
Sample : ICV VOA1 112812 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 30 9:01 2012 Quant Results File: 112812V1.RES

Quant Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration
DataAcq Meth : 112812V1

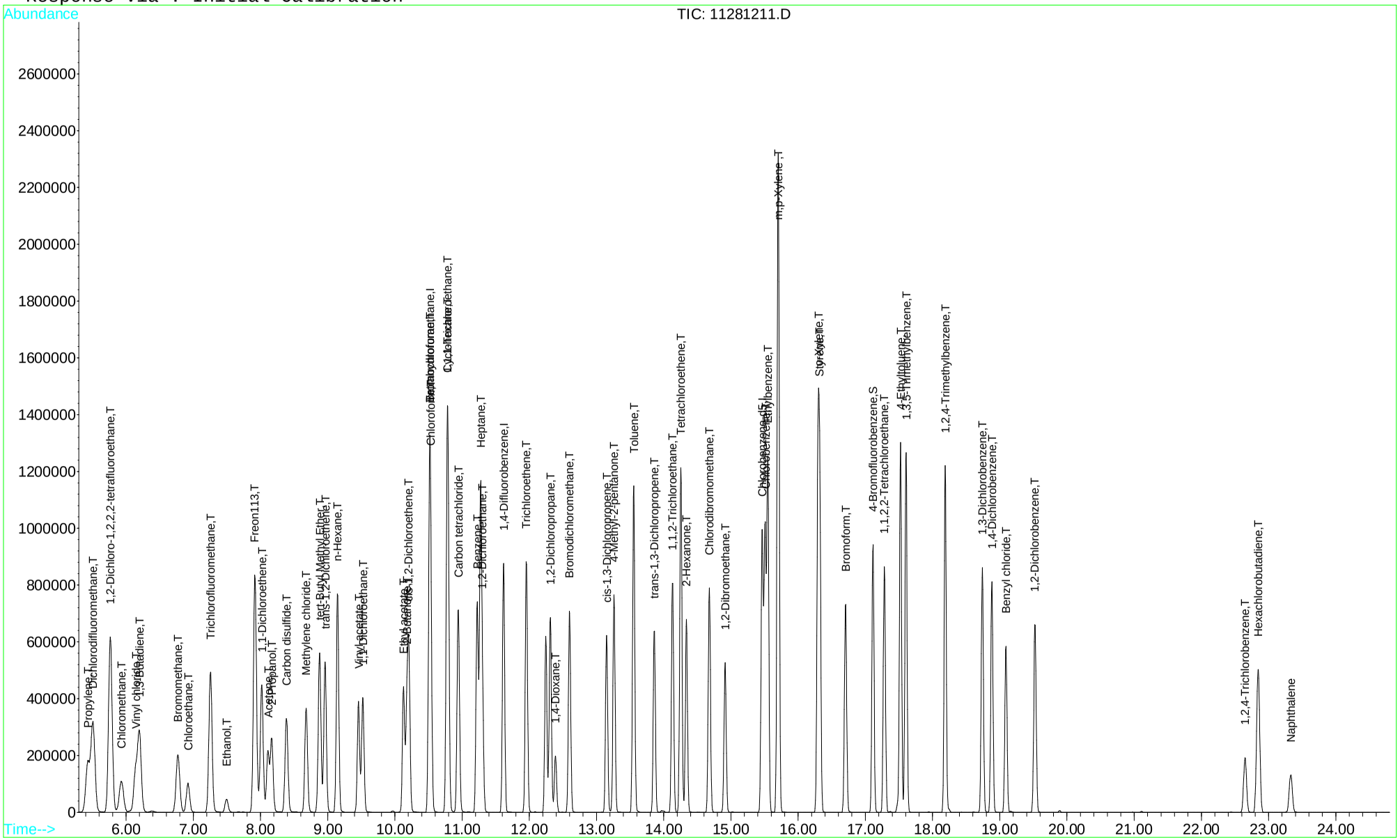
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.32	104	709439	10.56	ppbv	97
54)	Bromoform	16.71	173	495703	10.09	ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.28	83	614820	10.15	ppbv	99
57)	4-Ethyltoluene	17.52	105	1166019	10.28	ppbv	97
58)	1,3,5-Trimethylbenzene	17.61	105	976082	10.09	ppbv	97
59)	1,2,4-Trimethylbenzene	18.19	105	931803	10.34	ppbv	98
60)	1,3-Dichlorobenzene	18.74	146	507777	10.18	ppbv	97
61)	1,4-Dichlorobenzene	18.88	146	477737	10.18	ppbv	97
62)	Benzyl chloride	19.09	91	626263	10.71	ppbv	99
63)	1,2-Dichlorobenzene	19.53	146	422531	9.99	ppbv	97
64)	1,2,4-Trichlorobenzene	22.65	180	127569	9.63	ppbv	97
65)	Hexachlorobutadiene	22.85	225	216550	9.03	ppbv	99
66)	Naphthalene	23.33	128	231705	9.32	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\112812\11281211.D Vial: 11
Acq On : 29 Nov 2012 1:52 am Operator: RACHEL HILL
Sample : ICV VOA1 112812 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 30 9:01 2012 Quant Results File: 112812V1.RES

Method : C:\HPCHEM\1\METHODS\112812V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Nov 29 10:50:07 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121112

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12111201.d	1.	BFB VOA9 121112	TUNE BFB_TUNE	11 Dec 2012 08:59
2	2	12111202.d	1.	ICAL1 VOA9 121112	DATA NOT USED	11 Dec 2012 10:20
3	3	12111203.d	1.	ICAL1 VOA9 121112	ICAL1MA_APH	11 Dec 2012 11:04
4	4	12111204.d	1.	ICAL2 VOA9 121112	ICAL2MA_APH	11 Dec 2012 11:49
5	5	12111205.d	1.	ICAL3 VOA9 121112	ICAL3MA_APH	11 Dec 2012 12:35
6	6	12111206.d	1.	ICAL4 VOA9 121112	ICAL4MA_APH	11 Dec 2012 13:21
7	7	12111207.d	1.	ICAL5 VOA9 121112	ICAL5MA_APH	11 Dec 2012 14:06
8	8	12111208.d	1.	ICAL6 VOA9 121112	ICAL6MA_APH	11 Dec 2012 14:50
9	9	12111209.d	1.	ICAL7 VOA9 121112	ICAL7MA_APH	11 Dec 2012 15:36
10	2	12111210.d	1.	BFB VOA9 121112	TUNE BFB_TUNE	11 Dec 2012 16:22
11	2	12111211.d	1.	ICV VOA9 121112	ICV MA_APH	11 Dec 2012 17:06
12	3	12111212.d	1.	RLVS VOA9 121112	RLVS MA_APH	11 Dec 2012 17:50
13	4	12111213.d	1.	MBLK VOA9 121112	DATA NOT USED	11 Dec 2012 18:39
14	21	12111214.d	800.	1211986-014A	SAMP MA_APH	11 Dec 2012 19:24
15	22	12111215.d	40.	1211986-033A	SAMP MA_APH	11 Dec 2012 20:10
16	23	12111216.d	400.	1211986-004A	SAMP MA_APH	11 Dec 2012 20:59
17	24	12111217.d	400.	MBLK VOA9 121112	SAMP MA_APH	11 Dec 2012 21:44
18	24	12111218.d	8.	1212185-028A	SAMP MA_APH	11 Dec 2012 22:31
19	25	12111219.d	400.	1212185-029A	SAMP MA_APH	11 Dec 2012 23:20
20	26	12111220.d	400.	1212185-030A	SAMP MA_APH	12 Dec 2012 00:08
21	27	12111221.d	200.	1212185-031A	SAMP MA_APH	12 Dec 2012 00:57
22	28	12111222.d	800.	1212185-032A	SAMP MA_APH	12 Dec 2012 01:43
23	28	12111223.d	800.	1212185-032ADUP	DUP MA_APH	12 Dec 2012 02:29
24	29	12111224.d	8000.	1212185-033A	SAMP MA_APH	12 Dec 2012 03:13
25	11	12111225.d	20000.	1212185-034A	SAMP MA_APH	12 Dec 2012 04:02
26	12	12111226.d	40000.	1212185-004A	SAMP MA_APH	12 Dec 2012 04:55
27	13	12111227.d	80000.	1212185-005A	DATA NOT USED	12 Dec 2012 05:46
28	14	12111228.d	80000.	1212185-006A	DATA NOT USED	12 Dec 2012 06:37
29	15	12111229.d	80000.	1212185-007A	DATA NOT USED	12 Dec 2012 07:32
30	16	12111230.d	8.	1212185-008A	SAMP MA_APH	12 Dec 2012 08:25
31	17	12111231.d	8.	1212185-009A	SAMP MA_APH	12 Dec 2012 09:15
32	18	12111232.d	800.	1212185-015A	DATA NOT USED	12 Dec 2012 10:07
33	18	12111233.d	800.	1212185-015A	DATA NOT USED	12 Dec 2012 10:52
34	19	12111234.d	800.	1212185-010A	DATA NOT USED	12 Dec 2012 11:38
35	3	12111235.d	1.	RLVS2 VOA9 121112	DATA NOT USED	12 Dec 2012 12:24
36	4	12111236.d	1.	RLVS2 VOA9 121112	RLVS MA_APH	12 Dec 2012 13:08

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54540

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1074652	BFB2 VOA9 121112	BFB_TUNE	TUNE	\1\DATA\121112\	12/11/2012 4:22:	1	R54540		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		64.6	64.6		100	0	0	0	0	0	65%	50	200	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		99.9	99.9		100	0	0	0	0	0	100%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		18.8	18.8		100	0	0	0	0	0	19%	8	40	0%	
75	M		40.6	40.6		100	0	0	0	0	0	41%	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
1074653	ICV VOA9 121112	MA_APH	ICV	\1\DATA\121112\	12/11/2012 5:06:	1	R54540		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	269.46	269.46		234	0	0	0	0	0	115%	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	308.93	308.93		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	453.24	453.24		378	0	0	0	0	0	120%	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	90.35	90.35		89.5	0	0	0	0	0	101%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121112\12111211.D Vial: 2
Acq On : 11 Dec 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA9 121112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 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	32.800	-12.3	106	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	42.053	-15.5	102	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	47.104	-12.7	98	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	41.967	-18.6	105	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	49.051	-16.2	102	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	56.698	-15.7	100	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	269.463	-15.2	102	0.00
8	L1	C9-C12 Aliphatic HC	54.600	63.361	-16.0	100	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	61.437	-12.5	103	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	73.919	-20.8	104	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	73.310	-20.6	105	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	87.782	-25.4	107	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	95.474	-24.0	102	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	453.239	-19.9	103	0.00
15	L1	C9-C10 Aromatic HC	51.700	59.320	-14.7	99	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	59.018	-15.3	100	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	60.293	-15.5	99	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	69.608	-18.6	103	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	61.147	-16.2	101	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	68.829	-17.3	100	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	308.925	-16.1	100	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.94#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.26#
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	-6.26#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.42#
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	-17.31#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.22#
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	-17.30#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.30#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.30#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	100	0.00
41	S	4-Bromofluorobenzene	89.500	90.346	-0.9	103	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121112\12111211.D Vial: 2
Acq On : 11 Dec 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA9 121112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 13:13 2012 Quant Results File: 121112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration
DataAcq Meth : 121112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.39	117	974237	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.22	95	590090	90.35	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 100.95%

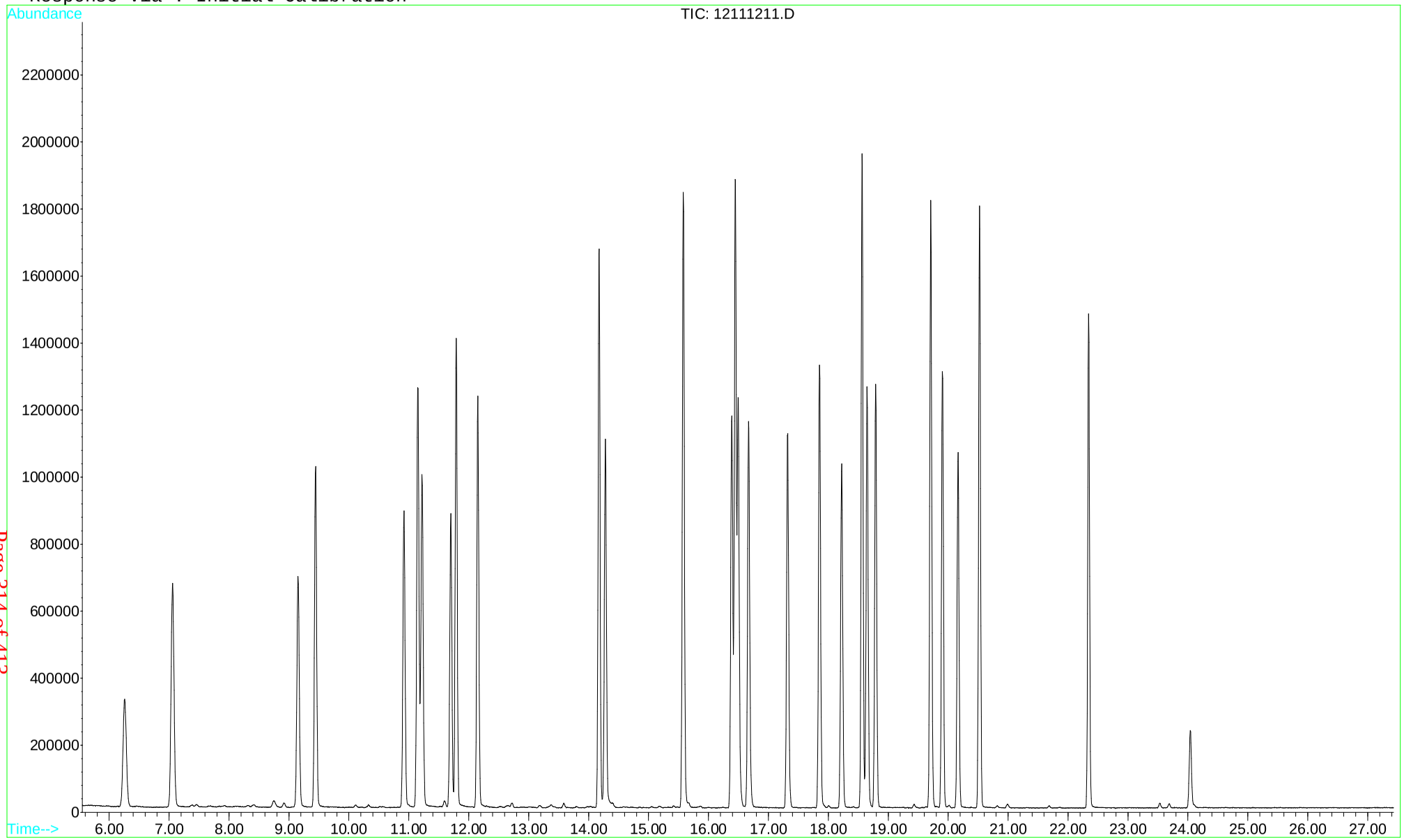
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.06	TIC	2288920	32.80	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.45	TIC	2602068	42.05	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.15	TIC	3277873	47.10	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.22	TIC	2645524	41.97	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.79	TIC	3237437	49.05	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.18	TIC	3713605	56.70	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.06	TIC	17765427m	269.46	ug/m3	
8) C9-C12 Aliphatic HC	15.58	TIC	4381081	63.36	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.45	TIC	2864148m	61.44	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.56	TIC	4292642	73.92	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.71	TIC	4141395	73.31	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.52	TIC	3939624	87.78	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.34	TIC	3101427	95.47	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.58	TIC	22720317m	453.24	ug/m3	
15) C9-C10 Aromatic HC	17.85	120	345802	59.32	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.65	120	355395	59.02	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.79	120	517550	60.29	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.91	120	112845	69.61	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.17	120	390124	61.15	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.90	134	300228	68.83	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.85	TIC	2021944m	308.93	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121112\12111211.D Vial: 2
Acq On : 11 Dec 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA9 121112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 13:13 2012 Quant Results File: 121112V9.RES

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121212

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	12121201.d	1.	BFB VOA9 121212	TUNE BFB_TUNE	12 Dec 2012 13:54
2	2	12121202.d	1.	CCV VOA9 121212	CCV MA_APH	12 Dec 2012 14:39
3	3	12121203.d	1.	RLVS VOA9 121212	RLVS MA_APH	12 Dec 2012 15:25
4	4	12121204.d	1.	MBLK VOA9 121212	MBLK MA_APH	12 Dec 2012 17:04
5	21	12121205.d	800.	121285-016A	DATA NOT USED	12 Dec 2012 17:50
6	22	12121206.d	40.	121285-017A	DATA NOT USED	12 Dec 2012 18:33
7	23	12121207.d	800.	121285-011A	SAMP MA_APH	12 Dec 2012 19:19
8	23	12121208.d	800.	121285-011ADUP	DUP MA_APH	12 Dec 2012 20:05
9	24	12121209.d	400.	121285-018A	SAMP MA_APH	12 Dec 2012 20:54
10	25	12121210.d	800.	121285-012A	SAMP MA_APH	12 Dec 2012 21:39
11	26	12121211.d	800.	121285-013A	SAMP MA_APH	12 Dec 2012 22:25
12	27	12121212.d	400.	121285-019A	SAMP MA_APH	12 Dec 2012 23:14
13	28	12121213.d	400.	121285-020A	SAMP MA_APH	13 Dec 2012 00:03
14	29	12121214.d	400.	121285-014A	SAMP MA_APH	13 Dec 2012 00:51
15	11	12121215.d	800.	121285-021A	DATA NOT USED	13 Dec 2012 01:37
16	11	12121216.d	800.	121285-021A	DATA NOT USED	13 Dec 2012 02:22
17	12	12121217.d	400.	121285-038A	DATA NOT USED	13 Dec 2012 03:11
18	13	12121218.d	800.	121285-022A	DATA NOT USED	13 Dec 2012 03:56
19	14	12121219.d	400.	121285-039A	DATA NOT USED	13 Dec 2012 04:45
20	15	12121220.d	8000.	121285-023A	SAMP MA_APH	13 Dec 2012 05:28
21	16	12121221.d	8000.	121285-024A	SAMP MA_APH	13 Dec 2012 06:14
22	17	12121222.d	40.	121285-041A	SAMP MA_APH	13 Dec 2012 07:01
23	18	12121223.d	400.	121285-025A	SAMP MA_APH	13 Dec 2012 07:49
24	19	12121224.d	800.	121285-042A	SAMP MA_APH	13 Dec 2012 08:35
25	20	12121225.d	8000.	121285-016A	SAMP MA_APH	13 Dec 2012 09:19
26	3	12121226.d	1.	RLVS2 VOA9 121212	RLVS MA_APH	13 Dec 2012 10:05

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54583

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1075523	BFB VOA9 121212	BFB_TUNE	TUNE	\\1\DATA\121212\	12/12/2012 1:54:	1	R54583		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		59.2	59.2		100	0	0	0	0	0	59%	50	200	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		100.1	100.1		100	0	0	0	0	0	100%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		20.9	20.9		100	0	0	0	0	0	21%	8	40	0%	
75	M		40.8	40.8		100	0	0	0	0	0	41%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.8	6.8		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
1075543	CCV VOA9 121212	MA_APH	CCV	\\1\DATA\121212\	12/12/2012 2:39:	1	R54583		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	258.26	258.26		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	259.62	259.62		266	0	0	0	0	0	98%	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	426.82	426.82		378	0	0	0	0	0	113%	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	93.95	93.95		89.5	0	0	0	0	0	105%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121212\12121202.D Vial: 2
Acq On : 12 Dec 2012 2:39 pm Operator: RACHEL HILL
Sample : CCV VOA9 121212 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 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	31.910	-9.3	103	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	40.382	-10.9	98	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	45.387	-8.6	94	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	39.415	-11.3	98	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	46.848	-11.0	97	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	54.445	-11.1	96	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	258.258	-10.4	97	0.00
8	L1	C9-C12 Aliphatic HC	54.600	61.290	-12.3	97	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	62.389	-14.3	105	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	69.842	-14.1	98	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	66.824	-9.9	96	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	80.322	-14.7	98	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	86.629	-12.5	92	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	426.823	-12.9	97	0.00
15	L1	C9-C10 Aromatic HC	51.700	50.311	2.7	84	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	49.586	3.2	84	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	51.105	2.1	84	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	57.574	1.9	85	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	51.025	3.0	84	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	57.261	2.5	83	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	259.618	2.4	84	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.94#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.26#
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	-6.26#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.42#
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	-17.31#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.22#
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	-17.30#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.30#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.30#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	86	0.00
41	S	4-Bromofluorobenzene	89.500	93.952	-5.0	93	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121212\12121202.D Vial: 2
Acq On : 12 Dec 2012 2:39 pm Operator: RACHEL HILL
Sample : CCV VOA9 121212 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 12:41 2012 Quant Results File: 121112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration
DataAcq Meth : 121112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.38	117	839335	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.22	95	528667	93.95	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 104.97%

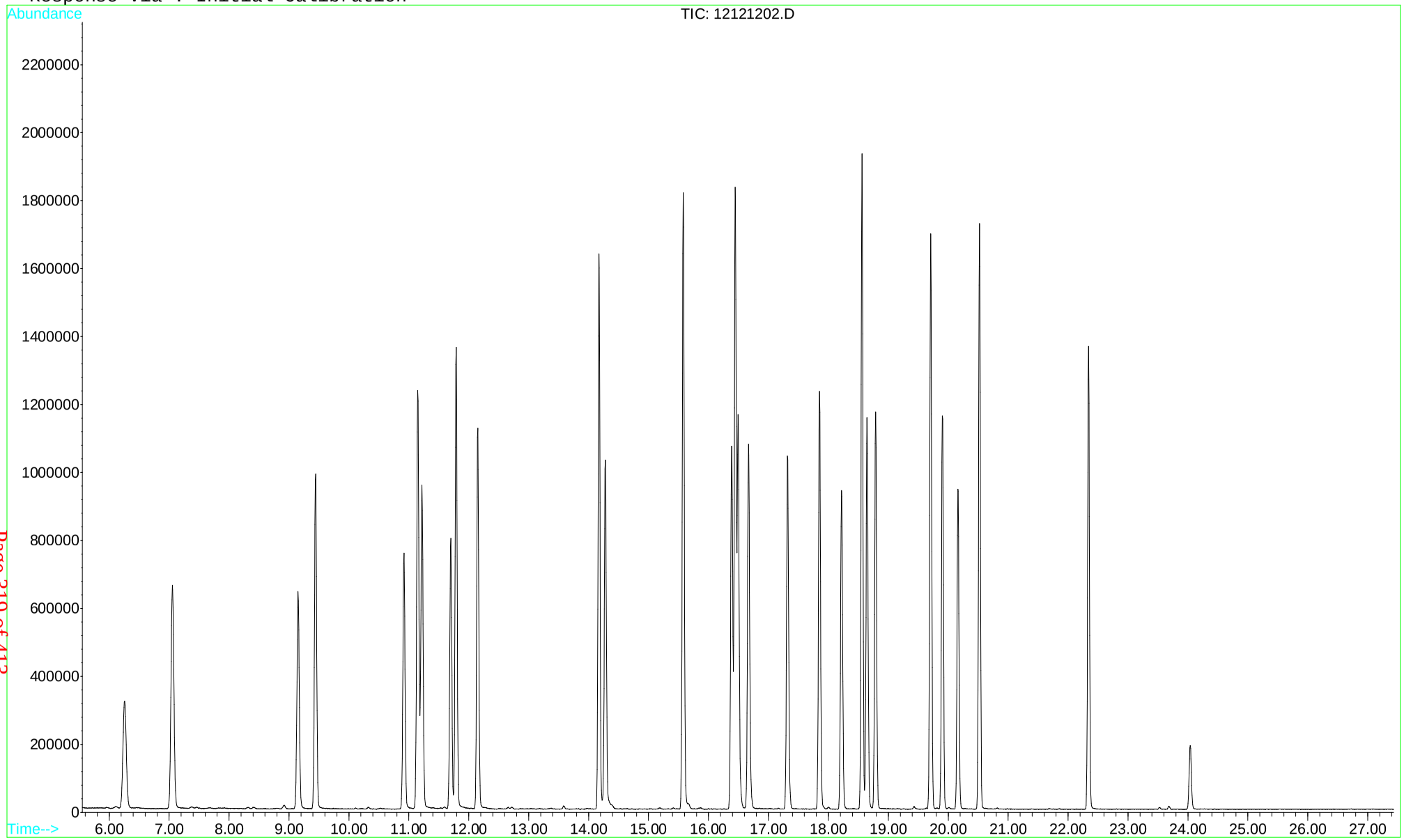
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.05	TIC	2226850	31.91	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.45	TIC	2498659	40.38	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.15	TIC	3158414	45.39	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.22	TIC	2484645	39.42	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.79	TIC	3092072	46.85	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.17	TIC	3566070	54.45	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.05	TIC	17026710m	258.26	ug/m3	
8) C9-C12 Aliphatic HC	15.58	TIC	4237875	61.29	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.44	TIC	2908515m	62.39	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.56	TIC	4055861	69.84	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.71	TIC	3774981	66.82	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.52	TIC	3604814	80.32	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.34	TIC	2814077	86.63	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.58	TIC	21396123m	426.82	ug/m3	
15) C9-C10 Aromatic HC	17.85	120	293282	50.31	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.65	120	298599	49.59	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.79	120	438686	51.11	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.91	120	93337	57.57	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.17	120	325547	51.03	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.90	134	249772	57.26	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.85	TIC	1699223m	259.62	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121212\12121202.D Vial: 2
Acq On : 12 Dec 2012 2:39 pm Operator: RACHEL HILL
Sample : CCV VOA9 121212 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 13 12:41 2012 Quant Results File: 121112V9.RES

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121312

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	12131201.d	1.	BFB VOA9 121312	TUNE BFB_TUNE	13 Dec 2012 12:25
2	2	12131202.d	1.	CCV VOA9 121312	CCV MA_APH	13 Dec 2012 13:08
3	3	12131203.d	1.	RLVS VOA9 121312	RLVS MA_APH	13 Dec 2012 14:07
4	4	12131204.d	1.	MBLK VOA9 121312	MBLK MA_APH	13 Dec 2012 15:50
5	5	12131205.d	1600.	1212185-032A	SAMP MA_APH	13 Dec 2012 16:35
6	6	12131206.d	160000.	1212185-005A	SAMP MA_APH	13 Dec 2012 17:22
7	23	12131207.d	160000.	1212185-006A	SAMP MA_APH	13 Dec 2012 18:07
8	24	12131208.d	160000.	1212185-007A	SAMP MA_APH	13 Dec 2012 18:51
9	25	12131209.d	1600.	1212185-015A	SAMP MA_APH	13 Dec 2012 19:35
10	25	12131210.d	1600.	1212185-015ADUP	DUP MA_APH	13 Dec 2012 20:20
11	26	12131211.d	400.	1212185-010A	SAMP MA_APH	13 Dec 2012 21:09
12	27	12131212.d	400.	1212185-017A	SAMP MA_APH	13 Dec 2012 21:57
13	28	12131213.d	1600.	1212185-021A	SAMP MA_APH	13 Dec 2012 22:41
14	29	12131214.d	40.	1212185-038A	SAMP MA_APH	13 Dec 2012 23:26
15	11	12131215.d	1600.	1212185-022A	SAMP MA_APH	14 Dec 2012 00:11
16	12	12131216.d	40.	1212185-039A	SAMP MA_APH	14 Dec 2012 00:57
17	13	12131217.d	40.	1212185-040A	SAMP MA_APH	14 Dec 2012 01:44
18	14	12131218.d	800.	1212185-026A	SAMP MA_APH	14 Dec 2012 02:30
19	14	12131219.d	800.	1212185-026A	DATA NOT USED	14 Dec 2012 03:15
20	15	12131220.d	20000.	1212185-043A	SAMP MA_APH	14 Dec 2012 04:01
21	16	12131221.d	8000.	1212185-027A	SAMP MA_APH	14 Dec 2012 04:46
22	17	12131222.d	40.	1212185-044A	SAMP MA_APH	14 Dec 2012 05:31
23	18	12131223.d	8000.	1212185-058A	SAMP MA_APH	14 Dec 2012 06:17
24	19	12131224.d	40.	1212185-045A	SAMP MA_APH	14 Dec 2012 07:03
25	10	12131225.d	8000.	1212185-059A	SAMP MA_APH	14 Dec 2012 07:50
26	11	12131226.d	800.	1212185-060A	SAMP MA_APH	14 Dec 2012 08:37
27	3	12131227.d	1.	RLVS2 VOA9 121312	RLVS MA_APH	14 Dec 2012 09:22

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54602

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1075880	BFB VOA9 121312	BFB_TUNE	TUNE	\\1\DATA\121312\	12/13/2012 12:2	1	R54602		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		59	59		100	0	0	0	0	0	59%	50	200	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		100.9	100.9		100	0	0	0	0	0	101%	93	101	0%	
177	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	
50	M		21.2	21.2		100	0	0	0	0	0	21%	8	40	0%	
75	M		40.6	40.6		100	0	0	0	0	0	41%	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
1075881	CCV VOA9 121312	MA_APH	CCV	\\1\DATA\121312\	12/13/2012 1:08:	1	R54602		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	258.98	258.98		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	251.02	251.02		266	0	0	0	0	0	94%	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	432.28	432.28		378	0	0	0	0	0	114%	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	96.9	96.9		89.5	0	0	0	0	0	108%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121312\12131202.D Vial: 2
Acq On : 13 Dec 2012 1:08 pm Operator: RACHEL HILL
Sample : CCV VOA9 121312 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 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	31.587	-8.2	102	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	40.574	-11.5	98	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	46.258	-10.7	96	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	38.807	-9.6	97	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	47.182	-11.8	98	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	54.653	-11.5	97	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	258.975	-10.7	98	0.00
8	L1	C9-C12 Aliphatic HC	54.600	60.530	-10.9	96	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	65.255	-19.5	109	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	70.829	-15.7	100	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	67.547	-11.1	97	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	81.198	-16.0	99	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	88.325	-14.7	94	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	432.282	-14.4	99	0.00
15	L1	C9-C10 Aromatic HC	51.700	48.481	6.2	81	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	48.443	5.4	82	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	49.249	5.7	81	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	56.822	3.2	84	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	49.083	6.7	81	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	55.159	6.0	80	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	251.021	5.6	81	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.94#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.26#
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	-6.26#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.42#
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	-17.31#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.22#
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	-17.30#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.30#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.30#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	77	0.00
41	S	4-Bromofluorobenzene	89.500	96.904	-8.3	85	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121312\12131202.D Vial: 2
Acq On : 13 Dec 2012 1:08 pm Operator: RACHEL HILL
Sample : CCV VOA9 121312 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 9:29 2012 Quant Results File: 121112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration
DataAcq Meth : 121112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.39	117	747754	12.50	ug/m3	0.00

System Monitoring Compounds
41) 4-Bromofluorobenzene 18.22 95 485783 96.90 ug/m3 0.00
Spiked Amount 89.500 Range 70 - 130 Recovery = 108.27%

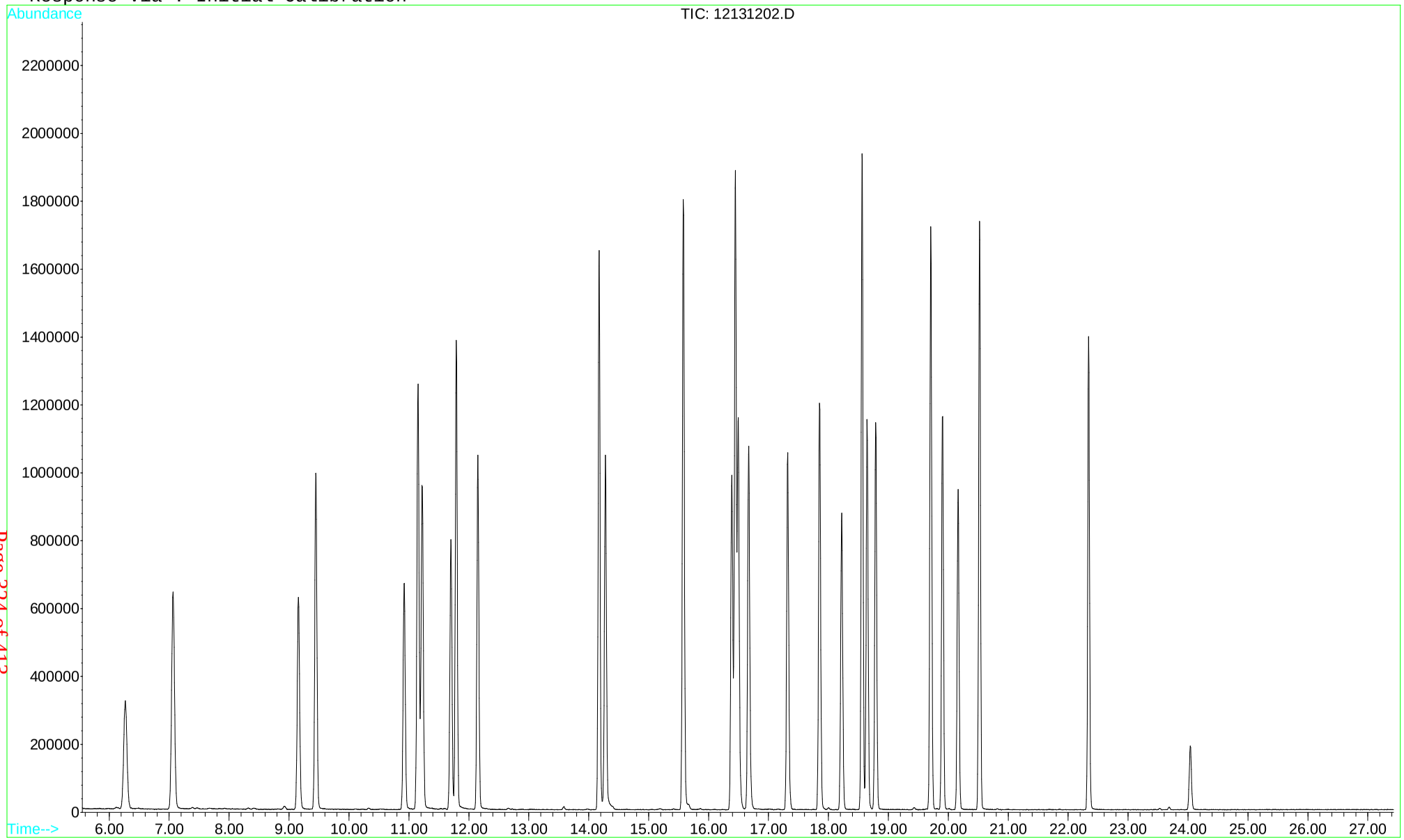
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.06	TIC	2204309	31.59	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.44	TIC	2510553	40.57	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.15	TIC	3219008	46.26	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.22	TIC	2446332	38.81	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.79	TIC	3114112	47.18	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.18	TIC	3579689	54.65	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.06	TIC	17074003m	258.98	ug/m3	
8) C9-C12 Aliphatic HC	15.58	TIC	4185338	60.53	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.45	TIC	3042112m	65.25	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.56	TIC	4113172	70.83	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.71	TIC	3815804	67.55	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.52	TIC	3644121	81.20	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.34	TIC	2869199	88.33	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.58	TIC	21669746m	432.28	ug/m3	
15) C9-C10 Aromatic HC	17.86	120	282615	48.48	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.64	120	291715	48.44	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.79	120	422751	49.25	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.90	120	92118	56.82	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.17	120	313153	49.08	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.91	134	240602	55.16	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.85	TIC	1642954m	251.02	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121312\12131202.D Vial: 2
Acq On : 13 Dec 2012 1:08 pm Operator: RACHEL HILL
Sample : CCV VOA9 121312 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 14 9:29 2012 Quant Results File: 121112V9.RES

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121412

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	12141201.d	1.	BFB VOA9 121412	TUNE BFB_TUNE	14 Dec 2012 10:08
2	2	12141202.d	1.	CCV VOA9 121412	DATA NOT USED	14 Dec 2012 10:55
3	3	12141203.d	1.	CCV VOA9 121412	CCV MA_APH	14 Dec 2012 11:40
4	3	12141204.d	1.	RLVS VOA9 121412	RLVS MA_APH	14 Dec 2012 12:23
5	4	12141205.d	1.	MBLK VOA9 121412	MBLK MA_APH	14 Dec 2012 14:26
6	5	12141206.d	40.	1212185-046A	SAMP MA_APH	14 Dec 2012 15:10
7	12	12141207.d	40.	1212185-047A	SAMP MA_APH	14 Dec 2012 15:56
8	13	12141208.d	400.	1212185-061A	DATA NOT USED	14 Dec 2012 16:45
9	14	12141209.d	40.	1212185-048A	SAMP MA_APH	14 Dec 2012 17:29
10	15	12141210.d	800.	1212185-062A	DATA NOT USED	14 Dec 2012 18:14
11	15	12141211.d	800.	1212185-062A	DATA NOT USED	14 Dec 2012 19:00
12	16	12141212.d	800.	1212185-063A	SAMP MA_APH	14 Dec 2012 19:46
13	17	12141213.d	8000.	1212185-049A	SAMP MA_APH	14 Dec 2012 20:32
14	18	12141214.d	400.	1212185-064A	DATA NOT USED	14 Dec 2012 21:21
15	19	12141215.d	400.	1212185-050A	SAMP MA_APH	14 Dec 2012 22:10
16	10	12141216.d	40.	1212185-051A	SAMP MA_APH	14 Dec 2012 22:57
17	11	12141217.d	80000.	1212185-001A	DATA NOT USED	14 Dec 2012 23:44
18	12	12141218.d	40.	1212185-052A	SAMP MA_APH	15 Dec 2012 00:31
19	21	12141219.d	8000.	1212185-002A	SAMP MA_APH	15 Dec 2012 01:18
20	22	12141220.d	40.	1212185-053A	SAMP MA_APH	15 Dec 2012 02:04
21	23	12141221.d	8000.	1212185-003A	SAMP MA_APH	15 Dec 2012 02:48
22	24	12141222.d	40.	1212185-054A	SAMP MA_APH	15 Dec 2012 03:33
23	25	12141223.d	800.	1212185-035A	SAMP MA_APH	15 Dec 2012 04:21
24	25	12141224.d	800.	1212185-035ADUP	DUP MA_APH	15 Dec 2012 05:07
25	26	12141225.d	8000.	1212185-055A	SAMP MA_APH	15 Dec 2012 05:52
26	27	12141226.d	8000.	1212185-056A	DATA NOT USED	15 Dec 2012 06:36
27	28	12141227.d	800.	1212185-036A	DATA NOT USED	15 Dec 2012 07:21
28	3	12141228.d	1.	RLVS2 VOA9 121412	DATA NOT USED	15 Dec 2012 08:07
29	4	12141229.d	1.	RLVS2 VOA9 121412	RLVS MA_APH	15 Dec 2012 08:54

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54690

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1078013	BFB VOA9 121412	BFB_TUNE	TUNE	\\1\DATA\121412\	12/14/2012 10:0	1	R54690		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		56.2	56.2		100	0	0	0	0	0	56%	50	200	0%	
175	M		7.6	7.6		100	0	0	0	0	0	8%	4	9	0%	
176	M		101	101		100	0	0	0	0	0	101%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		21.9	21.9		100	0	0	0	0	0	22%	8	40	0%	
75	M		41.9	41.9		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
1078014	CCV VOA9 121412	MA_APH	CCV	\\1\DATA\121412\	12/14/2012 11:4	1	R54690		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	268.81	268.81		234	0	0	0	0	0	115%	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	253.85	253.85		266	0	0	0	0	0	95%	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	450.86	450.86		378	0	0	0	0	0	119%	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	96.96	96.96		89.5	0	0	0	0	0	108%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121412\12141203.D Vial: 3
Acq On : 14 Dec 2012 11:40 am Operator: RACHEL HILL
Sample : CCV VOA9 121412 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 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	32.543	-11.4	105	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	41.992	-15.4	102	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	47.846	-14.5	99	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	40.687	-14.9	102	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	49.394	-17.0	102	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	56.466	-15.2	100	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	268.807	-14.9	101	0.00
8	L1	C9-C12 Aliphatic HC	54.600	63.654	-16.6	101	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	69.190	-26.7	116	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	73.268	-19.7	103	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	70.261	-15.6	101	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	83.022	-18.6	101	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	93.106	-20.9	99	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	450.864	-19.3	103	0.00
15	L1	C9-C10 Aromatic HC	51.700	49.372	4.5	82	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	48.237	5.8	81	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	50.154	3.9	82	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	57.744	1.6	85	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	49.685	5.5	82	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	55.486	5.5	80	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	253.846	4.6	82	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.94#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.26#
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	-6.26#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.42#
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	-17.31#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.22#
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	-17.30#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.30#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.30#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	71	0.00
41	S	4-Bromofluorobenzene	89.500	96.956	-8.3	79	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121412\12141203.D Vial: 3
Acq On : 14 Dec 2012 11:40 am Operator: RACHEL HILL
Sample : CCV VOA9 121412 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 18 10:22 2012 Quant Results File: 121112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration
DataAcq Meth : 121112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.39	117	692273	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.22	95	449984	96.96	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 108.34%

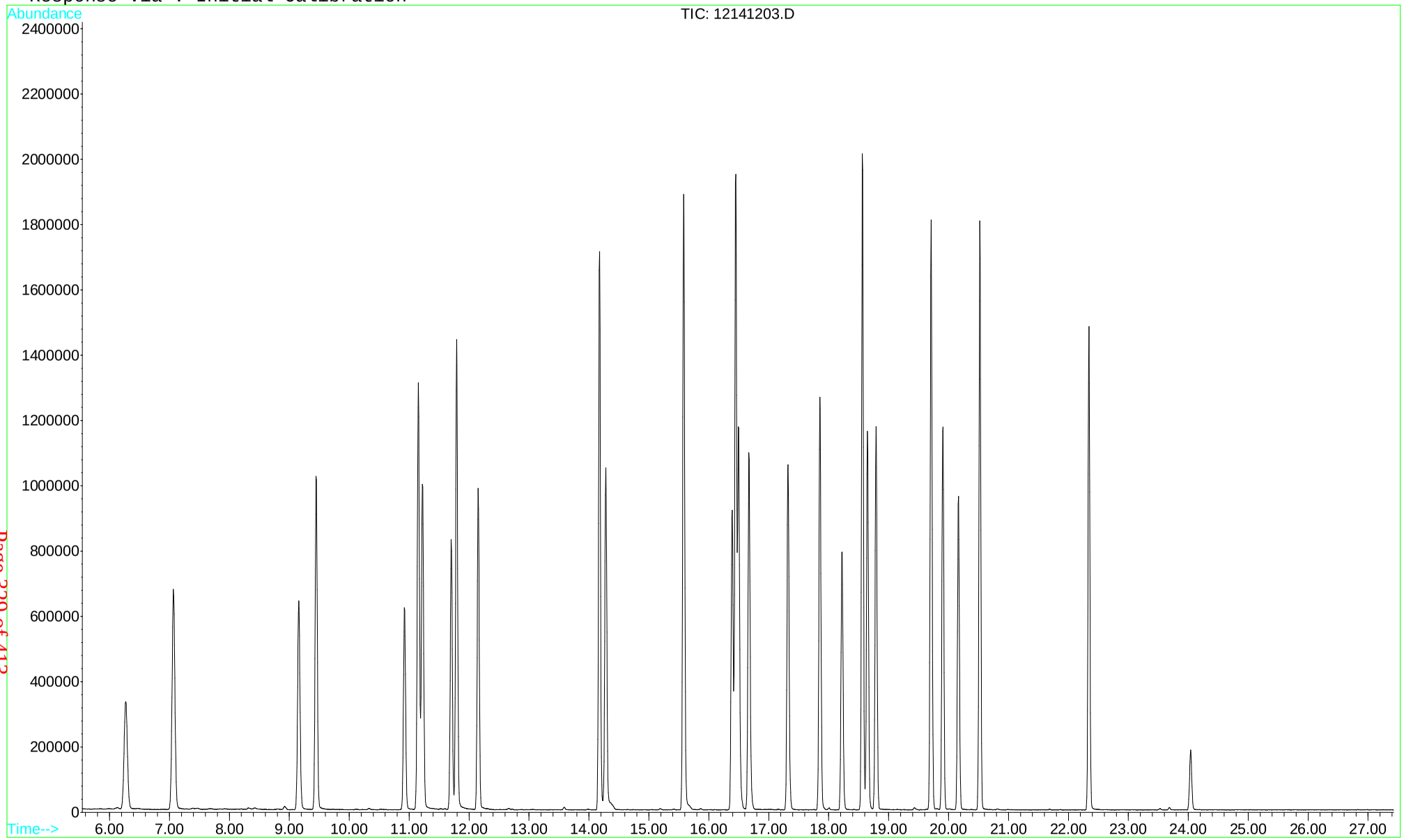
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.07	TIC	2271037	32.54	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.45	TIC	2598327	41.99	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.15	TIC	3329523	47.85	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.22	TIC	2564805	40.69	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.79	TIC	3260101	49.39	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.18	TIC	3698416	56.47	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.07	TIC	17722209m	268.81	ug/m3	
8) C9-C12 Aliphatic HC	15.58	TIC	4401333	63.65	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.45	TIC	3225544m	69.19	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.56	TIC	4254820	73.27	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.71	TIC	3969109	70.26	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.52	TIC	3725957	83.02	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.34	TIC	3024495	93.11	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.58	TIC	22601258m	450.86	ug/m3	
15) C9-C10 Aromatic HC	17.85	120	287809	49.37	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.65	120	290477	48.24	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.79	120	430518	50.15	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.91	120	93612	57.74	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.17	120	316998	49.69	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.91	134	242029	55.49	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.85	TIC	1661443m	253.85	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121412\12141203.D Vial: 3
Acq On : 14 Dec 2012 11:40 am Operator: RACHEL HILL
Sample : CCV VOA9 121412 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 18 10:22 2012 Quant Results File: 121112V9.RES

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121812

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12181201.d	1.	BFB VOA9 121812	DATA NOT USED	18 Dec 2012 10:03
2	2	12181202.d	1.	BFB VOA9 121812	TUNE BFB_TUNE	18 Dec 2012 10:47
3	2	12181203.d	1.	CCV VOA9 121812	CCV MA_APH	18 Dec 2012 11:33
4	3	12181204.d	1.	RLVS VOA9 121812	RLVS MA_APH	18 Dec 2012 12:19
5	4	12181205.d	1.	MBLK VOA9 121812	MBLK MA_APH	18 Dec 2012 14:15
6	5	12181206.d	200.	1212185-061A	SAMP MA_APH	18 Dec 2012 15:04
7	6	12181207.d	400.	1212185-062A	SAMP MA_APH	18 Dec 2012 15:53
8	13	12181208.d	800.	1212185-064A	SAMP MA_APH	18 Dec 2012 16:38
9	13	12181209.d	800.	1212185-064ADUP	DUP MA_APH	18 Dec 2012 17:24
10	14	12181210.d	160000.	1212185-001A	SAMP MA_APH	18 Dec 2012 18:07
11	15	12181211.d	8000.	1212185-035A	SAMP MA_APH	18 Dec 2012 18:52
12	16	12181212.d	8000.	1212185-056A	SAMP MA_APH	18 Dec 2012 19:38
13	17	12181213.d	8000.	1212185-036A	DATA NOT USED	18 Dec 2012 20:22
14	18	12181214.d	8000.	1212185-057A	SAMP MA_APH	18 Dec 2012 21:08
15	19	12181215.d	800.	1212185-037A	SAMP MA_APH	18 Dec 2012 21:54
16	19	12181216.d	800.	1212185-037A	DATA NOT USED	18 Dec 2012 22:39
17	10	12181217.d	400.	1212373-016A	DATA NOT USED	18 Dec 2012 23:28
18	11	12181218.d	8000.	1212373-012A	SAMP MA_APH	19 Dec 2012 00:14
19	12	12181219.d	8000.	1212373-013A	DATA NOT USED	19 Dec 2012 00:59
20	21	12181220.d	8000.	1212373-014A	DATA NOT USED	19 Dec 2012 01:44
21	22	12181221.d	40.	1212373-019A	SAMP MA_APH	19 Dec 2012 02:29
22	23	12181222.d	80000.	1212373-015A	SAMP MA_APH	19 Dec 2012 03:14
23	24	12181223.d	40.	1212373-020A	SAMP MA_APH	19 Dec 2012 03:58
24	25	12181224.d	20000.	1212373-021A	SAMP MA_APH	19 Dec 2012 04:42
25	26	12181225.d	8000.	1212373-042A	SAMP MA_APH	19 Dec 2012 05:27
26	27	12181226.d	800.	1212373-043A	SAMP MA_APH	19 Dec 2012 06:12
27	27	12181227.d	400.	1212373-043A	DATA NOT USED	19 Dec 2012 06:57
28	28	12181228.d	400.	1212373-022A	SAMP MA_APH	19 Dec 2012 07:46
29	29	12181229.d	8000.	1212373-023A	SAMP MA_APH	19 Dec 2012 08:35
30	3	12181230.d	1.	RLVS2 VOA9 121812	DATA NOT USED	19 Dec 2012 09:20
31	4	12181231.d	1.	RLVS2 VOA9 121812	RLVS MA_APH	19 Dec 2012 10:14

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54762

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1079171	BFB VOA9 121812	BFB_TUNE	TUNE	\\1\DATA\121812\	12/18/2012 10:4	1	R54762		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		60.5	60.5		100	0	0	0	0	0	61%	50	200	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		100.9	100.9		100	0	0	0	0	0	101%	93	101	0%	
177	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	
50	M		21.2	21.2		100	0	0	0	0	0	21%	8	40	0%	
75	M		41.5	41.5		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		6.5	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
1079172	CCV VOA9 121812	MA_APH	CCV	\\1\DATA\121812\	12/18/2012 11:3	1	R54762		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	235.48	235.48		234	0	0	0	0	0	101%	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	228.02	228.02		266	0	0	0	0	0	86%	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	399.32	399.32		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	96.71	96.71		89.5	0	0	0	0	0	108%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121812\12181203.D Vial: 2
Acq On : 18 Dec 2012 11:33 am Operator: RACHEL HILL
Sample : CCV VOA9 121812 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 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	28.492	2.4	92	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	37.191	-2.2	90	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	42.625	-2.0	89	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	34.643	2.1	87	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	43.312	-2.6	90	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	49.261	-0.5	87	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	235.477	-0.6	89	0.00
8	L1	C9-C12 Aliphatic HC	54.600	55.700	-2.0	88	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	58.637	-7.4	98	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	64.335	-5.1	91	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	62.699	-3.1	90	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	75.862	-8.4	92	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	84.655	-9.9	90	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	399.324	-5.6	91	0.00
15	L1	C9-C10 Aromatic HC	51.700	44.477	14.0	74	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	43.427	15.2	73	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	44.979	13.8	74	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	50.840	13.4	75	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	44.733	15.0	74	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	49.917	15.0	72	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	228.025	14.3	74	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.94#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.26#
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	-6.26#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.42#
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	-17.31#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.22#
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	-17.30#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.30#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.30#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	69	0.00
41	S	4-Bromofluorobenzene	89.500	96.707	-8.1	77	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121812\12181203.D Vial: 2
Acq On : 18 Dec 2012 11:33 am Operator: RACHEL HILL
Sample : CCV VOA9 121812 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 20 9:14 2012 Quant Results File: 121112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration
DataAcq Meth : 121112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.39	117	678789	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.22	95	440086	96.71	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 108.06%

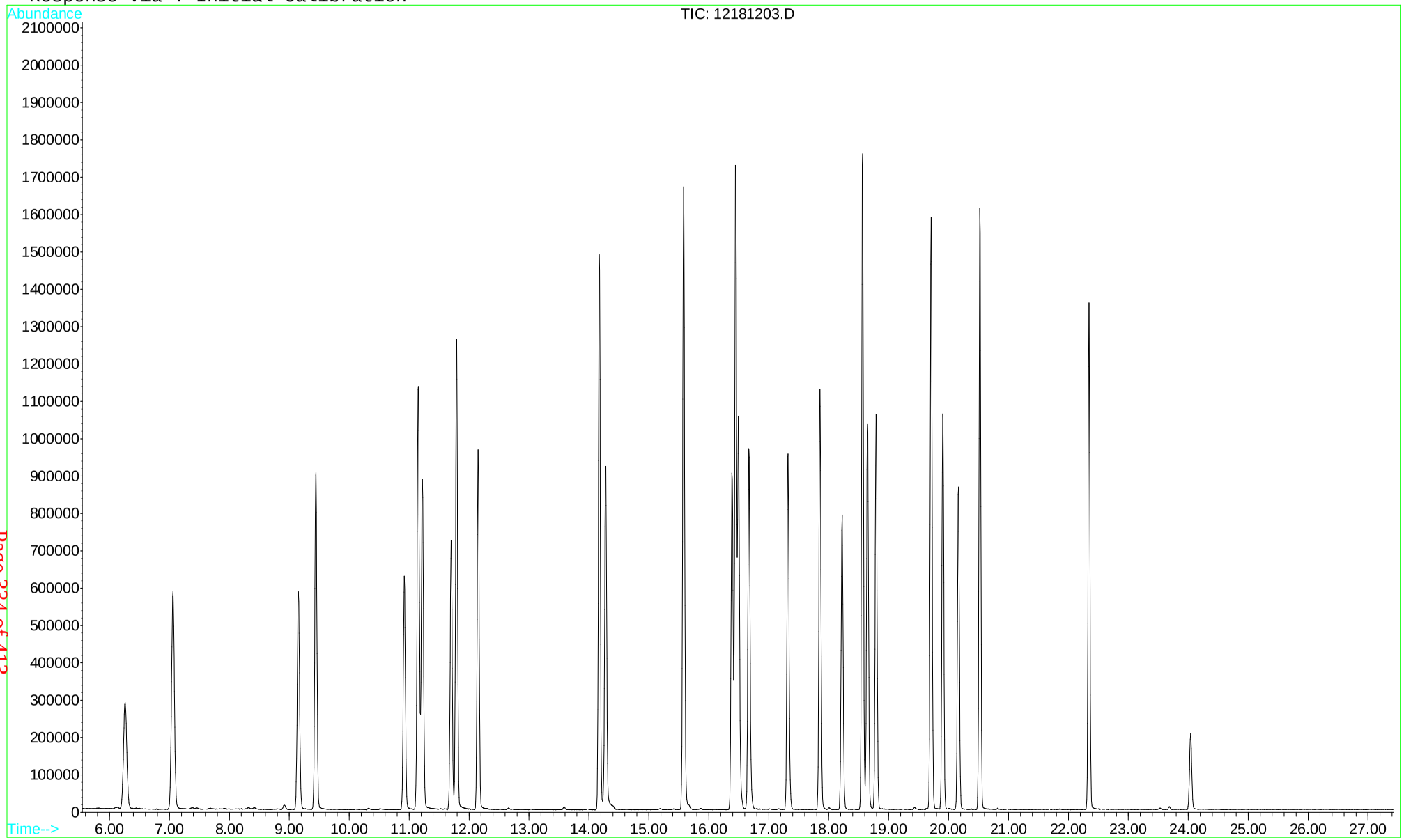
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.06	TIC	1988298	28.49	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.45	TIC	2301233	37.19	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.15	TIC	2966245	42.63	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.22	TIC	2183835	34.64	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.79	TIC	2858667	43.31	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.17	TIC	3226503	49.26	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.06	TIC	15524781m	235.48	ug/m3	
8) C9-C12 Aliphatic HC	15.58	TIC	3851334	55.70	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.44	TIC	2733598m	58.64	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.57	TIC	3736100	64.34	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.71	TIC	3541960	62.70	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.52	TIC	3404640	75.86	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.34	TIC	2749980	84.66	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.58	TIC	20017612m	399.32	ug/m3	
15) C9-C10 Aromatic HC	17.85	120	259273	44.48	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.65	120	261509	43.43	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.79	120	386101	44.98	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.90	120	82420	50.84	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.17	120	285402	44.73	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.90	134	217736	49.92	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.85	TIC	1492441m	228.02	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121812\12181203.D Vial: 2
Acq On : 18 Dec 2012 11:33 am Operator: RACHEL HILL
Sample : CCV VOA9 121812 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 20 9:14 2012 Quant Results File: 121112V9.RES

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\121912

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12191201.d	1.	BFB VOA9 121912	TUNE BFB_TUNE	19 Dec 2012 22:23
2	2	12191202.d	1.	ICAL1 VOA9 121912	DATA NOT USED	19 Dec 2012 23:08
3	3	12191203.d	1.	ICAL1 VOA9 121912	ICAL1MA_APH	19 Dec 2012 23:51
4	4	12191204.d	1.	ICAL2 VOA9 121912	ICAL2MA_APH	20 Dec 2012 00:34
5	5	12191205.d	1.	ICAL3 VOA9 121912	ICAL3MA_APH	20 Dec 2012 01:18
6	6	12191206.d	1.	ICAL4 VOA9 121912	ICAL4MA_APH	20 Dec 2012 02:00
7	7	12191207.d	1.	ICAL5 VOA9 121912	ICAL5MA_APH	20 Dec 2012 02:44
8	8	12191208.d	1.	ICAL6 VOA9 121912	ICAL6MA_APH	20 Dec 2012 03:28
9	9	12191209.d	1.	ICAL7 VOA9 121912	ICAL7MA_APH	20 Dec 2012 04:13
10	2	12191210.d	1.	BFB VOA9 121912	TUNE BFB_TUNE	20 Dec 2012 04:59
11	2	12191211.d	1.	ICV VOA9 121912	ICV MA_APH	20 Dec 2012 05:42
12	3	12191212.d	1.	RLVS VOA9 121912	RLVS MA_APH	20 Dec 2012 06:25
13	4	12191213.d	1.	MBLK VOA9 121912	MBLK MA_APH	20 Dec 2012 10:31
14	5	12191214.d	400.	1212373-017A	DATA NOT USED	20 Dec 2012 11:20
15	6	12191215.d	400.	1212373-018A	DATA NOT USED	20 Dec 2012 12:08
16	7	12191216.d	400.	1212373-016A	SAMP MA_APH	20 Dec 2012 12:57
17	8	12191217.d	20000.	1212373-013A	SAMP MA_APH	20 Dec 2012 13:44
18	9	12191218.d	20000.	1212373-014A	SAMP MA_APH	20 Dec 2012 14:32
19	10	12191219.d	8000.	1212373-024A	DATA NOT USED	20 Dec 2012 15:21
20	21	12191220.d	8000.	1212185-036A	DATA NOT USED	20 Dec 2012 16:07
21	12	12191221.d	400.	1212373-025A	SAMP MA_APH	20 Dec 2012 16:55
22	13	12191222.d	800.	1212185-036A	SAMP MA_APH	20 Dec 2012 17:41
23	13	12191223.d	400.	1212373-026A	SAMP MA_APH	20 Dec 2012 18:30
24	14	12191224.d	8000.	1212373-044A	SAMP MA_APH	20 Dec 2012 19:19
25	15	12191225.d	8000.	1212373-045A	SAMP MA_APH	20 Dec 2012 20:07
26	16	12191226.d	8000.	1212373-027A	SAMP MA_APH	20 Dec 2012 20:53
27	17	12191227.d	800.	1212373-046A	SAMP MA_APH	20 Dec 2012 21:40
28	17	12191228.d	800.	1212373-046ADUP	DUP MA_APH	20 Dec 2012 22:26
29	18	12191229.d	800.	1212373-047A	SAMP MA_APH	20 Dec 2012 23:12
30	19	12191230.d	8000.	1212373-028A	SAMP MA_APH	21 Dec 2012 00:00
31	10	12191231.d	800.	1212373-048A	SAMP MA_APH	21 Dec 2012 00:48
32	10	12191232.d	800.	1212373-048A	DATA NOT USED	21 Dec 2012 01:34
33	11	12191233.d	800.	1212373-029A	SAMP MA_APH	21 Dec 2012 02:21
34	12	12191234.d	800.	1212373-030A	SAMP MA_APH	21 Dec 2012 03:10
35	22	12191235.d	400.	1212373-031A	SAMP MA_APH	21 Dec 2012 03:58
36	3	12191239.d	1.	RLVS VOA9 121912	RLVS MA_APH	21 Dec 2012 04:46

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54799

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1080235	BFB VOA9 121912	BFB_TUNE	TUNE	\\1\DATA\121912\	12/20/2012 4:59:	1	R54799		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		54.4	54.4		100	0	0	0	0	0	54%	50	200	0%	
175	M		7.8	7.8		100	0	0	0	0	0	8%	4	9	0%	
176	M		99.9	99.9		100	0	0	0	0	0	100%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		20.2	20.2		100	0	0	0	0	0	20%	8	40	0%	
75	M		40.6	40.6		100	0	0	0	0	0	41%	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
1080236	ICV VOA9 121912	MA_APH	ICV	\\1\DATA\121912\	12/20/2012 5:42:	1	R54799		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	268.66	268.66		234	0	0	0	0	0	115%	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	309.85	309.85		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	446.12	446.12		378	0	0	0	0	0	118%	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	87.52	87.52		89.5	0	0	0	0	0	98%	70	130	0%	

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%

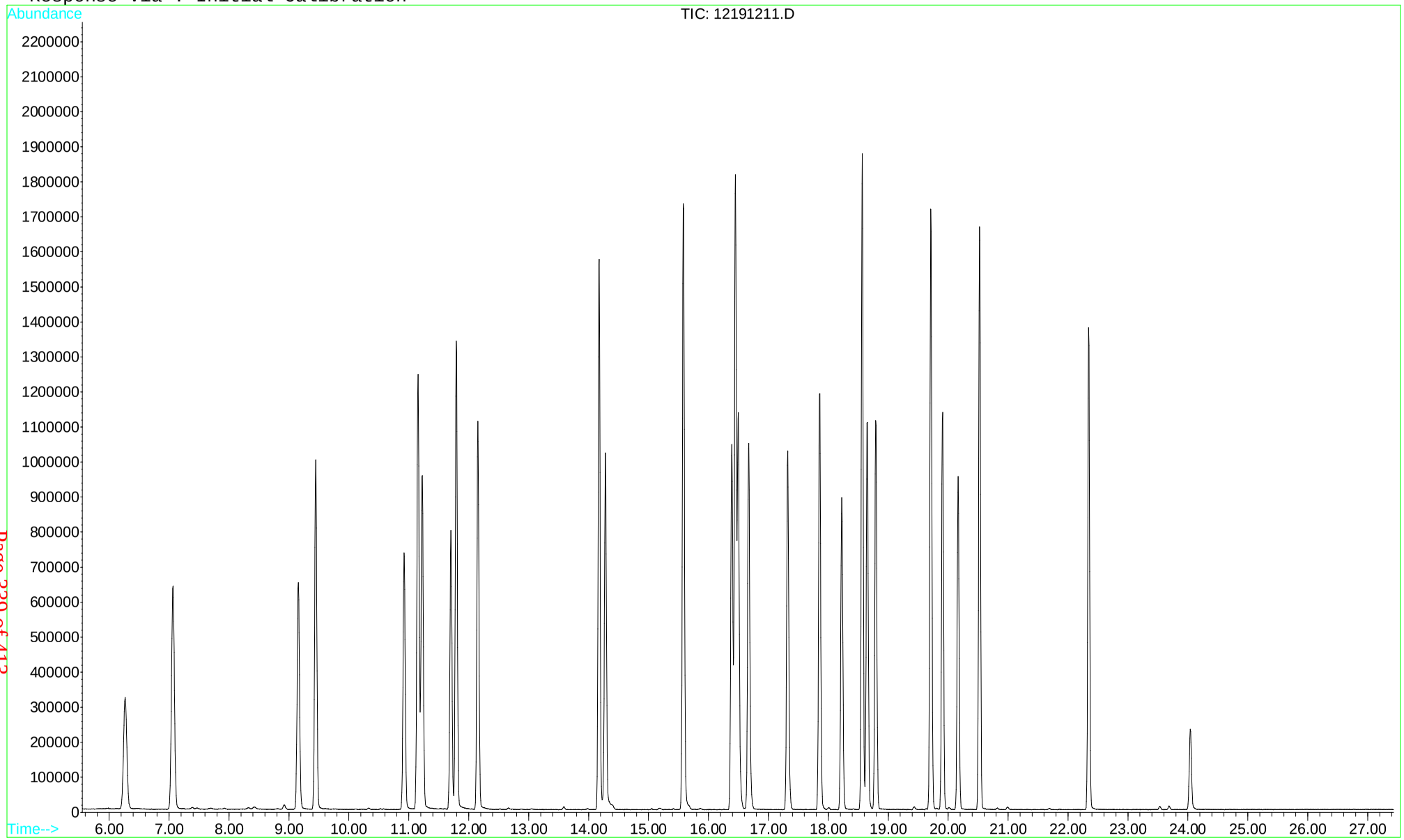
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.07	TIC	2192327	32.25	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.45	TIC	2535442	42.25	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.15	TIC	3236618	48.27	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.23	TIC	2475227	40.78	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.79	TIC	3100020	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\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration

Calibration Files
1 =12111203.D 2 =12111204.D 3 =12111205.D
4 =12111206.D 5 =12111207.D 6 =12111208.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	L1	C5-C8 Aliphatic HC	7.684	7.417	7.077	7.129	6.790	6.596	6.978 E4	7.35
2)	L1	C5-C8 Aliphatic HC	7.326	7.026	6.125	6.233	5.995	5.679	6.188 E4	13.01
3)	L1	C5-C8 Aliphatic HC	8.387	8.018	6.919	7.056	6.725	6.275	6.959 E4	14.77
4)	L1	C5-C8 Aliphatic HC	7.439	7.131	6.274	6.281	6.086	5.754	6.304 E4	12.33
5)	L1	C5-C8 Aliphatic HC	7.890	7.551	6.629	6.705	6.411	5.921	6.600 E4	14.30
6)	L1	C5-C8 Aliphatic HC	7.877	7.564	6.779	6.637	6.356	5.786	6.550 E4	15.72
7)	L1	C5-C8 Aliphatic HC	7.794	7.475	6.631	6.677	6.394	5.973	6.593 E4	13.25
8)	L1	C9-C12 Aliphatic HC	8.463	7.998	7.118	7.052	6.730	6.006	6.914 E4	16.73
9)	L1	C9-C12 Aliphatic HC	3.901	5.091	4.584	4.882	4.916	4.963	4.662 E4	9.21
10)	L1	C9-C12 Aliphatic HC	7.031	6.744	6.087	5.950	5.699	4.987	5.807 E4	17.07
11)	L1	C9-C12 Aliphatic HC	6.916	6.494	5.821	5.766	5.396	4.827	5.649 E4	15.93
12)	L1	C9-C12 Aliphatic HC	5.307	5.264	4.649	4.712	4.456	3.637	4.488 E4	16.47
13)	L1	C9-C12 Aliphatic HC	3.388	3.957	3.333	3.488	3.360	2.718	3.248 E4	15.13
14)	L1	C9-C12 Aliphatic HC	5.709	5.808	5.152	5.197	4.981	4.394	5.013 E4	13.88
15)	L1	C9-C10 Aromatic HC	6.978	6.766	5.963	5.932	5.630	5.172	5.829 E3	15.41
16)	L1	C9-C10 Aromatic HC	6.949	6.966	6.187	6.125	5.902	5.377	6.022 E3	13.75
17)	L1	C9-C10 Aromatic HC	1.001	1.001	0.885	0.881	0.836	0.757	0.858 E4	14.82
18)	L1	C9-C10 Aromatic HC	1.813	1.870	1.700	1.670	1.598	1.447	1.621 E3	13.23
19)	L1	C9-C10 Aromatic HC	6.980	7.378	6.566	6.591	6.243	5.796	6.380 E3	11.83
20)	L1	C9-C10 Aromatic HC	4.965	5.122	4.597	4.490	4.228	3.822	4.362 E3	14.58
21)	L1	C9-C10 Aromatic HC	7.535	7.622	6.754	6.696	6.357	5.829	6.545 E3	14.05
22)		C5-C8 Aliphatic	7.794	7.475	6.631	6.677	6.394	5.973	6.593 E4	13.25
23)	L1	non C5-C8	5.430	5.265	5.030	5.089	4.865	4.807	5.015 E4	5.53
24)	L1	non C5-C8 {2}	4.893	5.192	4.268	4.463	4.380	4.147	4.399 E4	12.63
25)	L1	non C5-C8 {3}	3.377	3.528	3.482	3.543	3.473	3.483	3.482 E4	1.53
26)	L1	non C5-C8 {4}	6.847	6.710	5.414	5.537	5.561	5.178	5.661 E4	15.24
27)	L1	non C5-C8 {5}	4.504	4.888	4.936	5.171	4.743	4.739	4.836 E4	4.26
28)	L1	non C5-C8 {6}	6.915	7.015	5.922	5.925	5.846	5.359	5.933 E4	14.41
29)	L1	non C5-C8 - TOTAL	4.660	5.167	4.730	4.905	4.831	4.690	4.741 E4	6.20
30)		C9-C12 Aliphatic	5.709	5.808	5.152	5.197	4.981	4.394	5.013 E4	13.88
31)	L1	non C9-C12	4.472	4.558	4.880	4.878	4.496	4.592	4.642 E4	3.66
32)	L1	non C9-C12 {2}	6.171	5.998	4.771	5.237	4.576	5.946	5.407 E4	11.73
33)	L1	non C9-C12 {3}	6.402	6.259	5.475	5.465	5.259	4.817	5.406 E4	14.41
34)	L1	non C9-C12 {4}	6.186	6.058	5.318	5.314	5.118	4.656	5.243 E4	14.25
35)	L1	non C9-C12 {5}	2.584	2.717	2.827	2.960	2.712	2.773	2.784 E4	4.63
36)	L1	non C9-C12 - TOTAL	3.782	3.969	3.678	3.782	3.522	3.639	3.659 E4	6.33
37)	L1	C9-C10 Aromatic	7.535	7.622	6.754	6.696	6.357	5.829	6.545 E3	14.05
38)	L1	C9-C10 Aromatic {2}	7.535	7.622	6.754	6.696	6.357	5.829	6.545 E3	14.05
39)	L1	C9-C10 Aromatic - T	7.535	7.622	6.754	6.696	6.357	5.829	6.545 E3	14.05
40)	I	Chlorobenzene-d5	----------ISTD----------							
41)	S	4-Bromofluorobenzen	0.081	0.082	0.083	0.084	0.084	0.086	0.084	2.70

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 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	7.06	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.44	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	11.15	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	11.22	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.79	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	7.06	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	15.58	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	16.44	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	18.56	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	19.71	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	20.52	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	15.58	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	17.85	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	18.64	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	18.79	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	20.16	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	19.90	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	TIC	17.85	1.000	A	0	A	B
22		C5-C8 Aliphatic	TIC	6.94	1.000	A	0	A	B
23	L1	non C5-C8	TIC	6.26	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	6.26	1.000	A	0	A	B
30		C9-C12 Aliphatic	TIC	16.42	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	17.31	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	18.22	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	17.30	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	17.30	1.000	A	0	A	B
39	L1	C9-C10 Aromatic - TOTAL	134	17.30	1.000	A	1	A	B
40	I	Chlorobenzene-d5	117	16.39	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	18.22	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

121112V9.M Wed Dec 12 14:57:32 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\121112\12111211.D Vial: 2
Acq On : 11 Dec 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA9 121112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 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	32.800	-12.3	106	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	42.053	-15.5	102	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	47.104	-12.7	98	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	41.967	-18.6	105	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	49.051	-16.2	102	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	56.698	-15.7	100	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	269.463	-15.2	102	0.00
8	L1	C9-C12 Aliphatic HC	54.600	63.361	-16.0	100	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	61.437	-12.5	103	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	73.919	-20.8	104	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	73.310	-20.6	105	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	87.782	-25.4	107	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	95.474	-24.0	102	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	453.239	-19.9	103	0.00
15	L1	C9-C10 Aromatic HC	51.700	59.320	-14.7	99	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	59.018	-15.3	100	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	60.293	-15.5	99	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	69.608	-18.6	103	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	61.147	-16.2	101	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	68.829	-17.3	100	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	308.925	-16.1	100	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.94#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.26#
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	-6.26#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.42#
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	-17.31#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.22#
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	-17.30#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.30#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.30#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	100	0.00
41	S	4-Bromofluorobenzene	89.500	90.346	-0.9	103	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\121112\12111211.D Vial: 2
Acq On : 11 Dec 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA9 121112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 13:13 2012 Quant Results File: 121112V9.RES

Quant Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
Response via : Initial Calibration
DataAcq Meth : 121112V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.39	117	974237	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.22	95	590090	90.35	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 100.95%

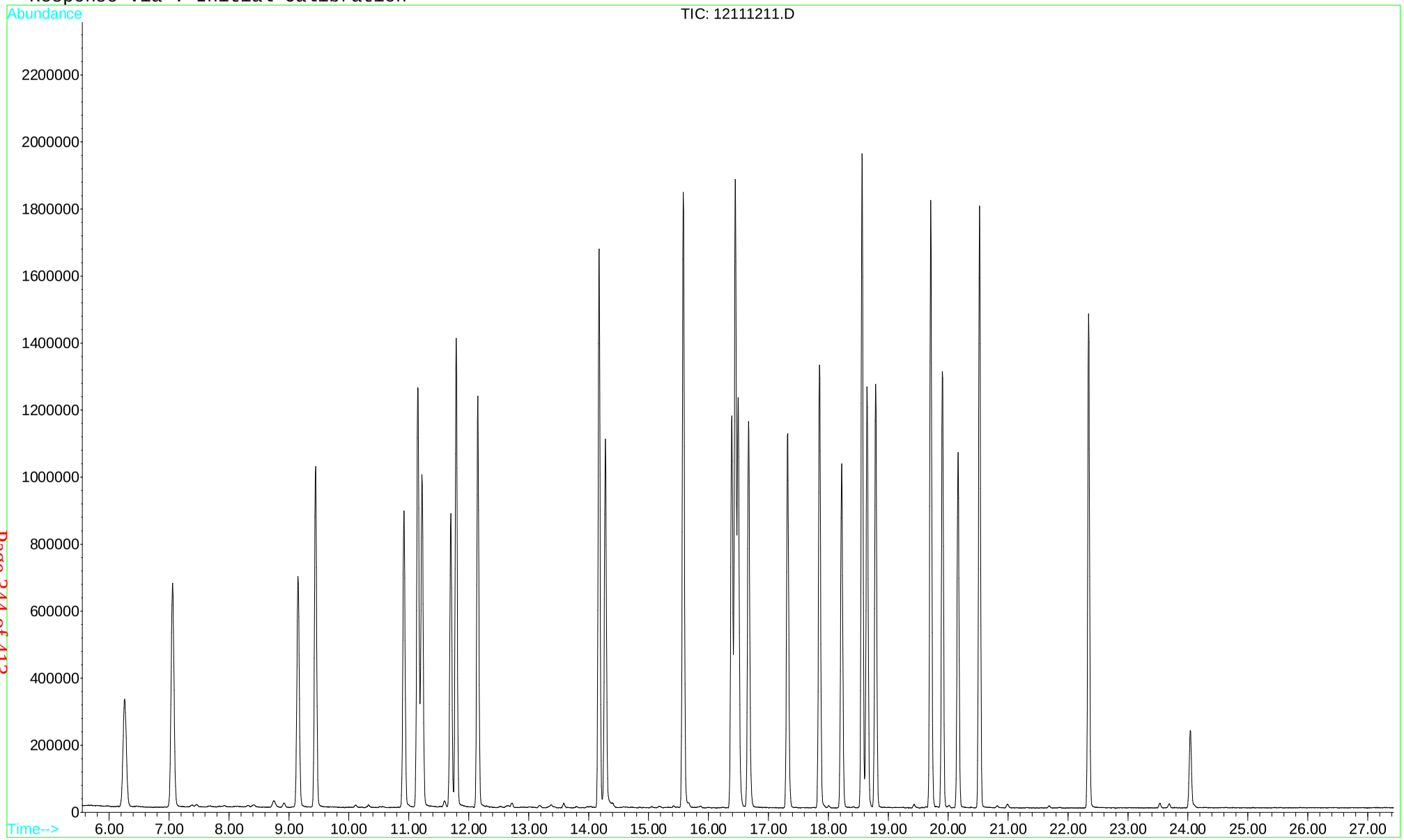
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.06	TIC	2288920	32.80	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.45	TIC	2602068	42.05	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.15	TIC	3277873	47.10	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.22	TIC	2645524	41.97	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.79	TIC	3237437	49.05	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.18	TIC	3713605	56.70	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.06	TIC	17765427m	269.46	ug/m3	
8) C9-C12 Aliphatic HC	15.58	TIC	4381081	63.36	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.45	TIC	2864148m	61.44	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.56	TIC	4292642	73.92	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.71	TIC	4141395	73.31	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.52	TIC	3939624	87.78	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.34	TIC	3101427	95.47	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.58	TIC	22720317m	453.24	ug/m3	
15) C9-C10 Aromatic HC	17.85	120	345802	59.32	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.65	120	355395	59.02	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.79	120	517550	60.29	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.91	120	112845	69.61	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.17	120	390124	61.15	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.90	134	300228	68.83	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.85	TIC	2021944m	308.93	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\121112\12111211.D Vial: 2
Acq On : 11 Dec 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA9 121112 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 12 13:13 2012 Quant Results File: 121112V9.RES

Method : C:\HPCHEM\1\METHODS\121112V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Dec 12 13:10:52 2012
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%

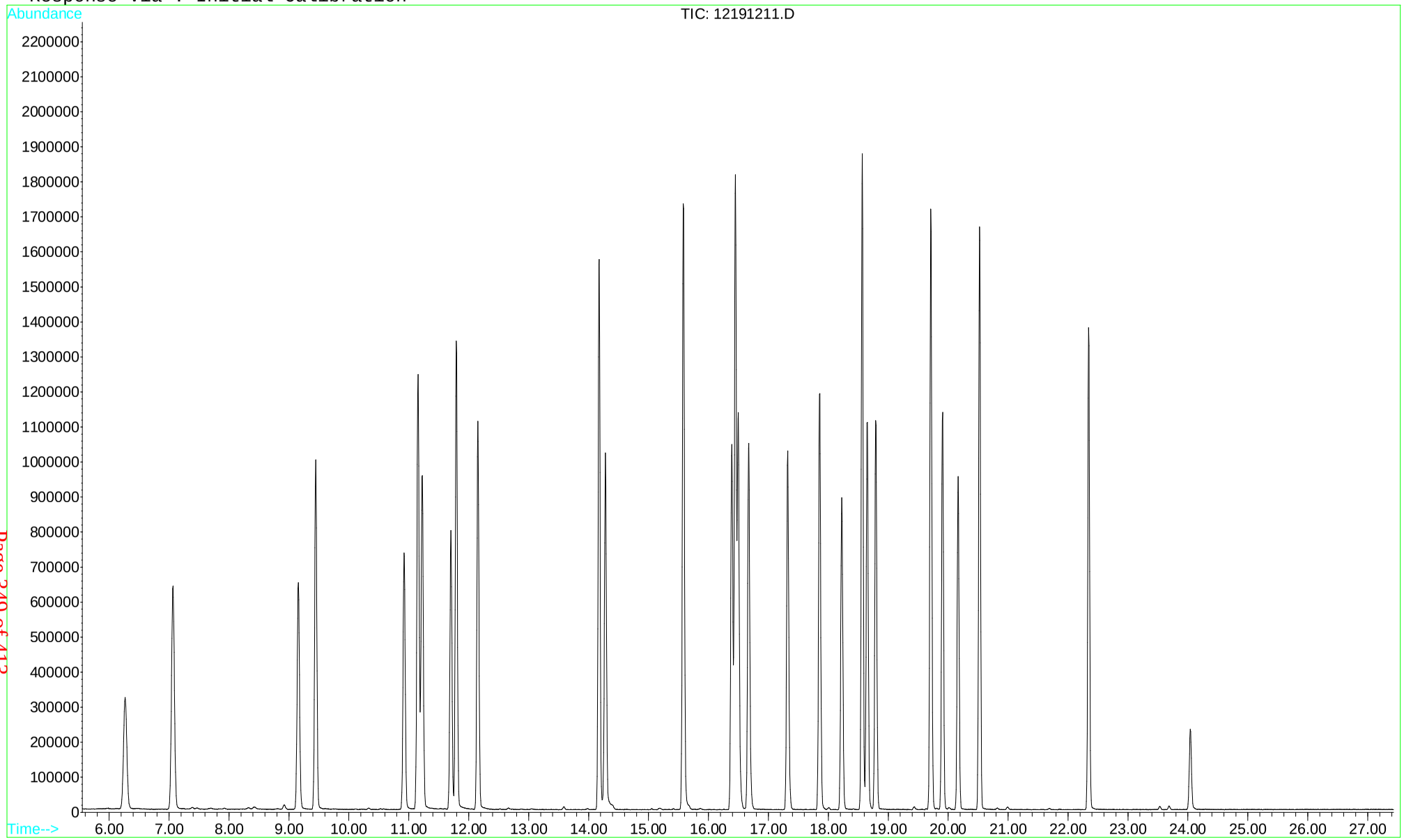
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.07	TIC	2192327	32.25	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.45	TIC	2535442	42.25	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.15	TIC	3236618	48.27	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.23	TIC	2475227	40.78	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.79	TIC	3100020	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



Injection Log

Directory: C:\HPCHEM\2\DATA\121712

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12171201.d	1.	MBLK-121712 TCD-A		17 Dec 2012 10:41
2	1	12171202.d	1.	CCV-121712 TCD-A		17 Dec 2012 11:00
3	1	12171203.d	1.	CRQL-121712 TCD-A		17 Dec 2012 11:16
4	1	12171204.d	1.	LCS-121712 TCD		17 Dec 2012 11:31
5	1	12171205.d	1.	1212185-001B		17 Dec 2012 11:51
6	1	12171206.d	1.	1212185-002B		17 Dec 2012 12:11
7	1	12171207.d	1.	1212185-003B		17 Dec 2012 12:26
8	1	12171208.d	1.	1212185-004B		17 Dec 2012 13:19
9	1	12171209.d	1.	1212185-005B		17 Dec 2012 13:35
10	1	12171210.d	1.	1212185-006B		17 Dec 2012 13:52
11	1	12171211.d	1.	1212185-007B		17 Dec 2012 14:07
12	1	12171212.d	1.	1212185-008B		17 Dec 2012 14:22
13	1	12171213.d	1.	1212185-009B		17 Dec 2012 14:37
14	1	12171214.d	1.	1212185-010B		17 Dec 2012 14:53
15	1	12171215.d	1.	1212185-010BDUP		17 Dec 2012 15:10
16	1	12171216.d	1.	CCV-121712 TCD-B		17 Dec 2012 15:26
17	1	12171217.d	1.	CRQL-121712 TCD-B		17 Dec 2012 15:46

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54666

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1077575	MBLK-121712 TCD-A	ASTM-D2504	MBLK	ıTA\121712\1217	12/17/2012 10:4	1	R54666		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	0.015	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
1077576	CCV-121712 TCD-A	ASTM-D2504	CCV	ıTA\121712\1217	12/17/2012 11:0	1	R54666		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.595	2.595		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Carbon Monoxide	A	% v/v	2.65	2.65		2.5	0	0	0.025	0.1	0	106%	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	2.704	2.704		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	% v/v	2.559	2.559		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
1077577	CRQL-121712 TCD-A	ASTM-D2504	CRQL	ıTA\121712\1217	12/17/2012 11:1	1	R54666		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.29	0.29		0.3	0	0	0.025	0.1	0	97%	80	120	0%	
Carbon Monoxide	A	% v/v	0.161	0.161		0.14	0	0	0.025	0.1	0	115%	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
1077597	CCV-121712 TCD-B	ASTM-D2504	CCV	ıTA\121712\1217	12/17/2012 3:26:	1	R54666		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.49	2.49		2.5	0	0	0.025	0.1	0	100%	85	115	0%	
Carbon Monoxide	A	% v/v	2.609	2.609		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	2.014	2.014		2	0	0	0.025	0.5	0	101%	85	115	0%	
Nitrogen	A	% v/v	2.638	2.638		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	% v/v	2.525	2.525		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
1077599	CRQL-121712 TCD-B	ASTM-D2504	CRQL	ıTA\121712\1217	12/17/2012 3:46:	1	R54666		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.297	0.297		0.3	0	0	0.025	0.1	0	99%	80	120	0%	
Carbon Monoxide	A	% v/v	0.135	0.135		0.14	0	0	0.025	0.1	0	96%	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	0.083	0.083		0.09	0	0	0.025	0.5	0	92%	80	120	0%	
Nitrogen	A	% v/v	1.337	1.337		1.39	0	0	0.025	0.1	0	96%	80	120	0%	
Oxygen	A	% v/v	0.071	0.071		0.08	0	0	0.025	0.1	0	89%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121712\12171202.D Vial: 1
Acq On : 17 Dec 2012 11:00 am Operator:
Sample : CCV-121712 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	2.559	-2.4	0	0.05
2	Nitrogen	2.500	2.704	-8.2	0	0.04
3	Carbon Monoxide	2.500	2.650	-6.0	0	0.05
4	Methane	2.000	1.976	1.2	0	0.05
5	Carbon dioxide	2.500	2.595	-3.8	0	0.07

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\121712\12171202.D          Vial: 1
Acq On    : 17 Dec 2012  11:00 am                   Operator:
Sample    : CCV-121712 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\121712\12171202.D Vial: 1
Acq On : 17 Dec 2012 11:00 am Operator:
Sample : CCV-121712 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 17 11:12 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 13 13:57:04 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	383350	2.559 % v/v
2)	Nitrogen	2.34	470289	2.704 % v/v
3)	Carbon Monoxide	3.03f	431507	2.650 % v/v
4)	Methane	5.65f	283188	1.976 % v/v
5)	Carbon dioxide	9.25f	537279	2.595 % v/v

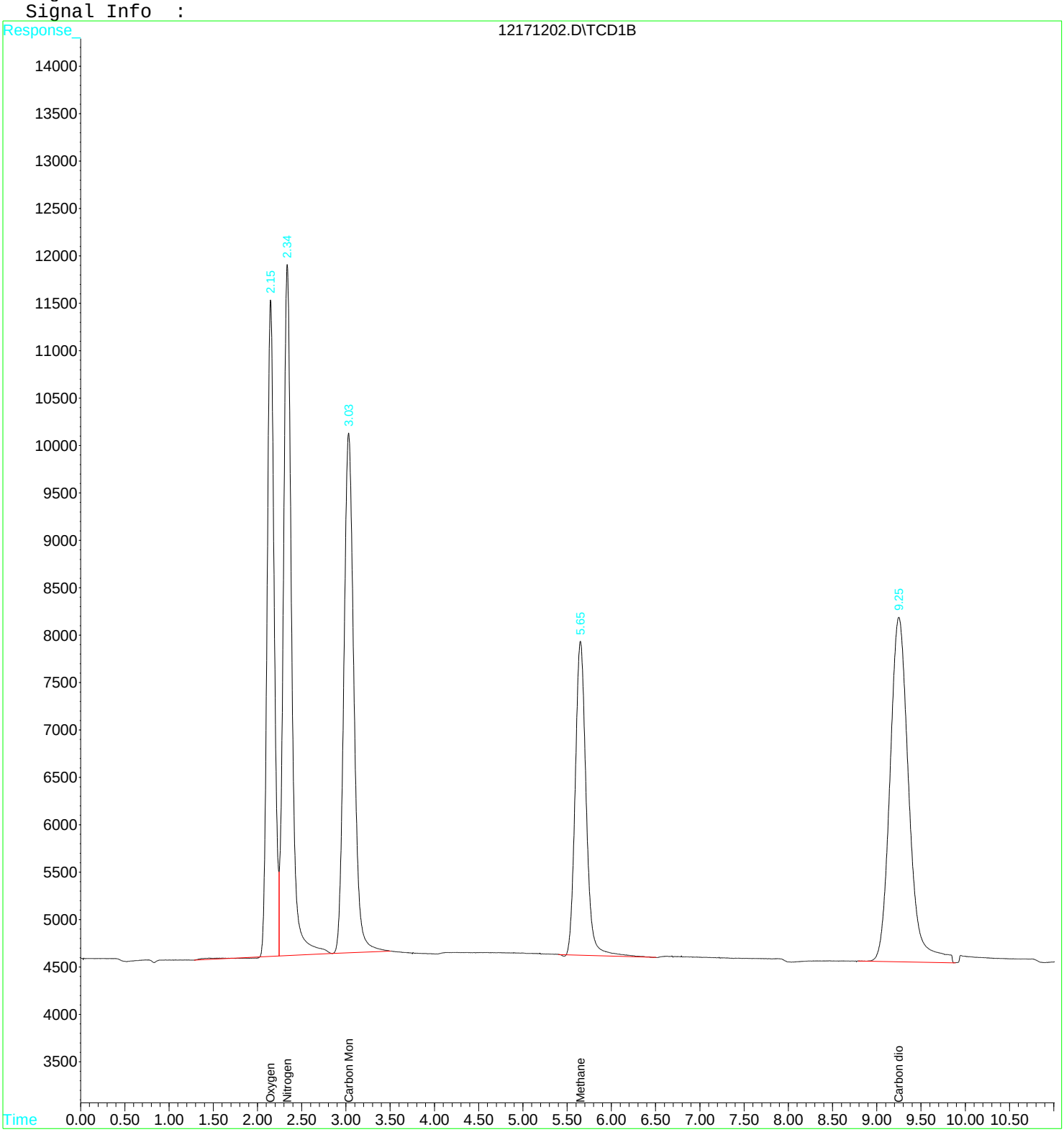
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121712\12171202.D Vial: 1
Acq On : 17 Dec 2012 11:00 am Operator:
Sample : CCV-121712 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 17 11:12 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 13 13:57:04 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\121712\12171216.D Vial: 1
Acq On : 17 Dec 2012 3:26 pm Operator:
Sample : CCV-121712 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	2.525	-1.0	0	0.05
2	Nitrogen	2.500	2.638	-5.5	0	0.04
3	Carbon Monoxide	2.500	2.609	-4.4	0	0.05
4	Methane	2.000	2.014	-0.7	0	0.05
5	Carbon dioxide	2.500	2.490	0.4	0	0.07

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\121712\12171216.D          Vial: 1
Acq On    : 17 Dec 2012   3:26 pm                   Operator:
Sample    : CCV-121712 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\121712\12171216.D Vial: 1
Acq On : 17 Dec 2012 3:26 pm Operator:
Sample : CCV-121712 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 17 15:38 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	2.15f	378366	2.525 % v/v
2)	Nitrogen	2.34	458875	2.638 % v/v
3)	Carbon Monoxide	3.03f	424873	2.609 % v/v
4)	Methane	5.65f	288661	2.014 % v/v
5)	Carbon dioxide	9.25f	515454	2.490 % v/v

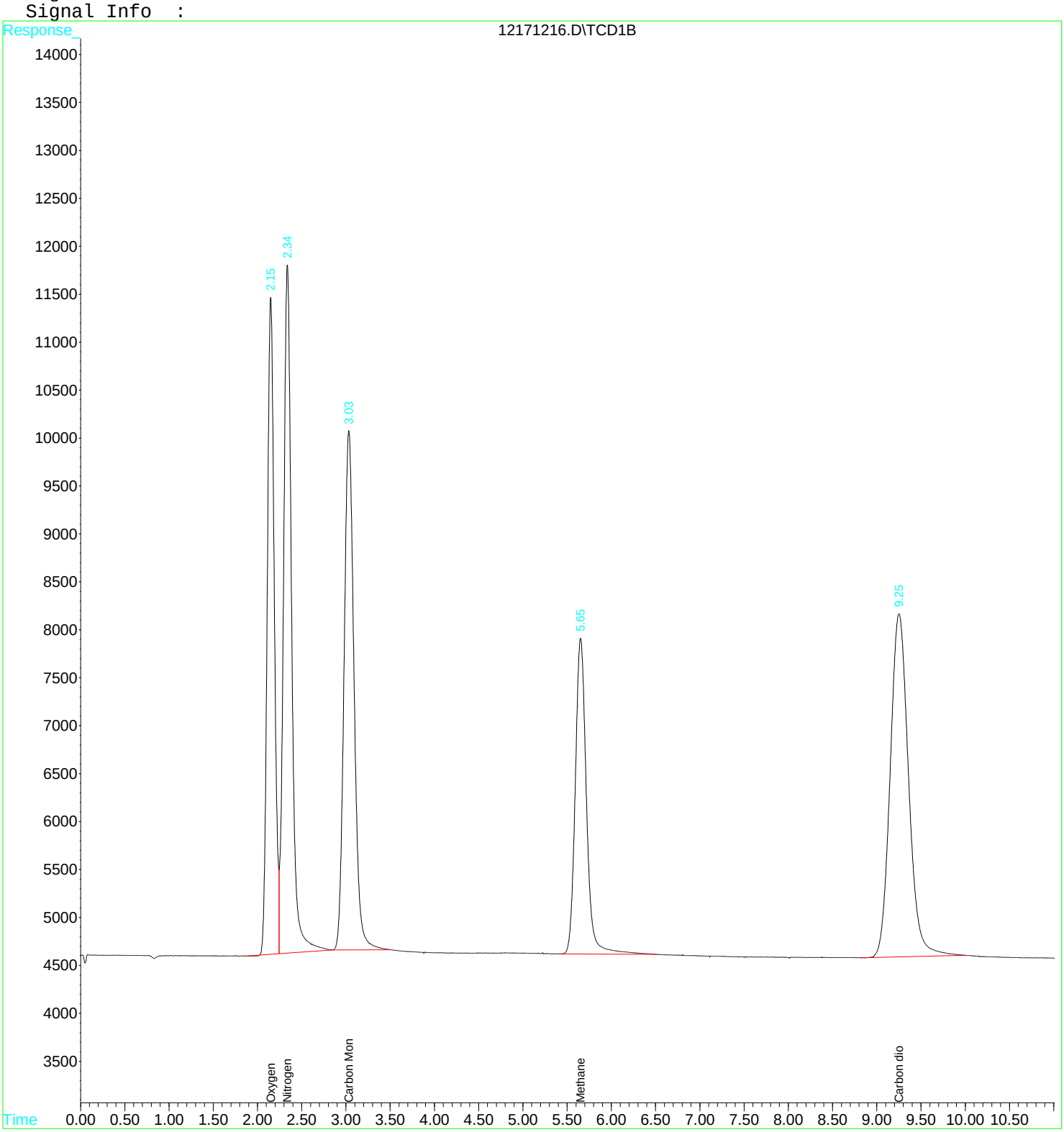
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121712\12171216.D Vial: 1
Acq On : 17 Dec 2012 3:26 pm Operator:
Sample : CCV-121712 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 17 15:38 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\121812

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12181201.d	1.	MBLK-121812 TCD-A		18 Dec 2012 10:23
2	1	12181202.d	1.	CCV-121812 TCD-A		18 Dec 2012 10:50
3	1	12181203.d	1.	LCS-121812 TCD		18 Dec 2012 11:06
4	1	12181204.d	1.	CRQL-121812 TCD-A		18 Dec 2012 11:25
5	1	12181205.d	1.	1212185-011B		18 Dec 2012 11:43
6	1	12181206.d	1.	1212185-012B		18 Dec 2012 11:58
7	1	12181207.d	1.	1212185-013B		18 Dec 2012 12:17
8	1	12181208.d	1.	1212185-014B		18 Dec 2012 12:41
9	1	12181209.d	1.	1212185-015B		18 Dec 2012 13:01
10	1	12181210.d	1.	1212185-016B		18 Dec 2012 13:15
11	1	12181211.d	1.	1212185-017B		18 Dec 2012 13:30
12	1	12181212.d	1.	1212185-018B		18 Dec 2012 13:44
13	1	12181213.d	1.	1212185-019B		18 Dec 2012 13:59
14	1	12181214.d	1.	1212185-020B		18 Dec 2012 14:14
15	1	12181215.d	1.	1212185-020BDUP		18 Dec 2012 14:29
16	1	12181216.d	1.	CCV-121812 TCD-B		18 Dec 2012 14:46
17	1	12181217.d	1.	1212185-031B		18 Dec 2012 15:03
18	1	12181218.d	1.	1212185-032B		18 Dec 2012 15:17
19	1	12181219.d	1.	1212185-033B		18 Dec 2012 15:39
20	1	12181220.d	1.	1212185-034B		18 Dec 2012 15:54
21	1	12181221.d	1.	1212185-035B		18 Dec 2012 16:08
22	1	12181222.d	1.	1212185-036B		18 Dec 2012 16:23
23	1	12181223.d	1.	1212185-037B		18 Dec 2012 16:37
24	1	12181224.d	1.	1212185-038B		18 Dec 2012 16:52
25	1	12181225.d	1.	1212185-039B		18 Dec 2012 17:08
26	1	12181226.d	1.	1212185-040B		18 Dec 2012 17:22
27	1	12181227.d	1.	1212185-040BDUP		18 Dec 2012 17:36
28	1	12181228.d	1.	CCV-121812 TCD-C		18 Dec 2012 17:51
29	1	12181229.d	1.	CRQL-121812 TCD-B		18 Dec 2012 18:05

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54721

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1078484	MBLK-121812 TCD-A	ASTM-D2504	MBLK	ıTA\121812\1218	12/18/2012 10:2	1	R54721		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
1078485	CCV-121812 TCD-A	ASTM-D2504	CCV	ıTA\121812\1218	12/18/2012 10:5	1	R54721		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.532	2.532		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	% v/v	2.653	2.653		2.5	0	0	0.025	0.1	0	106%	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	2.036	2.036		2	0	0	0.025	0.5	0	102%	85	115	0%	
Nitrogen	A	% v/v	2.69	2.69		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	% v/v	2.573	2.573		2.5	0	0	0.025	0.1	0	103%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1078486	LCS-121812 TCD	ASTM-D2504	LCS	ıTA\121812\1218	12/18/2012 11:0	1	R54721		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	2.494	2.494		2.5	0	2.532	0.025	0.1	0	100%	70	130	2%	
Carbon Monoxide	A	% v/v	2.625	2.625		2.5	0	2.653	0.025	0.1	0	105%	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
1078499	CCV-121812 TCD-B	ASTM-D2504	CCV	ıTA\121812\1218	12/18/2012 2:46:	1	R54721		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.499	2.499		2.5	0	0	0.025	0.1	0	100%	85	115	0%	
Carbon Monoxide	A	% v/v	2.622	2.622		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	2.022	2.022		2	0	0	0.025	0.5	0	101%	85	115	0%	
Nitrogen	A	% v/v	2.68	2.68		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	% v/v	2.551	2.551		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
1078500	1212185-031B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\121812\1218	12/18/2012 3:03:	1	R54721		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.486	0.486		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	81.41	81.41		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	18.538	18.538		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
1078501	1212185-032B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\121812\1218	12/18/2012 3:17:	1	R54721		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.475	0.475		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	80.501	80.501		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
1078509	1212185-040B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\121812\1218	12/18/2012 5:22:	1	R54721		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.327	0.327		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	80.015	80.015		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	19.886	19.886		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
1078510	1212185-040BDUP	ASTM-D2504	DUP	ıTA\121812\1218	12/18/2012 5:36:	1	R54721		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	0.336	0.336		0	0	0.327	0.025	0.1	0	0%	0	0	3%	
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	79.816	79.816		0	0	80.015	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	19.838	19.838		0	0	19.886	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
1078511	CCV-121812 TCD-C	ASTM-D2504	CCV	ıTA\121812\1218	12/18/2012 5:51:	1	R54721		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.501	2.501		2.5	0	0	0.025	0.1	0	100%	85	115	0%	
Carbon Monoxide	A	% v/v	2.643	2.643		2.5	0	0	0.025	0.1	0	106%	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	1.97	1.97		2	0	0	0.025	0.5	0	99%	85	115	0%	
Nitrogen	A	% v/v	2.653	2.653		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	% v/v	2.541	2.541		2.5	0	0	0.025	0.1	0	102%	85	115	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121812\12181202.D Vial: 1
Acq On : 18 Dec 2012 10:50 am Operator:
Sample : CCV-121812 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	2.573	-2.9	0	0.05
2	Nitrogen	2.500	2.690	-7.6	0	0.04
3	Carbon Monoxide	2.500	2.653	-6.1	0	0.05
4	Methane	2.000	2.036	-1.8	0	0.05
5	Carbon dioxide	2.500	2.532	-1.3	0	0.07

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\121812\12181202.D          Vial: 1
Acq On    : 18 Dec 2012  10:50 am                   Operator:
Sample    : CCV-121812 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\121812\12181202.D Vial: 1
Acq On : 18 Dec 2012 10:50 am Operator:
Sample : CCV-121812 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 18 11:02 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Dec 17 16:05:39 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	385509	2.573 % v/v
2)	Nitrogen	2.34	467929	2.690 % v/v
3)	Carbon Monoxide	3.03f	431980	2.653 % v/v
4)	Methane	5.65f	291814	2.036 % v/v
5)	Carbon dioxide	9.25f	524037	2.532 % v/v

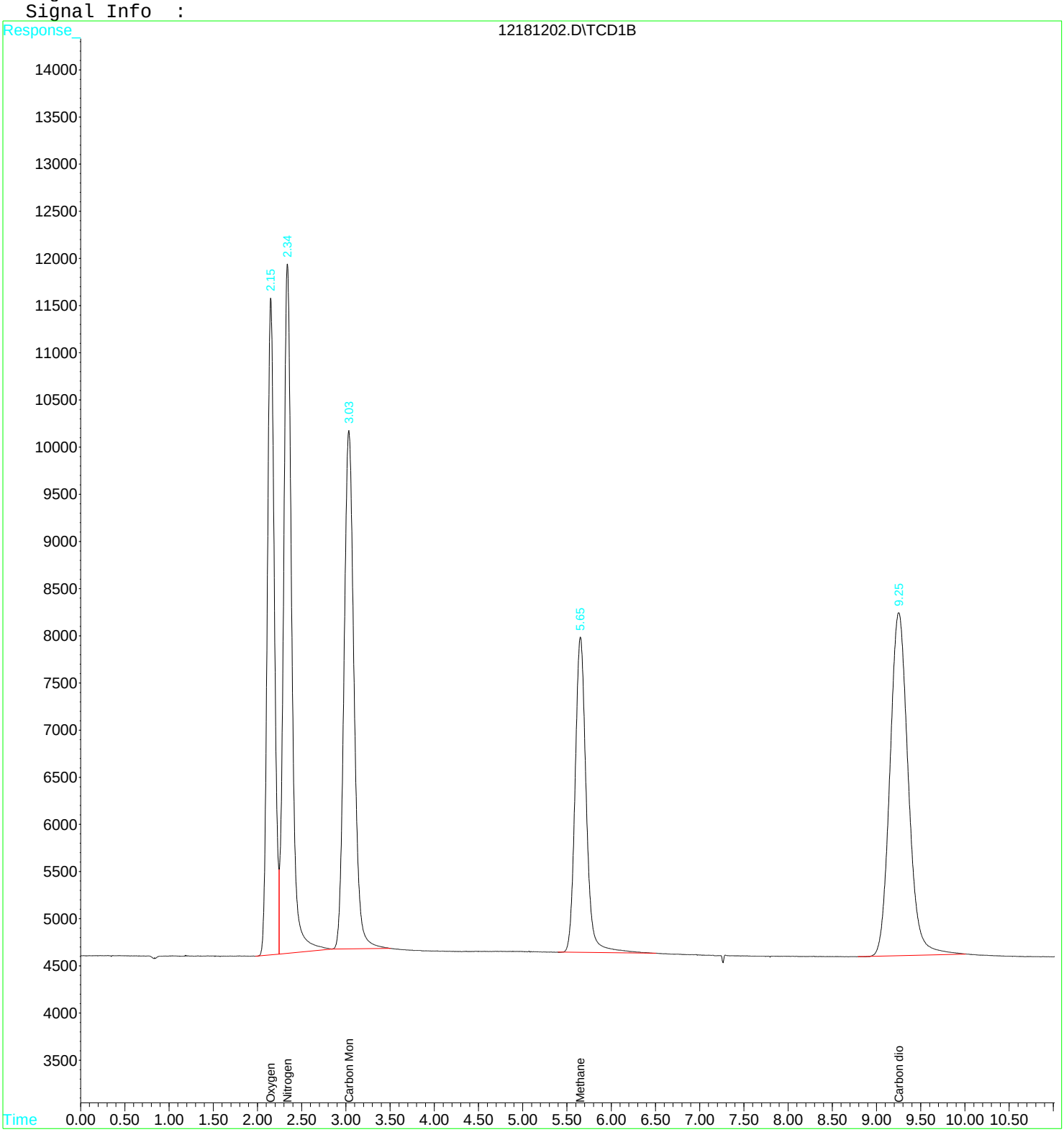
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121812\12181202.D Vial: 1
Acq On : 18 Dec 2012 10:50 am Operator:
Sample : CCV-121812 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 18 11:02 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Dec 17 16:05:39 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\121812\12181216.D Vial: 1
Acq On : 18 Dec 2012 2:46 pm Operator:
Sample : CCV-121812 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	2.551	-2.0	0	0.05
2	Nitrogen	2.500	2.680	-7.2	0	0.04
3	Carbon Monoxide	2.500	2.622	-4.9	0	0.05
4	Methane	2.000	2.022	-1.1	0	0.05
5	Carbon dioxide	2.500	2.499	0.0	0	0.07

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

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\121812\12181216.D          Vial: 1
Acq On    : 18 Dec 2012   2:46 pm                   Operator:
Sample    : CCV-121812 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\121812\12181216.D Vial: 1
Acq On : 18 Dec 2012 2:46 pm Operator:
Sample : CCV-121812 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 18 15:01 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Dec 17 16:05:39 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	382177	2.551 % v/v
2)	Nitrogen	2.34	466136	2.680 % v/v
3)	Carbon Monoxide	3.03f	426986	2.622 % v/v
4)	Methane	5.65f	289806	2.022 % v/v
5)	Carbon dioxide	9.25f	517318	2.499 % v/v

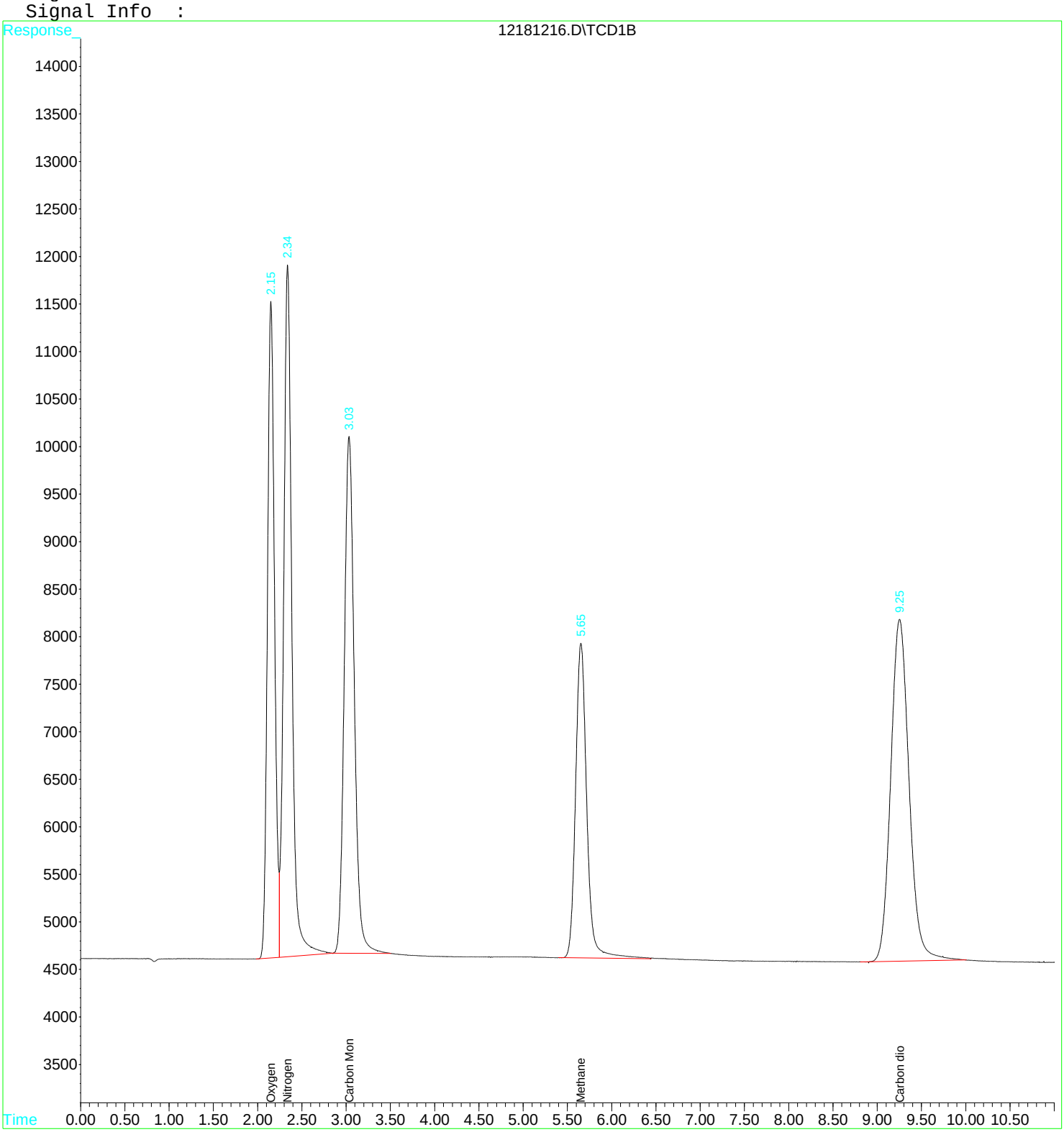
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121812\12181216.D Vial: 1
Acq On : 18 Dec 2012 2:46 pm Operator:
Sample : CCV-121812 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 18 15:01 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Dec 17 16:05:39 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\121812\12181228.D Vial: 1
Acq On : 18 Dec 2012 5:51 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	2.541	-1.6	0	0.05
2	Nitrogen	2.500	2.653	-6.1	0	0.04
3	Carbon Monoxide	2.500	2.643	-5.7	0	0.06
4	Methane	2.000	1.970	1.5	0	0.06
5	Carbon dioxide	2.500	2.501	-0.0	0	0.07

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\121812\12181228.D          Vial: 1
Acq On    : 18 Dec 2012   5:51 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\121812\12181228.D Vial: 1
Acq On : 18 Dec 2012 5:51 pm Operator:
Sample : CCV-121812 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 18 18:02 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Dec 17 16:05:39 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	380790	2.541 % v/v
2)	Nitrogen	2.34	461406	2.653 % v/v
3)	Carbon Monoxide	3.04f	430364	2.643 % v/v
4)	Methane	5.66f	282291	1.970 % v/v
5)	Carbon dioxide	9.25f	517702	2.501 % v/v

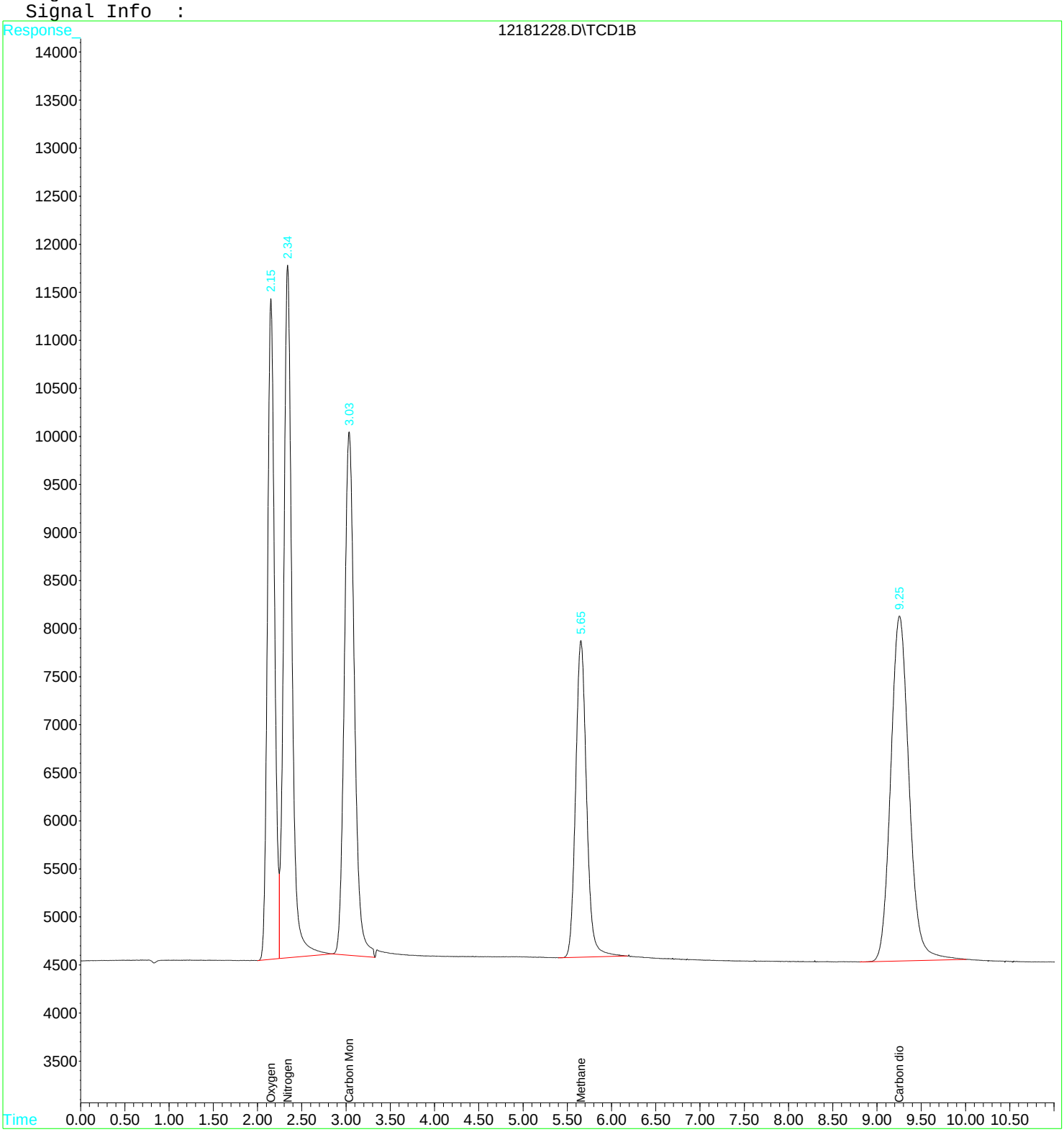
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121812\12181228.D Vial: 1
Acq On : 18 Dec 2012 5:51 pm Operator:
Sample : CCV-121812 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 18 18:02 2012 Quant Results File: 062512.RES

Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Dec 17 16:05:39 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Injection Log

Directory: C:\HPCHEM\2\DATA\121912

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12191201.d	1.	MBLK-121912 TCD-A		19 Dec 2012 11:07
2	1	12191202.d	1.	CCV-121912 TCD-A		19 Dec 2012 11:22
3	1	12191203.d	1.	LCS-121912 TCD		19 Dec 2012 11:36
4	1	12191204.d	1.	CRQL-121912 TCD-A		19 Dec 2012 11:55
5	1	12191205.d	1.	1212185-021B		19 Dec 2012 12:14
6	1	12191206.d	1.	1212185-022B		19 Dec 2012 12:32
7	1	12191207.d	1.	1212185-023B		19 Dec 2012 12:46
8	1	12191208.d	1.	1212185-024B		19 Dec 2012 13:01
9	1	12191209.d	1.	1212185-025B		19 Dec 2012 13:46
10	1	12191210.d	1.	1212185-026B		19 Dec 2012 14:00
11	1	12191211.d	1.	1212185-027B		19 Dec 2012 14:16
12	1	12191212.d	1.	1212185-028B		19 Dec 2012 14:30
13	1	12191213.d	1.	1212185-029B		19 Dec 2012 14:48
14	1	12191214.d	1.	1212185-030B		19 Dec 2012 15:03
15	1	12191215.d	1.	1212185-030BDUP		19 Dec 2012 15:18
16	1	12191216.d	1.	CCV-121912 TCD-B		19 Dec 2012 15:32
17	1	12191217.d	1.	1212185-041B		19 Dec 2012 15:47
18	1	12191218.d	1.	1212185-042B		19 Dec 2012 16:04
19	1	12191219.d	1.	1212185-043B		19 Dec 2012 16:18
20	1	12191220.d	1.	1212185-044B		19 Dec 2012 16:34
21	1	12191221.d	1.	1212185-045B		19 Dec 2012 16:49
22	1	12191222.d	1.	1212185-046B		19 Dec 2012 17:04
23	1	12191223.d	1.	1212185-047B		19 Dec 2012 17:18
24	1	12191224.d	1.	1212185-048B		19 Dec 2012 17:32
25	1	12191225.d	1.	1212185-049B		19 Dec 2012 17:47
26	1	12191226.d	1.	1212185-050B		19 Dec 2012 18:02
27	1	12191227.d	1.	1212185-050BDUP		19 Dec 2012 18:23
28	1	12191228.d	1.	CCV-121912 TCD-C		19 Dec 2012 18:42
29	1	12191229.d	1.	CRQL-121912 TCD-B		19 Dec 2012 19:23

RTI Laboratories

ANALYTICAL RUN Summary

02-Jan-13

RunNo 54771

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1079356	MBLK-121912 TCD-A	ASTM-D2504	MBLK	ıTA\121912\1219	12/19/2012 11:0	1	R54771		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
1079357	CCV-121912 TCD-A	ASTM-D2504	CCV	ıTA\121912\1219	12/19/2012 11:2	1	R54771		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.513	2.513		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	% v/v	2.635	2.635		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	2.022	2.022		2	0	0	0.025	0.5	0	101%	85	115	0%	
Nitrogen	A	% v/v	2.699	2.699		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	% v/v	2.557	2.557		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
1079358	LCS-121912 TCD	ASTM-D2504	LCS	ıTA\121912\1219	12/19/2012 11:3	1	R54771		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	2.501	2.501		2.5	0	2.513	0.025	0.1	0	100%	70	130	0%	
Carbon Monoxide	A	% v/v	2.627	2.627		2.5	0	2.635	0.025	0.1	0	105%	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
1079371	CCV-121912 TCD-B	ASTM-D2504	CCV	ıTA\121912\1219	12/19/2012 3:32:	1	R54771		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.515	2.515		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	% v/v	2.633	2.633		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	1.971	1.971		2	0	0	0.025	0.5	0	99%	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	2.556	2.556		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
1079372	1212185-041B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\121912\1219	12/19/2012 3:47:	1	R54771		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.308	0.308		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	78.745	78.745		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	20.254	20.254		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
1079373	1212185-042B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\121912\1219	12/19/2012 4:04:	1	R54771		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.314	0.314		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	81.155	81.155		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
1079381	1212185-050B (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\121912\1219	12/19/2012 6:02:	1	R54771		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.099	0.099		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	79.871	79.871		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	21.232	21.232		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
1079382	1212185-050BDUP	ASTM-D2504	DUP	ıTA\121912\1219	12/19/2012 6:23:	1	R54771		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	0.099	0.025	0.1	0	0%	0	0	2%	
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	80.226	80.226		0	0	79.871	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	21.317	21.317		0	0	21.232	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
1079383	CCV-121912 TCD-C	ASTM-D2504	CCV	ıTA\121912\1219	12/19/2012 6:42:	1	R54771		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.542	2.542		2.5	0	0	0.025	0.1	0	102%	85	115	0%	
Carbon Monoxide	A	% v/v	2.664	2.664		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	2.045	2.045		2	0	0	0.025	0.5	0	102%	85	115	0%	
Nitrogen	A	% v/v	2.721	2.721		2.5	0	0	0.025	0.1	0	109%	85	115	0%	
Oxygen	A	% v/v	2.588	2.588		2.5	0	0	0.025	0.1	0	104%	85	115	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\121912\12191202.D Vial: 1
Acq On : 19 Dec 2012 11:22 am Operator:
Sample : CCV-121912 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	2.557	-2.3	0	0.04
2	Nitrogen	2.500	2.699	-8.0	0	0.02
3	Carbon Monoxide	2.500	2.635	-5.4	0	0.04
4	Methane	2.000	2.022	-1.1	0	0.03
5	Carbon dioxide	2.500	2.513	-0.5	0	0.04

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\121912\12191202.D          Vial: 1
Acq On    : 19 Dec 2012  11:22 am                   Operator:
Sample    : CCV-121912 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\121912\12191202.D Vial: 1
Acq On : 19 Dec 2012 11:22 am Operator:
Sample : CCV-121912 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 11:33 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	383191	2.557 % v/v
2)	Nitrogen	2.32	469427	2.699 % v/v
3)	Carbon Monoxide	3.02	429002	2.635 % v/v
4)	Methane	5.63	289768	2.022 % v/v
5)	Carbon dioxide	9.22	520155	2.513 % v/v

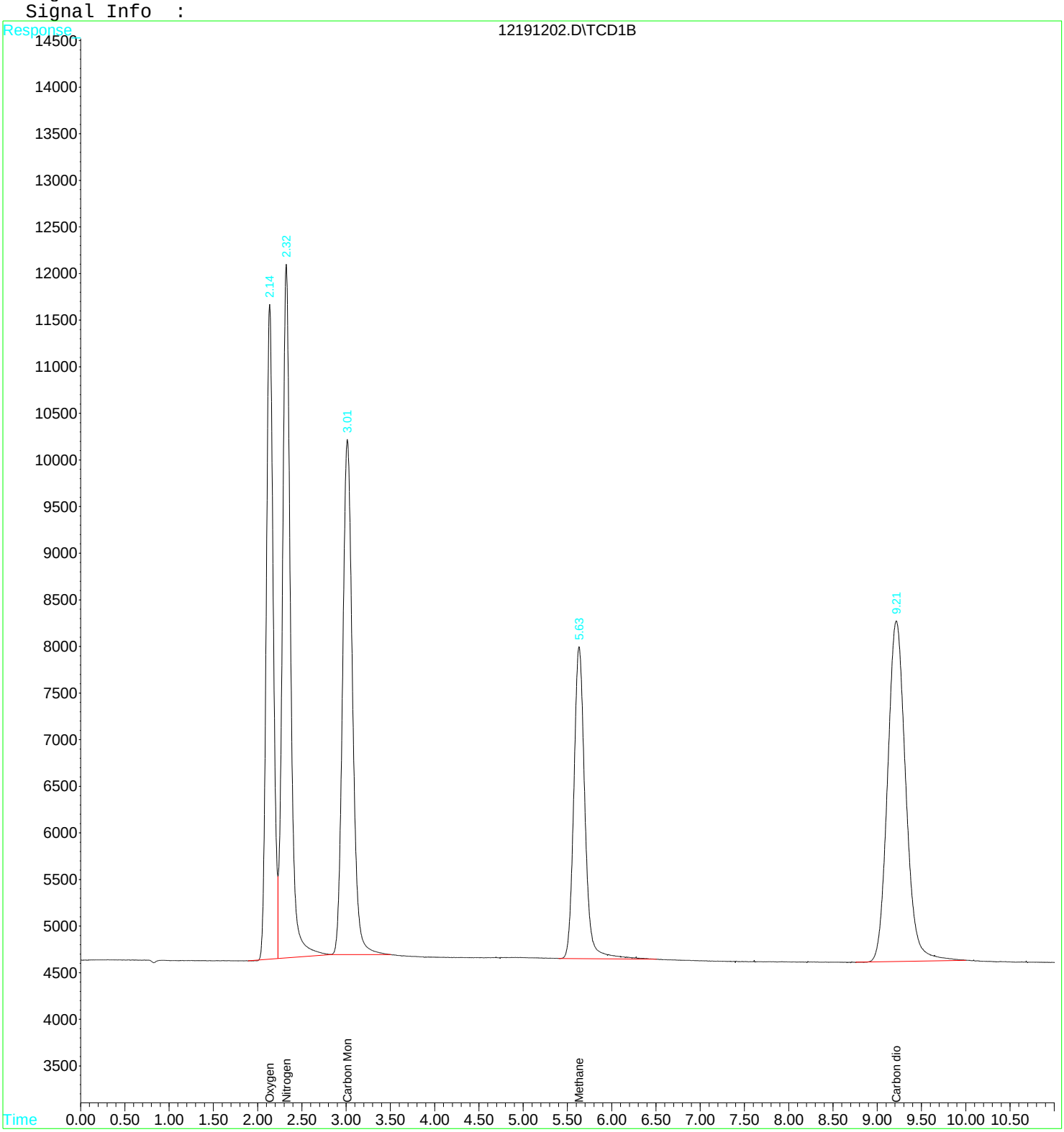
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121912\12191202.D Vial: 1
Acq On : 19 Dec 2012 11:22 am Operator:
Sample : CCV-121912 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 19 11:33 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\121912\12191216.D Vial: 1
Acq On : 19 Dec 2012 3:32 pm Operator:
Sample : CCV-121912 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	2.556	-2.2	0	0.04
2	Nitrogen	2.500	2.677	-7.1	0	0.03
3	Carbon Monoxide	2.500	2.633	-5.3	0	0.04
4	Methane	2.000	1.971	1.4	0	0.04
5	Carbon dioxide	2.500	2.515	-0.6	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\121912\12191216.D          Vial: 1
Acq On    : 19 Dec 2012   3:32 pm                   Operator:
Sample    : CCV-121912 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\121912\12191216.D Vial: 1
Acq On : 19 Dec 2012 3:32 pm Operator:
Sample : CCV-121912 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 18:02 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	382920	2.556 % v/v
2)	Nitrogen	2.33	465648	2.677 % v/v
3)	Carbon Monoxide	3.02	428774	2.633 % v/v
4)	Methane	5.64	282466	1.971 % v/v
5)	Carbon dioxide	9.24f	520699	2.515 % v/v

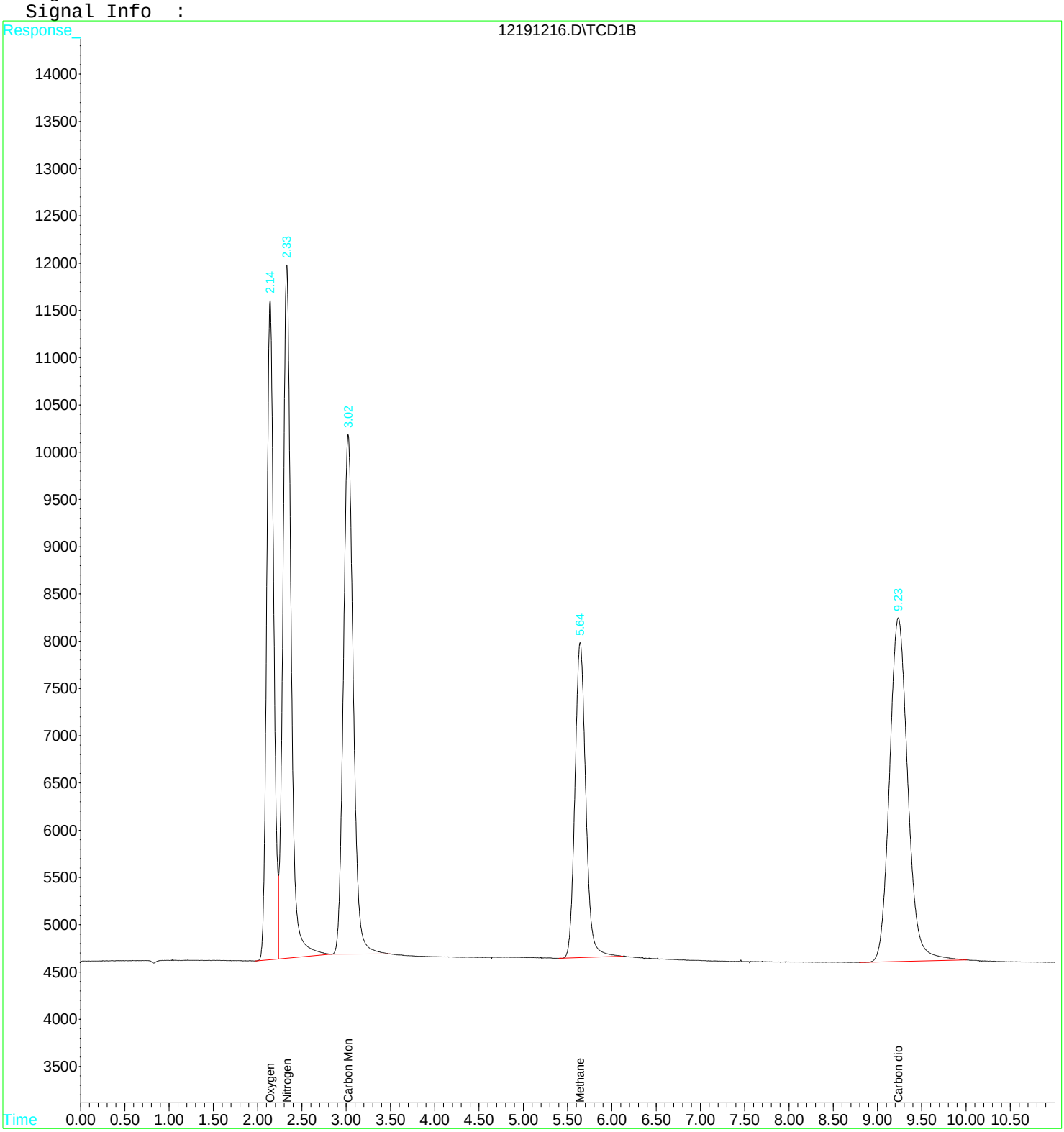
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121912\12191216.D Vial: 1
Acq On : 19 Dec 2012 3:32 pm Operator:
Sample : CCV-121912 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 19 18:02 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\121912\12191228.D Vial: 1
Acq On : 19 Dec 2012 6:42 pm Operator:
Sample : CCV-121912 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	2.588	-3.5	0	0.05
2	Nitrogen	2.500	2.721	-8.8	0	0.04
3	Carbon Monoxide	2.500	2.664	-6.6	0	0.05
4	Methane	2.000	2.045	-2.2	0	0.05
5	Carbon dioxide	2.500	2.542	-1.7	0	0.06

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\121912\12191228.D          Vial: 1
Acq On    : 19 Dec 2012   6:42 pm                   Operator:
Sample    : CCV-121912 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\121912\12191228.D Vial: 1
Acq On : 19 Dec 2012 6:42 pm Operator:
Sample : CCV-121912 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 19 19:39 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	387785	2.588 % v/v
2)	Nitrogen	2.34	473304	2.721 % v/v
3)	Carbon Monoxide	3.03	433778	2.664 % v/v
4)	Methane	5.65	293112	2.045 % v/v
5)	Carbon dioxide	9.24f	526197	2.542 % v/v

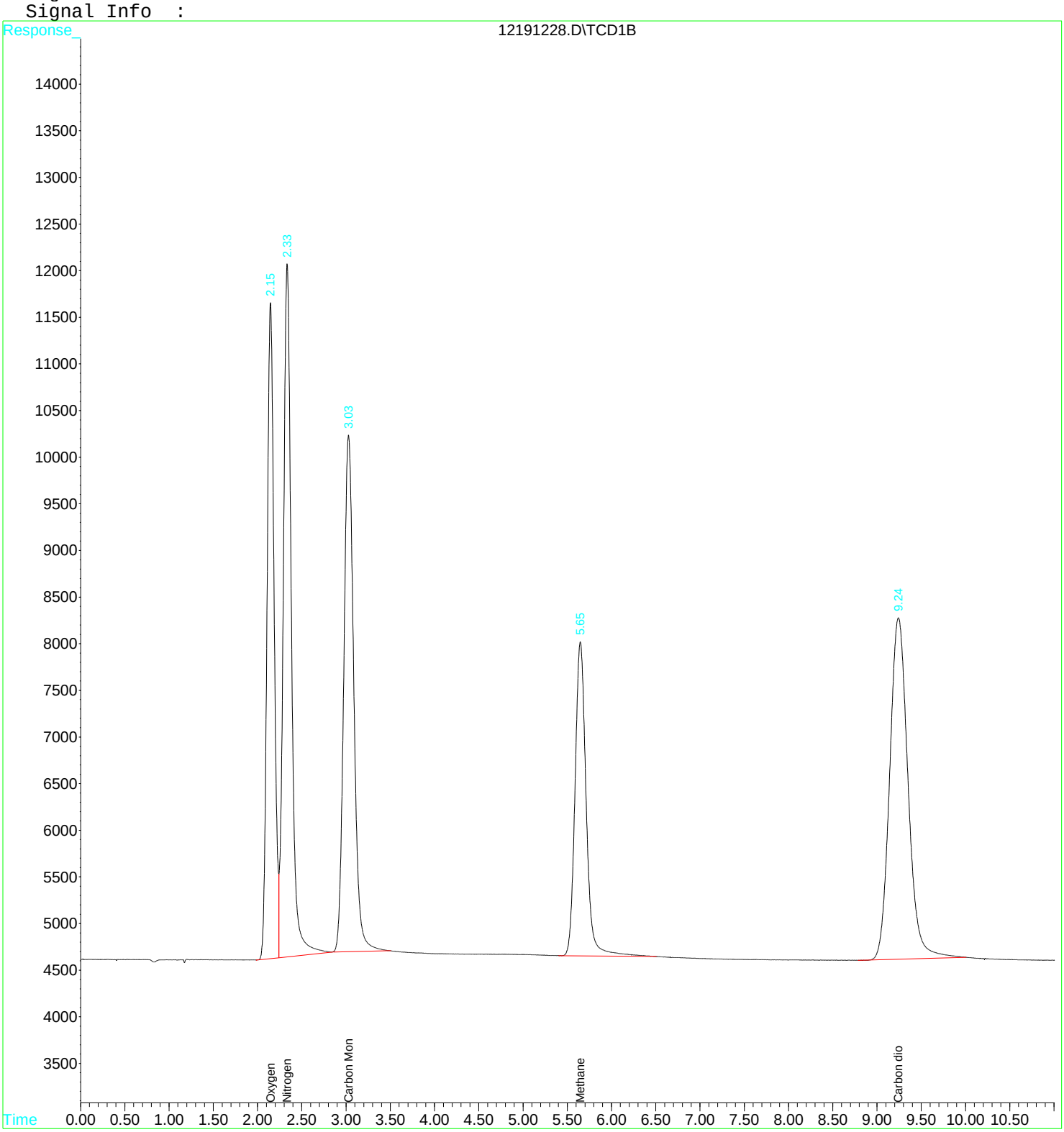
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\121912\12191228.D Vial: 1
Acq On : 19 Dec 2012 6:42 pm Operator:
Sample : CCV-121912 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 19 19:39 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\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

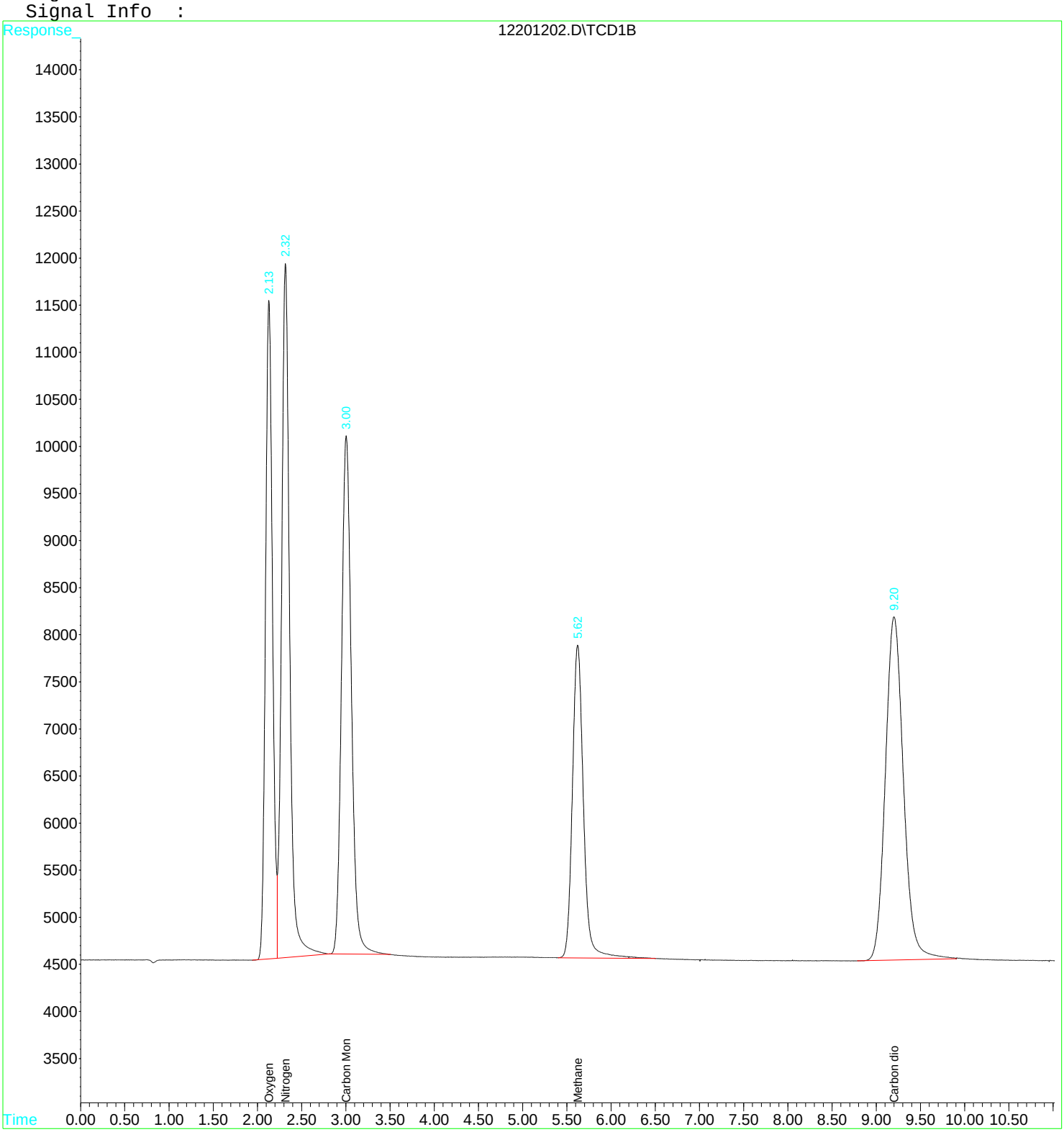
(f)=RT Delta > 1/2 Window (m)=manual int.

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

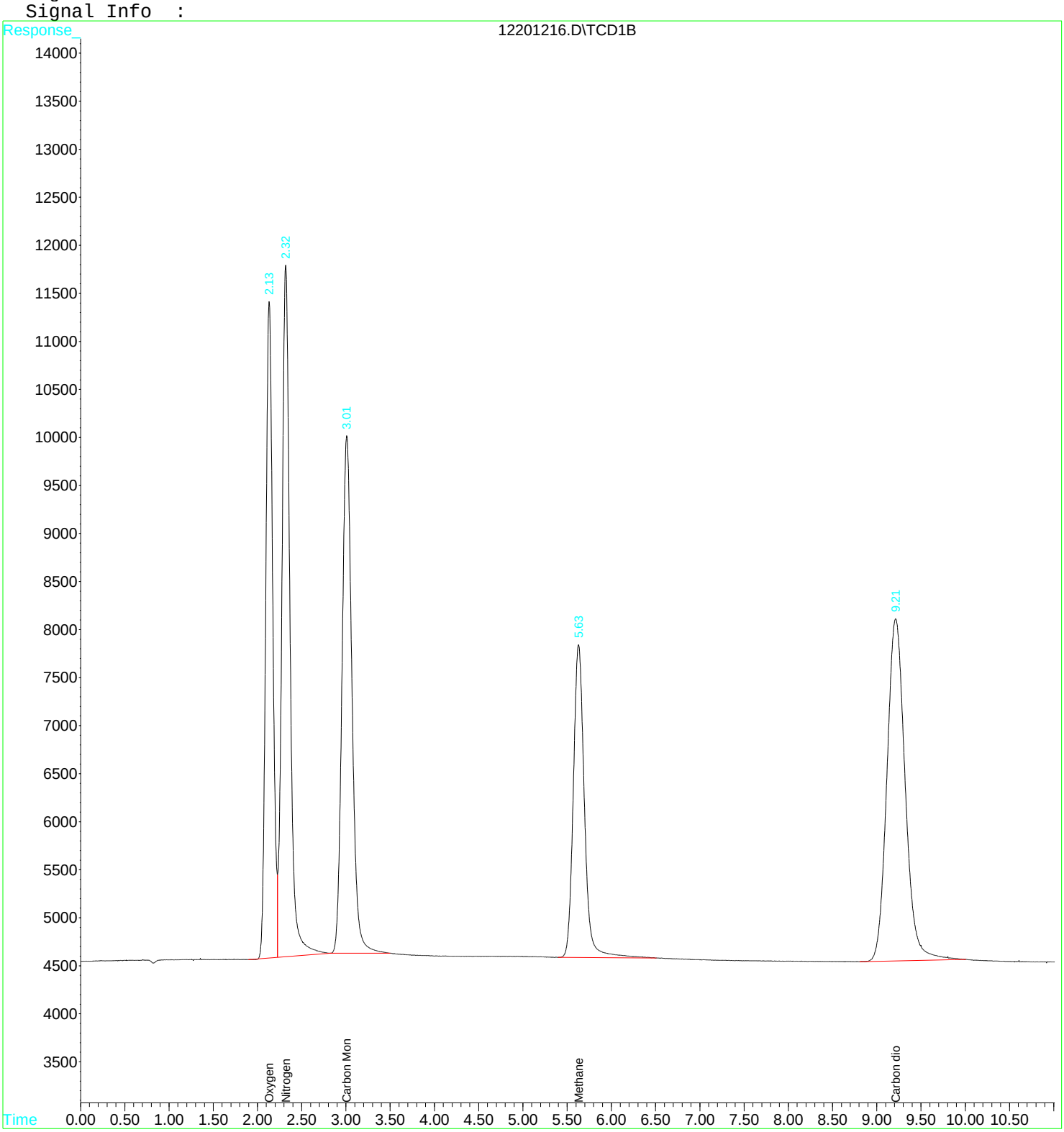
(f)=RT Delta > 1/2 Window (m)=manual int.

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

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

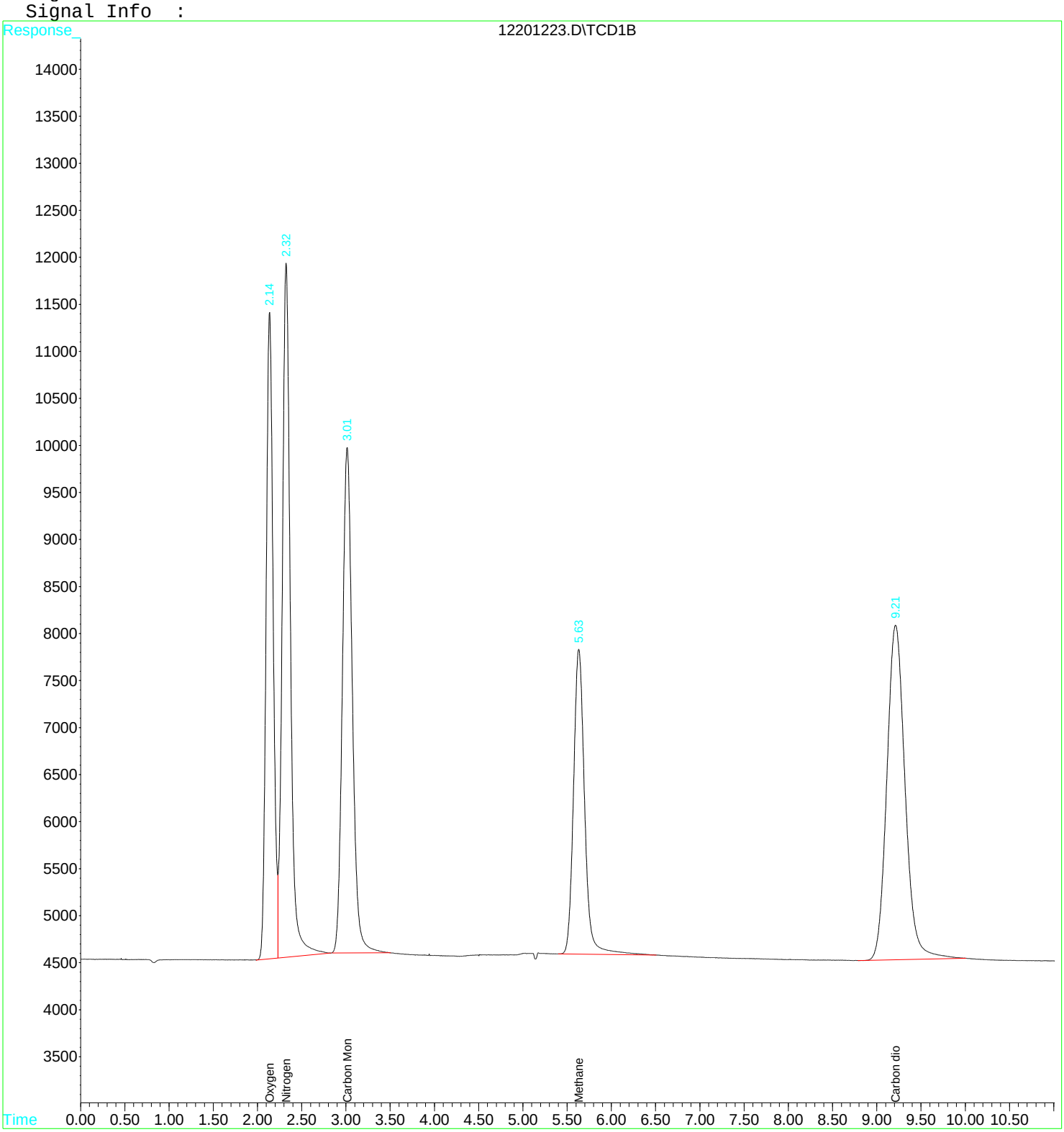
(f)=RT Delta > 1/2 Window (m)=manual int.

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 :



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

(#) = Out of Range SPCC's out = 0 CCC's out = 0
06251210.D 062512.M Tue Jun 26 09:54:48 2012

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

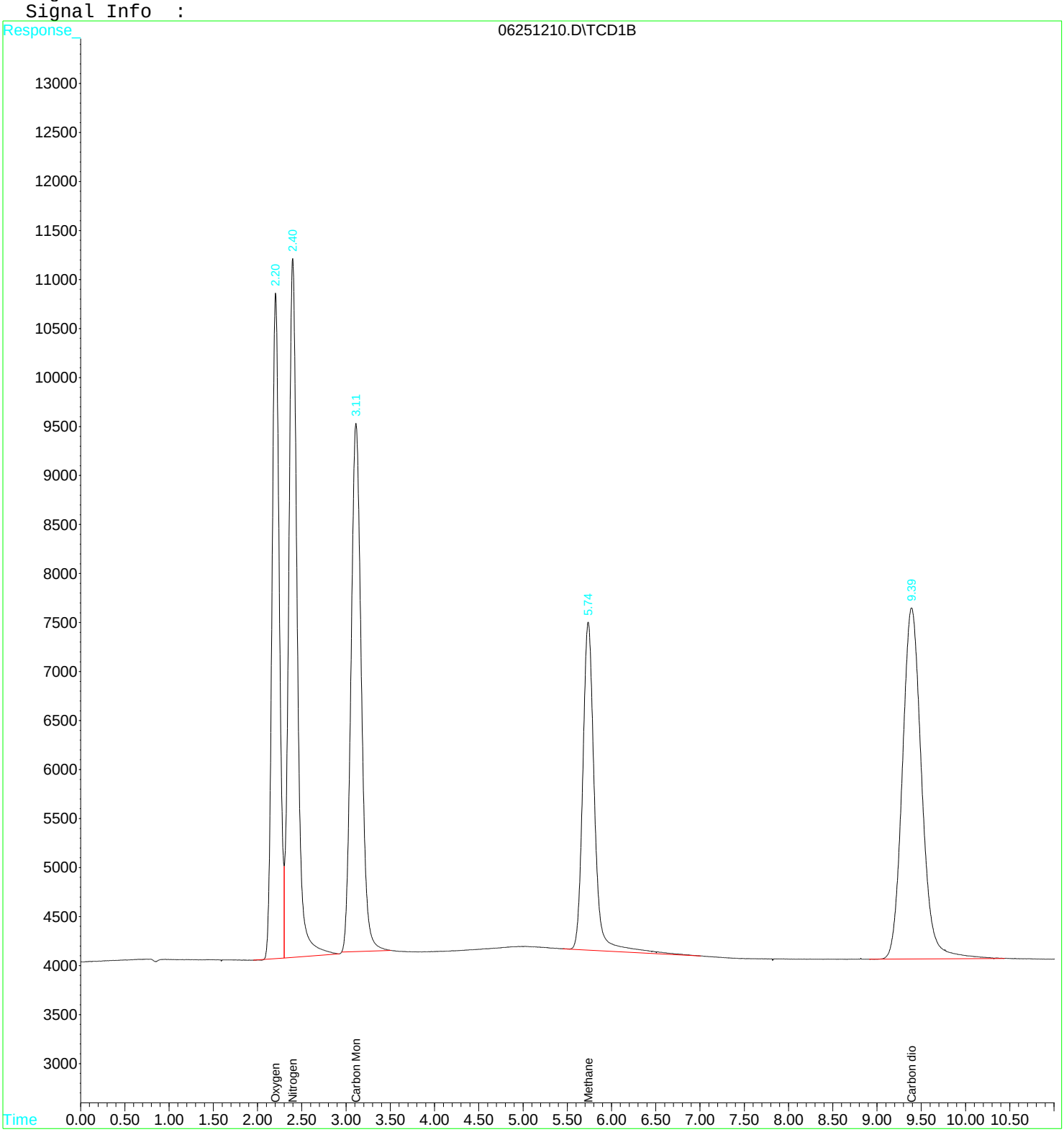
Quant Method : C:\HPCHEM\2\METHODS\062512.M (Chemstation Integrator)
Title :
Last Update : Mon Jun 25 17:07:33 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

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	%

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 :