RTI LABORATORIES, INC.

Analytical Report

Level III Data Package

Work Order #: 1212960

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: 1/21/2013

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: *21-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: 1212960

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 12/27/2012 consisting of 11 air samples. The air samples were received in good condition, with the exception of the following sample:

- RTI Sample ID 1212960-005A (VA-9088): The sample was received with insufficient vacuum (-2 inch Hg). At the client's request, TO15 and MA_APH analysis were to be performed

Additionally, the Chain of Custody did not specify MA_APH analysis to be conducted on any of the samples received. Per contract and client request, test method MA_APH was to be performed on all of the samples, with the exception of VA8112-TB.

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.

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.

RTI Laboratories, Inc. **Date:** *21-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: 1212960

CASE NARRATIVE

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.

Analytical Sequence ID 55426:

- SAMPLE 1212960-010B: Sample was rerun due to the field duplicate, 1212960-011B, not matching the sample. First run data was used as the rerun matched the initial run.

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 21, 2013____
Charles O'Bryan, Director, Quality Management

RTI Laboratories - Definitions and Acronyms

WO#: 1212960

Date Reported: 1/17/2013
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

1212960

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV112

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

Samples Shipment Date: 19 DEC 2012
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: ~~Fed Ex/123456789~~ UPS 2323121555

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

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

Special Instructions:

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

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

1. Relinquished By (Signature/Affiliation) T Nagy	Date: 12/19/12 Time: 1530	1. Received By (Signature/Affiliation) Rachel Dear ①	Date: 27dec12 Time: 1026
2. Relinquished By (Signature/Affiliation) n/a vmd 27dec12	Date: Time:	2. Received By (Signature/Affiliation) n/a vmd 27dec12	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:	3. Received By (Signature/Affiliation)	Date: Time:

Comments: * out of criteria of -3"Hg to -7"Hg RD2 27dec12

① ups delivery signed for by Kathy Griffin.

	Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol "Hg	Units	Fil	CID	Condition On Receipt
1 -	VA8112-TB	FIELDQC-AQ-VA8112-TB-TB	19 DEC 2012	08:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-30		N	584	
2	VA9084	ST106-IN-GS-VA9084-REG	18 DEC 2012	15:02	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-6		N	831	
	VA9084	ST106-IN-GS-VA9084-REG	18 DEC 2012	15:02	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
dup 3	VA9085	ST106-IN-GS-VA9085-FD	18 DEC 2012	15:02	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-6		N	639	
	VA9085	ST106-IN-GS-VA9085-FD	18 DEC 2012	15:02	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
4	VA9086	ST106-POSTC1-GS-VA9086-REG	18 DEC 2012	15:51	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15 -5	~~-6.5~~ ①		N	~~798~~ ① 581	
	VA9086	ST106-POSTC1-GS-VA9086-REG	18 DEC 2012	15:51	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
5 - *	~~VA9088~~ VA9089	KAFB106149-IN-GS-VA9088-REG	19 DEC 2012	09:59	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-2		N	538	

① sample volume & BV ID # in incorrect spot, data for VA9091. vmd 27dec12

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV112

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	"Hg Sample Vol	Units	Fil	CID	Condition On Receipt
5	VA9088 9081	KAFB106149-IN-GS-VA9088-REG	19 DEC 2012	09:59	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
6	VA9089 9000	KAFB106149-POSTC1-GS-VA9089-REG	19 DEC 2012	09:26	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-5		N	654	
	VA9089 9000	KAFB106149-POSTC1-GS-VA9089-REG	19 DEC 2012	09:26	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
7	VA9091 9093	KAFB106161-IN-GS-VA9091-REG	18 DEC 2012	13:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
	VA9091 9093	KAFB106161-IN-GS-VA9091-REG	18 DEC 2012	13:30	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-6.5		N	798	
8	VA9093 9091	KAFB106161-POSTC2-GS-VA9093-REG	18 DEC 2012	14:07	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-5		N	1096	
	VA9093 9091	KAFB106161-POSTC2-GS-VA9093-REG	18 DEC 2012	14:07	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
9	VA9094	KAFB106160-IN-GS-VA9094-REG	19 DEC 2012	11:31	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-4		N	1146	
	VA9094	KAFB106160-IN-GS-VA9094-REG	19 DEC 2012	11:31	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
10	VA9095	KAFB106160-POSTC1-GS-VA9095-REG	19 DEC 2012	10:47	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-5		N	670	
	VA9095	KAFB106160-POSTC1-GS-VA9095-REG	19 DEC 2012	10:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good
11 dup	VA9096	KAFB106160-POSTC1-GS-VA9096-FD	19 DEC 2012	10:47	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15	-5		N	560	
	VA9096	KAFB106160-POSTC1-GS-VA9096-FD	19 DEC 2012	10:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		good

FROM:
DAVID AUBREY
(505) 307-8968
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 4291 0286

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-4028

1Z10335E034291 0286

UMU9PQF MILIU175 DEC 27 06:21:27 2012
US 4821 HIP 12.1.6 OKILE810

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

12 amber vac samples

RD2
27dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

T - 10
FSTZ884526

Door : 1249
MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0342910286

P14D019 3222076 Dec 21 23:16:54 2012 US

SS1013 HIP 11.1.3 BTLP2844L

6059 N

n label pouch

CUSTODY SEAL
DATE 12/18/12
SIGNATURE

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

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

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

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4210 2695

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-4028

1Z10335E034210 2695

UMU9P0F MILIU175 DEC 27 06:17:03 20
US 4821 HIP 12.1.6 OKILE810

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

12 amber vac Samples & duds RD2 27dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 12/19/12
SIGNATURE [illegible]

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

Account Number 10335E
Emergency Contact Number (800) 424-9300
Ref. Number 1Z10335E0342102695
Registrant Chemtrec CCN20044

For Air Services Only
This shipment is within the limitations prescribed for (Delete Non-Applicable Mode)
Passenger Aircraft XXXX
Cargo Aircraft Only XXXX

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

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 [illegible] Date 12/19/12

Carrier Use Only
Initials DCD
SLIC 8710
Date 12/19/12

Page 1 of 1 1 Package

T - 10
FSTZ884526

Door: 1249
MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0342102695

P14D019 3222076 Dec 21 23:16:58 2012 US

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

8 LBS 3 OF 10
DWT: 15,11,9

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4185 3706

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-4028
1Z10335E034185 3T96
UMV9P0F MILIV175 DEC 27 06:22:07 2012
US 4821 HIP 12.1.6 OKILEB10

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

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

CUSTODY SEAL
DATE 12/19/12
SIGNATURE [illegible]

QEC
Quality Environmental Co[illegible]
800-255-3950 • 304-[illegible]

For Air Shipments ... declare that all of the applicable air transport requirements have been met. ... at the contents of this consignment are fully and accurately described above by ... name and are classified, packaged, marked and labeled/placarded, and are in ... condition for transport according to applicable international and national ... regulations. ... radioactive material acceptable for passenger aircraft. ... material is

Carrier Use Only
Initials

UN3167, Gas, compressed, n.o.s., 2.1, ERG 115, Tr-1000/50 BD Box X4L

T - 10 Door: 1249
MI 48150
FSTZ884526 MI 482 9-02

4 Amber
2 - Tedlar

UPS GROUND

1Z10335E0341853706

P14D019 3222076 Dec 21 23:12:18 2012 US
SS1013 HIP 11.1.3 BTLP2844L 6059 N

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

27 LBS 4 OF 10
DWT: 26,16,14

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4111 9312

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-4028
1Z10335E034111 9312
UMU9PQF MILIU175 DEC 27 06:26:10 2012
US 4821 HIP 12.1.6 OKILE810

BILLING: P/P
HAZARDOUS MATERIALS - GROUND ONLY
HAZ#: 176
1 - tedlar bag
15 - amber vac samples
RD2
27dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

T - 10 Door : 1249
FSTZ884526 MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0341119312

P14D019 3575507 Dec 21 23:49:35 2012 US
SS1013 HIP 11 1.3 BTLP2844L 6059 N

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	
Reference Number	ER Registrant	Passenger Aircraft / Cargo Aircraft Only
1Z10335E0341119312	Chemtrec CCN20044	XXXX / XXXX

Hazardous Materials Description and Quantity
UN3167, Gas sample, non-pressurized, flammable, n.o.s., 2.1, ERG 115, 1 Fiberboard Box x 2 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: T Nagy Date: 12/19/12

Carrier Use Only
Initials: DWJ
SLIC: 8mo
Date: 12/19/12

Page 1 of 1 — 1 Package

CUSTODY SEAL
DATE 12/19/12
SIGNATURE T Nagy

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

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

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

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4161 5526

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-4028
1Z10335E034161 5526
UMU9PQF MILIU175 DEC 27 06:21:17 2012
US 4821 HIP 12.1.6 OKILE810

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

25 tedlar bags RD2 27dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

T - 10
FSTZ884526

Door : 1249
MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0341615526

P14D019 3222076 Dec 21 23:09:54 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 / Cargo Aircraft Only
1Z10335E0341615526	Chemtrec CCN20044	XXXX / XXXX

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

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.
12/19/12

Carrier Use Only
Initials DLD
SLIC 8W3
Date 12/19/12
1 Package

CUSTODY SEAL
DATE 12/19/12
SIGNATURE

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

HSNV7

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

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

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4241 8336

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-4028

1Z10335E034241 8336

VMU9P0F MILIV175 DEC 27 06:21:15 2012
US 4821 HIP 12.1.6 OKILEB10

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

24 tedlar bags - RD2
27dec12

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

T - 10 Door: 1249
FSTZ884526 MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0342418336

P14D019 3222076 Dec 21 23:09:35 2012 US

SS1013 HIP 11.1.3 BTLP2844L 6059 N

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: XXX; Cargo Aircraft Only: XXX
Reference Number: 1Z10335E0342418336	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: T Nal Date: 12/19/12

Carrier Use Only
Initials: DCD
SLIC: 8710
Date: 12/19/12

Page 1 of 1 1 Package

CUSTODY SEAL
DATE 12/19/12
SIGNATURE T Nal

QEC
Quality Environmental Con...
800-255-3950 • 304-... 3900

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

30 LBS **7 OF 10**
DWT: 26,16,14

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4056 3745

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

REF 1:140705
REF 2:BB010030

BILLING: P/P

RTI LABORATORIES
31628 GLENDALE ST

LIVONIA MI 48150

P: RED2 S: MPUR I: 3

DAG – 4028

1Z10335E034056 3745

UMU9PGF MILIV175 DEC 27 06:42:51 2012
US 4821 HIP 12.1.6 OKILEB10

CUSTODY SEAL
DATE 12/19/12
SIGNATURE T Nolan

Fold here and place in label pouch

18 amber vacs samples & duds - RD2 27dec12

FROM:
DAVID AUBREY
(505) 307-8968
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 4064 7753

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-4028

1Z10335E034064 7753

UMU9P0F MILIU175 DEC 27 06:37:58 2012
US 4821 HIP/12.1.6 OKILE810

BILLING: P/P

RD2
27dec12

12 amber vacs
-returned-

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

CUSTODY SEAL
DATE 12/19/12
SIGNATURE TNoy

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

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

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

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4042 6367

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

REF 1:140705
REF 2:BB010030

BILLING: P/P

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

Fold here and place in label pouch

CUSTODY SEAL
DATE 12/19/12
SIGNATURE T Nagy

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

2 Unused Amb

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

11 LBS **10 OF 10**
DWT: 15,8,4

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4041 5575

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

REF 1:140705
REF 2:BB010030

BILLING: P/P

RTI LABORATORIES
31628 GLENDALE ST

LIVONIA MI 48150

P: RED2 S: MPUR I: 3

DAG-4028

1Z10335E034041 5575

UMU9PQF MILIU175 DEC 27 06:37:01 2012
US 4821 HIP 12.1.6 OKILE810

WS 15.0.16 HP LaserJet 4 33.0A 10/2012

...nd place in label pouch

CUSTODY SEAL
DATE 12/19/12
SIGNATURE T Nagy

800-255-3950

48 Regulators

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:	**1212960**
RCPNo: **1**	Date and Time Received: **12/27/2012 10:26:00 AM**	Received by:	**Katherine Griffin**
Completed By:	Rachel Dean	Reviewed By:	Katherine Griffin
Completed Date:	**12/27/2012 2:57:59 PM**	Reviewed Date:	**1/2/2013 8:24 AM**

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 [ ]	No [x]	
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 [ ]	No [x]	
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: **1212960**

Comment: VA9088 Bottle Vac; out of acceptable criteria of -3" Hg to -7" Hg.

Waiting client to respond on Test Codes; EPA TO15 only?

1 of 10: 1Z 103 35E 03 4291 0286
2 of 10: 1Z 103 35E 03 4210 2695
3 of 10: 1Z 103 35E 03 4185 3706
4 of 10: 1Z 103 35E 03 4111 9312
5 of 10: 1Z 103 35E 03 4161 5526
6 of 10: 1Z 103 35E 03 4241 8336
7 of 10: 1Z 103 35E 03 4056 3745
8 of 10: 1Z 103 35E 03 4064 7753
9 of 10: 1Z 103 35E 03 4042 6367
10 of 10: 1Z 103 35E 03 4041 5575

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

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

Date Contacted: **12/27/2012 12:45:00 PM** Contacted By: **Katherine Griffin**

Regarding: insuff. vac on samples and TB & test codes clarify

Client Instructions: Run VA9088 note in C.Narr & run MA_APH on all except TB

CorrectiveAction:

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

SampleID	ContainerID	Type	Vacuum Read (inch Hg)	Orig pH	Adj pH	Req Min pH	Req Max pH
1212960-001A	584	Bottle	-30" Hg				
1212960-002A	831	Bottle	-6" Hg				
1212960-002B	Container-01 of 01	Bottle					
1212960-003A	639	Bottle	-6" Hg				
1212960-003B	Container-01 of 01	Bottle					
1212960-004A	581	Bottle	-5" Hg				
1212960-004B	Container-01 of 01	Bottle					
1212960-005A	538	Bottle	-2" Hg				
1212960-005B	Container-01 of 01	Bottle					
1212960-006A	654	Bottle	-5" Hg				
1212960-006B	Container-01 of 01	Bottle					
1212960-007A	798	Bottle	-6.5" Hg				
1212960-007B	Container-01 of 01	Bottle					
1212960-008A	1096	Bottle	-5" Hg				
1212960-008B	Container-01 of 01	Bottle					
1212960-009A	1146	Bottle	-4" Hg				
1212960-009B	Container-01 of 01	Bottle					
1212960-010A	670	Bottle	-5" Hg				
1212960-010B	Container-01 of 01	Bottle					
1212960-011A	560	Bottle	-5" Hg				
1212960-011B	Container-01 of 01	Bottle					

RTI Laboratories - Workorder Sample Summary

WO#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1212960-001A	VA8112-TB		12/19/2012 8:00 AM	12/27/2012 10:26 AM	Air
1212960-002A	VA9084		12/18/2012 3:02 PM	12/27/2012 10:26 AM	Air
1212960-002B	VA9084		12/18/2012 3:02 PM	12/27/2012 10:26 AM	Air
1212960-003A	VA9085		12/18/2012 3:02 PM	12/27/2012 10:26 AM	Air
1212960-003B	VA9085		12/18/2012 3:02 PM	12/27/2012 10:26 AM	Air
1212960-004A	VA9086		12/18/2012 3:51 PM	12/27/2012 10:26 AM	Air
1212960-004B	VA9086		12/18/2012 3:51 PM	12/27/2012 10:26 AM	Air
1212960-005A	VA9088		12/19/2012 9:59 AM	12/27/2012 10:26 AM	Air
1212960-005B	VA9088		12/19/2012 9:59 AM	12/27/2012 10:26 AM	Air
1212960-006A	VA9089		12/19/2012 9:26 AM	12/27/2012 10:26 AM	Air
1212960-006B	VA9089		12/19/2012 9:26 AM	12/27/2012 10:26 AM	Air
1212960-007A	VA9091		12/18/2012 1:30 PM	12/27/2012 10:26 AM	Air
1212960-007B	VA9091		12/18/2012 1:30 PM	12/27/2012 10:26 AM	Air
1212960-008A	VA9093		12/18/2012 2:07 PM	12/27/2012 10:26 AM	Air
1212960-008B	VA9093		12/18/2012 2:07 PM	12/27/2012 10:26 AM	Air
1212960-009A	VA9094		12/19/2012 11:31 AM	12/27/2012 10:26 AM	Air
1212960-009B	VA9094		12/19/2012 11:31 AM	12/27/2012 10:26 AM	Air
1212960-010A	VA9095		12/19/2012 10:47 AM	12/27/2012 10:26 AM	Air
1212960-010B	VA9095		12/19/2012 10:47 AM	12/27/2012 10:26 AM	Air
1212960-011A	VA9096		12/19/2012 10:47 AM	12/27/2012 10:26 AM	Air
1212960-011B	VA9096		12/19/2012 10:47 AM	12/27/2012 10:26 AM	Air

RTI Laboratories - DATES REPORT

WO#: 1212960

Date Reported: 1/17/2013
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
1212960-001A	VA8112-TB	12/19/2012 8:00 AM	Air				
				EPA_TO15-Volatile Organic Compounds			1/15/2013 11:34 PM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 2:39 PM
1212960-002A	VA9084	12/18/2012 3:02 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/16/2013 10:26 PM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 12:16 AM
1212960-002B	VA9084	12/18/2012 3:02 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 12:20 PM
1212960-003A	VA9085	12/18/2012 3:02 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/16/2013 11:09 PM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 12:58 AM
1212960-003B	VA9085	12/18/2012 3:02 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 12:44 PM
1212960-004A	VA9086	12/18/2012 3:51 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/16/2013 11:55 PM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 1:43 AM
1212960-004B	VA9086	12/18/2012 3:51 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 12:58 PM
1212960-005A	VA9088	12/19/2012 9:59 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/16/2013 12:44 PM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 3:21 PM
1212960-005B	VA9088	12/19/2012 9:59 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 1:50 PM
1212960-006A	VA9089	12/19/2012 9:26 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/17/2013 1:23 AM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 3:10 AM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 8:24 PM
1212960-006B	VA9089	12/19/2012 9:26 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 2:07 PM

RTI Laboratories - DATES REPORT

WO#: 1212960

Date Reported: 1/17/2013
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
1212960-007A	VA9091	12/18/2012 1:30 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/17/2013 2:08 AM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 3:55 AM
1212960-007B	VA9091	12/18/2012 1:30 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 2:31 PM
1212960-008A	VA9093	12/18/2012 2:07 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/17/2013 7:37 AM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 5:19 AM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 6:12 PM
1212960-008B	VA9093	12/18/2012 2:07 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 3:11 PM
1212960-009A	VA9094	12/19/2012 11:31 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/16/2013 6:16 AM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 4:03 PM
1212960-009B	VA9094	12/19/2012 11:31 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 3:49 PM
1212960-010A	VA9095	12/19/2012 10:47 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/16/2013 4:50 AM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 9:53 PM
				EPA_TO15-Volatile Organic Compounds			1/17/2013 12:47 AM
1212960-010B	VA9095	12/19/2012 10:47 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 4:03 PM
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 5:55 PM
1212960-011A	VA9096	12/19/2012 10:47 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/16/2013 5:33 AM
				EPA_TO15-Volatile Organic Compounds			1/16/2013 9:08 PM
				EPA_TO15-Volatile Organic Compounds			1/17/2013 12:05 AM

RTI Laboratories - DATES REPORT

WO#: 1212960

Date Reported: 1/17/2013
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
1212960-011B	VA9096	12/19/2012 10:47 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/15/2013 4:17 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-001	**Matrix:**	Air
Client Sample ID:	VA8112-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,1,2,2-Tetrachloroethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,1,2-Trichloroethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,1-Dichloroethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,1-Dichloroethene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,2,4-Trichlorobenzene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,2,4-Trimethylbenzene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,2-Dibromoethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,2-Dichlorobenzene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,2-Dichloroethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,2-Dichloropropane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,3,5-Trimethylbenzene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,3-Butadiene	11	1.0		ppbv	1	1/15/2013 11:34 PM
1,3-Dichlorobenzene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
1,4-Dichlorobenzene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
2-Butanone	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
2-Hexanone	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
4-Methyl-2-pentanone	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Acetone	4.3	1.0		ppbv	1	1/15/2013 11:34 PM
Benzene	32	1.0		ppbv	1	1/15/2013 11:34 PM
Benzyl chloride	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Bromodichloromethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Bromoform	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Bromomethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Carbon disulfide	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Carbon tetrachloride	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Chlorobenzene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Chlorodibromomethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Chloroethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Chloroform	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Chloromethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
cis-1,2-Dichloroethene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
cis-1,3-dichloropropene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Cyclohexane	55	8.0		ppbv	4	1/16/2013 2:39 PM
Dichlorodifluoromethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Ethyl acetate	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Ethylbenzene	2.7	2.0		ppbv	1	1/15/2013 11:34 PM
Heptane	35	1.0		ppbv	1	1/15/2013 11:34 PM
Hexachlorobutadiene	ND	2.0	U	ppbv	1	1/15/2013 11:34 PM
m,p-Xylene	6.5	2.0		ppbv	1	1/15/2013 11:34 PM
Methylene chloride	ND	5.0	U	ppbv	1	1/15/2013 11:34 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-001	**Matrix:**	Air
Client Sample ID:	VA8112-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
n-Hexane	42	2.0		ppbv	1	1/15/2013 11:34 PM
Naphthalene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
o-Xylene	1.7	1.0		ppbv	1	1/15/2013 11:34 PM
Propylene	120	4.0		ppbv	4	1/16/2013 2:39 PM
Styrene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
tert-Butyl Methyl Ether	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Tetrachloroethene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Tetrahydrofuran	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Toluene	46	1.0		ppbv	1	1/15/2013 11:34 PM
trans-1,2-Dichloroethene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
trans-1,3-dichloropropene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Trichloroethene	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Trichlorofluoromethane	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Vinyl acetate	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Vinyl chloride	ND	1.0	U	ppbv	1	1/15/2013 11:34 PM
Xylenes, Total	8.2	3.0		ppbv	1	1/15/2013 11:34 PM
Surr: 4-Bromofluorobenzene	99.9	70-130		%REC	1	1/15/2013 11:34 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/18/2012 3:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1212960-002	**Matrix:**	Air
Client Sample ID:	VA9084		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	1.1	0.10		% v/v	1	1/15/2013 12:20 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/15/2013 12:20 PM
Methane	ND	0.50	U	% v/v	1	1/15/2013 12:20 PM
Nitrogen	84	0.10		% v/v	1	1/15/2013 12:20 PM
Oxygen	21	0.10		% v/v	1	1/15/2013 12:20 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,3-Butadiene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
2-Butanone	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
2-Hexanone	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Acetone	120,000	20,000		ppbv	20000	1/16/2013 12:16 AM
Benzene	30,000	20,000		ppbv	20000	1/16/2013 12:16 AM
Benzyl chloride	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Bromodichloromethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Bromoform	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Bromomethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Carbon disulfide	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Chlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Chloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Chloroform	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Chloromethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/18/2012 3:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1212960-002	**Matrix:**	Air
Client Sample ID:	VA9084		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	120,000	40,000		ppbv	20000	1/16/2013 12:16 AM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Ethyl acetate	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Ethylbenzene	ND	40,000	U	ppbv	20000	1/16/2013 12:16 AM
Heptane	140,000	20,000		ppbv	20000	1/16/2013 12:16 AM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	1/16/2013 12:16 AM
m,p-Xylene	ND	40,000	U	ppbv	20000	1/16/2013 12:16 AM
Methylene chloride	ND	100,000	U	ppbv	20000	1/16/2013 12:16 AM
n-Hexane	73,000	40,000		ppbv	20000	1/16/2013 12:16 AM
Naphthalene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
o-Xylene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Propylene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Styrene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Tetrachloroethene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Toluene	100,000	20,000		ppbv	20000	1/16/2013 12:16 AM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Trichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Vinyl acetate	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Vinyl chloride	ND	20,000	U	ppbv	20000	1/16/2013 12:16 AM
Xylenes, Total	ND	60,000	U	ppbv	20000	1/16/2013 12:16 AM
Surr: 4-Bromofluorobenzene	96.9	70-130		%REC	20000	1/16/2013 12:16 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	8,800,000	2,300,000		µg/m³	20000	1/16/2013 10:26 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	1/16/2013 10:26 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	1/16/2013 10:26 PM
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	20000	1/16/2013 10:26 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/18/2012 3:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1212960-003	**Matrix:**	Air
Client Sample ID:	VA9085		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	1.2	0.10		% v/v	1	1/15/2013 12:44 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/15/2013 12:44 PM
Methane	ND	0.50	U	% v/v	1	1/15/2013 12:44 PM
Nitrogen	84	0.10		% v/v	1	1/15/2013 12:44 PM
Oxygen	20	0.10		% v/v	1	1/15/2013 12:44 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,3-Butadiene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
2-Butanone	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
2-Hexanone	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Acetone	120,000	20,000		ppbv	20000	1/16/2013 12:58 AM
Benzene	26,000	20,000		ppbv	20000	1/16/2013 12:58 AM
Benzyl chloride	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Bromodichloromethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Bromoform	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Bromomethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Carbon disulfide	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Chlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Chloroethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Chloroform	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Chloromethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/18/2012 3:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1212960-003	**Matrix:**	Air
Client Sample ID:	VA9085		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	100,000	40,000		ppbv	20000	1/16/2013 12:58 AM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Ethyl acetate	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Ethylbenzene	ND	40,000	U	ppbv	20000	1/16/2013 12:58 AM
Heptane	110,000	20,000		ppbv	20000	1/16/2013 12:58 AM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	1/16/2013 12:58 AM
m,p-Xylene	ND	40,000	U	ppbv	20000	1/16/2013 12:58 AM
Methylene chloride	ND	100,000	U	ppbv	20000	1/16/2013 12:58 AM
n-Hexane	61,000	40,000		ppbv	20000	1/16/2013 12:58 AM
Naphthalene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
o-Xylene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Propylene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Styrene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Tetrachloroethene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Toluene	69,000	20,000		ppbv	20000	1/16/2013 12:58 AM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Trichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Vinyl acetate	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Vinyl chloride	ND	20,000	U	ppbv	20000	1/16/2013 12:58 AM
Xylenes, Total	ND	60,000	U	ppbv	20000	1/16/2013 12:58 AM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	20000	1/16/2013 12:58 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,500,000	2,300,000		µg/m³	20000	1/16/2013 11:09 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	1/16/2013 11:09 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	1/16/2013 11:09 PM
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	20000	1/16/2013 11:09 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/18/2012 3:51:00 PM
Project:	Kirtland AFB		
Lab ID:	1212960-004	**Matrix:**	Air
Client Sample ID:	VA9086		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	5.1	0.10		% v/v	1	1/15/2013 12:58 PM
Carbon Monoxide	0.35	0.10		% v/v	1	1/15/2013 12:58 PM
Methane	ND	0.50	U	% v/v	1	1/15/2013 12:58 PM
Nitrogen	84	0.10		% v/v	1	1/15/2013 12:58 PM
Oxygen	13	0.10		% v/v	1	1/15/2013 12:58 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,3-Butadiene	3,100	800		ppbv	800	1/16/2013 1:43 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
2-Butanone	1,800	800		ppbv	800	1/16/2013 1:43 AM
2-Hexanone	ND	800	U	ppbv	800	1/16/2013 1:43 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Acetone	12,000	800		ppbv	800	1/16/2013 1:43 AM
Benzene	4,600	800		ppbv	800	1/16/2013 1:43 AM
Benzyl chloride	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Bromodichloromethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Bromoform	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Bromomethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Carbon disulfide	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Carbon tetrachloride	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Chlorobenzene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Chlorodibromomethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Chloroethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Chloroform	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Chloromethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/16/2013 1:43 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/18/2012 3:51:00 PM
Project:	Kirtland AFB		
Lab ID:	1212960-004	**Matrix:**	Air
Client Sample ID:	VA9086		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	11,000	1,600		ppbv	800	1/16/2013 1:43 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Ethyl acetate	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Ethylbenzene	1,200	1,600	J	ppbv	800	1/16/2013 1:43 AM
Heptane	18,000	800		ppbv	800	1/16/2013 1:43 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/16/2013 1:43 AM
m,p-Xylene	3,200	1,600		ppbv	800	1/16/2013 1:43 AM
Methylene chloride	ND	4,000	U	ppbv	800	1/16/2013 1:43 AM
n-Hexane	5,600	1,600		ppbv	800	1/16/2013 1:43 AM
Naphthalene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
o-Xylene	940	800		ppbv	800	1/16/2013 1:43 AM
Propylene	19,000	800		ppbv	800	1/16/2013 1:43 AM
Styrene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Tetrachloroethene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Tetrahydrofuran	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Toluene	18,000	800		ppbv	800	1/16/2013 1:43 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Trichloroethene	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Vinyl acetate	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Vinyl chloride	ND	800	U	ppbv	800	1/16/2013 1:43 AM
Xylenes, Total	4,100	2,400		ppbv	800	1/16/2013 1:43 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	800	1/16/2013 1:43 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	840,000	94,000		µg/m³	800	1/16/2013 11:55 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	1/16/2013 11:55 PM
C9-C12 Aliphatic Hydrocarbons	48,000	150,000	J	µg/m³	800	1/16/2013 11:55 PM
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	800	1/16/2013 11:55 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 9:59:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-005	**Matrix:**	Air
Client Sample ID:	VA9088		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: cr**
Carbon dioxide	1.4	0.10		% v/v	1	1/15/2013 1:50 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/15/2013 1:50 PM
Methane	ND	0.50	U	% v/v	1	1/15/2013 1:50 PM
Nitrogen	84	0.10		% v/v	1	1/15/2013 1:50 PM
Oxygen	20	0.10		% v/v	1	1/15/2013 1:50 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
2-Butanone	ND	40	U	ppbv	40	1/16/2013 3:21 PM
2-Hexanone	ND	40	U	ppbv	40	1/16/2013 3:21 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Acetone	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Benzene	200	40		ppbv	40	1/16/2013 3:21 PM
Benzyl chloride	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Bromoform	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Bromomethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Carbon disulfide	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Chlorobenzene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Chloroethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Chloroform	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Chloromethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/16/2013 3:21 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 9:59:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-005	**Matrix:**	Air
Client Sample ID:	VA9088		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	450	80		ppbv	40	1/16/2013 3:21 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Ethyl acetate	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Ethylbenzene	120	80		ppbv	40	1/16/2013 3:21 PM
Heptane	640	40		ppbv	40	1/16/2013 3:21 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/16/2013 3:21 PM
m,p-Xylene	410	80		ppbv	40	1/16/2013 3:21 PM
Methylene chloride	ND	200	U	ppbv	40	1/16/2013 3:21 PM
n-Hexane	220	80		ppbv	40	1/16/2013 3:21 PM
Naphthalene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
o-Xylene	120	40		ppbv	40	1/16/2013 3:21 PM
Propylene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Styrene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Toluene	1,100	40		ppbv	40	1/16/2013 3:21 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Trichloroethene	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Vinyl acetate	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Vinyl chloride	ND	40	U	ppbv	40	1/16/2013 3:21 PM
Xylenes, Total	540	120		ppbv	40	1/16/2013 3:21 PM
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	40	1/16/2013 3:21 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	33,000	4,700		µg/m³	40	1/16/2013 12:44 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/16/2013 12:44 PM
C9-C12 Aliphatic Hydrocarbons	8,100	7,600		µg/m³	40	1/16/2013 12:44 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	40	1/16/2013 12:44 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 9:26:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-006	**Matrix:**	Air
Client Sample ID:	VA9089		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.54	0.10		% v/v	1	1/15/2013 2:07 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/15/2013 2:07 PM
Methane	ND	0.50	U	% v/v	1	1/15/2013 2:07 PM
Nitrogen	82	0.10		% v/v	1	1/15/2013 2:07 PM
Oxygen	22	0.10		% v/v	1	1/15/2013 2:07 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,3-Butadiene	72,000	8,000		ppbv	8000	1/16/2013 3:10 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
2-Butanone	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
2-Hexanone	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Acetone	13,000	8,000		ppbv	8000	1/16/2013 3:10 AM
Benzene	92,000	8,000		ppbv	8000	1/16/2013 3:10 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Bromoform	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Bromomethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Chloroethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Chloroform	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Chloromethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 9:26:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-006	**Matrix:**	Air
Client Sample ID:	VA9089		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	140,000	16,000		ppbv	8000	1/16/2013 3:10 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Ethylbenzene	ND	16,000	U	ppbv	8000	1/16/2013 3:10 AM
Heptane	110,000	8,000		ppbv	8000	1/16/2013 3:10 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/16/2013 3:10 AM
m,p-Xylene	10,000	16,000	J	ppbv	8000	1/16/2013 3:10 AM
Methylene chloride	ND	40,000	U	ppbv	8000	1/16/2013 3:10 AM
n-Hexane	110,000	16,000		ppbv	8000	1/16/2013 3:10 AM
Naphthalene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
o-Xylene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Propylene	590,000	20,000		ppbv	20000	1/16/2013 8:24 PM
Styrene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Toluene	85,000	8,000		ppbv	8000	1/16/2013 3:10 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Trichloroethene	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/16/2013 3:10 AM
Xylenes, Total	10,000	24,000	J	ppbv	8000	1/16/2013 3:10 AM
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	8000	1/16/2013 3:10 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,800,000	940,000		µg/m³	8000	1/17/2013 1:23 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/17/2013 1:23 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/17/2013 1:23 AM
Surr: 4-Bromofluorobenzene	93.8	70-130		%REC	8000	1/17/2013 1:23 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/18/2012 1:30:00 PM
Project:	Kirtland AFB		
Lab ID:	1212960-007	**Matrix:**	Air
Client Sample ID:	VA9091		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	0.29	0.10		% v/v	1	1/15/2013 2:31 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/15/2013 2:31 PM
Methane	ND	0.50	U	% v/v	1	1/15/2013 2:31 PM
Nitrogen	84	0.10		% v/v	1	1/15/2013 2:31 PM
Oxygen	22	0.10		% v/v	1	1/15/2013 2:31 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,3-Butadiene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
2-Butanone	ND	800	U	ppbv	800	1/16/2013 3:55 AM
2-Hexanone	ND	800	U	ppbv	800	1/16/2013 3:55 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Acetone	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Benzene	2,400	800		ppbv	800	1/16/2013 3:55 AM
Benzyl chloride	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Bromodichloromethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Bromoform	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Bromomethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Carbon disulfide	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Carbon tetrachloride	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Chlorobenzene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Chlorodibromomethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Chloroethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Chloroform	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Chloromethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/16/2013 3:55 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/18/2012 1:30:00 PM
Project:	Kirtland AFB		
Lab ID:	1212960-007	**Matrix:**	Air
Client Sample ID:	VA9091		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	4,700	1,600		ppbv	800	1/16/2013 3:55 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Ethyl acetate	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Ethylbenzene	1,000	1,600	J	ppbv	800	1/16/2013 3:55 AM
Heptane	6,500	800		ppbv	800	1/16/2013 3:55 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/16/2013 3:55 AM
m,p-Xylene	2,800	1,600		ppbv	800	1/16/2013 3:55 AM
Methylene chloride	ND	4,000	U	ppbv	800	1/16/2013 3:55 AM
n-Hexane	2,400	1,600		ppbv	800	1/16/2013 3:55 AM
Naphthalene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
o-Xylene	840	800		ppbv	800	1/16/2013 3:55 AM
Propylene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Styrene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Tetrachloroethene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Tetrahydrofuran	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Toluene	12,000	800		ppbv	800	1/16/2013 3:55 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Trichloroethene	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Vinyl acetate	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Vinyl chloride	ND	800	U	ppbv	800	1/16/2013 3:55 AM
Xylenes, Total	3,700	2,400		ppbv	800	1/16/2013 3:55 AM
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	800	1/16/2013 3:55 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	430,000	94,000		µg/m³	800	1/17/2013 2:08 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	1/17/2013 2:08 AM
C9-C12 Aliphatic Hydrocarbons	37,000	150,000	J	µg/m³	800	1/17/2013 2:08 AM
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	800	1/17/2013 2:08 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/18/2012 2:07:00 PM
Project:	Kirtland AFB		
Lab ID:	1212960-008	**Matrix:**	Air
Client Sample ID:	VA9093		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	7.2	0.10		% v/v	1	1/15/2013 3:11 PM
Carbon Monoxide	0.94	0.10		% v/v	1	1/15/2013 3:11 PM
Methane	0.039	0.50	J	% v/v	1	1/15/2013 3:11 PM
Nitrogen	88	0.10		% v/v	1	1/15/2013 3:11 PM
Oxygen	5.7	0.10		% v/v	1	1/15/2013 3:11 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,3-Butadiene	25,000	8,000		ppbv	8000	1/16/2013 5:19 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
2-Butanone	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
2-Hexanone	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Acetone	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Benzene	52,000	8,000		ppbv	8000	1/16/2013 5:19 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Bromoform	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Bromomethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Chloroethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Chloroform	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Chloromethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/18/2012 2:07:00 PM
Project:	Kirtland AFB		
Lab ID:	1212960-008	**Matrix:**	Air
Client Sample ID:	VA9093		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	68,000	16,000		ppbv	8000	1/16/2013 5:19 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Ethylbenzene	ND	16,000	U	ppbv	8000	1/16/2013 5:19 AM
Heptane	56,000	8,000		ppbv	8000	1/16/2013 5:19 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/16/2013 5:19 AM
m,p-Xylene	ND	16,000	U	ppbv	8000	1/16/2013 5:19 AM
Methylene chloride	ND	40,000	U	ppbv	8000	1/16/2013 5:19 AM
n-Hexane	51,000	16,000		ppbv	8000	1/16/2013 5:19 AM
Naphthalene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
o-Xylene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Propylene	480,000	20,000		ppbv	20000	1/16/2013 6:12 PM
Styrene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Toluene	30,000	8,000		ppbv	8000	1/16/2013 5:19 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Trichloroethene	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/16/2013 5:19 AM
Xylenes, Total	ND	24,000	U	ppbv	8000	1/16/2013 5:19 AM
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	8000	1/16/2013 5:19 AM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,900,000	940,000		µg/m³	8000	1/17/2013 7:37 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/17/2013 7:37 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/17/2013 7:37 AM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	8000	1/17/2013 7:37 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 11:31:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-009	**Matrix:**	Air
Client Sample ID:	VA9094		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	1.5	0.10		% v/v	1	1/15/2013 3:49 PM
Carbon Monoxide	ND	0.10	U	% v/v	1	1/15/2013 3:49 PM
Methane	ND	0.50	U	% v/v	1	1/15/2013 3:49 PM
Nitrogen	86	0.10		% v/v	1	1/15/2013 3:49 PM
Oxygen	17	0.10		% v/v	1	1/15/2013 3:49 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,3-Butadiene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
2-Butanone	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
2-Hexanone	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Acetone	38,000	20,000		ppbv	20000	1/16/2013 4:03 PM
Benzene	190,000	20,000		ppbv	20000	1/16/2013 4:03 PM
Benzyl chloride	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Bromodichloromethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Bromoform	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Bromomethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Carbon disulfide	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Chlorobenzene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Chloroethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Chloroform	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Chloromethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 11:31:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-009	**Matrix:**	Air
Client Sample ID:	VA9094		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	540,000	40,000		ppbv	20000	1/16/2013 4:03 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Ethyl acetate	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Ethylbenzene	ND	40,000	U	ppbv	20000	1/16/2013 4:03 PM
Heptane	370,000	20,000		ppbv	20000	1/16/2013 4:03 PM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	1/16/2013 4:03 PM
m,p-Xylene	ND	40,000	U	ppbv	20000	1/16/2013 4:03 PM
Methylene chloride	ND	100,000	U	ppbv	20000	1/16/2013 4:03 PM
n-Hexane	480,000	40,000		ppbv	20000	1/16/2013 4:03 PM
Naphthalene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
o-Xylene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Propylene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Styrene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Tetrachloroethene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Toluene	250,000	20,000		ppbv	20000	1/16/2013 4:03 PM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Trichloroethene	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Vinyl acetate	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Vinyl chloride	ND	20,000	U	ppbv	20000	1/16/2013 4:03 PM
Xylenes, Total	ND	60,000	U	ppbv	20000	1/16/2013 4:03 PM
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	20000	1/16/2013 4:03 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	21,000,000	2,300,000		µg/m³	20000	1/16/2013 6:16 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	1/16/2013 6:16 AM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	1/16/2013 6:16 AM
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	20000	1/16/2013 6:16 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 10:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-010	**Matrix:**	Air
Client Sample ID:	VA9095		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	7.3	0.10		% v/v	1	1/15/2013 4:03 PM
Carbon Monoxide	0.40	0.10		% v/v	1	1/15/2013 4:03 PM
Methane	ND	0.50	U	% v/v	1	1/15/2013 4:03 PM
Nitrogen	87	0.10		% v/v	1	1/15/2013 4:03 PM
Oxygen	6.4	0.10		% v/v	1	1/15/2013 4:03 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,3-Butadiene	13,000	800		ppbv	800	1/16/2013 9:53 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
2-Butanone	1,200	800		ppbv	800	1/16/2013 9:53 PM
2-Hexanone	ND	800	U	ppbv	800	1/16/2013 9:53 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Acetone	4,600	800		ppbv	800	1/16/2013 9:53 PM
Benzene	25,000	800		ppbv	800	1/16/2013 9:53 PM
Benzyl chloride	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Bromodichloromethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Bromoform	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Bromomethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Carbon disulfide	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Carbon tetrachloride	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Chlorobenzene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Chlorodibromomethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Chloroethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Chloroform	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Chloromethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/16/2013 9:53 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 10:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-010	**Matrix:**	Air
Client Sample ID:	VA9095		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	14,000	1,600		ppbv	800	1/16/2013 9:53 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Ethyl acetate	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Ethylbenzene	2,500	1,600		ppbv	800	1/16/2013 9:53 PM
Heptane	15,000	800		ppbv	800	1/16/2013 9:53 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/16/2013 9:53 PM
m,p-Xylene	6,700	1,600		ppbv	800	1/16/2013 9:53 PM
Methylene chloride	ND	4,000	U	ppbv	800	1/16/2013 9:53 PM
n-Hexane	9,600	1,600		ppbv	800	1/16/2013 9:53 PM
Naphthalene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
o-Xylene	2,000	800		ppbv	800	1/16/2013 9:53 PM
Propylene	210,000	8,000		ppbv	8000	1/17/2013 12:47 AM
Styrene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Tetrachloroethene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Tetrahydrofuran	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Toluene	29,000	800		ppbv	800	1/16/2013 9:53 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Trichloroethene	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Vinyl acetate	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Vinyl chloride	ND	800	U	ppbv	800	1/16/2013 9:53 PM
Xylenes, Total	8,700	2,400		ppbv	800	1/16/2013 9:53 PM
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	800	1/16/2013 9:53 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,800,000	940,000		µg/m³	8000	1/16/2013 4:50 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/16/2013 4:50 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/16/2013 4:50 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	8000	1/16/2013 4:50 AM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 10:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-011	**Matrix:**	Air
Client Sample ID:	VA9096		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: cr**
Carbon dioxide	3.4	0.10		% v/v	1	1/15/2013 4:17 PM
Carbon Monoxide	0.12	0.10		% v/v	1	1/15/2013 4:17 PM
Methane	ND	0.50	U	% v/v	1	1/15/2013 4:17 PM
Nitrogen	82	0.10		% v/v	1	1/15/2013 4:17 PM
Oxygen	16	0.10		% v/v	1	1/15/2013 4:17 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,3-Butadiene	9,500	800		ppbv	800	1/16/2013 9:08 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
2-Butanone	1,100	800		ppbv	800	1/16/2013 9:08 PM
2-Hexanone	ND	800	U	ppbv	800	1/16/2013 9:08 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Acetone	3,900	800		ppbv	800	1/16/2013 9:08 PM
Benzene	21,000	800		ppbv	800	1/16/2013 9:08 PM
Benzyl chloride	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Bromodichloromethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Bromoform	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Bromomethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Carbon disulfide	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Carbon tetrachloride	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Chlorobenzene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Chlorodibromomethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Chloroethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Chloroform	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Chloromethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/16/2013 9:08 PM

RTI Laboratories - Analytical Report

WO#: 1212960

Date Reported: 1/17/2013
Original

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/19/2012 10:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1212960-011	**Matrix:**	Air
Client Sample ID:	VA9096		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	13,000	1,600		ppbv	800	1/16/2013 9:08 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Ethyl acetate	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Ethylbenzene	2,400	1,600		ppbv	800	1/16/2013 9:08 PM
Heptane	12,000	800		ppbv	800	1/16/2013 9:08 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/16/2013 9:08 PM
m,p-Xylene	6,600	1,600		ppbv	800	1/16/2013 9:08 PM
Methylene chloride	ND	4,000	U	ppbv	800	1/16/2013 9:08 PM
n-Hexane	8,500	1,600		ppbv	800	1/16/2013 9:08 PM
Naphthalene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
o-Xylene	2,000	800		ppbv	800	1/16/2013 9:08 PM
Propylene	160,000	8,000		ppbv	8000	1/17/2013 12:05 AM
Styrene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Tetrachloroethene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Tetrahydrofuran	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Toluene	27,000	800		ppbv	800	1/16/2013 9:08 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Trichloroethene	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Vinyl acetate	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Vinyl chloride	ND	800	U	ppbv	800	1/16/2013 9:08 PM
Xylenes, Total	8,600	2,400		ppbv	800	1/16/2013 9:08 PM
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	800	1/16/2013 9:08 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,000,000	940,000		µg/m³	8000	1/16/2013 5:33 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/16/2013 5:33 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/16/2013 5:33 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	8000	1/16/2013 5:33 AM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55426**

Sample ID: **MBLK-011513 TCD-A** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **55426**
Client ID: **PBW** Batch ID: **R55426** TestNo: **ASTM-D2504** Analysis Date: **1/15/2013** SeqNo: **1092495**

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-011513 TCD** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **55426**
Client ID: **LCSW** Batch ID: **R55426** TestNo: **ASTM-D2504** Analysis Date: **1/15/2013** SeqNo: **1092497**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.6	0.10	2.500	0	103	70	130	2.605	1.16	20	
Carbon Monoxide	2.7	0.10	2.500	0	108	70	130	2.708	0.667	20	
Methane	2.1	0.50	2.000	0	104	70	130	2.101	0.717	20	
Nitrogen	2.8	0.10	2.500	0	111	70	130	2.822	2.00	20	
Oxygen	2.7	0.10	2.500	0	107	70	130	2.709	1.26	20	

Sample ID: **1212960-011BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **% v/v** Prep Date: RunNo: **55426**
Client ID: **VA9096** Batch ID: **R55426** TestNo: **ASTM-D2504** Analysis Date: **1/15/2013** SeqNo: **1092509**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	3.4	0.10						3.406	0.439	20	
Carbon Monoxide	0.12	0.10						0.1210	3.36	20	
Methane	ND	0.50						0	0	20	U
Nitrogen	82	0.10						82.18	0.0499	20	
Oxygen	16	0.10						16.32	0.159	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R55438**

Sample ID:	**MBLK/DBV88 CC VO**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55438**
Client ID:	**PBW**	Batch ID:	**R55438**	TestNo:	**TO-15**			Analysis Date:	**1/15/2013**	SeqNo:	**1092632**

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#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55438**

Sample ID:	**MBLK/DBV88 CC VO**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55438**
Client ID:	**PBW**	Batch ID:	**R55438**	TestNo:	**TO-15**			Analysis Date:	**1/15/2013**	SeqNo:	**1092632**

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		94.3	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55438**

Sample ID:	**1212959-006ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55438**
Client ID:	**ZZZZZZ**	Batch ID:	**R55438**	TestNo:	**TO-15**			Analysis Date:	**1/15/2013**	SeqNo:	**1092642**

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	22,000	800						20,620	6.53	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#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55438**

Sample ID:	**1212959-006ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55438**
Client ID:	**ZZZZZZ**	Batch ID:	**R55438**	TestNo:	**TO-15**			Analysis Date:	**1/15/2013**	SeqNo:	**1092642**

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	80,000	1,600						79,860	0.290	25	E
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	1,700	1,600						1,584	9.16	25	
Heptane	22,000	800						21,200	3.08	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	5,200	1,600						4,776	8.65	25	
Methylene chloride	ND	4,000						0	0	25	U
n-Hexane	35,000	1,600						34,010	4.06	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	1,400	800						1,280	8.96	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	40,000	800						37,510	6.48	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	6,600	2,400						6,056	8.72	25	
Surr: 4-Bromofluorobenzene	10,000		10,000		103	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R55447

Sample ID:	**MBLK VOA9 011513**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55447**
Client ID:	**PBW**	Batch ID:	**R55447**	TestNo:	**MA_APH**			Analysis Date:	**1/15/2013**	SeqNo:	**1092769**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	83		89.50		93.2	70	130				

Sample ID:	**1212959-007ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55447**
Client ID:	**ZZZZZZ**	Batch ID:	**R55447**	TestNo:	**MA_APH**			Analysis Date:	**1/16/2013**	SeqNo:	**1092772**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	290,000	94,000						280,600	1.61	30	
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	70,000	150,000						73,220	4.85	30	J
Surr: 4-Bromofluorobenzene	69,000		71,600		96.6	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55470**

Sample ID:	**MBLK/BV592 CC VO**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55470**
Client ID:	**PBW**	Batch ID:	**R55470**	TestNo:	**TO-15**			Analysis Date:	**1/16/2013**	SeqNo:	**1093214**

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#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55470**

Sample ID:	**MBLK/BV592 CC VO**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55470**
Client ID:	**PBW**	Batch ID:	**R55470**	TestNo:	**TO-15**			Analysis Date:	**1/16/2013**	SeqNo:	**1093214**

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		96.0	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55470**

Sample ID:	**1212959-028ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55470**
Client ID:	**ZZZZZZ**	Batch ID:	**R55470**	TestNo:	**TO-15**			Analysis Date:	**1/16/2013**	SeqNo:	**1093225**

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	1,200	800						1,144	8.70	25	
Benzene	3,800	800						3,576	7.33	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#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R55470**

Sample ID:	**1212959-028ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**55470**
Client ID:	**ZZZZZZ**	Batch ID:	**R55470**	TestNo:	**TO-15**			Analysis Date:	**1/16/2013**	SeqNo:	**1093225**

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	9,400	1,600						8,824	6.15	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	9,900	800						9,224	7.51	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	1,200	1,600						1,096	9.72	25	J
Methylene chloride	ND	4,000						0	0	25	U
n-Hexane	6,700	1,600						6,232	6.58	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	11,000	800						10,220	8.32	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	1,200	2,400						1,096	9.72	25	J
Surr: 4-Bromofluorobenzene	10,000		10,000		99.5	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1212960

Date Reported: 1/17/2013
Original

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R55474

Sample ID:	**MBLK VOA9 011613**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55474**
Client ID:	**PBW**	Batch ID:	**R55474**	TestNo:	**MA_APH**			Analysis Date:	**1/16/2013**	SeqNo:	**1093294**

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		94.2	70	130				

Sample ID:	**1212960-004ADUP**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**55474**
Client ID:	**VA9086**	Batch ID:	**R55474**	TestNo:	**MA_APH**			Analysis Date:	**1/17/2013**	SeqNo:	**1093306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	820,000	94,000						835,500	1.54	30	
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	59,000	150,000						47,680	20.8	30	J
Surr: 4-Bromofluorobenzene	71,000		71,600		98.5	70	130		0	30	

Injection Log

Directory: C:\HPCHEM\1\DATA\011513

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	01151301.d	1.	BFB VOA1 011513	TUNE BFB_TUNE	15 Jan 2013 08:56
2	2	01151302.d	1.	CCV VOA1 011513	CCV EPA_TO15	15 Jan 2013 09:39
3	6	01151305.d	1.	RLVS VOA1 011513	RLVS EPA_TO15	15 Jan 2013 10:25
4	7	01151306.d	1.	MBLK/DBV88 CC VOA1 011513	MBLK EPA_TO15	15 Jan 2013 11:14
5	8	01151307.d	200.	1212959-036A	SAMP EPA_TO15	15 Jan 2013 12:02
6	9	01151308.d	800.	1212959-027A	SAMP EPA_TO15	15 Jan 2013 12:47
7	10	01151309.d	400.	1212959-017A	SAMP EPA_TO15	15 Jan 2013 13:35
8	11	01151310.d	40.	1212959-010A	SAMP EPA_TO15	15 Jan 2013 14:17
9	12	01151311.d	400.	1212959-007A	SAMP EPA_TO15	15 Jan 2013 15:06
10	13	01151312.d	400.	1212959-043A	data not used	15 Jan 2013 15:54
11	2	01151313.d	400.	1212959-008A	SAMP EPA_TO15	15 Jan 2013 16:42
12	3	01151314.d	400.	1212959-029A	SAMP EPA_TO15	15 Jan 2013 17:30
13	4	01151315.d	400.	1212959-018A	SAMP EPA_TO15	15 Jan 2013 18:19
14	6	01151316.d	800.	1212959-006A	SAMP EPA_TO15	15 Jan 2013 19:04
15	6	01151317.d	800.	1212959-006ADUP	DUP EPA_TO15	15 Jan 2013 19:49
16	7	01151318.d	20000.	1212959-009A	data not used	15 Jan 2013 20:31
17	8	01151319.d	400.	1212959-028A	SAMP EPA_TO15	15 Jan 2013 21:20
18	9	01151320.d	8000.	1212959-013A	SAMP EPA_TO15	15 Jan 2013 22:01
19	10	01151321.d	800.	1212959-036A	SAMP EPA_TO15	15 Jan 2013 22:46
20	11	01151322.d	1.	1212960-001A	SAMP EPA_TO15	15 Jan 2013 23:34
21	12	01151323.d	20000.	1212960-002A	SAMP EPA_TO15	16 Jan 2013 00:16
22	13	01151324.d	20000.	1212960-003A	SAMP EPA_TO15	16 Jan 2013 00:58
23	14	01151325.d	800.	1212960-004A	SAMP EPA_TO15	16 Jan 2013 01:43
24	14	01151326.d	800.	1212960-004A	data not used	16 Jan 2013 02:28
25	15	01151327.d	8000.	1212960-006A	SAMP EPA_TO15	16 Jan 2013 03:10
26	16	01151328.d	800.	1212960-007A	SAMP EPA_TO15	16 Jan 2013 03:55
27	1	01151329.d	40.	1212959-043A	SAMP EPA_TO15	16 Jan 2013 04:37
28	2	01151330.d	8000.	1212960-008A	SAMP EPA_TO15	16 Jan 2013 05:19
29	1	01151331.d	1.	RLVS VOA1 011513	RLVS EPA_TO15	16 Jan 2013 06:02
30	8	01151332.d	1.	dbv cc95	data not used	16 Jan 2013 06:51

RTI Laboratories

ANALYTICAL RUN Summary

17-Jan-13

RunNo 55438

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1092629	BFB VOA1 011513	BFB_TUNE	TUNE	\1\DATA\011513\	1/15/2013 8:56:0	1	R55438		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		99.8	99.8		100	0	0	0	0	0	100%	50	200	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		100.2	100.2		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		19.2	19.2		100	0	0	0	0	0	19%	8	40	0%	
75	M		47	47		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
1092630	CCV VOA1 011513	EPA_TO15	CCV	\1\DATA\011513\	1/15/2013 9:39:0	1	R55438		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	11.19	11.19		9.6	0	0	0.107	1	50	117%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.74	10.74		10	0	0	0.211	1	50	107%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.18	11.18		9.8	0	0	0.108	1	50	114%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.83	10.83		9.8	0	0	0.2	1	50	111%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.39	11.39		9.7	0	0	0.111	1	50	117%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.39	11.39		9.9	0	0	0.097	1	50	115%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.09	9.09		9.1	0	0	0.271	1	50	100%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.71	10.71		9.8	0	0	0.245	1	50	109%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.71	10.71		9.6	0	0	0.186	1	50	112%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.44	10.44		9.7	0	0	0.208	1	50	108%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.6	11.6		9.7	0	0	0.196	1	50	120%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.17	11.17		9.8	0	0	0.224	1	50	114%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.62	10.62		9.7	0	0	0.24	1	50	109%	70	130	0%	
1,3-Butadiene	A	ppbv	11.52	11.52		9.8	0	0	0.152	1	50	118%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.38	10.38		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
1092630	CCV VOA1 011513	EPA_TO15	CCV	\\1\DATA\011513\	1/15/2013 9:39:0	1	R55438		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.25	10.25		9.6	0	0	0.194	1	50	107%	70	130	0%	
1,4-Dioxane	A	ppbv	10.54	10.54		9.6	0	0	0.128	1	50	110%	70	130	0%	
2-Butanone	A	ppbv	12.02	12.02		9.9	0	0	0.287	1	50	121%	70	130	0%	
2-Hexanone	A	ppbv	11.5	11.5		9.8	0	0	0.135	1	50	117%	70	130	0%	
2-Propanol	A	ppbv	11.47	11.47		10.1	0	0	0.329	1	50	114%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.2	11.2		10	0	0	0.157	1	50	112%	70	130	0%	
Acetone	A	ppbv	12.19	12.19		10	0	0	0.43	1	50	122%	70	130	0%	
Benzene	A	ppbv	11.23	11.23		9.6	0	0	0.126	1	50	117%	70	130	0%	
Benzyl chloride	A	ppbv	10.85	10.85		9.7	0	0	0.155	1	50	112%	70	130	0%	
Bromodichloromethane	A	ppbv	10.74	10.74		9.6	0	0	0.156	1	50	112%	70	130	0%	
Bromoform	A	ppbv	10.77	10.77		9.6	0	0	0.197	1	50	112%	70	130	0%	
Bromomethane	A	ppbv	9.99	9.99		9.3	0	0	0.075	1	50	107%	70	130	0%	
Carbon disulfide	A	ppbv	10.8	10.8		9.7	0	0	0.093	1	50	111%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.08	11.08		9.5	0	0	0.114	1	50	117%	70	130	0%	
Chlorobenzene	A	ppbv	10.93	10.93		9.9	0	0	0.275	1	50	110%	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	10.2	10.2		9.8	0	0	0.063	1	50	104%	70	130	0%	
Chloroform	A	ppbv	11.35	11.35		9.4	0	0	0.126	1	50	121%	70	130	0%	
Chloromethane	A	ppbv	11.11	11.11		9.8	0	0	0.104	1	50	113%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.13	11.13		9.8	0	0	0.107	1	50	114%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.7	10.7		9.5	0	0	0.166	1	50	113%	70	130	0%	
Cyclohexane	A	ppbv	11.66	11.66		9.8	0	0	0.684	2	50	119%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.24	10.24		9.2	0	0	0.086	1	50	111%	70	130	0%	
Ethanol	A	ppbv	10.1	10.1		9.2	0	0	1.962	5	50	110%	70	130	0%	
Ethyl acetate	A	ppbv	11.57	11.57		9.8	0	0	0.157	1	50	118%	70	130	0%	
Ethylbenzene	A	ppbv	10.95	10.95		9.8	0	0	0.737	2	50	112%	70	130	0%	
Heptane	A	ppbv	11.77	11.77		9.9	0	0	0.249	1	50	119%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.74	9.74		9.4	0	0	0.374	2	50	104%	70	130	0%	
m,p-Xylene	A	ppbv	22.29	22.29		19.2	0	0	0.524	2	100	116%	70	130	0%	
Methylene chloride	A	ppbv	11.58	11.58		10	0	0	2.077	5	50	116%	70	130	0%	
n-Hexane	A	ppbv	11.75	11.75		10.1	0	0	0.692	2	50	116%	70	130	0%	
Naphthalene	A	ppbv	9.29	9.29		9.2	0	0	0.247	1	50	101%	70	130	0%	
o-Xylene	A	ppbv	11.19	11.19		10	0	0	0.258	1	50	112%	70	130	0%	
Propylene	A	ppbv	11.49	11.49		10.2	0	0	0.075	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
1092630	CCV VOA1 011513	EPA_TO15	CCV	[\1\DATA\011513\	1/15/2013 9:39:0	1	R55438		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	11.7	11.7		9.9	0	0	0.228	1	50	118%	70	130	0%	
Tetrachloroethene	A	ppbv	10.53	10.53		9.6	0	0	0.148	1	50	110%	70	130	0%	
Tetrahydrofuran	A	ppbv	12.46	12.46		10	0	0	0.201	1	50	125%	70	130	0%	
Toluene	A	ppbv	11.06	11.06		9.8	0	0	0.158	1	50	113%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.33	11.33		9.8	0	0	0.117	1	50	116%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.23	10.23		9.1	0	0	0.171	1	50	112%	70	130	0%	
Trichloroethene	A	ppbv	10.54	10.54		9.6	0	0	0.119	1	50	110%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.72	10.72		9.6	0	0	0.148	1	50	112%	70	130	0%	
Vinyl acetate	A	ppbv	12.54	12.54		9.9	0	0	0.266	1	50	127%	70	130	0%	
Vinyl chloride	A	ppbv	10.53	10.53		9.4	0	0	0.072	1	50	112%	70	130	0%	
Xylenes, Total	C	ppbv	33.48	33.48		29.2	0	0	0.782	3	150	115%	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	12.68	12.68		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
1092631	RLVS VOA1 011513	EPA_TO15	RLVS	[\1\DATA\011513\	1/15/2013 10:25:	1	R55438		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.97	0.97		0.996	0	0	0.107	1	50	97%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	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	1.01	1.01		0.98	0	0	0.108	1	50	103%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.89	0.89		0.98	0	0	0.2	1	50	91%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.03	1.03		0.97	0	0	0.111	1	50	106%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.05	1.05		0.99	0	0	0.097	1	50	106%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.09	1.09		0.91	0	0	0.271	1	50	120%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.95	0.95		0.98	0	0	0.245	1	50	97%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.85	0.85		0.96	0	0	0.186	1	50	89%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	0.96	0.96		0.97	0	0	0.208	1	50	99%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.03	1.03		0.97	0	0	0.196	1	50	106%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.94	0.94		0.98	0	0	0.224	1	50	96%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011513\01151302.D Vial: 2
Acq On : 15 Jan 2013 9:39 am Operator: RACHEL HILL
Sample : CCV VOA1 011513 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	109	0.00
2	T	Propylene	1.061	1.195	-12.6	109	-0.01
3	T	Dichlorodifluoromethane	3.366	3.746	-11.3	106	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.533	2.818	-11.3	106	0.00
5	T	Chloromethane	1.215	1.421	-17.0	109	0.00
6	T	Vinyl chloride	1.514	1.696	-12.0	105	0.00
7	T	1,3-Butadiene	1.027	1.208	-17.6	108	0.00
8	T	Bromomethane	1.315	1.412	-7.4	105	0.00
9	T	Chloroethane	0.741	0.821	-10.8	107	0.00
10	T	Trichlorofluoromethane	3.363	3.754	-11.6	108	0.00
11	T	Ethanol	0.376	0.412	-9.6	109	0.00
12	T	Freon113	2.325	2.653	-14.1	109	0.00
13	T	1,1-Dichloroethene	1.809	2.081	-15.0	109	0.00
14	T	Acetone	1.783	2.175	-22.0	112	0.00
15	T	Carbon disulfide	2.802	3.121	-11.4	107	0.00
16	T	2-Propanol	1.713	1.946	-13.6	109	0.00
17	T	Methylene chloride	1.361	1.575	-15.7	111	0.00
18	T	tert-Butyl Methyl Ether	2.965	3.503	-18.1	109	0.00
19	T	trans-1,2-Dichloroethene	1.647	1.904	-15.6	109	0.00
20	T	n-Hexane	1.916	2.228	-16.3	109	0.00
21	T	1,1-Dichloroethane	2.089	2.453	-17.4	109	0.00
22	T	Vinyl acetate	2.880	3.648	-26.7	112	0.00
23	T	cis-1,2-Dichloroethene	1.195	1.357	-13.6	107	0.00
24	T	2-Butanone	1.991	2.418	-21.4	109	0.00
25	T	Ethyl acetate	2.517	2.970	-18.0	105	0.00
26	T	Tetrahydrofuran	1.304	1.625	-24.6	112	0.00
27	T	Chloroform	2.313	2.678	-15.8	107	0.00
28	T	1,1,1-Trichloroethane	2.443	2.848	-16.6	108	0.00
29	T	Cyclohexane	2.037	2.424	-19.0	109	0.00
30	T	Carbon tetrachloride	2.565	2.991	-16.6	109	0.00
31	T	Benzene	3.396	3.974	-17.0	108	0.00
32	T	1,2-Dichloroethane	1.453	1.737	-19.5	109	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
34	T	Heptane	0.650	0.773	-18.9	111	0.00
35	T	Trichloroethene	0.497	0.546	-9.9	108	0.00
36	T	1,2-Dichloropropane	0.395	0.450	-13.9	110	0.00
37	T	1,4-Dioxane	0.194	0.213	-9.8	109	0.00
38	T	Bromodichloromethane	0.715	0.800	-11.9	109	0.00
39	T	cis-1,3-Dichloropropene	0.599	0.675	-12.7	110	0.00
40	T	4-Methyl-2-pentanone	0.292	0.327	-12.0	110	0.00
41	T	Toluene	1.214	1.370	-12.9	109	0.00
42	T	trans-1,3-Dichloropropene	0.548	0.616	-12.4	109	0.00
43	T	1,1,2-Trichloroethane	0.421	0.465	-10.5	109	0.00
44	T	Tetrachloroethene	0.707	0.775	-9.6	108	0.00
45	T	2-Hexanone	0.591	0.694	-17.4	111	0.00
46	T	Chlorodibromomethane	0.731	0.827	-13.1	110	0.00
47	T	1,2-Dibromoethane	0.632	0.705	-11.6	109	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	113	0.00
49	T	Chlorobenzene	1.119	1.235	-10.4	108	0.00
50	T	Ethylbenzene	1.781	1.991	-11.8	107	0.00
51	T	m,p-Xylene	1.374	1.595	-16.1	106	0.00
52	T	o-Xylene	1.422	1.591	-11.9	107	0.00
53	T	Styrene	1.069	1.197	-12.0	107	0.00
54	T	Bromoform	0.872	0.979	-12.3	110	0.00
55	S	4-Bromofluorobenzene	0.571	0.580	-1.6	115	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\011513\01151302.D Vial: 2
Acq On : 15 Jan 2013 9:39 am Operator: RACHEL HILL
Sample : CCV VOA1 011513 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.901	0.967	-7.3	106	0.00
57	T	4-Ethyltoluene	1.778	1.968	-10.7	107	0.00
58	T	1,3,5-Trimethylbenzene	1.506	1.648	-9.4	106	0.00
59	T	1,2,4-Trimethylbenzene	1.407	1.537	-9.2	107	0.00
60	T	1,3-Dichlorobenzene	0.873	0.935	-7.1	108	0.00
61	T	1,4-Dichlorobenzene	0.819	0.875	-6.8	107	0.00
62	T	Benzyl chloride	0.832	0.931	-11.9	108	0.00
63	T	1,2-Dichlorobenzene	0.727	0.782	-7.6	108	0.00
64	T	1,2,4-Trichlorobenzene	0.233	0.233	0.0	105	0.00
65	T	Hexachlorobutadiene	0.476	0.493	-3.6	108	0.00
66		Naphthalene	0.353	0.356	-0.8	102	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011513\01151302.D Vial: 2
Acq On : 15 Jan 2013 9:39 am Operator: RACHEL HILL
Sample : CCV VOA1 011513 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 15 10:06 2013 Quant Results File: 011013V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration
DataAcq Meth : 011013V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.52	130	291480	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.62	114	1025065	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.47	117	843194	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.11	95	488712	12.68	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.44%				
Target Compounds							Qvalue
2) Propylene	5.43	41	284234	11.49	ppbv		99
3) Dichlorodifluoromethane	5.51	85	803566	10.24	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.76	135	624264	10.57	ppbv	#	84
5) Chloromethane	5.93	50	314741	11.11	ppbv		98
6) Vinyl chloride	6.15	62	371796	10.53	ppbv		99
7) 1,3-Butadiene	6.20	39	275991	11.52	ppbv		93
8) Bromomethane	6.77	94	306173	9.99	ppbv	#	98
9) Chloroethane	6.93	64	176077	10.20	ppbv		98
10) Trichlorofluoromethane	7.26	101	840255	10.72	ppbv		99
11) Ethanol	7.50	45	88479	10.10	ppbv		99
12) Freon113	7.92	101	606239	11.18	ppbv		99
13) 1,1-Dichloroethene	8.02	61	480387	11.39	ppbv		90
14) Acetone	8.11	43	507071	12.19	ppbv	#	96
15) Carbon disulfide	8.39	76	705999	10.80	ppbv	#	100
16) 2-Propanol	8.17	45	458203	11.47	ppbv	#	1
17) Methylene chloride	8.68	49	367350	11.58	ppbv		86
18) tert-Butyl Methyl Ether	8.88	73	808656	11.70	ppbv		95
19) trans-1,2-Dichloroethene	8.97	61	435146	11.33	ppbv		88
20) n-Hexane	9.15	57	524847	11.75	ppbv		98
21) 1,1-Dichloroethane	9.53	63	554922	11.39	ppbv		98
22) Vinyl acetate	9.46	43	842163	12.54	ppbv		98
23) cis-1,2-Dichloroethene	10.21	96	310109	11.13	ppbv		88
24) 2-Butanone	10.18	43	558268	12.02	ppbv		94
25) Ethyl acetate	10.13	43	678813	11.57	ppbv	#	99
26) Tetrahydrofuran	10.52	42	378821	12.46	ppbv		94
27) Chloroform	10.53	83	611956	11.35	ppbv		100
28) 1,1,1-Trichloroethane	10.78	97	637449	11.19	ppbv		97
29) Cyclohexane	10.79	56	553941	11.66	ppbv		90
30) Carbon tetrachloride	10.95	117	662512	11.08	ppbv		99
31) Benzene	11.22	78	889545	11.23	ppbv		97
32) 1,2-Dichloroethane	11.30	62	392901	11.60	ppbv		98
34) Heptane	11.28	43	627656	11.77	ppbv		94
35) Trichloroethene	11.96	130	429854	10.54	ppbv		99
36) 1,2-Dichloropropane	12.31	63	361955	11.17	ppbv		98
37) 1,4-Dioxane	12.39	88	167533	10.54	ppbv		91
38) Bromodichloromethane	12.60	83	629993	10.74	ppbv		100
39) cis-1,3-Dichloropropene	13.15	75	525483	10.70	ppbv		98
40) 4-Methyl-2-pentanone	13.26	58	267812	11.20	ppbv		94
41) Toluene	13.56	91	1101329	11.06	ppbv		98
42) trans-1,3-Dichloropropene	13.86	75	459358	10.23	ppbv		98
43) 1,1,2-Trichloroethane	14.13	97	373780	10.83	ppbv		98
44) Tetrachloroethene	14.26	166	610372	10.53	ppbv		99
45) 2-Hexanone	14.34	43	557976	11.50	ppbv		98
46) Chlorodibromomethane	14.68	129	664482	11.09	ppbv		99
47) 1,2-Dibromoethane	14.92	107	555144	10.71	ppbv		100
49) Chlorobenzene	15.51	112	824865	10.93	ppbv		97
50) Ethylbenzene	15.55	91	1316421	10.95	ppbv		98
51) m,p-Xylene	15.71	91	2066026	22.29	ppbv		97
52) o-Xylene	16.30	91	1073362	11.19	ppbv	#	95

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011513\01151302.D Vial: 2
Acq On : 15 Jan 2013 9:39 am Operator: RACHEL HILL
Sample : CCV VOA1 011513 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 15 10:06 2013 Quant Results File: 011013V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration
DataAcq Meth : 011013V1

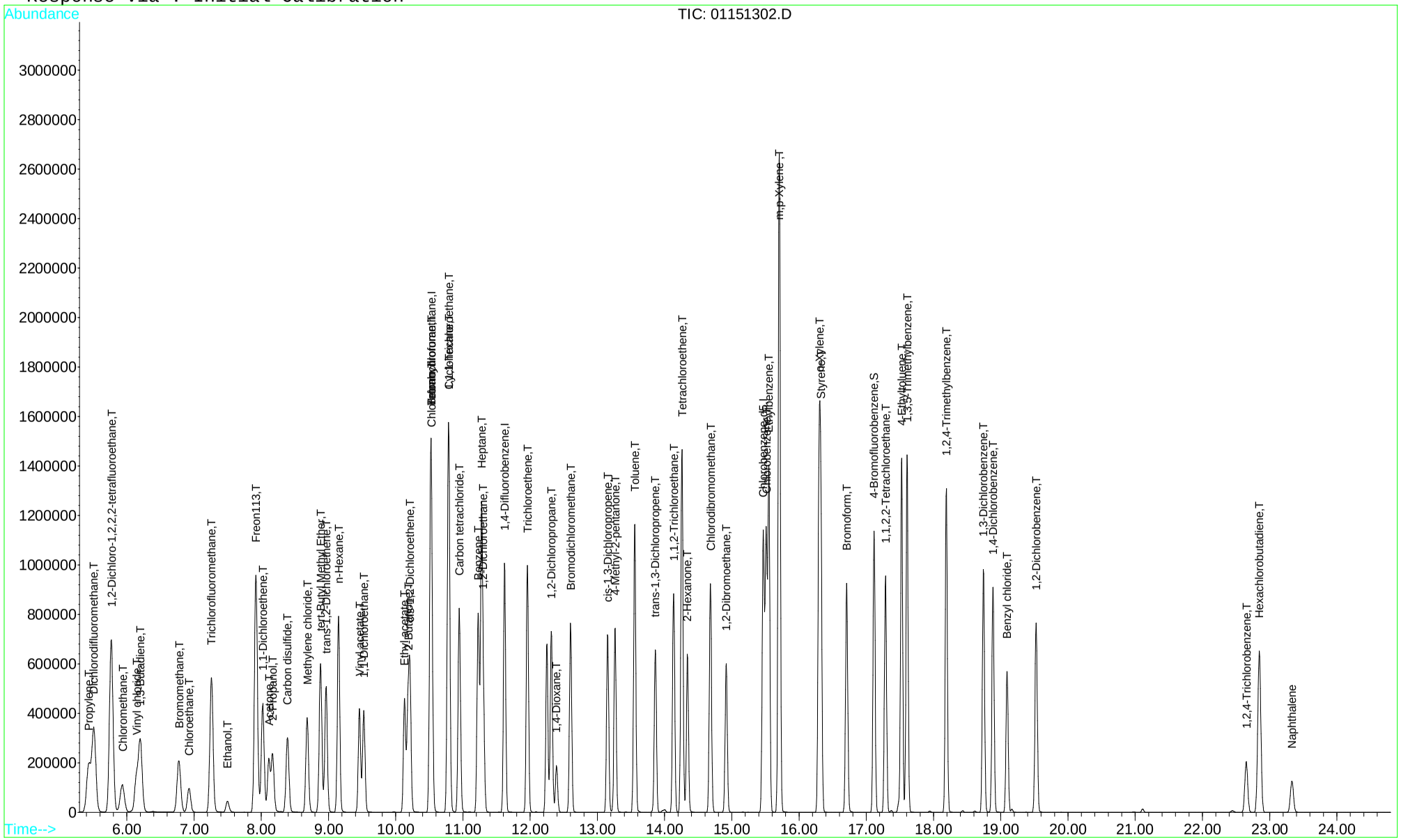
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.32	104	791541	10.97	ppbv	99
54)	Bromoform	16.71	173	633825	10.77	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.29	83	652567	10.74	ppbv	99
57)	4-Ethyltoluene	17.53	105	1300862	10.85	ppbv	97
58)	1,3,5-Trimethylbenzene	17.61	105	1078591	10.62	ppbv	98
59)	1,2,4-Trimethylbenzene	18.19	105	1016290	10.71	ppbv	98
60)	1,3-Dichlorobenzene	18.74	146	611549	10.38	ppbv	99
61)	1,4-Dichlorobenzene	18.89	146	566313	10.25	ppbv	99
62)	Benzyl chloride	19.09	91	609177	10.85	ppbv	99
63)	1,2-Dichlorobenzene	19.53	146	511985	10.44	ppbv	99
64)	1,2,4-Trichlorobenzene	22.65	180	142801	9.09	ppbv	99
65)	Hexachlorobutadiene	22.85	225	312755	9.74	ppbv	99
66)	Naphthalene	23.33	128	221013	9.29	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011513\01151302.D Vial: 2
Acq On : 15 Jan 2013 9:39 am Operator: RACHEL HILL
Sample : CCV VOA1 011513 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 15 10:06 2013 Quant Results File: 011013V1.RES

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\011613

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	01161301.d	1.	BFB VOA1 011613	TUNE BFB_TUNE	16 Jan 2013 09:00
2	2	01161302.d	1.	CCV VOA1 011613	CCV EPA_TO15	16 Jan 2013 09:43
3	6	01161303.d	1.	RLVS VOA1 011613	RLVS EPA_TO15	16 Jan 2013 10:59
4	7	01161304.d	1.	MBLK/BV592 CC VOA1 011613	MBLK EPA_TO15	16 Jan 2013 11:53
5	8	01161305.d	1.	MBLK/BV1158 CC VOA1 011613	data not used	16 Jan 2013 12:41
6	9	01161306.d	8000.	1212959-006A	SAMP EPA_TO15	16 Jan 2013 13:56
7	10	01161307.d	4.	1212960-001A	SAMP EPA_TO15	16 Jan 2013 14:39
8	11	01161308.d	40.	1212960-005A	SAMP EPA_TO15	16 Jan 2013 15:21
9	11	01161309.d	20000.	1212960-009A	SAMP EPA_TO15	16 Jan 2013 16:03
10	12	01161310.d	800.	1212959-018A	data not used	16 Jan 2013 16:48
11	13	01161311.d	8000.	1212959-018A	SAMP EPA_TO15	16 Jan 2013 17:30
12	14	01161312.d	20000.	1212960-008A	SAMP EPA_TO15	16 Jan 2013 18:12
13	15	01161313.d	800.	1212959-028A	SAMP EPA_TO15	16 Jan 2013 18:57
14	16	01161314.d	800.	1212959-028ADUP	DUP EPA_TO15	16 Jan 2013 19:42
15	16	01161315.d	20000.	1212960-006A	SAMP EPA_TO15	16 Jan 2013 20:24
16	17	01161316.d	800.	1212960-011A	SAMP EPA_TO15	16 Jan 2013 21:08
17	18	01161317.d	800.	1212960-010A	SAMP EPA_TO15	16 Jan 2013 21:53
18	19	01161318.d	800.	1212959-009A	SAMP EPA_TO15	16 Jan 2013 22:38
19	20	01161319.d	800.	1212959-009A	data not used	16 Jan 2013 23:23
20	21	01161320.d	8000.	1212960-011A	SAMP EPA_TO15	17 Jan 2013 00:05
21	22	01161321.d	8000.	1212960-010A	SAMP EPA_TO15	17 Jan 2013 00:47
22	7	01161322.d	1.	RLVS2 VOA1 011613	data not used	17 Jan 2013 01:33
23	8	01161323.d	1.	RLVS2 VOA1 011613	RLVS EPA_TO15	17 Jan 2013 07:44

RTI Laboratories

ANALYTICAL RUN Summary

17-Jan-13

RunNo 55470

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1093211	BFB VOA1 011613	BFB_TUNE	TUNE	\1\DATA\011613\	1/16/2013 9:00:0	1	R55470		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		98.2	98.2		100	0	0	0	0	0	98%	50	200	0%	
175	M		7.1	7.1		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		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		19.1	19.1		100	0	0	0	0	0	19%	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		6.8	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
1093212	CCV VOA1 011613	EPA_TO15	CCV	\1\DATA\011613\	1/16/2013 9:43:0	1	R55470		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	11.18	11.18		9.6	0	0	0.107	1	50	116%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.64	10.64		10	0	0	0.211	1	50	106%	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	10.84	10.84		9.8	0	0	0.2	1	50	111%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.48	11.48		9.7	0	0	0.111	1	50	118%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.43	11.43		9.9	0	0	0.097	1	50	115%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.68	9.68		9.1	0	0	0.271	1	50	106%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.66	10.66		9.8	0	0	0.245	1	50	109%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.75	10.75		9.6	0	0	0.186	1	50	112%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.34	10.34		9.7	0	0	0.208	1	50	107%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.68	11.68		9.7	0	0	0.196	1	50	120%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.11	11.11		9.8	0	0	0.224	1	50	113%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.49	10.49		9.7	0	0	0.24	1	50	108%	70	130	0%	
1,3-Butadiene	A	ppbv	11.5	11.5		9.8	0	0	0.152	1	50	117%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.43	10.43		9.7	0	0	0.202	1	50	108%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1093212	CCV VOA1 011613	EPA_TO15	CCV	\\1\DATA\011613\	1/16/2013 9:43:0	1	R55470		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.39	10.39		9.6	0	0	0.194	1	50	108%	70	130	0%	
1,4-Dioxane	A	ppbv	10.71	10.71		9.6	0	0	0.128	1	50	112%	70	130	0%	
2-Butanone	A	ppbv	12.19	12.19		9.9	0	0	0.287	1	50	123%	70	130	0%	
2-Hexanone	A	ppbv	11.75	11.75		9.8	0	0	0.135	1	50	120%	70	130	0%	
2-Propanol	A	ppbv	11.76	11.76		10.1	0	0	0.329	1	50	116%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.22	11.22		10	0	0	0.157	1	50	112%	70	130	0%	
Acetone	A	ppbv	12.18	12.18		10	0	0	0.43	1	50	122%	70	130	0%	
Benzene	A	ppbv	11.18	11.18		9.6	0	0	0.126	1	50	116%	70	130	0%	
Benzyl chloride	A	ppbv	10.88	10.88		9.7	0	0	0.155	1	50	112%	70	130	0%	
Bromodichloromethane	A	ppbv	10.75	10.75		9.6	0	0	0.156	1	50	112%	70	130	0%	
Bromoform	A	ppbv	10.71	10.71		9.6	0	0	0.197	1	50	112%	70	130	0%	
Bromomethane	A	ppbv	9.89	9.89		9.3	0	0	0.075	1	50	106%	70	130	0%	
Carbon disulfide	A	ppbv	10.97	10.97		9.7	0	0	0.093	1	50	113%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.23	11.23		9.5	0	0	0.114	1	50	118%	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	11.09	11.09		9.2	0	0	0.165	1	50	121%	70	130	0%	
Chloroethane	A	ppbv	10.32	10.32		9.8	0	0	0.063	1	50	105%	70	130	0%	
Chloroform	A	ppbv	11.38	11.38		9.4	0	0	0.126	1	50	121%	70	130	0%	
Chloromethane	A	ppbv	10.78	10.78		9.8	0	0	0.104	1	50	110%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.16	11.16		9.8	0	0	0.107	1	50	114%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.73	10.73		9.5	0	0	0.166	1	50	113%	70	130	0%	
Cyclohexane	A	ppbv	11.67	11.67		9.8	0	0	0.684	2	50	119%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.27	10.27		9.2	0	0	0.086	1	50	112%	70	130	0%	
Ethanol	A	ppbv	10.37	10.37		9.2	0	0	1.962	5	50	113%	70	130	0%	
Ethyl acetate	A	ppbv	12.35	12.35		9.8	0	0	0.157	1	50	126%	70	130	0%	
Ethylbenzene	A	ppbv	10.77	10.77		9.8	0	0	0.737	2	50	110%	70	130	0%	
Heptane	A	ppbv	11.76	11.76		9.9	0	0	0.249	1	50	119%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.85	9.85		9.4	0	0	0.374	2	50	105%	70	130	0%	
m,p-Xylene	A	ppbv	22.06	22.06		19.2	0	0	0.524	2	100	115%	70	130	0%	
Methylene chloride	A	ppbv	11.6	11.6		10	0	0	2.077	5	50	116%	70	130	0%	
n-Hexane	A	ppbv	11.79	11.79		10.1	0	0	0.692	2	50	117%	70	130	0%	
Naphthalene	A	ppbv	10.04	10.04		9.2	0	0	0.247	1	50	109%	70	130	0%	
o-Xylene	A	ppbv	11.01	11.01		10	0	0	0.258	1	50	110%	70	130	0%	
Propylene	A	ppbv	11.5	11.5		10.2	0	0	0.075	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
1093212	CCV VOA1 011613	EPA_TO15	CCV	[\1\DATA\011613\	1/16/2013 9:43:0	1	R55470		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.87	10.87		9.8	0	0	0.263	1	50	111%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.74	11.74		9.9	0	0	0.228	1	50	119%	70	130	0%	
Tetrachloroethene	A	ppbv	10.63	10.63		9.6	0	0	0.148	1	50	111%	70	130	0%	
Tetrahydrofuran	A	ppbv	12.44	12.44		10	0	0	0.201	1	50	124%	70	130	0%	
Toluene	A	ppbv	11.02	11.02		9.8	0	0	0.158	1	50	112%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.49	11.49		9.8	0	0	0.117	1	50	117%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.26	10.26		9.1	0	0	0.171	1	50	113%	70	130	0%	
Trichloroethene	A	ppbv	10.62	10.62		9.6	0	0	0.119	1	50	111%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.76	10.76		9.6	0	0	0.148	1	50	112%	70	130	0%	
Vinyl acetate	A	ppbv	12.61	12.61		9.9	0	0	0.266	1	50	127%	70	130	0%	
Vinyl chloride	A	ppbv	10.53	10.53		9.4	0	0	0.072	1	50	112%	70	130	0%	
Xylenes, Total	C	ppbv	33.07	33.07		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	12.96	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
1093213	RLVS VOA1 011613	EPA_TO15	RLVS	[\1\DATA\011613\	1/16/2013 10:59:	1	R55470		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	0.93	0.93		0.996	0	0	0.107	1	50	93%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	0.94	0.94		1	0	0	0.211	1	50	94%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.96	0.96		0.98	0	0	0.108	1	50	98%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.88	0.88		0.98	0	0	0.2	1	50	90%	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	0.99	0.99		0.99	0	0	0.097	1	50	100%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.23	1.23		0.91	0	0	0.271	1	50	135%	70	130	0%	S
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	0.85	0.85		0.96	0	0	0.186	1	50	89%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.01	1.01		0.97	0	0	0.208	1	50	104%	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	0.9	0.9		0.98	0	0	0.224	1	50	92%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011613\01161302.D Vial: 2
Acq On : 16 Jan 2013 9:43 am Operator: RACHEL HILL
Sample : CCV VOA1 011613 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	107	0.00
2	T	Propylene	1.061	1.196	-12.7	107	0.00
3	T	Dichlorodifluoromethane	3.366	3.758	-11.6	104	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.533	2.856	-12.8	106	0.00
5	T	Chloromethane	1.215	1.378	-13.4	103	0.00
6	T	Vinyl chloride	1.514	1.697	-12.1	103	0.00
7	T	1,3-Butadiene	1.027	1.206	-17.4	106	0.00
8	T	Bromomethane	1.315	1.399	-6.4	102	0.00
9	T	Chloroethane	0.741	0.830	-12.0	106	0.00
10	T	Trichlorofluoromethane	3.363	3.768	-12.0	106	0.00
11	T	Ethanol	0.376	0.423	-12.5	110	0.00
12	T	Freon113	2.325	2.658	-14.3	107	0.00
13	T	1,1-Dichloroethene	1.809	2.088	-15.4	107	0.00
14	T	Acetone	1.783	2.173	-21.9	109	0.00
15	T	Carbon disulfide	2.802	3.168	-13.1	106	0.00
16	T	2-Propanol	1.713	1.995	-16.5	110	0.00
17	T	Methylene chloride	1.361	1.578	-15.9	109	0.00
18	T	tert-Butyl Methyl Ether	2.965	3.516	-18.6	107	0.00
19	T	trans-1,2-Dichloroethene	1.647	1.932	-17.3	108	0.00
20	T	n-Hexane	1.916	2.237	-16.8	107	0.00
21	T	1,1-Dichloroethane	2.089	2.472	-18.3	108	0.00
22	T	Vinyl acetate	2.880	3.670	-27.4	111	0.00
23	T	cis-1,2-Dichloroethene	1.195	1.361	-13.9	105	0.00
24	T	2-Butanone	1.991	2.452	-23.2	108	0.00
25	T	Ethyl acetate	2.517	3.173	-26.1	110	0.00
26	T	Tetrahydrofuran	1.304	1.621	-24.3	109	0.00
27	T	Chloroform	2.313	2.686	-16.1	105	0.00
28	T	1,1,1-Trichloroethane	2.443	2.846	-16.5	106	0.00
29	T	Cyclohexane	2.037	2.425	-19.0	107	0.00
30	T	Carbon tetrachloride	2.565	3.031	-18.2	108	0.00
31	T	Benzene	3.396	3.957	-16.5	106	0.00
32	T	1,2-Dichloroethane	1.453	1.749	-20.4	108	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	111	0.00
34	T	Heptane	0.650	0.773	-18.9	109	0.00
35	T	Trichloroethene	0.497	0.550	-10.7	107	0.00
36	T	1,2-Dichloropropane	0.395	0.448	-13.4	108	0.00
37	T	1,4-Dioxane	0.194	0.216	-11.3	109	0.00
38	T	Bromodichloromethane	0.715	0.801	-12.0	107	0.00
39	T	cis-1,3-Dichloropropene	0.599	0.677	-13.0	108	0.00
40	T	4-Methyl-2-pentanone	0.292	0.327	-12.0	109	0.00
41	T	Toluene	1.214	1.365	-12.4	107	0.00
42	T	trans-1,3-Dichloropropene	0.548	0.617	-12.6	108	0.00
43	T	1,1,2-Trichloroethane	0.421	0.465	-10.5	107	0.00
44	T	Tetrachloroethene	0.707	0.782	-10.6	107	0.00
45	T	2-Hexanone	0.591	0.709	-20.0	111	0.00
46	T	Chlorodibromomethane	0.731	0.827	-13.1	108	0.00
47	T	1,2-Dibromoethane	0.632	0.707	-11.9	107	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	113	0.00
49	T	Chlorobenzene	1.119	1.214	-8.5	106	0.00
50	T	Ethylbenzene	1.781	1.958	-9.9	105	0.00
51	T	m,p-Xylene	1.374	1.579	-14.9	105	0.00
52	T	o-Xylene	1.422	1.565	-10.1	106	0.00
53	T	Styrene	1.069	1.186	-10.9	106	0.00
54	T	Bromoform	0.872	0.973	-11.6	109	0.00
55	S	4-Bromofluorobenzene	0.571	0.592	-3.7	118	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011613\01161302.D Vial: 2
Acq On : 16 Jan 2013 9:43 am Operator: RACHEL HILL
Sample : CCV VOA1 011613 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.901	0.959	-6.4	105	0.00
57	T	4-Ethyltoluene	1.778	1.923	-8.2	105	0.00
58	T	1,3,5-Trimethylbenzene	1.506	1.629	-8.2	104	0.00
59	T	1,2,4-Trimethylbenzene	1.407	1.531	-8.8	106	0.00
60	T	1,3-Dichlorobenzene	0.873	0.939	-7.6	108	0.00
61	T	1,4-Dichlorobenzene	0.819	0.886	-8.2	108	0.00
62	T	Benzyl chloride	0.832	0.934	-12.3	108	0.00
63	T	1,2-Dichlorobenzene	0.727	0.775	-6.6	107	0.00
64	T	1,2,4-Trichlorobenzene	0.233	0.248	-6.4	112	0.00
65	T	Hexachlorobutadiene	0.476	0.499	-4.8	110	0.00
66		Naphthalene	0.353	0.385	-9.1	110	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011613\01161302.D Vial: 2
Acq On : 16 Jan 2013 9:43 am Operator: RACHEL HILL
Sample : CCV VOA1 011613 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 16 10:08 2013 Quant Results File: 011013V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration
DataAcq Meth : 011013V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.52	130	285696	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.63	114	1008938	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.47	117	843166	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	499476	12.96	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 103.68%

Target Compounds						Qvalue
2) Propylene	5.44	41	278809	11.50	ppbv	99
3) Dichlorodifluoromethane	5.51	85	790292	10.27	ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.77	135	620031	10.71	ppbv #	85
5) Chloromethane	5.93	50	299283	10.78	ppbv	99
6) Vinyl chloride	6.15	62	364510	10.53	ppbv	98
7) 1,3-Butadiene	6.21	39	270042	11.50	ppbv	92
8) Bromomethane	6.78	94	297284	9.89	ppbv #	98
9) Chloroethane	6.93	64	174611	10.32	ppbv	98
10) Trichlorofluoromethane	7.26	101	826858	10.76	ppbv	99
11) Ethanol	7.50	45	89044	10.37	ppbv	100
12) Freon113	7.92	101	595439	11.20	ppbv	99
13) 1,1-Dichloroethene	8.02	61	472527	11.43	ppbv	90
14) Acetone	8.12	43	496573	12.18	ppbv #	96
15) Carbon disulfide	8.39	76	702406	10.97	ppbv #	100
16) 2-Propanol	8.17	45	460595	11.76	ppbv #	1
17) Methylene chloride	8.69	49	360627	11.60	ppbv	86
18) tert-Butyl Methyl Ether	8.88	73	795458	11.74	ppbv	96
19) trans-1,2-Dichloroethene	8.97	61	432784	11.49	ppbv	88
20) n-Hexane	9.15	57	516385	11.79	ppbv	98
21) 1,1-Dichloroethane	9.53	63	548136	11.48	ppbv	98
22) Vinyl acetate	9.47	43	830343	12.61	ppbv	98
23) cis-1,2-Dichloroethene	10.21	96	304776	11.16	ppbv	88
24) 2-Butanone	10.18	43	554805	12.19	ppbv	94
25) Ethyl acetate	10.13	43	710711	12.35	ppbv #	100
26) Tetrahydrofuran	10.52	42	370531	12.44	ppbv	93
27) Chloroform	10.54	83	601574	11.38	ppbv	100
28) 1,1,1-Trichloroethane	10.78	97	624434	11.18	ppbv	96
29) Cyclohexane	10.79	56	543265	11.67	ppbv	90
30) Carbon tetrachloride	10.95	117	658208	11.23	ppbv	99
31) Benzene	11.23	78	868193	11.18	ppbv	97
32) 1,2-Dichloroethane	11.31	62	387741	11.68	ppbv	98
34) Heptane	11.28	43	617301	11.76	ppbv	95
35) Trichloroethene	11.96	130	426480	10.62	ppbv	98
36) 1,2-Dichloropropane	12.32	63	354304	11.11	ppbv	98
37) 1,4-Dioxane	12.39	88	167531	10.71	ppbv	91
38) Bromodichloromethane	12.60	83	620390	10.75	ppbv	99
39) cis-1,3-Dichloropropene	13.15	75	518873	10.73	ppbv	99
40) 4-Methyl-2-pentanone	13.27	58	264107	11.22	ppbv	94
41) Toluene	13.56	91	1079831	11.02	ppbv	99
42) trans-1,3-Dichloropropene	13.86	75	453401	10.26	ppbv	98
43) 1,1,2-Trichloroethane	14.14	97	368091	10.84	ppbv	98
44) Tetrachloroethene	14.26	166	606121	10.63	ppbv	99
45) 2-Hexanone	14.34	43	560752	11.75	ppbv	98
46) Chlorodibromomethane	14.68	129	653953	11.09	ppbv	99
47) 1,2-Dibromoethane	14.92	107	548150	10.75	ppbv	99
49) Chlorobenzene	15.51	112	810407	10.74	ppbv	97
50) Ethylbenzene	15.55	91	1294513	10.77	ppbv	96
51) m,p-Xylene	15.71	91	2045042	22.06	ppbv	97
52) o-Xylene	16.30	91	1055944	11.01	ppbv #	95

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011613\01161302.D Vial: 2
Acq On : 16 Jan 2013 9:43 am Operator: RACHEL HILL
Sample : CCV VOA1 011613 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 16 10:08 2013 Quant Results File: 011013V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration
DataAcq Meth : 011013V1

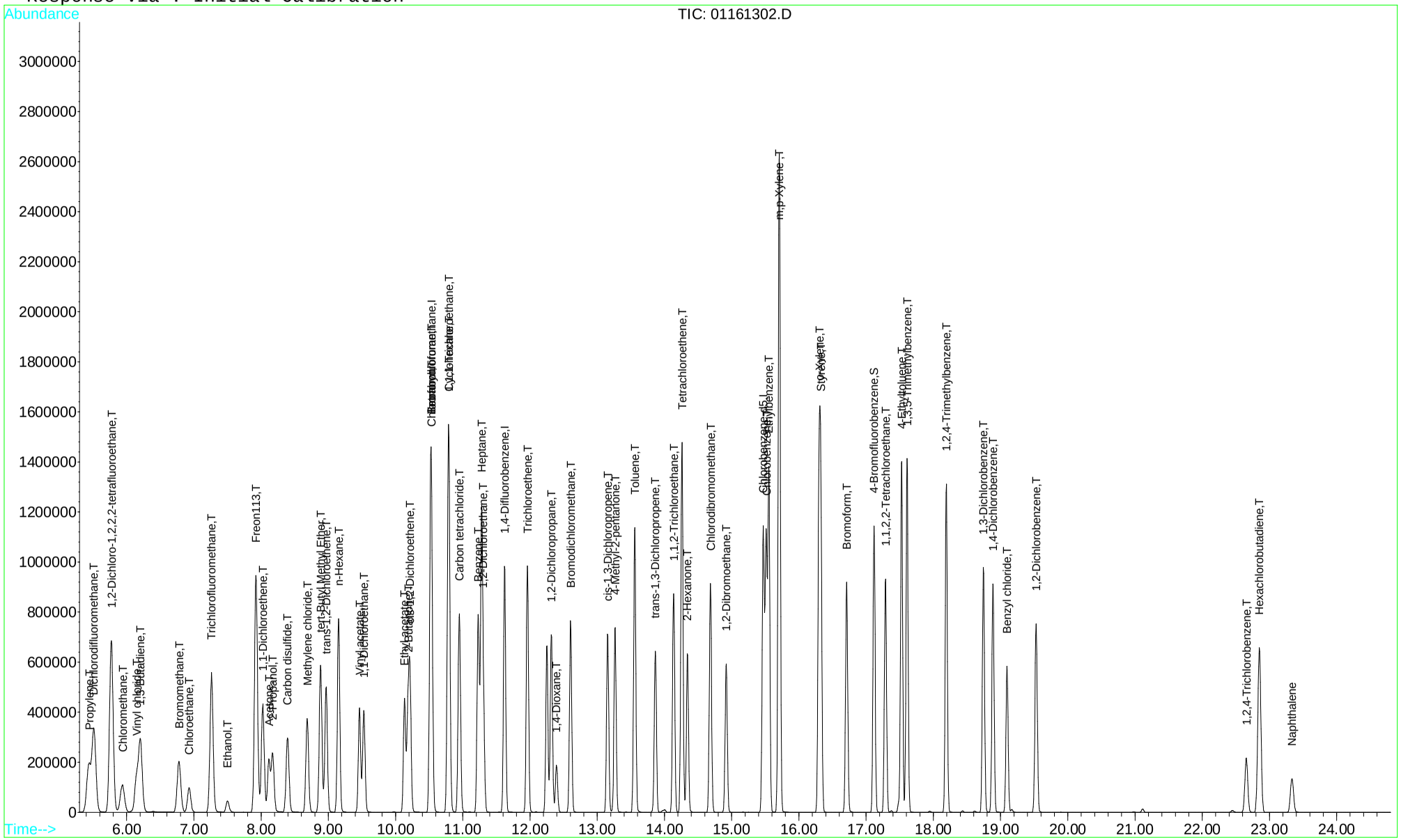
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.33	104	784295	10.87	ppbv	99
54)	Bromoform	16.71	173	629921	10.71	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.29	83	646628	10.64	ppbv	99
57)	4-Ethyltoluene	17.53	105	1271447	10.60	ppbv	98
58)	1,3,5-Trimethylbenzene	17.61	105	1065944	10.49	ppbv	98
59)	1,2,4-Trimethylbenzene	18.19	105	1011848	10.66	ppbv	98
60)	1,3-Dichlorobenzene	18.74	146	614582	10.43	ppbv	98
61)	1,4-Dichlorobenzene	18.89	146	573907	10.39	ppbv	99
62)	Benzyl chloride	19.09	91	611188	10.88	ppbv	99
63)	1,2-Dichlorobenzene	19.53	146	507279	10.34	ppbv	99
64)	1,2,4-Trichlorobenzene	22.66	180	152099	9.68	ppbv	98
65)	Hexachlorobutadiene	22.85	225	316319	9.85	ppbv	100
66)	Naphthalene	23.34	128	238715	10.04	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011613\01161302.D Vial: 2
Acq On : 16 Jan 2013 9:43 am Operator: RACHEL HILL
Sample : CCV VOA1 011613 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 16 10:08 2013 Quant Results File: 011013V1.RES

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration

Calibration Files
2 =01101303.D 4 =01101304.D 5 =01101305.D
6 =01101306.D 7 =01101307.D 8 =01101308.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.234	1.189	1.074	1.044	0.988	0.954	1.061	10.74
3)	T	Dichlorodifluoromet	3.341	3.834	3.478	3.420	3.245	3.156	3.366	7.38
4)	T	1,2-Dichloro-1,2,2,	2.472	2.884	2.622	2.588	2.471	2.400	2.533	7.50
5)	T	Chloromethane	1.369	1.421	1.256	1.212	1.133	1.076	1.215	11.89
6)	T	Vinyl chloride	1.509	1.755	1.598	1.564	1.460	1.385	1.514	9.42
7)	T	1,3-Butadiene	1.059	1.215	1.091	1.063	0.979	0.918	1.027	11.37
8)	T	Bromomethane	1.350	1.467	1.331	1.365	1.305	1.230	1.315	7.64
9)	T	Chloroethane	0.701	0.831	0.769	0.750	0.720	0.723	0.741	6.51
10)	T	Trichlorofluorometh	3.584	3.776	3.507	3.444	3.262	3.087	3.363	9.15
11)	T	Ethanol	0.435	0.410	0.391	0.384	0.351	0.333	0.376	10.76
12)	T	Freon113	2.351	2.645	2.496	2.443	2.286	2.105	2.325	10.19
13)	T	1,1-Dichloroethene	1.867	2.071	1.924	1.874	1.761	1.624	1.809	10.04
14)	T	Acetone	2.128	2.119	1.984	1.911	1.676	1.502	1.783	19.98
15)	T	Carbon disulfide	2.817	3.182	2.946	2.849	2.706	2.592	2.802	7.95
16)	T	2-Propanol	1.850	1.936	1.841	1.780	1.614	1.528	1.713	10.81
17)	T	Methylene chloride	1.658	1.547	1.424	1.382	1.265	1.156	1.361	15.01
18)	T	tert-Butyl Methyl E	3.164	3.484	3.290	3.188	2.816	2.519	2.965	14.68
19)	T	trans-1,2-Dichloroe	1.726	1.900	1.764	1.721	1.584	1.463	1.647	11.14
20)	T	n-Hexane	1.948	2.226	2.061	2.003	1.851	1.705	1.916	10.96
21)	T	1,1-Dichloroethane	2.217	2.440	2.279	2.196	1.976	1.823	2.089	12.81
22)	T	Vinyl acetate	2.491	3.532	3.328	3.220	2.808	2.513	2.880	16.80
23)	T	cis-1,2-Dichloroeth	1.187	1.376	1.283	1.255	1.150	1.083	1.195	9.94
24)	T	2-Butanone	1.998	2.410	2.203	2.223	1.925	1.657	1.991	16.00
25)	T	Ethyl acetate	2.516	3.064	2.739	2.701	2.434	2.133	2.517	14.25
26)	T	Tetrahydrofuran	1.346	1.580	1.477	1.408	1.238	1.111	1.304	16.43
27)	T	Chloroform	2.367	2.716	2.533	2.468	2.227	2.035	2.313	13.00
28)	T	1,1,1-Trichloroetha	2.410	2.871	2.706	2.640	2.382	2.156	2.443	13.29
29)	T	Cyclohexane	2.059	2.424	2.251	2.195	1.988	1.795	2.037	14.43
30)	T	Carbon tetrachlorid	2.409	2.985	2.815	2.770	2.530	2.331	2.565	11.93
31)	T	Benzene	3.600	3.984	3.743	3.619	3.228	2.932	3.396	13.85
32)	T	1,2-Dichloroethane	1.544	1.728	1.632	1.568	1.387	1.230	1.453	15.94
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.641	0.790	0.731	0.701	0.652	0.562	0.650	16.36
35)	T	Trichloroethene	0.455	0.574	0.538	0.530	0.504	0.459	0.497	10.84
36)	T	1,2-Dichloropropane	0.381	0.463	0.437	0.427	0.391	0.349	0.395	12.83
37)	T	1,4-Dioxane	0.175	0.221	0.214	0.207	0.193	0.178	0.194	10.62
38)	T	Bromodichloromethan	0.648	0.829	0.794	0.775	0.721	0.652	0.715	12.46
39)	T	cis-1,3-Dichloropro	0.528	0.696	0.665	0.649	0.601	0.549	0.599	12.34
40)	T	4-Methyl-2-pentanon	0.256	0.334	0.322	0.311	0.290	0.270	0.292	10.90
41)	T	Toluene	1.189	1.416	1.345	1.306	1.202	1.080	1.214	13.07
42)	T	trans-1,3-Dichlorop	0.450	0.639	0.611	0.593	0.555	0.510	0.548	13.08
43)	T	1,1,2-Trichloroetha	0.388	0.483	0.459	0.450	0.422	0.385	0.421	10.82
44)	T	Tetrachloroethene	0.673	0.813	0.764	0.744	0.710	0.644	0.707	10.46
45)	T	2-Hexanone	0.499	0.708	0.672	0.646	0.592	0.534	0.591	14.73
46)	T	Chlorodibromomethan	0.611	0.850	0.815	0.800	0.750	0.677	0.731	13.41
47)	T	1,2-Dibromoethane	0.575	0.735	0.701	0.679	0.632	0.573	0.632	12.12
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	1.090	1.300	1.247	1.205	1.122	0.992	1.119	13.37
50)	T	Ethylbenzene	1.842	2.109	2.007	1.925	1.768	1.524	1.781	15.97
51)	T	m,p-Xylene	1.456	1.707	1.622	1.502	1.340	1.113	1.374	21.17
52)	T	o-Xylene	1.455	1.678	1.616	1.535	1.408	1.224	1.422	15.76
53)	T	Styrene	0.929	1.271	1.224	1.178	1.088	0.964	1.069	15.49
54)	T	Bromoform	0.679	1.013	0.992	0.958	0.899	0.815	0.872	14.67
55)	S	4-Bromofluorobenzen	0.550	0.570	0.566	0.569	0.572	0.580	0.571	2.19
56)	T	1,1,2,2-Tetrachloro	0.898	1.036	0.992	0.952	0.893	0.811	0.901	11.90
57)	T	4-Ethyltoluene	1.825	2.078	1.984	1.897	1.759	1.552	1.778	14.23

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration

Calibration Files
2 =01101303.D 4 =01101304.D 5 =01101305.D
6 =01101306.D 7 =01101307.D 8 =01101308.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.582	1.768	1.689	1.590	1.474	1.302	1.506	14.69
59)	T	1,2,4-Trimethylbenz	1.393	1.632	1.565	1.502	1.390	1.261	1.407	12.90
60)	T	1,3-Dichlorobenzene	0.848	0.985	0.958	0.915	0.858	0.801	0.873	9.77
61)	T	1,4-Dichlorobenzene	0.784	0.929	0.901	0.864	0.803	0.751	0.819	10.02
62)	T	Benzyl chloride	0.486	0.979	0.958	0.917	0.874	0.825	0.832	20.08
63)	T	1,2-Dichlorobenzene	0.734	0.820	0.787	0.752	0.710	0.662	0.727	9.38
64)	T	1,2,4-Trichlorobenz	0.256	0.252	0.239	0.228	0.218	0.217	0.233	7.03
65)	T	Hexachlorobutadiene	0.601	0.516	0.472	0.454	0.442	0.431	0.476	13.42
66)		Naphthalene	0.350	0.396	0.367	0.347	0.337	0.338	0.353	6.36

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration
Total Cpnds : 66

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

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
-----------------------------------------------------------------------
          011013V1.M     Fri Jan 11 10:38:51 2013
```

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011013B\01101312.D Vial: 3
Acq On : 10 Jan 2013 7:54 pm Operator: RACHEL HILL
Sample : ICV VOA1 011013 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	118	0.00
2	T	Propylene	1.061	1.167	-10.0	116	-0.02
3	T	Dichlorodifluoromethane	3.366	4.009	-19.1	124	-0.01
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.533	2.990	-18.0	122	0.00
5	T	Chloromethane	1.215	1.368	-12.6	114	0.00
6	T	Vinyl chloride	1.514	1.751	-15.7	118	0.00
7	T	1,3-Butadiene	1.027	1.165	-13.4	113	0.00
8	T	Bromomethane	1.315	1.490	-13.3	120	-0.01
9	T	Chloroethane	0.741	0.841	-13.5	120	-0.01
10	T	Trichlorofluoromethane	3.363	3.895	-15.8	122	0.00
11	T	Ethanol	0.376	0.404	-7.4	117	0.00
12	T	Freon113	2.325	2.671	-14.9	119	0.00
13	T	1,1-Dichloroethene	1.809	2.079	-14.9	119	0.00
14	T	Acetone	1.783	2.060	-15.5	115	0.00
15	T	Carbon disulfide	2.802	3.250	-16.0	121	0.00
16	T	2-Propanol	1.713	1.935	-13.0	118	0.00
17	T	Methylene chloride	1.361	1.487	-9.3	114	0.00
18	T	tert-Butyl Methyl Ether	2.965	3.525	-18.9	119	0.00
19	T	trans-1,2-Dichloroethene	1.647	1.880	-14.1	117	0.00
20	T	n-Hexane	1.916	2.150	-12.2	114	0.00
21	T	1,1-Dichloroethane	2.089	2.431	-16.4	118	0.00
22	T	Vinyl acetate	2.880	3.409	-18.4	114	0.00
23	T	cis-1,2-Dichloroethene	1.195	1.373	-14.9	118	0.00
24	T	2-Butanone	1.991	2.299	-15.5	113	0.00
25	T	Ethyl acetate	2.517	2.852	-13.3	110	0.00
26	T	Tetrahydrofuran	1.304	1.462	-12.1	109	0.00
27	T	Chloroform	2.313	2.681	-15.9	117	0.00
28	T	1,1,1-Trichloroethane	2.443	2.870	-17.5	118	0.00
29	T	Cyclohexane	2.037	2.295	-12.7	112	0.00
30	T	Carbon tetrachloride	2.565	3.052	-19.0	121	0.00
31	T	Benzene	3.396	3.944	-16.1	117	0.00
32	T	1,2-Dichloroethane	1.453	1.709	-17.6	117	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	122	0.00
34	T	Heptane	0.650	0.717	-10.3	111	0.00
35	T	Trichloroethene	0.497	0.561	-12.9	119	0.00
36	T	1,2-Dichloropropane	0.395	0.437	-10.6	115	0.00
37	T	1,4-Dioxane	0.194	0.212	-9.3	117	0.00
38	T	Bromodichloromethane	0.715	0.811	-13.4	119	0.00
39	T	cis-1,3-Dichloropropene	0.599	0.678	-13.2	119	0.00
40	T	4-Methyl-2-pentanone	0.292	0.312	-6.8	114	0.00
41	T	Toluene	1.214	1.361	-12.1	117	0.00
42	T	trans-1,3-Dichloropropene	0.548	0.625	-14.1	119	0.00
43	T	1,1,2-Trichloroethane	0.421	0.467	-10.9	118	0.00
44	T	Tetrachloroethene	0.707	0.780	-10.3	117	0.00
45	T	2-Hexanone	0.591	0.643	-8.8	111	0.00
46	T	Chlorodibromomethane	0.731	0.839	-14.8	120	0.00
47	T	1,2-Dibromoethane	0.632	0.710	-12.3	118	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	119	0.00
49	T	Chlorobenzene	1.119	1.275	-13.9	117	0.00
50	T	Ethylbenzene	1.781	2.041	-14.6	116	0.00
51	T	m,p-Xylene	1.374	1.613	-17.4	113	0.00
52	T	o-Xylene	1.422	1.623	-14.1	116	0.00
53	T	Styrene	1.069	1.228	-14.9	115	0.00
54	T	Bromoform	0.872	1.011	-15.9	119	0.00
55	S	4-Bromofluorobenzene	0.571	0.567	0.7	119	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\011013B\01101312.D Vial: 3
Acq On : 10 Jan 2013 7:54 pm Operator: RACHEL HILL
Sample : ICV VOA1 011013 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.901	1.004	-11.4	116	0.00
57	T	4-Ethyltoluene	1.778	2.018	-13.5	116	0.00
58	T	1,3,5-Trimethylbenzene	1.506	1.713	-13.7	116	0.00
59	T	1,2,4-Trimethylbenzene	1.407	1.598	-13.6	117	0.00
60	T	1,3-Dichlorobenzene	0.873	0.973	-11.5	118	0.00
61	T	1,4-Dichlorobenzene	0.819	0.922	-12.6	118	0.00
62	T	Benzyl chloride	0.832	0.979	-17.7	119	0.00
63	T	1,2-Dichlorobenzene	0.727	0.812	-11.7	118	0.00
64	T	1,2,4-Trichlorobenzene	0.233	0.248	-6.4	118	0.00
65	T	Hexachlorobutadiene	0.476	0.475	0.2	110	0.00
66		Naphthalene	0.353	0.387	-9.6	117	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011013B\01101312.D Vial: 3
Acq On : 10 Jan 2013 7:54 pm Operator: RACHEL HILL
Sample : ICV VOA1 011013 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 11 9:42 2013 Quant Results File: 011013V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration
DataAcq Meth : 011013V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.52	130	316706	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.62	114	1105182	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.47	117	888776	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.12	95	504371	12.42	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 99.36%

Target Compounds						Qvalue
2) Propylene	5.42	41	301706	11.23	ppbv	98
3) Dichlorodifluoromethane	5.50	85	934574	10.96	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.76	135	719606	11.21	ppbv #	85
5) Chloromethane	5.93	50	329308	10.70	ppbv	100
6) Vinyl chloride	6.14	62	417137	10.87	ppbv	99
7) 1,3-Butadiene	6.20	39	289253	11.11	ppbv	89
8) Bromomethane	6.77	94	351177	10.54	ppbv	99
9) Chloroethane	6.92	64	196110	10.45	ppbv	99
10) Trichlorofluoromethane	7.25	101	947381	11.12	ppbv	99
11) Ethanol	7.49	45	94208	9.89	ppbv	99
12) Freon113	7.92	101	663114	11.26	ppbv	99
13) 1,1-Dichloroethene	8.02	61	521511	11.38	ppbv	92
14) Acetone	8.11	43	522014	11.55	ppbv #	97
15) Carbon disulfide	8.39	76	798745	11.25	ppbv #	99
16) 2-Propanol	8.17	45	495185	11.41	ppbv #	1
17) Methylene chloride	8.68	49	376793	10.93	ppbv	92
18) tert-Butyl Methyl Ether	8.88	73	884197	11.77	ppbv	99
19) trans-1,2-Dichloroethene	8.96	61	466822	11.18	ppbv	90
20) n-Hexane	9.15	57	550116	11.33	ppbv	96
21) 1,1-Dichloroethane	9.52	63	597472	11.29	ppbv	99
22) Vinyl acetate	9.46	43	855201	11.72	ppbv	99
23) cis-1,2-Dichloroethene	10.21	96	340871	11.26	ppbv	90
24) 2-Butanone	10.18	43	576644	11.43	ppbv	96
25) Ethyl acetate	10.13	43	708046	11.10	ppbv #	100
26) Tetrahydrofuran	10.52	42	370537	11.22	ppbv	99
27) Chloroform	10.54	83	665618	11.36	ppbv	100
28) 1,1,1-Trichloroethane	10.78	97	697997	11.28	ppbv	98
29) Cyclohexane	10.79	56	569820	11.04	ppbv	92
30) Carbon tetrachloride	10.95	117	734683	11.30	ppbv	99
31) Benzene	11.23	78	959181	11.15	ppbv	98
32) 1,2-Dichloroethane	11.31	62	419981	11.41	ppbv	98
34) Heptane	11.28	43	627592	10.92	ppbv	96
35) Trichloroethene	11.96	130	476055	10.82	ppbv	98
36) 1,2-Dichloropropane	12.32	63	378646	10.84	ppbv	99
37) 1,4-Dioxane	12.40	88	179877	10.50	ppbv	93
38) Bromodichloromethane	12.60	83	687985	10.88	ppbv	100
39) cis-1,3-Dichloropropene	13.15	75	569128	10.75	ppbv	99
40) 4-Methyl-2-pentanone	13.26	58	275664	10.69	ppbv	96
41) Toluene	13.56	91	1179013	10.99	ppbv	99
42) trans-1,3-Dichloropropene	13.87	75	503028	10.39	ppbv	98
43) 1,1,2-Trichloroethane	14.14	97	404631	10.88	ppbv	98
44) Tetrachloroethene	14.26	166	662076	10.60	ppbv	100
45) 2-Hexanone	14.34	43	556930	10.65	ppbv	96
46) Chlorodibromomethane	14.68	129	726536	11.24	ppbv	99
47) 1,2-Dibromoethane	14.92	107	602212	10.78	ppbv	99
49) Chlorobenzene	15.51	112	897570	11.29	ppbv	98
50) Ethylbenzene	15.55	91	1422154	11.23	ppbv	98
51) m,p-Xylene	15.71	91	2201892	22.53	ppbv	97
52) o-Xylene	16.30	91	1154054	11.41	ppbv	97

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011013B\01101312.D Vial: 3
Acq On : 10 Jan 2013 7:54 pm Operator: RACHEL HILL
Sample : ICV VOA1 011013 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 11 9:42 2013 Quant Results File: 011013V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration
DataAcq Meth : 011013V1

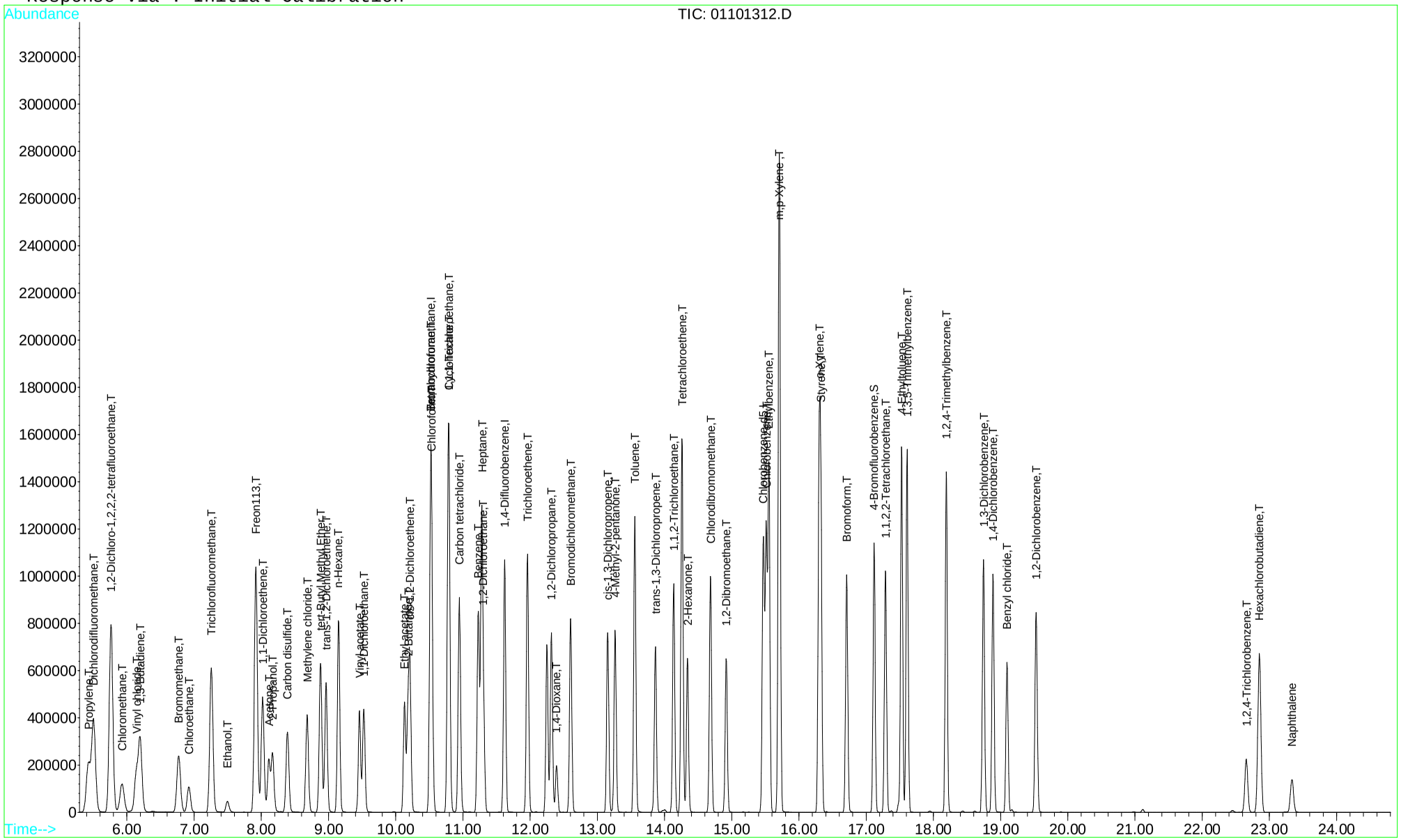
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.33	104	855638	11.25	ppbv	99
54)	Bromoform	16.71	173	690332	11.13	ppbv	100
56)	1,1,2,2-Tetrachloroethane	17.29	83	713663	11.14	ppbv	100
57)	4-Ethyltoluene	17.53	105	1406413	11.13	ppbv	98
58)	1,3,5-Trimethylbenzene	17.61	105	1181252	11.03	ppbv	98
59)	1,2,4-Trimethylbenzene	18.19	105	1113230	11.13	ppbv	98
60)	1,3-Dichlorobenzene	18.74	146	670949	10.81	ppbv	99
61)	1,4-Dichlorobenzene	18.89	146	629014	10.80	ppbv	99
62)	Benzyl chloride	19.10	91	674921	11.40	ppbv	99
63)	1,2-Dichlorobenzene	19.53	146	559950	10.83	ppbv	99
64)	1,2,4-Trichlorobenzene	22.66	180	160401	9.69	ppbv	98
65)	Hexachlorobutadiene	22.85	225	317275	9.37	ppbv	99
66)	Naphthalene	23.34	128	253301	10.11	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011013B\01101312.D Vial: 3
Acq On : 10 Jan 2013 7:54 pm Operator: RACHEL HILL
Sample : ICV VOA1 011013 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 11 9:42 2013 Quant Results File: 011013V1.RES

Method : C:\HPCHEM\1\METHODS\011013V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jan 11 09:41:17 2013
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\011413B

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	01141301.d	1.	BFB VOA9 011413	TUNE BFB_TUNE	14 Jan 2013 13:25
2	2	01141302.d	1.	ICAL1 VOA9 011413	DATA NOT USED	14 Jan 2013 14:34
3	3	01141303.d	1.	ICAL1 VOA9 011413	ICAL1MA_APH	14 Jan 2013 15:17
4	4	01141304.d	1.	ICAL2 VOA9 011413	ICAL2MA_APH	14 Jan 2013 16:00
5	5	01141305.d	1.	ICAL3 VOA9 011413	ICAL3MA_APH	14 Jan 2013 16:42
6	6	01141306.d	1.	ICAL4 VOA9 011413	ICAL4MA_APH	14 Jan 2013 17:25
7	7	01141307.d	1.	ICAL5 VOA9 011413	ICAL5MA_APH	14 Jan 2013 18:09
8	8	01141308.d	1.	ICAL6 VOA9 011413	ICAL6MA_APH	14 Jan 2013 18:53
9	9	01141309.d	1.	ICAL7 VOA9 011413	ICAL7MA_APH	14 Jan 2013 19:38
10	2	01141310.d	1.	BFB2 VOA9 011413	TUNE BFB_TUNE	14 Jan 2013 20:20
11	2	01141311.d	1.	ICV VOA9 011413	ICV MA_APH	14 Jan 2013 21:03
12	3	01141312.d	1.	RLVS VOA9 011413	data not used	14 Jan 2013 21:47
13	4	01141313.d	1.	RLVS VOA9 011413	RLVS MA_APH	14 Jan 2013 22:29
14	4	01141314.d	1.	MBLK VOA9 011413	MBLK MA_APH	14 Jan 2013 23:18
15	11	01141315.d	40.	1212959-005A	SAMP MA_APH	15 Jan 2013 00:01
16	12	01141316.d	20000.	1212959-019A	SAMP MA_APH	15 Jan 2013 00:44
17	13	01141317.d	1600.	1212959-020A	SAMP MA_APH	15 Jan 2013 01:27
18	13	01141318.d	1600.	1212959-020ADUP	DUP MA_APH	15 Jan 2013 02:11
19	14	01141319.d	200.	1212959-031A	data not used	15 Jan 2013 03:00
20	15	01141320.d	200.	1212959-032A	data not used	15 Jan 2013 03:49
21	16	01141321.d	1600.	1212959-022A	SAMP MA_APH	15 Jan 2013 04:33
22	17	01141322.d	200.	1212959-033A	SAMP MA_APH	15 Jan 2013 05:22
23	18	01141323.d	1600.	1212959-023A	SAMP MA_APH	15 Jan 2013 06:06
24	19	01141324.d	200.	1212959-034A	SAMP MA_APH	15 Jan 2013 06:55
25	10	01141325.d	20000.	1212959-024A	SAMP MA_APH	15 Jan 2013 07:37
26	11	01141326.d	8000.	1212959-025A	data not used	15 Jan 2013 08:20
27	12	01141327.d	200.	1212959-035A	SAMP MA_APH	15 Jan 2013 09:08
28	21	01141328.d	800.	1212959-026A	SAMP MA_APH	15 Jan 2013 09:54
29	22	01141329.d	800.	1212959-027A	SAMP MA_APH	15 Jan 2013 10:39
30	23	01141330.d	400.	1212959-031A	SAMP MA_APH	15 Jan 2013 11:28
31	24	01141331.d	400.	1212959-032A	SAMP MA_APH	15 Jan 2013 12:18
32	25	01141332.d	20000.	1212959-025A	SAMP MA_APH	15 Jan 2013 13:00
33	26	01141333.d	800.	1212959-011A	SAMP MA_APH	15 Jan 2013 13:45
34	27	01141334.d	8000.	1212959-036A	SAMP MA_APH	15 Jan 2013 14:28
35	27	01141335.d	20000.	1212959-012A	SAMP MA_APH	15 Jan 2013 15:10
36	28	01141336.d	800.	1212959-013A	SAMP MA_APH	15 Jan 2013 15:52
37	29	01141337.d	40.	1212959-010A	SAMP MA_APH	15 Jan 2013 16:35
38	30	01141338.d	200.	1212959-040A	SAMP MA_APH	15 Jan 2013 17:24
39	4	01141339.d	1.	RLVS2 VOA9 011413	RLVS MA_APH	15 Jan 2013 18:06
40	2	01141340.d	1.	BFB VOA9 011513	TUNE BFB_TUNE	15 Jan 2013 18:48
41	2	01141341.d	1.	CCV VOA9 011513	ICV MA_APH	15 Jan 2013 19:31
42	4	01141342.d	1.	RLVS VOA9 011513	RLVS MA_APH	15 Jan 2013 20:14
43	4	01141343.d	1.	MBLK VOA9 011513	MBLK MA_APH	15 Jan 2013 21:03
44	1	01141344.d	400.	1212959-014A	data not used	15 Jan 2013 21:53
45	2	01141345.d	400.	1212959-015A	SAMP MA_APH	15 Jan 2013 22:42
46	3	01141346.d	400.	1212959-016A	data not used	15 Jan 2013 23:31
47	4	01141347.d	400.	1212959-017A	data not used	16 Jan 2013 00:20
48	5	01141348.d	800.	1212959-007A	SAMP MA_APH	16 Jan 2013 01:06
49	5	01141349.d	800.	1212959-007ADUP	DUP MA_APH	16 Jan 2013 01:51
50	6	01141350.d	400.	1212959-008A	SAMP MA_APH	16 Jan 2013 02:41
51	7	01141351.d	20000.	1212960-005A	data not used	16 Jan 2013 03:23
52	7	01141352.d	20000.	1212960-005A	data not used	16 Jan 2013 04:06
53	8	01141353.d	8000.	1212960-010A	SAMP MA_APH	16 Jan 2013 04:50
54	9	01141354.d	8000.	1212960-011A	SAMP MA_APH	16 Jan 2013 05:33
55	10	01141355.d	20000.	1212960-009A	SAMP MA_APH	16 Jan 2013 06:16

Injection Log

Directory: C:\HPCHEM\1\DATA\011413B

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
56	4	01141356.d	1.	RLVS2 VOA9 011513	RLVS MA_APH	16 Jan 2013 06:59

RTI Laboratories

ANALYTICAL RUN Summary

17-Jan-13

RunNo 55447

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1092766	BFB VOA9 011513	BFB_TUNE	TUNE	.1\DATA\011413E	1/15/2013 6:48:0	1	R55447		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		7.6	7.6		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.5	96.5		100	0	0	0	0	0	97%	93	101	0%	
177	M		7.2	7.2		100	0	0	0	0	0	7%	5	9	0%	
50	M		23.5	23.5		100	0	0	0	0	0	24%	8	40	0%	
75	M		46.2	46.2		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		8	8		100	0	0	0	0	0	8%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1092767	CCV VOA9 011513	MA_APH	CCV	.1\DATA\011413E	1/15/2013 7:31:0	1	R55447		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	247.62	247.62		234	0	0	0	0	0	106%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	U
C9-C10 Aromatic HC - TOTAL	A	µg/m³	290.09	290.09		266	0	0	0	0	0	109%	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	414.47	414.47		378	0	0	0	0	0	110%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	0%	0	0	0%	U
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	86.6	86.6		89.5	0	0	0	0	0	97%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011413B\01141341.D Vial: 2
Acq On : 15 Jan 2013 7:31 pm Operator: RACHEL HILL
Sample : CCV VOA9 011513 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	29.800	-2.1	98	-0.01
2	L1	C5-C8 Aliphatic HC {2}	36.400	38.300	-5.2	98	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	44.112	-5.5	98	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	37.969	-7.3	99	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	45.011	-6.7	99	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	52.595	-7.3	97	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	247.618	-5.8	98	-0.01
8	L1	C9-C12 Aliphatic HC	54.600	59.333	-8.7	98	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	52.597	3.7	99	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	67.389	-10.1	99	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	68.193	-12.2	101	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	79.066	-13.0	99	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	89.239	-15.9	97	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	414.468	-9.6	99	0.00
15	L1	C9-C10 Aromatic HC	51.700	56.199	-8.7	98	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	55.492	-8.4	98	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	56.724	-8.7	98	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	63.837	-8.8	98	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	57.044	-8.4	98	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	64.735	-10.3	98	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	290.091	-9.1	98	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.85#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.21#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.01#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.74#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.52#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-11.96#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.07#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.21#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.21#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.18#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.28#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.46#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.11#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.01#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.46#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.04#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.04#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.04#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	105	0.00
41	S	4-Bromofluorobenzene	89.500	86.605	3.2	102	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011413B\01141341.D Vial: 2
Acq On : 15 Jan 2013 7:31 pm Operator: RACHEL HILL
Sample : CCV VOA9 011513 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 16 11:00 2013 Quant Results File: 011413V9.RES

Quant Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Initial Calibration
DataAcq Meth : 011413V9

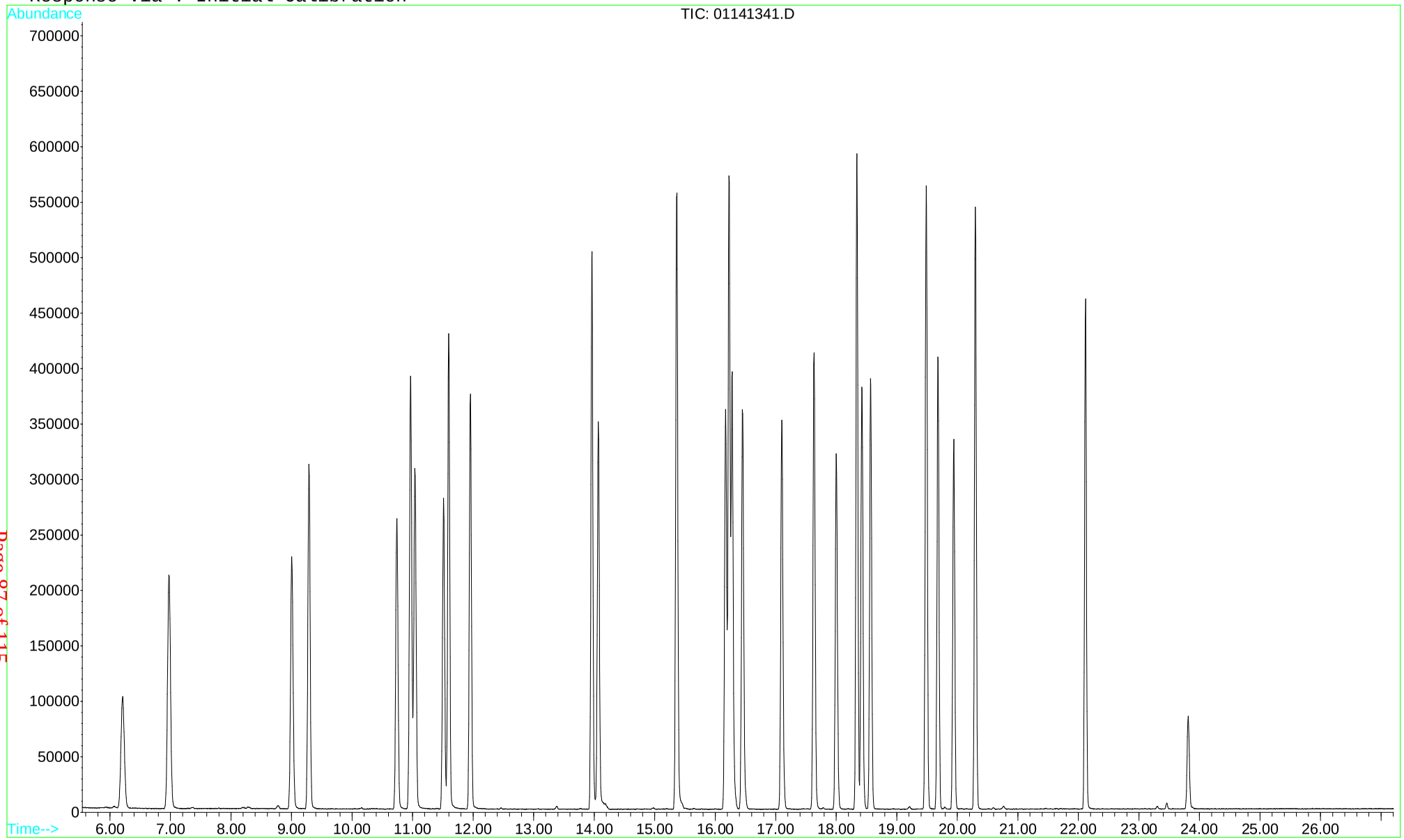
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.17	117	279332	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.00	95	176341	86.60	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 96.76%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	6.97	TIC	728829	29.80	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.29	TIC	810951	38.30	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.96	TIC	1023448	44.11	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.04	TIC	826261	37.97	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.60	TIC	998239	45.01	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.97	TIC	1139311	52.60	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	6.97	TIC	5527039m	247.62	ug/m3	
8) C9-C12 Aliphatic HC	15.37	TIC	1364625	59.33	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.23	TIC	807377m	52.60	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.34	TIC	1325155	67.39	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.48	TIC	1314253	68.19	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.30	TIC	1186103	79.07	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.12	TIC	980045	89.24	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.37	TIC	6977558m	414.47	ug/m3	
15) C9-C10 Aromatic HC	17.63	120	99826	56.20	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.43	120	102444	55.49	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.56	120	151387	56.72	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.68	120	32939	63.84	ug/m3	100
19) C9-C10 Aromatic HC {5}	19.94	120	113249	57.04	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.68	134	89035	64.73	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.00	TIC	588880m	290.09	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011413B\01141341.D Vial: 2
Acq On : 15 Jan 2013 7:31 pm Operator: RACHEL HILL
Sample : CCV VOA9 011513 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 16 11:00 2013 Quant Results File: 011413V9.RES

Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\1\DATA\011613

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	01161301.d	1.	BFB VOA9 011613	TUNE BFB_TUNE	16 Jan 2013 08:56
2	2	01161302.d	1.	CCV VOA9 011613	CCV MA_APH	16 Jan 2013 09:39
3	3	01161303.d	1.	RLVS VOA9 011613	RLVS MA_APH	16 Jan 2013 10:26
4	4	01161304.d	1.	MBLK VOA9 011613	MBLK MA_APH	16 Jan 2013 11:16
5	5	01161305.d	800.	1212960-005A	data not used	16 Jan 2013 12:01
6	6	01161306.d	40.	1212960-005A	SAMP MA_APH	16 Jan 2013 12:44
7	7	01161307.d	800.	1212959-009A	SAMP MA_APH	16 Jan 2013 13:30
8	8	01161308.d	40.	1212959-043A	SAMP MA_APH	16 Jan 2013 14:13
9	9	01161309.d	800.	1212959-016A	SAMP MA_APH	16 Jan 2013 14:58
10	10	01161310.d	800.	1212959-014A	SAMP MA_APH	16 Jan 2013 15:44
11	3	01161311.d	800.	1212959-029A	data not used	16 Jan 2013 16:29
12	4	01161312.d	1600.	1212959-029A	SAMP MA_APH	16 Jan 2013 17:13
13	4	01161313.d	800.	1212959-017A	data not used	16 Jan 2013 17:59
14	5	01161314.d	800.	1212959-018A	data not used	16 Jan 2013 18:44
15	6	01161315.d	8000.	1212959-006A	SAMP MA_APH	16 Jan 2013 19:28
16	7	01161316.d	800.	1212959-028A	data not used	16 Jan 2013 20:13
17	7	01161317.d	800.	1212959-028A	data not used	16 Jan 2013 20:59
18	7	01161318.d	8000.	1212959-028A	SAMP MA_APH	16 Jan 2013 21:42
19	8	01161319.d	20000.	1212960-002A	SAMP MA_APH	16 Jan 2013 22:26
20	9	01161320.d	20000.	1212960-003A	SAMP MA_APH	16 Jan 2013 23:09
21	10	01161321.d	800.	1212960-004A	SAMP MA_APH	16 Jan 2013 23:55
22	10	01161322.d	800.	1212960-004ADUP	DUP MA_APH	17 Jan 2013 00:40
23	11	01161323.d	8000.	1212960-006A	SAMP MA_APH	17 Jan 2013 01:23
24	12	01161324.d	800.	1212960-007A	SAMP MA_APH	17 Jan 2013 02:08
25	21	01161325.d	8000.	1212960-008A	data not used	17 Jan 2013 02:56
26	4	01161326.d	1600.	1212959-017A	SAMP MA_APH	17 Jan 2013 03:39
27	5	01161327.d	1600.	1212959-018A	SAMP MA_APH	17 Jan 2013 04:23
28	21	01161328.d	8000.	1212960-008A	SAMP MA_APH	17 Jan 2013 07:37
29	3	01161329.d	1.	RLVS2 VOA9 011613	data not used	17 Jan 2013 08:20
30	4	01161330.d	1.	RLVS2 VOA9 011613	RLVS MA_APH	17 Jan 2013 09:14

RTI Laboratories

ANALYTICAL RUN Summary

17-Jan-13

RunNo 55474

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1093291	BFB VOA9 011613	BFB_TUNE	TUNE	\\1\DATA\011613\	1/16/2013 8:56:0	1	R55474		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		66.1	66.1		100	0	0	0	0	0	66%	50	200	0%	
175	M		7.7	7.7		100	0	0	0	0	0	8%	4	9	0%	
176	M		100.6	100.6		100	0	0	0	0	0	101%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		21.8	21.8		100	0	0	0	0	0	22%	8	40	0%	
75	M		45.3	45.3		100	0	0	0	0	0	45%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.5	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
1093292	CCV VOA9 011613	MA_APH	CCV	\\1\DATA\011613\	1/16/2013 9:39:0	1	R55474		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	254.84	254.84		234	0	0	0	0	0	109%	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	304.77	304.77		266	0	0	0	0	0	115%	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	430.56	430.56		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	86.77	86.77		89.5	0	0	0	0	0	97%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011613\01161302.D Vial: 2
Acq On : 16 Jan 2013 9:39 am Operator: RACHEL HILL
Sample : CCV VOA9 011613 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	31.122	-6.6	102	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	39.415	-8.3	100	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	45.986	-10.0	102	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	37.909	-7.1	99	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	46.395	-9.9	102	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	54.088	-10.4	100	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	254.837	-8.9	101	0.00
8	L1	C9-C12 Aliphatic HC	54.600	61.258	-12.2	102	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	53.277	2.4	100	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	69.638	-13.8	103	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	70.449	-15.9	105	-0.01
12	L1	C9-C12 Aliphatic HC {5}	70.000	83.425	-19.2	105	-0.01
13	L1	C9-C12 Aliphatic HC {6}	77.000	94.983	-23.4	103	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	430.560	-13.9	103	0.00
15	L1	C9-C10 Aromatic HC	51.700	59.077	-14.3	103	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	57.908	-13.1	102	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	59.641	-14.3	103	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	67.909	-15.7	104	-0.01
19	L1	C9-C10 Aromatic HC {5}	52.600	59.756	-13.6	103	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	68.333	-16.4	104	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	304.767	-14.6	103	-0.01
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.85#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.21#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.01#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.74#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.52#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-11.96#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.07#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.21#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.21#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.18#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.28#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.46#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.11#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.01#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.46#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.04#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.04#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.04#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	109	0.00
41	S	4-Bromofluorobenzene	89.500	86.770	3.1	106	-0.01

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011613\01161302.D Vial: 2
Acq On : 16 Jan 2013 9:39 am Operator: RACHEL HILL
Sample : CCV VOA9 011613 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 16 15:30 2013 Quant Results File: 011413V9.RES

Quant Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Initial Calibration
DataAcq Meth : 011413V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.17	117	291363	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.00	95	184287	86.77	ug/m3	-0.01

Spiked Amount 89.500 Range 70 - 130 Recovery = 96.95%

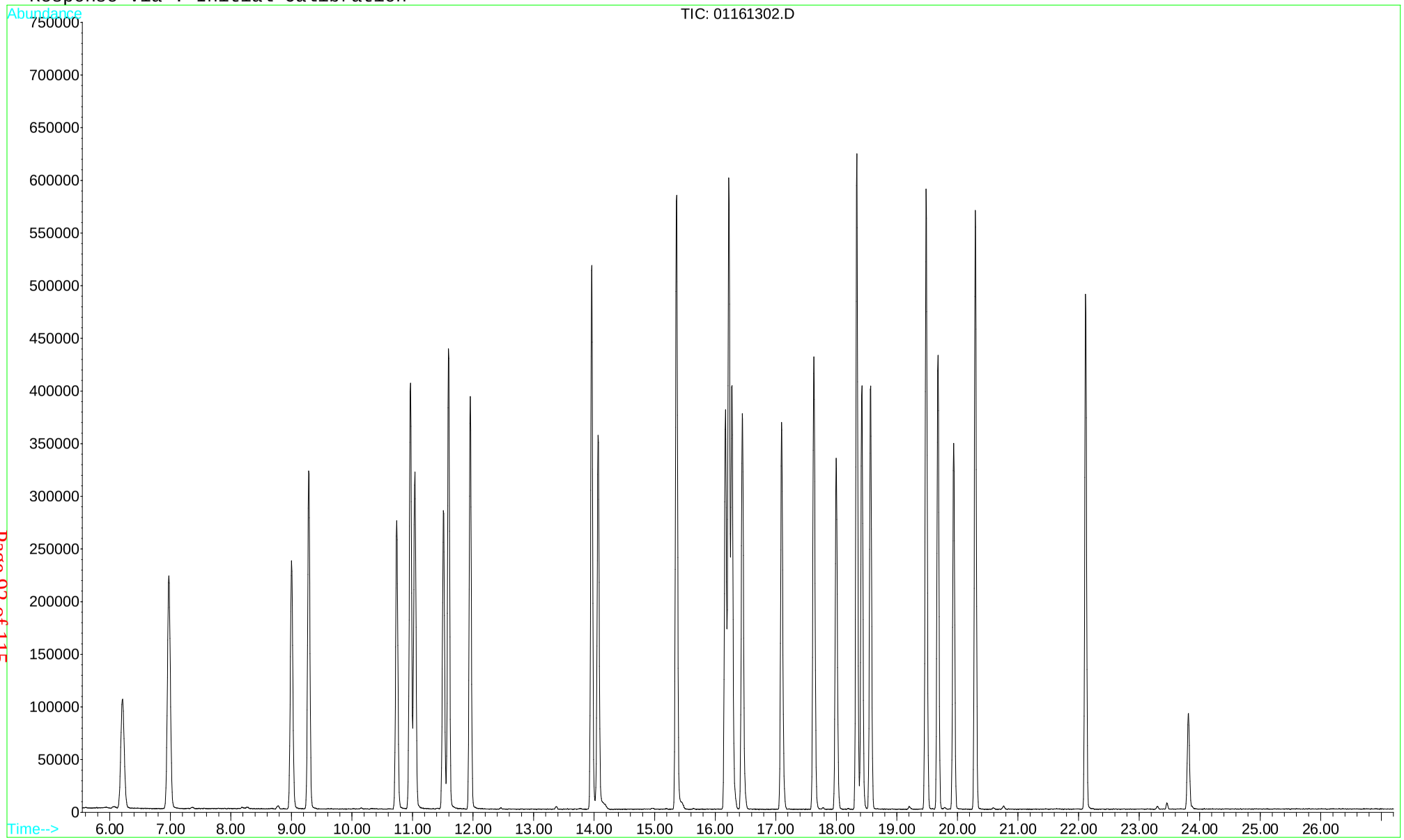
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	6.98	TIC	761164	31.12	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.28	TIC	834552	39.41	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.97	TIC	1066921	45.99	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.04	TIC	824954	37.91	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.59	TIC	1028928	46.40	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.96	TIC	1171658	54.09	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	6.98	TIC	5688177m	254.84	ug/m3	
8) C9-C12 Aliphatic HC	15.36	TIC	1408910	61.26	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.22	TIC	817804m	53.28	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.34	TIC	1369387	69.64	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.48	TIC	1357747	70.45	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.29	TIC	1251497	83.43	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.12	TIC	1043125	94.98	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.36	TIC	7248470m	430.56	ug/m3	
15) C9-C10 Aromatic HC	17.63	120	104938	59.08	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.42	120	106905	57.91	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.57	120	159171	59.64	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.67	120	35040	67.91	ug/m3	100
19) C9-C10 Aromatic HC {5}	19.94	120	118633	59.76	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.68	134	93984	68.33	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.00	TIC	618671m	304.77	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011613\01161302.D Vial: 2
Acq On : 16 Jan 2013 9:39 am Operator: RACHEL HILL
Sample : CCV VOA9 011613 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 16 15:30 2013 Quant Results File: 011413V9.RES

Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Initial Calibration

Calibration Files
1 =01141303.D 2 =01141304.D 3 =01141305.D
4 =01141306.D 5 =01141307.D 6 =01141308.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	2.728	2.546	2.521	2.469	2.418	2.284	2.446	E4	7.60
2)	L1	C5-C8 Aliphatic HC	2.335	2.282	2.263	2.149	2.061	1.920	2.117	E4	9.29
3)	L1	C5-C8 Aliphatic HC	2.590	2.496	2.473	2.313	2.311	2.076	2.320	E4	9.67
4)	L1	C5-C8 Aliphatic HC	2.365	2.364	2.308	2.248	2.073	2.000	2.176	E4	8.93
5)	L1	C5-C8 Aliphatic HC	2.441	2.388	2.396	2.247	2.186	2.002	2.218	E4	9.79
6)	L1	C5-C8 Aliphatic HC	2.441	2.385	2.342	2.185	2.117	1.921	2.166	E4	11.52
7)	L1	C5-C8 Aliphatic HC	2.476	2.406	2.378	2.261	2.188	2.019	2.232	E4	9.54
8)	L1	C9-C12 Aliphatic HC	2.573	2.538	2.494	2.351	2.246	2.034	2.300	E4	11.71
9)	L1	C9-C12 Aliphatic HC	1.265	1.499	1.620	1.594	1.642	1.566	1.535	E4	8.31
10)	L1	C9-C12 Aliphatic HC	2.151	2.181	2.155	2.022	1.935	1.730	1.966	E4	11.66
11)	L1	C9-C12 Aliphatic HC	2.181	2.132	2.091	1.970	1.858	1.692	1.927	E4	12.07
12)	L1	C9-C12 Aliphatic HC	1.563	1.706	1.665	1.557	1.439	1.313	1.500	E4	11.37
13)	L1	C9-C12 Aliphatic HC	1.039	1.309	1.285	1.193	1.060	0.906	1.098	E4	15.40
14)	L1	C9-C12 Aliphatic HC	1.754	1.862	1.849	1.745	1.656	1.500	1.683	E4	10.08
15)	L1	C9-C10 Aromatic HC	1.951	1.965	1.929	1.840	1.733	1.569	1.776	E3	11.44
16)	L1	C9-C10 Aromatic HC	1.927	2.038	2.029	1.904	1.837	1.646	1.846	E3	10.20
17)	L1	C9-C10 Aromatic HC	2.822	2.958	2.937	2.750	2.647	2.375	2.669	E3	10.80
18)	L1	C9-C10 Aromatic HC	5.224	5.752	5.694	5.281	5.146	4.702	5.160	E2	9.91
19)	L1	C9-C10 Aromatic HC	1.987	2.196	2.170	2.055	1.979	1.830	1.985	E3	9.23
20)	L1	C9-C10 Aromatic HC	1.397	1.547	1.529	1.424	1.356	1.250	1.375	E3	10.88
21)	L1	C9-C10 Aromatic HC	2.120	2.257	2.228	2.092	2.003	1.827	2.030	E3	10.37
22)		C5-C8 Aliphatic	2.476	2.406	2.378	2.261	2.188	2.019	2.232	E4	9.54
23)	L1	non C5-C8	1.922	1.777	1.751	1.703	1.685	1.638	1.723	E4	6.32
24)	L1	non C5-C8 {2}	1.605	1.802	1.794	1.681	1.616	1.491	1.630	E4	8.72
25)	L1	non C5-C8 {3}	1.083	0.985	1.037	1.032	1.041	1.069	1.046	E4	3.20
26)	L1	non C5-C8 {4}	2.090	2.182	2.176	1.978	1.922	1.739	1.963	E4	10.49
27)	L1	non C5-C8 {5}	1.588	1.425	1.535	1.550	1.556	1.581	1.547	E4	3.76
28)	L1	non C5-C8 {6}	2.129	2.255	2.262	2.081	2.019	1.817	2.041	E4	10.14
29)	L1	non C5-C8 - TOTAL	1.535	1.619	1.689	1.646	1.650	1.590	1.612	E4	3.44
30)		C9-C12 Aliphatic	1.754	1.862	1.849	1.745	1.656	1.500	1.683	E4	10.08
31)	L1	non C9-C12	1.551	1.399	1.481	1.455	1.489	1.547	1.497	E4	3.90
32)	L1	non C9-C12 {2}	1.966	1.920	1.925	1.907	1.789	1.440	1.830	E4	9.89
33)	L1	non C9-C12 {3}	1.973	2.052	2.036	1.913	1.841	1.684	1.871	E4	9.31
34)	L1	non C9-C12 {4}	1.928	1.994	1.964	1.845	1.789	1.631	1.813	E4	9.55
35)	L1	non C9-C12 {5}	9.329	8.577	9.030	9.063	9.265	9.563	9.257	E3	4.75
36)	L1	non C9-C12 - TOTAL	1.266	1.271	1.300	1.272	1.251	1.145	1.243	E4	4.32
37)	L1	C9-C10 Aromatic	2.120	2.257	2.228	2.092	2.003	1.827	2.030	E3	10.37
38)	L1	C9-C10 Aromatic {2}	2.120	2.257	2.228	2.092	2.003	1.827	2.030	E3	10.37
39)	L1	C9-C10 Aromatic - T	2.120	2.257	2.228	2.092	2.003	1.827	2.030	E3	10.37
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.089	0.091	0.090	0.090	0.092	0.092	0.091		2.05

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Initial Calibration
Total Cpnds : 41

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

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

011413V9.M Tue Jan 15 12:54:17 2013

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011413B\01141311.D Vial: 2
Acq On : 14 Jan 2013 9:03 pm Operator: RACHEL HILL
Sample : ICV VOA9 011413 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	31.797	-8.9	105	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	40.446	-11.1	103	0.00
3	L1	C5-C8 Aliphatic HC {3}	41.800	46.395	-11.0	103	0.00
4	L1	C5-C8 Aliphatic HC {4}	35.400	39.425	-11.4	103	0.00
5	L1	C5-C8 Aliphatic HC {5}	42.200	46.782	-10.9	103	0.00
6	L1	C5-C8 Aliphatic HC {6}	49.000	55.303	-12.9	103	0.00
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	260.020	-11.1	103	0.00
8	L1	C9-C12 Aliphatic HC	54.600	62.011	-13.6	103	0.00
9	L1	C9-C12 Aliphatic HC {2}	54.600	56.941	-4.3	107	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	70.087	-14.5	103	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	70.610	-16.1	105	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	81.131	-15.9	102	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	90.703	-17.8	99	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	430.802	-14.0	103	0.00
15	L1	C9-C10 Aromatic HC	51.700	58.638	-13.4	103	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	57.853	-13.0	102	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	59.663	-14.3	103	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	68.386	-16.5	105	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	60.567	-15.1	104	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	68.576	-16.8	104	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	305.442	-14.8	103	0.00
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-6.85#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.21#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.01#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-10.74#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.52#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-11.96#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.07#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.21#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.21#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.18#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.28#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.46#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.11#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.01#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.46#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.04#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.04#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	-17.04#
40	I	Chlorobenzene-d5	12.500	12.500	0.0	110	0.00
41	S	4-Bromofluorobenzene	89.500	87.885	1.8	109	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011413B\01141311.D Vial: 2
Acq On : 14 Jan 2013 9:03 pm Operator: RACHEL HILL
Sample : ICV VOA9 011413 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 15 9:33 2013 Quant Results File: 011413V9.RES

Quant Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Initial Calibration
DataAcq Meth : 011413V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.17	117	294557	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.00	95	188702	87.89	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 98.20%			

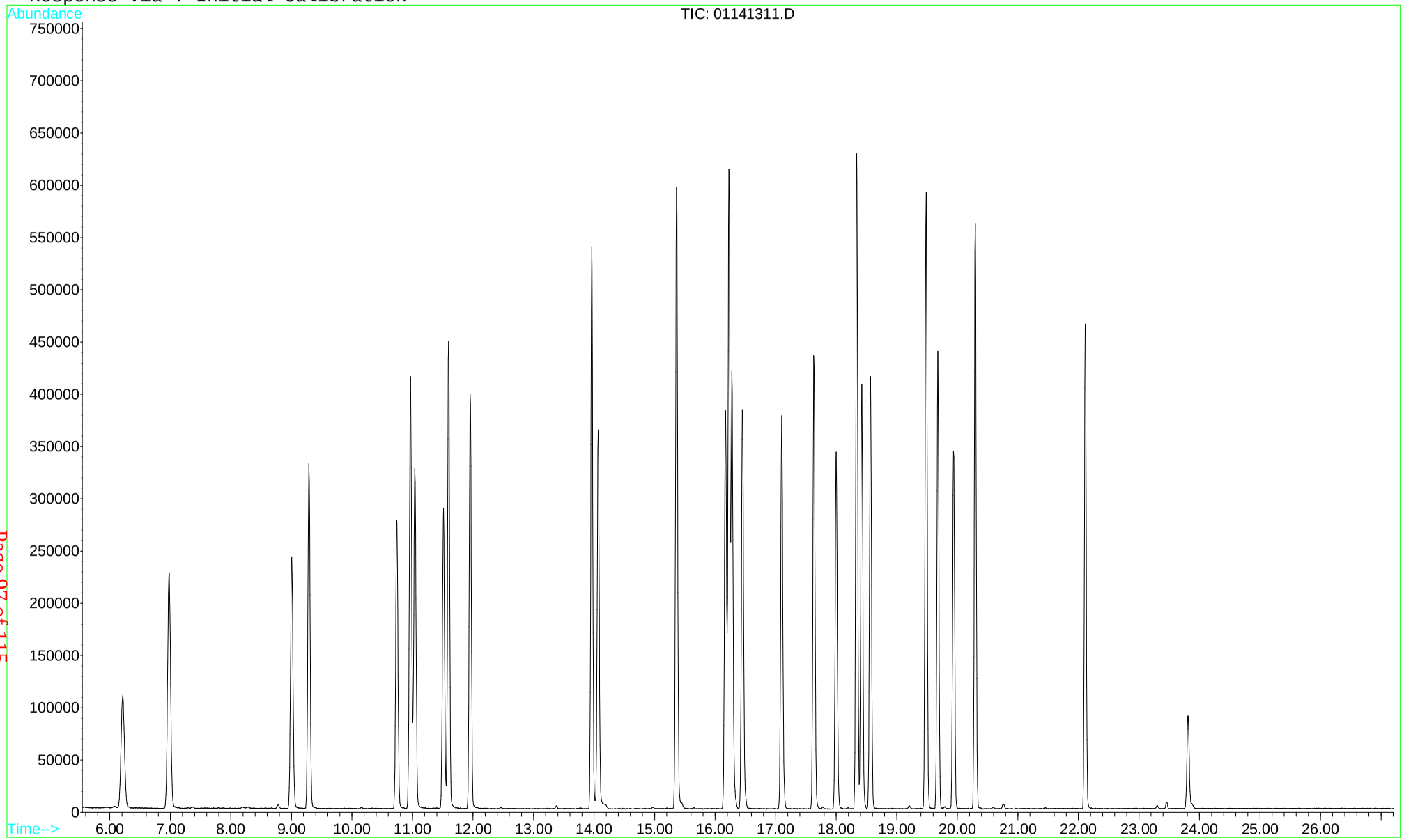
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	6.98	TIC	777662	31.80	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.29	TIC	856390	40.45	ug/m3	100
3) C5-C8 Aliphatic HC {3}	10.97	TIC	1076396	46.39	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.04	TIC	857953	39.43	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.60	TIC	1037512	46.78	ug/m3	100
6) C5-C8 Aliphatic HC {6}	13.96	TIC	1197966	55.30	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	6.98	TIC	5803879m	260.02	ug/m3	
8) C9-C12 Aliphatic HC	15.36	TIC	1426234	62.01	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.23	TIC	874055m	56.94	ug/m3	
10) C9-C12 Aliphatic HC {3}	18.34	TIC	1378210	70.09	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.49	TIC	1360844	70.61	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.30	TIC	1217078	81.13	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.11	TIC	996119	90.70	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.36	TIC	7252540m	430.80	ug/m3	
15) C9-C10 Aromatic HC	17.63	120	104159	58.64	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.42	120	106803	57.85	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.57	120	159232	59.66	ug/m3	100
18) C9-C10 Aromatic HC {4}	19.68	120	35286	68.39	ug/m3	100
19) C9-C10 Aromatic HC {5}	19.94	120	120243	60.57	ug/m3	100
20) C9-C10 Aromatic HC {6}	19.68	134	94319	68.58	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	18.00	TIC	620042m	305.44	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011413B\01141311.D Vial: 2
Acq On : 14 Jan 2013 9:03 pm Operator: RACHEL HILL
Sample : ICV VOA9 011413 Inst : GC/MS Ins
Misc : ICV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 15 9:33 2013 Quant Results File: 011413V9.RES

Method : C:\HPCHEM\1\METHODS\011413V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Jan 15 09:31:11 2013
Response via : Initial Calibration



Injection Log

Directory: C:\HPCHEM\2\DATA\011513

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	01151301.d	1.	MBLK-011513 TCD-A		15 Jan 2013 11:16
2	1	01151302.d	1.	CCV-011513 TCD-A		15 Jan 2013 11:31
3	1	01151303.d	1.	LCS-011513 TCD		15 Jan 2013 11:46
4	1	01151304.d	1.	CRQL-011513 TCD-A		15 Jan 2013 12:02
5	1	01151305.d	1.	1212960-002B		15 Jan 2013 12:20
6	1	01151306.d	1.	1212960-003B		15 Jan 2013 12:44
7	1	01151307.d	1.	1212960-004B		15 Jan 2013 12:58
8	1	01151308.d	1.	1212960-005B		15 Jan 2013 13:50
9	1	01151309.d	1.	1212960-006B		15 Jan 2013 14:07
10	1	01151310.d	1.	1212960-007B		15 Jan 2013 14:31
11	1	01151311.d	1.	1212960-008B		15 Jan 2013 15:11
12	1	01151312.d	1.	1212960-009B		15 Jan 2013 15:49
13	1	01151313.d	1.	1212960-010B		15 Jan 2013 16:03
14	1	01151314.d	1.	1212960-011B		15 Jan 2013 16:17
15	1	01151315.d	1.	1212960-011BDUP		15 Jan 2013 16:31
16	1	01151316.d	1.	CCV-011513 TCD-B		15 Jan 2013 16:46
17	1	01151317.d	1.	CRQL-011513 TCD-B		15 Jan 2013 17:02
18	1	01151318.d	1.	1212960-010B		15 Jan 2013 17:55
19	1	01151319.d	1.	CCV-011513 TCD-C		15 Jan 2013 18:14

RTI Laboratories

ANALYTICAL RUN Summary

17-Jan-13

RunNo 55426

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1092495	MBLK-011513 TCD-A	ASTM-D2504	MBLK	ıTA\011513\0115	1/15/2013 11:16:	1	R55426		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Carbon Monoxide	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Methane	A	% v/v	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	0.011	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U
Oxygen	A	% v/v	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	U

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1092496	CCV-011513 TCD-A	ASTM-D2504	CCV	ıTA\011513\0115	1/15/2013 11:31:	1	R55426		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.605	2.605		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Carbon Monoxide	A	% v/v	2.708	2.708		2.5	0	0	0.025	0.1	0	108%	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	2.101	2.101		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	% v/v	2.822	2.822		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Oxygen	A	% v/v	2.709	2.709		2.5	0	0	0.025	0.1	0	108%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1092497	LCS-011513 TCD	ASTM-D2504	LCS	ıTA\011513\0115	1/15/2013 11:46:	1	R55426		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	2.575	2.575		2.5	0	2.605	0.025	0.1	0	103%	70	130	1%	
Carbon Monoxide	A	% v/v	2.69	2.69		2.5	0	2.708	0.025	0.1	0	108%	70	130	1%	
Ethane	A	% v/v		0		0	0	0	0.025	0.5	0	0%	70	130	0%	U
Hydrogen	A	% v/v		0		0	0	0	0.025	0.5	0	0%	70	130	0%	U

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1092510	CCV-011513 TCD-B	ASTM-D2504	CCV	ATA\011513\0115	1/15/2013 4:46:0	1	R55426		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.605	2.605		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Carbon Monoxide	A	% v/v	2.485	2.485		2.5	0	0	0.025	0.1	0	99%	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	2.086	2.086		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	% v/v	2.79	2.79		2.5	0	0	0.025	0.1	0	112%	85	115	0%	
Oxygen	A	% v/v	2.695	2.695		2.5	0	0	0.025	0.1	0	108%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1092511	CRQL-011513 TCD-B	ASTM-D2504	CRQL	ATA\011513\0115	1/15/2013 5:02:0	1	R55426		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	0.315	0.315		0.3	0	0	0.025	0.1	0	105%	80	120	0%	
Carbon Monoxide	A	% v/v	0.138	0.138		0.14	0	0	0.025	0.1	0	99%	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	0.089	0.089		0.09	0	0	0.025	0.5	0	99%	80	120	0%	
Nitrogen	A	% v/v	1.436	1.436		1.39	0	0	0.025	0.1	0	103%	80	120	0%	
Oxygen	A	% v/v	0.078	0.078		0.08	0	0	0.025	0.1	0	98%	80	120	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
1092532	1212960-010B (Container-01 of 01)	ASTM-D2504	SAMP	ATA\011513\0115	1/15/2013 5:55:0	1	R55426		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	7.378	7.378		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	% v/v	0.428	0.428		0	0	0	0.025	0.1	0	0%	0	0	0%	
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	0.02	0		0	0	0	0.025	0.5	0	0%	0	0	0%	U
Nitrogen	A	% v/v	87.898	87.898		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	% v/v	6.629	6.629		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
1092533	CCV-011513 TCD-C	ASTM-D2504	CCV	ıTA\011513\0115	1/15/2013 6:14:0	1	R55426		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	% v/v	2.622	2.622		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Carbon Monoxide	A	% v/v	2.724	2.724		2.5	0	0	0.025	0.1	0	109%	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	2.092	2.092		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	% v/v	2.822	2.822		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Oxygen	A	% v/v	2.722	2.722		2.5	0	0	0.025	0.1	0	109%	85	115	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\011513\01151302.D Vial: 1
Acq On : 15 Jan 2013 11:31 am Operator:
Sample : CCV-011513 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.709	-8.4	0	0.06
2	Nitrogen	2.500	2.822	-12.9	0	0.05
3	Carbon Monoxide	2.500	2.708	-8.3	0	0.07
4	Methane	2.000	2.101	-5.0	0	0.07
5	Carbon dioxide	2.500	2.605	-4.2	0	0.11

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\011513\01151302.D Vial: 1
Acq On : 15 Jan 2013 11:31 am Operator:
Sample : CCV-011513 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
09141202.D 122712.M Tue Jan 15 17:19:16 2013

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\011513\01151302.D Vial: 1
Acq On : 15 Jan 2013 11:31 am Operator:
Sample : CCV-011513 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 15 11:45 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 13:11:57 2013
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.16	389446	2.709 % v/v
2)	Nitrogen	2.35	478864	2.822 % v/v
3)	Carbon Monoxide	3.05f	435680	2.708 % v/v
4)	Methane	5.67f	294313	2.101 % v/v
5)	Carbon dioxide	9.29	527384	2.605 % v/v

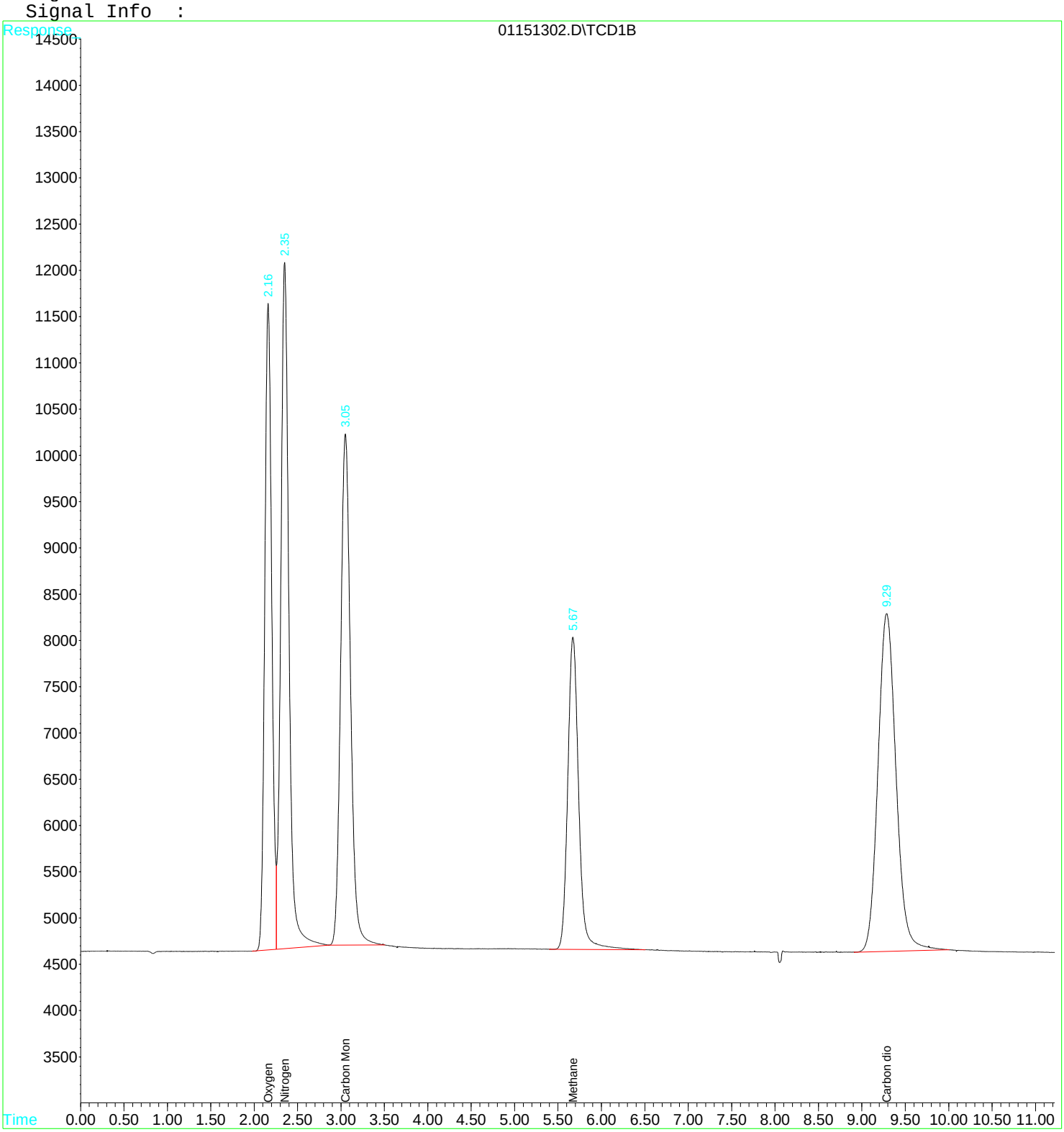
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\011513\01151302.D Vial: 1
Acq On : 15 Jan 2013 11:31 am Operator:
Sample : CCV-011513 TCD-A Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 15 11:45 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 13:11:57 2013
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\011513\01151316.D Vial: 1
Acq On : 15 Jan 2013 4:46 pm Operator:
Sample : CCV-011513 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.695	-7.8	0	0.06
2	Nitrogen	2.500	2.790	-11.6	0	0.05
3	Carbon Monoxide	2.500	2.485	0.6	0	0.07
4	Methane	2.000	2.086	-4.3	0	0.07
5	Carbon dioxide	2.500	2.605	-4.2	0	0.10

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\011513\01151316.D Vial: 1
Acq On : 15 Jan 2013 4:46 pm Operator:
Sample : CCV-011513 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
09141202.D 122712.M Tue Jan 15 17:19:28 2013

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\011513\01151316.D Vial: 1
Acq On : 15 Jan 2013 4:46 pm Operator:
Sample : CCV-011513 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 15 17:00 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 13:11:57 2013
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.16	387454	2.695 % v/v
2)	Nitrogen	2.35	473495	2.790 % v/v
3)	Carbon Monoxide	3.05f	399866	2.485 % v/v
4)	Methane	5.67f	292156	2.086 % v/v
5)	Carbon dioxide	9.28	527426	2.605 % v/v

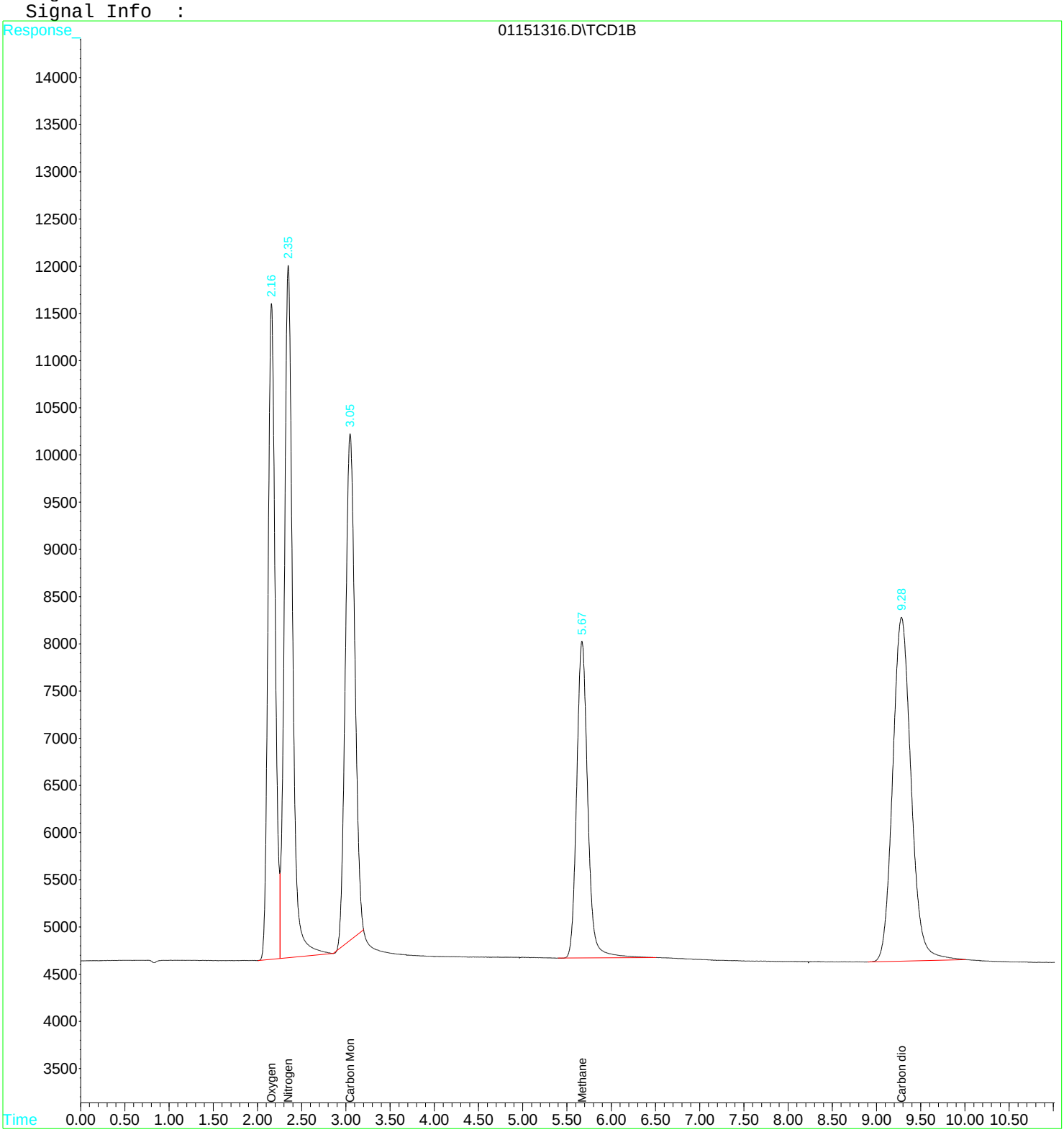
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\011513\01151316.D Vial: 1
Acq On : 15 Jan 2013 4:46 pm Operator:
Sample : CCV-011513 TCD-B Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 15 17:00 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 13:11:57 2013
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\011513\01151319.D Vial: 1
Acq On : 15 Jan 2013 6:14 pm Operator:
Sample : CCV-011513 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.722	-8.9	0	0.06
2	Nitrogen	2.500	2.822	-12.9	0	0.05
3	Carbon Monoxide	2.500	2.724	-9.0	0	0.07
4	Methane	2.000	2.092	-4.6	0	0.07
5	Carbon dioxide	2.500	2.622	-4.9	0	0.11

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\011513\01151319.D Vial: 1
Acq On : 15 Jan 2013 6:14 pm Operator:
Sample : CCV-011513 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
09141202.D 122712.M Tue Jan 15 18:31:25 2013

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\011513\01151319.D Vial: 1
Acq On : 15 Jan 2013 6:14 pm Operator:
Sample : CCV-011513 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 15 18:26 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 13:11:57 2013
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.16	391298	2.722 % v/v
2)	Nitrogen	2.35	478957	2.822 % v/v
3)	Carbon Monoxide	3.05f	438178	2.724 % v/v
4)	Methane	5.67f	292991	2.092 % v/v
5)	Carbon dioxide	9.29	530673	2.622 % v/v

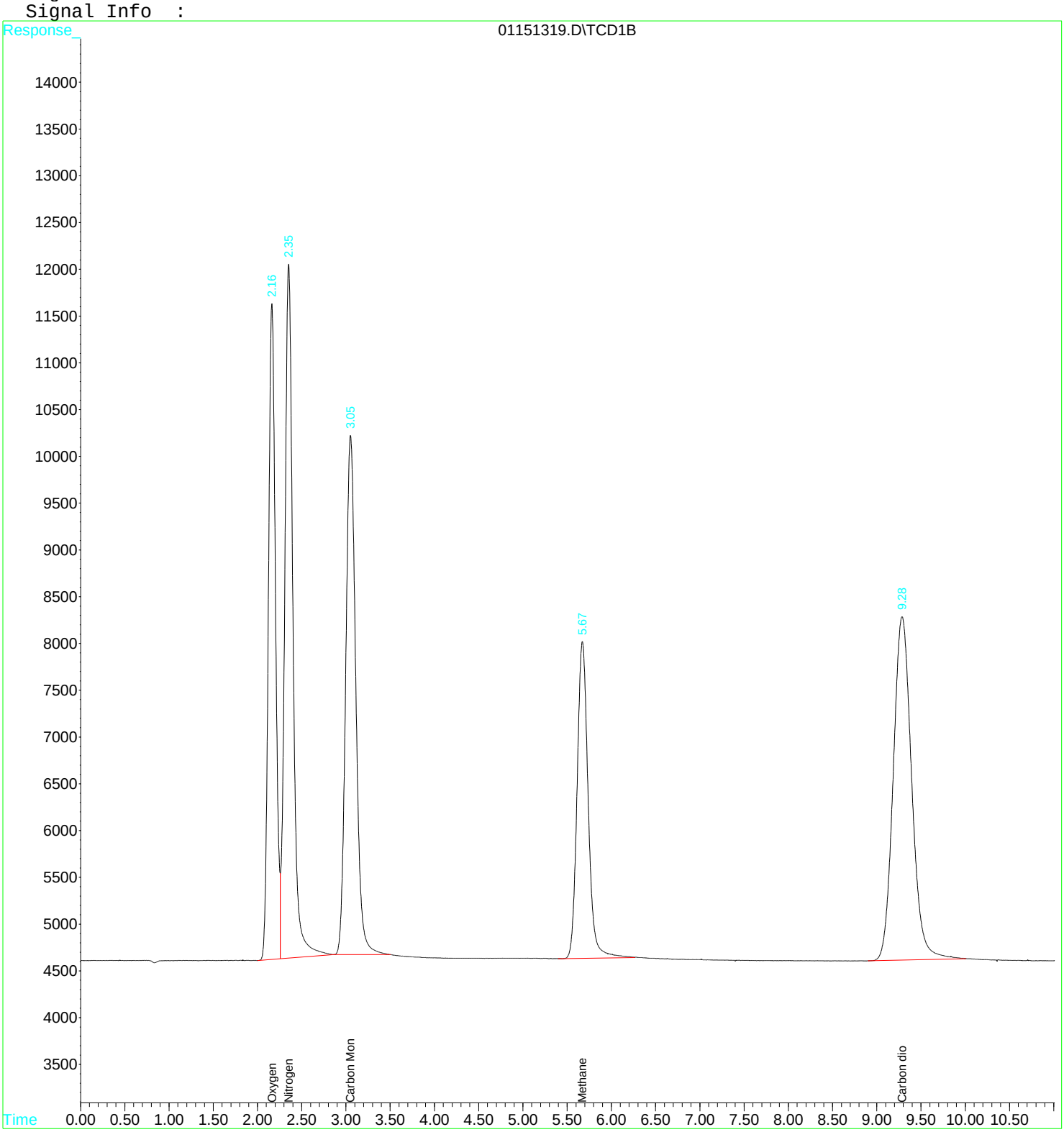
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\011513\01151319.D Vial: 1
Acq On : 15 Jan 2013 6:14 pm Operator:
Sample : CCV-011513 TCD-C Inst : GC/TCD
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 15 18:26 2013 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 14 13:11:57 2013
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report GC/TCD

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012

Calibration Files
1 =12271202.D 2 =12271203.D 3 =12271204.D
4 =12271205.D 5 =12271206.D 6 =12271207.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1)	Oxygen	1.410	1.434	1.387	1.407	1.380	1.419	1.437	E5	5.91
2)	Nitrogen	1.726	1.705	1.684	1.662	1.628	1.708	1.697	E5	2.65
3)	Carbon Monoxide	1.667	1.631	1.610	1.584	1.547	1.614	1.609	E5	2.55
4)	Methane	1.447	1.416	1.401	1.379	1.352	1.409	1.401	E5	2.32
5)	Carbon dioxide	2.098	2.066	2.016	1.985	1.938	2.043	2.024	E5	2.85

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

122712.M Mon Dec 31 12:30:47 2012

Compound List Report GC/TCD

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Initial Calibration
Total Cpnds : 5

PK#	Type	Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1		Oxygen	2.10	1.000	A	A	R
2		Nitrogen	2.30	1.000	A	A	R
3		Carbon Monoxide	2.98	1.000	A	A	R
4		Methane	5.60	1.000	A	A	R
5		Carbon dioxide	9.18	1.000	A	A	R

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

122712.M Mon Dec 31 12:30:38 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122712CA\12271210.D Vial: 10
Acq On : 27 Dec 2012 5:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.720	-8.8	0	0.04
2	Nitrogen	2.500	2.866	-14.6	0	0.03
3	Carbon Monoxide	2.500	2.697	-7.9	0	0.04
4	Methane	2.000	2.094	-4.7	0	0.04
5	Carbon dioxide	2.500	2.595	-3.8	0	0.05

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\122712CA\12271210.D Vial: 10
Acq On : 27 Dec 2012 5:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
09141202.D 122712.M Mon Dec 31 12:30:21 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122712CA\12271210.D Vial: 10
Acq On : 27 Dec 2012 5:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 27 18:16 2012 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

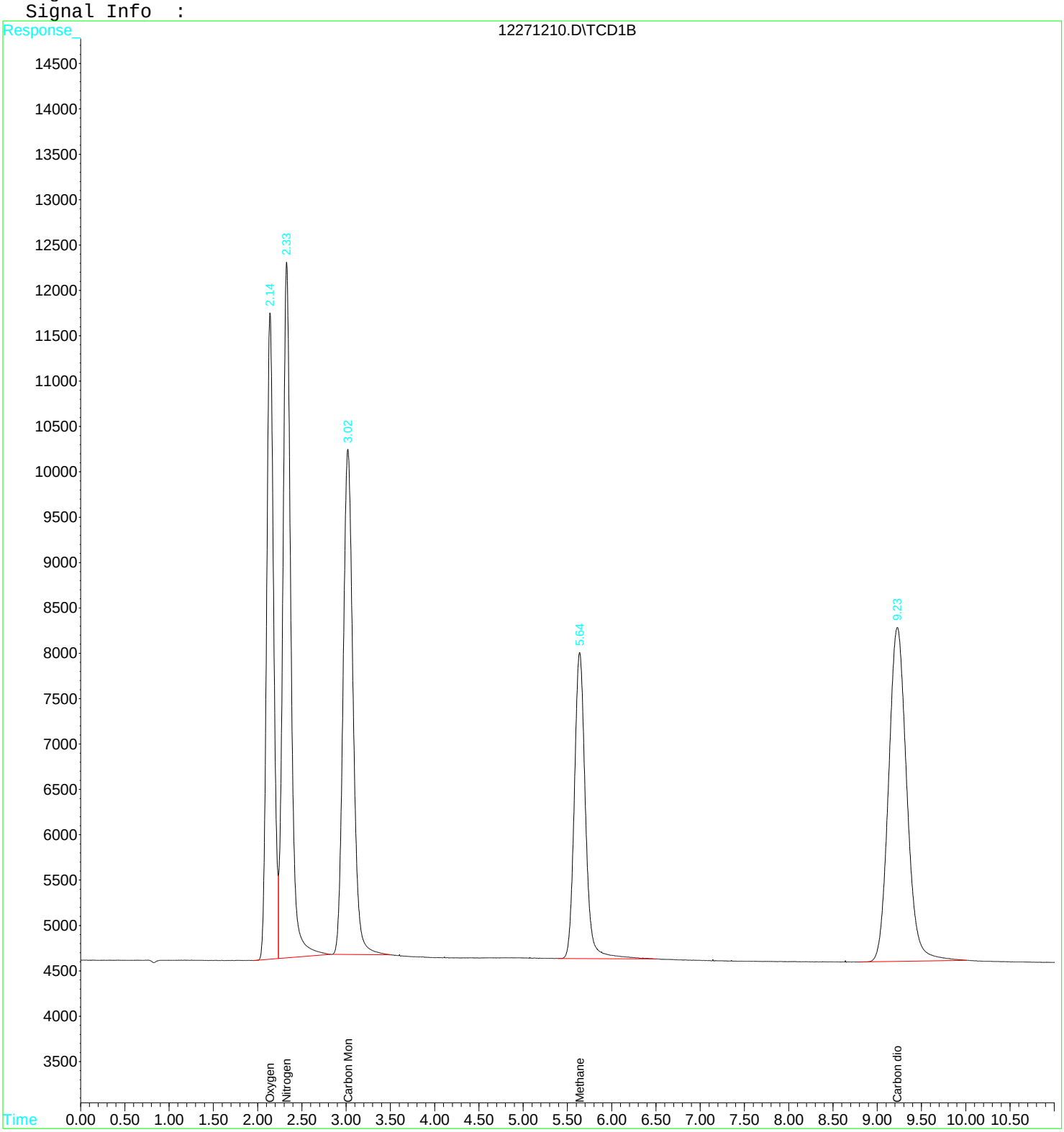
Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	391029	2.720 % v/v
2)	Nitrogen	2.33	486424	2.866 % v/v
3)	Carbon Monoxide	3.02	433862	2.697 % v/v
4)	Methane	5.64	293278	2.094 % v/v
5)	Carbon dioxide	9.23	525284	2.595 % v/v

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122712CA\12271210.D Vial: 10
Acq On : 27 Dec 2012 5:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Dec 27 18:16 2012 Quant Results File: 122712.RES

Quant Method : C:\HPCHEM\2\METHODS\122712.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 27 18:13:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :