RTI Laboratories, Inc.

Date: *26-Jul.-12*

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: 1206396

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 6/20/2012 in good condition. The sample set consisted of 25 air samples.

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

QUALITY CONTROL:

Volatile Organic Compounds Analyses:

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

Surrogate recoveries were within established control limits.

Analytical Sequence ID 49456:
- Sample ID 1206396-018ADUP exhibited RPD results outside acceptance limits for Acetone (200%).

Analytical Sequence ID 49530:
- Sample ID 1206517-005Adup exhibited RPD results outside acceptance limits for Acetone (200%), Ethylbenzene (200%),

Analytical Sequence ID 49570:
- Sample ID 1206517-013ADUP exhibited RPD results outside acceptance limits for Acetone (200%).

Analytical Sequence ID 49594:
- Sample ID 1206517-018ADUP exhibited RPD results outside acceptance limit for o-Xylene (200%), Xylenes, Total (41.3%).

RTI Laboratories, Inc.

Date: *26-Jul.-12*

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CO#: 501
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Work Order: 1206396

CASE NARRATIVE

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.

Fixed Gases (Noncondensable Gases/Light Hydrocarbons) Analyses:

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

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

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

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

Signed:__ _____for_____Date: July 26, 2012_____
Charles O'Bryan, Director, Quality Management

RTI Laboratories - Definitions and Acronyms

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

DEFINITIONS:

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

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

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

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

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

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

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

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

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

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

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

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

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

Qual: Qualifier that applies to the analyte reported

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

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

QUALIFIERS:

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

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

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

G: CCB result is greater than 1/2 the LOQ

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

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Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV090

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

Samples Shipment Date: 05 JUN 2012
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/2323121393

1206396

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: 6/5/12 Time: 1400	1. Received By (Signature/Affiliation) [illegible]	Date: 6-20-12 Time: 10:47
2. Relinquished By (Signature/Affiliation)	Date: Time:	2. Received By (Signature/Affiliation)	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:	3. Received By (Signature/Affiliation)	Date: Time:

Comments:

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA1320	SVMW-02-050-GS-VA1320-REG	04 JUN 2012	8:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1320	SVMW-02-050-GS-VA1320-REG	04 JUN 2012	8:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0777
VA1321	SVMW-02-100-GS-VA1321-REG	04 JUN 2012	9:18	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0806
VA1321	SVMW-02-100-GS-VA1321-REG	04 JUN 2012	9:18	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1322	SVMW-02-150-GS-VA1322-REG	04 JUN 2012	9:51	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0587
VA1322	SVMW-02-150-GS-VA1322-REG	04 JUN 2012	9:51	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1341	SVMW-07-050-GS-VA1341-REG	05 JUN 2012	8:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		

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Shaw E & I, Inc.

1206396

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV090

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
							MA DEP, VOCs / TPH by TO-15					
VA1341	SVMW-07-050-GS-VA1341-REG	05 JUN 2012	8:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1342	SVMW-07-100-GS-VA1342-REG	05 JUN 2012	9:03	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1342	SVMW-07-100-GS-VA1342-REG	05 JUN 2012	9:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1343	SVMW-07-100-GS-VA1343-FD	05 JUN 2012	9:03	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1343	SVMW-07-100-GS-VA1343-FD	05 JUN 2012	9:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1344	SVMW-07-150-GS-VA1344-REG	05 JUN 2012	9:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1344	SVMW-07-150-GS-VA1344-REG	05 JUN 2012	9:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1431	KAFB-106113-020-GS-VA1431-REG	04 JUN 2012	11:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0623
VA1431	KAFB-106113-020-GS-VA1431-REG	04 JUN 2012	11:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1432	KAFB-106113-050-GS-VA1432-REG	04 JUN 2012	12:12	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1103
VA1432	KAFB-106113-050-GS-VA1432-REG	04 JUN 2012	12:12	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1433	KAFB-106113-150-GS-VA1433-REG	04 JUN 2012	13:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0699
VA1433	KAFB-106113-150-GS-VA1433-REG	04 JUN 2012	13:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1434	KAFB-106113-250-GS-VA1434-REG	04 JUN 2012	15:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0617
VA1434	KAFB-106113-250-GS-VA1434-REG	04 JUN 2012	15:06	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1435	KAFB-106113-250-GS-VA1435-FD	04 JUN 2012	15:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0593
VA1435	KAFB-106113-250-GS-VA1435-FD	04 JUN 2012	15:06	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1436	KAFB-106113-350-GS-VA1436-REG	04 JUN 2012	15:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0657
VA1436	KAFB-106113-350-GS-VA1436-REG	04 JUN 2012	15:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1437	KAFB-106113-450-GS-VA1437-REG	04 JUN 2012	16:24	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0611
VA1437	KAFB-106113-450-GS-VA1437-REG	04 JUN 2012	16:24	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1444	KAFB-106115-025-GS-VA1444-REG	04 JUN 2012	8:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1444	KAFB-106115-025-GS-VA1444-REG	04 JUN 2012	8:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1445	KAFB-106115-050-GS-VA1445-REG	04 JUN 2012	9:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1445	KAFB-106115-050-GS-VA1445-REG	04 JUN 2012	9:06	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1446	KAFB-106115-150-GS-VA1446-REG	04 JUN 2012	9:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1446	KAFB-106115-150-GS-VA1446-REG	04 JUN 2012	9:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		

Shaw
Shaw E & I, Inc. 1206396

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV090

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA1447	KAFB-106115-150-GS-VA1447-FD	04 JUN 2012	9:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1447	KAFB-106115-150-GS-VA1447-FD	04 JUN 2012	9:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1448	KAFB-106115-250-GS-VA1448-REG	04 JUN 2012	10:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1448	KAFB-106115-250-GS-VA1448-REG	04 JUN 2012	10:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1449	KAFB-106115-350-GS-VA1449-REG	04 JUN 2012	11:37	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1449	KAFB-106115-350-GS-VA1449-REG	04 JUN 2012	11:37	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1450	KAFB-106115-450-GS-VA1450-REG	04 JUN 2012	12:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1450	KAFB-106115-450-GS-VA1450-REG	04 JUN 2012	12:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1465	KAFB-106118-025-GS-VA1465-REG	04 JUN 2012	15:53	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1465	KAFB-106118-025-GS-VA1465-REG	04 JUN 2012	15:53	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1466	KAFB-106118-050-GS-VA1466-REG	05 JUN 2012	11:10	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1466	KAFB-106118-050-GS-VA1466-REG	05 JUN 2012	11:10	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1467	KAFB-106118-160-GS-VA1467-REG	05 JUN 2012	11:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1467	KAFB-106118-160-GS-VA1467-REG	05 JUN 2012	11:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA8090-TB	FIELDQC-AQ-VA8090-TB-TB	04 JUN 2012	08:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		0281

(VA1485 KAFB106121-050 31 May 2012 0904 1 L Tedlar Bag 1 None Required Fixed Gases by ASTM D2504 N)
missed in last shipment on 5/31/12

FROM:
RONDA BAILEY
(505) 917-0645
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS 1 OF 4
DWT: 20,14,12

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4083 8547

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

REF 1:140705
REF 2:BB010030

BILLING: P/P
HAZARDOUS MATERIALS - GROUND ONLY

CUSTODY SEAL
DATE 6/5/12
SIGNATURE

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

United States

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1Z10335E0340838547 Updated: 06/20/2012 5:43 P.M. Eastern Time

Delivered

Delivered On:
Wednesday, 06/20/2012 at 10:47 A.M.

Left At:
Receiver

Signed By:
FLORES

Proof of Delivery

Request Status Updates »

Shipping Information

To: LIVONIA, MI, US

Shipped By

UPS Ground

UPS MY CHOICE™
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Additional Information

Multiple Packages:	4
Shipped/Billed On:	06/05/2012
Type:	Package
Weight:	20.00 lbs

Shipment Progress What's This?

Packages in this Shipment (Total Packages: 4)

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Armando Flores

From: Deb Griffiths [dgriffiths@rtilab.com]
Sent: Wednesday, June 13, 2012 2:03 PM
To: 'Moss, Pamela J'
Cc: 'Armando Flores'; cmein@rtilab.com
Subject: Missing Samples

Pam:

Attached is the COC that contains the missing samples. The samples highlighted in yellow are missing. At this point our plan is to login the samples that we have received and note that the remaining samples have not been received. Please let us know if this plan is acceptable. Thank you so much.

Sincerely,

Deborah Griffiths
Director, Project Management
RTI Laboratories
31628 Glendale St.
Livonia, MI 48150
PH: (734) 422-8000 x214
Cell: (317) 379-7994

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV090

Project Number: 140705
Project Name: Kirtland AFB
Sample Coordinator: Mark Lyon
Turnaround Time: 1206396

Samples Shipment Date: 05 JUN 2012
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/2323121393

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 Nolan	Date: 6/5/12 Time: 1400	1. Received By (Signature/Affiliation) A. Lo Flore / RTI Labs	Date: 6-7-12 Time: 1083
2. Relinquished By (Signature/Affiliation)	Date: Time:	2. Received By (Signature/Affiliation)	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:	3. Received By (Signature/Affiliation)	Date: Time:

Comments:

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA1320	SVMW-02-050-GS-VA1320-REG	04 JUN 2012	8:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1320	SVMW-02-050-GS-VA1320-REG	04 JUN 2012	8:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1321	SVMW-02-100-GS-VA1321-REG	04 JUN 2012	9:18	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1321	SVMW-02-100-GS-VA1321-REG	04 JUN 2012	9:18	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1322	SVMW-02-150-GS-VA1322-REG	04 JUN 2012	9:51	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1322	SVMW-02-150-GS-VA1322-REG	04 JUN 2012	9:51	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1341	SVMW-07-050-GS-VA1341-REG	05 JUN 2012	8:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		0063

Shaw™
Shaw E & I, Inc. 1206396

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV090

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
							MA DEP, VOCs / TPH by TO-15					
VA1341	SVMW-07-050-GS-VA1341-REG	05 JUN 2012	8:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1342	SVMW-07-100-GS-VA1342-REG	05 JUN 2012	9:03	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0659
VA1342	SVMW-07-100-GS-VA1342-REG	05 JUN 2012	9:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1343	SVMW-07-100-GS-VA1343-FD	05 JUN 2012	9:03	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		541
VA1343	SVMW-07-100-GS-VA1343-FD	05 JUN 2012	9:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1344	SVMW-07-150-GS-VA1344-REG	05 JUN 2012	9:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0707
VA1344	SVMW-07-150-GS-VA1344-REG	05 JUN 2012	9:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1431	KAFB-106113-020-GS-VA1431-REG	04 JUN 2012	11:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1431	KAFB-106113-020-GS-VA1431-REG	04 JUN 2012	11:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1432	KAFB-106113-050-GS-VA1432-REG	04 JUN 2012	12:12	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1432	KAFB-106113-050-GS-VA1432-REG	04 JUN 2012	12:12	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1433	KAFB-106113-150-GS-VA1433-REG	04 JUN 2012	13:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1433	KAFB-106113-150-GS-VA1433-REG	04 JUN 2012	13:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1434	KAFB-106113-250-GS-VA1434-REG	04 JUN 2012	15:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1434	KAFB-106113-250-GS-VA1434-REG	04 JUN 2012	15:06	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1435	KAFB-106113-250-GS-VA1435-FD	04 JUN 2012	15:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1435	KAFB-106113-250-GS-VA1435-FD	04 JUN 2012	15:06	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1436	KAFB-106113-350-GS-VA1436-REG	04 JUN 2012	15:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1436	KAFB-106113-350-GS-VA1436-REG	04 JUN 2012	15:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1437	KAFB-106113-450-GS-VA1437-REG	04 JUN 2012	16:24	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1437	KAFB-106113-450-GS-VA1437-REG	04 JUN 2012	16:24	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1444	KAFB-106115-025-GS-VA1444-REG	04 JUN 2012	8:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0595
VA1444	KAFB-106115-025-GS-VA1444-REG	04 JUN 2012	8:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1445	KAFB-106115-050-GS-VA1445-REG	04 JUN 2012	9:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0681
VA1445	KAFB-106115-050-GS-VA1445-REG	04 JUN 2012	9:06	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1446	KAFB-106115-150-GS-VA1446-REG	04 JUN 2012	9:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0685
VA1446	KAFB-106115-150-GS-VA1446-REG	04 JUN 2012	9:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		

Shaw™
Shaw E & I, Inc. 1206396

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV090

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA1447	KAFB-106115-150-GS-VA1447-FD	04 JUN 2012	9:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0752
VA1447	KAFB-106115-150-GS-VA1447-FD	04 JUN 2012	9:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		~~0770~~
VA1448	KAFB-106115-250-GS-VA1448-REG	04 JUN 2012	10:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0770
VA1448	KAFB-106115-250-GS-VA1448-REG	04 JUN 2012	10:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1449	KAFB-106115-350-GS-VA1449-REG	04 JUN 2012	11:37	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0548
VA1449	KAFB-106115-350-GS-VA1449-REG	04 JUN 2012	11:37	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1450	KAFB-106115-450-GS-VA1450-REG	04 JUN 2012	12:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0730
VA1450	KAFB-106115-450-GS-VA1450-REG	04 JUN 2012	12:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1465	KAFB-106118-025-GS-VA1465-REG	04 JUN 2012	15:53	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0566
VA1465	KAFB-106118-025-GS-VA1465-REG	04 JUN 2012	15:53	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1466	KAFB-106118-050-GS-VA1466-REG	05 JUN 2012	11:10	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0577
VA1466	KAFB-106118-050-GS-VA1466-REG	05 JUN 2012	11:10	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1467	KAFB-106118-160-GS-VA1467-REG	05 JUN 2012	11:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0794
VA1467	KAFB-106118-160-GS-VA1467-REG	05 JUN 2012	11:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA8090-TB	FIELDOC-AO-VA8090-TB-TB	04 JUN 2012	08:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		

(VA1485 KAFB106121-050 31May2012 0904 1 L Tedlar Bag 1 None Required Fixed Gases by ASTM D2504 N)

mixed in last shipment on 5/31/12

FROM:
RONDA BAILEY
(505) 917-0645
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

20 LBS 2 OF 4
DWT: 20,14,13

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4133 0557

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

REF 1:140705
REF 2:BB010030

BILLING: P/P

CUSTODY SEAL
DATE 6/5/12
SIGNATURE

QEC Quality 800-25

Fold here and place in label pouch

VA 1341 0663
VA 1342 0059
VA 1343 541
VA 1344 0707
VA 1444 0595
VA 1445 0681
VA 1446 0685
VA 1447 0752
VA 1448 0770
VA 1449 548
VA 1450 0730
VA 1465 546

FROM:
RONDA BAILEY
(505) 917-0645
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

10 LBS 3 OF 4
DWT: 12.12.13

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4019 7169

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

REF 1:140705
REF 2:BB010030

BILLING: P/P

CUSTODY SEAL
DATE 6/5/2012
SIGNATURE [illegible]

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

Fold here and place in label pouch

VA1466 0577
VA1467 0794

Regulators

FROM:
RONDA BAILEY
(505) 917-0645
KAFB BFF/SHAW E & I, INC.
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

10 LBS 4 OF 4
DWT: 24,13,15

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4275 4375

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

REF 1:140705
REF 2:BB010030

BILLING: P/P

CUSTODY SEAL
DATE 6/5/12
SIGNATURE

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

Tedlar
Bags

Armando Flores

From: Moss, Pamela J [pamela.moss@shawgrp.com]
Sent: Wednesday, June 13, 2012 1:31 PM
To: Armando Flores
Subject: RE: UPS Tracking Notification, Tracking Number 1Z10335E0340838547

Armando,
Can you plz send us the login report so I know which samples were received in the shipment for the other 3 boxes ? thank you

---

From: Armando Flores [mailto:aflores@rtilab.com]
Sent: Tuesday, June 12, 2012 8:38 AM
To: Moss, Pamela J
Subject: FW: UPS Tracking Notification, Tracking Number 1Z10335E0340838547

Pamela,

RTI did not receive this package on 6/11/12 with the other three packages. Trying to locate through UPS.

Armando Flores
RTI Laboratories

-----Original Message-----
From: UPS Quantum View [mailto:auto-notify@ups.com]
Sent: Tuesday, June 12, 2012 10:34 AM
To: aflores@rtilab.com
Subject: UPS Tracking Notification, Tracking Number 1Z10335E0340838547

At the request of Armando Flores, this notice alerts you of the status of the shipment listed below.
Message from Armando Flores:
This package was not delivered with the other three.
Tracking Detail

Tracking Number:	1Z10335E0340838547
Type:	Package
Status:	**In Transit**
Shipped To:	LIVONIA,MI,US
Shipped/Billed On:	06/05/2012
Service:	UPS Ground
Weight:	20.00 Lbs
Multiple Packages:	4

Shipment Progress

Location	Date	Local Time	Activity

Albuquerque, NM, United States	06/05/2012	8:34 P.M.	Origin Scan
United States	06/05/2012	3:20 P.M.	Order Processed: Ready for UPS

Tracking results provided by UPS: 06/12/2012 10:33 A.M. Eastern Time

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RTI LABORATORIES, INC.

RTI Laboratories
31628 Glendale St.
Livonia, MI 48150
TEL: (734) 422-8000 FAX: (734) 422-5342
Website: www.rtilab.com

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received **6/20/2012 10:47:00 AM**

Work Order Number **1206396** RcptNo: **1**

Received by: **Armando Flores**

Completed by

Reviewed by:

Completed Date: 6/18/2012 10:47:36 AM

Reviewed Date: 6/27/2012 9:55:11 AM

Carrier name: FedEx

Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐	Not Present	☐
Are matrices correctly identified on Chain of custody?	Yes ☑	No ☐		
Is it clear what analyses were requested?	Yes ☑	No ☐		
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present	☑
Samples in proper container/bottle?	Yes ☑	No ☐		
Were correct preservatives used and noted?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
Were container lables complete (ID, Pres, Date)?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Was an attempt made to cool the samples?	Yes ☐	No ☑		
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☐	No ☑		
Response when temperature is outside of range:	Not required			
Preservative added to bottles:				
Sample Temp. taken and recorded upon receipt?	Yes ☐	No ☑	To	ºC
Water - Were bubbles absent in VOC vials?	Yes ☐	No ☐	No Vials	☑
Water - Was there Chlorine Present?	Yes ☐	No ☐	NA	☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	No Water	☑
Are Samples considered acceptable?	Yes ☑	No ☐		
Custody Seals present?	Yes ☑	No ☐		
Traffic Report or Packing Lists present?	Yes ☐	No ☑		
Airbill or Sticker?	Air Bill ☑	Sticker ☐	Not Present	☐
Airbill No:	See Comments			
Sample Tags Present?	Yes ☐	No ☑		
Sample Tags Listed on COC?	Yes ☐	No ☑		
Tag Numbers:				
Sample Condition?	Intact ☑	Broken ☐	Leaking	☐

Case Number: SDG: SAS:

Adjusted? _____ Checked by _____

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

RTI LABORATORIES, INC.

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31628 Glendale St.
Livonia, MI 48150
TEL: (734) 422-8000 FAX: (734) 422-5342
Website: www.rtilab.com

Sample Receipt Checklist

Client Name: **SHA04** Date and Time Received **6/20/2012 10:47:00 AM**

Work Order Number **1206396** RcptNo: 1 Received by: **Armando Flores**

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1206396-001A	Container-01 of 01	Bottle				
1206396-001B	Container-01 of 01	Bottle				
1206396-002A	Container-01 of 01	Bottle				
1206396-002B	Container-01 of 01	Bottle				
1206396-003A	Container-01 of 01	Bottle				
1206396-003B	Container-01 of 01	Bottle				
1206396-004A	Container-01 of 01	Bottle				
1206396-004B	Container-01 of 01	Bottle				
1206396-005A	Container-01 of 01	Bottle				
1206396-005B	Container-01 of 01	Bottle				
1206396-006A	Container-01 of 01	Bottle				
1206396-006B	Container-01 of 01	Bottle				
1206396-007A	Container-01 of 01	Bottle				
1206396-007B	Container-01 of 01	Bottle				
1206396-008A	Container-01 of 01	Bottle				
1206396-008B	Container-01 of 01	Bottle				
1206396-009A	Container-01 of 01	Bottle				
1206396-009B	Container-01 of 01	Bottle				
1206396-010A	Container-01 of 01	Bottle				
1206396-010B	Container-01 of 01	Bottle				
1206396-011A	Container-01 of 01	Bottle				
1206396-011B	Container-01 of 01	Bottle				
1206396-012A	Container-01 of 01	Bottle				
1206396-012B	Container-01 of 01	Bottle				
1206396-013A	Container-01 of 01	Bottle				
1206396-013B	Container-01 of 01	Bottle				
1206396-014A	Container-01 of 01	Bottle				
1206396-014B	Container-01 of 01	Bottle				
1206396-015A	Container-01 of 01	Bottle				

RTI LABORATORIES, INC.

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Livonia, MI 48150
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Website: www.rtilab.com

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received **6/20/2012 10:47:00 AM**

Work Order Number **1206396** RcptNo: **2**

Received by: **Armando Flores**

Completed by

Reviewed by:

Completed Date: 6/21/2012 9:49:13 AM

Reviewed Date:

Carrier name: FedEx

Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐	Not Present	☐
Are matrices correctly identified on Chain of custody?	Yes ☑	No ☐		
Is it clear what analyses were requested?	Yes ☑	No ☐		
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present	☑
Samples in proper container/bottle?	Yes ☑	No ☐		
Were correct preservatives used and noted?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
Were container lables complete (ID, Pres, Date)?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Was an attempt made to cool the samples?	Yes ☐	No ☑		
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☐	No ☑		
Response when temperature is outside of range:	Not required			
Preservative added to bottles:				
Sample Temp. taken and recorded upon receipt?	Yes ☐	No ☑	To	ºC
Water - Were bubbles absent in VOC vials?	Yes ☐	No ☐	No Vials	☑
Water - Was there Chlorine Present?	Yes ☐	No ☐	NA	☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	No Water	☑
Are Samples considered acceptable?	Yes ☑	No ☐		
Custody Seals present?	Yes ☑	No ☐		
Traffic Report or Packing Lists present?	Yes ☐	No ☑		
Airbill or Sticker?	Air Bill ☑	Sticker ☐	Not Present	☐
Airbill No:	1Z10335E0340838547			
Sample Tags Present?	Yes ☐	No ☑		
Sample Tags Listed on COC?	Yes ☐	No ☑		
Tag Numbers:				
Sample Condition?	Intact ☑	Broken ☐	Leaking	☐

Case Number: SDG: SAS:

Adjusted? _____ Checked by _____

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

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Livonia, MI 48150
TEL: (734) 422-8000 FAX: (734) 422-5342
Website: www.rtilab.com

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received **6/20/2012 10:47:00 AM**

Work Order Number **1206396** RcptNo: **2**

Received by: **Armando Flores**

1206396-015B	Container-01 of 01	Bottle
1206396-016A	Container-01 of 01	Bottle
1206396-016B	Container-01 of 01	Bottle
1206396-017A	Container-01 of 01	Bottle
1206396-017B	Container-01 of 01	Bottle
1206396-018A	Container-01 of 01	Bottle
1206396-018B	Container-01 of 01	Bottle
1206396-019A	Container-01 of 01	Bottle
1206396-019B	Container-01 of 01	Bottle
1206396-020A	Container-01 of 01	Bottle
1206396-020B	Container-01 of 01	Bottle
1206396-021A	Container-01 of 01	Bottle
1206396-021B	Container-01 of 01	Bottle
1206396-022A	Container-01 of 01	Bottle
1206396-022B	Container-01 of 01	Bottle
1206396-023A	Container-01 of 01	Bottle
1206396-023B	Container-01 of 01	Bottle
1206396-024A	Container-01 of 01	Bottle
1206396-024B	Container-01 of 01	Bottle
1206396-025A	Container-01 of 01	Bottle

Client Contacted? ☑ Yes ☐ No ☐ NA Person Contacted: Pamela Moss

Contact Mode: ☐ Phone: ☐ Fax: ☑ Email: ☐ In Person:

Client Instructions: Log in what was received.

Date Contacted: 6/13/2012 Contacted By: Deborah Griffiths

Regarding: UPS lost 1 box of samples, 6/20 Update below.

Comments:
UPS Tracking numbers:
1Z10335E0341330557
1Z10335E0340197169
1Z10335E0342754375

6/20 update - UPS delivered missing box. Per client please analyzed all samples received. Dhg.
1Z10335E0340838547 (Missing)

CorrectiveAction:

RTI Laboratories - Workorder Sample Summary

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1206396-001A	VA1320		6/4/2012 8:47 AM	6/20/2012 10:47 AM	Air
1206396-001B	VA1320		6/4/2012 8:47 AM	6/20/2012 10:47 AM	Air
1206396-002A	VA1321		6/4/2012 9:18 AM	6/20/2012 10:47 AM	Air
1206396-002B	VA1321		6/4/2012 9:18 AM	6/20/2012 10:47 AM	Air
1206396-003A	VA1322		6/4/2012 9:51 AM	6/20/2012 10:47 AM	Air
1206396-003B	VA1322		6/4/2012 9:51 AM	6/20/2012 10:47 AM	Air
1206396-004A	VA1341		6/5/2012 8:41 AM	6/20/2012 10:47 AM	Air
1206396-004B	VA1341		6/5/2012 8:41 AM	6/20/2012 10:47 AM	Air
1206396-005A	VA1342		6/5/2012 9:03 AM	6/20/2012 10:47 AM	Air
1206396-005B	VA1342		6/5/2012 9:03 AM	6/20/2012 10:47 AM	Air
1206396-006A	VA1343		6/5/2012 9:03 AM	6/20/2012 10:47 AM	Air
1206396-006B	VA1343		6/5/2012 9:03 AM	6/20/2012 10:47 AM	Air
1206396-007A	VA1344		6/5/2012 9:38 AM	6/20/2012 10:47 AM	Air
1206396-007B	VA1344		6/5/2012 9:38 AM	6/20/2012 10:47 AM	Air
1206396-008A	VA1431		6/4/2012 11:32 AM	6/20/2012 10:47 AM	Air
1206396-008B	VA1431		6/4/2012 11:32 AM	6/20/2012 10:47 AM	Air
1206396-009A	VA1432		6/4/2012 12:12 PM	6/20/2012 10:47 AM	Air
1206396-009B	VA1432		6/4/2012 12:12 PM	6/20/2012 10:47 AM	Air
1206396-010A	VA1433		6/4/2012 1:00 PM	6/20/2012 10:47 AM	Air
1206396-010B	VA1433		6/4/2012 1:00 PM	6/20/2012 10:47 AM	Air
1206396-011A	VA1434		6/4/2012 3:06 PM	6/20/2012 10:47 AM	Air
1206396-011B	VA1434		6/4/2012 3:06 PM	6/20/2012 10:47 AM	Air
1206396-012A	VA1435		6/4/2012 3:06 PM	6/20/2012 10:47 AM	Air
1206396-012B	VA1435		6/4/2012 3:06 PM	6/20/2012 10:47 AM	Air
1206396-013A	VA1436		6/4/2012 3:52 PM	6/20/2012 10:47 AM	Air
1206396-013B	VA1436		6/4/2012 3:52 PM	6/20/2012 10:47 AM	Air
1206396-014A	VA1437		6/4/2012 4:24 PM	6/20/2012 10:47 AM	Air
1206396-014B	VA1437		6/4/2012 4:24 PM	6/20/2012 10:47 AM	Air
1206396-015A	VA1444		6/4/2012 8:32 AM	6/20/2012 10:47 AM	Air
1206396-015B	VA1444		6/4/2012 8:32 AM	6/20/2012 10:47 AM	Air
1206396-016A	VA1445		6/4/2012 9:06 AM	6/20/2012 10:47 AM	Air
1206396-016B	VA1445		6/4/2012 9:06 AM	6/20/2012 10:47 AM	Air
1206396-017A	VA1446		6/4/2012 9:50 AM	6/20/2012 10:47 AM	Air
1206396-017B	VA1446		6/4/2012 9:50 AM	6/20/2012 10:47 AM	Air
1206396-018A	VA1447		6/4/2012 9:50 AM	6/20/2012 10:47 AM	Air
1206396-018B	VA1447		6/4/2012 9:50 AM	6/20/2012 10:47 AM	Air
1206396-019A	VA1448		6/4/2012 10:52 AM	6/20/2012 10:47 AM	Air
1206396-019B	VA1448		6/4/2012 10:52 AM	6/20/2012 10:47 AM	Air
1206396-020A	VA1449		6/4/2012 11:37 AM	6/20/2012 10:47 AM	Air
1206396-020B	VA1449		6/4/2012 11:37 AM	6/20/2012 10:47 AM	Air
1206396-021A	VA1450		6/4/2012 12:20 PM	6/20/2012 10:47 AM	Air
1206396-021B	VA1450		6/4/2012 12:20 PM	6/20/2012 10:47 AM	Air
1206396-022A	VA1465		6/4/2012 3:53 PM	6/20/2012 10:47 AM	Air
1206396-022B	VA1465		6/4/2012 3:53 PM	6/20/2012 10:47 AM	Air
1206396-023A	VA1466		6/5/2012 11:10 AM	6/20/2012 10:47 AM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1206396-023B	VA1466		6/5/2012 11:10 AM	6/20/2012 10:47 AM	Air
1206396-024A	VA1467		6/5/2012 11:47 AM	6/20/2012 10:47 AM	Air
1206396-024B	VA1467		6/5/2012 11:47 AM	6/20/2012 10:47 AM	Air
1206396-025A	VA8090-TB		6/4/2012 8:00 AM	6/20/2012 10:47 AM	Air

RTI Laboratories - DATES REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206396-001A	VA1320	6/4/2012 8:47 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 5:20 PM
				EPA_TO15-Volatile Organic Compounds			6/22/2012 4:31 PM
1206396-001B	VA1320	6/4/2012 8:47 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/20/2012 12:22 PM
1206396-002A	VA1321	6/4/2012 9:18 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 6:03 PM
				EPA_TO15-Volatile Organic Compounds			6/21/2012 8:19 PM
1206396-002B	VA1321	6/4/2012 9:18 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 10:06 AM
1206396-003A	VA1322	6/4/2012 9:51 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 6:47 PM
				EPA_TO15-Volatile Organic Compounds			6/21/2012 9:04 PM
				EPA_TO15-Volatile Organic Compounds			6/22/2012 5:12 PM
1206396-003B	VA1322	6/4/2012 9:51 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/20/2012 12:37 PM
1206396-004A	VA1341	6/5/2012 8:41 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/21/2012 6:19 PM
				EPA_TO15-Volatile Organic Compounds			6/20/2012 10:28 PM
1206396-004B	VA1341	6/5/2012 8:41 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/20/2012 12:52 PM
1206396-005A	VA1342	6/5/2012 9:03 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 7:30 PM
				EPA_TO15-Volatile Organic Compounds			6/19/2012 11:11 PM
1206396-005B	VA1342	6/5/2012 9:03 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/20/2012 1:07 PM
1206396-006A	VA1343	6/5/2012 9:03 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/21/2012 8:35 PM
				EPA_TO15-Volatile Organic Compounds			6/16/2012 3:46 AM

RTI Laboratories - DATES REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206396-006B	VA1343	6/5/2012 9:03 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/20/2012 1:22 PM
1206396-007A	VA1344	6/5/2012 9:38 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/21/2012 9:21 PM
				EPA_TO15-Volatile Organic Compounds			6/18/2012 3:26 PM
1206396-007B	VA1344	6/5/2012 9:38 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/20/2012 1:41 PM
1206396-008A	VA1431	6/4/2012 11:32 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/25/2012 3:14 PM
				EPA_TO15-Volatile Organic Compounds			6/21/2012 9:49 PM
1206396-008B	VA1431	6/4/2012 11:32 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/20/2012 1:56 PM
1206396-009A	VA1432	6/4/2012 12:12 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/25/2012 4:00 PM
				EPA_TO15-Volatile Organic Compounds			6/21/2012 10:34 PM
1206396-009B	VA1432	6/4/2012 12:12 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/20/2012 2:11 PM
1206396-010A	VA1433	6/4/2012 1:00 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/25/2012 4:50 PM
				EPA_TO15-Volatile Organic Compounds			6/22/2012 5:56 PM
1206396-010B	VA1433	6/4/2012 1:00 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/20/2012 2:26 PM
1206396-011A	VA1434	6/4/2012 3:06 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/25/2012 1:38 PM
				EPA_TO15-Volatile Organic Compounds			6/22/2012 7:25 PM
				EPA_TO15-Volatile Organic Compounds			6/23/2012 1:17 PM
1206396-011B	VA1434	6/4/2012 3:06 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/20/2012 2:42 PM

RTI Laboratories - DATES REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206396-012A	VA1435	6/4/2012 3:06 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/25/2012 2:28 PM
				EPA_TO15-Volatile Organic Compounds			6/22/2012 8:09 PM
				EPA_TO15-Volatile Organic Compounds			6/23/2012 1:59 PM
1206396-012B	VA1435	6/4/2012 3:06 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 10:21 AM
1206396-013A	VA1436	6/4/2012 3:52 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/25/2012 5:36 PM
				EPA_TO15-Volatile Organic Compounds			6/22/2012 11:49 PM
1206396-013B	VA1436	6/4/2012 3:52 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 10:37 AM
1206396-014A	VA1437	6/4/2012 4:24 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/25/2012 6:20 PM
				EPA_TO15-Volatile Organic Compounds			6/23/2012 12:34 AM
1206396-014B	VA1437	6/4/2012 4:24 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 10:53 AM
1206396-015A	VA1444	6/4/2012 8:32 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/21/2012 10:11 PM
				EPA_TO15-Volatile Organic Compounds			6/19/2012 11:53 PM
1206396-015B	VA1444	6/4/2012 8:32 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 11:07 AM
1206396-016A	VA1445	6/4/2012 9:06 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/25/2012 7:49 PM
				EPA_TO15-Volatile Organic Compounds			6/20/2012 1:16 AM
1206396-016B	VA1445	6/4/2012 9:06 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 11:23 AM
1206396-017A	VA1446	6/4/2012 9:50 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/21/2012 11:50 PM
				EPA_TO15-Volatile Organic Compounds			6/20/2012 1:57 AM

RTI Laboratories - DATES REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206396-017A	VA1446	6/4/2012 9:50 AM	Air				
				EPA_TO15-Volatile Organic Compounds			6/20/2012 11:13 PM
1206396-017B	VA1446	6/4/2012 9:50 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 11:37 AM
1206396-018A	VA1447	6/4/2012 9:50 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 12:36 AM
				EPA_TO15-Volatile Organic Compounds			6/18/2012 7:35 PM
1206396-018B	VA1447	6/4/2012 9:50 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 11:53 AM
1206396-019A	VA1448	6/4/2012 10:52 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 2:12 AM
				EPA_TO15-Volatile Organic Compounds			6/20/2012 2:39 AM
				EPA_TO15-Volatile Organic Compounds			6/20/2012 11:57 PM
1206396-019B	VA1448	6/4/2012 10:52 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 12:37 PM
1206396-020A	VA1449	6/4/2012 11:37 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 2:55 AM
				EPA_TO15-Volatile Organic Compounds			6/18/2012 9:49 PM
1206396-020B	VA1449	6/4/2012 11:37 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 12:52 PM
1206396-021A	VA1450	6/4/2012 12:20 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 3:41 AM
				EPA_TO15-Volatile Organic Compounds			6/20/2012 3:21 AM
1206396-021B	VA1450	6/4/2012 12:20 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 1:58 PM
1206396-022A	VA1465	6/4/2012 3:53 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 2:11 PM
				EPA_TO15-Volatile Organic Compounds			6/19/2012 6:51 PM
				EPA_TO15-Volatile Organic Compounds			6/20/2012 7:41 AM

RTI Laboratories - DATES REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1206396-022B	VA1465	6/4/2012 3:53 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 2:14 PM
1206396-023A	VA1466	6/5/2012 11:10 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 3:44 PM
				EPA_TO15-Volatile Organic Compounds			6/19/2012 7:36 PM
				EPA_TO15-Volatile Organic Compounds			6/20/2012 8:26 AM
1206396-023B	VA1466	6/5/2012 11:10 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 2:29 PM
1206396-024A	VA1467	6/5/2012 11:47 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			6/22/2012 4:30 PM
				EPA_TO15-Volatile Organic Compounds			6/19/2012 8:21 PM
				EPA_TO15-Volatile Organic Compounds			6/21/2012 12:42 AM
1206396-024B	VA1467	6/5/2012 11:47 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			6/21/2012 2:44 PM
1206396-025A	VA8090-TB	6/4/2012 8:00 AM	Air				
				EPA_TO15-Volatile Organic Compounds			6/22/2012 10:20 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 8:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-001	**Matrix:**	Air
Client Sample ID:	VA1320		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.40	0.10		%	1	6/20/2012 12:22 PM
Carbon Monoxide	ND	0.10	U	%	1	6/20/2012 12:22 PM
Methane	ND	0.50	U	%	1	6/20/2012 12:22 PM
Nitrogen	80	0.10		%	1	6/20/2012 12:22 PM
Oxygen	20	0.10		%	1	6/20/2012 12:22 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,3-Butadiene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
2-Butanone	ND	400	U	ppbv	400	6/22/2012 4:31 PM
2-Hexanone	ND	400	U	ppbv	400	6/22/2012 4:31 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Acetone	1,800	400		ppbv	400	6/22/2012 4:31 PM
Benzene	560	400		ppbv	400	6/22/2012 4:31 PM
Benzyl chloride	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Bromodichloromethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Bromoform	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Bromomethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Carbon disulfide	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Carbon tetrachloride	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Chlorobenzene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Chlorodibromomethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Chloroethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Chloroform	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Chloromethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	6/22/2012 4:31 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 8:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-001	**Matrix:**	Air
Client Sample ID:	VA1320		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,300	800		ppbv	400	6/22/2012 4:31 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Ethyl acetate	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Ethylbenzene	ND	800	U	ppbv	400	6/22/2012 4:31 PM
Heptane	1,900	400		ppbv	400	6/22/2012 4:31 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	6/22/2012 4:31 PM
m,p-Xylene	940	800		ppbv	400	6/22/2012 4:31 PM
Methylene chloride	1,900	2,000	J	ppbv	400	6/22/2012 4:31 PM
n-Hexane	3,100	800		ppbv	400	6/22/2012 4:31 PM
Naphthalene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
o-Xylene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Propylene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Styrene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Tetrachloroethene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Tetrahydrofuran	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Toluene	3,600	400		ppbv	400	6/22/2012 4:31 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Trichloroethene	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Vinyl acetate	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Vinyl chloride	ND	400	U	ppbv	400	6/22/2012 4:31 PM
Xylenes, Total	940	1,200	J	ppbv	400	6/22/2012 4:31 PM
Surr: 4-Bromofluorobenzene	93.4	70-130		%REC	400	6/22/2012 4:31 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	120,000	47,000		µg/m³	400	6/22/2012 5:20 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	6/22/2012 5:20 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	6/22/2012 5:20 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	400	6/22/2012 5:20 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 9:18:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-002	**Matrix:**	Air
Client Sample ID:	VA1321		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	6.9	0.10		%	1	6/21/2012 10:06 AM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 10:06 AM
Methane	ND	0.50	U	%	1	6/21/2012 10:06 AM
Nitrogen	82	0.10		%	1	6/21/2012 10:06 AM
Oxygen	9.4	0.10		%	1	6/21/2012 10:06 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,3-Butadiene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
2-Butanone	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
2-Hexanone	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Acetone	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Benzene	95,000	20,000		ppbv	20000	6/21/2012 8:19 PM
Benzyl chloride	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Bromodichloromethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Bromoform	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Bromomethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Carbon disulfide	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Chlorobenzene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Chloroethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Chloroform	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Chloromethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 9:18:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-002	**Matrix:**	Air
Client Sample ID:	VA1321		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	280,000	40,000		ppbv	20000	6/21/2012 8:19 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Ethyl acetate	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Ethylbenzene	ND	40,000	U	ppbv	20000	6/21/2012 8:19 PM
Heptane	91,000	20,000		ppbv	20000	6/21/2012 8:19 PM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	6/21/2012 8:19 PM
m,p-Xylene	ND	40,000	U	ppbv	20000	6/21/2012 8:19 PM
Methylene chloride	ND	100,000	U	ppbv	20000	6/21/2012 8:19 PM
n-Hexane	170,000	40,000		ppbv	20000	6/21/2012 8:19 PM
Naphthalene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
o-Xylene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Propylene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Styrene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Tetrachloroethene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Toluene	170,000	20,000		ppbv	20000	6/21/2012 8:19 PM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Trichloroethene	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Vinyl acetate	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Vinyl chloride	ND	20,000	U	ppbv	20000	6/21/2012 8:19 PM
Xylenes, Total	ND	60,000	U	ppbv	20000	6/21/2012 8:19 PM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	20000	6/21/2012 8:19 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,900,000	2,300,000		µg/m³	20000	6/22/2012 6:03 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	6/22/2012 6:03 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	6/22/2012 6:03 PM
Surr: 4-Bromofluorobenzene	93.2	70-130		%REC	20000	6/22/2012 6:03 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 9:51:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-003	**Matrix:**	Air
Client Sample ID:	VA1322		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.58	0.10		%	1	6/20/2012 12:37 PM
Carbon Monoxide	ND	0.10	U	%	1	6/20/2012 12:37 PM
Methane	ND	0.50	U	%	1	6/20/2012 12:37 PM
Nitrogen	79	0.10		%	1	6/20/2012 12:37 PM
Oxygen	19	0.10		%	1	6/20/2012 12:37 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,3-Butadiene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
2-Butanone	ND	800	U	ppbv	800	6/21/2012 9:04 PM
2-Hexanone	ND	800	U	ppbv	800	6/21/2012 9:04 PM
4-Methyl-2-pentanone	1,900	800		ppbv	800	6/21/2012 9:04 PM
Acetone	1,400	800		ppbv	800	6/21/2012 9:04 PM
Benzene	29,000	800		ppbv	800	6/21/2012 9:04 PM
Benzyl chloride	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Bromodichloromethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Bromoform	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Bromomethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Carbon disulfide	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Carbon tetrachloride	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Chlorobenzene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Chlorodibromomethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Chloroethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Chloroform	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Chloromethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	6/21/2012 9:04 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 9:51:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-003	**Matrix:**	Air
Client Sample ID:	VA1322		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	62,000	16,000		ppbv	8000	6/22/2012 5:12 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Ethyl acetate	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Ethylbenzene	960	1,600	J	ppbv	800	6/21/2012 9:04 PM
Heptane	17,000	800		ppbv	800	6/21/2012 9:04 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	6/21/2012 9:04 PM
m,p-Xylene	2,800	1,600		ppbv	800	6/21/2012 9:04 PM
Methylene chloride	2,400	4,000	J	ppbv	800	6/21/2012 9:04 PM
n-Hexane	58,000	16,000		ppbv	8000	6/22/2012 5:12 PM
Naphthalene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
o-Xylene	940	800		ppbv	800	6/21/2012 9:04 PM
Propylene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Styrene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Tetrachloroethene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Tetrahydrofuran	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Toluene	30,000	800		ppbv	800	6/21/2012 9:04 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Trichloroethene	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Vinyl acetate	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Vinyl chloride	ND	800	U	ppbv	800	6/21/2012 9:04 PM
Xylenes, Total	3,700	2,400		ppbv	800	6/21/2012 9:04 PM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	800	6/21/2012 9:04 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,600,000	940,000		µg/m³	8000	6/22/2012 6:47 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	6/22/2012 6:47 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	6/22/2012 6:47 PM
Surr: 4-Bromofluorobenzene	93.9	70-130		%REC	8000	6/22/2012 6:47 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 8:41:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-004	**Matrix:**	Air
Client Sample ID:	VA1341		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.42	0.10		%	1	6/20/2012 12:52 PM
Carbon Monoxide	ND	0.10	U	%	1	6/20/2012 12:52 PM
Methane	ND	0.50	U	%	1	6/20/2012 12:52 PM
Nitrogen	80	0.10		%	1	6/20/2012 12:52 PM
Oxygen	19	0.10		%	1	6/20/2012 12:52 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,3-Butadiene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
2-Butanone	ND	40	U	ppbv	40	6/20/2012 10:28 PM
2-Hexanone	ND	40	U	ppbv	40	6/20/2012 10:28 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Acetone	92	40		ppbv	40	6/20/2012 10:28 PM
Benzene	490	40		ppbv	40	6/20/2012 10:28 PM
Benzyl chloride	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Bromodichloromethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Bromoform	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Bromomethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Carbon disulfide	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Carbon tetrachloride	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Chlorobenzene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Chlorodibromomethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Chloroethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Chloroform	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Chloromethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/20/2012 10:28 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 8:41:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-004	**Matrix:**	Air
Client Sample ID:	VA1341		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	410	80		ppbv	40	6/20/2012 10:28 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Ethyl acetate	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Ethylbenzene	140	80		ppbv	40	6/20/2012 10:28 PM
Heptane	610	40		ppbv	40	6/20/2012 10:28 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/20/2012 10:28 PM
m,p-Xylene	400	80		ppbv	40	6/20/2012 10:28 PM
Methylene chloride	93	200	J	ppbv	40	6/20/2012 10:28 PM
n-Hexane	160	80		ppbv	40	6/20/2012 10:28 PM
Naphthalene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
o-Xylene	120	40		ppbv	40	6/20/2012 10:28 PM
Propylene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Styrene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Tetrachloroethene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Tetrahydrofuran	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Toluene	1,600	40		ppbv	40	6/20/2012 10:28 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Trichloroethene	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Vinyl acetate	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Vinyl chloride	ND	40	U	ppbv	40	6/20/2012 10:28 PM
Xylenes, Total	530	120		ppbv	40	6/20/2012 10:28 PM
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	40	6/20/2012 10:28 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	47,000	23,000		µg/m³	200	6/21/2012 6:19 PM
C9-C10 Aromatic Hydrocarbons	ND	27,000	U	µg/m³	200	6/21/2012 6:19 PM
C9-C12 Aliphatic Hydrocarbons	ND	38,000	U	µg/m³	200	6/21/2012 6:19 PM
Surr: 4-Bromofluorobenzene	96.9	70-130		%REC	200	6/21/2012 6:19 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 9:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-005	**Matrix:**	Air
Client Sample ID:	VA1342		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	4.2	0.10		%	1	6/20/2012 1:07 PM
Carbon Monoxide	ND	0.10	U	%	1	6/20/2012 1:07 PM
Methane	ND	0.50	U	%	1	6/20/2012 1:07 PM
Nitrogen	80	0.10		%	1	6/20/2012 1:07 PM
Oxygen	15	0.10		%	1	6/20/2012 1:07 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,3-Butadiene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
2-Butanone	ND	800	U	ppbv	800	6/19/2012 11:11 PM
2-Hexanone	ND	800	U	ppbv	800	6/19/2012 11:11 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Acetone	1,400	800		ppbv	800	6/19/2012 11:11 PM
Benzene	10,000	800		ppbv	800	6/19/2012 11:11 PM
Benzyl chloride	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Bromodichloromethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Bromoform	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Bromomethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Carbon disulfide	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Carbon tetrachloride	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Chlorobenzene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Chlorodibromomethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Chloroethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Chloroform	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Chloromethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	6/19/2012 11:11 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 9:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-005	**Matrix:**	Air
Client Sample ID:	VA1342		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	8,900	1,600		ppbv	800	6/19/2012 11:11 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Ethyl acetate	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Ethylbenzene	2,700	1,600		ppbv	800	6/19/2012 11:11 PM
Heptane	13,000	800		ppbv	800	6/19/2012 11:11 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	6/19/2012 11:11 PM
m,p-Xylene	7,700	1,600		ppbv	800	6/19/2012 11:11 PM
Methylene chloride	ND	4,000	U	ppbv	800	6/19/2012 11:11 PM
n-Hexane	3,100	1,600		ppbv	800	6/19/2012 11:11 PM
Naphthalene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
o-Xylene	2,400	800		ppbv	800	6/19/2012 11:11 PM
Propylene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Styrene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Tetrachloroethene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Tetrahydrofuran	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Toluene	31,000	800		ppbv	800	6/19/2012 11:11 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Trichloroethene	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Vinyl acetate	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Vinyl chloride	ND	800	U	ppbv	800	6/19/2012 11:11 PM
Xylenes, Total	10,000	2,400		ppbv	800	6/19/2012 11:11 PM
Surr: 4-Bromofluorobenzene	93.9	70-130		%REC	800	6/19/2012 11:11 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,600,000	940,000		µg/m³	8000	6/22/2012 7:30 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	6/22/2012 7:30 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	6/22/2012 7:30 PM
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	8000	6/22/2012 7:30 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 9:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-006	**Matrix:**	Air
Client Sample ID:	VA1343		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	3.7	0.10		%	1	6/20/2012 1:22 PM
Carbon Monoxide	ND	0.10	U	%	1	6/20/2012 1:22 PM
Methane	ND	0.50	U	%	1	6/20/2012 1:22 PM
Nitrogen	80	0.10		%	1	6/20/2012 1:22 PM
Oxygen	15	0.10		%	1	6/20/2012 1:22 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,3-Butadiene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
2-Butanone	ND	800	U	ppbv	800	6/16/2012 3:46 AM
2-Hexanone	ND	800	U	ppbv	800	6/16/2012 3:46 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Acetone	900	800		ppbv	800	6/16/2012 3:46 AM
Benzene	11,000	800		ppbv	800	6/16/2012 3:46 AM
Benzyl chloride	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Bromodichloromethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Bromoform	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Bromomethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Carbon disulfide	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Carbon tetrachloride	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Chlorobenzene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Chlorodibromomethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Chloroethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Chloroform	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Chloromethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	6/16/2012 3:46 AM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 9:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-006	**Matrix:**	Air
Client Sample ID:	VA1343		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	21,000	1,600		ppbv	800	6/16/2012 3:46 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Ethyl acetate	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Ethylbenzene	ND	1,600	U	ppbv	800	6/16/2012 3:46 AM
Heptane	4,800	800		ppbv	800	6/16/2012 3:46 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	6/16/2012 3:46 AM
m,p-Xylene	1,200	1,600	J	ppbv	800	6/16/2012 3:46 AM
Methylene chloride	ND	4,000	U	ppbv	800	6/16/2012 3:46 AM
n-Hexane	15,000	1,600		ppbv	800	6/16/2012 3:46 AM
Naphthalene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
o-Xylene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Propylene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Styrene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Tetrachloroethene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Tetrahydrofuran	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Toluene	13,000	800		ppbv	800	6/16/2012 3:46 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Trichloroethene	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Vinyl acetate	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Vinyl chloride	ND	800	U	ppbv	800	6/16/2012 3:46 AM
Xylenes, Total	1,200	2,400	J	ppbv	800	6/16/2012 3:46 AM
Surr: 4-Bromofluorobenzene	99.2	70-130		%REC	800	6/16/2012 3:46 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,200,000	190,000		µg/m³	1600	6/21/2012 8:35 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	6/21/2012 8:35 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	6/21/2012 8:35 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1600	6/21/2012 8:35 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 9:38:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-007	**Matrix:**	Air
Client Sample ID:	VA1344		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	4.1	0.10		%	1	6/20/2012 1:41 PM
Carbon Monoxide	ND	0.10	U	%	1	6/20/2012 1:41 PM
Methane	ND	0.50	U	%	1	6/20/2012 1:41 PM
Nitrogen	81	0.10		%	1	6/20/2012 1:41 PM
Oxygen	15	0.10		%	1	6/20/2012 1:41 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,3-Butadiene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
2-Butanone	ND	800	U	ppbv	800	6/18/2012 3:26 PM
2-Hexanone	ND	800	U	ppbv	800	6/18/2012 3:26 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Acetone	1,600	800		ppbv	800	6/18/2012 3:26 PM
Benzene	1,600	800		ppbv	800	6/18/2012 3:26 PM
Benzyl chloride	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Bromodichloromethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Bromoform	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Bromomethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Carbon disulfide	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Carbon tetrachloride	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Chlorobenzene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Chlorodibromomethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Chloroethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Chloroform	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Chloromethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	6/18/2012 3:26 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 9:38:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-007	**Matrix:**	Air
Client Sample ID:	VA1344		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,000	1,600		ppbv	800	6/18/2012 3:26 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Ethyl acetate	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Ethylbenzene	ND	1,600	U	ppbv	800	6/18/2012 3:26 PM
Heptane	2,100	800		ppbv	800	6/18/2012 3:26 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	6/18/2012 3:26 PM
m,p-Xylene	1,000	1,600	J	ppbv	800	6/18/2012 3:26 PM
Methylene chloride	4,300	4,000		ppbv	800	6/18/2012 3:26 PM
n-Hexane	2,300	1,600		ppbv	800	6/18/2012 3:26 PM
Naphthalene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
o-Xylene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Propylene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Styrene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Tetrachloroethene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Tetrahydrofuran	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Toluene	5,600	800		ppbv	800	6/18/2012 3:26 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Trichloroethene	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Vinyl acetate	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Vinyl chloride	ND	800	U	ppbv	800	6/18/2012 3:26 PM
Xylenes, Total	1,000	2,400	J	ppbv	800	6/18/2012 3:26 PM
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	800	6/18/2012 3:26 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	250,000	94,000		µg/m³	800	6/21/2012 9:21 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	6/21/2012 9:21 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	6/21/2012 9:21 PM
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	800	6/21/2012 9:21 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 11:32:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-008	**Matrix:**	Air
Client Sample ID:	VA1431		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.20	0.10		%	1	6/20/2012 1:56 PM
Carbon Monoxide	ND	0.10	U	%	1	6/20/2012 1:56 PM
Methane	ND	0.50	U	%	1	6/20/2012 1:56 PM
Nitrogen	79	0.10		%	1	6/20/2012 1:56 PM
Oxygen	20	0.10		%	1	6/20/2012 1:56 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,3-Butadiene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
2-Butanone	ND	800	U	ppbv	800	6/21/2012 9:49 PM
2-Hexanone	ND	800	U	ppbv	800	6/21/2012 9:49 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Acetone	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Benzene	3,500	800		ppbv	800	6/21/2012 9:49 PM
Benzyl chloride	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Bromodichloromethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Bromoform	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Bromomethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Carbon disulfide	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Carbon tetrachloride	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Chlorobenzene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Chlorodibromomethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Chloroethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Chloroform	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Chloromethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	6/21/2012 9:49 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 11:32:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-008	**Matrix:**	Air
Client Sample ID:	VA1431		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	9,900	1,600		ppbv	800	6/21/2012 9:49 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Ethyl acetate	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Ethylbenzene	1,500	1,600	J	ppbv	800	6/21/2012 9:49 PM
Heptane	9,800	800		ppbv	800	6/21/2012 9:49 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	6/21/2012 9:49 PM
m,p-Xylene	4,000	1,600		ppbv	800	6/21/2012 9:49 PM
Methylene chloride	ND	4,000	U	ppbv	800	6/21/2012 9:49 PM
n-Hexane	2,700	1,600		ppbv	800	6/21/2012 9:49 PM
Naphthalene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
o-Xylene	1,300	800		ppbv	800	6/21/2012 9:49 PM
Propylene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Styrene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Tetrachloroethene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Tetrahydrofuran	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Toluene	22,000	800		ppbv	800	6/21/2012 9:49 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Trichloroethene	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Vinyl acetate	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Vinyl chloride	ND	800	U	ppbv	800	6/21/2012 9:49 PM
Xylenes, Total	5,300	2,400		ppbv	800	6/21/2012 9:49 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	800	6/21/2012 9:49 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	630,000	94,000		µg/m³	800	6/25/2012 3:14 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	6/25/2012 3:14 PM
C9-C12 Aliphatic Hydrocarbons	38,000	150,000	J	µg/m³	800	6/25/2012 3:14 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	800	6/25/2012 3:14 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 12:12:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-009	**Matrix:**	Air
Client Sample ID:	VA1432		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.29	0.10		%	1	6/20/2012 2:11 PM
Carbon Monoxide	ND	0.10	U	%	1	6/20/2012 2:11 PM
Methane	ND	0.50	U	%	1	6/20/2012 2:11 PM
Nitrogen	80	0.10		%	1	6/20/2012 2:11 PM
Oxygen	19	0.10		%	1	6/20/2012 2:11 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,3-Butadiene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
2-Butanone	ND	800	U	ppbv	800	6/21/2012 10:34 PM
2-Hexanone	ND	800	U	ppbv	800	6/21/2012 10:34 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Acetone	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Benzene	1,800	800		ppbv	800	6/21/2012 10:34 PM
Benzyl chloride	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Bromodichloromethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Bromoform	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Bromomethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Carbon disulfide	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Carbon tetrachloride	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Chlorobenzene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Chlorodibromomethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Chloroethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Chloroform	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Chloromethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	6/21/2012 10:34 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 12:12:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-009	**Matrix:**	Air
Client Sample ID:	VA1432		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,300	1,600		ppbv	800	6/21/2012 10:34 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Ethyl acetate	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Ethylbenzene	940	1,600	J	ppbv	800	6/21/2012 10:34 PM
Heptane	5,500	800		ppbv	800	6/21/2012 10:34 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	6/21/2012 10:34 PM
m,p-Xylene	2,600	1,600		ppbv	800	6/21/2012 10:34 PM
Methylene chloride	ND	4,000	U	ppbv	800	6/21/2012 10:34 PM
n-Hexane	1,400	1,600	J	ppbv	800	6/21/2012 10:34 PM
Naphthalene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
o-Xylene	840	800		ppbv	800	6/21/2012 10:34 PM
Propylene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Styrene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Tetrachloroethene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Tetrahydrofuran	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Toluene	12,000	800		ppbv	800	6/21/2012 10:34 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Trichloroethene	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Vinyl acetate	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Vinyl chloride	ND	800	U	ppbv	800	6/21/2012 10:34 PM
Xylenes, Total	3,400	2,400		ppbv	800	6/21/2012 10:34 PM
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	800	6/21/2012 10:34 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	400,000	94,000		µg/m³	800	6/25/2012 4:00 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	6/25/2012 4:00 PM
C9-C12 Aliphatic Hydrocarbons	30,000	150,000	J	µg/m³	800	6/25/2012 4:00 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	800	6/25/2012 4:00 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 1:00:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-010	**Matrix:**	Air
Client Sample ID:	VA1433		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.18	0.10		%	1	6/20/2012 2:26 PM
Carbon Monoxide	ND	0.10	U	%	1	6/20/2012 2:26 PM
Methane	ND	0.50	U	%	1	6/20/2012 2:26 PM
Nitrogen	80	0.10		%	1	6/20/2012 2:26 PM
Oxygen	20	0.10		%	1	6/20/2012 2:26 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,3-Butadiene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
2-Butanone	ND	800	U	ppbv	800	6/22/2012 5:56 PM
2-Hexanone	ND	800	U	ppbv	800	6/22/2012 5:56 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Acetone	1,100	800		ppbv	800	6/22/2012 5:56 PM
Benzene	1,400	800		ppbv	800	6/22/2012 5:56 PM
Benzyl chloride	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Bromodichloromethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Bromoform	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Bromomethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Carbon disulfide	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Carbon tetrachloride	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Chlorobenzene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Chlorodibromomethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Chloroethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Chloroform	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Chloromethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	6/22/2012 5:56 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 1:00:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-010	**Matrix:**	Air
Client Sample ID:	VA1433		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,800	1,600		ppbv	800	6/22/2012 5:56 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Ethyl acetate	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Ethylbenzene	940	1,600	J	ppbv	800	6/22/2012 5:56 PM
Heptane	4,300	800		ppbv	800	6/22/2012 5:56 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	6/22/2012 5:56 PM
m,p-Xylene	2,600	1,600		ppbv	800	6/22/2012 5:56 PM
Methylene chloride	ND	4,000	U	ppbv	800	6/22/2012 5:56 PM
n-Hexane	1,600	1,600	J	ppbv	800	6/22/2012 5:56 PM
Naphthalene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
o-Xylene	840	800		ppbv	800	6/22/2012 5:56 PM
Propylene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Styrene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Tetrachloroethene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Tetrahydrofuran	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Toluene	11,000	800		ppbv	800	6/22/2012 5:56 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Trichloroethene	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Vinyl acetate	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Vinyl chloride	ND	800	U	ppbv	800	6/22/2012 5:56 PM
Xylenes, Total	3,400	2,400		ppbv	800	6/22/2012 5:56 PM
Surr: 4-Bromofluorobenzene	93.8	70-130		%REC	800	6/22/2012 5:56 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	360,000	47,000		µg/m³	400	6/25/2012 4:50 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	6/25/2012 4:50 PM
C9-C12 Aliphatic Hydrocarbons	40,000	76,000	J	µg/m³	400	6/25/2012 4:50 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	400	6/25/2012 4:50 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 3:06:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-011	**Matrix:**	Air
Client Sample ID:	VA1434		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.28	0.10		%	1	6/20/2012 2:42 PM
Carbon Monoxide	ND	0.10	U	%	1	6/20/2012 2:42 PM
Methane	ND	0.50	U	%	1	6/20/2012 2:42 PM
Nitrogen	79	0.10		%	1	6/20/2012 2:42 PM
Oxygen	20	0.10		%	1	6/20/2012 2:42 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,2,4-Trimethylbenzene	72	40		ppbv	40	6/23/2012 1:17 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,3-Butadiene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
2-Butanone	54	40		ppbv	40	6/23/2012 1:17 PM
2-Hexanone	ND	40	U	ppbv	40	6/23/2012 1:17 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Acetone	82	40		ppbv	40	6/23/2012 1:17 PM
Benzene	530	40		ppbv	40	6/23/2012 1:17 PM
Benzyl chloride	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Bromodichloromethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Bromoform	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Bromomethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Carbon disulfide	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Carbon tetrachloride	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Chlorobenzene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Chlorodibromomethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Chloroethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Chloroform	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Chloromethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/23/2012 1:17 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 3:06:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-011	**Matrix:**	Air
Client Sample ID:	VA1434		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,300	80		ppbv	40	6/23/2012 1:17 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Ethyl acetate	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Ethylbenzene	360	80		ppbv	40	6/23/2012 1:17 PM
Heptane	1,800	40		ppbv	40	6/23/2012 1:17 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/23/2012 1:17 PM
m,p-Xylene	1,100	80		ppbv	40	6/23/2012 1:17 PM
Methylene chloride	ND	200	U	ppbv	40	6/23/2012 1:17 PM
n-Hexane	330	80		ppbv	40	6/23/2012 1:17 PM
Naphthalene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
o-Xylene	340	40		ppbv	40	6/23/2012 1:17 PM
Propylene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Styrene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Tetrachloroethene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Tetrahydrofuran	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Toluene	3,500	800		ppbv	800	6/22/2012 7:25 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Trichloroethene	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Vinyl acetate	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Vinyl chloride	ND	40	U	ppbv	40	6/23/2012 1:17 PM
Xylenes, Total	1,400	120		ppbv	40	6/23/2012 1:17 PM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	40	6/23/2012 1:17 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	140,000	47,000		µg/m³	400	6/25/2012 1:38 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	6/25/2012 1:38 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	6/25/2012 1:38 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	400	6/25/2012 1:38 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 3:06:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-012	**Matrix:**	Air
Client Sample ID:	VA1435		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.23	0.10		%	1	6/21/2012 10:21 AM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 10:21 AM
Methane	ND	0.50	U	%	1	6/21/2012 10:21 AM
Nitrogen	79	0.10		%	1	6/21/2012 10:21 AM
Oxygen	20	0.10		%	1	6/21/2012 10:21 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,2,4-Trimethylbenzene	85	40		ppbv	40	6/23/2012 1:59 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,3,5-Trimethylbenzene	44	40		ppbv	40	6/23/2012 1:59 PM
1,3-Butadiene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
2-Butanone	48	40		ppbv	40	6/23/2012 1:59 PM
2-Hexanone	ND	40	U	ppbv	40	6/23/2012 1:59 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Acetone	59	40		ppbv	40	6/23/2012 1:59 PM
Benzene	460	40		ppbv	40	6/23/2012 1:59 PM
Benzyl chloride	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Bromodichloromethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Bromoform	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Bromomethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Carbon disulfide	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Carbon tetrachloride	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Chlorobenzene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Chlorodibromomethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Chloroethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Chloroform	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Chloromethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/23/2012 1:59 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 3:06:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-012	**Matrix:**	Air
Client Sample ID:	VA1435		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,200	80		ppbv	40	6/23/2012 1:59 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Ethyl acetate	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Ethylbenzene	380	80		ppbv	40	6/23/2012 1:59 PM
Heptane	1,600	40		ppbv	40	6/23/2012 1:59 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/23/2012 1:59 PM
m,p-Xylene	1,100	80		ppbv	40	6/23/2012 1:59 PM
Methylene chloride	ND	200	U	ppbv	40	6/23/2012 1:59 PM
n-Hexane	290	80		ppbv	40	6/23/2012 1:59 PM
Naphthalene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
o-Xylene	360	40		ppbv	40	6/23/2012 1:59 PM
Propylene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Styrene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Tetrachloroethene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Tetrahydrofuran	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Toluene	4,000	800		ppbv	800	6/22/2012 8:09 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Trichloroethene	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Vinyl acetate	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Vinyl chloride	ND	40	U	ppbv	40	6/23/2012 1:59 PM
Xylenes, Total	1,500	120		ppbv	40	6/23/2012 1:59 PM
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	40	6/23/2012 1:59 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	98,000	23,000		µg/m³	200	6/25/2012 2:28 PM
C9-C10 Aromatic Hydrocarbons	ND	27,000	U	µg/m³	200	6/25/2012 2:28 PM
C9-C12 Aliphatic Hydrocarbons	6,400	38,000	J	µg/m³	200	6/25/2012 2:28 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	200	6/25/2012 2:28 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 3:52:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-013	**Matrix:**	Air
Client Sample ID:	VA1436		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.30	0.10		%	1	6/21/2012 10:37 AM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 10:37 AM
Methane	ND	0.50	U	%	1	6/21/2012 10:37 AM
Nitrogen	80	0.10		%	1	6/21/2012 10:37 AM
Oxygen	19	0.10		%	1	6/21/2012 10:37 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,3-Butadiene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
2-Butanone	ND	400	U	ppbv	400	6/22/2012 11:49 PM
2-Hexanone	ND	400	U	ppbv	400	6/22/2012 11:49 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Acetone	700	400		ppbv	400	6/22/2012 11:49 PM
Benzene	3,100	400		ppbv	400	6/22/2012 11:49 PM
Benzyl chloride	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Bromodichloromethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Bromoform	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Bromomethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Carbon disulfide	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Carbon tetrachloride	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Chlorobenzene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Chlorodibromomethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Chloroethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Chloroform	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Chloromethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	6/22/2012 11:49 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 3:52:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-013	**Matrix:**	Air
Client Sample ID:	VA1436		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,700	800		ppbv	400	6/22/2012 11:49 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Ethyl acetate	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Ethylbenzene	420	800	J	ppbv	400	6/22/2012 11:49 PM
Heptane	1,600	400		ppbv	400	6/22/2012 11:49 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	6/22/2012 11:49 PM
m,p-Xylene	1,000	800		ppbv	400	6/22/2012 11:49 PM
Methylene chloride	850	2,000	J	ppbv	400	6/22/2012 11:49 PM
n-Hexane	2,600	800		ppbv	400	6/22/2012 11:49 PM
Naphthalene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
o-Xylene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Propylene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Styrene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Tetrachloroethene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Tetrahydrofuran	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Toluene	6,200	400		ppbv	400	6/22/2012 11:49 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Trichloroethene	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Vinyl acetate	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Vinyl chloride	ND	400	U	ppbv	400	6/22/2012 11:49 PM
Xylenes, Total	1,000	1,200	J	ppbv	400	6/22/2012 11:49 PM
Surr: 4-Bromofluorobenzene	93.8	70-130		%REC	400	6/22/2012 11:49 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	540,000	94,000		µg/m³	800	6/25/2012 5:36 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	6/25/2012 5:36 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	6/25/2012 5:36 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	800	6/25/2012 5:36 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 4:24:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-014	**Matrix:**	Air
Client Sample ID:	VA1437		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.22	0.10		%	1	6/21/2012 10:53 AM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 10:53 AM
Methane	ND	0.50	U	%	1	6/21/2012 10:53 AM
Nitrogen	80	0.10		%	1	6/21/2012 10:53 AM
Oxygen	19	0.10		%	1	6/21/2012 10:53 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,3-Butadiene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
2-Butanone	ND	800	U	ppbv	800	6/23/2012 12:34 AM
2-Hexanone	ND	800	U	ppbv	800	6/23/2012 12:34 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Acetone	1,300	800		ppbv	800	6/23/2012 12:34 AM
Benzene	11,000	800		ppbv	800	6/23/2012 12:34 AM
Benzyl chloride	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Bromodichloromethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Bromoform	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Bromomethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Carbon disulfide	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Carbon tetrachloride	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Chlorobenzene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Chlorodibromomethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Chloroethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Chloroform	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Chloromethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	6/23/2012 12:34 AM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 4:24:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-014	**Matrix:**	Air
Client Sample ID:	VA1437		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	13,000	1,600		ppbv	800	6/23/2012 12:34 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Ethyl acetate	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Ethylbenzene	1,500	1,600	J	ppbv	800	6/23/2012 12:34 AM
Heptane	6,200	800		ppbv	800	6/23/2012 12:34 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	6/23/2012 12:34 AM
m,p-Xylene	3,600	1,600		ppbv	800	6/23/2012 12:34 AM
Methylene chloride	ND	4,000	U	ppbv	800	6/23/2012 12:34 AM
n-Hexane	12,000	1,600		ppbv	800	6/23/2012 12:34 AM
Naphthalene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
o-Xylene	1,000	800		ppbv	800	6/23/2012 12:34 AM
Propylene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Styrene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Tetrachloroethene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Tetrahydrofuran	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Toluene	29,000	800		ppbv	800	6/23/2012 12:34 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Trichloroethene	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Vinyl acetate	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Vinyl chloride	ND	800	U	ppbv	800	6/23/2012 12:34 AM
Xylenes, Total	4,700	2,400		ppbv	800	6/23/2012 12:34 AM
Surr: 4-Bromofluorobenzene	92.3	70-130		%REC	800	6/23/2012 12:34 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,500,000	190,000		µg/m³	1600	6/25/2012 6:20 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	6/25/2012 6:20 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	6/25/2012 6:20 PM
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	1600	6/25/2012 6:20 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 8:32:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-015	**Matrix:**	Air
Client Sample ID:	VA1444		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.30	0.10		%	1	6/21/2012 11:07 AM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 11:07 AM
Methane	ND	0.50	U	%	1	6/21/2012 11:07 AM
Nitrogen	79	0.10		%	1	6/21/2012 11:07 AM
Oxygen	20	0.10		%	1	6/21/2012 11:07 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,3-Butadiene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
2-Butanone	ND	40	U	ppbv	40	6/19/2012 11:53 PM
2-Hexanone	ND	40	U	ppbv	40	6/19/2012 11:53 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Acetone	73	40		ppbv	40	6/19/2012 11:53 PM
Benzene	540	40		ppbv	40	6/19/2012 11:53 PM
Benzyl chloride	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Bromodichloromethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Bromoform	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Bromomethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Carbon disulfide	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Carbon tetrachloride	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Chlorobenzene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Chlorodibromomethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Chloroethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Chloroform	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Chloromethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/19/2012 11:53 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 8:32:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-015	**Matrix:**	Air
Client Sample ID:	VA1444		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,200	80		ppbv	40	6/19/2012 11:53 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Ethyl acetate	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Ethylbenzene	82	80		ppbv	40	6/19/2012 11:53 PM
Heptane	990	40		ppbv	40	6/19/2012 11:53 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/19/2012 11:53 PM
m,p-Xylene	210	80		ppbv	40	6/19/2012 11:53 PM
Methylene chloride	ND	200	U	ppbv	40	6/19/2012 11:53 PM
n-Hexane	690	80		ppbv	40	6/19/2012 11:53 PM
Naphthalene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
o-Xylene	68	40		ppbv	40	6/19/2012 11:53 PM
Propylene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Styrene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Tetrachloroethene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Tetrahydrofuran	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Toluene	1,600	40		ppbv	40	6/19/2012 11:53 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Trichloroethene	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Vinyl acetate	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Vinyl chloride	ND	40	U	ppbv	40	6/19/2012 11:53 PM
Xylenes, Total	280	120		ppbv	40	6/19/2012 11:53 PM
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	40	6/19/2012 11:53 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	88,000	47,000		µg/m³	400	6/21/2012 10:11 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	6/21/2012 10:11 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	6/21/2012 10:11 PM
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	400	6/21/2012 10:11 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 9:06:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-016	**Matrix:**	Air
Client Sample ID:	VA1445		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.32	0.10		%	1	6/21/2012 11:23 AM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 11:23 AM
Methane	ND	0.50	U	%	1	6/21/2012 11:23 AM
Nitrogen	79	0.10		%	1	6/21/2012 11:23 AM
Oxygen	20	0.10		%	1	6/21/2012 11:23 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,3-Butadiene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
2-Butanone	ND	40	U	ppbv	40	6/20/2012 1:16 AM
2-Hexanone	ND	40	U	ppbv	40	6/20/2012 1:16 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Acetone	78	40		ppbv	40	6/20/2012 1:16 AM
Benzene	210	40		ppbv	40	6/20/2012 1:16 AM
Benzyl chloride	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Bromodichloromethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Bromoform	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Bromomethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Carbon disulfide	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Carbon tetrachloride	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Chlorobenzene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Chlorodibromomethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Chloroethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Chloroform	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Chloromethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/20/2012 1:16 AM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 9:06:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-016	**Matrix:**	Air
Client Sample ID:	VA1445		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	570	80		ppbv	40	6/20/2012 1:16 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Ethyl acetate	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Ethylbenzene	ND	80	U	ppbv	40	6/20/2012 1:16 AM
Heptane	360	40		ppbv	40	6/20/2012 1:16 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/20/2012 1:16 AM
m,p-Xylene	55	80	J	ppbv	40	6/20/2012 1:16 AM
Methylene chloride	ND	200	U	ppbv	40	6/20/2012 1:16 AM
n-Hexane	320	80		ppbv	40	6/20/2012 1:16 AM
Naphthalene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
o-Xylene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Propylene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Styrene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Tetrachloroethene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Tetrahydrofuran	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Toluene	420	40		ppbv	40	6/20/2012 1:16 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Trichloroethene	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Vinyl acetate	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Vinyl chloride	ND	40	U	ppbv	40	6/20/2012 1:16 AM
Xylenes, Total	55	120	J	ppbv	40	6/20/2012 1:16 AM
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	40	6/20/2012 1:16 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	17,000	4,700		µg/m³	40	6/25/2012 7:49 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	6/25/2012 7:49 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	6/25/2012 7:49 PM
Surr: 4-Bromofluorobenzene	94.3	70-130		%REC	40	6/25/2012 7:49 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 9:50:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-017	**Matrix:**	Air
Client Sample ID:	VA1446		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.23	0.10		%	1	6/21/2012 11:37 AM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 11:37 AM
Methane	ND	0.50	U	%	1	6/21/2012 11:37 AM
Nitrogen	79	0.10		%	1	6/21/2012 11:37 AM
Oxygen	19	0.10		%	1	6/21/2012 11:37 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,3-Butadiene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
2-Butanone	46	40		ppbv	40	6/20/2012 1:57 AM
2-Hexanone	ND	40	U	ppbv	40	6/20/2012 1:57 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Acetone	130	40		ppbv	40	6/20/2012 1:57 AM
Benzene	830	40		ppbv	40	6/20/2012 1:57 AM
Benzyl chloride	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Bromodichloromethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Bromoform	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Bromomethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Carbon disulfide	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Carbon tetrachloride	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Chlorobenzene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Chlorodibromomethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Chloroethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Chloroform	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Chloromethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/20/2012 1:57 AM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 9:50:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-017	**Matrix:**	Air
Client Sample ID:	VA1446		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,000	1,600		ppbv	800	6/20/2012 11:13 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Ethyl acetate	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Ethylbenzene	150	80		ppbv	40	6/20/2012 1:57 AM
Heptane	1,600	40		ppbv	40	6/20/2012 1:57 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/20/2012 1:57 AM
m,p-Xylene	380	80		ppbv	40	6/20/2012 1:57 AM
Methylene chloride	ND	200	U	ppbv	40	6/20/2012 1:57 AM
n-Hexane	1,000	80		ppbv	40	6/20/2012 1:57 AM
Naphthalene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
o-Xylene	120	40		ppbv	40	6/20/2012 1:57 AM
Propylene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Styrene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Tetrachloroethene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Tetrahydrofuran	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Toluene	2,000	800		ppbv	800	6/20/2012 11:13 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Trichloroethene	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Vinyl acetate	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Vinyl chloride	ND	40	U	ppbv	40	6/20/2012 1:57 AM
Xylenes, Total	500	120		ppbv	40	6/20/2012 1:57 AM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	40	6/20/2012 1:57 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	140,000	47,000		µg/m³	400	6/21/2012 11:50 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	6/21/2012 11:50 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	6/21/2012 11:50 PM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	400	6/21/2012 11:50 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 9:50:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-018	**Matrix:**	Air
Client Sample ID:	VA1447		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.18	0.10		%	1	6/21/2012 11:53 AM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 11:53 AM
Methane	ND	0.50	U	%	1	6/21/2012 11:53 AM
Nitrogen	79	0.10		%	1	6/21/2012 11:53 AM
Oxygen	20	0.10		%	1	6/21/2012 11:53 AM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,3-Butadiene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
2-Butanone	ND	800	U	ppbv	800	6/18/2012 7:35 PM
2-Hexanone	ND	800	U	ppbv	800	6/18/2012 7:35 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Acetone	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Benzene	1,500	800		ppbv	800	6/18/2012 7:35 PM
Benzyl chloride	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Bromodichloromethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Bromoform	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Bromomethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Carbon disulfide	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Carbon tetrachloride	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Chlorobenzene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Chlorodibromomethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Chloroethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Chloroform	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Chloromethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	6/18/2012 7:35 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 9:50:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-018	**Matrix:**	Air
Client Sample ID:	VA1447		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,100	1,600		ppbv	800	6/18/2012 7:35 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Ethyl acetate	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Ethylbenzene	ND	1,600	U	ppbv	800	6/18/2012 7:35 PM
Heptane	3,000	800		ppbv	800	6/18/2012 7:35 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	6/18/2012 7:35 PM
m,p-Xylene	ND	1,600	U	ppbv	800	6/18/2012 7:35 PM
Methylene chloride	ND	4,000	U	ppbv	800	6/18/2012 7:35 PM
n-Hexane	2,600	1,600		ppbv	800	6/18/2012 7:35 PM
Naphthalene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
o-Xylene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Propylene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Styrene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Tetrachloroethene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Tetrahydrofuran	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Toluene	4,100	800		ppbv	800	6/18/2012 7:35 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Trichloroethene	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Vinyl acetate	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Vinyl chloride	ND	800	U	ppbv	800	6/18/2012 7:35 PM
Xylenes, Total	ND	2,400	U	ppbv	800	6/18/2012 7:35 PM
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	800	6/18/2012 7:35 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	300,000	94,000		µg/m³	800	6/22/2012 12:36 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	6/22/2012 12:36 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	6/22/2012 12:36 AM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	800	6/22/2012 12:36 AM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 10:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-019	**Matrix:**	Air
Client Sample ID:	VA1448		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.18	0.10		%	1	6/21/2012 12:37 PM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 12:37 PM
Methane	ND	0.50	U	%	1	6/21/2012 12:37 PM
Nitrogen	80	0.10		%	1	6/21/2012 12:37 PM
Oxygen	20	0.10		%	1	6/21/2012 12:37 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,3-Butadiene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
2-Butanone	42	40		ppbv	40	6/20/2012 2:39 AM
2-Hexanone	ND	40	U	ppbv	40	6/20/2012 2:39 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Acetone	260	40		ppbv	40	6/20/2012 2:39 AM
Benzene	780	40		ppbv	40	6/20/2012 2:39 AM
Benzyl chloride	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Bromodichloromethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Bromoform	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Bromomethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Carbon disulfide	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Carbon tetrachloride	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Chlorobenzene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Chlorodibromomethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Chloroethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Chloroform	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Chloromethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/20/2012 2:39 AM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 10:52:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-019	**Matrix:**	Air
Client Sample ID:	VA1448		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,400	1,600		ppbv	800	6/20/2012 11:57 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Ethyl acetate	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Ethylbenzene	170	80		ppbv	40	6/20/2012 2:39 AM
Heptane	1,500	40		ppbv	40	6/20/2012 2:39 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/20/2012 2:39 AM
m,p-Xylene	440	80		ppbv	40	6/20/2012 2:39 AM
Methylene chloride	ND	200	U	ppbv	40	6/20/2012 2:39 AM
n-Hexane	980	80		ppbv	40	6/20/2012 2:39 AM
Naphthalene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
o-Xylene	150	40		ppbv	40	6/20/2012 2:39 AM
Propylene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Styrene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Tetrachloroethene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Tetrahydrofuran	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Toluene	3,300	800		ppbv	800	6/20/2012 11:57 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Trichloroethene	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Vinyl acetate	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Vinyl chloride	ND	40	U	ppbv	40	6/20/2012 2:39 AM
Xylenes, Total	590	120		ppbv	40	6/20/2012 2:39 AM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	40	6/20/2012 2:39 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	160,000	47,000		µg/m³	400	6/22/2012 2:12 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	6/22/2012 2:12 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	6/22/2012 2:12 AM
Surr: 4-Bromofluorobenzene	95.6	70-130		%REC	400	6/22/2012 2:12 AM

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WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 11:37:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-020	**Matrix:**	Air
Client Sample ID:	VA1449		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.22	0.10		%	1	6/21/2012 12:52 PM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 12:52 PM
Methane	ND	0.50	U	%	1	6/21/2012 12:52 PM
Nitrogen	79	0.10		%	1	6/21/2012 12:52 PM
Oxygen	20	0.10		%	1	6/21/2012 12:52 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,3-Butadiene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
2-Butanone	ND	800	U	ppbv	800	6/18/2012 9:49 PM
2-Hexanone	ND	800	U	ppbv	800	6/18/2012 9:49 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Acetone	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Benzene	1,200	800		ppbv	800	6/18/2012 9:49 PM
Benzyl chloride	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Bromodichloromethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Bromoform	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Bromomethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Carbon disulfide	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Carbon tetrachloride	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Chlorobenzene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Chlorodibromomethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Chloroethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Chloroform	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Chloromethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	6/18/2012 9:49 PM

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WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 11:37:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-020	**Matrix:**	Air
Client Sample ID:	VA1449		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	8,800	1,600		ppbv	800	6/18/2012 9:49 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Ethyl acetate	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Ethylbenzene	ND	1,600	U	ppbv	800	6/18/2012 9:49 PM
Heptane	2,400	800		ppbv	800	6/18/2012 9:49 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	6/18/2012 9:49 PM
m,p-Xylene	ND	1,600	U	ppbv	800	6/18/2012 9:49 PM
Methylene chloride	ND	4,000	U	ppbv	800	6/18/2012 9:49 PM
n-Hexane	6,800	1,600		ppbv	800	6/18/2012 9:49 PM
Naphthalene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
o-Xylene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Propylene	6,000	800		ppbv	800	6/18/2012 9:49 PM
Styrene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Tetrachloroethene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Tetrahydrofuran	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Toluene	3,300	800		ppbv	800	6/18/2012 9:49 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Trichloroethene	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Vinyl acetate	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Vinyl chloride	ND	800	U	ppbv	800	6/18/2012 9:49 PM
Xylenes, Total	ND	2,400	U	ppbv	800	6/18/2012 9:49 PM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	800	6/18/2012 9:49 PM
Mass APH Air		**Method:**				**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,400,000	940,000		µg/m³	8000	6/22/2012 2:55 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	6/22/2012 2:55 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	6/22/2012 2:55 AM
Surr: 4-Bromofluorobenzene	92.7	70-130		%REC	8000	6/22/2012 2:55 AM

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WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 12:20:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-021	**Matrix:**	Air
Client Sample ID:	VA1450		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.89	0.10		%	1	6/21/2012 1:58 PM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 1:58 PM
Methane	ND	0.50	U	%	1	6/21/2012 1:58 PM
Nitrogen	81	0.10		%	1	6/21/2012 1:58 PM
Oxygen	17	0.10		%	1	6/21/2012 1:58 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,3-Butadiene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
2-Butanone	ND	40	U	ppbv	40	6/20/2012 3:21 AM
2-Hexanone	ND	40	U	ppbv	40	6/20/2012 3:21 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Acetone	100	40		ppbv	40	6/20/2012 3:21 AM
Benzene	290	40		ppbv	40	6/20/2012 3:21 AM
Benzyl chloride	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Bromodichloromethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Bromoform	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Bromomethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Carbon disulfide	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Carbon tetrachloride	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Chlorobenzene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Chlorodibromomethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Chloroethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Chloroform	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Chloromethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/20/2012 3:21 AM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 12:20:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-021	**Matrix:**	Air
Client Sample ID:	VA1450		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,200	80		ppbv	40	6/20/2012 3:21 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Ethyl acetate	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Ethylbenzene	64	80	J	ppbv	40	6/20/2012 3:21 AM
Heptane	420	40		ppbv	40	6/20/2012 3:21 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/20/2012 3:21 AM
m,p-Xylene	120	80		ppbv	40	6/20/2012 3:21 AM
Methylene chloride	ND	200	U	ppbv	40	6/20/2012 3:21 AM
n-Hexane	1,300	80		ppbv	40	6/20/2012 3:21 AM
Naphthalene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
o-Xylene	42	40		ppbv	40	6/20/2012 3:21 AM
Propylene	380	40		ppbv	40	6/20/2012 3:21 AM
Styrene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Tetrachloroethene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Tetrahydrofuran	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Toluene	1,000	40		ppbv	40	6/20/2012 3:21 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Trichloroethene	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Vinyl acetate	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Vinyl chloride	ND	40	U	ppbv	40	6/20/2012 3:21 AM
Xylenes, Total	170	120		ppbv	40	6/20/2012 3:21 AM
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	40	6/20/2012 3:21 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	470,000	94,000		µg/m³	800	6/22/2012 3:41 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	6/22/2012 3:41 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	6/22/2012 3:41 AM
Surr: 4-Bromofluorobenzene	95.1	70-130		%REC	800	6/22/2012 3:41 AM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 3:53:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-022	**Matrix:**	Air
Client Sample ID:	VA1465		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.41	0.10		%	1	6/21/2012 2:14 PM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 2:14 PM
Methane	ND	0.50	U	%	1	6/21/2012 2:14 PM
Nitrogen	79	0.10		%	1	6/21/2012 2:14 PM
Oxygen	20	0.10		%	1	6/21/2012 2:14 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,3-Butadiene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
2-Butanone	ND	40	U	ppbv	40	6/19/2012 6:51 PM
2-Hexanone	ND	40	U	ppbv	40	6/19/2012 6:51 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Acetone	46	40		ppbv	40	6/19/2012 6:51 PM
Benzene	1,500	40		ppbv	40	6/19/2012 6:51 PM
Benzyl chloride	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Bromodichloromethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Bromoform	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Bromomethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Carbon disulfide	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Carbon tetrachloride	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Chlorobenzene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Chlorodibromomethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Chloroethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Chloroform	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Chloromethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/19/2012 6:51 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 3:53:00 PM
Project:	Kirtland AFB		
Lab ID:	1206396-022	**Matrix:**	Air
Client Sample ID:	VA1465		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,100	1,600		ppbv	800	6/20/2012 7:41 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Ethyl acetate	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Ethylbenzene	140	80		ppbv	40	6/19/2012 6:51 PM
Heptane	1,200	40		ppbv	40	6/19/2012 6:51 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/19/2012 6:51 PM
m,p-Xylene	320	80		ppbv	40	6/19/2012 6:51 PM
Methylene chloride	ND	200	U	ppbv	40	6/19/2012 6:51 PM
n-Hexane	1,400	80		ppbv	40	6/19/2012 6:51 PM
Naphthalene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
o-Xylene	110	40		ppbv	40	6/19/2012 6:51 PM
Propylene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Styrene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Tetrachloroethene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Tetrahydrofuran	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Toluene	5,800	800		ppbv	800	6/20/2012 7:41 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Trichloroethene	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Vinyl acetate	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Vinyl chloride	ND	40	U	ppbv	40	6/19/2012 6:51 PM
Xylenes, Total	430	120		ppbv	40	6/19/2012 6:51 PM
Surr: 4-Bromofluorobenzene	95.9	70-130		%REC	40	6/19/2012 6:51 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	210,000	94,000		µg/m³	800	6/22/2012 2:11 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	6/22/2012 2:11 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	6/22/2012 2:11 PM
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	800	6/22/2012 2:11 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 11:10:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-023	**Matrix:**	Air
Client Sample ID:	VA1466		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.77	0.10		%	1	6/21/2012 2:29 PM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 2:29 PM
Methane	ND	0.50	U	%	1	6/21/2012 2:29 PM
Nitrogen	79	0.10		%	1	6/21/2012 2:29 PM
Oxygen	19	0.10		%	1	6/21/2012 2:29 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,2,4-Trimethylbenzene	88	40		ppbv	40	6/19/2012 7:36 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,3,5-Trimethylbenzene	47	40		ppbv	40	6/19/2012 7:36 PM
1,3-Butadiene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
2-Butanone	100	40		ppbv	40	6/19/2012 7:36 PM
2-Hexanone	ND	40	U	ppbv	40	6/19/2012 7:36 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Acetone	120	40		ppbv	40	6/19/2012 7:36 PM
Benzene	1,200	40		ppbv	40	6/19/2012 7:36 PM
Benzyl chloride	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Bromodichloromethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Bromoform	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Bromomethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Carbon disulfide	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Carbon tetrachloride	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Chlorobenzene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Chlorodibromomethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Chloroethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Chloroform	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Chloromethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/19/2012 7:36 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 11:10:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-023	**Matrix:**	Air
Client Sample ID:	VA1466		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	4,200	1,600		ppbv	800	6/20/2012 8:26 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Ethyl acetate	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Ethylbenzene	490	80		ppbv	40	6/19/2012 7:36 PM
Heptane	3,900	800		ppbv	800	6/20/2012 8:26 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/19/2012 7:36 PM
m,p-Xylene	1,400	80		ppbv	40	6/19/2012 7:36 PM
Methylene chloride	ND	200	U	ppbv	40	6/19/2012 7:36 PM
n-Hexane	700	80		ppbv	40	6/19/2012 7:36 PM
Naphthalene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
o-Xylene	460	40		ppbv	40	6/19/2012 7:36 PM
Propylene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Styrene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Tetrachloroethene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Tetrahydrofuran	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Toluene	9,200	800		ppbv	800	6/20/2012 8:26 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Trichloroethene	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Vinyl acetate	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Vinyl chloride	ND	40	U	ppbv	40	6/19/2012 7:36 PM
Xylenes, Total	1,800	120		ppbv	40	6/19/2012 7:36 PM
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	40	6/19/2012 7:36 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	230,000	94,000		µg/m³	800	6/22/2012 3:44 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	6/22/2012 3:44 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	6/22/2012 3:44 PM
Surr: 4-Bromofluorobenzene	97.6	70-130		%REC	800	6/22/2012 3:44 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 11:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-024	**Matrix:**	Air
Client Sample ID:	VA1467		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons		**Method: ASTM-D2504**				**Analyst: JH5**
Carbon dioxide	0.79	0.10		%	1	6/21/2012 2:44 PM
Carbon Monoxide	ND	0.10	U	%	1	6/21/2012 2:44 PM
Methane	ND	0.50	U	%	1	6/21/2012 2:44 PM
Nitrogen	81	0.10		%	1	6/21/2012 2:44 PM
Oxygen	17	0.10		%	1	6/21/2012 2:44 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,2,4-Trimethylbenzene	100	40		ppbv	40	6/19/2012 8:21 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,3,5-Trimethylbenzene	54	40		ppbv	40	6/19/2012 8:21 PM
1,3-Butadiene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
2-Butanone	77	40		ppbv	40	6/19/2012 8:21 PM
2-Hexanone	ND	40	U	ppbv	40	6/19/2012 8:21 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Acetone	110	40		ppbv	40	6/19/2012 8:21 PM
Benzene	1,500	40		ppbv	40	6/19/2012 8:21 PM
Benzyl chloride	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Bromodichloromethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Bromoform	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Bromomethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Carbon disulfide	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Carbon tetrachloride	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Chlorobenzene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Chlorodibromomethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Chloroethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Chloroform	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Chloromethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	6/19/2012 8:21 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/5/2012 11:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-024	**Matrix:**	Air
Client Sample ID:	VA1467		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,700	1,600		ppbv	800	6/21/2012 12:42 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Ethyl acetate	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Ethylbenzene	490	80		ppbv	40	6/19/2012 8:21 PM
Heptane	1,600	800		ppbv	800	6/21/2012 12:42 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	6/19/2012 8:21 PM
m,p-Xylene	1,400	80		ppbv	40	6/19/2012 8:21 PM
Methylene chloride	ND	200	U	ppbv	40	6/19/2012 8:21 PM
n-Hexane	540	80		ppbv	40	6/19/2012 8:21 PM
Naphthalene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
o-Xylene	470	40		ppbv	40	6/19/2012 8:21 PM
Propylene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Styrene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Tetrachloroethene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Tetrahydrofuran	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Toluene	3,800	800		ppbv	800	6/21/2012 12:42 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Trichloroethene	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Vinyl acetate	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Vinyl chloride	ND	40	U	ppbv	40	6/19/2012 8:21 PM
Xylenes, Total	1,900	120		ppbv	40	6/19/2012 8:21 PM
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	40	6/19/2012 8:21 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	220,000	94,000		µg/m³	800	6/22/2012 4:30 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	6/22/2012 4:30 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	6/22/2012 4:30 PM
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	800	6/22/2012 4:30 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-025	**Matrix:**	Air
Client Sample ID:	VA8090-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	6/22/2012 10:20 PM
1,1,2,2-Tetrachloroethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,1,2-Trichloroethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,1-Dichloroethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,1-Dichloroethene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,2,4-Trichlorobenzene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,2,4-Trimethylbenzene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,2-Dibromoethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,2-Dichlorobenzene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,2-Dichloroethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,2-Dichloropropane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,3,5-Trimethylbenzene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,3-Butadiene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,3-Dichlorobenzene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
1,4-Dichlorobenzene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
2-Butanone	5.7	1.0		ppbv	1	6/22/2012 10:20 PM
2-Hexanone	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
4-Methyl-2-pentanone	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Acetone	13	1.0		ppbv	1	6/22/2012 10:20 PM
Benzene	1.5	1.0		ppbv	1	6/22/2012 10:20 PM
Benzyl chloride	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Bromodichloromethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Bromoform	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Bromomethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Carbon disulfide	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Carbon tetrachloride	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Chlorobenzene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Chlorodibromomethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Chloroethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Chloroform	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Chloromethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
cis-1,2-Dichloroethene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
cis-1,3-dichloropropene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Cyclohexane	3.4	2.0		ppbv	1	6/22/2012 10:20 PM
Dichlorodifluoromethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Ethyl acetate	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Ethylbenzene	ND	2.0	U	ppbv	1	6/22/2012 10:20 PM
Heptane	2.3	1.0		ppbv	1	6/22/2012 10:20 PM
Hexachlorobutadiene	ND	2.0	U	ppbv	1	6/22/2012 10:20 PM
m,p-Xylene	2.0	2.0	J	ppbv	1	6/22/2012 10:20 PM
Methylene chloride	4.0	5.0	J	ppbv	1	6/22/2012 10:20 PM

RTI Laboratories - Analytical Report

WO#: 1206396

Date Reported: 7/19/2012
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	6/4/2012 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1206396-025	**Matrix:**	Air
Client Sample ID:	VA8090-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
n-Hexane	3.1	2.0		ppbv	1	6/22/2012 10:20 PM
Naphthalene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
o-Xylene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Propylene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Styrene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
tert-Butyl Methyl Ether	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Tetrachloroethene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Tetrahydrofuran	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Toluene	6.5	1.0		ppbv	1	6/22/2012 10:20 PM
trans-1,2-Dichloroethene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
trans-1,3-dichloropropene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Trichloroethene	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Trichlorofluoromethane	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Vinyl acetate	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Vinyl chloride	ND	1.0	U	ppbv	1	6/22/2012 10:20 PM
Xylenes, Total	2.0	3.0	J	ppbv	1	6/22/2012 10:20 PM
Surr: 4-Bromofluorobenzene	91.5	70-130		%REC	1	6/22/2012 10:20 PM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49425**

Sample ID:	**CCV VOA1 061512**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49425**
Client ID:	**CCV**	Batch ID:	**R49425**	TestNo:	**TO-15**			Analysis Date:	**6/15/2012**	SeqNo:	**966126**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11	1.0	9.600	0	118	70	130				
1,1,2,2-Tetrachloroethane	11	1.0	10.00	0	109	70	130				
1,1,2-Trichloro-1,2,2-trifluoroethane	12	1.0	9.800	0	118	70	130				
1,1,2-Trichloroethane	11	1.0	9.800	0	108	70	130				
1,1-Dichloroethane	11	1.0	9.700	0	117	70	130				
1,1-Dichloroethene	12	1.0	9.900	0	118	70	130				
1,2,4-Trichlorobenzene	9.0	1.0	9.100	0	99.5	70	130				
1,2,4-Trimethylbenzene	11	1.0	9.800	0	108	70	130				
1,2-Dibromoethane	10	1.0	9.600	0	108	70	130				
1,2-Dichlorobenzene	10	1.0	9.700	0	105	70	130				
1,2-Dichloroethane	11	1.0	9.700	0	117	70	130				
1,2-Dichloropropane	11	1.0	9.800	0	110	70	130				
1,3,5-Trimethylbenzene	10	1.0	9.700	0	107	70	130				
1,3-Butadiene	12	1.0	9.800	0	120	70	130				
1,3-Dichlorobenzene	10	1.0	9.700	0	105	70	130				
1,4-Dichlorobenzene	10	1.0	9.600	0	106	70	130				
2-Butanone	12	1.0	9.900	0	118	70	130				
2-Hexanone	10	1.0	9.800	0	106	70	130				
4-Methyl-2-pentanone	11	1.0	10.00	0	106	70	130				
Acetone	12	1.0	10.00	0	116	70	130				
Benzene	11	1.0	9.600	0	119	70	130				
Benzyl chloride	10	1.0	9.700	0	105	70	130				
Bromodichloromethane	10	1.0	9.600	0	109	70	130				
Bromoform	10	1.0	9.600	0	106	70	130				
Bromomethane	10	1.0	9.300	0	113	70	130				
Carbon disulfide	11	1.0	9.700	0	116	70	130				
Carbon tetrachloride	11	1.0	9.500	0	117	70	130				
Chlorobenzene	11	1.0	9.900	0	109	70	130				
Chlorodibromomethane	10	1.0	9.200	0	113	70	130				
Chloroethane	10	1.0	9.800	0	106	70	130				
Chloroform	12	1.0	9.400	0	123	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49425**

Sample ID:	**CCV VOA1 061512**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49425**
Client ID:	**CCV**	Batch ID:	**R49425**	TestNo:	**TO-15**			Analysis Date:	**6/15/2012**	SeqNo:	**966126**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	11	1.0	9.800	0	112	70	130				
cis-1,2-Dichloroethene	12	1.0	9.800	0	118	70	130				
cis-1,3-dichloropropene	10	1.0	9.500	0	109	70	130				
Cyclohexane	12	2.0	9.800	0	119	70	130				
Dichlorodifluoromethane	11	1.0	9.200	0	115	70	130				
Ethyl acetate	12	1.0	9.800	0	123	70	130				
Ethylbenzene	11	2.0	9.800	0	111	70	130				
Heptane	11	1.0	9.900	0	110	70	130				
Hexachlorobutadiene	9.7	2.0	9.400	0	103	70	130				
m,p-Xylene	22	2.0	19.20	0	115	70	130				
Methylene chloride	12	5.0	10.00	0	116	70	130				
n-Hexane	12	2.0	10.10	0	117	70	130				
Naphthalene	9.3	1.0	9.200	0	102	70	130				
o-Xylene	11	1.0	10.00	0	110	70	130				
Propylene	12	1.0	10.20	0	116	70	130				
Styrene	11	1.0	9.800	0	110	70	130				
tert-Butyl Methyl Ether	12	1.0	9.900	0	116	70	130				
Tetrachloroethene	10	1.0	9.600	0	106	70	130				
Tetrahydrofuran	12	1.0	10.00	0	118	70	130				
Toluene	11	1.0	9.800	0	110	70	130				
trans-1,2-Dichloroethene	12	1.0	9.800	0	117	70	130				
trans-1,3-dichloropropene	9.8	1.0	9.100	0	108	70	130				
Trichloroethene	10	1.0	9.600	0	106	70	130				
Trichlorofluoromethane	11	1.0	9.600	0	115	70	130				
Vinyl acetate	12	1.0	9.900	0	123	70	130				
Vinyl chloride	11	1.0	9.400	0	118	70	130				
Xylenes, Total	33	3.0	29.20	0	113	70	130				
Surr: 4-Bromofluorobenzene	12		12.50		97.7	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49425**

Sample ID:	**MBLK VOA1 061512**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49425**
Client ID:	**PBW**	Batch ID:	**R49425**	TestNo:	**TO-15**			Analysis Date:	**6/15/2012**	SeqNo:	**966128**

Analyte	Result	LOQ	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49425**

Sample ID:	**MBLK VOA1 061512**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49425**
Client ID:	**PBW**	Batch ID:	**R49425**	TestNo:	**TO-15**			Analysis Date:	**6/15/2012**	SeqNo:	**966128**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		95.2	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49425**

Sample ID:	**1206178-048ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49425**
Client ID:	**ZZZZZZ**	Batch ID:	**R49425**	TestNo:	**TO-15**			Analysis Date:	**6/15/2012**	SeqNo:	**966133**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	40						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	U
1,1,2-Trichloroethane	ND	40						0	0	25	U
1,1-Dichloroethane	ND	40						0	0	25	U
1,1-Dichloroethene	ND	40						0	0	25	U
1,2,4-Trichlorobenzene	ND	40						0	0	25	U
1,2,4-Trimethylbenzene	ND	40						0	0	25	U
1,2-Dibromoethane	ND	40						0	0	25	U
1,2-Dichlorobenzene	ND	40						0	0	25	U
1,2-Dichloroethane	ND	40						0	0	25	U
1,2-Dichloropropane	ND	40						0	0	25	U
1,3,5-Trimethylbenzene	ND	40						0	0	25	U
1,3-Butadiene	ND	40						0	0	25	U
1,3-Dichlorobenzene	ND	40						0	0	25	U
1,4-Dichlorobenzene	ND	40						0	0	25	U
2-Butanone	ND	40						0	0	25	U
2-Hexanone	ND	40						0	0	25	U
4-Methyl-2-pentanone	ND	40						0	0	25	U
Acetone	43	40						40.00	7.69	25	
Benzene	ND	40						0	0	25	U
Benzyl chloride	ND	40						0	0	25	U
Bromodichloromethane	ND	40						0	0	25	U
Bromoform	ND	40						0	0	25	U
Bromomethane	ND	40						0	0	25	U
Carbon disulfide	ND	40						0	0	25	U
Carbon tetrachloride	ND	40						0	0	25	U
Chlorobenzene	ND	40						0	0	25	U
Chlorodibromomethane	ND	40						0	0	25	U
Chloroethane	ND	40						0	0	25	U
Chloroform	ND	40						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49425**

Sample ID:	**1206178-048ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49425**
Client ID:	**ZZZZZZ**	Batch ID:	**R49425**	TestNo:	**TO-15**			Analysis Date:	**6/15/2012**	SeqNo:	**966133**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	40						0	0	25	U
cis-1,2-Dichloroethene	ND	40						0	0	25	U
cis-1,3-dichloropropene	ND	40						0	0	25	U
Cyclohexane	100	80						102.4	2.37	25	
Dichlorodifluoromethane	ND	40						0	0	25	U
Ethyl acetate	ND	40						0	0	25	U
Ethylbenzene	ND	80						0	0	25	U
Heptane	ND	40						0	0	25	U
Hexachlorobutadiene	ND	80						0	0	25	U
m,p-Xylene	ND	80						0	0	25	U
Methylene chloride	ND	200						0	0	25	U
n-Hexane	ND	80						0	0	25	U
Naphthalene	ND	40						0	0	25	U
o-Xylene	ND	40						0	0	25	U
Propylene	ND	40						0	0	25	U
Styrene	ND	40						0	0	25	U
tert-Butyl Methyl Ether	ND	40						0	0	25	U
Tetrachloroethene	ND	40						0	0	25	U
Tetrahydrofuran	ND	40						0	0	25	U
Toluene	56	40						56.00	0.712	25	
trans-1,2-Dichloroethene	ND	40						0	0	25	U
trans-1,3-dichloropropene	ND	40						0	0	25	U
Trichloroethene	ND	40						0	0	25	U
Trichlorofluoromethane	ND	40						0	0	25	U
Vinyl acetate	ND	40						0	0	25	U
Vinyl chloride	ND	40						0	0	25	U
Xylenes, Total	ND	120						0	0	25	U
Surr: 4-Bromofluorobenzene	480		500.0		96.5	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49456**

Sample ID:	**CCV VOA1 061812**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49456**
Client ID:	**CCV**	Batch ID:	**R49456**	TestNo:	**TO-15**			Analysis Date:	**6/18/2012**	SeqNo:	**966580**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	9.7	1.0	9.600	0	101	70	130				
1,1,2,2-Tetrachloroethane	9.4	1.0	10.00	0	94.1	70	130				
1,1,2-Trichloro-1,2,2-trifluoroethane	10	1.0	9.800	0	102	70	130				
1,1,2-Trichloroethane	9.2	1.0	9.800	0	94.0	70	130				
1,1-Dichloroethane	9.8	1.0	9.700	0	101	70	130				
1,1-Dichloroethene	10	1.0	9.900	0	105	70	130				
1,2,4-Trichlorobenzene	7.2	1.0	9.100	0	79.1	70	130				
1,2,4-Trimethylbenzene	9.0	1.0	9.800	0	92.3	70	130				
1,2-Dibromoethane	9.1	1.0	9.600	0	94.5	70	130				
1,2-Dichlorobenzene	9.0	1.0	9.700	0	93.0	70	130				
1,2-Dichloroethane	9.9	1.0	9.700	0	102	70	130				
1,2-Dichloropropane	9.5	1.0	9.800	0	96.7	70	130				
1,3,5-Trimethylbenzene	8.9	1.0	9.700	0	91.6	70	130				
1,3-Butadiene	11	1.0	9.800	0	113	70	130				
1,3-Dichlorobenzene	9.0	1.0	9.700	0	93.2	70	130				
1,4-Dichlorobenzene	9.0	1.0	9.600	0	93.6	70	130				
2-Butanone	9.8	1.0	9.900	0	99.3	70	130				
2-Hexanone	8.6	1.0	9.800	0	87.7	70	130				
4-Methyl-2-pentanone	8.9	1.0	10.00	0	89.2	70	130				
Acetone	9.6	1.0	10.00	0	95.7	70	130				
Benzene	10	1.0	9.600	0	106	70	130				
Benzyl chloride	9.1	1.0	9.700	0	93.4	70	130				
Bromodichloromethane	9.4	1.0	9.600	0	98.1	70	130				
Bromoform	9.1	1.0	9.600	0	94.6	70	130				
Bromomethane	9.7	1.0	9.300	0	105	70	130				
Carbon disulfide	10	1.0	9.700	0	105	70	130				
Carbon tetrachloride	9.6	1.0	9.500	0	101	70	130				
Chlorobenzene	9.5	1.0	9.900	0	95.7	70	130				
Chlorodibromomethane	9.4	1.0	9.200	0	102	70	130				
Chloroethane	9.5	1.0	9.800	0	96.5	70	130				
Chloroform	10	1.0	9.400	0	106	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49456**

Sample ID:	**CCV VOA1 061812**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49456**
Client ID:	**CCV**	Batch ID:	**R49456**	TestNo:	**TO-15**			Analysis Date:	**6/18/2012**	SeqNo:	**966580**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	10	1.0	9.800	0	103	70	130				
cis-1,2-Dichloroethene	10	1.0	9.800	0	102	70	130				
cis-1,3-dichloropropene	9.1	1.0	9.500	0	96.1	70	130				
Cyclohexane	9.9	2.0	9.800	0	101	70	130				
Dichlorodifluoromethane	9.6	1.0	9.200	0	104	70	130				
Ethyl acetate	9.6	1.0	9.800	0	97.4	70	130				
Ethylbenzene	9.4	2.0	9.800	0	96.2	70	130				
Heptane	9.6	1.0	9.900	0	97.3	70	130				
Hexachlorobutadiene	8.1	2.0	9.400	0	86.0	70	130				
m,p-Xylene	19	2.0	19.20	0	99.1	70	130				
Methylene chloride	9.9	5.0	10.00	0	99.4	70	130				
n-Hexane	10	2.0	10.10	0	101	70	130				
Naphthalene	7.4	1.0	9.200	0	80.2	70	130				
o-Xylene	9.5	1.0	10.00	0	94.8	70	130				
Propylene	12	1.0	10.20	0	120	70	130				
Styrene	9.4	1.0	9.800	0	96.2	70	130				
tert-Butyl Methyl Ether	9.6	1.0	9.900	0	96.9	70	130				
Tetrachloroethene	9.0	1.0	9.600	0	93.9	70	130				
Tetrahydrofuran	9.5	1.0	10.00	0	95.0	70	130				
Toluene	9.4	1.0	9.800	0	96.2	70	130				
trans-1,2-Dichloroethene	9.9	1.0	9.800	0	101	70	130				
trans-1,3-dichloropropene	8.6	1.0	9.100	0	94.6	70	130				
Trichloroethene	9.1	1.0	9.600	0	95.0	70	130				
Trichlorofluoromethane	10	1.0	9.600	0	104	70	130				
Vinyl acetate	9.9	1.0	9.900	0	99.7	70	130				
Vinyl chloride	10	1.0	9.400	0	110	70	130				
Xylenes, Total	28	3.0	29.20	0	97.6	70	130				
Surr: 4-Bromofluorobenzene	12		12.50		99.6	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49456**

Sample ID:	**MBLK VOA1 061812**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49456**
Client ID:	**PBW**	Batch ID:	**R49456**	TestNo:	**TO-15**			Analysis Date:	**6/18/2012**	SeqNo:	**966582**

Analyte	Result	LOQ	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49456**

Sample ID:	**MBLK VOA1 061812**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49456**
Client ID:	**PBW**	Batch ID:	**R49456**	TestNo:	**TO-15**			Analysis Date:	**6/18/2012**	SeqNo:	**966582**

Analyte	Result	LOQ	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49456**

Sample ID:	**1206396-018ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49456**
Client ID:	**VA1447**	Batch ID:	**R49456**	TestNo:	**TO-15**			Analysis Date:	**6/18/2012**	SeqNo:	**966586**

Analyte	Result	LOQ	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	860	800						0	200	25	R
Benzene	1,700	800						1,512	11.9	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49456**

Sample ID:	**1206396-018ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49456**
Client ID:	**VA1447**	Batch ID:	**R49456**	TestNo:	**TO-15**			Analysis Date:	**6/18/2012**	SeqNo:	**966586**

Analyte	Result	LOQ	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	5,400	1,600						5,120	5.32	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	ND	1,600						0	0	25	U
Heptane	3,100	800						2,960	5.52	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	ND	1,600						0	0	25	U
Methylene chloride	ND	4,000						0	0	25	U
n-Hexane	2,800	1,600						2,632	6.19	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	4,500	800						4,104	10.0	25	
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	ND	2,400						0	0	25	U
Surr: 4-Bromofluorobenzene	9,800		10,000		98.0	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49489**

Sample ID: **MBLK-062012 TCD** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49489**

Client ID: **PBW** Batch ID: **R49489** TestNo: **ASTM-D2504** Analysis Date: **6/20/2012** SeqNo: **969287**

Analyte	Result	LOQ	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: **CCV-062012 TCD-A** Samp Type: **CCV** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49489**

Client ID: **CCV** Batch ID: **R49489** TestNo: **ASTM-D2504** Analysis Date: **6/20/2012** SeqNo: **969288**

Analyte	Result	LOQ	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	106	85	115				
Carbon Monoxide	2.8	0.10	2.500	0	111	85	115				
Methane	2.1	0.50	2.000	0	104	85	115				
Nitrogen	2.8	0.10	2.500	0	111	85	115				
Oxygen	2.5	0.10	2.500	0	101	85	115				

Sample ID: **LCS-062012 TCD-A** Samp Type: **LCS** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49489**

Client ID: **LCSW** Batch ID: **R49489** TestNo: **ASTM-D2504** Analysis Date: **6/20/2012** SeqNo: **969289**

Analyte	Result	LOQ	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	105	70	130	2.640	0.608	20	
Carbon Monoxide	2.7	0.10	2.500	0	110	70	130	2.785	1.70	20	
Methane	2.1	0.50	2.000	0	105	70	130	2.088	0.191	20	
Nitrogen	2.8	0.10	2.500	0	110	70	130	2.768	0.616	20	
Oxygen	2.5	0.10	2.500	0	101	70	130	2.537	0.276	20	

Sample ID: **1206396-011BDUP** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **49489**

Client ID: **VA1434** Batch ID: **R49489** TestNo: **ASTM-D2504** Analysis Date: **6/20/2012** SeqNo: **969301**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.29	0.10						0.2750	6.34	20	
Carbon Monoxide	ND	0.10						0	0	20	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49489**

Sample ID:	**1206396-011BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49489**
Client ID:	**VA1434**	Batch ID:	**R49489**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/20/2012**	SeqNo:	**969301**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Methane	ND	0.50						0	0	20	U
Nitrogen	79	0.10						78.98	0.0418	20	
Oxygen	20	0.10						20.13	0.0298	20	

Sample ID:	**CCV-062012 TCD-B**	Samp Type:	**CCV**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49489**
Client ID:	**CCV**	Batch ID:	**R49489**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/20/2012**	SeqNo:	**969302**

Analyte	Result	LOQ	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	104	85	115				
Carbon Monoxide	2.7	0.10	2.500	0	108	85	115				
Methane	2.1	0.50	2.000	0	103	85	115				
Nitrogen	2.7	0.10	2.500	0	109	85	115				
Oxygen	2.5	0.10	2.500	0	100	85	115				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49500**

Sample ID:	**CCV VOA1 061912**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49500**
Client ID:	**CCV**	Batch ID:	**R49500**	TestNo:	**TO-15**			Analysis Date:	**6/19/2012**	SeqNo:	**967447**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	9.5	1.0	9.600	0	98.8	70	130				
1,1,2,2-Tetrachloroethane	9.4	1.0	10.00	0	94.4	70	130				
1,1,2-Trichloro-1,2,2-trifluoroethane	9.7	1.0	9.800	0	99.0	70	130				
1,1,2-Trichloroethane	9.1	1.0	9.800	0	92.6	70	130				
1,1-Dichloroethane	9.6	1.0	9.700	0	99.0	70	130				
1,1-Dichloroethene	10	1.0	9.900	0	101	70	130				
1,2,4-Trichlorobenzene	7.1	1.0	9.100	0	77.8	70	130				
1,2,4-Trimethylbenzene	9.2	1.0	9.800	0	93.5	70	130				
1,2-Dibromoethane	9.0	1.0	9.600	0	93.5	70	130				
1,2-Dichlorobenzene	8.9	1.0	9.700	0	91.8	70	130				
1,2-Dichloroethane	9.0	1.0	9.700	0	92.7	70	130				
1,2-Dichloropropane	9.1	1.0	9.800	0	93.3	70	130				
1,3,5-Trimethylbenzene	8.8	1.0	9.700	0	91.2	70	130				
1,3-Butadiene	11	1.0	9.800	0	111	70	130				
1,3-Dichlorobenzene	8.9	1.0	9.700	0	91.4	70	130				
1,4-Dichlorobenzene	8.8	1.0	9.600	0	92.2	70	130				
2-Butanone	9.1	1.0	9.900	0	92.1	70	130				
2-Hexanone	8.7	1.0	9.800	0	88.8	70	130				
4-Methyl-2-pentanone	8.9	1.0	10.00	0	89.3	70	130				
Acetone	9.2	1.0	10.00	0	92.4	70	130				
Benzene	9.5	1.0	9.600	0	98.6	70	130				
Benzyl chloride	8.9	1.0	9.700	0	91.6	70	130				
Bromodichloromethane	9.2	1.0	9.600	0	96.4	70	130				
Bromoform	8.7	1.0	9.600	0	91.0	70	130				
Bromomethane	9.6	1.0	9.300	0	103	70	130				
Carbon disulfide	10	1.0	9.700	0	103	70	130				
Carbon tetrachloride	9.3	1.0	9.500	0	97.7	70	130				
Chlorobenzene	9.2	1.0	9.900	0	92.4	70	130				
Chlorodibromomethane	9.1	1.0	9.200	0	98.7	70	130				
Chloroethane	9.4	1.0	9.800	0	96.1	70	130				
Chloroform	9.8	1.0	9.400	0	104	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49500**

Sample ID:	**CCV VOA1 061912**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49500**
Client ID:	**CCV**	Batch ID:	**R49500**	TestNo:	**TO-15**			Analysis Date:	**6/19/2012**	SeqNo:	**967447**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	10	1.0	9.800	0	105	70	130				
cis-1,2-Dichloroethene	9.7	1.0	9.800	0	99.0	70	130				
cis-1,3-dichloropropene	8.8	1.0	9.500	0	92.8	70	130				
Cyclohexane	11	2.0	9.800	0	110	70	130				
Dichlorodifluoromethane	9.8	1.0	9.200	0	107	70	130				
Ethyl acetate	9.0	1.0	9.800	0	91.8	70	130				
Ethylbenzene	9.3	2.0	9.800	0	94.9	70	130				
Heptane	10	1.0	9.900	0	105	70	130				
Hexachlorobutadiene	7.9	2.0	9.400	0	84.4	70	130				
m,p-Xylene	19	2.0	19.20	0	98.1	70	130				
Methylene chloride	9.6	5.0	10.00	0	96.2	70	130				
n-Hexane	10	2.0	10.10	0	102	70	130				
Naphthalene	7.3	1.0	9.200	0	79.5	70	130				
o-Xylene	9.4	1.0	10.00	0	93.5	70	130				
Propylene	13	1.0	10.20	0	123	70	130				
Styrene	9.2	1.0	9.800	0	93.8	70	130				
tert-Butyl Methyl Ether	9.1	1.0	9.900	0	92.0	70	130				
Tetrachloroethene	9.1	1.0	9.600	0	94.7	70	130				
Tetrahydrofuran	9.7	1.0	10.00	0	97.1	70	130				
Toluene	10	1.0	9.800	0	103	70	130				
trans-1,2-Dichloroethene	9.6	1.0	9.800	0	98.1	70	130				
trans-1,3-dichloropropene	8.5	1.0	9.100	0	93.7	70	130				
Trichloroethene	9.1	1.0	9.600	0	94.7	70	130				
Trichlorofluoromethane	9.7	1.0	9.600	0	101	70	130				
Vinyl acetate	9.4	1.0	9.900	0	95.5	70	130				
Vinyl chloride	10	1.0	9.400	0	111	70	130				
Xylenes, Total	28	3.0	29.20	0	96.5	70	130				
Surr: 4-Bromofluorobenzene	12		12.50		97.0	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49500**

Sample ID:	**MBLK VOA1 061912**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49500**
Client ID:	**PBW**	Batch ID:	**R49500**	TestNo:	**TO-15**			Analysis Date:	**6/19/2012**	SeqNo:	**967449**

Analyte	Result	LOQ	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49500**

Sample ID:	**MBLK VOA1 061912**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49500**
Client ID:	**PBW**	Batch ID:	**R49500**	TestNo:	**TO-15**			Analysis Date:	**6/19/2012**	SeqNo:	**967449**

Analyte	Result	LOQ	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		97.8	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49500**

Sample ID:	**1206396-015Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49500**
Client ID:	**VA1444**	Batch ID:	**R49500**	TestNo:	**TO-15**			Analysis Date:	**6/20/2012**	SeqNo:	**967455**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	40						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	U
1,1,2-Trichloroethane	ND	40						0	0	25	U
1,1-Dichloroethane	ND	40						0	0	25	U
1,1-Dichloroethene	ND	40						0	0	25	U
1,2,4-Trichlorobenzene	ND	40						0	0	25	U
1,2,4-Trimethylbenzene	ND	40						0	0	25	U
1,2-Dibromoethane	ND	40						0	0	25	U
1,2-Dichlorobenzene	ND	40						0	0	25	U
1,2-Dichloroethane	ND	40						0	0	25	U
1,2-Dichloropropane	ND	40						0	0	25	U
1,3,5-Trimethylbenzene	ND	40						0	0	25	U
1,3-Butadiene	ND	40						0	0	25	U
1,3-Dichlorobenzene	ND	40						0	0	25	U
1,4-Dichlorobenzene	ND	40						0	0	25	U
2-Butanone	ND	40						0	0	25	U
2-Hexanone	ND	40						0	0	25	U
4-Methyl-2-pentanone	ND	40						0	0	25	U
Acetone	69	40						72.80	5.07	25	
Benzene	510	40						540.4	4.85	25	
Benzyl chloride	ND	40						0	0	25	U
Bromodichloromethane	ND	40						0	0	25	U
Bromoform	ND	40						0	0	25	U
Bromomethane	ND	40						0	0	25	U
Carbon disulfide	ND	40						0	0	25	U
Carbon tetrachloride	ND	40						0	0	25	U
Chlorobenzene	ND	40						0	0	25	U
Chlorodibromomethane	ND	40						0	0	25	U
Chloroethane	ND	40						0	0	25	U
Chloroform	ND	40						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49500**

Sample ID:	**1206396-015Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49500**
Client ID:	**VA1444**	Batch ID:	**R49500**	TestNo:	**TO-15**			Analysis Date:	**6/20/2012**	SeqNo:	**967455**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	40						0	0	25	U
cis-1,2-Dichloroethene	ND	40						0	0	25	U
cis-1,3-dichloropropene	ND	40						0	0	25	U
Cyclohexane	1,100	80						1,192	5.13	25	
Dichlorodifluoromethane	ND	40						0	0	25	U
Ethyl acetate	ND	40						0	0	25	U
Ethylbenzene	77	80						81.60	6.06	25	J
Heptane	910	40						988.4	7.87	25	
Hexachlorobutadiene	ND	80						0	0	25	U
m,p-Xylene	190	80						209.2	7.95	25	
Methylene chloride	ND	200						0	0	25	U
n-Hexane	660	80						689.6	4.51	25	
Naphthalene	ND	40						0	0	25	U
o-Xylene	63	40						67.60	6.73	25	
Propylene	ND	40						0	0	25	U
Styrene	ND	40						0	0	25	U
tert-Butyl Methyl Ether	ND	40						0	0	25	U
Tetrachloroethene	ND	40						0	0	25	U
Tetrahydrofuran	ND	40						0	0	25	U
Toluene	1,500	40						1,591	8.30	25	
trans-1,2-Dichloroethene	ND	40						0	0	25	U
trans-1,3-dichloropropene	ND	40						0	0	25	U
Trichloroethene	ND	40						0	0	25	U
Trichlorofluoromethane	ND	40						0	0	25	U
Vinyl acetate	ND	40						0	0	25	U
Vinyl chloride	ND	40						0	0	25	U
Xylenes, Total	260	120						276.8	7.65	25	
Surr: 4-Bromofluorobenzene	470		500.0		94.9	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49530**

Sample ID:	**CCV VOA1 062012**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49530**
Client ID:	**CCV**	Batch ID:	**R49530**	TestNo:	**TO-15**			Analysis Date:	**6/20/2012**	SeqNo:	**968128**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11	1.0	9.600	0	111	70	130				
1,1,2,2-Tetrachloroethane	11	1.0	10.00	0	108	70	130				
1,1,2-Trichloro-1,2,2-trifluoroethane	11	1.0	9.800	0	110	70	130				
1,1,2-Trichloroethane	11	1.0	9.800	0	113	70	130				
1,1-Dichloroethane	11	1.0	9.700	0	110	70	130				
1,1-Dichloroethene	11	1.0	9.900	0	110	70	130				
1,2,4-Trichlorobenzene	8.4	1.0	9.100	0	92.7	70	130				
1,2,4-Trimethylbenzene	11	1.0	9.800	0	108	70	130				
1,2-Dibromoethane	11	1.0	9.600	0	113	70	130				
1,2-Dichlorobenzene	10	1.0	9.700	0	104	70	130				
1,2-Dichloroethane	11	1.0	9.700	0	112	70	130				
1,2-Dichloropropane	11	1.0	9.800	0	117	70	130				
1,3,5-Trimethylbenzene	10	1.0	9.700	0	108	70	130				
1,3-Butadiene	11	1.0	9.800	0	111	70	130				
1,3-Dichlorobenzene	10	1.0	9.700	0	105	70	130				
1,4-Dichlorobenzene	10	1.0	9.600	0	106	70	130				
2-Butanone	11	1.0	9.900	0	110	70	130				
2-Hexanone	11	1.0	9.800	0	115	70	130				
4-Methyl-2-pentanone	11	1.0	10.00	0	111	70	130				
Acetone	11	1.0	10.00	0	111	70	130				
Benzene	11	1.0	9.600	0	115	70	130				
Benzyl chloride	10	1.0	9.700	0	105	70	130				
Bromodichloromethane	11	1.0	9.600	0	113	70	130				
Bromoform	10	1.0	9.600	0	109	70	130				
Bromomethane	9.9	1.0	9.300	0	107	70	130				
Carbon disulfide	11	1.0	9.700	0	108	70	130				
Carbon tetrachloride	11	1.0	9.500	0	111	70	130				
Chlorobenzene	11	1.0	9.900	0	110	70	130				
Chlorodibromomethane	11	1.0	9.200	0	119	70	130				
Chloroethane	9.8	1.0	9.800	0	100	70	130				
Chloroform	11	1.0	9.400	0	117	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49530**

Sample ID:	**CCV VOA1 062012**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49530**
Client ID:	**CCV**	Batch ID:	**R49530**	TestNo:	**TO-15**			Analysis Date:	**6/20/2012**	SeqNo:	**968128**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	10	1.0	9.800	0	105	70	130				
cis-1,2-Dichloroethene	11	1.0	9.800	0	111	70	130				
cis-1,3-dichloropropene	11	1.0	9.500	0	115	70	130				
Cyclohexane	11	2.0	9.800	0	111	70	130				
Dichlorodifluoromethane	9.6	1.0	9.200	0	105	70	130				
Ethyl acetate	11	1.0	9.800	0	113	70	130				
Ethylbenzene	11	2.0	9.800	0	112	70	130				
Heptane	11	1.0	9.900	0	114	70	130				
Hexachlorobutadiene	9.6	2.0	9.400	0	103	70	130				
m,p-Xylene	22	2.0	19.20	0	116	70	130				
Methylene chloride	11	5.0	10.00	0	108	70	130				
n-Hexane	11	2.0	10.10	0	110	70	130				
Naphthalene	8.4	1.0	9.200	0	91.0	70	130				
o-Xylene	11	1.0	10.00	0	110	70	130				
Propylene	13	1.0	10.20	0	124	70	130				
Styrene	11	1.0	9.800	0	111	70	130				
tert-Butyl Methyl Ether	11	1.0	9.900	0	113	70	130				
Tetrachloroethene	11	1.0	9.600	0	110	70	130				
Tetrahydrofuran	11	1.0	10.00	0	111	70	130				
Toluene	11	1.0	9.800	0	116	70	130				
trans-1,2-Dichloroethene	11	1.0	9.800	0	110	70	130				
trans-1,3-dichloropropene	10	1.0	9.100	0	114	70	130				
Trichloroethene	11	1.0	9.600	0	111	70	130				
Trichlorofluoromethane	10	1.0	9.600	0	108	70	130				
Vinyl acetate	12	1.0	9.900	0	120	70	130				
Vinyl chloride	10	1.0	9.400	0	110	70	130				
Xylenes, Total	33	3.0	29.20	0	114	70	130				
Surr: 4-Bromofluorobenzene	12		12.50		98.8	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49530**

Sample ID:	**MBLK VOA1 062012**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49530**
Client ID:	**PBW**	Batch ID:	**R49530**	TestNo:	**TO-15**			Analysis Date:	**6/20/2012**	SeqNo:	**968130**

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49530**

Sample ID:	**MBLK VOA1 062012**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49530**
Client ID:	**PBW**	Batch ID:	**R49530**	TestNo:	**TO-15**			Analysis Date:	**6/20/2012**	SeqNo:	**968130**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
n-Hexane	ND	2.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	12		12.50		94.2	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49530**

Sample ID:	**1206517-005Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49530**
Client ID:	**ZZZZZZ**	Batch ID:	**R49530**	TestNo:	**TO-15**			Analysis Date:	**6/20/2012**	SeqNo:	**968132**

Analyte	Result	LOQ	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	
1,1,2,2-Tetrachloroethane	ND	800						0	0	25	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800						0	0	25	
1,1,2-Trichloroethane	ND	800						0	0	25	
1,1-Dichloroethane	ND	800						0	0	25	
1,1-Dichloroethene	ND	800						0	0	25	
1,2,4-Trichlorobenzene	ND	800						0	0	25	
1,2,4-Trimethylbenzene	ND	800						0	0	25	
1,2-Dibromoethane	ND	800						0	0	25	
1,2-Dichlorobenzene	ND	800						0	0	25	
1,2-Dichloroethane	ND	800						0	0	25	
1,2-Dichloropropane	ND	800						0	0	25	
1,3,5-Trimethylbenzene	ND	800						0	0	25	
1,3-Butadiene	ND	800						0	0	25	
1,3-Dichlorobenzene	ND	800						0	0	25	
1,4-Dichlorobenzene	ND	800						0	0	25	
2-Butanone	ND	800						0	0	25	
2-Hexanone	ND	800						0	0	25	
4-Methyl-2-pentanone	ND	800						0	0	25	
Acetone	860	800						0	200	25	R
Benzene	9,300	800						8,296	11.5	25	
Benzyl chloride	ND	800						0	0	25	
Bromodichloromethane	ND	800						0	0	25	
Bromoform	ND	800						0	0	25	
Bromomethane	ND	800						0	0	25	
Carbon disulfide	ND	800						0	0	25	
Carbon tetrachloride	ND	800						0	0	25	
Chlorobenzene	ND	800						0	0	25	
Chlorodibromomethane	ND	800						0	0	25	
Chloroethane	ND	800						0	0	25	
Chloroform	ND	800						0	0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49530**

Sample ID:	**1206517-005Adup**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49530**
Client ID:	**ZZZZZZ**	Batch ID:	**R49530**	TestNo:	**TO-15**			Analysis Date:	**6/20/2012**	SeqNo:	**968132**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	800						0	0	25	
cis-1,2-Dichloroethene	ND	800						0	0	25	
cis-1,3-dichloropropene	ND	800						0	0	25	
Cyclohexane	7,200	1,600						6,560	9.19	25	
Dichlorodifluoromethane	ND	800						0	0	25	
Ethyl acetate	ND	800						0	0	25	
Ethylbenzene	940	1,600						0	200	25	JR
Heptane	4,700	800						4,088	14.4	25	
Hexachlorobutadiene	ND	1,600						0	0	25	
m,p-Xylene	2,100	1,600						1,776	18.4	25	
Methylene chloride	ND	4,000						0	0	25	
n-Hexane	4,600	1,600						4,208	8.73	25	
Naphthalene	ND	800						0	0	25	
o-Xylene	ND	800						0	0	25	
Propylene	ND	800						0	0	25	
Styrene	ND	800						0	0	25	
tert-Butyl Methyl Ether	ND	800						0	0	25	
Tetrachloroethene	ND	800						0	0	25	
Tetrahydrofuran	ND	800						0	0	25	
Toluene	21,000	800						17,990	17.6	25	
trans-1,2-Dichloroethene	ND	800						0	0	25	
trans-1,3-dichloropropene	ND	800						0	0	25	
Trichloroethene	ND	800						0	0	25	
Trichlorofluoromethane	ND	800						0	0	25	
Vinyl acetate	ND	800						0	0	25	
Vinyl chloride	ND	800						0	0	25	
Xylenes, Total	2,100	2,400						1,776	18.4	25	J
Surr: 4-Bromofluorobenzene	10,000		10,000		99.5	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49537**

Sample ID:	**MBLK-062112 TCD**	Samp Type:	**MBLK**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49537**
Client ID:	**PBW**	Batch ID:	**R49537**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/21/2012**	SeqNo:	**968257**

Analyte	Result	LOQ	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:	**CCV-062112 TCD-A**	Samp Type:	**CCV**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49537**
Client ID:	**CCV**	Batch ID:	**R49537**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/21/2012**	SeqNo:	**968258**

Analyte	Result	LOQ	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	105	85	115				
Carbon Monoxide	2.7	0.10	2.500	0	109	85	115				
Methane	2.1	0.50	2.000	0	104	85	115				
Nitrogen	2.7	0.10	2.500	0	109	85	115				
Oxygen	2.5	0.10	2.500	0	101	85	115				

Sample ID:	**LCS-062112 TCD-A**	Samp Type:	**LCS**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49537**
Client ID:	**LCSW**	Batch ID:	**R49537**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/21/2012**	SeqNo:	**968259**

Analyte	Result	LOQ	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	104	70	130	2.626	1.30	20	
Carbon Monoxide	2.7	0.10	2.500	0	108	70	130	2.727	0.625	20	
Methane	2.1	0.50	2.000	0	103	70	130	2.078	0.531	20	
Nitrogen	2.7	0.10	2.500	0	108	70	130	2.735	1.10	20	
Oxygen	2.5	0.10	2.500	0	99.8	70	130	2.518	0.918	20	

Sample ID:	**1206396-020BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49537**
Client ID:	**VA1449**	Batch ID:	**R49537**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/21/2012**	SeqNo:	**968272**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.21	0.10						0.2250	6.90	20	
Carbon Monoxide	ND	0.10						0	0	20	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49537**

Sample ID:	**1206396-020BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49537**
Client ID:	**VA1449**	Batch ID:	**R49537**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/21/2012**	SeqNo:	**968272**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Methane	ND	0.50						0	0	20	U
Nitrogen	79	0.10						79.03	0.304	20	
Oxygen	20	0.10						19.87	0.0503	20	

Sample ID:	**CCV 062112 TCD-B**	Samp Type:	**CCV**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49537**
Client ID:	**CCV**	Batch ID:	**R49537**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/21/2012**	SeqNo:	**968273**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.5	0.10	2.500	0	101	85	115				
Carbon Monoxide	2.7	0.10	2.500	0	107	85	115				
Methane	2.0	0.50	2.000	0	102	85	115				
Nitrogen	2.7	0.10	2.500	0	108	85	115				
Oxygen	2.5	0.10	2.500	0	98.9	85	115				

Sample ID:	**1206396-024BDUP**	Samp Type:	**DUP**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49537**
Client ID:	**VA1467**	Batch ID:	**R49537**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/21/2012**	SeqNo:	**968284**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.80	0.10						0.7900	0.882	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	81	0.10						80.51	0.184	20	
Oxygen	18	0.10						17.49	0.166	20	

Sample ID:	**CCV-062012 TCD-B**	Samp Type:	**CCV**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49537**
Client ID:	**CCV**	Batch ID:	**R49537**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/21/2012**	SeqNo:	**968293**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10	2.500	0	109	85	115				
Carbon Monoxide	2.8	0.10	2.500	0	111	85	115				
Methane	2.1	0.50	2.000	0	105	85	115				
Nitrogen	2.7	0.10	2.500	0	110	85	115				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49537**

Sample ID:	**CCV-062012 TCD-B**	Samp Type:	**CCV**	Test Code:	**ASTM-D2504**	Units:	**%**	Prep Date:		RunNo:	**49537**
Client ID:	**CCV**	Batch ID:	**R49537**	TestNo:	**ASTM-D2504**			Analysis Date:	**6/21/2012**	SeqNo:	**968293**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Oxygen	2.5	0.10	2.500	0	102	85	115				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49548**

Sample ID:	**CCV VOA9 062112**	Samp Type:	**CCV**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**49548**
Client ID:	**CCV**	Batch ID:	**R49548**	TestNo:	**MA_APH**			Analysis Date:	**6/21/2012**	SeqNo:	**968526**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	89		89.50		99.8	70	130				

Sample ID:	**MBLK VOA9 062112**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**49548**
Client ID:	**PBW**	Batch ID:	**R49548**	TestNo:	**MA_APH**			Analysis Date:	**6/21/2012**	SeqNo:	**968528**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	86		89.50		96.0	70	130				

Sample ID:	**1206396-018Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**49548**
Client ID:	**VA1447**	Batch ID:	**R49548**	TestNo:	**MA_APH**			Analysis Date:	**6/22/2012**	SeqNo:	**968552**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	320,000	94,000						298,300	7.66	30	
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	150,000						0	0	30	U
Surr: 4-Bromofluorobenzene	69,000		71,600		96.6	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49551**

Sample ID:	**CCV VOA1 062112**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49551**
Client ID:	**CCV**	Batch ID:	**R49551**	TestNo:	**TO-15**			Analysis Date:	**6/21/2012**	SeqNo:	**968636**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11	1.0	9.600	0	114	70	130				
1,1,2,2-Tetrachloroethane	11	1.0	10.00	0	114	70	130				
1,1,2-Trichloro-1,2,2-trifluoroethane	11	1.0	9.800	0	112	70	130				
1,1,2-Trichloroethane	11	1.0	9.800	0	116	70	130				
1,1-Dichloroethane	11	1.0	9.700	0	115	70	130				
1,1-Dichloroethene	11	1.0	9.900	0	112	70	130				
1,2,4-Trichlorobenzene	10	1.0	9.100	0	114	70	130				
1,2,4-Trimethylbenzene	11	1.0	9.800	0	114	70	130				
1,2-Dibromoethane	11	1.0	9.600	0	117	70	130				
1,2-Dichlorobenzene	11	1.0	9.700	0	114	70	130				
1,2-Dichloroethane	12	1.0	9.700	0	120	70	130				
1,2-Dichloropropane	12	1.0	9.800	0	118	70	130				
1,3,5-Trimethylbenzene	11	1.0	9.700	0	113	70	130				
1,3-Butadiene	11	1.0	9.800	0	112	70	130				
1,3-Dichlorobenzene	11	1.0	9.700	0	116	70	130				
1,4-Dichlorobenzene	11	1.0	9.600	0	117	70	130				
2-Butanone	12	1.0	9.900	0	119	70	130				
2-Hexanone	11	1.0	9.800	0	117	70	130				
4-Methyl-2-pentanone	11	1.0	10.00	0	113	70	130				
Acetone	12	1.0	10.00	0	115	70	130				
Benzene	12	1.0	9.600	0	124	70	130				
Benzyl chloride	11	1.0	9.700	0	114	70	130				
Bromodichloromethane	11	1.0	9.600	0	114	70	130				
Bromoform	11	1.0	9.600	0	118	70	130				
Bromomethane	10	1.0	9.300	0	108	70	130				
Carbon disulfide	11	1.0	9.700	0	111	70	130				
Carbon tetrachloride	11	1.0	9.500	0	114	70	130				
Chlorobenzene	12	1.0	9.900	0	117	70	130				
Chlorodibromomethane	11	1.0	9.200	0	124	70	130				
Chloroethane	9.8	1.0	9.800	0	100	70	130				
Chloroform	11	1.0	9.400	0	121	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49551**

Sample ID:	**CCV VOA1 062112**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49551**
Client ID:	**CCV**	Batch ID:	**R49551**	TestNo:	**TO-15**			Analysis Date:	**6/21/2012**	SeqNo:	**968636**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	10	1.0	9.800	0	103	70	130				
cis-1,2-Dichloroethene	11	1.0	9.800	0	116	70	130				
cis-1,3-dichloropropene	11	1.0	9.500	0	117	70	130				
Cyclohexane	11	2.0	9.800	0	115	70	130				
Dichlorodifluoromethane	9.7	1.0	9.200	0	105	70	130				
Ethyl acetate	12	1.0	9.800	0	122	70	130				
Ethylbenzene	12	2.0	9.800	0	118	70	130				
Heptane	11	1.0	9.900	0	114	70	130				
Hexachlorobutadiene	11	2.0	9.400	0	116	70	130				
m,p-Xylene	23	2.0	19.20	0	122	70	130				
Methylene chloride	11	5.0	10.00	0	111	70	130				
n-Hexane	12	2.0	10.10	0	114	70	130				
Naphthalene	11	1.0	9.200	0	115	70	130				
o-Xylene	12	1.0	10.00	0	118	70	130				
Propylene	13	1.0	10.20	0	123	70	130				
Styrene	12	1.0	9.800	0	120	70	130				
tert-Butyl Methyl Ether	12	1.0	9.900	0	119	70	130				
Tetrachloroethene	11	1.0	9.600	0	111	70	130				
Tetrahydrofuran	12	1.0	10.00	0	117	70	130				
Toluene	12	1.0	9.800	0	118	70	130				
trans-1,2-Dichloroethene	11	1.0	9.800	0	114	70	130				
trans-1,3-dichloropropene	11	1.0	9.100	0	118	70	130				
Trichloroethene	11	1.0	9.600	0	114	70	130				
Trichlorofluoromethane	11	1.0	9.600	0	110	70	130				
Vinyl acetate	12	1.0	9.900	0	124	70	130				
Vinyl chloride	10	1.0	9.400	0	109	70	130				
Xylenes, Total	35	3.0	29.20	0	120	70	130				
Surr: 4-Bromofluorobenzene	12		12.50		99.3	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49551**

Sample ID:	**BV MBLK VOA1 062**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49551**
Client ID:	**PBW**	Batch ID:	**R49551**	TestNo:	**TO-15**			Analysis Date:	**6/21/2012**	SeqNo:	**968637**

Analyte	Result	LOQ	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49551**

Sample ID:	**BV MBLK VOA1 062**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49551**
Client ID:	**PBW**	Batch ID:	**R49551**	TestNo:	**TO-15**			Analysis Date:	**6/21/2012**	SeqNo:	**968637**

Analyte	Result	LOQ	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		98.2	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49551**

Sample ID:	**1206396-009ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49551**
Client ID:	**VA1432**	Batch ID:	**R49551**	TestNo:	**TO-15**			Analysis Date:	**6/21/2012**	SeqNo:	**968643**

Analyte	Result	LOQ	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	2,000	800						1,840	8.73	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49551**

Sample ID:	**1206396-009ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49551**
Client ID:	**VA1432**	Batch ID:	**R49551**	TestNo:	**TO-15**			Analysis Date:	**6/21/2012**	SeqNo:	**968643**

Analyte	Result	LOQ	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	5,700	1,600						5,256	7.89	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	1,100	1,600						944.0	11.2	25	J
Heptane	6,100	800						5,496	9.83	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	2,900	1,600						2,568	10.6	25	
Methylene chloride	ND	4,000						0	0	25	U
n-Hexane	1,600	1,600						1,424	8.60	25	J
Naphthalene	ND	800						0	0	25	U
o-Xylene	940	800						840.0	11.7	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	14,000	800						12,460	11.2	25	
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	3,800	2,400						3,408	10.9	25	
Surr: 4-Bromofluorobenzene	9,600		10,000		95.9	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49570**

Sample ID:	**CCV VOA1 062212**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49570**
Client ID:	**CCV**	Batch ID:	**R49570**	TestNo:	**TO-15**			Analysis Date:	**6/22/2012**	SeqNo:	**968961**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11	1.0	9.600	0	117	70	130				
1,1,2,2-Tetrachloroethane	12	1.0	10.00	0	115	70	130				
1,1,2-Trichloro-1,2,2-trifluoroethane	11	1.0	9.800	0	116	70	130				
1,1,2-Trichloroethane	12	1.0	9.800	0	118	70	130				
1,1-Dichloroethane	11	1.0	9.700	0	113	70	130				
1,1-Dichloroethene	11	1.0	9.900	0	112	70	130				
1,2,4-Trichlorobenzene	9.2	1.0	9.100	0	101	70	130				
1,2,4-Trimethylbenzene	11	1.0	9.800	0	117	70	130				
1,2-Dibromoethane	12	1.0	9.600	0	121	70	130				
1,2-Dichlorobenzene	11	1.0	9.700	0	114	70	130				
1,2-Dichloroethane	11	1.0	9.700	0	113	70	130				
1,2-Dichloropropane	12	1.0	9.800	0	117	70	130				
1,3,5-Trimethylbenzene	11	1.0	9.700	0	116	70	130				
1,3-Butadiene	11	1.0	9.800	0	117	70	130				
1,3-Dichlorobenzene	11	1.0	9.700	0	116	70	130				
1,4-Dichlorobenzene	11	1.0	9.600	0	116	70	130				
2-Butanone	12	1.0	9.900	0	118	70	130				
2-Hexanone	11	1.0	9.800	0	116	70	130				
4-Methyl-2-pentanone	11	1.0	10.00	0	114	70	130				
Acetone	11	1.0	10.00	0	111	70	130				
Benzene	11	1.0	9.600	0	116	70	130				
Benzyl chloride	10	1.0	9.700	0	108	70	130				
Bromodichloromethane	11	1.0	9.600	0	119	70	130				
Bromoform	12	1.0	9.600	0	123	70	130				
Bromomethane	10	1.0	9.300	0	108	70	130				
Carbon disulfide	11	1.0	9.700	0	112	70	130				
Carbon tetrachloride	11	1.0	9.500	0	118	70	130				
Chlorobenzene	12	1.0	9.900	0	119	70	130				
Chlorodibromomethane	12	1.0	9.800	0	123	70	130				
Chloroethane	9.7	1.0	9.800	0	98.7	70	130				
Chloroform	12	1.0	9.400	0	123	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49570**

Sample ID:	**CCV VOA1 062212**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49570**
Client ID:	**CCV**	Batch ID:	**R49570**	TestNo:	**TO-15**			Analysis Date:	**6/22/2012**	SeqNo:	**968961**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	10	1.0	9.800	0	103	70	130				
cis-1,2-Dichloroethene	11	1.0	9.800	0	115	70	130				
cis-1,3-dichloropropene	11	1.0	9.500	0	117	70	130				
Cyclohexane	11	2.0	9.800	0	114	70	130				
Dichlorodifluoromethane	10	1.0	9.200	0	109	70	130				
Ethyl acetate	12	1.0	9.800	0	118	70	130				
Ethylbenzene	12	2.0	9.800	0	120	70	130				
Heptane	11	1.0	9.900	0	114	70	130				
Hexachlorobutadiene	11	2.0	9.400	0	113	70	130				
m,p-Xylene	24	2.0	19.20	0	124	70	130				
Methylene chloride	11	5.0	10.00	0	108	70	130				
n-Hexane	11	2.0	10.10	0	110	70	130				
Naphthalene	8.8	1.0	9.200	0	95.1	70	130				
o-Xylene	12	1.0	10.00	0	117	70	130				
Propylene	12	1.0	10.20	0	122	70	130				
Styrene	12	1.0	9.800	0	120	70	130				
tert-Butyl Methyl Ether	11	1.0	9.900	0	112	70	130				
Tetrachloroethene	12	1.0	9.600	0	120	70	130				
Tetrahydrofuran	12	1.0	10.00	0	115	70	130				
Toluene	12	1.0	9.800	0	121	70	130				
trans-1,2-Dichloroethene	11	1.0	9.800	0	111	70	130				
trans-1,3-dichloropropene	11	1.0	9.100	0	117	70	130				
Trichloroethene	11	1.0	9.600	0	119	70	130				
Trichlorofluoromethane	11	1.0	9.600	0	112	70	130				
Vinyl acetate	12	1.0	9.900	0	119	70	130				
Vinyl chloride	11	1.0	9.400	0	117	70	130				
Xylenes, Total	36	3.0	29.20	0	122	70	130				
Surr: 4-Bromofluorobenzene	12		12.50		94.3	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49570**

Sample ID:	**MBLK VOA1 062212**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49570**
Client ID:	**PBW**	Batch ID:	**R49570**	TestNo:	**TO-15**			Analysis Date:	**6/22/2012**	SeqNo:	**968963**

Analyte	Result	LOQ	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49570**

Sample ID:	**MBLK VOA1 062212**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49570**
Client ID:	**PBW**	Batch ID:	**R49570**	TestNo:	**TO-15**			Analysis Date:	**6/22/2012**	SeqNo:	**968963**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		93.2	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49570**

Sample ID:	**1206517-013ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49570**
Client ID:	**ZZZZZZ**	Batch ID:	**R49570**	TestNo:	**TO-15**			Analysis Date:	**6/23/2012**	SeqNo:	**968974**

Analyte	Result	LOQ	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	860	800						0	200	25	R
Benzene	12,000	800						11,070	6.43	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49570**

Sample ID:	**1206517-013ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49570**
Client ID:	**ZZZZZZ**	Batch ID:	**R49570**	TestNo:	**TO-15**			Analysis Date:	**6/23/2012**	SeqNo:	**968974**

Analyte	Result	LOQ	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	13,000	1,600						11,480	9.74	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	1,500	1,600						1,424	7.57	25	J
Heptane	8,900	800						8,128	9.47	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	4,100	1,600						3,800	6.91	25	
Methylene chloride	ND	4,000						0	0	25	U
n-Hexane	6,200	1,600						5,720	7.28	25	
Naphthalene	ND	800						0	0	25	U
o-Xylene	1,200	800						1,120	9.52	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	31,000	800						28,320	8.03	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	5,300	2,400						4,920	7.51	25	
Surr: 4-Bromofluorobenzene	9,500		10,000		94.7	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49589**

Sample ID:	**CCV VOA9 062212**	Samp Type:	**CCV**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**49589**
Client ID:	**CCV**	Batch ID:	**R49589**	TestNo:	**MA_APH**			Analysis Date:	**6/22/2012**	SeqNo:	**969337**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	87		89.50		97.7	70	130				

Sample ID:	**MBLK VOA9 062212**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**49589**
Client ID:	**PBW**	Batch ID:	**R49589**	TestNo:	**MA_APH**			Analysis Date:	**6/22/2012**	SeqNo:	**969339**

Analyte	Result	LOQ	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	82		89.50		91.5	70	130				

Sample ID:	**1206396-022Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**49589**
Client ID:	**VA1465**	Batch ID:	**R49589**	TestNo:	**MA_APH**			Analysis Date:	**6/22/2012**	SeqNo:	**969341**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	220,000	94,000						213,800	3.92	30	
C9-C10 Aromatic Hydrocarbons	ND	110,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	150,000						0	0	30	U
Surr: 4-Bromofluorobenzene	68,000		71,600		95.0	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49594**

Sample ID:	**CCV VOA1 062312**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49594**
Client ID:	**CCV**	Batch ID:	**R49594**	TestNo:	**TO-15**			Analysis Date:	**6/23/2012**	SeqNo:	**969409**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10	1.0	9.600	0	108	70	130				
1,1,2,2-Tetrachloroethane	11	1.0	10.00	0	109	70	130				
1,1,2-Trichloro-1,2,2-trifluoroethane	10	1.0	9.800	0	107	70	130				
1,1,2-Trichloroethane	11	1.0	9.800	0	113	70	130				
1,1-Dichloroethane	10	1.0	9.700	0	105	70	130				
1,1-Dichloroethene	10	1.0	9.900	0	104	70	130				
1,2,4-Trichlorobenzene	8.0	1.0	9.100	0	88.2	70	130				
1,2,4-Trimethylbenzene	11	1.0	9.800	0	110	70	130				
1,2-Dibromoethane	11	1.0	9.600	0	113	70	130				
1,2-Dichlorobenzene	10	1.0	9.700	0	105	70	130				
1,2-Dichloroethane	10	1.0	9.700	0	108	70	130				
1,2-Dichloropropane	11	1.0	9.800	0	115	70	130				
1,3,5-Trimethylbenzene	11	1.0	9.700	0	110	70	130				
1,3-Butadiene	11	1.0	9.800	0	109	70	130				
1,3-Dichlorobenzene	10	1.0	9.700	0	107	70	130				
1,4-Dichlorobenzene	10	1.0	9.600	0	107	70	130				
2-Butanone	11	1.0	9.900	0	113	70	130				
2-Hexanone	11	1.0	9.800	0	111	70	130				
4-Methyl-2-pentanone	11	1.0	10.00	0	109	70	130				
Acetone	11	1.0	10.00	0	105	70	130				
Benzene	10	1.0	9.600	0	109	70	130				
Benzyl chloride	9.7	1.0	9.700	0	100	70	130				
Bromodichloromethane	11	1.0	9.600	0	112	70	130				
Bromoform	10	1.0	9.600	0	109	70	130				
Bromomethane	9.3	1.0	9.300	0	99.9	70	130				
Carbon disulfide	9.8	1.0	9.700	0	102	70	130				
Carbon tetrachloride	10	1.0	9.500	0	108	70	130				
Chlorobenzene	11	1.0	9.900	0	111	70	130				
Chlorodibromomethane	11	1.0	9.200	0	120	70	130				
Chloroethane	9.0	1.0	9.800	0	91.9	70	130				
Chloroform	11	1.0	9.400	0	114	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: **R49594**

Sample ID:	**CCV VOA1 062312**	Samp Type:	**CCV**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49594**
Client ID:	**CCV**	Batch ID:	**R49594**	TestNo:	**TO-15**			Analysis Date:	**6/23/2012**	SeqNo:	**969409**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	9.6	1.0	9.800	0	97.7	70	130				
cis-1,2-Dichloroethene	10	1.0	9.800	0	106	70	130				
cis-1,3-dichloropropene	11	1.0	9.500	0	111	70	130				
Cyclohexane	10	2.0	9.800	0	107	70	130				
Dichlorodifluoromethane	9.3	1.0	9.200	0	101	70	130				
Ethyl acetate	11	1.0	9.800	0	109	70	130				
Ethylbenzene	11	2.0	9.800	0	113	70	130				
Heptane	11	1.0	9.900	0	112	70	130				
Hexachlorobutadiene	9.8	2.0	9.400	0	104	70	130				
m,p-Xylene	23	2.0	19.20	0	118	70	130				
Methylene chloride	10	5.0	10.00	0	102	70	130				
n-Hexane	11	2.0	10.10	0	104	70	130				
Naphthalene	7.8	1.0	9.200	0	84.7	70	130				
o-Xylene	11	1.0	10.00	0	111	70	130				
Propylene	12	1.0	10.20	0	118	70	130				
Styrene	11	1.0	9.800	0	112	70	130				
tert-Butyl Methyl Ether	11	1.0	9.900	0	106	70	130				
Tetrachloroethene	11	1.0	9.600	0	112	70	130				
Tetrahydrofuran	11	1.0	10.00	0	107	70	130				
trans-1,2-Dichloroethene	10	1.0	9.800	0	105	70	130				
trans-1,3-dichloropropene	10	1.0	9.100	0	111	70	130				
Trichloroethene	11	1.0	9.600	0	112	70	130				
Trichlorofluoromethane	9.8	1.0	9.600	0	102	70	130				
Vinyl acetate	11	1.0	9.900	0	112	70	130				
Vinyl chloride	10	1.0	9.400	0	109	70	130				
Xylenes, Total	34	3.0	29.20	0	116	70	130				
Surr: 4-Bromofluorobenzene	12		12.50		96.3	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49594**

Sample ID:	**1206517-018ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49594**
Client ID:	**ZZZZZZ**	Batch ID:	**R49594**	TestNo:	**TO-15**			Analysis Date:	**6/23/2012**	SeqNo:	**969415**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	800						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	800						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800						0	0	25	U
1,1,2-Trichloroethane	ND	800						0	0	25	U
1,1-Dichloroethane	ND	800						0	0	25	U
1,1-Dichloroethene	ND	800						0	0	25	U
1,2,4-Trichlorobenzene	ND	800						0	0	25	U
1,2,4-Trimethylbenzene	ND	800						0	0	25	U
1,2-Dibromoethane	ND	800						0	0	25	U
1,2-Dichlorobenzene	ND	800						0	0	25	U
1,2-Dichloroethane	ND	800						0	0	25	U
1,2-Dichloropropane	ND	800						0	0	25	U
1,3,5-Trimethylbenzene	ND	800						0	0	25	U
1,3-Butadiene	ND	800						0	0	25	U
1,3-Dichlorobenzene	ND	800						0	0	25	U
1,4-Dichlorobenzene	ND	800						0	0	25	U
2-Butanone	ND	800						0	0	25	U
2-Hexanone	ND	800						0	0	25	U
4-Methyl-2-pentanone	ND	800						0	0	25	U
Acetone	1,300	800						1,136	16.2	25	
Benzene	1,900	800						1,712	8.93	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49594**

Sample ID:	**1206517-018ADUP**	Samp Type:	**DUP**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49594**
Client ID:	**ZZZZZZ**	Batch ID:	**R49594**	TestNo:	**TO-15**			Analysis Date:	**6/23/2012**	SeqNo:	**969415**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	800						0	0	25	U
cis-1,2-Dichloroethene	ND	800						0	0	25	U
cis-1,3-dichloropropene	ND	800						0	0	25	U
Cyclohexane	3,500	1,600						3,304	6.10	25	
Dichlorodifluoromethane	ND	800						0	0	25	U
Ethyl acetate	ND	800						0	0	25	U
Ethylbenzene	920	1,600						816.0	12.0	25	J
Heptane	3,600	800						3,352	7.36	25	
Hexachlorobutadiene	ND	1,600						0	0	25	U
m,p-Xylene	2,600	1,600						2,288	12.8	25	
Methylene chloride	2,100	4,000						2,056	3.07	25	J
n-Hexane	1,200	1,600						1,096	6.36	25	J
Naphthalene	ND	800						0	0	25	U
o-Xylene	880	800						0	200	25	R
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
trans-1,2-Dichloroethene	ND	800						0	0	25	U
trans-1,3-dichloropropene	ND	800						0	0	25	U
Trichloroethene	ND	800						0	0	25	U
Trichlorofluoromethane	ND	800						0	0	25	U
Vinyl acetate	ND	800						0	0	25	U
Vinyl chloride	ND	800						0	0	25	U
Xylenes, Total	3,500	2,400						2,288	41.3	25	R
Surr: 4-Bromofluorobenzene	9,400		10,000		94.1	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49594**

Sample ID:	**MBLK VOA1 062312**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49594**
Client ID:	**PBW**	Batch ID:	**R49594**	TestNo:	**TO-15**			Analysis Date:	**6/23/2012**	SeqNo:	**969459**

Analyte	Result	LOQ	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#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49594**

Sample ID:	**MBLK VOA1 062312**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**49594**
Client ID:	**PBW**	Batch ID:	**R49594**	TestNo:	**TO-15**			Analysis Date:	**6/23/2012**	SeqNo:	**969459**

Analyte	Result	LOQ	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
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		93.4	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1206396

Date Reported: 7/19/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** **R49623**

Sample ID:	**CCV VOA9 062512**	Samp Type:	**CCV**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**49623**
Client ID:	**CCV**	Batch ID:	**R49623**	TestNo:	**MA_APH**			Analysis Date:	**6/25/2012**	SeqNo:	**970194**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	87		89.50		97.7	70	130				

Sample ID:	**MBLK VOA9 062512**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**49623**
Client ID:	**PBW**	Batch ID:	**R49623**	TestNo:	**MA_APH**			Analysis Date:	**6/25/2012**	SeqNo:	**970196**

Analyte	Result	LOQ	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	82		89.50		92.1	70	130				

Sample ID:	**1206396-014Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**49623**
Client ID:	**VA1437**	Batch ID:	**R49623**	TestNo:	**MA_APH**			Analysis Date:	**6/25/2012**	SeqNo:	**970204**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,500,000	190,000						1,462,000	1.91	30	
C9-C10 Aromatic Hydrocarbons	ND	210,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	300,000						0	0	30	U
Surr: 4-Bromofluorobenzene	140,000		143,200		95.4	70	130		0	30	

RTI Laboratories

Run ID: **VOA1_120615A** **Run No.:** 49425

Analytical Run Date: 6/15/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR by RD2 on 19june12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 061512	BFB_TUNE	TUNE	R49425	6/15/2012 9:35:00 AM	Robert Lynch		
CCV VOA1 061512	EPA_TO15	CCV	R49425	6/15/2012 10:18:00 AM	Robert Lynch		
RLVS VOA1 061512	EPA_TO15	RLVS	R49425	6/15/2012 10:59:00 AM	Robert Lynch		
MBLK VOA1 061512	EPA_TO15	MBLK	R49425	6/15/2012 11:56:00 AM	Robert Lynch		
1206178-055A	EPA_TO15	SAMP	R49425	6/15/2012 12:44:00 PM	Robert Lynch		
1206178-043A	EPA_TO15	SAMP	R49425	6/15/2012 6:38:00 PM	Robert Lynch		
1206178-046A	EPA_TO15	SAMP	R49425	6/15/2012 7:22:00 PM	Robert Lynch		
1206178-055A	EPA_TO15	SAMP	R49425	6/15/2012 8:04:00 PM	Robert Lynch		
1206178-048A	EPA_TO15	SAMP	R49425	6/15/2012 8:45:00 PM	Robert Lynch		Sample over-dluted. Will re-analyze at lower dilution. Reporting here at 40x to be associated with DUP. Will report analytes at lower dilution.
1206178-048ADUP	EPA_TO15	DUP	R49425	6/15/2012 9:27:00 PM	Robert Lynch		
1206178-049A	EPA_TO15	SAMP	R49425	6/15/2012 10:08:00 PM	Robert Lynch		
1206178-050A	EPA_TO15	SAMP	R49425	6/15/2012 10:50:00 PM	Robert Lynch		
1206178-051A	EPA_TO15	SAMP	R49425	6/15/2012 11:31:00 PM	Robert Lynch		
1206178-052A	EPA_TO15	SAMP	R49425	6/16/2012 12:12:00 AM	Robert Lynch		
1206178-053A	EPA_TO15	SAMP	R49425	6/16/2012 12:54:00 AM	Robert Lynch		
1206178-054A	EPA_TO15	SAMP	R49425	6/16/2012 1:35:00 AM	Robert Lynch		
1206396-006A	EPA_TO15	SAMP	R49425	6/16/2012 3:46:00 AM	Robert Lynch		
RLVS2 VOA1 06151	EPA_TO15	RLVS	R49425	6/16/2012 4:29:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jul-12

RunNo 49425

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
966125	BFB VOA1 061512	BFB_TUNE	TUNE	.\1\DATA\061512	6/15/2012 9:35:0	1	R49425		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		88	88		100	0	0	0	0	0	88%	50	120	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		97.4	97.4		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		17.2	17.2		100	0	0	0	0	0	17%	8	40	0%	
75	M		47.7	47.7		100	0	0	0	0	0	48%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.8	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
966126	CCV VOA1 061512	EPA_TO15	CCV	.\1\DATA\061512	6/15/2012 10:18:	1	R49425		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	11.28	11.28		9.6	0	0	0.107	1	50	118%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.9	10.9		10	0	0	0.211	1	50	109%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.52	11.52		9.8	0	0	0.108	1	50	118%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.56	10.56		9.8	0	0	0.2	1	50	108%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.38	11.38		9.7	0	0	0.111	1	50	117%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.66	11.66		9.9	0	0	0.097	1	50	118%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.05	9.05		9.1	0	0	0.271	1	50	99%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.56	10.56		9.8	0	0	0.245	1	50	108%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.34	10.34		9.6	0	0	0.186	1	50	108%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.15	10.15		9.7	0	0	0.208	1	50	105%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.36	11.36		9.7	0	0	0.196	1	50	117%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.77	10.77		9.8	0	0	0.224	1	50	110%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.39	10.39		9.7	0	0	0.24	1	50	107%	70	130	0%	
1,3-Butadiene	A	ppbv	11.79	11.79		9.8	0	0	0.152	1	50	120%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.21	10.21		9.7	0	0	0.202	1	50	105%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
966126	CCV VOA1 061512	EPA_TO15	CCV	.\1\DATA\061512	6/15/2012 10:18:	1	R49425		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.18	10.18		9.6	0	0	0.194	1	50	106%	70	130	0%	
1,4-Dioxane	A	ppbv	10.32	10.32		9.6	0	0	0.128	1	50	108%	70	130	0%	
2-Butanone	A	ppbv	11.68	11.68		9.9	0	0	0.287	1	50	118%	70	130	0%	
2-Hexanone	A	ppbv	10.42	10.42		9.8	0	0	0.135	1	50	106%	70	130	0%	
2-Propanol	A	ppbv	11.32	11.32		10.1	0	0	0.329	1	50	112%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.57	10.57		10	0	0	0.157	1	50	106%	70	130	0%	
Acetone	A	ppbv	11.65	11.65		10	0	0	0.43	1	50	117%	70	130	0%	
Benzene	A	ppbv	11.46	11.46		9.6	0	0	0.126	1	50	119%	70	130	0%	
Benzyl chloride	A	ppbv	10.16	10.16		9.7	0	0	0.155	1	50	105%	70	130	0%	
Bromodichloromethane	A	ppbv	10.42	10.42		9.6	0	0	0.156	1	50	109%	70	130	0%	
Bromoform	A	ppbv	10.18	10.18		9.6	0	0	0.197	1	50	106%	70	130	0%	
Bromomethane	A	ppbv	10.48	10.48		9.3	0	0	0.075	1	50	113%	70	130	0%	
Carbon disulfide	A	ppbv	11.22	11.22		9.7	0	0	0.093	1	50	116%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.09	11.09		9.5	0	0	0.114	1	50	117%	70	130	0%	
Chlorobenzene	A	ppbv	10.76	10.76		9.9	0	0	0.275	1	50	109%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.36	10.36		9.2	0	0	0.165	1	50	113%	70	130	0%	
Chloroethane	A	ppbv	10.43	10.43		9.8	0	0	0.063	1	50	106%	70	130	0%	
Chloroform	A	ppbv	11.57	11.57		9.4	0	0	0.126	1	50	123%	70	130	0%	
Chloromethane	A	ppbv	10.94	10.94		9.8	0	0	0.104	1	50	112%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.56	11.56		9.8	0	0	0.107	1	50	118%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.33	10.33		9.5	0	0	0.166	1	50	109%	70	130	0%	
Cyclohexane	A	ppbv	11.62	11.62		9.8	0	0	0.684	2	50	119%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.54	10.54		9.2	0	0	0.086	1	50	115%	70	130	0%	
Ethanol	A	ppbv	9.89	9.89		9.2	0	0	1.962	5	50	108%	70	130	0%	
Ethyl acetate	A	ppbv	12.08	12.08		9.8	0	0	0.157	1	50	123%	70	130	0%	
Ethylbenzene	A	ppbv	10.84	10.84		9.8	0	0	0.737	2	50	111%	70	130	0%	
Heptane	A	ppbv	10.92	10.92		9.9	0	0	0.249	1	50	110%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.7	9.7		9.4	0	0	0.374	2	50	103%	70	130	0%	
m,p-Xylene	A	ppbv	22.15	22.15		19.2	0	0	0.524	2	100	115%	70	130	0%	
Methylene chloride	A	ppbv	11.63	11.63		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	9.34	9.34		9.2	0	0	0.247	1	50	102%	70	130	0%	
o-Xylene	A	ppbv	10.98	10.98		10	0	0	0.258	1	50	110%	70	130	0%	
Propylene	A	ppbv	11.86	11.86		10.2	0	0	0.075	1	50	116%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
966126	CCV VOA1 061512	EPA_TO15	CCV	.\1\DATA\061512	6/15/2012 10:18:	1	R49425		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.81	10.81		9.8	0	0	0.263	1	50	110%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.51	11.51		9.9	0	0	0.228	1	50	116%	70	130	0%	
Tetrachloroethene	A	ppbv	10.18	10.18		9.6	0	0	0.148	1	50	106%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.78	11.78		10	0	0	0.201	1	50	118%	70	130	0%	
Toluene	A	ppbv	10.76	10.76		9.8	0	0	0.158	1	50	110%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.5	11.5		9.8	0	0	0.117	1	50	117%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.8	9.8		9.1	0	0	0.171	1	50	108%	70	130	0%	
Trichloroethene	A	ppbv	10.17	10.17		9.6	0	0	0.119	1	50	106%	70	130	0%	
Trichlorofluoromethane	A	ppbv	11.03	11.03		9.6	0	0	0.148	1	50	115%	70	130	0%	
Vinyl acetate	A	ppbv	12.19	12.19		9.9	0	0	0.266	1	50	123%	70	130	0%	
Vinyl chloride	A	ppbv	11.1	11.1		9.4	0	0	0.072	1	50	118%	70	130	0%	
Xylenes, Total	C	ppbv	33.13	33.13		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	12.21	12.21		12.5	0	0	0	0	0	98%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
966127	RLVS VOA1 061512	EPA_TO15	RLVS	.\1\DATA\061512	6/15/2012 10:59:	1	R49425		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	1.13	1.13		0.996	0	0	0.107	1	50	113%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.31	1.31		1	0	0	0.211	1	50	131%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.21	1.21		0.98	0	0	0.108	1	50	123%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.08	1.08		0.98	0	0	0.2	1	50	110%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.21	1.21		0.97	0	0	0.111	1	50	125%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.2	1.2		0.99	0	0	0.097	1	50	121%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.18	1.18		0.91	0	0	0.271	1	50	130%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.25	1.25		0.98	0	0	0.245	1	50	128%	70	130	0%	
1,2-Dibromoethane	A	ppbv	1.01	1.01		0.96	0	0	0.186	1	50	105%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.32	1.32		0.97	0	0	0.208	1	50	136%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.23	1.23		0.97	0	0	0.196	1	50	127%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.14	1.14		0.98	0	0	0.224	1	50	116%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\061512\06151202.D Vial: 4
Acq On : 15 Jun 2012 10:18 am Operator: RACHEL HILL
Sample : CCV VOA1 061512 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	80	0.00
2	T	Propylene	0.813	0.945	-16.2	86	0.00
3	T	Dichlorodifluoromethane	3.079	3.528	-14.6	83	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.597	-12.8	84	0.00
5	T	Chloromethane	0.928	1.069	-15.2	81	0.00
6	T	Vinyl chloride	1.049	1.238	-18.0	82	0.00
7	T	1,3-Butadiene	0.727	0.875	-20.4	81	0.00
8	T	Bromomethane	1.112	1.253	-12.7	82	0.00
9	T	Chloroethane	0.591	0.670	-13.4	80	0.00
10	T	Trichlorofluoromethane	2.936	3.374	-14.9	81	0.00
11	T	Ethanol	0.315	0.338	-7.3	73	0.00
12	T	Freon113	1.993	2.342	-17.5	80	0.00
13	T	1,1-Dichloroethene	1.379	1.624	-17.8	80	0.00
14	T	Acetone	1.332	1.551	-16.4	74	0.00
15	T	Carbon disulfide	2.400	2.775	-15.6	80	0.00
16	T	2-Propanol	1.279	1.434	-12.1	76	0.00
17	T	Methylene chloride	1.022	1.189	-16.3	80	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.557	-16.3	72	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.481	-17.4	78	0.00
20	T	n-Hexane	1.399	1.633	-16.7	78	0.00
21	T	1,1-Dichloroethane	1.713	2.009	-17.3	78	0.00
22	T	Vinyl acetate	2.035	2.506	-23.1	72	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.222	-18.0	78	0.00
24	T	2-Butanone	1.404	1.656	-17.9	72	0.00
25	T	Ethyl acetate	1.735	2.139	-23.3	75	0.00
26	T	Tetrahydrofuran	0.898	1.057	-17.7	73	0.00
27	T	Chloroform	1.950	2.302	-18.1	78	0.00
28	T	1,1,1-Trichloroethane	2.105	2.473	-17.5	78	0.00
29	T	Cyclohexane	1.419	1.683	-18.6	78	0.00
30	T	Carbon tetrachloride	2.325	2.714	-16.7	76	0.00
31	T	Benzene	2.740	3.270	-19.3	75	0.00
32	T	1,2-Dichloroethane	1.133	1.327	-17.1	74	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	87	0.00
34	T	Heptane	0.486	0.536	-10.3	77	0.00
35	T	Trichloroethene	0.444	0.470	-5.9	77	0.00
36	T	1,2-Dichloropropane	0.304	0.334	-9.9	74	0.00
37	T	1,4-Dioxane	0.175	0.188	-7.4	76	0.00
38	T	Bromodichloromethane	0.631	0.685	-8.6	77	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.529	-8.6	73	0.00
40	T	4-Methyl-2-pentanone	0.208	0.220	-5.8	73	0.00
41	T	Toluene	1.030	1.131	-9.8	74	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.485	-7.5	73	0.00
43	T	1,1,2-Trichloroethane	0.358	0.385	-7.5	75	0.00
44	T	Tetrachloroethene	0.582	0.617	-6.0	78	0.00
45	T	2-Hexanone	0.404	0.429	-6.2	71	0.00
46	T	Chlorodibromomethane	0.660	0.697	-5.6	74	0.00
47	T	1,2-Dibromoethane	0.559	0.602	-7.7	74	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	85	0.00
49	T	Chlorobenzene	0.880	0.957	-8.7	75	0.00
50	T	Ethylbenzene	1.411	1.561	-10.6	74	0.00
51	T	m,p-Xylene	1.097	1.265	-15.3	75	0.00
52	T	o-Xylene	1.117	1.227	-9.8	74	0.00
53	T	Styrene	0.860	0.948	-10.2	75	0.00
54	T	Bromoform	0.634	0.672	-6.0	74	0.00
55	S	4-Bromofluorobenzene	0.581	0.568	2.2	83	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\061512\06151202.D Vial: 4
Acq On : 15 Jun 2012 10:18 am Operator: RACHEL HILL
Sample : CCV VOA1 061512 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.760	-9.0	75	0.00
57	T	4-Ethyltoluene	1.452	1.586	-9.2	76	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.331	-7.2	75	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.252	-7.7	75	0.00
60	T	1,3-Dichlorobenzene	0.763	0.803	-5.2	75	0.00
61	T	1,4-Dichlorobenzene	0.736	0.780	-6.0	76	0.00
62	T	Benzyl chloride	0.809	0.848	-4.8	74	0.00
63	T	1,2-Dichlorobenzene	0.669	0.700	-4.6	75	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.242	0.4	74	0.00
65	T	Hexachlorobutadiene	0.327	0.337	-3.1	71	0.00
66		Naphthalene	0.481	0.489	-1.7	75	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\061512\06151202.D Vial: 4
Acq On : 15 Jun 2012 10:18 am Operator: RACHEL HILL
Sample : CCV VOA1 061512 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 15 10:43 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	291056	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1026077	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.53	117	898506	12.50 ppbv	0.00
System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.18	95	509971	12.21 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 97.68%		
Target Compounds					Qvalue
2) Propylene	5.51	41	224537	11.86 ppbv	97
3) Dichlorodifluoromethane	5.59	85	755759	10.54 ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	574505	10.71 ppbv #	83
5) Chloromethane	6.00	50	236549	10.94 ppbv	98
6) Vinyl chloride	6.20	62	271054	11.10 ppbv #	100
7) 1,3-Butadiene	6.26	39	199672	11.79 ppbv	98
8) Bromomethane	6.84	94	271414	10.48 ppbv #	98
9) Chloroethane	7.00	64	143487	10.43 ppbv	99
10) Trichlorofluoromethane	7.33	101	754289	11.03 ppbv	98
11) Ethanol	7.57	45	72463	9.89 ppbv	99
12) Freon113	7.99	101	534432	11.52 ppbv	93
13) 1,1-Dichloroethene	8.09	61	374460	11.66 ppbv	97
14) Acetone	8.19	43	361219	11.65 ppbv #	96
15) Carbon disulfide	8.46	76	626766	11.22 ppbv #	100
16) 2-Propanol	8.23	45	337310	11.32 ppbv #	1
17) Methylene chloride	8.75	49	276807	11.63 ppbv	99
18) tert-Butyl Methyl Ether	8.95	73	589409	11.51 ppbv	99
19) trans-1,2-Dichloroethene	9.03	61	337966	11.50 ppbv	99
20) n-Hexane	9.22	57	383959	11.79 ppbv	97
21) 1,1-Dichloroethane	9.59	63	453695	11.38 ppbv	99
22) Vinyl acetate	9.52	43	577746	12.19 ppbv	99
23) cis-1,2-Dichloroethene	10.28	96	278808	11.56 ppbv	99
24) 2-Butanone	10.24	43	381685	11.68 ppbv	100
25) Ethyl acetate	10.19	43	488099	12.08 ppbv #	100
26) Tetrahydrofuran	10.58	42	246134	11.78 ppbv	95
27) Chloroform	10.60	83	525175	11.57 ppbv	98
28) 1,1,1-Trichloroethane	10.85	97	552798	11.28 ppbv	99
29) Cyclohexane	10.86	56	384146	11.62 ppbv	99
30) Carbon tetrachloride	11.01	117	600281	11.09 ppbv	98
31) Benzene	11.29	78	731015	11.46 ppbv	100
32) 1,2-Dichloroethane	11.37	62	299630	11.36 ppbv	99
34) Heptane	11.34	43	435750	10.92 ppbv	97
35) Trichloroethene	12.02	130	370131	10.17 ppbv	96
36) 1,2-Dichloropropane	12.38	63	268840	10.77 ppbv	100
37) 1,4-Dioxane	12.45	88	148473	10.32 ppbv	94
38) Bromodichloromethane	12.66	83	539956	10.42 ppbv	98
39) cis-1,3-Dichloropropene	13.22	75	412726	10.33 ppbv	99
40) 4-Methyl-2-pentanone	13.33	58	180326	10.57 ppbv	98
41) Toluene	13.62	91	909676	10.76 ppbv	98
42) trans-1,3-Dichloropropene	13.92	75	362330	9.80 ppbv	99
43) 1,1,2-Trichloroethane	14.20	97	309849	10.56 ppbv	99
44) Tetrachloroethene	14.32	166	486141	10.18 ppbv	96
45) 2-Hexanone	14.40	43	345482	10.42 ppbv	97
46) Chlorodibromomethane	14.74	129	561026	10.36 ppbv	98
47) 1,2-Dibromoethane	14.98	107	474648	10.34 ppbv	100
49) Chlorobenzene	15.58	112	680777	10.76 ppbv	99
50) Ethylbenzene	15.62	91	1099699	10.84 ppbv	97
51) m,p-Xylene	15.77	91	1745940	22.15 ppbv	96
52) o-Xylene	16.37	91	882008	10.98 ppbv	97

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\061512\06151202.D Vial: 4
Acq On : 15 Jun 2012 10:18 am Operator: RACHEL HILL
Sample : CCV VOA1 061512 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 15 10:43 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

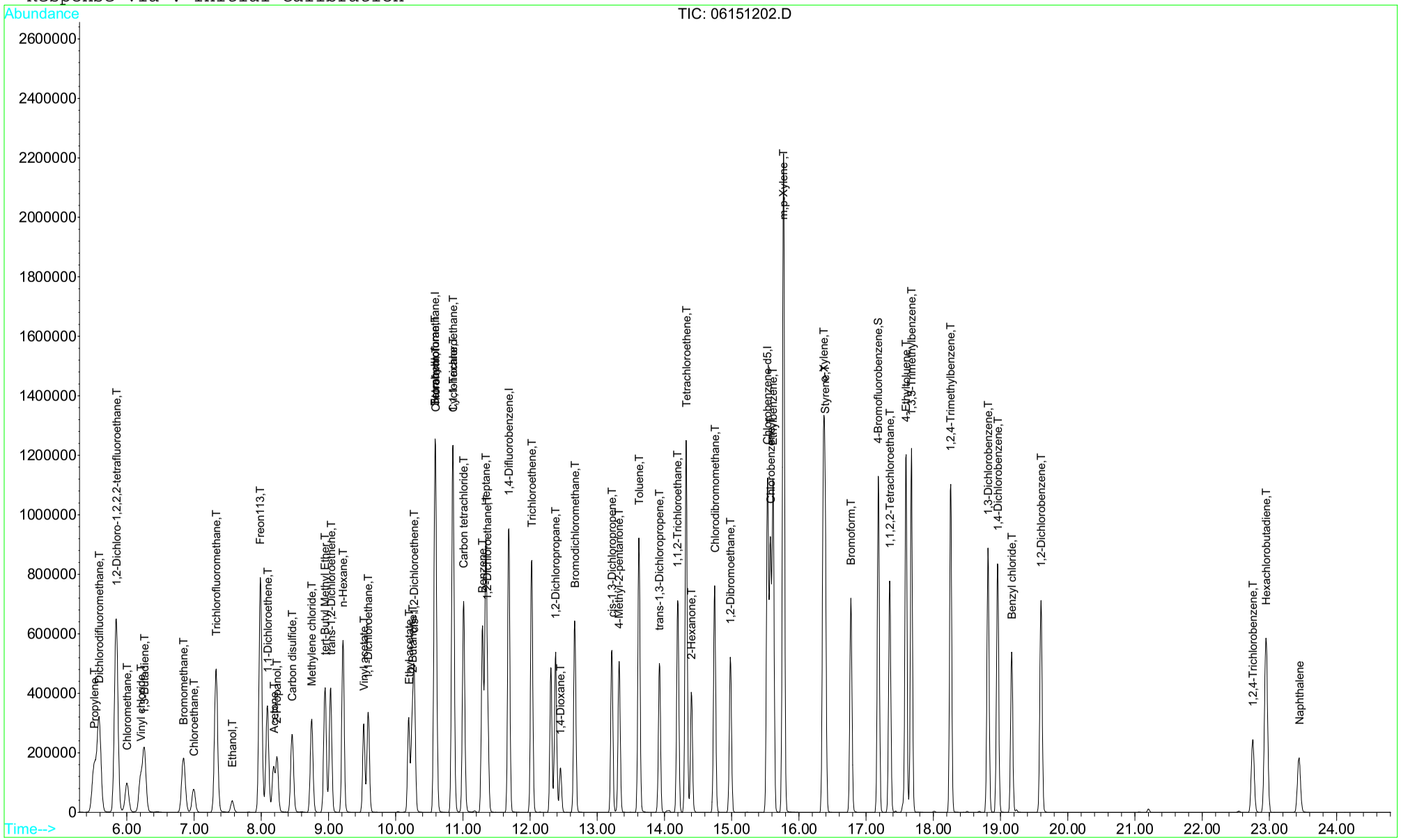
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53)	Styrene	16.39	104	667639	10.81 ppbv	99
54)	Bromoform	16.77	173	463812	10.18 ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.35	83	546313	10.90 ppbv	98
57)	4-Ethyltoluene	17.59	105	1117556	10.70 ppbv	97
58)	1,3,5-Trimethylbenzene	17.67	105	927717	10.39 ppbv	98
59)	1,2,4-Trimethylbenzene	18.26	105	881854	10.56 ppbv	98
60)	1,3-Dichlorobenzene	18.81	146	559892	10.21 ppbv	97
61)	1,4-Dichlorobenzene	18.95	146	538536	10.18 ppbv	97
62)	Benzyl chloride	19.16	91	591090	10.16 ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	488010	10.15 ppbv	98
64)	1,2,4-Trichlorobenzene	22.75	180	158060	9.05 ppbv	97
65)	Hexachlorobutadiene	22.95	225	227885	9.70 ppbv	99
66)	Naphthalene	23.44	128	323061	9.34 ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\061512\06151202.D Vial: 4
Acq On : 15 Jun 2012 10:18 am Operator: RACHEL HILL
Sample : CCV VOA1 061512 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 15 10:43 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120618A** **Run No.:** 49456

Analytical Run Date: 6/18/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR by RD2 on 19june12. Nitrogen tank ran out overnight. Ran RLVS as soon as possible in the morning but was out of 24 hour time clock.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 061812	BFB_TUNE	TUNE	R49456	6/18/2012 9:23:00 AM	Robert Lynch		
CCV VOA1 061812	EPA_TO15	CCV	R49456	6/18/2012 12:19:00 PM	Robert Lynch		
RLVS VOA1 061812	EPA_TO15	RLVS	R49456	6/18/2012 1:02:00 PM	Robert Lynch		
MBLK VOA1 061812	EPA_TO15	MBLK	R49456	6/18/2012 2:41:00 PM	Robert Lynch		
1206396-007A	EPA_TO15	SAMP	R49456	6/18/2012 3:26:00 PM	Robert Lynch		
1206178-048A	EPA_TO15	SAMP	R49456	6/18/2012 6:06:00 PM	Robert Lynch		
1206396-018A	EPA_TO15	SAMP	R49456	6/18/2012 7:35:00 PM	Robert Lynch		
1206396-018ADUP	EPA_TO15	DUP	R49456	6/18/2012 8:19:00 PM	Robert Lynch		
1206396-020A	EPA_TO15	SAMP	R49456	6/18/2012 9:49:00 PM	Robert Lynch		
RLVS2 VOA1 06181	EPA_TO15	RLVS	R49456	6/19/2012 9:49:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jul-12

RunNo 49456

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
966579	BFB VOA1 061812	BFB_TUNE	TUNE	.\1\DATA\061812	6/18/2012 9:23:0	1	R49456		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		89	89		100	0	0	0	0	0	89%	50	120	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		95.7	95.7		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		16.7	16.7		100	0	0	0	0	0	17%	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		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
966580	CCV VOA1 061812	EPA_TO15	CCV	.\1\DATA\061812	6/18/2012 12:19:	1	R49456		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	9.67	9.67		9.6	0	0	0.107	1	50	101%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.41	9.41		10	0	0	0.211	1	50	94%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.04	10.04		9.8	0	0	0.108	1	50	102%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.21	9.21		9.8	0	0	0.2	1	50	94%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.82	9.82		9.7	0	0	0.111	1	50	101%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.39	10.39		9.9	0	0	0.097	1	50	105%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.2	7.2		9.1	0	0	0.271	1	50	79%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.05	9.05		9.8	0	0	0.245	1	50	92%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.07	9.07		9.6	0	0	0.186	1	50	94%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.02	9.02		9.7	0	0	0.208	1	50	93%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.93	9.93		9.7	0	0	0.196	1	50	102%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.48	9.48		9.8	0	0	0.224	1	50	97%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.89	8.89		9.7	0	0	0.24	1	50	92%	70	130	0%	
1,3-Butadiene	A	ppbv	11.03	11.03		9.8	0	0	0.152	1	50	113%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.04	9.04		9.7	0	0	0.202	1	50	93%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
966580	CCV VOA1 061812	EPA_TO15	CCV	.\1\DATA\061812	6/18/2012 12:19:	1	R49456		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	8.99	8.99		9.6	0	0	0.194	1	50	94%	70	130	0%	
1,4-Dioxane	A	ppbv	8.78	8.78		9.6	0	0	0.128	1	50	91%	70	130	0%	
2-Butanone	A	ppbv	9.83	9.83		9.9	0	0	0.287	1	50	99%	70	130	0%	
2-Hexanone	A	ppbv	8.59	8.59		9.8	0	0	0.135	1	50	88%	70	130	0%	
2-Propanol	A	ppbv	9.69	9.69		10.1	0	0	0.329	1	50	96%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	8.92	8.92		10	0	0	0.157	1	50	89%	70	130	0%	
Acetone	A	ppbv	9.57	9.57		10	0	0	0.43	1	50	96%	70	130	0%	
Benzene	A	ppbv	10.14	10.14		9.6	0	0	0.126	1	50	106%	70	130	0%	
Benzyl chloride	A	ppbv	9.06	9.06		9.7	0	0	0.155	1	50	93%	70	130	0%	
Bromodichloromethane	A	ppbv	9.42	9.42		9.6	0	0	0.156	1	50	98%	70	130	0%	
Bromoform	A	ppbv	9.08	9.08		9.6	0	0	0.197	1	50	95%	70	130	0%	
Bromomethane	A	ppbv	9.72	9.72		9.3	0	0	0.075	1	50	105%	70	130	0%	
Carbon disulfide	A	ppbv	10.17	10.17		9.7	0	0	0.093	1	50	105%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.57	9.57		9.5	0	0	0.114	1	50	101%	70	130	0%	
Chlorobenzene	A	ppbv	9.47	9.47		9.9	0	0	0.275	1	50	96%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.39	9.39		9.2	0	0	0.165	1	50	102%	70	130	0%	
Chloroethane	A	ppbv	9.46	9.46		9.8	0	0	0.063	1	50	97%	70	130	0%	
Chloroform	A	ppbv	9.97	9.97		9.4	0	0	0.126	1	50	106%	70	130	0%	
Chloromethane	A	ppbv	10.05	10.05		9.8	0	0	0.104	1	50	103%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	9.96	9.96		9.8	0	0	0.107	1	50	102%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.13	9.13		9.5	0	0	0.166	1	50	96%	70	130	0%	
Cyclohexane	A	ppbv	9.92	9.92		9.8	0	0	0.684	2	50	101%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.57	9.57		9.2	0	0	0.086	1	50	104%	70	130	0%	
Ethanol	A	ppbv	8.87	8.87		9.2	0	0	1.962	5	50	96%	70	130	0%	
Ethyl acetate	A	ppbv	9.55	9.55		9.8	0	0	0.157	1	50	97%	70	130	0%	
Ethylbenzene	A	ppbv	9.43	9.43		9.8	0	0	0.737	2	50	96%	70	130	0%	
Heptane	A	ppbv	9.63	9.63		9.9	0	0	0.249	1	50	97%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.08	8.08		9.4	0	0	0.374	2	50	86%	70	130	0%	
m,p-Xylene	A	ppbv	19.02	19.02		19.2	0	0	0.524	2	100	99%	70	130	0%	
Methylene chloride	A	ppbv	9.94	9.94		10	0	0	2.077	5	50	99%	70	130	0%	
n-Hexane	A	ppbv	10.16	10.16		10.1	0	0	0.692	2	50	101%	70	130	0%	
Naphthalene	A	ppbv	7.38	7.38		9.2	0	0	0.247	1	50	80%	70	130	0%	
o-Xylene	A	ppbv	9.48	9.48		10	0	0	0.258	1	50	95%	70	130	0%	
Propylene	A	ppbv	12.25	12.25		10.2	0	0	0.075	1	50	120%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
966580	CCV VOA1 061812	EPA_TO15	CCV	.\1\DATA\061812	6/18/2012 12:19:	1	R49456		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.43	9.43		9.8	0	0	0.263	1	50	96%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.59	9.59		9.9	0	0	0.228	1	50	97%	70	130	0%	
Tetrachloroethene	A	ppbv	9.01	9.01		9.6	0	0	0.148	1	50	94%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.5	9.5		10	0	0	0.201	1	50	95%	70	130	0%	
Toluene	A	ppbv	9.43	9.43		9.8	0	0	0.158	1	50	96%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.9	9.9		9.8	0	0	0.117	1	50	101%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.61	8.61		9.1	0	0	0.171	1	50	95%	70	130	0%	
Trichloroethene	A	ppbv	9.12	9.12		9.6	0	0	0.119	1	50	95%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.02	10.02		9.6	0	0	0.148	1	50	104%	70	130	0%	
Vinyl acetate	A	ppbv	9.87	9.87		9.9	0	0	0.266	1	50	100%	70	130	0%	
Vinyl chloride	A	ppbv	10.38	10.38		9.4	0	0	0.072	1	50	110%	70	130	0%	
Xylenes, Total	C	ppbv	28.5	28.5		29.2	0	0	0.782	3	150	98%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.45	12.45		12.5	0	0	0	0	0	100%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
966581	RLVS VOA1 061812	EPA_TO15	RLVS	.\1\DATA\061812	6/18/2012 1:02:0	1	R49456		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	1.03	1.03		0.996	0	0	0.107	1	50	103%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.28	1.28		1	0	0	0.211	1	50	128%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.09	1.09		0.98	0	0	0.108	1	50	111%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.06	1.06		0.98	0	0	0.2	1	50	108%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.08	1.08		0.97	0	0	0.111	1	50	111%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.1	1.1		0.99	0	0	0.097	1	50	111%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.03	1.03		0.91	0	0	0.271	1	50	113%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.18	1.18		0.98	0	0	0.245	1	50	120%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.97	0.97		0.96	0	0	0.186	1	50	101%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.27	1.27		0.97	0	0	0.208	1	50	131%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.09	1.09		0.97	0	0	0.196	1	50	112%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.07	1.07		0.98	0	0	0.224	1	50	109%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\061812\06181203.D Vial: 5
Acq On : 18 Jun 2012 12:19 pm Operator: RACHEL HILL
Sample : CCV VOA1 061812 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	87	0.00
2	T	Propylene	0.813	0.977	-20.2	96	0.00
3	T	Dichlorodifluoromethane	3.079	3.204	-4.1	82	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.362	-2.6	82	0.00
5	T	Chloromethane	0.928	0.982	-5.8	81	0.00
6	T	Vinyl chloride	1.049	1.158	-10.4	83	0.00
7	T	1,3-Butadiene	0.727	0.819	-12.7	82	0.00
8	T	Bromomethane	1.112	1.162	-4.5	82	0.00
9	T	Chloroethane	0.591	0.608	-2.9	78	0.00
10	T	Trichlorofluoromethane	2.936	3.063	-4.3	80	0.00
11	T	Ethanol	0.315	0.303	3.8	71	0.00
12	T	Freon113	1.993	2.042	-2.5	75	0.00
13	T	1,1-Dichloroethene	1.379	1.447	-4.9	77	0.00
14	T	Acetone	1.332	1.275	4.3	66	0.00
15	T	Carbon disulfide	2.400	2.517	-4.9	78	0.00
16	T	2-Propanol	1.279	1.227	4.1	70	0.00
17	T	Methylene chloride	1.022	1.016	0.6	74	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.130	3.1	65	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.275	-1.0	73	0.00
20	T	n-Hexane	1.399	1.408	-0.6	73	0.00
21	T	1,1-Dichloroethane	1.713	1.734	-1.2	73	0.00
22	T	Vinyl acetate	2.035	2.028	0.3	63	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.053	-1.6	73	0.00
24	T	2-Butanone	1.404	1.393	0.8	65	0.00
25	T	Ethyl acetate	1.735	1.692	2.5	65	0.00
26	T	Tetrahydrofuran	0.898	0.853	5.0	64	0.00
27	T	Chloroform	1.950	1.983	-1.7	72	0.00
28	T	1,1,1-Trichloroethane	2.105	2.119	-0.7	72	0.00
29	T	Cyclohexane	1.419	1.437	-1.3	72	0.00
30	T	Carbon tetrachloride	2.325	2.343	-0.8	71	0.00
31	T	Benzene	2.740	2.893	-5.6	72	0.00
32	T	1,2-Dichloroethane	1.133	1.160	-2.4	70	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	90	0.00
34	T	Heptane	0.486	0.473	2.7	70	0.00
35	T	Trichloroethene	0.444	0.421	5.2	72	0.00
36	T	1,2-Dichloropropane	0.304	0.294	3.3	68	0.00
37	T	1,4-Dioxane	0.175	0.160	8.6	67	0.00
38	T	Bromodichloromethane	0.631	0.620	1.7	73	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.468	3.9	68	0.00
40	T	4-Methyl-2-pentanone	0.208	0.185	11.1	64	0.00
41	T	Toluene	1.030	0.991	3.8	68	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.426	5.5	67	0.00
43	T	1,1,2-Trichloroethane	0.358	0.336	6.1	68	0.00
44	T	Tetrachloroethene	0.582	0.546	6.2	71	0.00
45	T	2-Hexanone	0.404	0.354	12.4	61	0.00
46	T	Chlorodibromomethane	0.660	0.632	4.2	70	0.00
47	T	1,2-Dibromoethane	0.559	0.528	5.5	68	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	88	0.00
49	T	Chlorobenzene	0.880	0.842	4.3	68	0.00
50	T	Ethylbenzene	1.411	1.358	3.8	67	0.00
51	T	m,p-Xylene	1.097	1.086	1.0	67	0.00
52	T	o-Xylene	1.117	1.060	5.1	66	0.00
53	T	Styrene	0.860	0.827	3.8	67	0.00
54	T	Bromoform	0.634	0.599	5.5	68	0.00
55	S	4-Bromofluorobenzene	0.581	0.579	0.3	87	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\061812\06181203.D Vial: 5
Acq On : 18 Jun 2012 12:19 pm Operator: RACHEL HILL
Sample : CCV VOA1 061812 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.656	5.9	67	0.00
57	T	4-Ethyltoluene	1.452	1.347	7.2	66	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.139	8.3	66	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.074	7.6	66	0.00
60	T	1,3-Dichlorobenzene	0.763	0.711	6.8	68	0.00
61	T	1,4-Dichlorobenzene	0.736	0.689	6.4	69	0.00
62	T	Benzyl chloride	0.809	0.756	6.6	68	0.00
63	T	1,2-Dichlorobenzene	0.669	0.622	7.0	69	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.192	21.0	61	0.00
65	T	Hexachlorobutadiene	0.327	0.281	14.1	61	0.00
66		Naphthalene	0.481	0.386	19.8	62	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\061812\06181203.D Vial: 5
Acq On : 18 Jun 2012 12:19 pm Operator: RACHEL HILL
Sample : CCV VOA1 061812 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 18 12:43 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.58	130	315069	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1068348	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	927976	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	536961	12.45	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 99.60%

Target Compounds							Qvalue
2) Propylene	5.52	41	251095	12.25	ppbv		92
3) Dichlorodifluoromethane	5.59	85	743002	9.57	ppbv		100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	565595	9.74	ppbv	#	84
5) Chloromethane	6.01	50	235096	10.05	ppbv		98
6) Vinyl chloride	6.20	62	274408	10.38	ppbv		99
7) 1,3-Butadiene	6.26	39	202305	11.03	ppbv		98
8) Bromomethane	6.84	94	272436	9.72	ppbv	#	98
9) Chloroethane	6.99	64	140932	9.46	ppbv		100
10) Trichlorofluoromethane	7.32	101	741201	10.02	ppbv		98
11) Ethanol	7.57	45	70328	8.87	ppbv		99
12) Freon113	7.99	101	504419	10.04	ppbv		93
13) 1,1-Dichloroethene	8.09	61	361005	10.39	ppbv		97
14) Acetone	8.18	43	321364	9.57	ppbv	#	96
15) Carbon disulfide	8.46	76	615284	10.17	ppbv	#	99
16) 2-Propanol	8.23	45	312399	9.69	ppbv	#	1
17) Methylene chloride	8.75	49	256085	9.94	ppbv		99
18) tert-Butyl Methyl Ether	8.95	73	531475	9.59	ppbv		98
19) trans-1,2-Dichloroethene	9.03	61	314950	9.90	ppbv		99
20) n-Hexane	9.21	57	358323	10.16	ppbv		98
21) 1,1-Dichloroethane	9.59	63	423906	9.82	ppbv		99
22) Vinyl acetate	9.52	43	506094	9.87	ppbv		99
23) cis-1,2-Dichloroethene	10.27	96	260063	9.96	ppbv		99
24) 2-Butanone	10.24	43	347686	9.83	ppbv		98
25) Ethyl acetate	10.19	43	417906	9.55	ppbv	#	99
26) Tetrahydrofuran	10.58	42	215039	9.50	ppbv		95
27) Chloroform	10.60	83	489906	9.97	ppbv		98
28) 1,1,1-Trichloroethane	10.84	97	512845	9.67	ppbv		99
29) Cyclohexane	10.85	56	355015	9.92	ppbv		99
30) Carbon tetrachloride	11.01	117	560923	9.57	ppbv		98
31) Benzene	11.29	78	700102	10.14	ppbv		99
32) 1,2-Dichloroethane	11.37	62	283625	9.93	ppbv		99
34) Heptane	11.34	43	400176	9.63	ppbv		98
35) Trichloroethene	12.02	130	345583	9.12	ppbv		96
36) 1,2-Dichloropropane	12.38	63	246346	9.48	ppbv		100
37) 1,4-Dioxane	12.45	88	131592	8.78	ppbv		95
38) Bromodichloromethane	12.66	83	508552	9.42	ppbv		98
39) cis-1,3-Dichloropropene	13.21	75	379874	9.13	ppbv		100
40) 4-Methyl-2-pentanone	13.32	58	158509	8.92	ppbv		97
41) Toluene	13.62	91	830387	9.43	ppbv		98
42) trans-1,3-Dichloropropene	13.92	75	331500	8.61	ppbv		100
43) 1,1,2-Trichloroethane	14.20	97	281522	9.21	ppbv		99
44) Tetrachloroethene	14.32	166	448027	9.01	ppbv		96
45) 2-Hexanone	14.39	43	296728	8.59	ppbv		97
46) Chlorodibromomethane	14.74	129	529380	9.39	ppbv		99
47) 1,2-Dibromoethane	14.98	107	433380	9.07	ppbv		100
49) Chlorobenzene	15.57	112	619022	9.47	ppbv		99
50) Ethylbenzene	15.61	91	987889	9.43	ppbv		96
51) m,p-Xylene	15.77	91	1548162	19.02	ppbv		96
52) o-Xylene	16.36	91	786614	9.48	ppbv		97

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\061812\06181203.D Vial: 5
Acq On : 18 Jun 2012 12:19 pm Operator: RACHEL HILL
Sample : CCV VOA1 061812 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 18 12:43 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

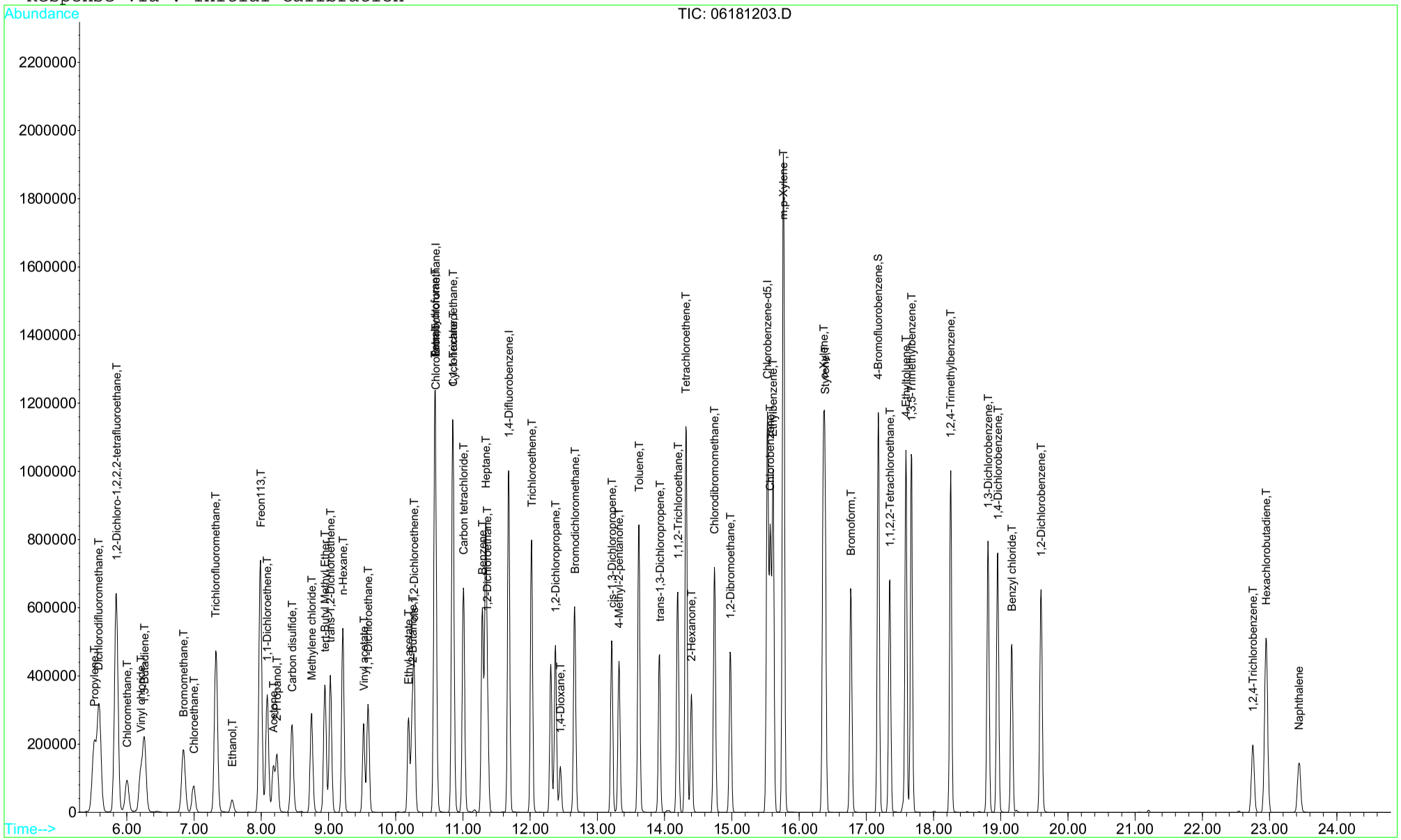
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53)	Styrene	16.39	104	601485	9.43 ppbv	98
54)	Bromoform	16.77	173	427037	9.08 ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.34	83	487313	9.41 ppbv	98
57)	4-Ethyltoluene	17.59	105	979766	9.09 ppbv	97
58)	1,3,5-Trimethylbenzene	17.67	105	820087	8.89 ppbv	98
59)	1,2,4-Trimethylbenzene	18.25	105	781074	9.05 ppbv	98
60)	1,3-Dichlorobenzene	18.81	146	512194	9.04 ppbv	97
61)	1,4-Dichlorobenzene	18.96	146	491393	8.99 ppbv	98
62)	Benzyl chloride	19.16	91	544100	9.06 ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	447952	9.02 ppbv	98
64)	1,2,4-Trichlorobenzene	22.75	180	129902	7.20 ppbv	96
65)	Hexachlorobutadiene	22.95	225	196017	8.08 ppbv	99
66)	Naphthalene	23.44	128	263785	7.38 ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\061812\06181203.D Vial: 5
Acq On : 18 Jun 2012 12:19 pm Operator: RACHEL HILL
Sample : CCV VOA1 061812 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 18 12:43 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120619A** **Run No.:** 49500

Analytical Run Date: 6/19/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR by RD2 on 22june12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 061912	BFB_TUNE	TUNE	R49500	6/19/2012 10:32:00 AM	Robert Lynch		
CCV VOA1 061912	EPA_TO15	CCV	R49500	6/19/2012 12:25:00 PM	Robert Lynch		
RLVS VOA1 061912	EPA_TO15	RLVS	R49500	6/19/2012 2:40:00 PM	Robert Lynch		
MBLK VOA1 061912	EPA_TO15	MBLK	R49500	6/19/2012 3:41:00 PM	Robert Lynch		
1206396-022A	EPA_TO15	SAMP	R49500	6/19/2012 6:51:00 PM	Robert Lynch		
1206396-023A	EPA_TO15	SAMP	R49500	6/19/2012 7:36:00 PM	Robert Lynch		
1206396-024A	EPA_TO15	SAMP	R49500	6/19/2012 8:21:00 PM	Robert Lynch		
1206396-005A	EPA_TO15	SAMP	R49500	6/19/2012 11:11:00 PM	Robert Lynch		
1206396-015A	EPA_TO15	SAMP	R49500	6/19/2012 11:53:00 PM	Robert Lynch		
1206396-015Adup	EPA_TO15	DUP	R49500	6/20/2012 12:34:00 AM	Robert Lynch		
1206396-016A	EPA_TO15	SAMP	R49500	6/20/2012 1:16:00 AM	Robert Lynch		
1206396-017A	EPA_TO15	SAMP	R49500	6/20/2012 1:57:00 AM	Robert Lynch		
1206396-019A	EPA_TO15	SAMP	R49500	6/20/2012 2:39:00 AM	Robert Lynch		
1206396-021A	EPA_TO15	SAMP	R49500	6/20/2012 3:21:00 AM	Robert Lynch		
1206517-001A	EPA_TO15	SAMP	R49500	6/20/2012 4:05:00 AM	Robert Lynch		
1206517-003A	EPA_TO15	SAMP	R49500	6/20/2012 6:15:00 AM	Robert Lynch		
1206517-004A	EPA_TO15	SAMP	R49500	6/20/2012 6:57:00 AM	Robert Lynch		
1206396-022A	EPA_TO15	SAMP	R49500	6/20/2012 7:41:00 AM	Robert Lynch		
1206396-023A	EPA_TO15	SAMP	R49500	6/20/2012 8:26:00 AM	Robert Lynch		
RLVS2 VOA1 06191	EPA_TO15	RLVS	R49500	6/20/2012 9:08:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jul-12

RunNo 49500

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
967446	BFB VOA1 061912	BFB_TUNE	TUNE	.\1\DATA\061912	6/19/2012 10:32:	1	R49500		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		89	89		100	0	0	0	0	0	89%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.3	96.3		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		17.2	17.2		100	0	0	0	0	0	17%	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
967447	CCV VOA1 061912	EPA_TO15	CCV	.\1\DATA\061912	6/19/2012 12:25:	1	R49500		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	9.48	9.48		9.6	0	0	0.107	1	50	99%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.44	9.44		10	0	0	0.211	1	50	94%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	9.7	9.7		9.8	0	0	0.108	1	50	99%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.07	9.07		9.8	0	0	0.2	1	50	93%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.6	9.6		9.7	0	0	0.111	1	50	99%	70	130	0%	
1,1-Dichloroethene	A	ppbv	9.95	9.95		9.9	0	0	0.097	1	50	101%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.08	7.08		9.1	0	0	0.271	1	50	78%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.16	9.16		9.8	0	0	0.245	1	50	93%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8.98	8.98		9.6	0	0	0.186	1	50	94%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.9	8.9		9.7	0	0	0.208	1	50	92%	70	130	0%	
1,2-Dichloroethane	A	ppbv	8.99	8.99		9.7	0	0	0.196	1	50	93%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.14	9.14		9.8	0	0	0.224	1	50	93%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.85	8.85		9.7	0	0	0.24	1	50	91%	70	130	0%	
1,3-Butadiene	A	ppbv	10.91	10.91		9.8	0	0	0.152	1	50	111%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	8.87	8.87		9.7	0	0	0.202	1	50	91%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
967447	CCV VOA1 061912	EPA_TO15	CCV	.\1\DATA\061912	6/19/2012 12:25:	1	R49500		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	8.85	8.85		9.6	0	0	0.194	1	50	92%	70	130	0%	
1,4-Dioxane	A	ppbv	8.95	8.95		9.6	0	0	0.128	1	50	93%	70	130	0%	
2-Butanone	A	ppbv	9.12	9.12		9.9	0	0	0.287	1	50	92%	70	130	0%	
2-Hexanone	A	ppbv	8.7	8.7		9.8	0	0	0.135	1	50	89%	70	130	0%	
2-Propanol	A	ppbv	9.71	9.71		10.1	0	0	0.329	1	50	96%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	8.93	8.93		10	0	0	0.157	1	50	89%	70	130	0%	
Acetone	A	ppbv	9.24	9.24		10	0	0	0.43	1	50	92%	70	130	0%	
Benzene	A	ppbv	9.47	9.47		9.6	0	0	0.126	1	50	99%	70	130	0%	
Benzyl chloride	A	ppbv	8.89	8.89		9.7	0	0	0.155	1	50	92%	70	130	0%	
Bromodichloromethane	A	ppbv	9.25	9.25		9.6	0	0	0.156	1	50	96%	70	130	0%	
Bromoform	A	ppbv	8.74	8.74		9.6	0	0	0.197	1	50	91%	70	130	0%	
Bromomethane	A	ppbv	9.61	9.61		9.3	0	0	0.075	1	50	103%	70	130	0%	
Carbon disulfide	A	ppbv	9.99	9.99		9.7	0	0	0.093	1	50	103%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.28	9.28		9.5	0	0	0.114	1	50	98%	70	130	0%	
Chlorobenzene	A	ppbv	9.15	9.15		9.9	0	0	0.275	1	50	92%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.08	9.08		9.2	0	0	0.165	1	50	99%	70	130	0%	
Chloroethane	A	ppbv	9.42	9.42		9.8	0	0	0.063	1	50	96%	70	130	0%	
Chloroform	A	ppbv	9.79	9.79		9.4	0	0	0.126	1	50	104%	70	130	0%	
Chloromethane	A	ppbv	10.32	10.32		9.8	0	0	0.104	1	50	105%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	9.7	9.7		9.8	0	0	0.107	1	50	99%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.82	8.82		9.5	0	0	0.166	1	50	93%	70	130	0%	
Cyclohexane	A	ppbv	10.74	10.74		9.8	0	0	0.684	2	50	110%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.81	9.81		9.2	0	0	0.086	1	50	107%	70	130	0%	
Ethanol	A	ppbv	8.49	8.49		9.2	0	0	1.962	5	50	92%	70	130	0%	
Ethyl acetate	A	ppbv	9	9		9.8	0	0	0.157	1	50	92%	70	130	0%	
Ethylbenzene	A	ppbv	9.3	9.3		9.8	0	0	0.737	2	50	95%	70	130	0%	
Heptane	A	ppbv	10.35	10.35		9.9	0	0	0.249	1	50	105%	70	130	0%	
Hexachlorobutadiene	A	ppbv	7.93	7.93		9.4	0	0	0.374	2	50	84%	70	130	0%	
m,p-Xylene	A	ppbv	18.83	18.83		19.2	0	0	0.524	2	100	98%	70	130	0%	
Methylene chloride	A	ppbv	9.62	9.62		10	0	0	2.077	5	50	96%	70	130	0%	
n-Hexane	A	ppbv	10.34	10.34		10.1	0	0	0.692	2	50	102%	70	130	0%	
Naphthalene	A	ppbv	7.31	7.31		9.2	0	0	0.247	1	50	79%	70	130	0%	
o-Xylene	A	ppbv	9.35	9.35		10	0	0	0.258	1	50	94%	70	130	0%	
Propylene	A	ppbv	12.58	12.58		10.2	0	0	0.075	1	50	123%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
967447	CCV VOA1 061912	EPA_TO15	CCV	.\1\DATA\061912	6/19/2012 12:25:	1	R49500		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.19	9.19		9.8	0	0	0.263	1	50	94%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.11	9.11		9.9	0	0	0.228	1	50	92%	70	130	0%	
Tetrachloroethene	A	ppbv	9.09	9.09		9.6	0	0	0.148	1	50	95%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.71	9.71		10	0	0	0.201	1	50	97%	70	130	0%	
Toluene	A	ppbv	10.09	10.09		9.8	0	0	0.158	1	50	103%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.61	9.61		9.8	0	0	0.117	1	50	98%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.53	8.53		9.1	0	0	0.171	1	50	94%	70	130	0%	
Trichloroethene	A	ppbv	9.09	9.09		9.6	0	0	0.119	1	50	95%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.69	9.69		9.6	0	0	0.148	1	50	101%	70	130	0%	
Vinyl acetate	A	ppbv	9.45	9.45		9.9	0	0	0.266	1	50	95%	70	130	0%	
Vinyl chloride	A	ppbv	10.41	10.41		9.4	0	0	0.072	1	50	111%	70	130	0%	
Xylenes, Total	C	ppbv	28.18	28.18		29.2	0	0	0.782	3	150	97%	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	12.12	12.12		12.5	0	0	0	0	0	97%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968659	RLVS VOA1 061912	EPA_TO15	RLVS	.\1\DATA\061912	6/19/2012 2:40:0	1	R49500		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	1.03	1.03		0.996	0	0	0.107	1	50	103%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.18	1.18		1	0	0	0.211	1	50	118%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.03	1.03		0.98	0	0	0.108	1	50	105%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.05	1.05		0.98	0	0	0.2	1	50	107%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.07	1.07		0.97	0	0	0.111	1	50	110%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.11	1.11		0.99	0	0	0.097	1	50	112%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.87	0.87		0.91	0	0	0.271	1	50	96%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.1	1.1		0.98	0	0	0.245	1	50	112%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.96	0.96		0.96	0	0	0.186	1	50	100%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.16	1.16		0.97	0	0	0.208	1	50	120%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.09	1.09		0.97	0	0	0.196	1	50	112%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.1	1.1		0.98	0	0	0.224	1	50	112%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\061912\06191203.D Vial: 3
Acq On : 19 Jun 2012 12:25 pm Operator: RACHEL HILL
Sample : CCV VOA1 061912 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	91	0.00
2	T	Propylene	0.813	1.003	-23.4	103	0.00
3	T	Dichlorodifluoromethane	3.079	3.283	-6.6	87	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.438	-5.9	88	0.00
5	T	Chloromethane	0.928	1.008	-8.6	86	0.00
6	T	Vinyl chloride	1.049	1.162	-10.8	86	0.00
7	T	1,3-Butadiene	0.727	0.810	-11.4	85	0.00
8	T	Bromomethane	1.112	1.149	-3.3	84	0.00
9	T	Chloroethane	0.591	0.605	-2.4	81	0.00
10	T	Trichlorofluoromethane	2.936	2.963	-0.9	80	0.00
11	T	Ethanol	0.315	0.291	7.6	71	0.00
12	T	Freon113	1.993	1.973	1.0	76	0.00
13	T	1,1-Dichloroethene	1.379	1.385	-0.4	77	0.00
14	T	Acetone	1.332	1.230	7.7	66	0.00
15	T	Carbon disulfide	2.400	2.473	-3.0	80	0.00
16	T	2-Propanol	1.279	1.230	3.8	73	0.00
17	T	Methylene chloride	1.022	0.983	3.8	75	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.023	8.0	64	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.238	1.9	74	0.00
20	T	n-Hexane	1.399	1.432	-2.4	77	0.00
21	T	1,1-Dichloroethane	1.713	1.695	1.1	74	0.00
22	T	Vinyl acetate	2.035	1.942	4.6	63	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.025	1.1	74	0.00
24	T	2-Butanone	1.404	1.293	7.9	63	0.00
25	T	Ethyl acetate	1.735	1.593	8.2	63	0.00
26	T	Tetrahydrofuran	0.898	0.872	2.9	68	0.00
27	T	Chloroform	1.950	1.949	0.1	74	0.00
28	T	1,1,1-Trichloroethane	2.105	2.079	1.2	73	0.00
29	T	Cyclohexane	1.419	1.556	-9.7	81	0.00
30	T	Carbon tetrachloride	2.325	2.272	2.3	72	0.00
31	T	Benzene	2.740	2.703	1.4	70	0.00
32	T	1,2-Dichloroethane	1.133	1.050	7.3	66	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	92	0.00
34	T	Heptane	0.486	0.508	-4.5	77	0.00
35	T	Trichloroethene	0.444	0.420	5.4	74	0.00
36	T	1,2-Dichloropropane	0.304	0.284	6.6	67	0.00
37	T	1,4-Dioxane	0.175	0.164	6.3	70	0.00
38	T	Bromodichloromethane	0.631	0.608	3.6	73	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.452	7.2	67	0.00
40	T	4-Methyl-2-pentanone	0.208	0.186	10.6	65	0.00
41	T	Toluene	1.030	1.061	-3.0	74	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.422	6.4	68	0.00
43	T	1,1,2-Trichloroethane	0.358	0.331	7.5	69	0.00
44	T	Tetrachloroethene	0.582	0.551	5.3	74	0.00
45	T	2-Hexanone	0.404	0.359	11.1	63	0.00
46	T	Chlorodibromomethane	0.660	0.611	7.4	69	0.00
47	T	1,2-Dibromoethane	0.559	0.523	6.4	68	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	93	0.00
49	T	Chlorobenzene	0.880	0.814	7.5	69	0.00
50	T	Ethylbenzene	1.411	1.339	5.1	69	0.00
51	T	m,p-Xylene	1.097	1.076	1.9	70	0.00
52	T	o-Xylene	1.117	1.045	6.4	69	0.00
53	T	Styrene	0.860	0.806	6.3	69	0.00
54	T	Bromoform	0.634	0.577	9.0	69	0.00
55	S	4-Bromofluorobenzene	0.581	0.564	2.9	89	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\061912\06191203.D Vial: 3
Acq On : 19 Jun 2012 12:25 pm Operator: RACHEL HILL
Sample : CCV VOA1 061912 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.658	5.6	71	0.00
57	T	4-Ethyltoluene	1.452	1.339	7.8	69	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.134	8.7	69	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.086	6.5	70	0.00
60	T	1,3-Dichlorobenzene	0.763	0.698	8.5	71	0.00
61	T	1,4-Dichlorobenzene	0.736	0.679	7.7	71	0.00
62	T	Benzyl chloride	0.809	0.742	8.3	70	0.00
63	T	1,2-Dichlorobenzene	0.669	0.614	8.2	72	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.189	22.2	63	0.00
65	T	Hexachlorobutadiene	0.327	0.276	15.6	64	0.00
66		Naphthalene	0.481	0.383	20.4	64	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\061912\06191203.D Vial: 3
Acq On : 19 Jun 2012 12:25 pm Operator: RACHEL HILL
Sample : CCV VOA1 061912 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 19 12:50 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.58	130	327925	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1093791	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.53	117	977685	12.50 ppbv	0.00
System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.18	95	550975	12.12 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 96.96%		
Target Compounds					Qvalue
2) Propylene	5.52	41	268397	12.58 ppbv	92
3) Dichlorodifluoromethane	5.59	85	792300	9.81 ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	607671	10.06 ppbv #	84
5) Chloromethane	6.00	50	251257	10.32 ppbv	98
6) Vinyl chloride	6.20	62	286461	10.41 ppbv #	99
7) 1,3-Butadiene	6.26	39	208144	10.91 ppbv	97
8) Bromomethane	6.84	94	280284	9.61 ppbv #	98
9) Chloroethane	6.99	64	146128	9.42 ppbv	99
10) Trichlorofluoromethane	7.33	101	746141	9.69 ppbv	99
11) Ethanol	7.56	45	70113	8.49 ppbv	98
12) Freon113	7.99	101	507256	9.70 ppbv	93
13) 1,1-Dichloroethene	8.09	61	359714	9.95 ppbv	98
14) Acetone	8.18	43	322762	9.24 ppbv #	96
15) Carbon disulfide	8.46	76	629182	9.99 ppbv #	99
16) 2-Propanol	8.23	45	325974	9.71 ppbv #	1
17) Methylene chloride	8.75	49	257920	9.62 ppbv	98
18) tert-Butyl Methyl Ether	8.95	73	525386	9.11 ppbv	96
19) trans-1,2-Dichloroethene	9.03	61	318176	9.61 ppbv	99
20) n-Hexane	9.21	57	379348	10.34 ppbv	97
21) 1,1-Dichloroethane	9.59	63	431201	9.60 ppbv	100
22) Vinyl acetate	9.52	43	504320	9.45 ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	263639	9.70 ppbv	99
24) 2-Butanone	10.24	43	335930	9.12 ppbv	100
25) Ethyl acetate	10.19	43	409600	9.00 ppbv #	98
26) Tetrahydrofuran	10.58	42	228756	9.71 ppbv	96
27) Chloroform	10.60	83	500976	9.79 ppbv	97
28) 1,1,1-Trichloroethane	10.85	97	523527	9.48 ppbv	99
29) Cyclohexane	10.85	56	399931	10.74 ppbv	97
30) Carbon tetrachloride	11.01	117	566217	9.28 ppbv	98
31) Benzene	11.29	78	680691	9.47 ppbv	100
32) 1,2-Dichloroethane	11.37	62	267274	8.99 ppbv	99
34) Heptane	11.34	43	440372	10.35 ppbv	97
35) Trichloroethene	12.02	130	352656	9.09 ppbv	96
36) 1,2-Dichloropropane	12.38	63	243230	9.14 ppbv	100
37) 1,4-Dioxane	12.45	88	137346	8.95 ppbv	95
38) Bromodichloromethane	12.66	83	511082	9.25 ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	375594	8.82 ppbv	100
40) 4-Methyl-2-pentanone	13.32	58	162392	8.93 ppbv	98
41) Toluene	13.62	91	909848	10.09 ppbv	97
42) trans-1,3-Dichloropropene	13.92	75	336425	8.53 ppbv	99
43) 1,1,2-Trichloroethane	14.19	97	283735	9.07 ppbv	99
44) Tetrachloroethene	14.32	166	462491	9.09 ppbv	96
45) 2-Hexanone	14.40	43	307600	8.70 ppbv	97
46) Chlorodibromomethane	14.74	129	523859	9.08 ppbv	99
47) 1,2-Dibromoethane	14.98	107	439412	8.98 ppbv	100
49) Chlorobenzene	15.57	112	630169	9.15 ppbv	98
50) Ethylbenzene	15.61	91	1026569	9.30 ppbv	97
51) m,p-Xylene	15.77	91	1615202	18.83 ppbv	96
52) o-Xylene	16.36	91	816982	9.35 ppbv	97

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\061912\06191203.D Vial: 3
Acq On : 19 Jun 2012 12:25 pm Operator: RACHEL HILL
Sample : CCV VOA1 061912 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 19 12:50 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

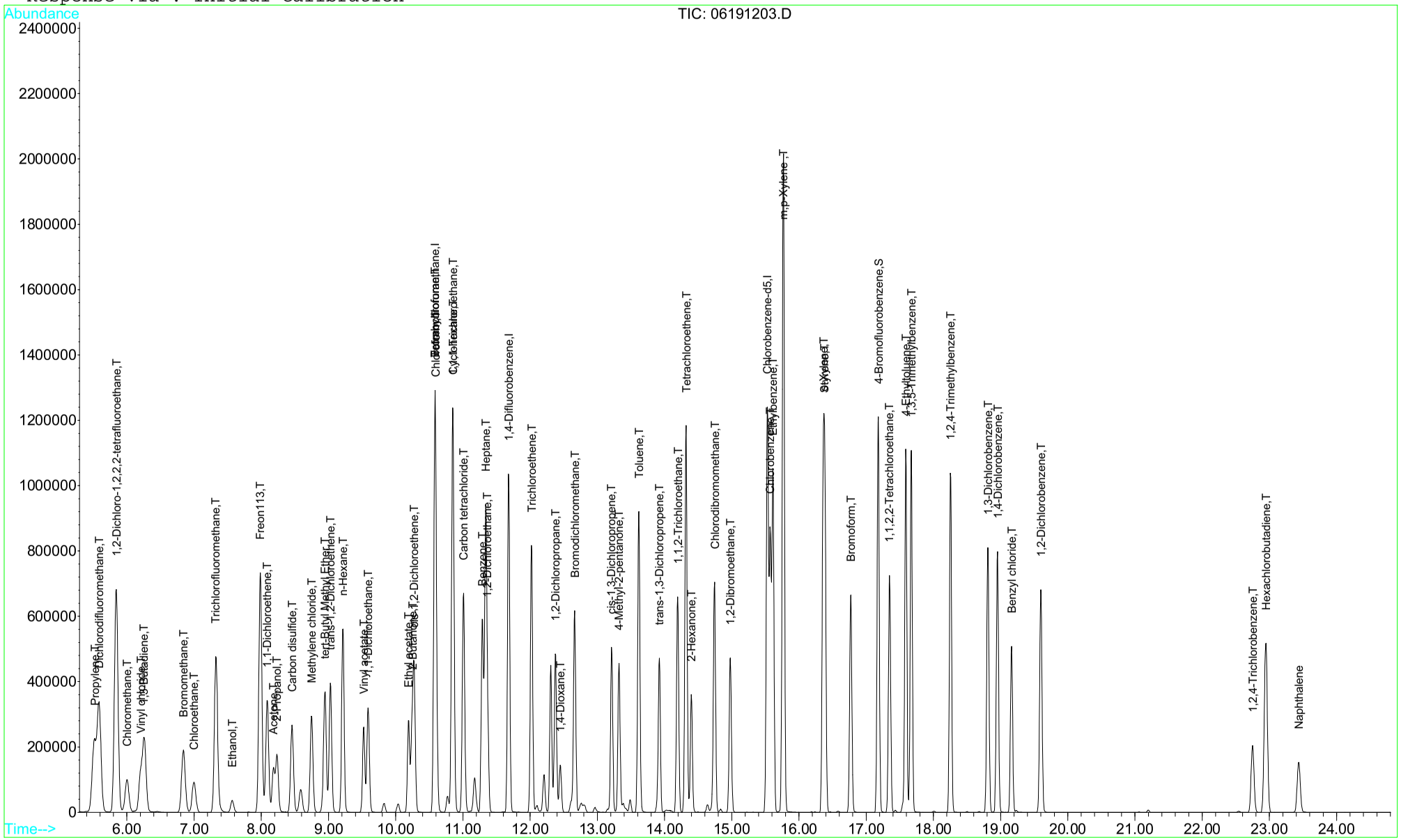
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53)	Styrene	16.39	104	617830	9.19 ppbv	98
54)	Bromoform	16.77	173	433033	8.74 ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.35	83	514604	9.44 ppbv	99
57)	4-Ethyltoluene	17.59	105	1026474	9.04 ppbv	97
58)	1,3,5-Trimethylbenzene	17.67	105	860092	8.85 ppbv	98
59)	1,2,4-Trimethylbenzene	18.26	105	832146	9.16 ppbv	98
60)	1,3-Dichlorobenzene	18.81	146	529533	8.87 ppbv	98
61)	1,4-Dichlorobenzene	18.95	146	509493	8.85 ppbv	98
62)	Benzyl chloride	19.16	91	562742	8.89 ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	465986	8.90 ppbv	98
64)	1,2,4-Trichlorobenzene	22.75	180	134536	7.08 ppbv	97
65)	Hexachlorobutadiene	22.95	225	202672	7.93 ppbv	99
66)	Naphthalene	23.44	128	275329	7.31 ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\061912\06191203.D Vial: 3
Acq On : 19 Jun 2012 12:25 pm Operator: RACHEL HILL
Sample : CCV VOA1 061912 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 19 12:50 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120620A** **Run No.:** 49530

Analytical Run Date: 6/20/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR by RD2 on 22june12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 062012	BFB_TUNE	TUNE	R49530	6/20/2012 10:17:00 AM	Robert Lynch		
CCV VOA1 062012	EPA_TO15	CCV	R49530	6/20/2012 11:54:00 AM	Robert Lynch		
RLVS VOA1 062012	EPA_TO15	RLVS	R49530	6/20/2012 12:37:00 PM	Robert Lynch		
MBLK VOA1 062012	EPA_TO15	MBLK	R49530	6/20/2012 3:09:00 PM	Robert Lynch		
1206517-005A	EPA_TO15	SAMP	R49530	6/20/2012 3:54:00 PM	Robert Lynch		
1206517-005Adup	EPA_TO15	DUP	R49530	6/20/2012 4:38:00 PM	Robert Lynch		
1206517-006A	EPA_TO15	SAMP	R49530	6/20/2012 5:23:00 PM	Robert Lynch		
1206517-007A	EPA_TO15	SAMP	R49530	6/20/2012 6:07:00 PM	Robert Lynch		
1206517-008A	EPA_TO15	SAMP	R49530	6/20/2012 6:51:00 PM	Robert Lynch		
1206517-009A	EPA_TO15	SAMP	R49530	6/20/2012 7:34:00 PM	Robert Lynch		
1206517-010A	EPA_TO15	SAMP	R49530	6/20/2012 8:17:00 PM	Robert Lynch		
1206517-011A	EPA_TO15	SAMP	R49530	6/20/2012 9:02:00 PM	Robert Lynch		
1206517-012A	EPA_TO15	SAMP	R49530	6/20/2012 9:46:00 PM	Robert Lynch		
1206396-004A	EPA_TO15	SAMP	R49530	6/20/2012 10:28:00 PM	Robert Lynch		
1206396-017A	EPA_TO15	SAMP	R49530	6/20/2012 11:13:00 PM	Robert Lynch		
1206396-019A	EPA_TO15	SAMP	R49530	6/20/2012 11:57:00 PM	Robert Lynch		
1206396-024A	EPA_TO15	SAMP	R49530	6/21/2012 12:42:00 AM	Robert Lynch		
1206517-002A	EPA_TO15	SAMP	R49530	6/21/2012 1:30:00 AM	Robert Lynch		
1206517-003A	EPA_TO15	SAMP	R49530	6/21/2012 2:11:00 AM	Robert Lynch		
RLVS2 VOA1 06201	EPA_TO15	RLVS	R49530	6/21/2012 2:54:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jul-12

RunNo 49530

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968127	BFB VOA1 062012	BFB_TUNE	TUNE	.\1\DATA\062012	6/20/2012 10:17:	1	R49530		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		90.1	90.1		100	0	0	0	0	0	90%	50	120	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		97	97		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	
50	M		17	17		100	0	0	0	0	0	17%	8	40	0%	
75	M		47.1	47.1		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
968128	CCV VOA1 062012	EPA_TO15	CCV	.\1\DATA\062012	6/20/2012 11:54:	1	R49530		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.66	10.66		9.6	0	0	0.107	1	50	111%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.83	10.83		10	0	0	0.211	1	50	108%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.81	10.81		9.8	0	0	0.108	1	50	110%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.09	11.09		9.8	0	0	0.2	1	50	113%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.71	10.71		9.7	0	0	0.111	1	50	110%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.86	10.86		9.9	0	0	0.097	1	50	110%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.44	8.44		9.1	0	0	0.271	1	50	93%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.54	10.54		9.8	0	0	0.245	1	50	108%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.89	10.89		9.6	0	0	0.186	1	50	113%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.07	10.07		9.7	0	0	0.208	1	50	104%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.87	10.87		9.7	0	0	0.196	1	50	112%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.43	11.43		9.8	0	0	0.224	1	50	117%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.47	10.47		9.7	0	0	0.24	1	50	108%	70	130	0%	
1,3-Butadiene	A	ppbv	10.84	10.84		9.8	0	0	0.152	1	50	111%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.21	10.21		9.7	0	0	0.202	1	50	105%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968128	CCV VOA1 062012	EPA_TO15	CCV	.\1\DATA\062012	6/20/2012 11:54:	1	R49530		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.15	10.15		9.6	0	0	0.194	1	50	106%	70	130	0%	
1,4-Dioxane	A	ppbv	11.08	11.08		9.6	0	0	0.128	1	50	115%	70	130	0%	
2-Butanone	A	ppbv	10.92	10.92		9.9	0	0	0.287	1	50	110%	70	130	0%	
2-Hexanone	A	ppbv	11.29	11.29		9.8	0	0	0.135	1	50	115%	70	130	0%	
2-Propanol	A	ppbv	11.02	11.02		10.1	0	0	0.329	1	50	109%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.1	11.1		10	0	0	0.157	1	50	111%	70	130	0%	
Acetone	A	ppbv	11.13	11.13		10	0	0	0.43	1	50	111%	70	130	0%	
Benzene	A	ppbv	11.01	11.01		9.6	0	0	0.126	1	50	115%	70	130	0%	
Benzyl chloride	A	ppbv	10.21	10.21		9.7	0	0	0.155	1	50	105%	70	130	0%	
Bromodichloromethane	A	ppbv	10.86	10.86		9.6	0	0	0.156	1	50	113%	70	130	0%	
Bromoform	A	ppbv	10.42	10.42		9.6	0	0	0.197	1	50	109%	70	130	0%	
Bromomethane	A	ppbv	9.94	9.94		9.3	0	0	0.075	1	50	107%	70	130	0%	
Carbon disulfide	A	ppbv	10.52	10.52		9.7	0	0	0.093	1	50	108%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.52	10.52		9.5	0	0	0.114	1	50	111%	70	130	0%	
Chlorobenzene	A	ppbv	10.92	10.92		9.9	0	0	0.275	1	50	110%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.98	10.98		9.2	0	0	0.165	1	50	119%	70	130	0%	
Chloroethane	A	ppbv	9.82	9.82		9.8	0	0	0.063	1	50	100%	70	130	0%	
Chloroform	A	ppbv	10.96	10.96		9.4	0	0	0.126	1	50	117%	70	130	0%	
Chloromethane	A	ppbv	10.28	10.28		9.8	0	0	0.104	1	50	105%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.89	10.89		9.8	0	0	0.107	1	50	111%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.92	10.92		9.5	0	0	0.166	1	50	115%	70	130	0%	
Cyclohexane	A	ppbv	10.89	10.89		9.8	0	0	0.684	2	50	111%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.65	9.65		9.2	0	0	0.086	1	50	105%	70	130	0%	
Ethanol	A	ppbv	10.06	10.06		9.2	0	0	1.962	5	50	109%	70	130	0%	
Ethyl acetate	A	ppbv	11.11	11.11		9.8	0	0	0.157	1	50	113%	70	130	0%	
Ethylbenzene	A	ppbv	11.02	11.02		9.8	0	0	0.737	2	50	112%	70	130	0%	
Heptane	A	ppbv	11.27	11.27		9.9	0	0	0.249	1	50	114%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.65	9.65		9.4	0	0	0.374	2	50	103%	70	130	0%	
m,p-Xylene	A	ppbv	22.22	22.22		19.2	0	0	0.524	2	100	116%	70	130	0%	
Methylene chloride	A	ppbv	10.82	10.82		10	0	0	2.077	5	50	108%	70	130	0%	
n-Hexane	A	ppbv	11.12	11.12		10.1	0	0	0.692	2	50	110%	70	130	0%	
Naphthalene	A	ppbv	8.37	8.37		9.2	0	0	0.247	1	50	91%	70	130	0%	
o-Xylene	A	ppbv	11.04	11.04		10	0	0	0.258	1	50	110%	70	130	0%	
Propylene	A	ppbv	12.69	12.69		10.2	0	0	0.075	1	50	124%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968128	CCV VOA1 062012	EPA_TO15	CCV	.\1\DATA\062012	6/20/2012 11:54:	1	R49530		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	11.18	11.18		9.9	0	0	0.228	1	50	113%	70	130	0%	
Tetrachloroethene	A	ppbv	10.58	10.58		9.6	0	0	0.148	1	50	110%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.09	11.09		10	0	0	0.201	1	50	111%	70	130	0%	
Toluene	A	ppbv	11.38	11.38		9.8	0	0	0.158	1	50	116%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.8	10.8		9.8	0	0	0.117	1	50	110%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.36	10.36		9.1	0	0	0.171	1	50	114%	70	130	0%	
Trichloroethene	A	ppbv	10.66	10.66		9.6	0	0	0.119	1	50	111%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.33	10.33		9.6	0	0	0.148	1	50	108%	70	130	0%	
Vinyl acetate	A	ppbv	11.84	11.84		9.9	0	0	0.266	1	50	120%	70	130	0%	
Vinyl chloride	A	ppbv	10.35	10.35		9.4	0	0	0.072	1	50	110%	70	130	0%	
Xylenes, Total	C	ppbv	33.26	33.26		29.2	0	0	0.782	3	150	114%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.35	12.35		12.5	0	0	0	0	0	99%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968129	RLVS VOA1 062012	EPA_TO15	RLVS	.\1\DATA\062012	6/20/2012 12:37:	1	R49530		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	1.02	1.02		0.996	0	0	0.107	1	50	102%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.26	1.26		1	0	0	0.211	1	50	126%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.1	1.1		0.98	0	0	0.108	1	50	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.07	1.07		0.98	0	0	0.2	1	50	109%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.08	1.08		0.97	0	0	0.111	1	50	111%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.09	1.09		0.99	0	0	0.097	1	50	110%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.85	0.85		0.91	0	0	0.271	1	50	93%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.18	1.18		0.98	0	0	0.245	1	50	120%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.97	0.97		0.96	0	0	0.186	1	50	101%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.2	1.2		0.97	0	0	0.208	1	50	124%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.06	1.06		0.97	0	0	0.196	1	50	109%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.09	1.09		0.98	0	0	0.224	1	50	111%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062012\06201203.D Vial: 3
Acq On : 20 Jun 2012 11:54 am Operator: RACHEL HILL
Sample : CCV VOA1 062012 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	93	0.00
2	T	Propylene	0.813	1.012	-24.5	107	0.00
3	T	Dichlorodifluoromethane	3.079	3.229	-4.9	89	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.425	-5.3	90	0.00
5	T	Chloromethane	0.928	1.005	-8.3	89	0.00
6	T	Vinyl chloride	1.049	1.155	-10.1	88	0.00
7	T	1,3-Butadiene	0.727	0.804	-10.6	86	0.00
8	T	Bromomethane	1.112	1.188	-6.8	90	0.00
9	T	Chloroethane	0.591	0.631	-6.8	87	0.00
10	T	Trichlorofluoromethane	2.936	3.160	-7.6	88	0.00
11	T	Ethanol	0.315	0.344	-9.2	86	0.00
12	T	Freon113	1.993	2.197	-10.2	87	0.00
13	T	1,1-Dichloroethene	1.379	1.513	-9.7	86	0.00
14	T	Acetone	1.332	1.483	-11.3	82	0.00
15	T	Carbon disulfide	2.400	2.602	-8.4	87	0.00
16	T	2-Propanol	1.279	1.396	-9.1	86	0.00
17	T	Methylene chloride	1.022	1.106	-8.2	87	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.482	-12.9	81	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.390	-10.1	85	0.00
20	T	n-Hexane	1.399	1.541	-10.2	85	0.00
21	T	1,1-Dichloroethane	1.713	1.891	-10.4	85	0.00
22	T	Vinyl acetate	2.035	2.433	-19.6	82	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.152	-11.2	85	0.00
24	T	2-Butanone	1.404	1.549	-10.3	78	0.00
25	T	Ethyl acetate	1.735	1.967	-13.4	80	0.00
26	T	Tetrahydrofuran	0.898	0.996	-10.9	80	0.00
27	T	Chloroform	1.950	2.181	-11.8	85	0.00
28	T	1,1,1-Trichloroethane	2.105	2.336	-11.0	85	0.00
29	T	Cyclohexane	1.419	1.577	-11.1	84	0.00
30	T	Carbon tetrachloride	2.325	2.575	-10.8	84	0.00
31	T	Benzene	2.740	3.142	-14.7	84	0.00
32	T	1,2-Dichloroethane	1.133	1.270	-12.1	82	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	91	0.00
34	T	Heptane	0.486	0.553	-13.8	83	0.00
35	T	Trichloroethene	0.444	0.492	-10.8	85	0.00
36	T	1,2-Dichloropropane	0.304	0.355	-16.8	83	0.00
37	T	1,4-Dioxane	0.175	0.202	-15.4	86	0.00
38	T	Bromodichloromethane	0.631	0.714	-13.2	85	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.560	-15.0	82	0.00
40	T	4-Methyl-2-pentanone	0.208	0.231	-11.1	80	0.00
41	T	Toluene	1.030	1.196	-16.1	83	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.513	-13.7	81	0.00
43	T	1,1,2-Trichloroethane	0.358	0.405	-13.1	83	0.00
44	T	Tetrachloroethene	0.582	0.641	-10.1	85	0.00
45	T	2-Hexanone	0.404	0.465	-15.1	80	0.00
46	T	Chlorodibromomethane	0.660	0.739	-12.0	82	0.00
47	T	1,2-Dibromoethane	0.559	0.634	-13.4	82	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00
49	T	Chlorobenzene	0.880	0.971	-10.3	82	0.00
50	T	Ethylbenzene	1.411	1.587	-12.5	82	0.00
51	T	m,p-Xylene	1.097	1.269	-15.7	82	0.00
52	T	o-Xylene	1.117	1.233	-10.4	81	0.00
53	T	Styrene	0.860	0.953	-10.8	81	0.00
54	T	Bromoform	0.634	0.688	-8.5	82	0.00
55	S	4-Bromofluorobenzene	0.581	0.574	1.2	90	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062012\06201203.D Vial: 3
Acq On : 20 Jun 2012 11:54 am Operator: RACHEL HILL
Sample : CCV VOA1 062012 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.755	-8.3	81	0.00
57	T	4-Ethyltoluene	1.452	1.579	-8.7	81	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.340	-7.9	81	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.250	-7.6	80	0.00
60	T	1,3-Dichlorobenzene	0.763	0.803	-5.2	81	0.00
61	T	1,4-Dichlorobenzene	0.736	0.778	-5.7	81	0.00
62	T	Benzyl chloride	0.809	0.852	-5.3	80	0.00
63	T	1,2-Dichlorobenzene	0.669	0.694	-3.7	80	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.225	7.4	74	0.00
65	T	Hexachlorobutadiene	0.327	0.336	-2.8	77	0.00
66		Naphthalene	0.481	0.438	8.9	73	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062012\06201203.D Vial: 3
Acq On : 20 Jun 2012 11:54 am Operator: RACHEL HILL
Sample : CCV VOA1 062012 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 20 12:18 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.58	130	337366	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1080257	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.53	117	971129	12.50 ppbv	0.00
System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.18	95	557391	12.35 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 98.80%		
Target Compounds					Qvalue
2) Propylene	5.52	41	278538	12.69 ppbv	91
3) Dichlorodifluoromethane	5.58	85	801747	9.65 ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	621796	10.00 ppbv #	85
5) Chloromethane	6.00	50	257651	10.28 ppbv	98
6) Vinyl chloride	6.20	62	293114	10.35 ppbv	99
7) 1,3-Butadiene	6.26	39	212707	10.84 ppbv	98
8) Bromomethane	6.84	94	298227	9.94 ppbv #	98
9) Chloroethane	6.99	64	156634	9.82 ppbv	99
10) Trichlorofluoromethane	7.32	101	818776	10.33 ppbv	98
11) Ethanol	7.57	45	85460	10.06 ppbv	99
12) Freon113	7.98	101	581136	10.81 ppbv	93
13) 1,1-Dichloroethene	8.09	61	404241	10.86 ppbv	98
14) Acetone	8.18	43	400277	11.13 ppbv #	96
15) Carbon disulfide	8.46	76	681192	10.52 ppbv #	100
16) 2-Propanol	8.23	45	380654	11.02 ppbv #	1
17) Methylene chloride	8.74	49	298573	10.82 ppbv	98
18) tert-Butyl Methyl Ether	8.94	73	663095	11.18 ppbv	99
19) trans-1,2-Dichloroethene	9.03	61	367768	10.80 ppbv	99
20) n-Hexane	9.21	57	420014	11.12 ppbv	98
21) 1,1-Dichloroethane	9.59	63	495048	10.71 ppbv	99
22) Vinyl acetate	9.52	43	650204	11.84 ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	304582	10.89 ppbv	100
24) 2-Butanone	10.24	43	413781	10.92 ppbv	99
25) Ethyl acetate	10.19	43	520381	11.11 ppbv #	98
26) Tetrahydrofuran	10.58	42	268742	11.09 ppbv	94
27) Chloroform	10.60	83	576896	10.96 ppbv	97
28) 1,1,1-Trichloroethane	10.85	97	605242	10.66 ppbv	99
29) Cyclohexane	10.85	56	417085	10.89 ppbv	99
30) Carbon tetrachloride	11.01	117	660190	10.52 ppbv	98
31) Benzene	11.29	78	814161	11.01 ppbv	99
32) 1,2-Dichloroethane	11.37	62	332389	10.87 ppbv	99
34) Heptane	11.34	43	473305	11.27 ppbv	97
35) Trichloroethene	12.02	130	408441	10.66 ppbv	96
36) 1,2-Dichloropropane	12.37	63	300319	11.43 ppbv	100
37) 1,4-Dioxane	12.45	88	167890	11.08 ppbv	94
38) Bromodichloromethane	12.66	83	592519	10.86 ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	459510	10.92 ppbv	99
40) 4-Methyl-2-pentanone	13.32	58	199482	11.10 ppbv	97
41) Toluene	13.61	91	1012849	11.38 ppbv	97
42) trans-1,3-Dichloropropene	13.92	75	403288	10.36 ppbv	99
43) 1,1,2-Trichloroethane	14.19	97	342716	11.09 ppbv	99
44) Tetrachloroethene	14.32	166	531913	10.58 ppbv	96
45) 2-Hexanone	14.40	43	394119	11.29 ppbv	97
46) Chlorodibromomethane	14.74	129	626110	10.98 ppbv	99
47) 1,2-Dibromoethane	14.98	107	526372	10.89 ppbv	99
49) Chlorobenzene	15.57	112	746850	10.92 ppbv	99
50) Ethylbenzene	15.61	91	1208330	11.02 ppbv	97
51) m,p-Xylene	15.77	91	1893247	22.22 ppbv	97
52) o-Xylene	16.36	91	958110	11.04 ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062012\06201203.D Vial: 3
Acq On : 20 Jun 2012 11:54 am Operator: RACHEL HILL
Sample : CCV VOA1 062012 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 20 12:18 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

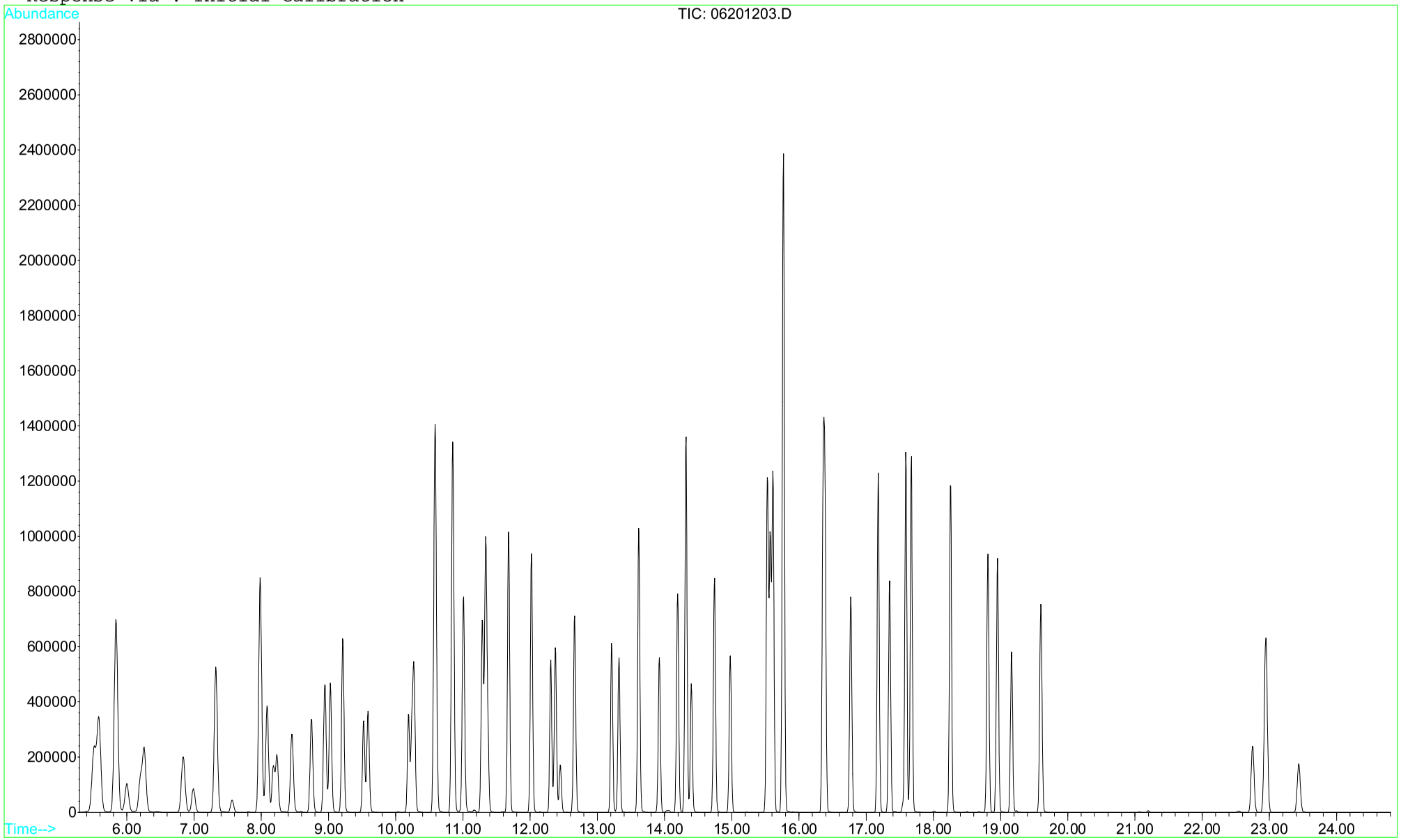
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53)	Styrene	16.39	104	725722	10.87 ppbv	99
54)	Bromoform	16.77	173	513182	10.42 ppbv	98
56)	1,1,2,2-Tetrachloroethane	17.35	83	586917	10.83 ppbv	98
57)	4-Ethyltoluene	17.59	105	1202105	10.65 ppbv	98
58)	1,3,5-Trimethylbenzene	17.67	105	1009983	10.47 ppbv	97
59)	1,2,4-Trimethylbenzene	18.26	105	952003	10.54 ppbv	98
60)	1,3-Dichlorobenzene	18.81	146	605501	10.21 ppbv	98
61)	1,4-Dichlorobenzene	18.95	146	580582	10.15 ppbv	98
62)	Benzyl chloride	19.16	91	641976	10.21 ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	523245	10.07 ppbv	97
64)	1,2,4-Trichlorobenzene	22.75	180	159344	8.44 ppbv	96
65)	Hexachlorobutadiene	22.95	225	245062	9.65 ppbv	99
66)	Naphthalene	23.44	128	313209	8.37 ppbv	99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\062012\06201203.D Vial: 3
Acq On : 20 Jun 2012 11:54 am Operator: RACHEL HILL
Sample : CCV VOA1 062012 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 20 12:18 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA1_120621A** **Run No.:** 49551

Analytical Run Date: 6/21/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 6/26/12/PR by RD2 on 25june12. GC lost Helium flow mid-analysis, so run stopped. Restarted and ran ending RLVS asap, though outside of 24 hour timeclock.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 062112	BFB_TUNE	TUNE	R49551	6/21/2012 9:35:00 AM	Celeste Hoitash		
CCV VOA1 062112	EPA_TO15	CCV	R49551	6/21/2012 11:08:00 AM	Celeste Hoitash		
BV MBLK VOA1 062	EPA_TO15	MBLK	R49551	6/21/2012 12:20:00 PM	Celeste Hoitash		
RLVS VOA1 062112	EPA_TO15	RLVS	R49551	6/21/2012 6:06:00 PM	Celeste Hoitash		
1206396-002A	EPA_TO15	SAMP	R49551	6/21/2012 8:19:00 PM	Celeste Hoitash		
1206396-003A	EPA_TO15	SAMP	R49551	6/21/2012 9:04:00 PM	Celeste Hoitash		
1206396-008A	EPA_TO15	SAMP	R49551	6/21/2012 9:49:00 PM	Celeste Hoitash		
1206396-009A	EPA_TO15	SAMP	R49551	6/21/2012 10:34:00 PM	Celeste Hoitash		
1206396-009ADUP	EPA_TO15	DUP	R49551	6/21/2012 11:20:00 PM	Celeste Hoitash		
RLVS2 VOA1 06211	EPA_TO15	RLVS	R49551	6/22/2012 10:38:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jul-12

RunNo 49551

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968635	BFB VOA1 062112	BFB_TUNE	TUNE	.\1\DATA\062112	6/21/2012 9:35:0	1	R49551		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		87.3	87.3		100	0	0	0	0	0	87%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		97	97		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		17.2	17.2		100	0	0	0	0	0	17%	8	40	0%	
75	M		47.5	47.5		100	0	0	0	0	0	48%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		7	7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968636	CCV VOA1 062112	EPA_TO15	CCV	.\1\DATA\062112	6/21/2012 11:08:	1	R49551		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.99	10.99		9.6	0	0	0.107	1	50	114%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.39	11.39		10	0	0	0.211	1	50	114%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.93	10.93		9.8	0	0	0.108	1	50	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.4	11.4		9.8	0	0	0.2	1	50	116%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.18	11.18		9.7	0	0	0.111	1	50	115%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.07	11.07		9.9	0	0	0.097	1	50	112%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	10.35	10.35		9.1	0	0	0.271	1	50	114%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	11.16	11.16		9.8	0	0	0.245	1	50	114%	70	130	0%	
1,2-Dibromoethane	A	ppbv	11.23	11.23		9.6	0	0	0.186	1	50	117%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	11.02	11.02		9.7	0	0	0.208	1	50	114%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.63	11.63		9.7	0	0	0.196	1	50	120%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.58	11.58		9.8	0	0	0.224	1	50	118%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.94	10.94		9.7	0	0	0.24	1	50	113%	70	130	0%	
1,3-Butadiene	A	ppbv	11	11		9.8	0	0	0.152	1	50	112%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	11.26	11.26		9.7	0	0	0.202	1	50	116%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968636	CCV VOA1 062112	EPA_TO15	CCV	.\1\DATA\062112	6/21/2012 11:08:	1	R49551		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	11.24	11.24		9.6	0	0	0.194	1	50	117%	70	130	0%	
1,4-Dioxane	A	ppbv	10.91	10.91		9.6	0	0	0.128	1	50	114%	70	130	0%	
2-Butanone	A	ppbv	11.76	11.76		9.9	0	0	0.287	1	50	119%	70	130	0%	
2-Hexanone	A	ppbv	11.43	11.43		9.8	0	0	0.135	1	50	117%	70	130	0%	
2-Propanol	A	ppbv	11.28	11.28		10.1	0	0	0.329	1	50	112%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.27	11.27		10	0	0	0.157	1	50	113%	70	130	0%	
Acetone	A	ppbv	11.53	11.53		10	0	0	0.43	1	50	115%	70	130	0%	
Benzene	A	ppbv	11.86	11.86		9.6	0	0	0.126	1	50	124%	70	130	0%	
Benzyl chloride	A	ppbv	11.05	11.05		9.7	0	0	0.155	1	50	114%	70	130	0%	
Bromodichloromethane	A	ppbv	10.96	10.96		9.6	0	0	0.156	1	50	114%	70	130	0%	
Bromoform	A	ppbv	11.3	11.3		9.6	0	0	0.197	1	50	118%	70	130	0%	
Bromomethane	A	ppbv	10.06	10.06		9.3	0	0	0.075	1	50	108%	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	10.85	10.85		9.5	0	0	0.114	1	50	114%	70	130	0%	
Chlorobenzene	A	ppbv	11.6	11.6		9.9	0	0	0.275	1	50	117%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.38	11.38		9.2	0	0	0.165	1	50	124%	70	130	0%	
Chloroethane	A	ppbv	9.84	9.84		9.8	0	0	0.063	1	50	100%	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	10.12	10.12		9.8	0	0	0.104	1	50	103%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.33	11.33		9.8	0	0	0.107	1	50	116%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	11.15	11.15		9.5	0	0	0.166	1	50	117%	70	130	0%	
Cyclohexane	A	ppbv	11.23	11.23		9.8	0	0	0.684	2	50	115%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.69	9.69		9.2	0	0	0.086	1	50	105%	70	130	0%	
Ethanol	A	ppbv	10.23	10.23		9.2	0	0	1.962	5	50	111%	70	130	0%	
Ethyl acetate	A	ppbv	11.93	11.93		9.8	0	0	0.157	1	50	122%	70	130	0%	
Ethylbenzene	A	ppbv	11.6	11.6		9.8	0	0	0.737	2	50	118%	70	130	0%	
Heptane	A	ppbv	11.33	11.33		9.9	0	0	0.249	1	50	114%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.9	10.9		9.4	0	0	0.374	2	50	116%	70	130	0%	
m,p-Xylene	A	ppbv	23.41	23.41		19.2	0	0	0.524	2	100	122%	70	130	0%	
Methylene chloride	A	ppbv	11.07	11.07		10	0	0	2.077	5	50	111%	70	130	0%	
n-Hexane	A	ppbv	11.52	11.52		10.1	0	0	0.692	2	50	114%	70	130	0%	
Naphthalene	A	ppbv	10.57	10.57		9.2	0	0	0.247	1	50	115%	70	130	0%	
o-Xylene	A	ppbv	11.76	11.76		10	0	0	0.258	1	50	118%	70	130	0%	
Propylene	A	ppbv	12.53	12.53		10.2	0	0	0.075	1	50	123%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968636	CCV VOA1 062112	EPA_TO15	CCV	.\1\DATA\062112	6/21/2012 11:08:	1	R49551		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.73	11.73		9.8	0	0	0.263	1	50	120%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.76	11.76		9.9	0	0	0.228	1	50	119%	70	130	0%	
Tetrachloroethene	A	ppbv	10.68	10.68		9.6	0	0	0.148	1	50	111%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.67	11.67		10	0	0	0.201	1	50	117%	70	130	0%	
Toluene	A	ppbv	11.58	11.58		9.8	0	0	0.158	1	50	118%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.16	11.16		9.8	0	0	0.117	1	50	114%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.72	10.72		9.1	0	0	0.171	1	50	118%	70	130	0%	
Trichloroethene	A	ppbv	10.92	10.92		9.6	0	0	0.119	1	50	114%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.52	10.52		9.6	0	0	0.148	1	50	110%	70	130	0%	
Vinyl acetate	A	ppbv	12.26	12.26		9.9	0	0	0.266	1	50	124%	70	130	0%	
Vinyl chloride	A	ppbv	10.28	10.28		9.4	0	0	0.072	1	50	109%	70	130	0%	
Xylenes, Total	C	ppbv	35.17	35.17		29.2	0	0	0.782	3	150	120%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.41	12.41		12.5	0	0	0	0	0	99%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968637	BV MBLK VOA1 062	EPA_TO15	MBLK	.\1\DATA\062112	6/21/2012 12:20:	1	R49551		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv		0		0	0	0	0.107	1	50	0%	0	0	0%	
1,1,2,2-Tetrachloroethane	A	ppbv		0		0	0	0	0.211	1	50	0%	0	0	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv		0		0	0	0	0.108	1	50	0%	0	0	0%	
1,1,2-Trichloroethane	A	ppbv		0		0	0	0	0.2	1	50	0%	0	0	0%	
1,1-Dichloroethane	A	ppbv		0		0	0	0	0.111	1	50	0%	0	0	0%	
1,1-Dichloroethene	A	ppbv		0		0	0	0	0.097	1	50	0%	0	0	0%	
1,2,4-Trichlorobenzene	A	ppbv		0		0	0	0	0.271	1	50	0%	0	0	0%	
1,2,4-Trimethylbenzene	A	ppbv		0		0	0	0	0.245	1	50	0%	0	0	0%	
1,2-Dibromoethane	A	ppbv		0		0	0	0	0.186	1	50	0%	0	0	0%	
1,2-Dichlorobenzene	A	ppbv		0		0	0	0	0.208	1	50	0%	0	0	0%	
1,2-Dichloroethane	A	ppbv		0		0	0	0	0.196	1	50	0%	0	0	0%	
1,2-Dichloropropane	A	ppbv		0		0	0	0	0.224	1	50	0%	0	0	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062112\06211203.D Vial: 4
Acq On : 21 Jun 2012 11:08 am Operator: RACHEL HILL
Sample : CCV VOA1 062112 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	97	0.00
2	T	Propylene	0.813	0.999	-22.9	109	0.00
3	T	Dichlorodifluoromethane	3.079	3.242	-5.3	92	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.426	-5.3	94	0.00
5	T	Chloromethane	0.928	0.989	-6.6	90	0.00
6	T	Vinyl chloride	1.049	1.147	-9.3	91	0.00
7	T	1,3-Butadiene	0.727	0.816	-12.2	91	0.00
8	T	Bromomethane	1.112	1.203	-8.2	94	-0.01
9	T	Chloroethane	0.591	0.632	-6.9	90	0.00
10	T	Trichlorofluoromethane	2.936	3.218	-9.6	93	0.00
11	T	Ethanol	0.315	0.350	-11.1	91	0.00
12	T	Freon113	1.993	2.223	-11.5	91	0.00
13	T	1,1-Dichloroethene	1.379	1.542	-11.8	91	0.00
14	T	Acetone	1.332	1.535	-15.2	88	0.00
15	T	Carbon disulfide	2.400	2.671	-11.3	92	0.00
16	T	2-Propanol	1.279	1.429	-11.7	91	0.00
17	T	Methylene chloride	1.022	1.131	-10.7	92	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.611	-18.8	88	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.437	-13.9	91	0.00
20	T	n-Hexane	1.399	1.596	-14.1	91	0.00
21	T	1,1-Dichloroethane	1.713	1.974	-15.2	92	0.00
22	T	Vinyl acetate	2.035	2.521	-23.9	87	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.198	-15.6	92	0.00
24	T	2-Butanone	1.404	1.668	-18.8	87	0.00
25	T	Ethyl acetate	1.735	2.112	-21.7	90	0.00
26	T	Tetrahydrofuran	0.898	1.047	-16.6	87	0.00
27	T	Chloroform	1.950	2.263	-16.1	92	0.00
28	T	1,1,1-Trichloroethane	2.105	2.409	-14.4	91	0.00
29	T	Cyclohexane	1.419	1.626	-14.6	90	0.00
30	T	Carbon tetrachloride	2.325	2.654	-14.2	90	0.00
31	T	Benzene	2.740	3.384	-23.5	94	0.00
32	T	1,2-Dichloroethane	1.133	1.359	-19.9	91	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
34	T	Heptane	0.486	0.557	-14.6	90	0.00
35	T	Trichloroethene	0.444	0.505	-13.7	94	0.00
36	T	1,2-Dichloropropane	0.304	0.359	-18.1	90	0.00
37	T	1,4-Dioxane	0.175	0.199	-13.7	91	0.00
38	T	Bromodichloromethane	0.631	0.721	-14.3	92	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.571	-17.2	90	0.00
40	T	4-Methyl-2-pentanone	0.208	0.234	-12.5	88	0.00
41	T	Toluene	1.030	1.218	-18.3	91	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.531	-17.7	91	0.00
43	T	1,1,2-Trichloroethane	0.358	0.416	-16.2	92	0.00
44	T	Tetrachloroethene	0.582	0.647	-11.2	92	0.00
45	T	2-Hexanone	0.404	0.471	-16.6	88	0.00
46	T	Chlorodibromomethane	0.660	0.766	-16.1	92	0.00
47	T	1,2-Dibromoethane	0.559	0.654	-17.0	91	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	97	0.00
49	T	Chlorobenzene	0.880	1.032	-17.3	92	0.00
50	T	Ethylbenzene	1.411	1.671	-18.4	91	0.00
51	T	m,p-Xylene	1.097	1.337	-21.9	91	0.00
52	T	o-Xylene	1.117	1.314	-17.6	91	0.00
53	T	Styrene	0.860	1.029	-19.7	92	0.00
54	T	Bromoform	0.634	0.746	-17.7	93	0.00
55	S	4-Bromofluorobenzene	0.581	0.577	0.7	96	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062112\06211203.D Vial: 4
Acq On : 21 Jun 2012 11:08 am Operator: RACHEL HILL
Sample : CCV VOA1 062112 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.794	-13.9	90	0.00
57	T	4-Ethyltoluene	1.452	1.673	-15.2	91	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.401	-12.8	90	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.323	-13.9	90	0.00
60	T	1,3-Dichlorobenzene	0.763	0.886	-16.1	94	0.00
61	T	1,4-Dichlorobenzene	0.736	0.862	-17.1	95	0.00
62	T	Benzyl chloride	0.809	0.922	-14.0	91	0.00
63	T	1,2-Dichlorobenzene	0.669	0.760	-13.6	93	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.276	-13.6	96	0.00
65	T	Hexachlorobutadiene	0.327	0.379	-15.9	91	0.00
66		Naphthalene	0.481	0.553	-15.0	97	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062112\06211203.D Vial: 4
Acq On : 21 Jun 2012 11:08 am Operator: RACHEL HILL
Sample : CCV VOA1 062112 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 21 11:33 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.58	130	349621	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1163879	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	1023103	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	590201	12.41	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 99.28%

Target Compounds						Qvalue
2) Propylene	5.51	41	284972	12.53	ppbv	91
3) Dichlorodifluoromethane	5.58	85	834360	9.69	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	644637	10.01	ppbv #	84
5) Chloromethane	6.00	50	262773	10.12	ppbv	98
6) Vinyl chloride	6.20	62	301668	10.28	ppbv #	99
7) 1,3-Butadiene	6.26	39	223739	11.00	ppbv	98
8) Bromomethane	6.83	94	313018	10.06	ppbv	98
9) Chloroethane	6.99	64	162727	9.84	ppbv	99
10) Trichlorofluoromethane	7.33	101	864167	10.52	ppbv	98
11) Ethanol	7.56	45	90033	10.23	ppbv	99
12) Freon113	7.98	101	609245	10.93	ppbv	93
13) 1,1-Dichloroethene	8.08	61	426874	11.07	ppbv	99
14) Acetone	8.18	43	429449	11.53	ppbv #	96
15) Carbon disulfide	8.45	76	724743	10.80	ppbv #	99
16) 2-Propanol	8.24	45	403796	11.28	ppbv #	1
17) Methylene chloride	8.74	49	316421	11.07	ppbv	98
18) tert-Butyl Methyl Ether	8.95	73	722987	11.76	ppbv	99
19) trans-1,2-Dichloroethene	9.02	61	393781	11.16	ppbv	99
20) n-Hexane	9.21	57	450819	11.52	ppbv	98
21) 1,1-Dichloroethane	9.59	63	535691	11.18	ppbv	99
22) Vinyl acetate	9.52	43	697933	12.26	ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	328319	11.33	ppbv	99
24) 2-Butanone	10.24	43	461901	11.76	ppbv	99
25) Ethyl acetate	10.19	43	579031	11.93	ppbv #	100
26) Tetrahydrofuran	10.58	42	292964	11.67	ppbv	95
27) Chloroform	10.59	83	620333	11.38	ppbv	98
28) 1,1,1-Trichloroethane	10.84	97	646922	10.99	ppbv	99
29) Cyclohexane	10.85	56	445577	11.23	ppbv	99
30) Carbon tetrachloride	11.01	117	705161	10.85	ppbv	99
31) Benzene	11.29	78	908711	11.86	ppbv	100
32) 1,2-Dichloroethane	11.36	62	368628	11.63	ppbv	99
34) Heptane	11.34	43	513064	11.33	ppbv	97
35) Trichloroethene	12.02	130	450964	10.92	ppbv	97
36) 1,2-Dichloropropane	12.38	63	327871	11.58	ppbv	100
37) 1,4-Dioxane	12.45	88	178157	10.91	ppbv	94
38) Bromodichloromethane	12.66	83	644489	10.96	ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	505207	11.15	ppbv	100
40) 4-Methyl-2-pentanone	13.32	58	218139	11.27	ppbv	97
41) Toluene	13.62	91	1111137	11.58	ppbv	98
42) trans-1,3-Dichloropropene	13.92	75	449710	10.72	ppbv	100
43) 1,1,2-Trichloroethane	14.19	97	379718	11.40	ppbv	99
44) Tetrachloroethene	14.32	166	578113	10.68	ppbv	96
45) 2-Hexanone	14.40	43	430025	11.43	ppbv	97
46) Chlorodibromomethane	14.74	129	698957	11.38	ppbv	99
47) 1,2-Dibromoethane	14.98	107	584984	11.23	ppbv	100
49) Chlorobenzene	15.57	112	836210	11.60	ppbv	99
50) Ethylbenzene	15.61	91	1339966	11.60	ppbv	97
51) m,p-Xylene	15.77	91	2101524	23.41	ppbv	97
52) o-Xylene	16.36	91	1075211	11.76	ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062112\06211203.D Vial: 4
Acq On : 21 Jun 2012 11:08 am Operator: RACHEL HILL
Sample : CCV VOA1 062112 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 21 11:33 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

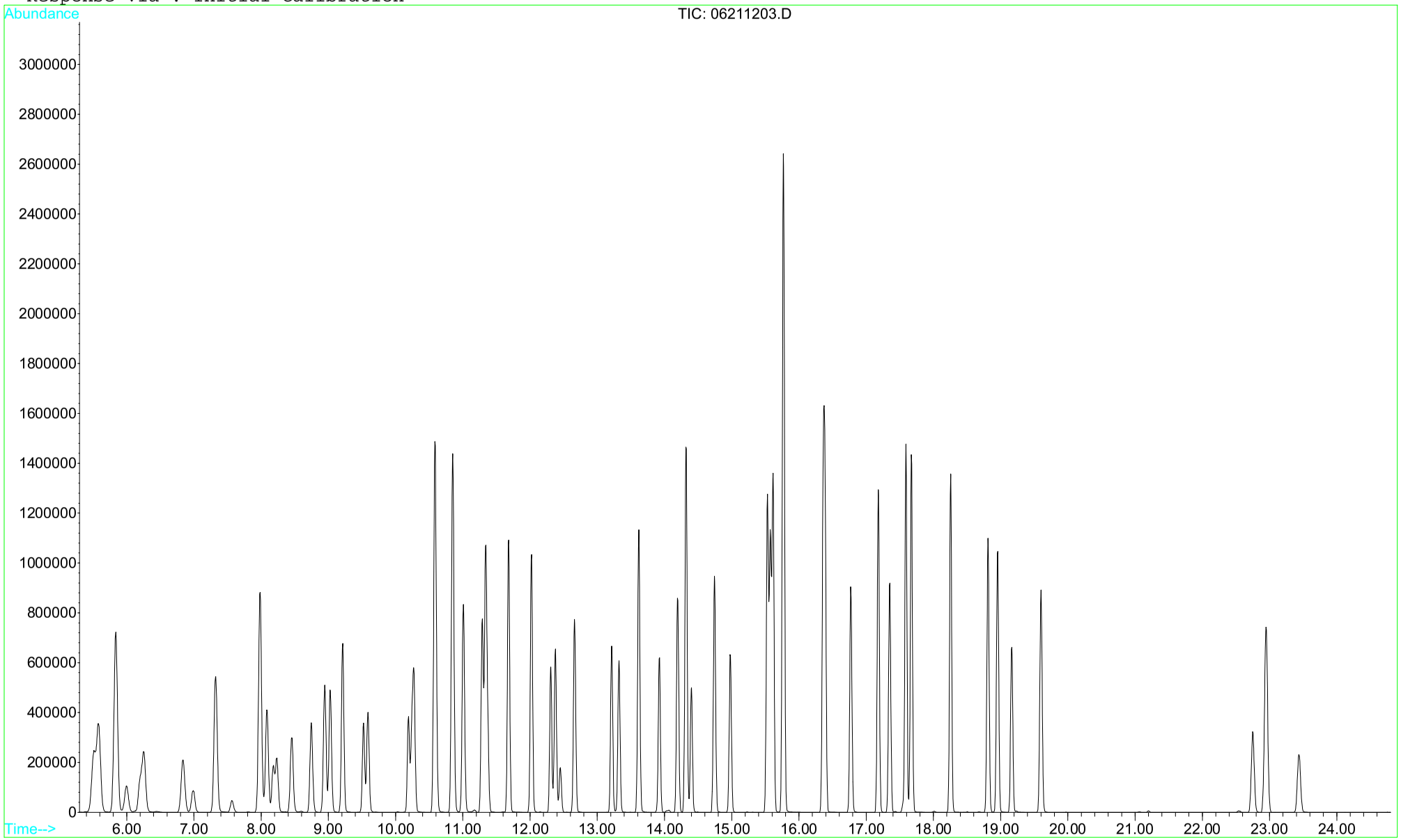
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	825216	11.73	ppbv	98
54)	Bromoform	16.77	173	585924	11.30	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.35	83	650010	11.39	ppbv	98
57)	4-Ethyltoluene	17.59	105	1342022	11.29	ppbv	98
58)	1,3,5-Trimethylbenzene	17.67	105	1112158	10.94	ppbv	98
59)	1,2,4-Trimethylbenzene	18.26	105	1061322	11.16	ppbv	99
60)	1,3-Dichlorobenzene	18.81	146	703128	11.26	ppbv	98
61)	1,4-Dichlorobenzene	18.96	146	677127	11.24	ppbv	98
62)	Benzyl chloride	19.17	91	732236	11.05	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	603773	11.02	ppbv	98
64)	1,2,4-Trichlorobenzene	22.75	180	205791	10.35	ppbv	96
65)	Hexachlorobutadiene	22.95	225	291560	10.90	ppbv	99
66)	Naphthalene	23.44	128	416396	10.57	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\062112\06211203.D Vial: 4
Acq On : 21 Jun 2012 11:08 am Operator: RACHEL HILL
Sample : CCV VOA1 062112 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 21 11:33 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_120622A **Run No.:** 49570

Analytical Run Date: 6/22/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: ch rev 7/2/12/PR by RD2 on 29june12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 062212	BFB_TUNE	TUNE	R49570	6/22/2012 11:38:00 AM	Celeste Hoitash		
CCV VOA1 062212	EPA_TO15	CCV	R49570	6/22/2012 12:20:00 PM	Celeste Hoitash		
RLVS VOA1 062212	EPA_TO15	RLVS	R49570	6/22/2012 1:53:00 PM	Celeste Hoitash		
MBLK VOA1 062212	EPA_TO15	MBLK	R49570	6/22/2012 3:01:00 PM	Celeste Hoitash		
1206396-001A	EPA_TO15	SAMP	R49570	6/22/2012 4:31:00 PM	Celeste Hoitash		
1206396-003A	EPA_TO15	SAMP	R49570	6/22/2012 5:12:00 PM	Celeste Hoitash		
1206396-010A	EPA_TO15	SAMP	R49570	6/22/2012 5:56:00 PM	Celeste Hoitash		
1206396-011A	EPA_TO15	SAMP	R49570	6/22/2012 7:25:00 PM	Celeste Hoitash		
1206396-012A	EPA_TO15	SAMP	R49570	6/22/2012 8:09:00 PM	Celeste Hoitash		
1206396-025A	EPA_TO15	SAMP	R49570	6/22/2012 10:20:00 PM	Celeste Hoitash		
1206517-009A	EPA_TO15	SAMP	R49570	6/22/2012 11:01:00 PM	Celeste Hoitash		
1206396-013A	EPA_TO15	SAMP	R49570	6/22/2012 11:49:00 PM	Celeste Hoitash		
1206396-014A	EPA_TO15	SAMP	R49570	6/23/2012 12:34:00 AM	Celeste Hoitash		
1206517-010A	EPA_TO15	SAMP	R49570	6/23/2012 1:15:00 AM	Celeste Hoitash		
1206517-011A	EPA_TO15	SAMP	R49570	6/23/2012 1:57:00 AM	Celeste Hoitash		
1206517-013A	EPA_TO15	SAMP	R49570	6/23/2012 2:41:00 AM	Celeste Hoitash		
1206517-013ADUP	EPA_TO15	DUP	R49570	6/23/2012 3:25:00 AM	Celeste Hoitash		
1206517-014A	EPA_TO15	SAMP	R49570	6/23/2012 4:13:00 AM	Celeste Hoitash		
1206517-015A	EPA_TO15	SAMP	R49570	6/23/2012 4:54:00 AM	Celeste Hoitash		
1206517-012A	EPA_TO15	SAMP	R49570	6/23/2012 5:36:00 AM	Celeste Hoitash		
1206517-016A	EPA_TO15	SAMP	R49570	6/23/2012 6:17:00 AM	Celeste Hoitash		
RLVS VOA1 062212	EPA_TO15	RLVS	R49570	6/23/2012 6:59:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jul-12

RunNo 49570

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968960	BFB VOA1 062212	BFB_TUNE	TUNE	.\1\DATA\062212	6/22/2012 11:38:	1	R49570		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		95	95		100	0	0	0	0	0	95%	50	120	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.2	96.2		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		16.8	16.8		100	0	0	0	0	0	17%	8	40	0%	
75	M		47.2	47.2		100	0	0	0	0	0	47%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968961	CCV VOA1 062212	EPA_TO15	CCV	.\1\DATA\062212	6/22/2012 12:20:	1	R49570		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	11.2	11.2		9.6	0	0	0.107	1	50	117%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.51	11.51		10	0	0	0.211	1	50	115%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.4	11.4		9.8	0	0	0.108	1	50	116%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.6	11.6		9.8	0	0	0.2	1	50	118%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.95	10.95		9.7	0	0	0.111	1	50	113%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.08	11.08		9.9	0	0	0.097	1	50	112%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.23	9.23		9.1	0	0	0.271	1	50	101%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	11.45	11.45		9.8	0	0	0.245	1	50	117%	70	130	0%	
1,2-Dibromoethane	A	ppbv	11.59	11.59		9.6	0	0	0.186	1	50	121%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	11.04	11.04		9.7	0	0	0.208	1	50	114%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.99	10.99		9.7	0	0	0.196	1	50	113%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.5	11.5		9.8	0	0	0.224	1	50	117%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	11.21	11.21		9.7	0	0	0.24	1	50	116%	70	130	0%	
1,3-Butadiene	A	ppbv	11.48	11.48		9.8	0	0	0.152	1	50	117%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	11.21	11.21		9.7	0	0	0.202	1	50	116%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968961	CCV VOA1 062212	EPA_TO15	CCV	.\1\DATA\062212	6/22/2012 12:20:	1	R49570		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	11.1	11.1		9.6	0	0	0.194	1	50	116%	70	130	0%	
1,4-Dioxane	A	ppbv	11.1	11.1		9.6	0	0	0.128	1	50	116%	70	130	0%	
2-Butanone	A	ppbv	11.72	11.72		9.9	0	0	0.287	1	50	118%	70	130	0%	
2-Hexanone	A	ppbv	11.37	11.37		9.8	0	0	0.135	1	50	116%	70	130	0%	
2-Propanol	A	ppbv	10.77	10.77		10.1	0	0	0.329	1	50	107%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.41	11.41		10	0	0	0.157	1	50	114%	70	130	0%	
Acetone	A	ppbv	11.07	11.07		10	0	0	0.43	1	50	111%	70	130	0%	
Benzene	A	ppbv	11.13	11.13		9.6	0	0	0.126	1	50	116%	70	130	0%	
Benzyl chloride	A	ppbv	10.49	10.49		9.7	0	0	0.155	1	50	108%	70	130	0%	
Bromodichloromethane	A	ppbv	11.41	11.41		9.6	0	0	0.156	1	50	119%	70	130	0%	
Bromoform	A	ppbv	11.81	11.81		9.6	0	0	0.197	1	50	123%	70	130	0%	
Bromomethane	A	ppbv	10.08	10.08		9.3	0	0	0.075	1	50	108%	70	130	0%	
Carbon disulfide	A	ppbv	10.86	10.86		9.7	0	0	0.093	1	50	112%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.2	11.2		9.5	0	0	0.114	1	50	118%	70	130	0%	
Chlorobenzene	A	ppbv	11.76	11.76		9.9	0	0	0.275	1	50	119%	70	130	0%	
Chlorodibromomethane	A	ppbv	12.03	12.03		9.8	0	0	0.165	1	50	123%	70	130	0%	
Chloroethane	A	ppbv	9.67	9.67		9.8	0	0	0.063	1	50	99%	70	130	0%	
Chloroform	A	ppbv	11.6	11.6		9.4	0	0	0.126	1	50	123%	70	130	0%	
Chloromethane	A	ppbv	10.13	10.13		9.8	0	0	0.104	1	50	103%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.24	11.24		9.8	0	0	0.107	1	50	115%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	11.1	11.1		9.5	0	0	0.166	1	50	117%	70	130	0%	
Cyclohexane	A	ppbv	11.16	11.16		9.8	0	0	0.684	2	50	114%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.99	9.99		9.2	0	0	0.086	1	50	109%	70	130	0%	
Ethanol	A	ppbv	9.49	9.49		9.2	0	0	1.962	5	50	103%	70	130	0%	
Ethyl acetate	A	ppbv	11.56	11.56		9.8	0	0	0.157	1	50	118%	70	130	0%	
Ethylbenzene	A	ppbv	11.73	11.73		9.8	0	0	0.737	2	50	120%	70	130	0%	
Heptane	A	ppbv	11.28	11.28		9.9	0	0	0.249	1	50	114%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.61	10.61		9.4	0	0	0.374	2	50	113%	70	130	0%	
m,p-Xylene	A	ppbv	23.84	23.84		19.2	0	0	0.524	2	100	124%	70	130	0%	
Methylene chloride	A	ppbv	10.79	10.79		10	0	0	2.077	5	50	108%	70	130	0%	
n-Hexane	A	ppbv	11.15	11.15		10.1	0	0	0.692	2	50	110%	70	130	0%	
Naphthalene	A	ppbv	8.75	8.75		9.2	0	0	0.247	1	50	95%	70	130	0%	
o-Xylene	A	ppbv	11.74	11.74		10	0	0	0.258	1	50	117%	70	130	0%	
Propylene	A	ppbv	12.42	12.42		10.2	0	0	0.075	1	50	122%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968961	CCV VOA1 062212	EPA_TO15	CCV	.\1\DATA\062212	6/22/2012 12:20:	1	R49570		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.73	11.73		9.8	0	0	0.263	1	50	120%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.12	11.12		9.9	0	0	0.228	1	50	112%	70	130	0%	
Tetrachloroethene	A	ppbv	11.54	11.54		9.6	0	0	0.148	1	50	120%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.52	11.52		10	0	0	0.201	1	50	115%	70	130	0%	
Toluene	A	ppbv	11.84	11.84		9.8	0	0	0.158	1	50	121%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.89	10.89		9.8	0	0	0.117	1	50	111%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.65	10.65		9.1	0	0	0.171	1	50	117%	70	130	0%	
Trichloroethene	A	ppbv	11.42	11.42		9.6	0	0	0.119	1	50	119%	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	11.75	11.75		9.9	0	0	0.266	1	50	119%	70	130	0%	
Vinyl chloride	A	ppbv	11.03	11.03		9.4	0	0	0.072	1	50	117%	70	130	0%	
Xylenes, Total	C	ppbv	35.58	35.58		29.2	0	0	0.782	3	150	122%	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	11.79	11.79		12.5	0	0	0	0	0	94%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968962	RLVS VOA1 062212	EPA_TO15	RLVS	.\1\DATA\062212	6/22/2012 1:53:0	1	R49570		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	0.94	0.94		0.996	0	0	0.107	1	50	94%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.05	1.05		1	0	0	0.211	1	50	105%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.95	0.95		0.98	0	0	0.108	1	50	97%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1	1		0.98	0	0	0.2	1	50	102%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.95	0.95		0.97	0	0	0.111	1	50	98%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1	1		0.99	0	0	0.097	1	50	101%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	0.68	0.68		0.91	0	0	0.271	1	50	75%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	0.97	0.97		0.98	0	0	0.245	1	50	99%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.9	0.9		0.96	0	0	0.186	1	50	94%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.05	1.05		0.97	0	0	0.208	1	50	108%	70	130	0%	
1,2-Dichloroethane	A	ppbv	0.96	0.96		0.97	0	0	0.196	1	50	99%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.97	0.97		0.98	0	0	0.224	1	50	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062212\06221202.D Vial: 2
Acq On : 22 Jun 2012 12:20 pm Operator: RACHEL HILL
Sample : CCV VOA1 062212 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	68	0.00
2	T	Propylene	0.813	0.990	-21.8	76	0.00
3	T	Dichlorodifluoromethane	3.079	3.345	-8.6	67	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.567	-11.5	69	0.00
5	T	Chloromethane	0.928	0.990	-6.7	63	0.00
6	T	Vinyl chloride	1.049	1.231	-17.3	68	0.00
7	T	1,3-Butadiene	0.727	0.852	-17.2	66	0.00
8	T	Bromomethane	1.112	1.205	-8.4	66	0.00
9	T	Chloroethane	0.591	0.621	-5.1	62	0.00
10	T	Trichlorofluoromethane	2.936	3.279	-11.7	66	0.00
11	T	Ethanol	0.315	0.324	-2.9	59	0.00
12	T	Freon113	1.993	2.317	-16.3	66	0.00
13	T	1,1-Dichloroethene	1.379	1.543	-11.9	64	0.00
14	T	Acetone	1.332	1.475	-10.7	59	0.00
15	T	Carbon disulfide	2.400	2.687	-12.0	65	0.00
16	T	2-Propanol	1.279	1.364	-6.6	61	0.00
17	T	Methylene chloride	1.022	1.103	-7.9	63	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.469	-12.3	58	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.403	-11.2	62	0.00
20	T	n-Hexane	1.399	1.544	-10.4	62	0.00
21	T	1,1-Dichloroethane	1.713	1.933	-12.8	63	0.00
22	T	Vinyl acetate	2.035	2.415	-18.7	59	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.188	-14.7	64	0.00
24	T	2-Butanone	1.404	1.662	-18.4	60	0.00
25	T	Ethyl acetate	1.735	2.048	-18.0	61	0.00
26	T	Tetrahydrofuran	0.898	1.034	-15.1	60	0.00
27	T	Chloroform	1.950	2.307	-18.3	65	0.00
28	T	1,1,1-Trichloroethane	2.105	2.455	-16.6	65	0.00
29	T	Cyclohexane	1.419	1.616	-13.9	63	0.00
30	T	Carbon tetrachloride	2.325	2.741	-17.9	65	0.00
31	T	Benzene	2.740	3.177	-15.9	62	0.00
32	T	1,2-Dichloroethane	1.133	1.283	-13.2	60	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	67	0.00
34	T	Heptane	0.486	0.554	-14.0	61	0.00
35	T	Trichloroethene	0.444	0.528	-18.9	67	0.00
36	T	1,2-Dichloropropane	0.304	0.357	-17.4	61	0.00
37	T	1,4-Dioxane	0.175	0.203	-16.0	63	0.00
38	T	Bromodichloromethane	0.631	0.750	-18.9	65	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.569	-16.8	61	0.00
40	T	4-Methyl-2-pentanone	0.208	0.237	-13.9	60	0.00
41	T	Toluene	1.030	1.245	-20.9	63	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.527	-16.9	61	0.00
43	T	1,1,2-Trichloroethane	0.358	0.423	-18.2	63	0.00
44	T	Tetrachloroethene	0.582	0.699	-20.1	67	0.00
45	T	2-Hexanone	0.404	0.469	-16.1	59	0.00
46	T	Chlorodibromomethane	0.660	0.810	-22.7	66	0.00
47	T	1,2-Dibromoethane	0.559	0.675	-20.8	64	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	68	0.00
49	T	Chlorobenzene	0.880	1.046	-18.9	65	0.00
50	T	Ethylbenzene	1.411	1.689	-19.7	64	0.00
51	T	m,p-Xylene	1.097	1.362	-24.2	65	0.00
52	T	o-Xylene	1.117	1.311	-17.4	63	0.00
53	T	Styrene	0.860	1.029	-19.7	65	0.00
54	T	Bromoform	0.634	0.779	-22.9	68	0.00
55	S	4-Bromofluorobenzene	0.581	0.548	5.7	64	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062212\06221202.D Vial: 2
Acq On : 22 Jun 2012 12:20 pm Operator: RACHEL HILL
Sample : CCV VOA1 062212 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.803	-15.2	64	0.00
57	T	4-Ethyltoluene	1.452	1.688	-16.3	64	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.435	-15.5	64	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.358	-16.9	64	0.00
60	T	1,3-Dichlorobenzene	0.763	0.882	-15.6	66	0.00
61	T	1,4-Dichlorobenzene	0.736	0.852	-15.8	66	0.00
62	T	Benzyl chloride	0.809	0.875	-8.2	61	0.00
63	T	1,2-Dichlorobenzene	0.669	0.761	-13.8	65	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.247	-1.6	60	0.00
65	T	Hexachlorobutadiene	0.327	0.369	-12.8	62	-0.01
66		Naphthalene	0.481	0.458	4.8	56	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062212\06221202.D Vial: 2
Acq On : 22 Jun 2012 12:20 pm Operator: RACHEL HILL
Sample : CCV VOA1 062212 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 22 12:44 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.58	130	245017	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	787739	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.53	117	716276	12.50 ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	392613	11.79 ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 94.32%

Target Compounds					Qvalue
2) Propylene	5.51	41	197945	12.42 ppbv	91
3) Dichlorodifluoromethane	5.59	85	603123	9.99 ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	477981	10.59 ppbv #	87
5) Chloromethane	6.00	50	184433	10.13 ppbv	99
6) Vinyl chloride	6.20	62	226788	11.03 ppbv #	99
7) 1,3-Butadiene	6.26	39	163639	11.48 ppbv	97
8) Bromomethane	6.84	94	219629	10.08 ppbv #	98
9) Chloroethane	6.99	64	112051	9.67 ppbv #	98
10) Trichlorofluoromethane	7.32	101	616961	10.72 ppbv	98
11) Ethanol	7.57	45	58506	9.49 ppbv	99
12) Freon113	7.98	101	445097	11.40 ppbv	95
13) 1,1-Dichloroethene	8.09	61	299395	11.08 ppbv	98
14) Acetone	8.18	43	289093	11.07 ppbv #	96
15) Carbon disulfide	8.45	76	510897	10.86 ppbv #	99
16) 2-Propanol	8.23	45	270073	10.77 ppbv #	1
17) Methylene chloride	8.75	49	216267	10.79 ppbv	99
18) tert-Butyl Methyl Ether	8.94	73	479076	11.12 ppbv	98
19) trans-1,2-Dichloroethene	9.03	61	269413	10.89 ppbv	98
20) n-Hexane	9.21	57	305710	11.15 ppbv	96
21) 1,1-Dichloroethane	9.59	63	367590	10.95 ppbv	99
22) Vinyl acetate	9.52	43	468710	11.75 ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	228214	11.24 ppbv	99
24) 2-Butanone	10.24	43	322598	11.72 ppbv	98
25) Ethyl acetate	10.19	43	393321	11.56 ppbv #	99
26) Tetrahydrofuran	10.58	42	202661	11.52 ppbv	94
27) Chloroform	10.59	83	443228	11.60 ppbv	98
28) 1,1,1-Trichloroethane	10.84	97	462003	11.20 ppbv	99
29) Cyclohexane	10.85	56	310389	11.16 ppbv	99
30) Carbon tetrachloride	11.01	117	510377	11.20 ppbv	98
31) Benzene	11.29	78	597900	11.13 ppbv	99
32) 1,2-Dichloroethane	11.37	62	244014	10.99 ppbv	99
34) Heptane	11.33	43	345719	11.28 ppbv	95
35) Trichloroethene	12.02	130	319177	11.42 ppbv	98
36) 1,2-Dichloropropane	12.38	63	220360	11.50 ppbv	100
37) 1,4-Dioxane	12.45	88	122645	11.10 ppbv	92
38) Bromodichloromethane	12.66	83	453952	11.41 ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	340576	11.10 ppbv	99
40) 4-Methyl-2-pentanone	13.32	58	149457	11.41 ppbv	97
41) Toluene	13.62	91	768841	11.84 ppbv	97
42) trans-1,3-Dichloropropene	13.92	75	302361	10.65 ppbv	99
43) 1,1,2-Trichloroethane	14.19	97	261361	11.60 ppbv	99
44) Tetrachloroethene	14.32	166	422958	11.54 ppbv	97
45) 2-Hexanone	14.39	43	289405	11.37 ppbv	97
46) Chlorodibromomethane	14.74	129	500250	12.03 ppbv	99
47) 1,2-Dibromoethane	14.97	107	408419	11.59 ppbv	99
49) Chlorobenzene	15.57	112	593429	11.76 ppbv	98
50) Ethylbenzene	15.61	91	948719	11.73 ppbv	97
51) m,p-Xylene	15.76	91	1498172	23.84 ppbv	97
52) o-Xylene	16.36	91	751294	11.74 ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062212\06221202.D Vial: 2
Acq On : 22 Jun 2012 12:20 pm Operator: RACHEL HILL
Sample : CCV VOA1 062212 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 22 12:44 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

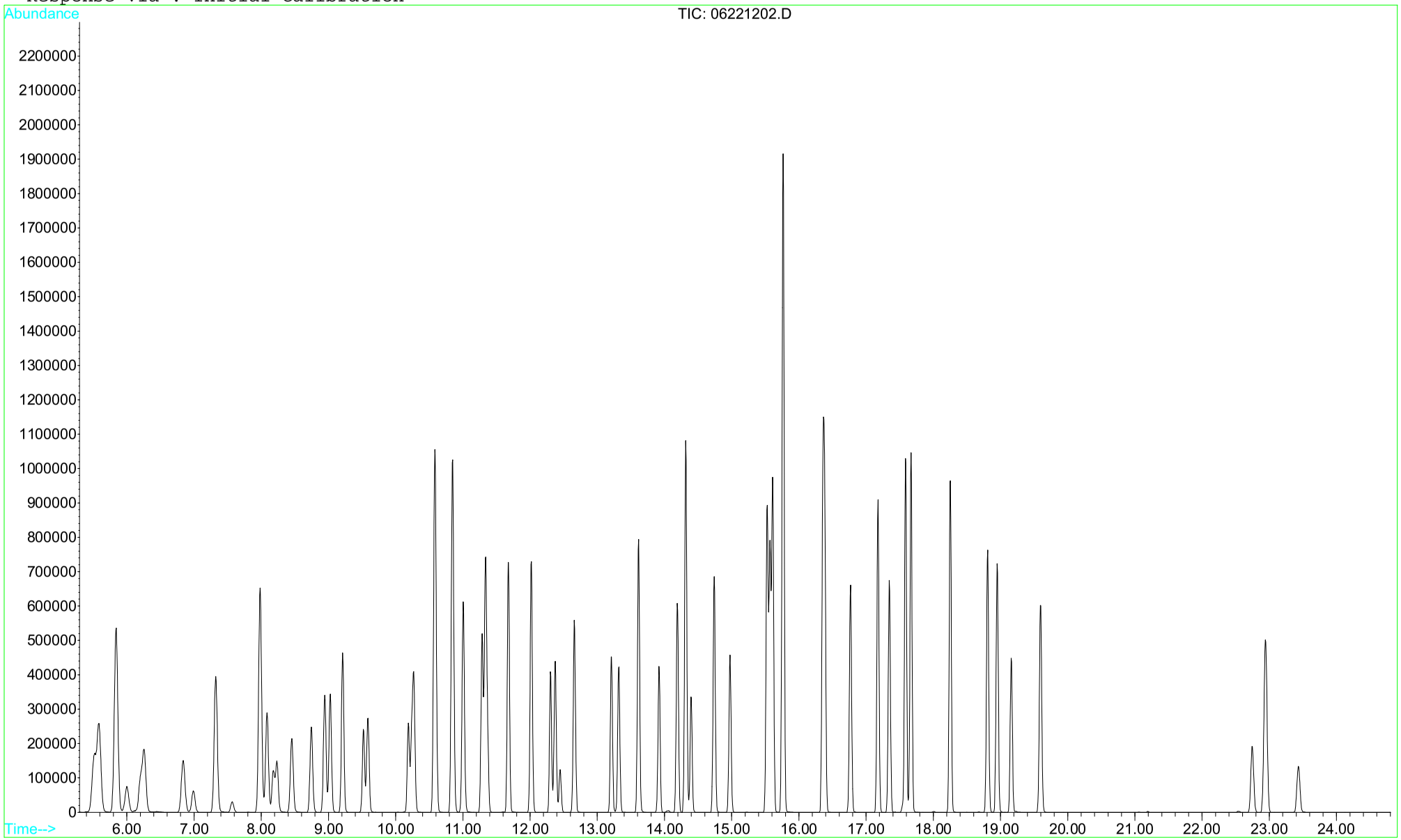
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53)	Styrene	16.39	104	577777	11.73 ppbv	98
54)	Bromoform	16.77	173	428764	11.81 ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.34	83	459977	11.51 ppbv	98
57)	4-Ethyltoluene	17.58	105	948136	11.39 ppbv	98
58)	1,3,5-Trimethylbenzene	17.67	105	797503	11.21 ppbv	99
59)	1,2,4-Trimethylbenzene	18.25	105	762487	11.45 ppbv	99
60)	1,3-Dichlorobenzene	18.81	146	490089	11.21 ppbv	96
61)	1,4-Dichlorobenzene	18.95	146	468432	11.10 ppbv	97
62)	Benzyl chloride	19.16	91	486487	10.49 ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	423250	11.04 ppbv	96
64)	1,2,4-Trichlorobenzene	22.75	180	128589	9.23 ppbv	96
65)	Hexachlorobutadiene	22.94	225	198705	10.61 ppbv	99
66)	Naphthalene	23.44	128	241500	8.75 ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\062212\06221202.D Vial: 2
Acq On : 22 Jun 2012 12:20 pm Operator: RACHEL HILL
Sample : CCV VOA1 062212 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 22 12:44 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_120623A **Run No.:** 49594

Analytical Run Date: 6/23/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 49025 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR by RD2 on 25june12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 062312	BFB_TUNE	TUNE	R49594	6/23/2012 9:58:00 AM	Robert Lynch		
CCV VOA1 062312	EPA_TO15	CCV	R49594	6/23/2012 10:38:00 AM	Robert Lynch		
RLVS VOA1 062312	EPA_TO15	RLVS	R49594	6/23/2012 11:47:00 AM	Robert Lynch		
MBLK VOA1 062312	EPA_TO15	MBLK	R49594	6/23/2012 12:36:00 PM	Robert Lynch		
1206396-011A	EPA_TO15	SAMP	R49594	6/23/2012 1:17:00 PM	Robert Lynch		
1206396-012A	EPA_TO15	SAMP	R49594	6/23/2012 1:59:00 PM	Robert Lynch		
1206517-017A	EPA_TO15	SAMP	R49594	6/23/2012 2:48:00 PM	Robert Lynch		
1206517-018A	EPA_TO15	SAMP	R49594	6/23/2012 3:33:00 PM	Robert Lynch		
1206517-018ADUP	EPA_TO15	DUP	R49594	6/23/2012 4:18:00 PM	Robert Lynch		
1206517-019A	EPA_TO15	SAMP	R49594	6/23/2012 5:03:00 PM	Robert Lynch		
1206517-020A	EPA_TO15	SAMP	R49594	6/23/2012 5:48:00 PM	Robert Lynch		
1206517-021A	EPA_TO15	SAMP	R49594	6/23/2012 6:33:00 PM	Robert Lynch		
1206517-022A	EPA_TO15	SAMP	R49594	6/23/2012 7:19:00 PM	Robert Lynch		
1206517-023A	EPA_TO15	SAMP	R49594	6/23/2012 8:49:00 PM	Robert Lynch		
1206517-026A	EPA_TO15	SAMP	R49594	6/23/2012 10:59:00 PM	Robert Lynch		
1206517-020A	EPA_TO15	SAMP	R49594	6/24/2012 1:08:00 AM	Robert Lynch		
1206517-022A	EPA_TO15	SAMP	R49594	6/24/2012 1:50:00 AM	Robert Lynch		
1206517-023A	EPA_TO15	SAMP	R49594	6/24/2012 2:33:00 AM	Robert Lynch		
1206517-031A	EPA_TO15	SAMP	R49594	6/24/2012 4:39:00 AM	Robert Lynch		
1206517-032A	EPA_TO15	SAMP	R49594	6/24/2012 5:21:00 AM	Robert Lynch		
1206517-033A	EPA_TO15	SAMP	R49594	6/24/2012 6:06:00 AM	Robert Lynch		
1206517-035A	EPA_TO15	SAMP	R49594	6/24/2012 6:51:00 AM	Robert Lynch		
1206517-035A	EPA_TO15	SAMP	R49594	6/24/2012 7:33:00 AM	Robert Lynch		
1206517-033A	EPA_TO15	SAMP	R49594	6/24/2012 8:15:00 AM	Robert Lynch		
RLVS2 VOA1 06231	EPA_TO15	RLVS	R49594	6/24/2012 8:58:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jul-12

RunNo 49594

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
969408	BFB VOA1 062312	BFB_TUNE	TUNE	.\1\DATA\062312	6/23/2012 9:58:0	1	R49594		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.7	0.7		100	0	0	0	0	0	1%	0	2	0%	
174	M		92.4	92.4		100	0	0	0	0	0	92%	50	120	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.4	96.4		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.4	6.4		100	0	0	0	0	0	6%	5	9	0%	
50	M		16.5	16.5		100	0	0	0	0	0	17%	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		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
969409	CCV VOA1 062312	EPA_TO15	CCV	.\1\DATA\062312	6/23/2012 10:38:	1	R49594		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.34	10.34		9.6	0	0	0.107	1	50	108%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.86	10.86		10	0	0	0.211	1	50	109%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.48	10.48		9.8	0	0	0.108	1	50	107%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.05	11.05		9.8	0	0	0.2	1	50	113%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.19	10.19		9.7	0	0	0.111	1	50	105%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.25	10.25		9.9	0	0	0.097	1	50	104%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.03	8.03		9.1	0	0	0.271	1	50	88%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.75	10.75		9.8	0	0	0.245	1	50	110%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.83	10.83		9.6	0	0	0.186	1	50	113%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.21	10.21		9.7	0	0	0.208	1	50	105%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.47	10.47		9.7	0	0	0.196	1	50	108%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.24	11.24		9.8	0	0	0.224	1	50	115%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.64	10.64		9.7	0	0	0.24	1	50	110%	70	130	0%	
1,3-Butadiene	A	ppbv	10.71	10.71		9.8	0	0	0.152	1	50	109%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.36	10.36		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
969409	CCV VOA1 062312	EPA_TO15	CCV	.\1\DATA\062312	6/23/2012 10:38:	1	R49594		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.24	10.24		9.6	0	0	0.194	1	50	107%	70	130	0%	
1,4-Dioxane	A	ppbv	10.43	10.43		9.6	0	0	0.128	1	50	109%	70	130	0%	
2-Butanone	A	ppbv	11.21	11.21		9.9	0	0	0.287	1	50	113%	70	130	0%	
2-Hexanone	A	ppbv	10.88	10.88		9.8	0	0	0.135	1	50	111%	70	130	0%	
2-Propanol	A	ppbv	10.09	10.09		10.1	0	0	0.329	1	50	100%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.86	10.86		10	0	0	0.157	1	50	109%	70	130	0%	
Acetone	A	ppbv	10.52	10.52		10	0	0	0.43	1	50	105%	70	130	0%	
Benzene	A	ppbv	10.46	10.46		9.6	0	0	0.126	1	50	109%	70	130	0%	
Benzyl chloride	A	ppbv	9.71	9.71		9.7	0	0	0.155	1	50	100%	70	130	0%	
Bromodichloromethane	A	ppbv	10.71	10.71		9.6	0	0	0.156	1	50	112%	70	130	0%	
Bromoform	A	ppbv	10.47	10.47		9.6	0	0	0.197	1	50	109%	70	130	0%	
Bromomethane	A	ppbv	9.29	9.29		9.3	0	0	0.075	1	50	100%	70	130	0%	
Carbon disulfide	A	ppbv	9.85	9.85		9.7	0	0	0.093	1	50	102%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.26	10.26		9.5	0	0	0.114	1	50	108%	70	130	0%	
Chlorobenzene	A	ppbv	11	11		9.9	0	0	0.275	1	50	111%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.05	11.05		9.2	0	0	0.165	1	50	120%	70	130	0%	
Chloroethane	A	ppbv	9.01	9.01		9.8	0	0	0.063	1	50	92%	70	130	0%	
Chloroform	A	ppbv	10.7	10.7		9.4	0	0	0.126	1	50	114%	70	130	0%	
Chloromethane	A	ppbv	9.57	9.57		9.8	0	0	0.104	1	50	98%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.4	10.4		9.8	0	0	0.107	1	50	106%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.58	10.58		9.5	0	0	0.166	1	50	111%	70	130	0%	
Cyclohexane	A	ppbv	10.46	10.46		9.8	0	0	0.684	2	50	107%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.32	9.32		9.2	0	0	0.086	1	50	101%	70	130	0%	
Ethanol	A	ppbv	8.77	8.77		9.2	0	0	1.962	5	50	95%	70	130	0%	
Ethyl acetate	A	ppbv	10.71	10.71		9.8	0	0	0.157	1	50	109%	70	130	0%	
Ethylbenzene	A	ppbv	11.1	11.1		9.8	0	0	0.737	2	50	113%	70	130	0%	
Heptane	A	ppbv	11.12	11.12		9.9	0	0	0.249	1	50	112%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.81	9.81		9.4	0	0	0.374	2	50	104%	70	130	0%	
m,p-Xylene	A	ppbv	22.66	22.66		19.2	0	0	0.524	2	100	118%	70	130	0%	
Methylene chloride	A	ppbv	10.16	10.16		10	0	0	2.077	5	50	102%	70	130	0%	
n-Hexane	A	ppbv	10.53	10.53		10.1	0	0	0.692	2	50	104%	70	130	0%	
Naphthalene	A	ppbv	7.79	7.79		9.2	0	0	0.247	1	50	85%	70	130	0%	
o-Xylene	A	ppbv	11.07	11.07		10	0	0	0.258	1	50	111%	70	130	0%	
Propylene	A	ppbv	12.04	12.04		10.2	0	0	0.075	1	50	118%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
969409	CCV VOA1 062312	EPA_TO15	CCV	.\1\DATA\062312	6/23/2012 10:38:	1	R49594		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.94	10.94		9.8	0	0	0.263	1	50	112%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.51	10.51		9.9	0	0	0.228	1	50	106%	70	130	0%	
Tetrachloroethene	A	ppbv	10.79	10.79		9.6	0	0	0.148	1	50	112%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.66	10.66		10	0	0	0.201	1	50	107%	70	130	0%	
Toluene	A	ppbv	11.29	11.29		9.8	0	0	0.158	1	50	115%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.27	10.27		9.8	0	0	0.117	1	50	105%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.08	10.08		9.1	0	0	0.171	1	50	111%	70	130	0%	
Trichloroethene	A	ppbv	10.77	10.77		9.6	0	0	0.119	1	50	112%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.82	9.82		9.6	0	0	0.148	1	50	102%	70	130	0%	
Vinyl acetate	A	ppbv	11.07	11.07		9.9	0	0	0.266	1	50	112%	70	130	0%	
Vinyl chloride	A	ppbv	10.2	10.2		9.4	0	0	0.072	1	50	109%	70	130	0%	
Xylenes, Total	C	ppbv	33.73	33.73		29.2	0	0	0.782	3	150	116%	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	12.04	12.04		12.5	0	0	0	0	0	96%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
969410	RLVS VOA1 062312	EPA_TO15	RLVS	.\1\DATA\062312	6/23/2012 11:47:	1	R49594		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	1.14	1.14		0.996	0	0	0.107	1	50	114%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.33	1.33		1	0	0	0.211	1	50	133%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.23	1.23		0.98	0	0	0.108	1	50	126%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.11	1.11		0.98	0	0	0.2	1	50	113%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.16	1.16		0.97	0	0	0.111	1	50	120%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.21	1.21		0.99	0	0	0.097	1	50	122%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.08	1.08		0.91	0	0	0.271	1	50	119%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.25	1.25		0.98	0	0	0.245	1	50	128%	70	130	0%	
1,2-Dibromoethane	A	ppbv	1.07	1.07		0.96	0	0	0.186	1	50	111%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.35	1.35		0.97	0	0	0.208	1	50	139%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.18	1.18		0.97	0	0	0.196	1	50	122%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.17	1.17		0.98	0	0	0.224	1	50	119%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062312\06231202.D Vial: 2
Acq On : 23 Jun 2012 10:38 am Operator: RACHEL HILL
Sample : CCV VOA1 062312 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	84	0.00
2	T	Propylene	0.813	0.960	-18.1	92	0.00
3	T	Dichlorodifluoromethane	3.079	3.119	-1.3	77	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.338	-1.5	79	0.00
5	T	Chloromethane	0.928	0.935	-0.8	75	0.00
6	T	Vinyl chloride	1.049	1.138	-8.5	79	0.00
7	T	1,3-Butadiene	0.727	0.795	-9.4	77	0.00
8	T	Bromomethane	1.112	1.111	0.1	76	0.00
9	T	Chloroethane	0.591	0.579	2.0	72	0.00
10	T	Trichlorofluoromethane	2.936	3.003	-2.3	76	0.00
11	T	Ethanol	0.315	0.300	4.8	68	0.00
12	T	Freon113	1.993	2.131	-6.9	76	0.00
13	T	1,1-Dichloroethene	1.379	1.428	-3.6	73	0.00
14	T	Acetone	1.332	1.402	-5.3	70	0.00
15	T	Carbon disulfide	2.400	2.438	-1.6	74	0.00
16	T	2-Propanol	1.279	1.278	0.1	71	0.00
17	T	Methylene chloride	1.022	1.039	-1.7	73	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.333	-6.1	69	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.323	-4.8	73	0.00
20	T	n-Hexane	1.399	1.458	-4.2	73	0.00
21	T	1,1-Dichloroethane	1.713	1.799	-5.0	73	0.00
22	T	Vinyl acetate	2.035	2.277	-11.9	69	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.100	-6.2	74	0.00
24	T	2-Butanone	1.404	1.589	-13.2	72	0.00
25	T	Ethyl acetate	1.735	1.897	-9.3	70	0.00
26	T	Tetrahydrofuran	0.898	0.957	-6.6	69	0.00
27	T	Chloroform	1.950	2.128	-9.1	75	0.00
28	T	1,1,1-Trichloroethane	2.105	2.267	-7.7	75	0.00
29	T	Cyclohexane	1.419	1.515	-6.8	73	0.00
30	T	Carbon tetrachloride	2.325	2.511	-8.0	74	0.00
31	T	Benzene	2.740	2.986	-9.0	72	0.00
32	T	1,2-Dichloroethane	1.133	1.223	-7.9	71	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	80	0.00
34	T	Heptane	0.486	0.546	-12.3	72	0.00
35	T	Trichloroethene	0.444	0.497	-11.9	76	0.00
36	T	1,2-Dichloropropane	0.304	0.349	-14.8	71	0.00
37	T	1,4-Dioxane	0.175	0.190	-8.6	71	0.00
38	T	Bromodichloromethane	0.631	0.705	-11.7	73	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.542	-11.3	69	0.00
40	T	4-Methyl-2-pentanone	0.208	0.226	-8.7	69	0.00
41	T	Toluene	1.030	1.186	-15.1	72	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.499	-10.6	69	0.00
43	T	1,1,2-Trichloroethane	0.358	0.403	-12.6	72	0.00
44	T	Tetrachloroethene	0.582	0.654	-12.4	76	0.00
45	T	2-Hexanone	0.404	0.449	-11.1	68	0.00
46	T	Chlorodibromomethane	0.660	0.744	-12.7	73	0.00
47	T	1,2-Dibromoethane	0.559	0.631	-12.9	71	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	81	0.00
49	T	Chlorobenzene	0.880	0.978	-11.1	73	0.00
50	T	Ethylbenzene	1.411	1.599	-13.3	73	0.00
51	T	m,p-Xylene	1.097	1.294	-18.0	74	0.00
52	T	o-Xylene	1.117	1.237	-10.7	72	0.00
53	T	Styrene	0.860	0.959	-11.5	72	0.00
54	T	Bromoform	0.634	0.691	-9.0	72	0.00
55	S	4-Bromofluorobenzene	0.581	0.560	3.6	78	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062312\06231202.D Vial: 2
Acq On : 23 Jun 2012 10:38 am Operator: RACHEL HILL
Sample : CCV VOA1 062312 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.757	-8.6	72	0.00
57	T	4-Ethyltoluene	1.452	1.610	-10.9	73	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.362	-9.7	73	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.274	-9.6	72	0.00
60	T	1,3-Dichlorobenzene	0.763	0.815	-6.8	73	0.00
61	T	1,4-Dichlorobenzene	0.736	0.785	-6.7	73	0.00
62	T	Benzyl chloride	0.809	0.810	-0.1	67	0.00
63	T	1,2-Dichlorobenzene	0.669	0.705	-5.4	72	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.214	11.9	62	0.00
65	T	Hexachlorobutadiene	0.327	0.341	-4.3	69	0.00
66		Naphthalene	0.481	0.408	15.2	60	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062312\06231202.D Vial: 2
Acq On : 23 Jun 2012 10:38 am Operator: RACHEL HILL
Sample : CCV VOA1 062312 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 23 11:03 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.58	130	304845	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	946449	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	858235	12.50	ppbv	0.00
System Monitoring Compounds						
55) 4-Bromofluorobenzene	17.18	95	480380	12.04	ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 96.32%			
Target Compounds						Qvalue
2) Propylene	5.51	41	238851	12.04	ppbv	89
3) Dichlorodifluoromethane	5.58	85	699902	9.32	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	541658	9.64	ppbv #	85
5) Chloromethane	5.99	50	216658	9.57	ppbv	98
6) Vinyl chloride	6.20	62	260837	10.20	ppbv #	99
7) 1,3-Butadiene	6.26	39	190026	10.71	ppbv	98
8) Bromomethane	6.84	94	251875	9.29	ppbv #	98
9) Chloroethane	6.99	64	129879	9.01	ppbv	100
10) Trichlorofluoromethane	7.32	101	702983	9.82	ppbv	99
11) Ethanol	7.57	45	67283	8.77	ppbv	98
12) Freon113	7.99	101	509385	10.48	ppbv	94
13) 1,1-Dichloroethene	8.09	61	344791	10.25	ppbv	97
14) Acetone	8.18	43	341820	10.52	ppbv #	96
15) Carbon disulfide	8.46	76	576781	9.85	ppbv #	99
16) 2-Propanol	8.23	45	314888	10.09	ppbv #	1
17) Methylene chloride	8.75	49	253337	10.16	ppbv	99
18) tert-Butyl Methyl Ether	8.94	73	563332	10.51	ppbv	98
19) trans-1,2-Dichloroethene	9.03	61	316101	10.27	ppbv	99
20) n-Hexane	9.21	57	359187	10.53	ppbv	98
21) 1,1-Dichloroethane	9.59	63	425552	10.19	ppbv	99
22) Vinyl acetate	9.52	43	549657	11.07	ppbv	99
23) cis-1,2-Dichloroethene	10.27	96	262830	10.40	ppbv	99
24) 2-Butanone	10.24	43	383708	11.21	ppbv	97
25) Ethyl acetate	10.19	43	453347	10.71	ppbv #	99
26) Tetrahydrofuran	10.58	42	233403	10.66	ppbv	94
27) Chloroform	10.60	83	508561	10.70	ppbv	98
28) 1,1,1-Trichloroethane	10.84	97	530830	10.34	ppbv	99
29) Cyclohexane	10.85	56	362015	10.46	ppbv	100
30) Carbon tetrachloride	11.00	117	581786	10.26	ppbv	98
31) Benzene	11.29	78	698972	10.46	ppbv	99
32) 1,2-Dichloroethane	11.37	62	289306	10.47	ppbv	98
34) Heptane	11.34	43	409191	11.12	ppbv	96
35) Trichloroethene	12.02	130	361519	10.77	ppbv	97
36) 1,2-Dichloropropane	12.38	63	258613	11.24	ppbv	100
37) 1,4-Dioxane	12.45	88	138419	10.43	ppbv	94
38) Bromodichloromethane	12.66	83	512174	10.71	ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	389796	10.58	ppbv	99
40) 4-Methyl-2-pentanone	13.32	58	170947	10.86	ppbv	98
41) Toluene	13.61	91	880316	11.29	ppbv	98
42) trans-1,3-Dichloropropene	13.92	75	343983	10.08	ppbv	100
43) 1,1,2-Trichloroethane	14.20	97	299198	11.05	ppbv	99
44) Tetrachloroethene	14.32	166	475207	10.79	ppbv	96
45) 2-Hexanone	14.40	43	332905	10.88	ppbv	98
46) Chlorodibromomethane	14.74	129	551817	11.05	ppbv	99
47) 1,2-Dibromoethane	14.98	107	458626	10.83	ppbv	100
49) Chlorobenzene	15.57	112	664926	11.00	ppbv	99
50) Ethylbenzene	15.61	91	1075625	11.10	ppbv	97
51) m,p-Xylene	15.77	91	1705979	22.66	ppbv	97
52) o-Xylene	16.36	91	848993	11.07	ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062312\06231202.D Vial: 2
Acq On : 23 Jun 2012 10:38 am Operator: RACHEL HILL
Sample : CCV VOA1 062312 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 23 11:03 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

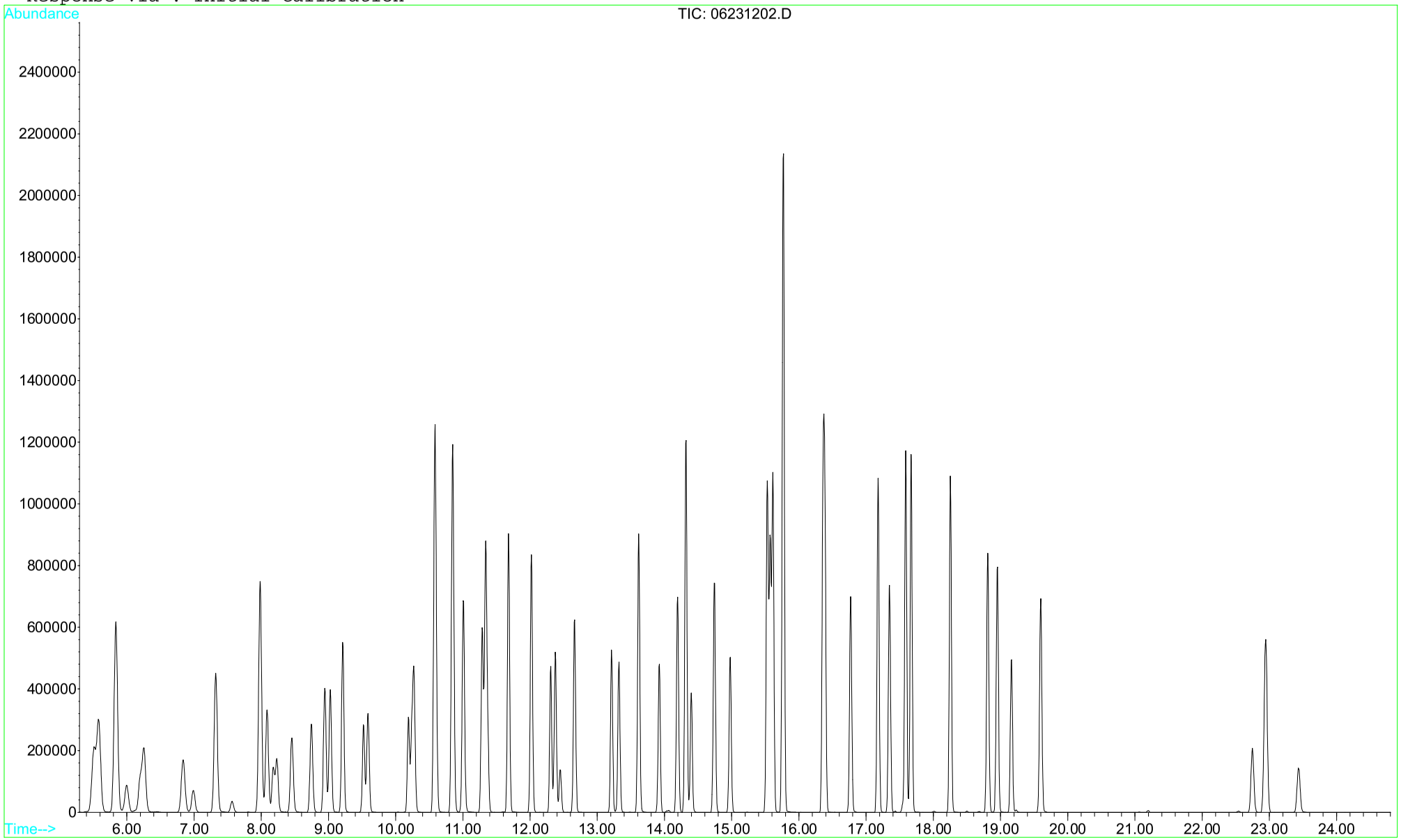
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
53)	Styrene	16.39	104	645370	10.94 ppbv	98
54)	Bromoform	16.77	173	455533	10.47 ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.35	83	519870	10.86 ppbv	99
57)	4-Ethyltoluene	17.59	105	1083532	10.87 ppbv	98
58)	1,3,5-Trimethylbenzene	17.67	105	906995	10.64 ppbv	98
59)	1,2,4-Trimethylbenzene	18.25	105	857350	10.75 ppbv	98
60)	1,3-Dichlorobenzene	18.81	146	542722	10.36 ppbv	97
61)	1,4-Dichlorobenzene	18.95	146	517422	10.24 ppbv	97
62)	Benzyl chloride	19.16	91	539705	9.71 ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	469302	10.21 ppbv	97
64)	1,2,4-Trichlorobenzene	22.75	180	133927	8.03 ppbv	97
65)	Hexachlorobutadiene	22.95	225	220112	9.81 ppbv	99
66)	Naphthalene	23.43	128	257492	7.79 ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\062312\06231202.D Vial: 2
Acq On : 23 Jun 2012 10:38 am Operator: RACHEL HILL
Sample : CCV VOA1 062312 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 23 11:03 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration

Calibration Files
2 =05311203.D 4 =05311204.D 5 =05311205.D
6 =05311206.D 7 =05311207.D 8 =05311208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	0.848	0.884	0.871	0.834	0.783	0.742	0.813	7.59
3)	T	Dichlorodifluoromet	3.256	3.403	3.344	3.166	2.961	2.754	3.079	9.41
4)	T	1,2-Dichloro-1,2,2,	2.289	2.503	2.497	2.363	2.253	2.133	2.303	7.12
5)	T	Chloromethane	1.004	1.057	1.001	0.946	0.887	0.820	0.928	10.99
6)	T	Vinyl chloride	1.129	1.220	1.163	1.078	1.002	0.905	1.049	13.14
7)	T	1,3-Butadiene	0.814	0.868	0.814	0.741	0.683	0.610	0.727	15.66
8)	T	Bromomethane	1.139	1.235	1.221	1.126	1.075	1.001	1.112	8.79
9)	T	Chloroethane	0.602	0.677	0.655	0.586	0.565	0.531	0.591	9.95
10)	T	Trichlorofluorometh	3.101	3.349	3.286	2.882	2.802	2.594	2.936	10.93
11)	T	Ethanol	0.344	0.373	0.357	0.280	0.297	0.278	0.315	13.41
12)	T	Freon113	2.116	2.365	2.294	1.862	1.895	1.751	1.993	13.54
13)	T	1,1-Dichloroethene	1.468	1.640	1.579	1.311	1.297	1.197	1.379	13.56
14)	T	Acetone	1.656	1.690	1.567	1.077	1.216	1.088	1.332	22.07
15)	T	Carbon disulfide	2.441	2.793	2.710	2.388	2.300	2.127	2.400	11.61
16)	T	2-Propanol	1.335	1.520	1.451	1.204	1.219	1.132	1.279	12.57
17)	T	Methylene chloride	1.343	1.192	1.138	0.903	0.920	0.847	1.022	19.74
18)	T	tert-Butyl Methyl E	2.333	2.865	2.678	1.759	2.085	1.874	2.198	20.06
19)	T	trans-1,2-Dichloroe	1.322	1.522	1.467	1.149	1.202	1.103	1.262	14.19
20)	T	n-Hexane	1.444	1.688	1.628	1.275	1.335	1.240	1.399	13.99
21)	T	1,1-Dichloroethane	1.814	2.074	1.998	1.564	1.618	1.490	1.713	14.72
22)	T	Vinyl acetate	1.595	2.784	2.592	1.704	2.027	1.823	2.035	23.03
23)	T	cis-1,2-Dichloroeth	1.036	1.259	1.203	0.950	0.995	0.919	1.036	13.69
24)	T	2-Butanone	1.454	1.863	1.706	1.116	1.363	1.172	1.404	20.70
25)	T	Ethyl acetate	1.617	2.280	2.162	1.452	1.693	1.490	1.735	19.90
26)	T	Tetrahydrofuran	0.884	1.167	1.086	0.793	0.868	0.784	0.898	18.79
27)	T	Chloroform	2.029	2.387	2.258	1.810	1.878	1.710	1.950	15.02
28)	T	1,1,1-Trichloroetha	2.087	2.565	2.468	1.953	2.059	1.877	2.105	14.60
29)	T	Cyclohexane	1.489	1.747	1.670	1.324	1.375	1.236	1.419	16.42
30)	T	Carbon tetrachlorid	2.199	2.855	2.712	2.146	2.263	2.102	2.325	14.07
31)	T	Benzene	2.922	3.496	3.252	2.399	2.567	2.341	2.740	18.00
32)	T	1,2-Dichloroethane	1.177	1.450	1.350	0.969	1.062	0.993	1.133	17.77
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.478	0.608	0.564	0.454	0.481	0.436	0.486	15.81
35)	T	Trichloroethene	0.407	0.526	0.503	0.411	0.442	0.417	0.444	11.47
36)	T	1,2-Dichloropropane	0.296	0.392	0.358	0.260	0.293	0.271	0.304	16.98
37)	T	1,4-Dioxane	0.175	0.215	0.205	0.154	0.170	0.157	0.175	14.43
38)	T	Bromodichloromethan	0.581	0.771	0.722	0.597	0.623	0.581	0.631	13.20
39)	T	cis-1,3-Dichloropro	0.405	0.626	0.579	0.434	0.481	0.451	0.487	17.13
40)	T	4-Methyl-2-pentanon	0.192	0.263	0.240	0.184	0.202	0.191	0.208	14.91
41)	T	Toluene	1.024	1.318	1.205	0.909	0.997	0.909	1.030	16.68
42)	T	trans-1,3-Dichlorop	0.343	0.576	0.535	0.411	0.452	0.425	0.451	17.67
43)	T	1,1,2-Trichloroetha	0.338	0.445	0.410	0.320	0.348	0.328	0.358	14.06
44)	T	Tetrachloroethene	0.513	0.690	0.655	0.553	0.582	0.553	0.582	11.47
45)	T	2-Hexanone	0.375	0.528	0.473	0.350	0.389	0.367	0.404	17.21
46)	T	Chlorodibromomethan	0.540	0.821	0.764	0.611	0.661	0.628	0.660	15.03
47)	T	1,2-Dibromoethane	0.496	0.707	0.653	0.506	0.551	0.516	0.559	15.45
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.838	1.091	1.017	0.788	0.867	0.812	0.880	14.30
50)	T	Ethylbenzene	1.485	1.788	1.640	1.264	1.360	1.243	1.411	17.13
51)	T	m,p-Xylene	1.179	1.427	1.304	1.010	1.063	0.937	1.097	20.67
52)	T	o-Xylene	1.162	1.402	1.285	1.017	1.083	0.994	1.117	16.12
53)	T	Styrene	0.747	1.078	1.002	0.796	0.861	0.802	0.860	15.36
54)	T	Bromoform	0.485	0.775	0.729	0.594	0.646	0.623	0.634	15.16
55)	S	4-Bromofluorobenzen	0.590	0.585	0.574	0.577	0.579	0.578	0.581	0.92
56)	T	1,1,2,2-Tetrachloro	0.759	0.857	0.786	0.641	0.663	0.614	0.697	15.18
57)	T	4-Ethyltoluene	1.619	1.787	1.629	1.320	1.379	1.287	1.452	15.78

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

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration

Calibration Files
2 =05311203.D 4 =05311204.D 5 =05311205.D
6 =05311206.D 7 =05311207.D 8 =05311208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.436	1.516	1.400	1.111	1.167	1.080	1.242	16.54
59)	T	1,2,4-Trimethylbenz	1.252	1.430	1.301	1.058	1.116	1.034	1.162	14.70
60)	T	1,3-Dichlorobenzene	0.804	0.913	0.841	0.691	0.733	0.695	0.763	11.99
61)	T	1,4-Dichlorobenzene	0.775	0.879	0.816	0.669	0.708	0.665	0.736	12.11
62)	T	Benzyl chloride		0.979	0.913	0.748	0.790	0.732	0.809	13.83
63)	T	1,2-Dichlorobenzene	0.778	0.794	0.732	0.604	0.627	0.587	0.669	14.37
64)	T	1,2,4-Trichlorobenz	0.273	0.279	0.258	0.201	0.226	0.233	0.243	11.48
65)	T	Hexachlorobutadiene		0.401	0.361	0.278	0.314	0.310	0.327	13.95
66)		Naphthalene	0.594	0.551	0.518	0.400	0.440	0.446	0.481	15.19

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.58	1.000	A	2	A	B
2	T	Propylene	41	5.51	0.521	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.58	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.84	0.552	A	2	A	B
5	T	Chloromethane	50	6.00	0.567	A	3	A	B
6	T	Vinyl chloride	62	6.20	0.586	A	2	A	B
7	T	1,3-Butadiene	39	6.26	0.591	A	2	A	B
8	T	Bromomethane	94	6.84	0.647	A	3	A	B
9	T	Chloroethane	64	6.99	0.660	A	3	A	B
10	T	Trichlorofluoromethane	101	7.33	0.693	A	3	A	B
11	T	Ethanol	45	7.56	0.714	A	2	A	B
12	T	Freon113	101	7.98	0.754	A	2	A	B
13	T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14	T	Acetone	43	8.18	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.23	0.778	A	2	A	B
17	T	Methylene chloride	49	8.75	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.95	0.845	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.03	0.853	A	2	A	B
20	T	n-Hexane	57	9.22	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.59	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.52	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.27	0.971	A	3	A	B
24	T	2-Butanone	43	10.24	0.967	A	2	A	B
25	T	Ethyl acetate	43	10.19	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.58	1.000	A	2	A	B
27	T	Chloroform	83	10.60	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.84	1.025	A	3	A	B
29	T	Cyclohexane	56	10.86	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.01	1.041	A	3	A	B
31	T	Benzene	78	11.29	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.37	1.074	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.68	1.000	A	2	A	B
34	T	Heptane	43	11.34	0.971	A	3	A	B
35	T	Trichloroethene	130	12.02	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.38	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.45	1.066	A	2	A	B
38	T	Bromodichloromethane	83	12.66	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.21	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.32	1.141	A	3	A	B
41	T	Toluene	91	13.62	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.192	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.32	1.226	A	3	A	B
45	T	2-Hexanone	43	14.40	1.233	A	2	A	B
46	T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47	T	1,2-Dibromoethane	107	14.98	1.283	A	2	A	B
48	I	Chlorobenzene-d5	117	15.53	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.57	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.61	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.77	1.015	A	2	A	B
52	T	o-Xylene	91	16.36	1.054	A	2	A	B
53	T	Styrene	104	16.39	1.055	A	3	A	B
54	T	Bromoform	173	16.78	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.18	1.106	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.35	1.117	A	2	A	B
57	T	4-Ethyltoluene	105	17.59	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.68	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.26	1.176	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.82	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.96	1.221	A	3	A	B
62	T	Benzyl chloride	91	19.16	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.60	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.75	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.95	1.478	A	2	A	B
66		Naphthalene	128	23.44	1.509	A	2	A	B

```
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
  A/H = Area or Height
ID  R = R.T.  B = R.T. & Q  Q = Qvalue L = Largest  A = All
-----------------------------------------------------------------------
          053112V1.M     Fri Jun 01 14:15:20 2012
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Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\053112\05311212.D Vial: 12
Acq On : 31 May 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA1 053112 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	133	0.00
2	T	Propylene	0.813	0.827	-1.7	124	0.00
3	T	Dichlorodifluoromethane	3.079	3.095	-0.5	121	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.303	2.330	-1.2	124	0.00
5	T	Chloromethane	0.928	0.949	-2.3	120	0.00
6	T	Vinyl chloride	1.049	1.032	1.6	113	0.00
7	T	1,3-Butadiene	0.727	0.818	-12.5	125	0.00
8	T	Bromomethane	1.112	1.143	-2.8	123	0.00
9	T	Chloroethane	0.591	0.595	-0.7	117	0.00
10	T	Trichlorofluoromethane	2.936	2.977	-1.4	118	0.00
11	T	Ethanol	0.315	0.291	7.6	104	0.00
12	T	Freon113	1.993	2.089	-4.8	118	0.00
13	T	1,1-Dichloroethene	1.379	1.446	-4.9	117	0.00
14	T	Acetone	1.332	1.390	-4.4	109	0.00
15	T	Carbon disulfide	2.400	2.859	-19.1	136	0.00
16	T	2-Propanol	1.279	1.425	-11.4	125	0.00
17	T	Methylene chloride	1.022	1.016	0.6	114	0.00
18	T	tert-Butyl Methyl Ether	2.198	2.375	-8.1	110	0.00
19	T	trans-1,2-Dichloroethene	1.262	1.371	-8.6	120	0.00
20	T	n-Hexane	1.399	1.486	-6.2	117	0.00
21	T	1,1-Dichloroethane	1.713	1.757	-2.6	113	0.00
22	T	Vinyl acetate	2.035	2.196	-7.9	105	0.00
23	T	cis-1,2-Dichloroethene	1.036	1.086	-4.8	115	0.00
24	T	2-Butanone	1.404	1.494	-6.4	107	0.00
25	T	Ethyl acetate	1.735	1.951	-12.4	114	0.00
26	T	Tetrahydrofuran	0.898	0.942	-4.9	108	0.00
27	T	Chloroform	1.950	2.004	-2.8	112	0.00
28	T	1,1,1-Trichloroethane	2.105	2.179	-3.5	113	0.00
29	T	Cyclohexane	1.419	1.530	-7.8	117	0.00
30	T	Carbon tetrachloride	2.325	2.431	-4.6	113	0.00
31	T	Benzene	2.740	2.799	-2.2	107	0.00
32	T	1,2-Dichloroethane	1.133	1.146	-1.1	105	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	136	0.00
34	T	Heptane	0.486	0.511	-5.1	115	0.00
35	T	Trichloroethene	0.444	0.442	0.5	115	0.00
36	T	1,2-Dichloropropane	0.304	0.304	0.0	106	0.00
37	T	1,4-Dioxane	0.175	0.170	2.9	108	0.00
38	T	Bromodichloromethane	0.631	0.658	-4.3	116	0.00
39	T	cis-1,3-Dichloropropene	0.487	0.476	2.3	104	0.00
40	T	4-Methyl-2-pentanone	0.208	0.231	-11.1	120	0.00
41	T	Toluene	1.030	1.125	-9.2	116	0.00
42	T	trans-1,3-Dichloropropene	0.451	0.496	-10.0	117	0.00
43	T	1,1,2-Trichloroethane	0.358	0.355	0.8	109	0.00
44	T	Tetrachloroethene	0.582	0.578	0.7	114	0.00
45	T	2-Hexanone	0.404	0.455	-12.6	117	0.00
46	T	Chlorodibromomethane	0.660	0.662	-0.3	110	0.00
47	T	1,2-Dibromoethane	0.559	0.564	-0.9	109	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	134	0.00
49	T	Chlorobenzene	0.880	0.876	0.5	108	0.00
50	T	Ethylbenzene	1.411	1.403	0.6	105	0.00
51	T	m,p-Xylene	1.097	1.129	-2.9	106	0.00
52	T	o-Xylene	1.117	1.137	-1.8	109	0.00
53	T	Styrene	0.860	0.882	-2.6	110	0.00
54	T	Bromoform	0.634	0.657	-3.6	114	0.00
55	S	4-Bromofluorobenzene	0.581	0.581	0.0	134	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\053112\05311212.D Vial: 12
Acq On : 31 May 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA1 053112 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.697	0.726	-4.2	114	0.00
57	T	4-Ethyltoluene	1.452	1.473	-1.4	111	0.00
58	T	1,3,5-Trimethylbenzene	1.242	1.247	-0.4	111	0.00
59	T	1,2,4-Trimethylbenzene	1.162	1.213	-4.4	114	0.00
60	T	1,3-Dichlorobenzene	0.763	0.781	-2.4	115	0.00
61	T	1,4-Dichlorobenzene	0.736	0.757	-2.9	116	0.00
62	T	Benzyl chloride	0.809	0.921	-13.8	126	0.00
63	T	1,2-Dichlorobenzene	0.669	0.701	-4.8	119	0.00
64	T	1,2,4-Trichlorobenzene	0.243	0.270	-11.1	130	0.00
65	T	Hexachlorobutadiene	0.327	0.377	-15.3	126	0.00
66		Naphthalene	0.481	0.567	-17.9	138	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\053112\05311212.D Vial: 12
Acq On : 31 May 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA1 053112 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 1 9:19 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.58	130	481456	12.50	ppbv	0.00
33) 1,4-Difluorobenzene	11.68	114	1612192	12.50	ppbv	0.00
48) Chlorobenzene-d5	15.53	117	1418692	12.50	ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.18	95	824147	12.50	ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 100.00%

Target Compounds						Qvalue
2) Propylene	5.52	41	324728	10.37	ppbv	99
3) Dichlorodifluoromethane	5.59	85	1096677	9.25	ppbv	100
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	852398	9.61	ppbv #	86
5) Chloromethane	6.00	50	347318	9.71	ppbv	98
6) Vinyl chloride	6.21	62	373657	9.25	ppbv	99
7) 1,3-Butadiene	6.26	39	308884	11.03	ppbv	96
8) Bromomethane	6.85	94	409579	9.56	ppbv	99
9) Chloroethane	7.00	64	210732	9.26	ppbv	99
10) Trichlorofluoromethane	7.33	101	1100913	9.74	ppbv	99
11) Ethanol	7.56	45	103216	8.52	ppbv	99
12) Freon113	7.99	101	788697	10.28	ppbv	95
13) 1,1-Dichloroethene	8.09	61	551564	10.39	ppbv	99
14) Acetone	8.18	43	535459	10.44	ppbv	99
15) Carbon disulfide	8.46	76	1068272	11.56	ppbv #	100
16) 2-Propanol	8.23	45	554191	11.25	ppbv #	75
17) Methylene chloride	8.75	49	391415	9.94	ppbv	98
18) tert-Butyl Methyl Ether	8.95	73	905796	10.70	ppbv	98
19) trans-1,2-Dichloroethene	9.03	61	517367	10.65	ppbv	99
20) n-Hexane	9.22	57	578015	10.73	ppbv	97
21) 1,1-Dichloroethane	9.59	63	656601	9.95	ppbv	100
22) Vinyl acetate	9.52	43	837373	10.68	ppbv	99
23) cis-1,2-Dichloroethene	10.28	96	409835	10.27	ppbv	99
24) 2-Butanone	10.24	43	569860	10.54	ppbv	100
25) Ethyl acetate	10.19	43	736475	11.02	ppbv #	100
26) Tetrahydrofuran	10.58	42	363003	10.50	ppbv	96
27) Chloroform	10.60	83	756368	10.07	ppbv	97
28) 1,1,1-Trichloroethane	10.85	97	805667	9.94	ppbv	99
29) Cyclohexane	10.86	56	577408	10.56	ppbv	99
30) Carbon tetrachloride	11.01	117	889700	9.94	ppbv	99
31) Benzene	11.29	78	1035086	9.81	ppbv	100
32) 1,2-Dichloroethane	11.37	62	428112	9.81	ppbv	99
34) Heptane	11.34	43	652953	10.41	ppbv	98
35) Trichloroethene	12.02	130	547778	9.58	ppbv	97
36) 1,2-Dichloropropane	12.38	63	384611	9.81	ppbv	100
37) 1,4-Dioxane	12.45	88	211101	9.34	ppbv	95
38) Bromodichloromethane	12.67	83	814332	10.00	ppbv	98
39) cis-1,3-Dichloropropene	13.21	75	583735	9.30	ppbv	100
40) 4-Methyl-2-pentanone	13.32	58	298491	11.13	ppbv	98
41) Toluene	13.62	91	1422215	10.70	ppbv	98
42) trans-1,3-Dichloropropene	13.93	75	582336	10.02	ppbv	100
43) 1,1,2-Trichloroethane	14.20	97	449010	9.74	ppbv	99
44) Tetrachloroethene	14.32	166	715360	9.54	ppbv	96
45) 2-Hexanone	14.40	43	575397	11.04	ppbv	96
46) Chlorodibromomethane	14.75	129	837258	9.84	ppbv	99
47) 1,2-Dibromoethane	14.98	107	698125	9.68	ppbv	100
49) Chlorobenzene	15.57	112	983994	9.85	ppbv	99
50) Ethylbenzene	15.62	91	1560666	9.75	ppbv	97
51) m,p-Xylene	15.77	91	2459547	19.76	ppbv	98
52) o-Xylene	16.36	91	1290286	10.18	ppbv	98

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\053112\05311212.D Vial: 12
Acq On : 31 May 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA1 053112 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 1 9:19 2012 Quant Results File: 053112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration
DataAcq Meth : 053112V1

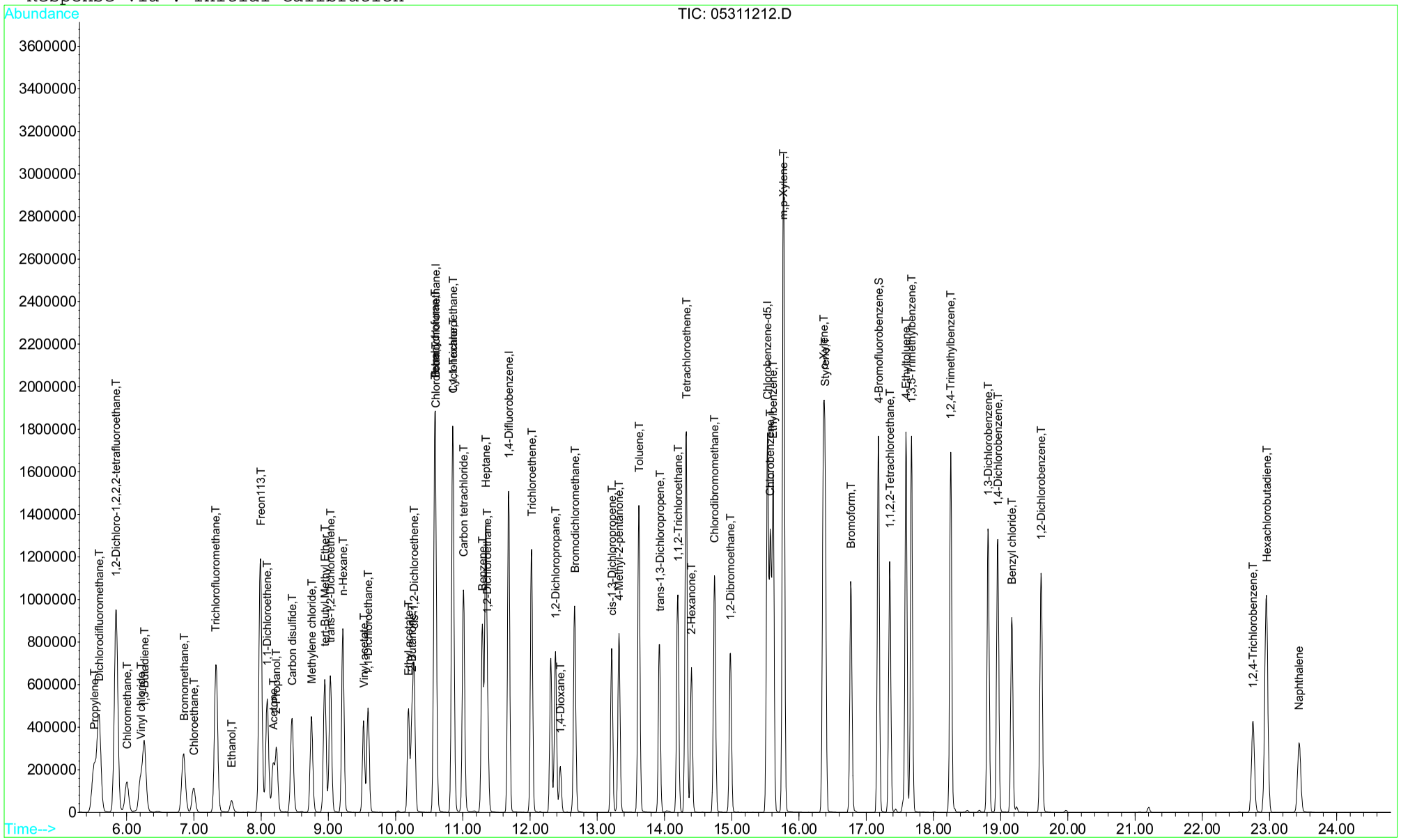
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	981022	10.06	ppbv	99
54)	Bromoform	16.77	173	715854	9.95	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.35	83	824498	10.42	ppbv	98
57)	4-Ethyltoluene	17.59	105	1637849	9.94	ppbv	99
58)	1,3,5-Trimethylbenzene	17.68	105	1373368	9.74	ppbv	99
59)	1,2,4-Trimethylbenzene	18.26	105	1348761	10.23	ppbv	99
60)	1,3-Dichlorobenzene	18.82	146	859808	9.93	ppbv	99
61)	1,4-Dichlorobenzene	18.96	146	824927	9.87	ppbv	99
62)	Benzyl chloride	19.17	91	1014035	11.04	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	772077	10.17	ppbv	98
64)	1,2,4-Trichlorobenzene	22.75	180	279313	10.13	ppbv	96
65)	Hexachlorobutadiene	22.95	225	402349	10.84	ppbv	99
66)	Naphthalene	23.44	128	592469	10.84	ppbv	100

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\053112\05311212.D Vial: 12
Acq On : 31 May 2012 5:06 pm Operator: RACHEL HILL
Sample : ICV VOA1 053112 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jun 1 9:19 2012 Quant Results File: 053112V1.RES

Method : C:\HPCHEM\1\METHODS\053112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Jun 01 09:18:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120621A** **Run No.:** 49548

Analytical Run Date: 6/21/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 49528 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: Peer reviewed AW 6.22.12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 062112	BFB_TUNE	TUNE	R49548	6/21/2012 10:03:00 AM	Robert Lynch		
CCV VOA9 062112	MA_APH	CCV	R49548	6/21/2012 10:46:00 AM	Robert Lynch		
RLVS VOA9 062112	MA_APH	RLVS	R49548	6/21/2012 12:17:00 PM	Robert Lynch		
MBLK VOA9 062112	MA_APH	MBLK	R49548	6/21/2012 1:07:00 PM	Robert Lynch		
1206178-048A	MA_APH	SAMP	R49548	6/21/2012 2:34:00 PM	Robert Lynch		
1206178-051A	MA_APH	SAMP	R49548	6/21/2012 3:18:00 PM	Robert Lynch		
1206178-052A	MA_APH	SAMP	R49548	6/21/2012 4:01:00 PM	Robert Lynch		
1206178-053A	MA_APH	SAMP	R49548	6/21/2012 4:45:00 PM	Robert Lynch		
1206178-054A	MA_APH	SAMP	R49548	6/21/2012 5:29:00 PM	Robert Lynch		
1206396-004A	MA_APH	SAMP	R49548	6/21/2012 6:19:00 PM	Robert Lynch		
1206396-006A	MA_APH	SAMP	R49548	6/21/2012 8:35:00 PM	Robert Lynch		
1206396-007A	MA_APH	SAMP	R49548	6/21/2012 9:21:00 PM	Robert Lynch		
1206396-015A	MA_APH	SAMP	R49548	6/21/2012 10:11:00 PM	Robert Lynch		
1206396-017A	MA_APH	SAMP	R49548	6/21/2012 11:50:00 PM	Robert Lynch		
1206396-018A	MA_APH	SAMP	R49548	6/22/2012 12:36:00 AM	Robert Lynch		
1206396-018Adup	MA_APH	DUP	R49548	6/22/2012 1:22:00 AM	Robert Lynch		
1206396-019A	MA_APH	SAMP	R49548	6/22/2012 2:12:00 AM	Robert Lynch		
1206396-020A	MA_APH	SAMP	R49548	6/22/2012 2:55:00 AM	Robert Lynch		
1206396-021A	MA_APH	SAMP	R49548	6/22/2012 3:41:00 AM	Robert Lynch		
RLVS2 VOA9 06211	MA_APH	RLVS	R49548	6/22/2012 9:59:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 49548

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968525	BFB VOA9 062112	BFB_TUNE	TUNE	.\1\DATA\062112	6/21/2012 10:03:	1	R49548		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		64.4	64.4		100	0	0	0	0	0	64%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		97.3	97.3		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		22.9	22.9		100	0	0	0	0	0	23%	8	40	0%	
75	M		47.6	47.6		100	0	0	0	0	0	48%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968526	CCV VOA9 062112	MA_APH	CCV	.\1\DATA\062112	6/21/2012 10:46:	1	R49548		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	244.44	244.44		234	0	0	0	0	0	104%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	287.71	287.71		266	0	0	0	0	0	108%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	0%	0	0	0%	
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	404.39	404.39		378	0	0	0	0	0	107%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	89.28	89.28		89.5	0	0	0	0	0	100%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062112\06211202.D Vial: 2
Acq On : 21 Jun 2012 10:46 am Operator: RACHEL HILL
Sample : CCV VOA9 062112 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	30.068	-3.0	102	-0.02
2	L1	C5-C8 Aliphatic HC {2}	36.400	38.221	-5.0	105	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	44.121	-5.6	105	-0.03
4	L1	C5-C8 Aliphatic HC {4}	35.400	36.431	-2.9	103	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	44.369	-5.1	105	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	51.341	-4.8	104	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	244.442	-4.5	104	0.19
8	L1	C9-C12 Aliphatic HC	54.600	57.918	-6.1	105	-0.02
9	L1	C9-C12 Aliphatic HC {2}	54.600	55.308	-1.3	100	-0.02
10	L1	C9-C12 Aliphatic HC {3}	61.200	65.844	-7.6	107	-0.02
11	L1	C9-C12 Aliphatic HC {4}	60.800	65.527	-7.8	108	-0.02
12	L1	C9-C12 Aliphatic HC {5}	70.000	76.576	-9.4	112	-0.01
13	L1	C9-C12 Aliphatic HC {6}	77.000	86.574	-12.4	117	-0.02
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	404.386	-7.0	107	-0.02
15	L1	C9-C10 Aromatic HC	51.700	54.464	-5.3	109	-0.02
16	L1	C9-C10 Aromatic HC {2}	51.200	54.860	-7.1	112	-0.02
17	L1	C9-C10 Aromatic HC {3}	52.200	55.887	-7.1	110	-0.01
18	L1	C9-C10 Aromatic HC {4}	58.700	65.039	-10.8	117	-0.01
19	L1	C9-C10 Aromatic HC {5}	52.600	57.637	-9.6	116	-0.01
20	L1	C9-C10 Aromatic HC {6}	58.700	64.677	-10.2	116	-0.01
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	287.715	-8.2	112	-0.02
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	91	-0.02
41	S	4-Bromofluorobenzene	89.500	89.282	0.2	93	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062112\06211202.D Vial: 2
Acq On : 21 Jun 2012 10:46 am Operator: RACHEL HILL
Sample : CCV VOA9 062112 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jun 21 16:34 2012 Quant Results File: 062012V9.RES

Quant Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Initial Calibration
DataAcq Meth : 062012V9

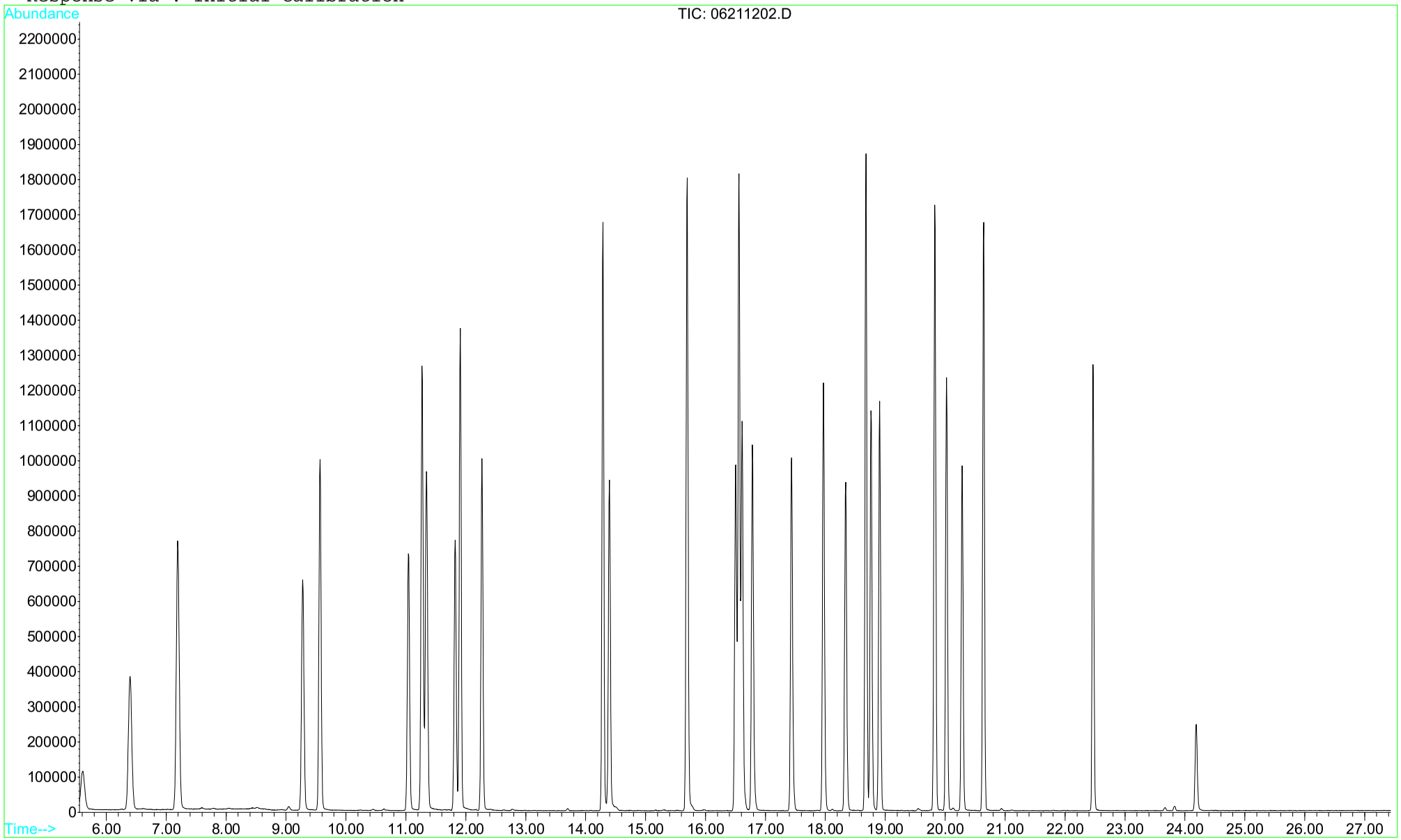
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	737503	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	483256	89.28	ug/m3	0.00
Spiked Amount 89.500 Range 70 - 130 Recovery = 99.75%						
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2633627	30.07	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2512108	38.22	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	3253827	44.12	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2432331	36.43	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3103820	44.37	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3565248	51.34	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	17500961m	244.44	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	4160056	57.92	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3883904	55.31	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3876097	65.84	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	3814915	65.53	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	3456298	76.58	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	2587736	86.57	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	21779006m	404.39	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	288798	54.46	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	305241	54.86	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	445222	55.89	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	100440	65.04	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	341102	57.64	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	254955	64.68	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1735758m	287.71	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\062112\06211202.D Vial: 2
Acq On : 21 Jun 2012 10:46 am Operator: RACHEL HILL
Sample : CCV VOA9 062112 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jun 21 16:34 2012 Quant Results File: 062012V9.RES

Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **VOA9_120622A** **Run No.:** 49589

Analytical Run Date: 6/22/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 49528 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR AW 6.28.12. Nitrogen tank ran out overnight, ran ending RLVS as soon as possible. RLVS out of 24 hour time clock.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 062212	BFB_TUNE	TUNE	R49589	6/22/2012 11:04:00 AM	Robert Lynch		
CCV VOA9 062212	MA_APH	CCV	R49589	6/22/2012 11:48:00 AM	Robert Lynch		
RLVS VOA9 062212	MA_APH	RLVS	R49589	6/22/2012 12:31:00 PM	Robert Lynch		
MBLK VOA9 062212	MA_APH	MBLK	R49589	6/22/2012 1:25:00 PM	Robert Lynch		
1206396-022A	MA_APH	SAMP	R49589	6/22/2012 2:11:00 PM	Robert Lynch		
1206396-022Adup	MA_APH	DUP	R49589	6/22/2012 2:58:00 PM	Robert Lynch		
1206396-023A	MA_APH	SAMP	R49589	6/22/2012 3:44:00 PM	Robert Lynch		
1206396-024A	MA_APH	SAMP	R49589	6/22/2012 4:30:00 PM	Robert Lynch		
1206396-001A	MA_APH	SAMP	R49589	6/22/2012 5:20:00 PM	Robert Lynch		
1206396-002A	MA_APH	SAMP	R49589	6/22/2012 6:03:00 PM	Robert Lynch		
1206396-003A	MA_APH	SAMP	R49589	6/22/2012 6:47:00 PM	Robert Lynch		
1206396-005A	MA_APH	SAMP	R49589	6/22/2012 7:30:00 PM	Robert Lynch		
RLVS VOA9 062212	MA_APH	RLVS	R49589	6/23/2012 11:28:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 49589

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
969336	BFB VOA9 062212	BFB_TUNE	TUNE	.\1\DATA\062212	6/22/2012 11:04:	1	R49589		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		63.6	63.6		100	0	0	0	0	0	64%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.4	96.4		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		22.8	22.8		100	0	0	0	0	0	23%	8	40	0%	
75	M		47.4	47.4		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		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
969337	CCV VOA9 062212	MA_APH	CCV	.\1\DATA\062212	6/22/2012 11:48:	1	R49589		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	211.38	211.38		234	0	0	0	0	0	90%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	240.94	240.94		266	0	0	0	0	0	91%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	0%	0	0	0%	
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	340.19	340.19		378	0	0	0	0	0	90%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	87.43	87.43		89.5	0	0	0	0	0	98%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062212\06221202.D Vial: 2
Acq On : 22 Jun 2012 11:48 am Operator: RACHEL HILL
Sample : CCV VOA9 062212 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	27.594	5.5	93	-0.02
2	L1	C5-C8 Aliphatic HC {2}	36.400	32.697	10.2	90	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	37.758	9.7	90	-0.03
4	L1	C5-C8 Aliphatic HC {4}	35.400	30.695	13.3	87	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	37.565	11.0	89	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	44.726	8.7	90	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	211.377	9.7	90	0.19
8	L1	C9-C12 Aliphatic HC	54.600	50.310	7.9	91	-0.02
9	L1	C9-C12 Aliphatic HC {2}	54.600	47.935	12.2	87	-0.02
10	L1	C9-C12 Aliphatic HC {3}	61.200	56.346	7.9	92	-0.01
11	L1	C9-C12 Aliphatic HC {4}	60.800	56.056	7.8	92	-0.01
12	L1	C9-C12 Aliphatic HC {5}	70.000	61.967	11.5	91	-0.02
13	L1	C9-C12 Aliphatic HC {6}	77.000	65.723	14.6	89	-0.02
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	340.191	10.0	90	-0.02
15	L1	C9-C10 Aromatic HC	51.700	46.126	10.8	92	-0.02
16	L1	C9-C10 Aromatic HC {2}	51.200	45.515	11.1	93	-0.01
17	L1	C9-C10 Aromatic HC {3}	52.200	47.542	8.9	94	-0.01
18	L1	C9-C10 Aromatic HC {4}	58.700	53.772	8.4	97	-0.01
19	L1	C9-C10 Aromatic HC {5}	52.600	47.683	9.3	96	-0.01
20	L1	C9-C10 Aromatic HC {6}	58.700	53.721	8.5	96	-0.01
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	240.941	9.4	94	-0.02
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	92	-0.01
41	S	4-Bromofluorobenzene	89.500	87.426	2.3	93	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062212\06221202.D Vial: 2
Acq On : 22 Jun 2012 11:48 am Operator: RACHEL HILL
Sample : CCV VOA9 062212 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jun 25 9:37 2012 Quant Results File: 062012V9.RES

Quant Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Initial Calibration
DataAcq Meth : 062012V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	751740	12.50	ug/m3	-0.01

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.34	95	482342	87.43	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 97.69%

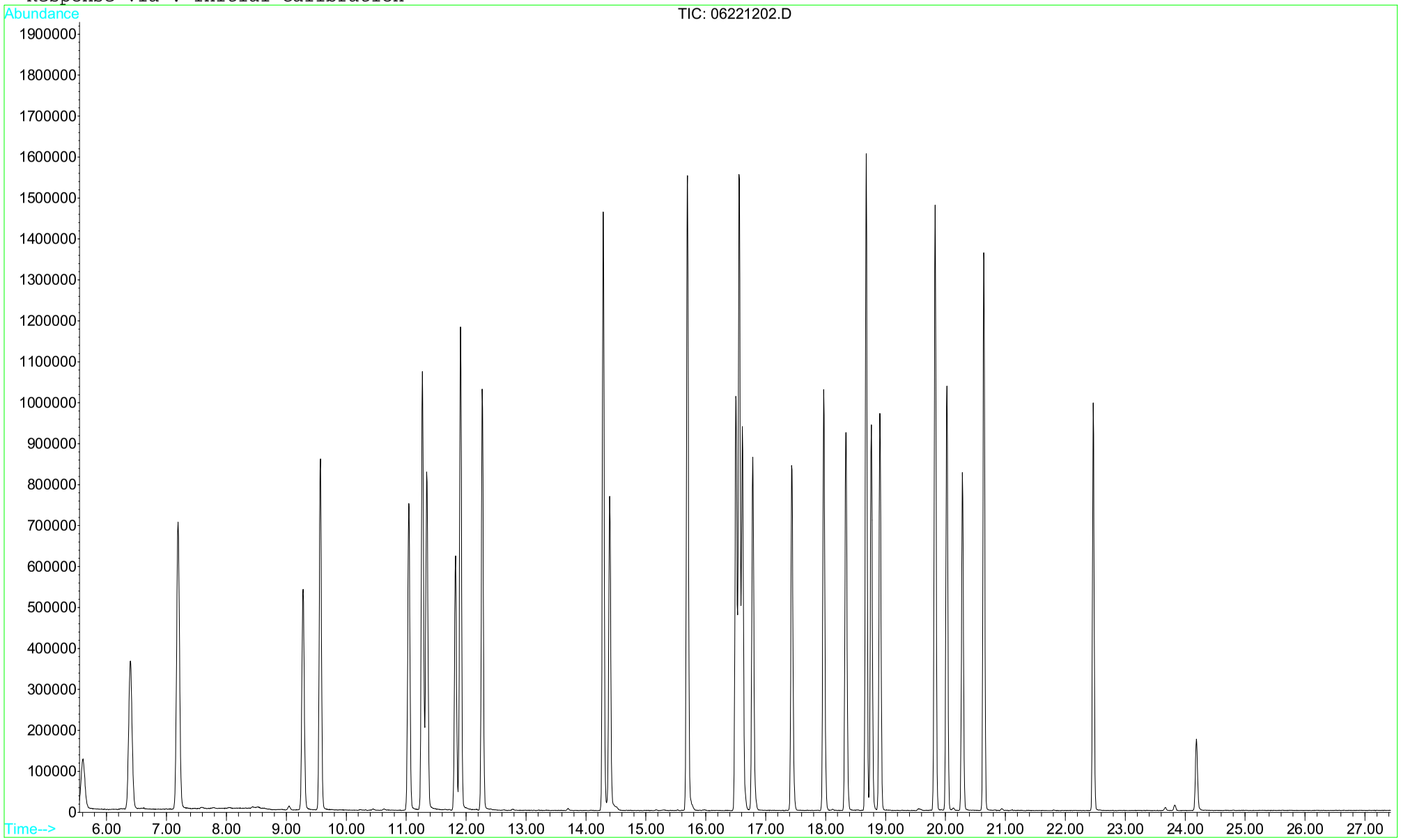
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2416945	27.59	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2149060	32.70	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2784612	37.76	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2049381	30.70	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2627859	37.56	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3105831	44.73	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	15133688m	211.38	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3613577	50.31	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3366195	47.94	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3316948	56.35	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	3263507	56.06	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	2796937	61.97	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1964501	65.72	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	18321665m	340.19	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	244589	46.13	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	253246	45.51	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	378738	47.54	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	83040	53.77	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	282194	47.68	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	211766	53.72	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1453573m	240.94	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\062212\06221202.D Vial: 2
Acq On : 22 Jun 2012 11:48 am Operator: RACHEL HILL
Sample : CCV VOA9 062212 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jun 25 9:37 2012 Quant Results File: 062012V9.RES

Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_120625A **Run No.:** 49623

Analytical Run Date: 6/25/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 49528 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: Peer reviewed by AW 6.28.12. Cryo-valve burned out during run. Ending RLVS could not be performed.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 062512	BFB_TUNE	TUNE	R49623	6/25/2012 10:23:00 AM	Robert Lynch		
CCV VOA9 062512	MA_APH	CCV	R49623	6/25/2012 11:07:00 AM	Robert Lynch		
RLVS VOA9 062512	MA_APH	RLVS	R49623	6/25/2012 11:56:00 AM	Robert Lynch		
MBLK VOA9 062512	MA_APH	MBLK	R49623	6/25/2012 12:49:00 PM	Robert Lynch		
1206396-011A	MA_APH	SAMP	R49623	6/25/2012 1:38:00 PM	Robert Lynch		
1206396-012A	MA_APH	SAMP	R49623	6/25/2012 2:28:00 PM	Robert Lynch		
1206396-008A	MA_APH	SAMP	R49623	6/25/2012 3:14:00 PM	Robert Lynch		
1206396-009A	MA_APH	SAMP	R49623	6/25/2012 4:00:00 PM	Robert Lynch		
1206396-010A	MA_APH	SAMP	R49623	6/25/2012 4:50:00 PM	Robert Lynch		
1206396-013A	MA_APH	SAMP	R49623	6/25/2012 5:36:00 PM	Robert Lynch		
1206396-014A	MA_APH	SAMP	R49623	6/25/2012 6:20:00 PM	Robert Lynch		
1206396-014Adup	MA_APH	DUP	R49623	6/25/2012 7:06:00 PM	Robert Lynch		
1206396-016A	MA_APH	SAMP	R49623	6/25/2012 7:49:00 PM	Robert Lynch		
1206517-001A	MA_APH	SAMP	R49623	6/25/2012 8:35:00 PM	Robert Lynch		
1206517-002A	MA_APH	SAMP	R49623	6/25/2012 10:11:00 PM	Robert Lynch		
1206517-003A	MA_APH	SAMP	R49623	6/25/2012 10:55:00 PM	Robert Lynch		
1206517-004A	MA_APH	SAMP	R49623	6/25/2012 11:38:00 PM	Robert Lynch		
1206517-005A	MA_APH	SAMP	R49623	6/26/2012 12:24:00 AM	Robert Lynch		
1206517-006A	MA_APH	SAMP	R49623	6/26/2012 1:09:00 AM	Robert Lynch		
1206517-007A	MA_APH	SAMP	R49623	6/26/2012 1:52:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

26-Jul-12

RunNo 49623

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
970193	BFB VOA9 062512	BFB_TUNE	TUNE	.\1\DATA\062512	6/25/2012 10:23:	1	R49623		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		65.8	65.8		100	0	0	0	0	0	66%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		95.2	95.2		100	0	0	0	0	0	95%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		21.7	21.7		100	0	0	0	0	0	22%	8	40	0%	
75	M		46.9	46.9		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
970194	CCV VOA9 062512	MA_APH	CCV	.\1\DATA\062512	6/25/2012 11:07:	1	R49623		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	221.45	221.45		234	0	0	0	0	0	95%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	1170	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	260.51	260.51		266	0	0	0	0	0	98%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	1330	0%	0	0	0%	
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	375.87	375.87		378	0	0	0	0	0	99%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	1890	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	87.46	87.46		89.5	0	0	0	0	0	98%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062512\06251202.D Vial: 2
Acq On : 25 Jun 2012 11:07 am Operator: RACHEL HILL
Sample : CCV VOA9 062512 IDMP R.DEAR Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	30.076	-3.0	102	-0.02
2	L1	C5-C8 Aliphatic HC {2}	36.400	33.730	7.3	93	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	38.110	8.8	91	-0.03
4	L1	C5-C8 Aliphatic HC {4}	35.400	32.728	7.5	93	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	39.278	6.9	93	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	46.950	4.2	95	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	221.450	5.4	94	0.19
8	L1	C9-C12 Aliphatic HC	54.600	54.506	0.2	99	-0.02
9	L1	C9-C12 Aliphatic HC {2}	54.600	53.191	2.6	96	-0.02
10	L1	C9-C12 Aliphatic HC {3}	61.200	60.560	1.0	98	-0.02
11	L1	C9-C12 Aliphatic HC {4}	60.800	60.193	1.0	99	-0.02
12	L1	C9-C12 Aliphatic HC {5}	70.000	70.704	-1.0	103	-0.02
13	L1	C9-C12 Aliphatic HC {6}	77.000	78.032	-1.3	106	-0.02
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	375.874	0.6	100	-0.02
15	L1	C9-C10 Aromatic HC	51.700	49.238	4.8	98	-0.02
16	L1	C9-C10 Aromatic HC {2}	51.200	49.429	3.5	101	-0.02
17	L1	C9-C10 Aromatic HC {3}	52.200	50.771	2.7	100	-0.01
18	L1	C9-C10 Aromatic HC {4}	58.700	58.388	0.5	105	-0.01
19	L1	C9-C10 Aromatic HC {5}	52.600	52.364	0.4	105	-0.01
20	L1	C9-C10 Aromatic HC {6}	58.700	58.598	0.2	105	-0.01
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	260.511	2.1	102	-0.02
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	91	-0.02
41	S	4-Bromofluorobenzene	89.500	87.462	2.3	91	-0.01

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062512\06251202.D Vial: 2
Acq On : 25 Jun 2012 11:07 am Operator: RACHEL HILL
Sample : CCV VOA9 062512 IDMP R.DEAR Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jun 25 14:10 2012 Quant Results File: 062012V9.RES

Quant Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Initial Calibration
DataAcq Meth : 062012V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	737691	12.50 ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.33	95	473524	87.46 ug/m3	-0.01

Spiked Amount 89.500 Range 70 - 130 Recovery = 97.72%

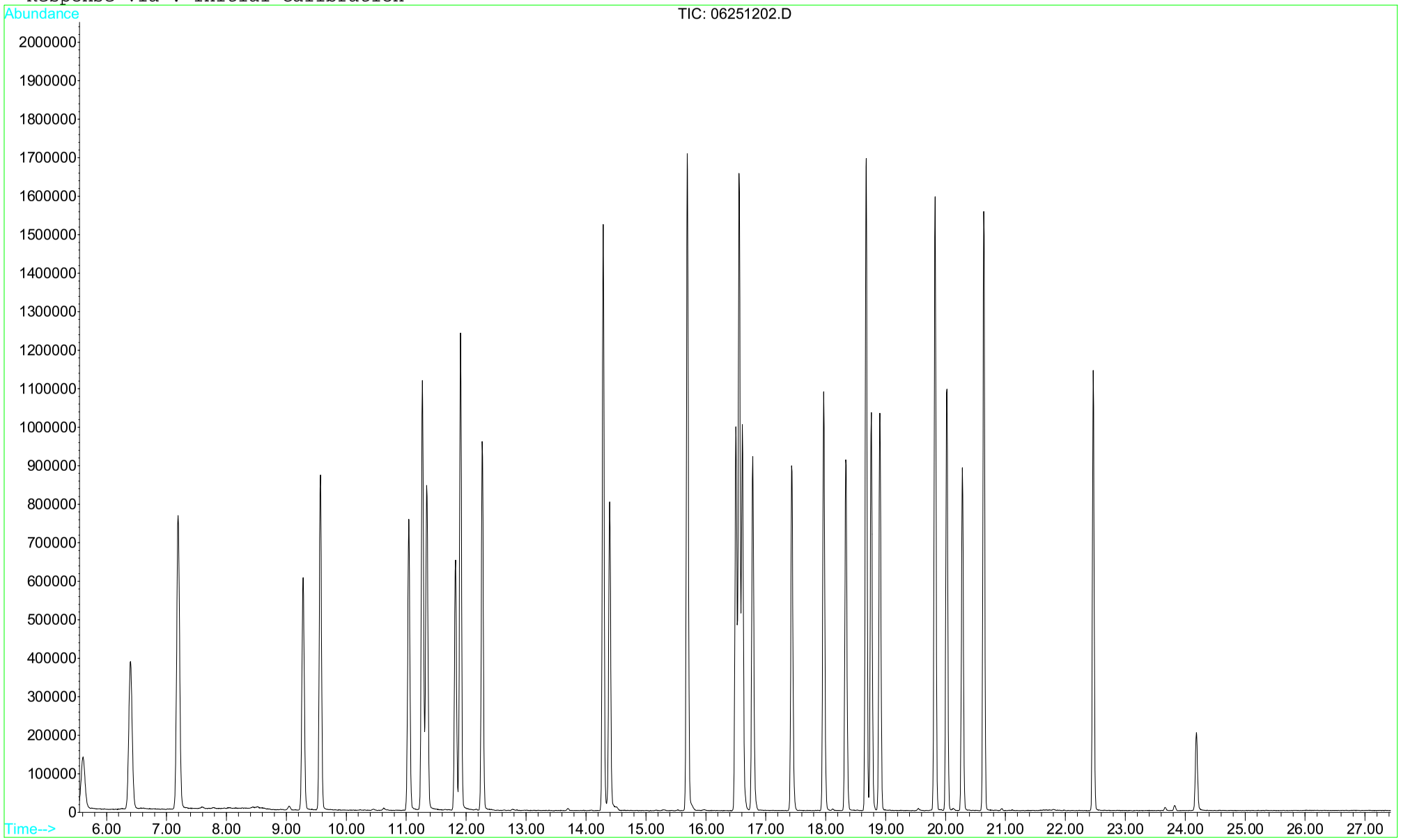
Target Compounds					Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2634263	30.08 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2216944	33.73 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2810567	38.11 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2185102	32.73 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2747712	39.28 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3260268	46.95 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	15854856m	221.45 ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3915013	54.51 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.55	TIC	3735306	53.19 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3565011	60.56 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	3504376	60.19 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	3191280	70.70 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	2332430	78.03 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	20243416m	375.87 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	261090	49.24 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	275026	49.43 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	404465	50.77 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	90169	58.39 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	309894	52.36 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	230993	58.60 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1571637m	260.51 ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\062512\06251202.D Vial: 2
Acq On : 25 Jun 2012 11:07 am Operator: RACHEL HILL
Sample : CCV VOA9 062512 IDMP R.DEAR Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jun 25 14:10 2012 Quant Results File: 062012V9.RES

Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Initial Calibration

Calibration Files
1 =06201206.D 2 =06201207.D 3 =06201208.D
4 =06201209.D 5 =06201210.D 6 =06201211.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	1.043	0.885	0.892	0.874	0.867	0.808	0.876	E5	10.03
2)	L1	C5-C8 Aliphatic HC	6.896	6.570	6.832	6.722	6.646	6.306	6.573	E4	4.64
3)	L1	C5-C8 Aliphatic HC	7.732	7.425	7.696	7.540	7.446	7.168	7.375	E4	5.20
4)	L1	C5-C8 Aliphatic HC	7.060	6.667	6.841	6.742	6.661	6.483	6.677	E4	3.73
5)	L1	C5-C8 Aliphatic HC	7.273	6.981	7.236	7.212	7.181	6.774	6.996	E4	5.00
6)	L1	C5-C8 Aliphatic HC	7.374	7.024	7.203	7.141	7.091	6.670	6.944	E4	6.16
7)	L1	C5-C8 Aliphatic HC	7.680	7.192	7.394	7.307	7.240	6.864	7.160	E4	5.58
8)	L1	C9-C12 Aliphatic HC	7.707	7.273	7.408	7.416	7.404	6.853	7.183	E4	6.91
9)	L1	C9-C12 Aliphatic HC	7.403	7.123	7.251	7.236	7.131	6.753	7.022	E4	5.58
10)	L1	C9-C12 Aliphatic HC	6.324	5.923	6.152	6.067	6.071	5.594	5.887	E4	7.18
11)	L1	C9-C12 Aliphatic HC	6.277	5.810	6.016	6.005	5.918	5.584	5.822	E4	6.30
12)	L1	C9-C12 Aliphatic HC	4.667	4.407	4.556	4.660	4.668	4.428	4.514	E4	3.86
13)	L1	C9-C12 Aliphatic HC	3.021	2.870	2.952	3.093	3.067	2.914	2.989	E4	2.71
14)	L1	C9-C12 Aliphatic HC	5.695	5.374	5.529	5.558	5.522	5.181	5.386	E4	5.37
15)	L1	C9-C10 Aromatic HC	5.310	5.147	5.453	5.415	5.479	5.312	5.303	E3	3.26
16)	L1	C9-C10 Aromatic HC	5.589	5.306	5.606	5.673	5.788	5.611	5.564	E3	3.02
17)	L1	C9-C10 Aromatic HC	8.136	7.743	8.036	8.100	8.233	7.946	7.966	E3	2.94
18)	L1	C9-C10 Aromatic HC	1.535	1.464	1.556	1.581	1.621	1.556	1.544	E3	3.37
19)	L1	C9-C10 Aromatic HC	5.932	5.611	5.983	5.984	6.129	5.971	5.918	E3	2.77
20)	L1	C9-C10 Aromatic HC	3.867	3.759	4.018	4.044	4.120	3.979	3.942	E3	3.38
21)	L1	C9-C10 Aromatic HC	6.069	5.803	6.112	6.133	6.240	6.068	6.033	E3	2.76
22)		C5-C8 Aliphatic	7.680	7.192	7.394	7.307	7.240	6.864	7.160	E4	5.58
23)	L1	non C5-C8	7.780	6.820	6.754	6.604	6.600	6.192	6.651	E4	9.19
24)	L1	non C5-C8 {2}	4.656	4.290	4.606	4.560	4.468	4.194	4.381	E4	6.26
25)	L1	non C5-C8 {3}	3.123	3.154	3.111	3.128	3.127	3.227	3.130	E4	1.78
26)	L1	non C5-C8 {4}	5.206	5.346	5.735	5.686	5.557	5.291	5.412	E4	4.68
27)	L1	non C5-C8 {5}	4.243	4.401	4.263	4.302	4.292	4.525	4.265	E4	5.05
28)	L1	non C5-C8 {6}	5.097	5.430	5.837	5.730	5.759	5.512	5.511	E4	5.14
29)	L1	non C5-C8 - TOTAL	4.281	4.553	4.754	4.827	4.906	4.886	4.697	E4	4.72
30)		C9-C12 Aliphatic	5.695	5.374	5.529	5.558	5.522	5.181	5.386	E4	5.37
31)	L1	non C9-C12	4.212	4.212	4.250	4.385	4.426	4.329	4.222	E4	5.41
32)	L1	non C9-C12 {2}	5.259	5.034	5.137	5.136	5.180	4.979	5.020	E4	5.61
33)	L1	non C9-C12 {3}	5.267	5.112	5.341	5.334	5.373	5.166	5.218	E4	3.05
34)	L1	non C9-C12 {4}	5.069	4.888	5.148	5.098	5.158	4.966	5.005	E4	3.24
35)	L1	non C9-C12 {5}	2.607	2.665	2.642	2.708	2.728	2.925	2.708	E4	3.84
36)	L1	non C9-C12 - TOTAL	3.433	3.455	3.544	3.592	3.647	3.577	3.509	E4	3.23
37)	L1	C9-C10 Aromatic	6.069	5.803	6.112	6.133	6.240	6.068	6.033	E3	2.76
38)	L1	C9-C10 Aromatic {2}	6.069	5.803	6.112	6.133	6.240	6.068	6.033	E3	2.76
39)	L1	C9-C10 Aromatic - T	6.069	5.803	6.112	6.133	6.240	6.068	6.033	E3	2.76
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.092	0.089	0.091	0.091	0.091	0.093	0.092		2.42

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Initial Calibration
Total Cpnds : 41

PK#		Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1	L1	C5-C8 Aliphatic HC	TIC	7.21	1.000	A	0	A	B
2	L1	C5-C8 Aliphatic HC {2}	TIC	9.59	1.000	A	0	A	B
3	L1	C5-C8 Aliphatic HC {3}	TIC	11.30	1.000	A	0	A	B
4	L1	C5-C8 Aliphatic HC {4}	TIC	11.37	1.000	A	0	A	B
5	L1	C5-C8 Aliphatic HC {5}	TIC	11.93	1.000	A	0	A	B
6	L1	C5-C8 Aliphatic HC {6}	TIC	14.31	1.000	A	0	A	B
7	L1	C5-C8 Aliphatic HC - TOTAL	TIC	7.00	1.000	A	0	A	B
8	L1	C9-C12 Aliphatic HC	TIC	15.71	1.000	A	0	A	B
9	L1	C9-C12 Aliphatic HC {2}	TIC	16.58	1.000	A	0	A	B
10	L1	C9-C12 Aliphatic HC {3}	TIC	18.69	1.000	A	0	A	B
11	L1	C9-C12 Aliphatic HC {4}	TIC	19.84	1.000	A	0	A	B
12	L1	C9-C12 Aliphatic HC {5}	TIC	20.66	1.000	A	0	A	B
13	L1	C9-C12 Aliphatic HC {6}	TIC	22.48	1.000	A	0	A	B
14	L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.71	1.000	A	0	A	B
15	L1	C9-C10 Aromatic HC	120	17.99	1.000	A	0	A	B
16	L1	C9-C10 Aromatic HC {2}	120	18.78	1.000	A	0	A	B
17	L1	C9-C10 Aromatic HC {3}	120	18.92	1.000	A	0	A	B
18	L1	C9-C10 Aromatic HC {4}	120	20.04	1.000	A	0	A	B
19	L1	C9-C10 Aromatic HC {5}	120	20.30	1.000	A	0	A	B
20	L1	C9-C10 Aromatic HC {6}	134	20.04	1.000	A	0	A	B
21	L1	C9-C10 Aromatic HC - TOTAL	TIC	17.99	1.000	A	0	A	B
22		C5-C8 Aliphatic	TIC	7.00	1.000	A	0	A	B
23	L1	non C5-C8	TIC	6.41	1.000	A	0	A	B
24	L1	non C5-C8 {2}	TIC	9.30	1.000	A	0	A	B
25	L1	non C5-C8 {3}	TIC	11.07	1.000	A	0	A	B
26	L1	non C5-C8 {4}	TIC	11.84	1.000	A	0	A	B
27	L1	non C5-C8 {5}	TIC	12.29	1.000	A	0	A	B
28	L1	non C5-C8 {6}	TIC	14.42	1.000	A	0	A	B
29	L1	non C5-C8 - TOTAL	TIC	6.41	1.000	A	0	A	B
30		C9-C12 Aliphatic	TIC	16.54	1.000	A	0	A	B
31	L1	non C9-C12	TIC	16.52	1.000	A	0	A	B
32	L1	non C9-C12 {2}	TIC	16.63	1.000	A	0	A	B
33	L1	non C9-C12 {3}	TIC	16.80	1.000	A	0	A	B
34	L1	non C9-C12 {4}	TIC	17.45	1.000	A	0	A	B
35	L1	non C9-C12 {5}	TIC	18.35	1.000	A	0	A	B
36	L1	non C9-C12 - TOTAL	TIC	16.52	1.000	A	0	A	B
37	L1	C9-C10 Aromatic	120	17.62	1.000	A	0	A	B
38	L1	C9-C10 Aromatic {2}	134	17.62	1.000	A	0	A	B
39	L1	C9-C10 Aromatic - TOTAL	134	0.00	1.000	A	1	A	B
40	I	Chlorobenzene-d5	117	16.52	1.000	A	2	A	B
41	S	4-Bromofluorobenzene	95	18.35	1.111	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

062012V9.M Thu Jun 21 09:57:07 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\062012\06201215.D Vial: 13
Acq On : 21 Jun 2012 2:31 am Operator: RACHEL HILL
Sample : ICV VOA9 062012 Inst : GC/MS Ins
Misc : ICV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	32.581	-11.6	110	-0.02
2	L1	C5-C8 Aliphatic HC {2}	36.400	41.552	-14.2	114	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	47.110	-12.7	112	-0.03
4	L1	C5-C8 Aliphatic HC {4}	35.400	40.593	-14.7	115	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	48.049	-13.9	114	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	56.098	-14.5	113	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	265.744	-13.6	113	0.19
8	L1	C9-C12 Aliphatic HC	54.600	63.290	-15.9	114	-0.02
9	L1	C9-C12 Aliphatic HC {2}	54.600	63.893	-17.0	115	-0.02
10	L1	C9-C12 Aliphatic HC {3}	61.200	72.330	-18.2	117	-0.01
11	L1	C9-C12 Aliphatic HC {4}	60.800	71.666	-17.9	118	-0.01
12	L1	C9-C12 Aliphatic HC {5}	70.000	82.505	-17.9	121	-0.02
13	L1	C9-C12 Aliphatic HC {6}	77.000	95.478	-24.0	129	-0.01
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	446.383	-18.1	118	-0.02
15	L1	C9-C10 Aromatic HC	51.700	59.978	-16.0	120	-0.02
16	L1	C9-C10 Aromatic HC {2}	51.200	60.049	-17.3	123	-0.01
17	L1	C9-C10 Aromatic HC {3}	52.200	61.915	-18.6	122	-0.01
18	L1	C9-C10 Aromatic HC {4}	58.700	71.079	-21.1	128	-0.02
19	L1	C9-C10 Aromatic HC {5}	52.600	63.542	-20.8	127	-0.01
20	L1	C9-C10 Aromatic HC {6}	58.700	71.161	-21.2	127	-0.01
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	316.882	-19.1	124	-0.02
22		C5-C8 Aliphatic	234.000	0.000	100.0#	0	-7.00#
23	L1	non C5-C8	22.800	0.000	100.0#	0	-6.41#
24	L1	non C5-C8 {2}	36.800	0.000	100.0#	0	-9.30#
25	L1	non C5-C8 {3}	66.100	0.000	100.0#	0	-11.07#
26	L1	non C5-C8 {4}	32.500	0.000	100.0#	0	-11.84#
27	L1	non C5-C8 {5}	58.400	0.000	100.0#	0	-12.29#
28	L1	non C5-C8 {6}	39.200	0.000	100.0#	0	-14.42#
29	L1	non C5-C8 - TOTAL	256.000	0.000	100.0#	0	-6.41#
30		C9-C12 Aliphatic	378.000	0.000	100.0#	0	-16.54#
31	L1	non C9-C12	60.100	0.000	100.0#	0	-16.52#
32	L1	non C9-C12 {2}	45.600	0.000	100.0#	0	-16.63#
33	L1	non C9-C12 {3}	46.000	0.000	100.0#	0	-16.80#
34	L1	non C9-C12 {4}	45.100	0.000	100.0#	0	-17.45#
35	L1	non C9-C12 {5}	89.500	0.000	100.0#	0	-18.35#
36	L1	non C9-C12 - TOTAL	340.600	0.000	100.0#	0	-16.52#
37	L1	C9-C10 Aromatic	266.000	0.000	100.0#	0	-17.62#
38	L1	C9-C10 Aromatic {2}	266.000	0.000	100.0#	0	-17.62#
39	L1	C9-C10 Aromatic - TOTAL	266.000	0.000	100.0#	0	0.00
40	I	Chlorobenzene-d5	12.500	12.500	0.0	103	-0.02
41	S	4-Bromofluorobenzene	89.500	87.278	2.5	104	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\062012\06201215.D Vial: 13
Acq On : 21 Jun 2012 2:31 am Operator: RACHEL HILL
Sample : ICV VOA9 062012 Inst : GC/MS Ins
Misc : ICV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jun 21 9:50 2012 Quant Results File: 062012V9.RES

Quant Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Initial Calibration
DataAcq Meth : 062012V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	840869	12.50	ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.34	95	538619	87.28	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 97.52%

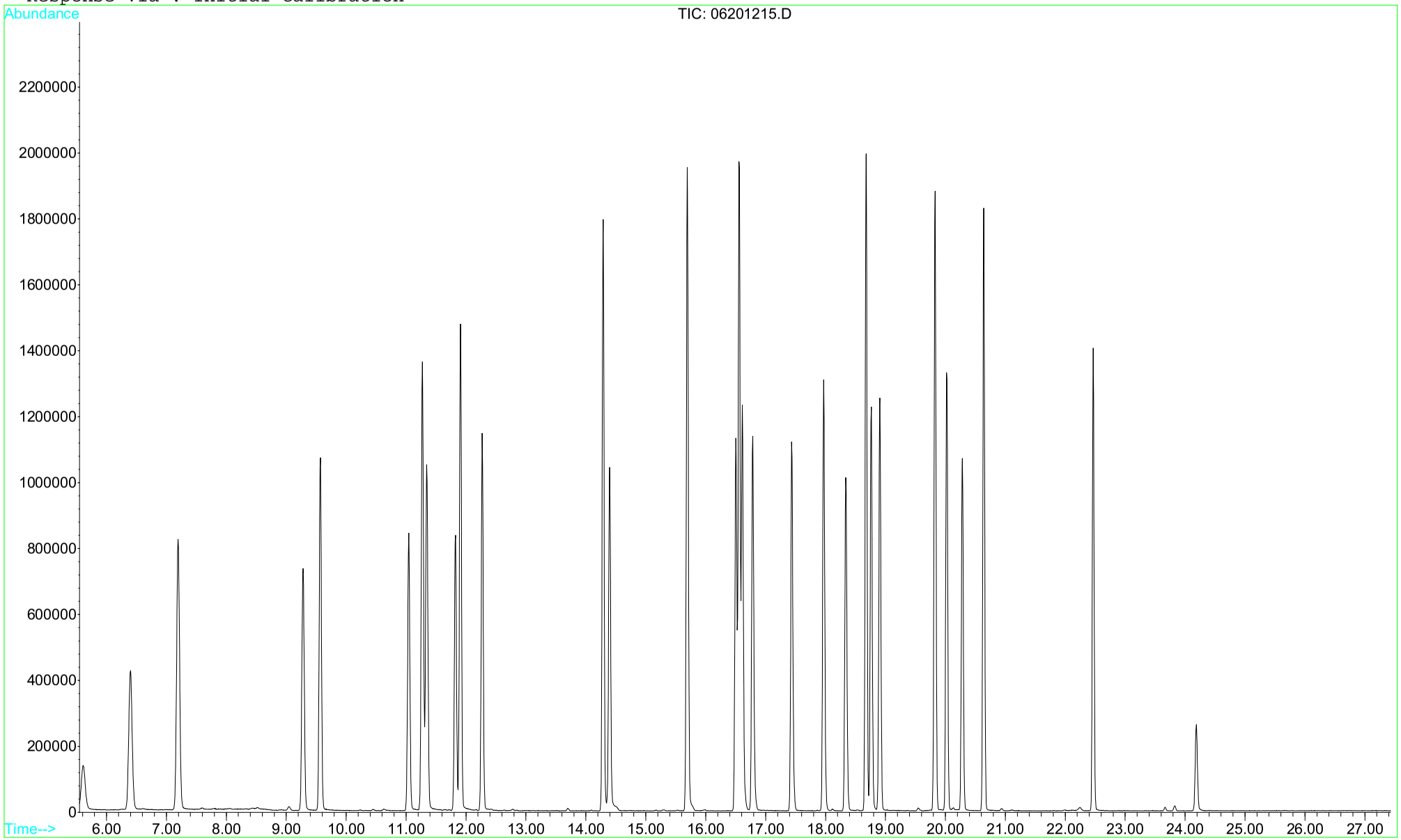
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2853724	32.58	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2731006	41.55	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	3474329	47.11	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2710200	40.59	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3361298	48.05	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3895563	56.10	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	19026120m	265.74	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	4545900	63.29	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	4486833	63.89	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	4257925	72.33	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	4172317	71.67	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	3723951	82.51	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	2853887	95.48	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	24040813m	446.38	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	318037	59.98	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	334114	60.05	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	493240	61.91	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	109768	71.08	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	376044	63.54	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	280516	71.16	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1911719m	316.88	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\062012\06201215.D Vial: 13
Acq On : 21 Jun 2012 2:31 am Operator: RACHEL HILL
Sample : ICV VOA9 062012 Inst : GC/MS Ins
Misc : ICV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jun 21 9:50 2012 Quant Results File: 062012V9.RES

Method : C:\HPCHEM\1\METHODS\062012V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Jun 21 08:39:41 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: **GC-TCD 1_120620A** **Run No.:** 49489

Analytical Run Date: 6/20/2012 **InstrumentID:** GC-TCD 1

Analyst: Jon Herndon **Column:** GC-TCD 1

Calibration ID: 45325 **Column ID:** Permanent Gases

Column Length: 2m 100/120mesh x 1mm ID

Run Comments: ch rev 6/26/12/PR 06-25-12 MSB

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
MBLK-062012 TCD	ASTM-D2504	MBLK	R49489	6/20/2012 9:51:00 AM	Celeste Hoitash		
CCV-062012 TCD-A	ASTM-D2504	CCV	R49489	6/20/2012 11:02:00 AM	Celeste Hoitash		
LCS-062012 TCD-A	ASTM-D2504	LCS	R49489	6/20/2012 11:25:00 AM	Celeste Hoitash		
CRQL-062012 TCD-A	ASTM-D2504	CRQL	R49489	6/20/2012 12:02:00 PM	Celeste Hoitash		
1206396-001B	ASTM-D2504	SAMP	R49489	6/20/2012 12:22:00 PM	Celeste Hoitash		
1206396-003B	ASTM-D2504	SAMP	R49489	6/20/2012 12:37:00 PM	Celeste Hoitash		
1206396-004B	ASTM-D2504	SAMP	R49489	6/20/2012 12:52:00 PM	Celeste Hoitash		
1206396-005B	ASTM-D2504	SAMP	R49489	6/20/2012 1:07:00 PM	Celeste Hoitash		
1206396-006B	ASTM-D2504	SAMP	R49489	6/20/2012 1:22:00 PM	Celeste Hoitash		
1206396-007B	ASTM-D2504	SAMP	R49489	6/20/2012 1:41:00 PM	Celeste Hoitash		
1206396-008B	ASTM-D2504	SAMP	R49489	6/20/2012 1:56:00 PM	Celeste Hoitash		
1206396-009B	ASTM-D2504	SAMP	R49489	6/20/2012 2:11:00 PM	Celeste Hoitash		
1206396-010B	ASTM-D2504	SAMP	R49489	6/20/2012 2:26:00 PM	Celeste Hoitash		
1206396-011B	ASTM-D2504	SAMP	R49489	6/20/2012 2:42:00 PM	Celeste Hoitash		
1206396-011BDUP	ASTM-D2504	DUP	R49489	6/20/2012 2:57:00 PM	Celeste Hoitash		
CCV-062012 TCD-B	ASTM-D2504	CCV	R49489	6/20/2012 3:12:00 PM	Celeste Hoitash		
CRQL-062012 TCD-B	ASTM-D2504	CRQL	R49489	6/20/2012 3:49:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jul-12

RunNo 49489

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
969287	MBLK-062012 TCD	ASTM-D2504	MBLK	062012-TCD\062	6/20/2012 9:51:0	1	R49489		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	0	0		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
969288	CCV-062012 TCD-A	ASTM-D2504	CCV	062012-TCD\062	6/20/2012 11:02:	1	R49489		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.64	2.64		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Carbon Monoxide	A	%	2.785	2.785		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.088	2.088		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.768	2.768		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Oxygen	A	%	2.537	2.537		2.5	0	0	0.025	0.1	0	101%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
969289	LCS-062012 TCD-A	ASTM-D2504	LCS	062012-TCD\062	6/20/2012 11:25:	1	R49489		0	969288	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.624	2.624		2.5	0	2.64	0.025	0.1	0	105%	70	130	1%	
Carbon Monoxide	A	%	2.738	2.738		2.5	0	2.785	0.025	0.1	0	110%	70	130	2%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
969302	CCV-062012 TCD-B	ASTM-D2504	CCV	062012-TCD\062	6/20/2012 3:12:0	1	R49489		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.606	2.606		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Carbon Monoxide	A	%	2.709	2.709		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.053	2.053		2	0	0	0.025	0.5	0	103%	85	115	0%	
Nitrogen	A	%	2.728	2.728		2.5	0	0	0.025	0.1	0	109%	85	115	0%	
Oxygen	A	%	2.5	2.5		2.5	0	0	0.025	0.1	0	100%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
969303	CRQL-062012 TCD-B	ASTM-D2504	CRQL	062012-TCD\062	6/20/2012 3:49:0	1	R49489		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.295	0.295		0.3	0	0	0.025	0.1	0	98%	80	120	0%	
Carbon Monoxide	A	%	0.152	0.152		0.14	0	0	0.025	0.1	0	109%	80	120	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Methane	A	%	0.08	0.08		0.09	0	0	0.025	0.5	0	89%	80	120	0%	
Nitrogen	A	%	1.398	1.398		1.39	0	0	0.025	0.1	0	101%	80	120	0%	
Oxygen	A	%	0.084	0.084		0.08	0	0	0.025	0.1	0	105%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\062012-TCD\06201202.D Vial: 1
Acq On : 20 Jun 2012 11:02 am Operator:
Sample : CCV-062012 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Thu Jun 07 19:03:43 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	2.537	-1.5	0	-0.07
2	Nitrogen	2.500	2.768	-10.7	0	-0.06
3	Carbon Monoxide	2.500	2.785	-11.4	0	-0.02
4	Methane	2.000	2.088	-4.4	0	-0.01
5	Carbon dioxide	2.500	2.640	-5.6	0	-0.04

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062012-TCD\06201202.D Vial: 1
Acq On : 20 Jun 2012 11:02 am Operator:
Sample : CCV-062012 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 20 10:20 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 13:11:55 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

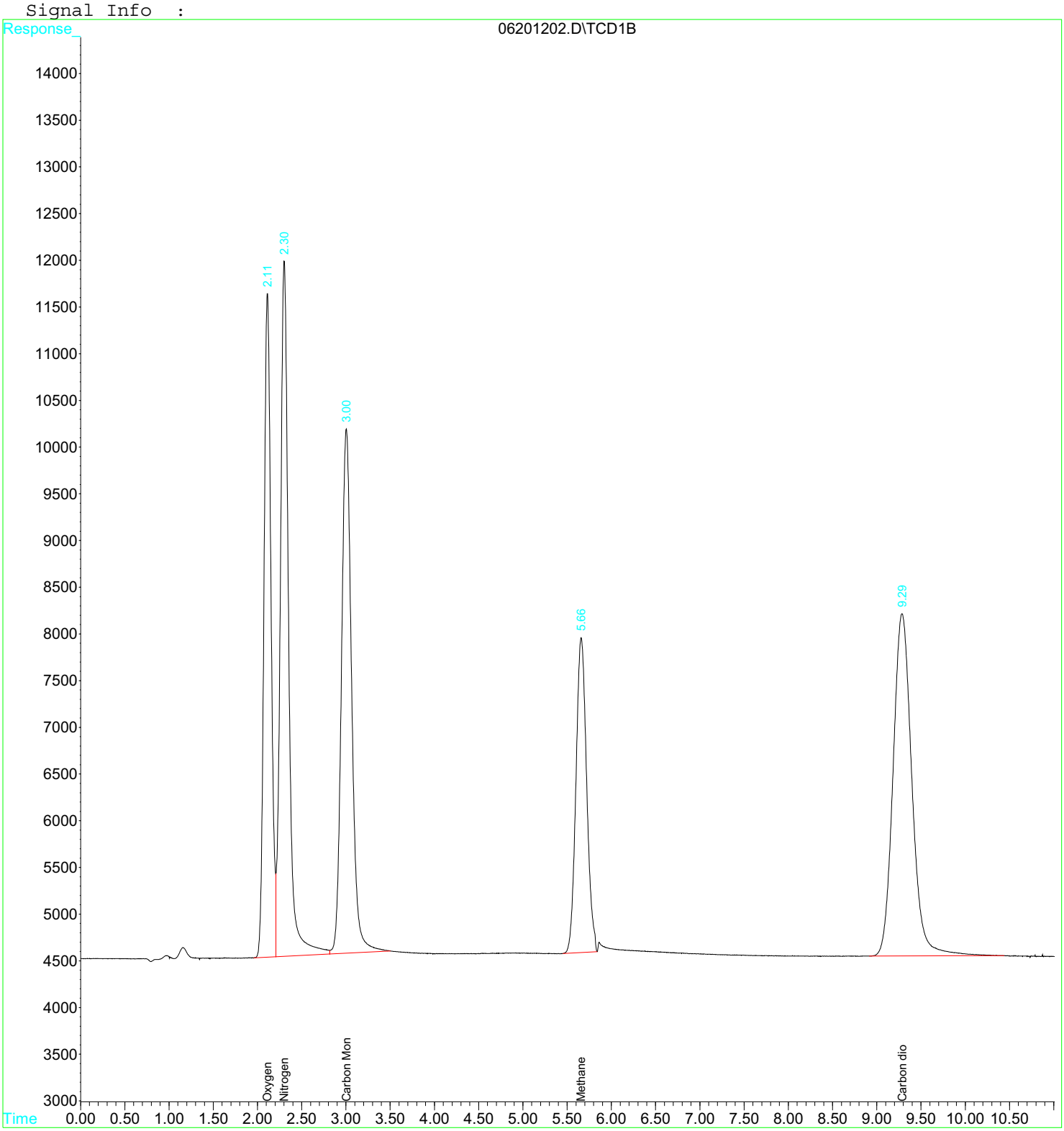
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.11	392991	2.537	%
2)	Nitrogen	2.30	485840	2.768	%
3)	Carbon Monoxide	3.00	448868	2.785	%
4)	Methane	5.66	281996	2.088	%
5)	Carbon dioxide	9.29	542104	2.640	%

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062012-TCD\06201202.D Vial: 1
Acq On : 20 Jun 2012 11:02 am Operator:
Sample : CCV-062012 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 20 10:20 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 13:11:55 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\062012-TCD\06201216.D Vial: 1
Acq On : 20 Jun 2012 3:12 pm Operator:
Sample : CCV-062012 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Thu Jun 07 19:03:43 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	2.500	0.0	0	-0.01
2	Nitrogen	2.500	2.728	-9.1	0	0.00
3	Carbon Monoxide	2.500	2.709	-8.4	0	0.04
4	Methane	2.000	2.053	-2.6	0	0.00
5	Carbon dioxide	2.500	2.606	-4.2	0	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
06201216.D 122211.M Mon Jun 25 10:08:12 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062012-TCD\06201216.D Vial: 1
Acq On : 20 Jun 2012 3:12 pm Operator:
Sample : CCV-062012 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 20 14:23 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 13:11:55 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	2.17	387256	2.500	%
2)	Nitrogen	2.36	478830	2.728	%
3)	Carbon Monoxide	3.06	436657	2.709	%
4)	Methane	5.68	277243	2.053	%
5)	Carbon dioxide	9.29	535101	2.606	%

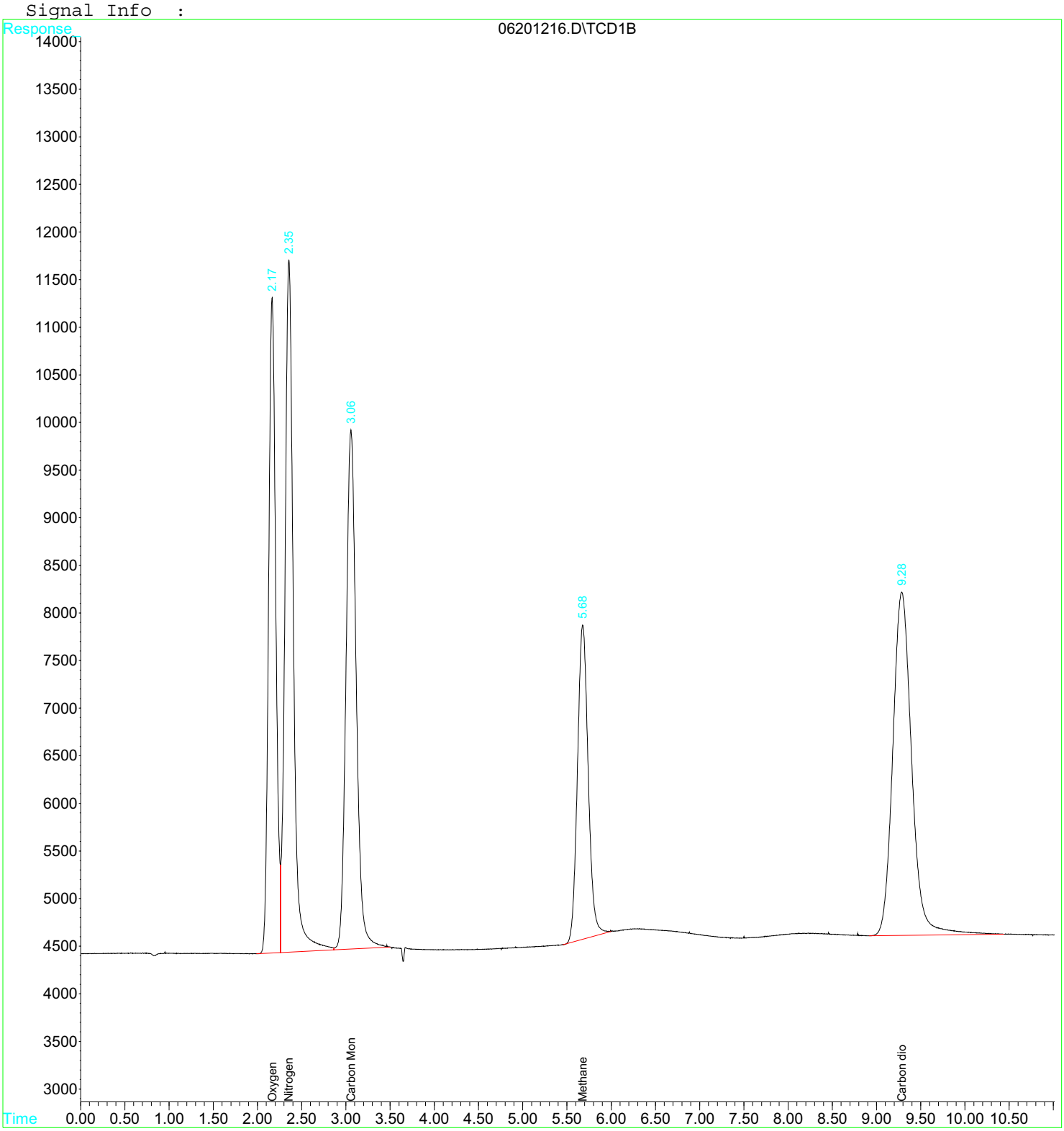
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062012-TCD\06201216.D Vial: 1
Acq On : 20 Jun 2012 3:12 pm Operator:
Sample : CCV-062012 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jun 20 14:23 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 13:11:55 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_120621A **Run No.:** 49537

Analytical Run Date: 6/21/2012 **InstrumentID:** GC-TCD 1

Analyst: Jon Herndon **Column:** GC-TCD 1

Calibration ID: 45325 **Column ID:** Permanent Gases

Column Length: 2m 100/120mesh x 1mm ID

Run Comments: ch rev 6/25/12/PR 06-25-12 MSB

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
MBLK-062112 TCD	ASTM-D2504	MBLK	R49537	6/21/2012 8:36:00 AM	Celeste Hoitash		
CCV-062112 TCD-A	ASTM-D2504	CCV	R49537	6/21/2012 8:59:00 AM	Celeste Hoitash		
LCS-062112 TCD-A	ASTM-D2504	LCS	R49537	6/21/2012 9:16:00 AM	Celeste Hoitash		
CRQL-062112 TCD-A	ASTM-D2504	CRQL	R49537	6/21/2012 9:49:00 AM	Celeste Hoitash		
1206396-002B	ASTM-D2504	SAMP	R49537	6/21/2012 10:06:00 AM	Celeste Hoitash		
1206396-012B	ASTM-D2504	SAMP	R49537	6/21/2012 10:21:00 AM	Celeste Hoitash		
1206396-013B	ASTM-D2504	SAMP	R49537	6/21/2012 10:37:00 AM	Celeste Hoitash		
1206396-014B	ASTM-D2504	SAMP	R49537	6/21/2012 10:53:00 AM	Celeste Hoitash		
1206396-015B	ASTM-D2504	SAMP	R49537	6/21/2012 11:07:00 AM	Celeste Hoitash		
1206396-016B	ASTM-D2504	SAMP	R49537	6/21/2012 11:23:00 AM	Celeste Hoitash		
1206396-017B	ASTM-D2504	SAMP	R49537	6/21/2012 11:37:00 AM	Celeste Hoitash		
1206396-018B	ASTM-D2504	SAMP	R49537	6/21/2012 11:53:00 AM	Celeste Hoitash		
1206396-019B	ASTM-D2504	SAMP	R49537	6/21/2012 12:37:00 PM	Celeste Hoitash		
1206396-020B	ASTM-D2504	SAMP	R49537	6/21/2012 12:52:00 PM	Celeste Hoitash		
1206396-020BDUP	ASTM-D2504	DUP	R49537	6/21/2012 1:07:00 PM	Celeste Hoitash		
CCV 062112 TCD-B	ASTM-D2504	CCV	R49537	6/21/2012 1:37:00 PM	Celeste Hoitash		
1206396-021B	ASTM-D2504	SAMP	R49537	6/21/2012 1:58:00 PM	Celeste Hoitash		
1206396-022B	ASTM-D2504	SAMP	R49537	6/21/2012 2:14:00 PM	Celeste Hoitash		
1206396-023B	ASTM-D2504	SAMP	R49537	6/21/2012 2:29:00 PM	Celeste Hoitash		
1206396-024B	ASTM-D2504	SAMP	R49537	6/21/2012 2:44:00 PM	Celeste Hoitash		
1206396-024BDUP	ASTM-D2504	DUP	R49537	6/21/2012 3:00:00 PM	Celeste Hoitash		
1206517-001B	ASTM-D2504	SAMP	R49537	6/21/2012 3:15:00 PM	Celeste Hoitash		
1206517-002B	ASTM-D2504	SAMP	R49537	6/21/2012 3:32:00 PM	Celeste Hoitash		
1206517-003B	ASTM-D2504	SAMP	R49537	6/21/2012 3:49:00 PM	Celeste Hoitash		
1206517-004B	ASTM-D2504	SAMP	R49537	6/21/2012 4:04:00 PM	Celeste Hoitash		
1206517-005B	ASTM-D2504	SAMP	R49537	6/21/2012 4:19:00 PM	Celeste Hoitash		
1206517-006B	ASTM-D2504	SAMP	R49537	6/21/2012 4:34:00 PM	Celeste Hoitash		
CCV-062012 TCD-B	ASTM-D2504	CCV	R49537	6/21/2012 5:57:00 PM	Celeste Hoitash		
CRQL-062012 TCD-B	ASTM-D2504	CRQL	R49537	6/21/2012 6:15:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jul-12

RunNo 49537

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968257	MBLK-062112 TCD	ASTM-D2504	MBLK	)\062112\062112(	6/21/2012 8:36:0	1	R49537		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	0	0		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
968258	CCV-062112 TCD-A	ASTM-D2504	CCV	)\062112\062112(	6/21/2012 8:59:0	1	R49537		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.626	2.626		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Carbon Monoxide	A	%	2.727	2.727		2.5	0	0	0.025	0.1	0	109%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.078	2.078		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.735	2.735		2.5	0	0	0.025	0.1	0	109%	85	115	0%	
Oxygen	A	%	2.518	2.518		2.5	0	0	0.025	0.1	0	101%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968259	LCS-062112 TCD-A	ASTM-D2504	LCS	)\062112\062112(	6/21/2012 9:16:0	1	R49537		0	968258	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.592	2.592		2.5	0	2.626	0.025	0.1	0	104%	70	130	1%	
Carbon Monoxide	A	%	2.71	2.71		2.5	0	2.727	0.025	0.1	0	108%	70	130	1%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968273	CCV 062112 TCD-B	ASTM-D2504	CCV	D\062112\062112	6/21/2012 1:37:0	1	R49537		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.518	2.518		2.5	0	0	0.025	0.1	0	101%	85	115	0%	
Carbon Monoxide	A	%	2.682	2.682		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.038	2.038		2	0	0	0.025	0.5	0	102%	85	115	0%	
Nitrogen	A	%	2.688	2.688		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.473	2.473		2.5	0	0	0.025	0.1	0	99%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968275	1206396-021B (Container-01 of 01)	ASTM-D2504	SAMP	D\062112\062112	6/21/2012 1:58:0	1	R49537		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.894	0.894		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	81.18	81.18		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	17.029	17.029		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
968278	1206396-022B (Container-01 of 01)	ASTM-D2504	SAMP	D\062112\062112	6/21/2012 2:14:0	1	R49537		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.413	0.413		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	78.886	78.886		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.981	19.981		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
968292	1206517-006B (Container-01 of 01)	ASTM-D2504	SAMP	)\062112\062112	6/21/2012 4:34:0	1	R49537		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.515	0.515		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	80.54	80.54		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	17.676	17.676		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
968293	CCV-062012 TCD-B	ASTM-D2504	CCV	)\062112\062112	6/21/2012 5:57:0	1	R49537		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.725	2.725		2.5	0	0	0.025	0.1	0	109%	85	115	0%	
Carbon Monoxide	A	%	2.776	2.776		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.095	2.095		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	%	2.741	2.741		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Oxygen	A	%	2.541	2.541		2.5	0	0	0.025	0.1	0	102%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
968294	CRQL-062012 TCD-B	ASTM-D2504	CRQL	)\062112\062112	6/21/2012 6:15:0	1	R49537		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.294	0.294		0.3	0	0	0.025	0.1	0	98%	80	120	0%	
Carbon Monoxide	A	%	0.151	0.151		0.14	0	0	0.025	0.1	0	108%	80	120	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	80	120	0%	
Methane	A	%	0.08	0.08		0.09	0	0	0.025	0.5	0	89%	80	120	0%	
Nitrogen	A	%	1.378	1.378		1.39	0	0	0.025	0.1	0	99%	80	120	0%	
Oxygen	A	%	0.075	0.075		0.08	0	0	0.025	0.1	0	94%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\062112\06211202.D Vial: 1
Acq On : 21 Jun 2012 8:59 am Operator:
Sample : CCV-062112 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Thu Jun 07 19:03:43 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	2.518	-0.7	0	0.00
2	Nitrogen	2.500	2.735	-9.4	0	0.00
3	Carbon Monoxide	2.500	2.727	-9.1	0	0.04
4	Methane	2.000	2.078	-3.9	0	0.02
5	Carbon dioxide	2.500	2.626	-5.0	0	-0.03

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062112\06211202.D Vial: 1
Acq On : 21 Jun 2012 8:59 am Operator:
Sample : CCV-062112 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 22 7:17 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 13:11:55 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	2.17	390015	2.518	%
2)	Nitrogen	2.36	480057	2.735	%
3)	Carbon Monoxide	3.06	439503	2.727	%
4)	Methane	5.69	280644	2.078	%
5)	Carbon dioxide	9.30	539387	2.626	%

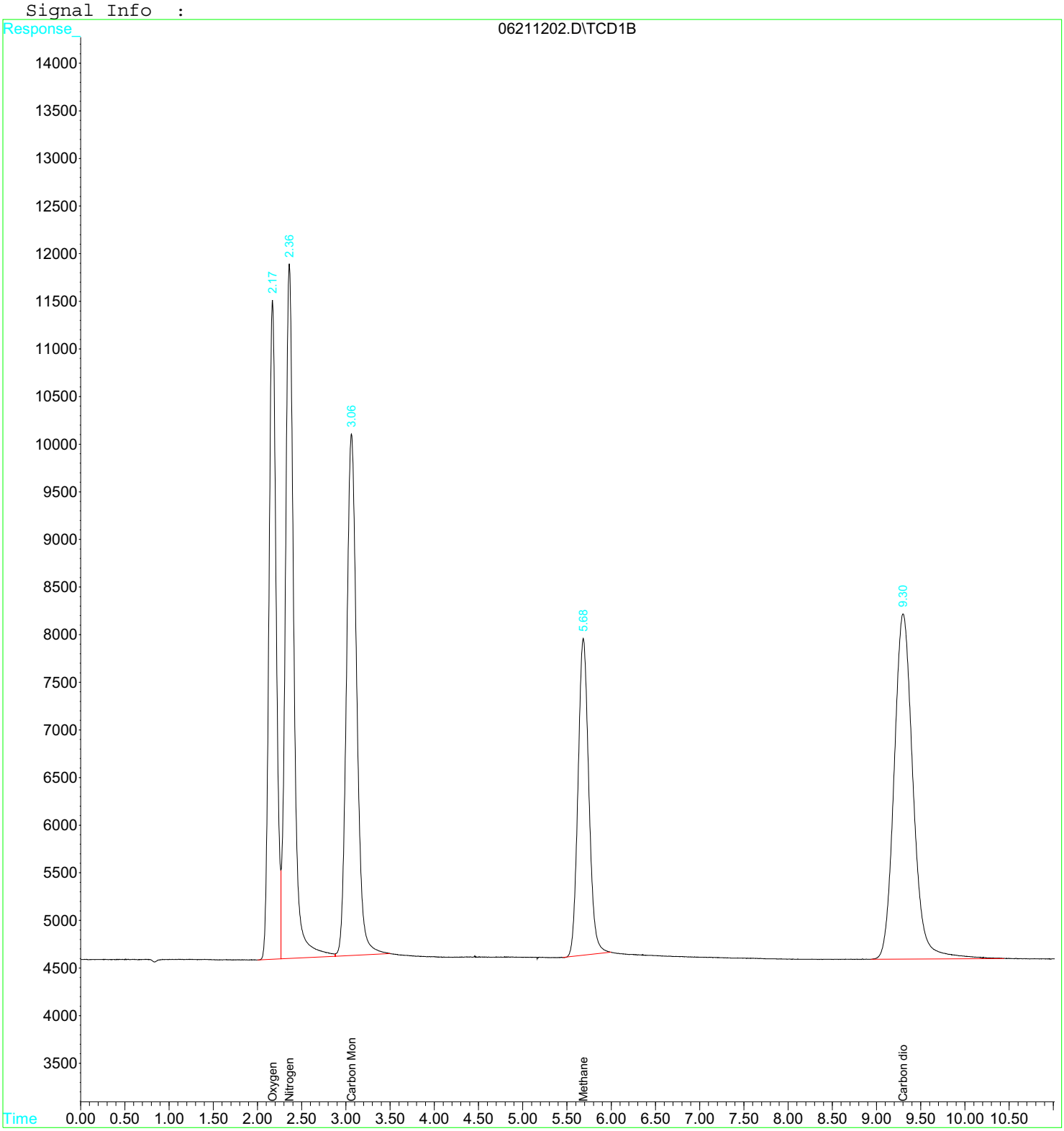
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062112\06211202.D Vial: 1
Acq On : 21 Jun 2012 8:59 am Operator:
Sample : CCV-062112 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 22 7:17 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 13:11:55 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\062112\06211216.D Vial: 1
Acq On : 21 Jun 2012 1:37 pm Operator:
Sample : CCV 062112 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Thu Jun 07 19:03:43 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	2.473	1.1	0	-0.02
2	Nitrogen	2.500	2.688	-7.5	0	0.00
3	Carbon Monoxide	2.500	2.682	-7.3	0	0.04
4	Methane	2.000	2.038	-1.9	0	0.00
5	Carbon dioxide	2.500	2.518	-0.7	0	-0.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
06211216.D 122211.M Fri Jun 22 08:31:04 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062112\06211216.D Vial: 1
Acq On : 21 Jun 2012 1:37 pm Operator:
Sample : CCV 062112 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 22 7:19 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 13:11:55 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	2.16	383059	2.473	%
2)	Nitrogen	2.35	471772	2.688	%
3)	Carbon Monoxide	3.06	432380	2.682	%
4)	Methane	5.68	275252	2.038	%
5)	Carbon dioxide	9.29	517121	2.518	%

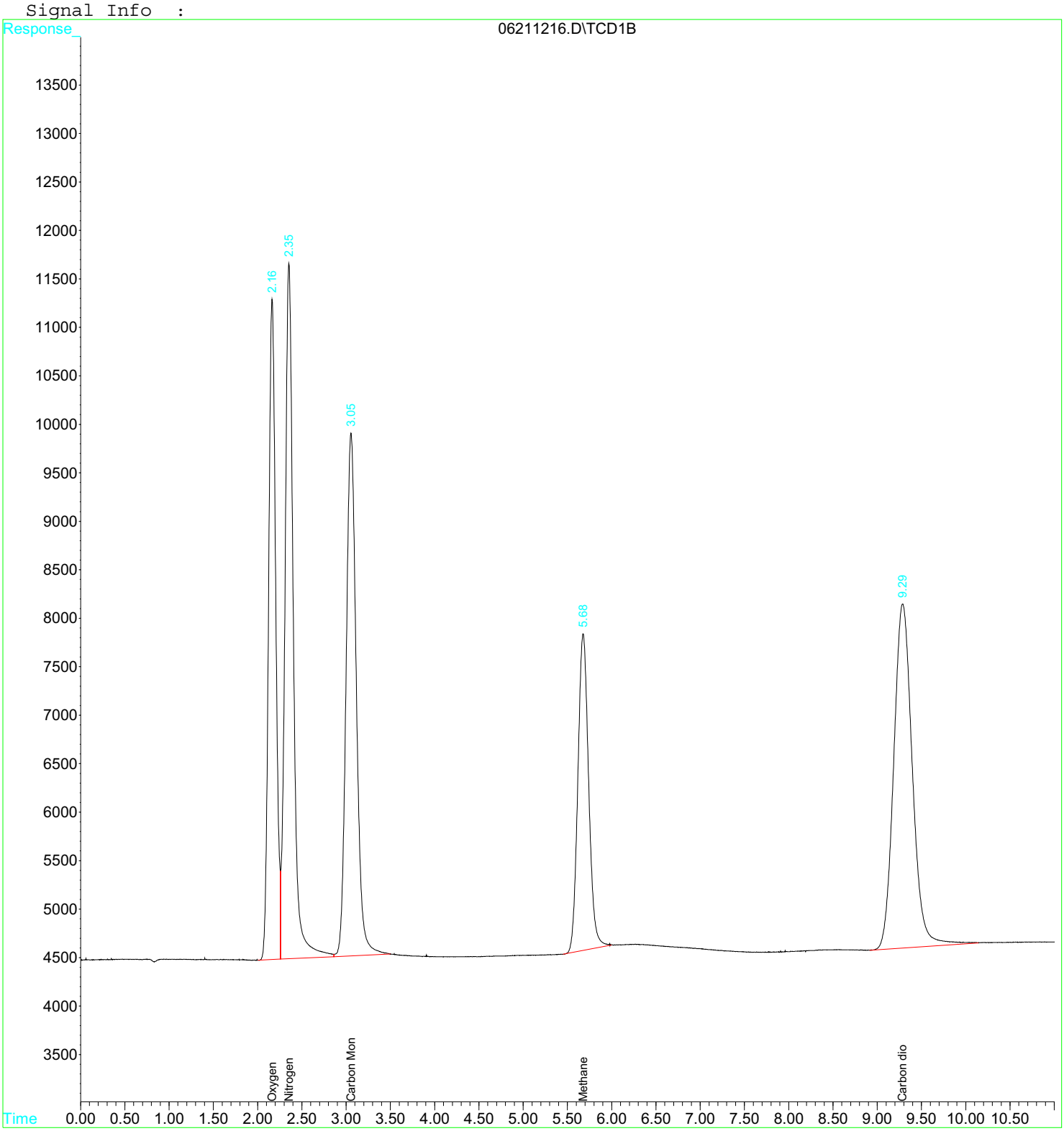
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062112\06211216.D Vial: 1
Acq On : 21 Jun 2012 1:37 pm Operator:
Sample : CCV 062112 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 22 7:19 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 13:11:55 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\TCD\062112\06211228.D Vial: 1
Acq On : 21 Jun 2012 5:57 pm Operator:
Sample : CCV-062012 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Thu Jun 07 19:03:43 2012
Response via : Multiple Level Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Oxygen	2.500	2.541	-1.6	0	0.00
2	Nitrogen	2.500	2.741	-9.6	0	0.00
3	Carbon Monoxide	2.500	2.776	-11.0	0	0.04
4	Methane	2.000	2.095	-4.8	0	0.00
5	Carbon dioxide	2.500	2.725	-9.0	0	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
06211228.D 122211.M Fri Jun 22 08:31:12 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062112\06211228.D Vial: 1
Acq On : 21 Jun 2012 5:57 pm Operator:
Sample : CCV-062012 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 21 17:15 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 13:11:55 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	2.17	393591	2.541	%
2)	Nitrogen	2.36	481060	2.741	%
3)	Carbon Monoxide	3.06	447516	2.776	%
4)	Methane	5.68	282965	2.095	%
5)	Carbon dioxide	9.28	559629	2.725	%

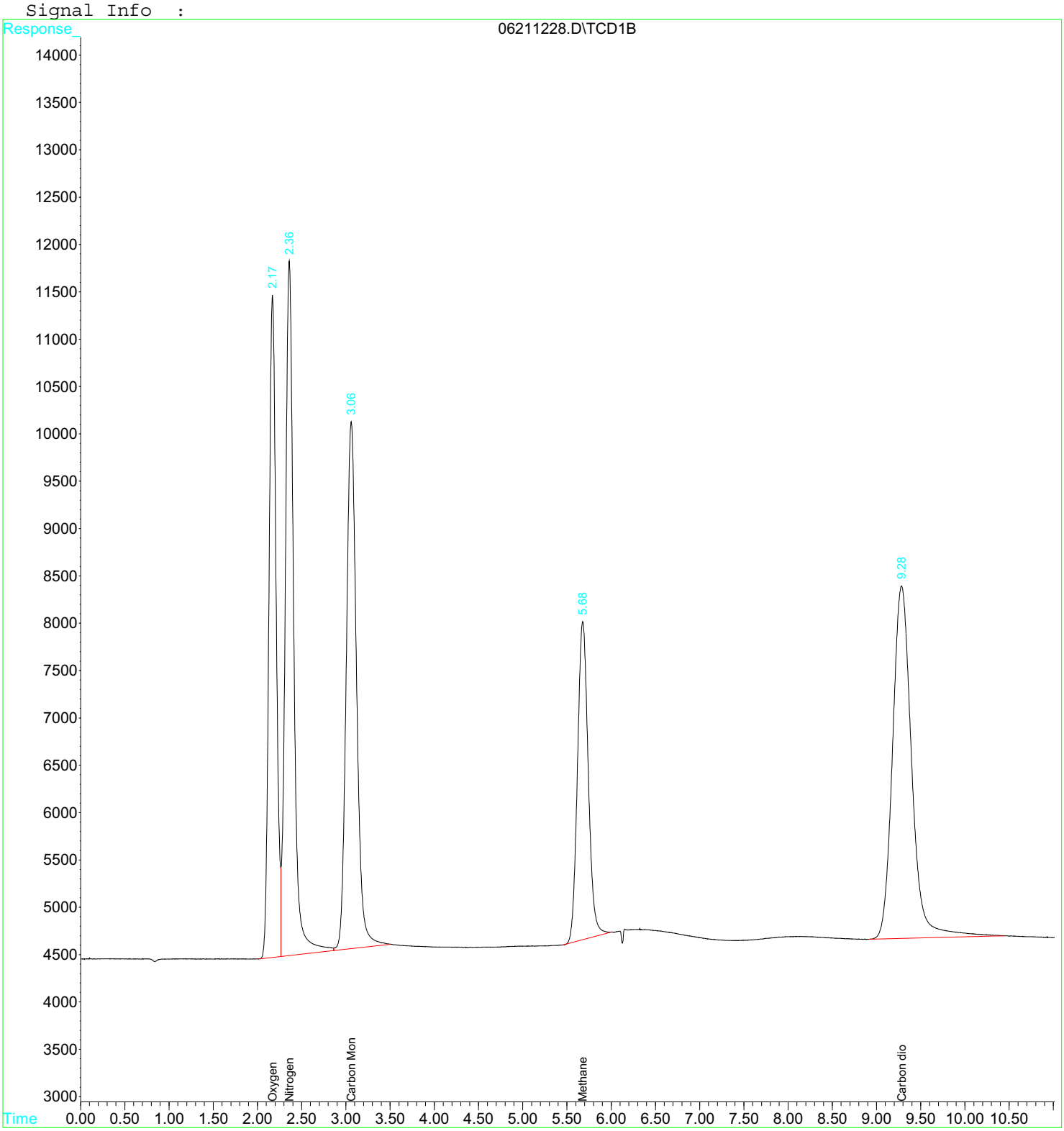
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\TCD\062112\06211228.D Vial: 1
Acq On : 21 Jun 2012 5:57 pm Operator:
Sample : CCV-062012 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 21 17:15 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Tue May 29 13:11:55 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report GC/TCD

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Wed Jan 04 17:34:10 2012

Calibration Files
1 =12221102.D 2 =12221103.D 3 =12221104.D
4 =12221105.D 5 =12221106.D 6 =12221107.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Oxygen	1.462	1.533	1.525	1.518	1.533	1.749	1.549 E5	5.91
2)	Nitrogen	1.766	1.744	1.737	1.709	1.688	1.861	1.755 E5	3.22
3)	Carbon Monoxide	1.659	1.607	1.601	1.572	1.540	1.692	1.612 E5	3.45
4)	Methane	1.383	1.347	1.342	1.317	1.290	1.424	1.351 E5	3.52
5)	Carbon dioxide	2.110	2.039	2.036	1.991	1.966	2.179	2.054 E5	3.83

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

122211.M Tue Mar 06 17:38:36 2012 TESTCAL

Compound List Report GC/TCD

Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
Total Cpnds : 5

PK#	Type	Compound Name	Exp RT	Rel RT	Cal	A/H	ID
1		Oxygen	2.09	1.000	A	A	R
2		Nitrogen	2.30	1.000	A	A	R
3		Carbon Monoxide	3.02	1.000	A	A	R
4		Methane	5.62	1.000	A	A	R
5		Carbon dioxide	9.23	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

122211.M Tue Mar 06 17:38:20 2012 TESTCAL

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\122211\12221110.D Vial: 1
Acq On : 22 Dec 2011 4:55 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\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Wed Jan 04 17:34:10 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	2.490	0.4	0	0.03
2	Nitrogen	2.500	2.750	-10.0	0	0.00
3	Carbon Monoxide	2.500	2.683	-7.3	0	-0.03
4	Methane	2.000	2.089	-4.4	0	-0.02
5	Carbon dioxide	2.500	2.594	-3.8	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\122211\12221110.D Vial: 1
Acq On : 22 Dec 2011 4:55 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\122211.M (Chemstation Integrator)
Title : D2504 air analysis
Last Update : Wed Jan 04 17:34:10 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
03051113.D 122211.M Tue Mar 06 17:37:31 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122211\12221110.D Vial: 1
Acq On : 22 Dec 2011 4:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Jan 4 12:42 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 22 18:56:51 2011
Response via : Initial Calibration
DataAcq Meth : TCD-10M.M

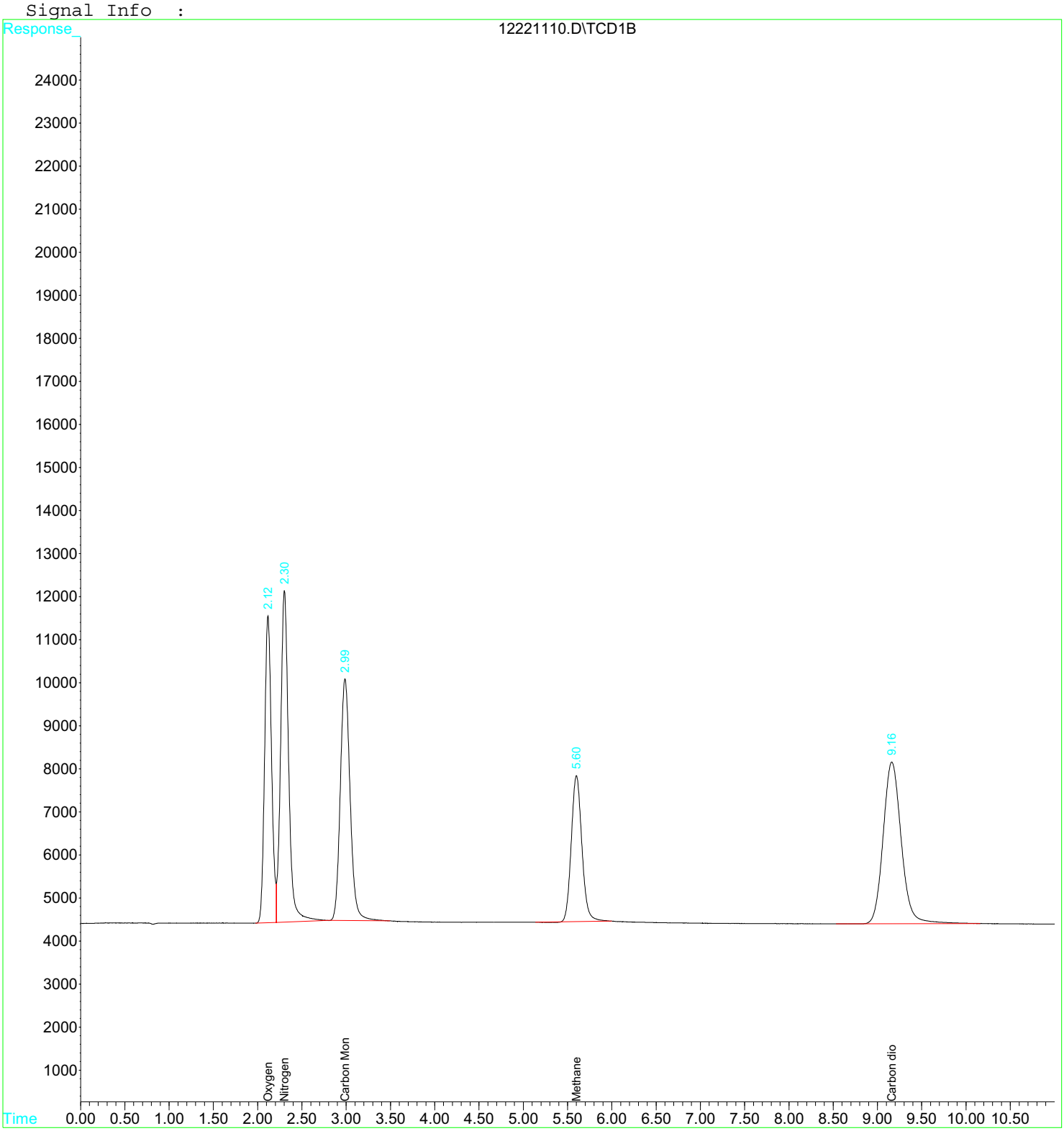
Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.12	385812	2.490	%
2)	Nitrogen	2.30	482618	2.750	%
3)	Carbon Monoxide	2.99	432538	2.683	%
4)	Methane	5.60	282093	2.089	%
5)	Carbon dioxide	9.16f	532664	2.594	%

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\122211\12221110.D Vial: 1
Acq On : 22 Dec 2011 4:55 pm Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 4 12:42 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Thu Dec 22 18:56:51 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD-10M.M

Volume Inj. :
Signal Phase :
Signal Info :