RTI Laboratories, Inc.

Date: *09-Apr.-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: 1203608

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 3/19/2012 in good condition. The sample set consisted of 30 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.

Air-Phase Petroleum Hydrocarbons Analyses:

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

Surrogate recoveries were within established control limits.

Analytical Sequence ID 47180:
- Sample ID 1203608-023Adup elevated RPD result for C9-C12 Aliphatic Hydrocarbons (200%) due to low sample concentration.

Analytical Sequence ID 47215:
- Sample ID 1203608-015Adup elevated RPD result for C9-C12 Aliphatic Hydrocarbons (200%) due to low sample concentration.

RTI Laboratories, Inc.

Date: *09-Apr.-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: 1203608

CASE NARRATIVE

Analytical Sequence ID 47276:

- Sample ID 1203608-016Adup elevated RPD result for C9-C12 Aliphatic Hydrocarbons (200%) due to low sample concentration.

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: Charles O'Bryan
Charles O'Bryan, Director, Quality Management

Date: 4/9/2012

RTI Laboratories - Definitions and Acronyms

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Definitions:

% REC: Percent Recovery; a measure of accuracy expressed as a percentage of a measured (recovered) concentration compared to the known concentration added to the sample.

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

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

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 mass of target analytes to a specified amount of de-ionized water and prepared with the batch of samples, used to calculate Accuracy (%REC).

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

MBLK: Method Blank; a sample of similar matrix that is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedure, and in which no target analytes
or interferences are present at concentrations that impact the analytical results for sample analyses.

MS: Matrix Spike; prepared by adding a known mass 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: The duplicate sample of the MS, used to calculate both Accuracy (%REC) and Precision (%RPD)

PL: Permit limit; only applicable to wastewater reports.

Qual: Qualifier that applies to the analyte reported

Result: Analyte concentration reported

RL: Reporting Limit/Limit of Quantitation; the limit to which data is compared for reporting. Analyte concentrations below the reporting limit are reported as ND or with a "J" qualifier.

Units: The units in which the analyte concentration is reported.

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Estimated concentration
M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit
PL	Permit Limit
R	RPD outside accepted recovery limits
RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits

Shaw
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV075

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

Samples Shipment Date: 13 MAR 2012
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No: UPS/2323121312

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

1203608

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): [signature] Date: 3/13/12 Time: 1420
2. Relinquished By (Signature/Affiliation): Date: Time:
3. Relinquished By (Signature/Affiliation): Date: Time:

1. Received By (Signature/Affiliation): Adolfus / RTI Labs Date: 3-14-12 Time: 10:35
2. Received 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
VA1014	SVMW-04-050-GS-VA1014-REG	13 MAR 2012	9:31	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0603
VA1014	SVMW-04-050-GS-VA1014-REG	13 MAR 2012	9:31	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1015	SVMW-04-100-GS-VA1015-REG	13 MAR 2012	10:08	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0619
VA1015	SVMW-04-100-GS-VA1015-REG	13 MAR 2012	10:08	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1016	SVMW-04-100-GS-VA1016-FD	13 MAR 2012	10:08	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		520
VA1016	SVMW-04-100-GS-VA1016-FD	13 MAR 2012	10:08	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA1017	SVMW-04-250-GS-VA1017-REG	13 MAR 2012	10:51	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		527

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV075

1203608

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					
VA1017	SVMW-04-250405-VA1017-REG	13 MAR 2012	10 51	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1018	SVMW-04-300405-VA1018-REG	13 MAR 2012	12 37	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0715
VA1018	SVMW-04-300405-VA1018-REG	13 MAR 2012	12 37	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1084	KAFB-106108-025-GS-VA1084-REG	13 MAR 2012	8 38	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0626
VA1084	KAFB-106108-025-GS-VA1084-REG	13 MAR 2012	8 38	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1085	KAFB-106108-050-GS-VA1085-REG	13 MAR 2012	9 08	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0679
VA1085	KAFB-106108-050-GS-VA1085-REG	13 MAR 2012	9 08	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1086	KAFB-106108-050-GS-VA1086-FD	13 MAR 2012	9 08	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0813
VA1086	KAFB-106108-050-GS-VA1086-FD	13 MAR 2012	9 08	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1087	KAFB-106108-150-GS-VA1087-REG	13 MAR 2012	9 50	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0633
VA1087	KAFB-106108-150-GS-VA1087-REG	13 MAR 2012	9 50	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1088	KAFB-106108-250-GS-VA1088-REG	13 MAR 2012	10 28	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0668
VA1088	KAFB-106108-250-GS-VA1088-REG	13 MAR 2012	10 28	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1089	KAFB-106108-350-GS-VA1089-REG	13 MAR 2012	11 20	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0758
VA1089	KAFB-106108-350-GS-VA1089-REG	13 MAR 2012	11 20	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1237	KAFB-106131-025-GS-VA1237-REG	12 MAR 2012	14 05	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0733
VA1237	KAFB-106131-025-GS-VA1237-REG	12 MAR 2012	14 05	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1238	KAFB-106131-050-GS-VA1238-REG	12 MAR 2012	14 34	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0660
VA1238	KAFB-106131-050-GS-VA1238-REG	12 MAR 2012	14 34	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1239	KAFB-106131-150-GS-VA1239-REG	12 MAR 2012	15 26	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		No 0645 cust
VA1239	KAFB-106131-150-GS-VA1239-REG	12 MAR 2012	15 26	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1244	KAFB-106132-025-GS-VA1244-REG	12 MAR 2012	09 21	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0639
VA1244	KAFB-106132-025-GS-VA1244-REG	12 MAR 2012	09 21	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1245	KAFB-106132-050-GS-VA1245-REG	12 MAR 2012	9 48	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		558
VA1245	KAFB-106132-050-GS-VA1245-REG	12 MAR 2012	9 48	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1246	KAFB-106132-175-GS-VA1246-REG	12 MAR 2012	10 27	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0759
VA1246	KAFB-106132-175-GS-VA1246-REG	12 MAR 2012	10 27	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		

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Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV075

Page 3 of 3

1203608

Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA1247	KAFB 106132 250 GS VA1247 REG	12 MAR 2012	10 57	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0638
VA1247	KAFB 106132 250 GS VA1247 REG	12 MAR 2012	10 57	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1246	KAFB 106132 350 GS VA1246 REG	12 MAR 2012	11 30	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		561
VA1246	KAFB 106132 350 GS VA1246 REG	12 MAR 2012	11 30	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1249	KAFB 106132 450 GS VA1249 REG	12 MAR 2012	12 09	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		1103
VA1249	KAFB 106132 450 GS VA1249 REG	12 MAR 2012	12 09	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1289	KAFB 106138 450 GS VA1289 REG	12 MAR 2012	08 51	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0551
VA1289	KAFB 106138 450 GS VA1289 REG	12 MAR 2012	08 51	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1290	KAFB 106139 025 GS VA1290 REG	12 MAR 2012	10 34	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0826
VA1290	KAFB 106139 025 GS VA1290 REG	12 MAR 2012	10 34	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1291	KAFB 106139 050 GS VA1291 REG	12 MAR 2012	11 09	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0785
VA1291	KAFB 106139 050 GS VA1291 REG	12 MAR 2012	11 09	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1292	KAFB 106139 150 GS VA1292 REG	12 MAR 2012	11 46	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0745
VA1292	KAFB 106139 150 GS VA1292 REG	12 MAR 2012	11 46	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1293	KAFB 106139 250 GS VA1293 REG	12 MAR 2012	12 21	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0585
VA1293	KAFB 106139 250 GS VA1293 REG	12 MAR 2012	12 21	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1294	KAFB 106139 350 GS VA1294 REG	12 MAR 2012	12 56	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0792
VA1294	KAFB 106139 350 GS VA1294 REG	12 MAR 2012	12 56	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1295	KAFB 106139 450 GS VA1295 REG	12 MAR 2012	13 36	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0630
VA1295	KAFB 106139 450 GS VA1295 REG	12 MAR 2012	13 36	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1296	KAFB 106140 025 GS VA1296 REG	12 MAR 2012	14 43	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0728
VA1296	KAFB 106140 025 GS VA1296 REG	12 MAR 2012	14 43	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA1297	KAFB 106140 050 GS VA1297 REG	12 MAR 2012	15 22	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		0615
VA1297	KAFB 106140 050 GS VA1297 REG	12 MAR 2012	15 22	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
VA0215 10	FIELDQC AQ VA0215 10 10	12 MAR 2012	08 00	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO-15			N		1103

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

11 LBS 1 OF 4
DWT: 21.15.13

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4121 3719

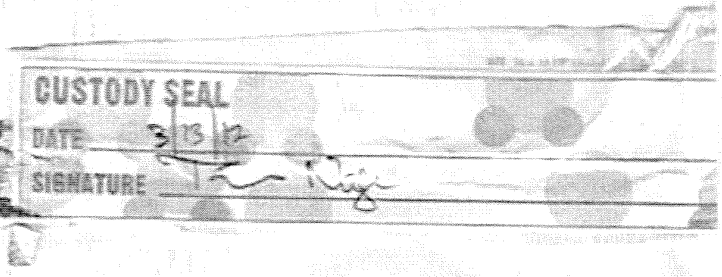
SHIP TO:
MICHAEL TRUCHAN
(734) 422-8000
RTI LABORATORIES
31628 GLENDALE ST.
LIVONIA MI 48150

REF 1:140705
REF 2:BB010030

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

MI 482 9-02
(420) 48150-0000

UPS GROUND
TRACKING #:1Z 103 35E 03 4121 3719



CUSTODY SEAL
DATE 3/13/12
SIGNATURE

Bottles
0603
0619
520
527
0719
0555

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

20 LBS 2 OF 4
DWT: 21,35,13

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4113 3921

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

REF 1: 140705
REF 2: BB010030

BILLING: P/P

RTI LABORATORIES
31628 GLENDALE ST
LIVONIA MI 48150

P: RED2 S: MPUR L: 3
DAG-4024
1Z 103 35E 03 4113 3921

CUSTODY SEAL
DATE 3/13/12
SIGNATURE

Bottles

0639	0551
538	0524
0759	0755
0655	0745
561	0792
1102	1103

FROM:
RONDA BAILEY
(505) 917-0645
KAFB BFF/SHAW E&I, INC.
6222 RANDOLPH AVE SE
KIRTLAND AFB, NM 87117

20 LBS 3 OF 4
DWT: 21.15.13

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4040 0732

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

REF 1: 140705
REF 2: BB010030

BILLING: P/P

RTI LABORATORIES
31628 GLENDALE ST

LIVONIA MI 48150

P: RED2 S: MPUR t: 3

DAG – 4024

1Z 103 35E 03 4040 0732

CUSTODY SEAL
DATE 3/13/12
SIGNATURE

Fold here and place in

Bottle

0626
0679
0513
0633
0665
0755
0735
0660
0631
0630
0728
0615

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

6 LBS 4 OF 4
DWT: 12.5 lb

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4145 0141

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

BILLING: P/P

REF 1: 140705
REF 2: BB010030

RTI LABORATORIES
31628 GLENDALE ST
LIVONIA MI 48150

Regulators

S: RED2 S: MPUR I: 3
DAG – 4024
1Z 103 35E 03 4145 0141

CUSTODY SEAL
DATE 3/13/12
SIGNATURE

RTI LABORATORIES, INC.

RTI
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 Receive 3/19/2012 10:35:00 AM

Work Order Numbe 1203608 RcptNo: 1 Received by: Armando Flores

Completed by Reviewed by:

Completed Date: 3/19/2012 6:15:33 PM Reviewed Date: 3/20/2012 6:11:43 PM

Carrier name: UPS

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 °C
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:			
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 be

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1203608-001A	Container-01 of 01	Bottle				
1203608-001B	Container-01 of 01	Bottle				
1203608-002A	Container-01 of 01	Bottle				
1203608-002B	Container-01 of 01	Bottle				
1203608-003A	Container-01 of 01	Bottle				
1203608-003B	Container-01 of 01	Bottle				
1203608-004A	Container-01 of 01	Bottle				
1203608-004B	Container-01 of 01	Bottle				
1203608-005A	Container-01 of 01	Bottle				
1203608-005B	Container-01 of 01	Bottle				
1203608-006A	Container-01 of 01	Bottle				
1203608-006B	Container-01 of 01	Bottle				
1203608-007A	Container-01 of 01	Bottle				
1203608-007B	Container-01 of 01	Bottle				
1203608-008A	Container-01 of 01	Bottle				
1203608-008B	Container-01 of 01	Bottle				
1203608-009A	Container-01 of 01	Bottle				
1203608-009B	Container-01 of 01	Bottle				
1203608-010A	Container-01 of 01	Bottle				
1203608-010B	Container-01 of 01	Bottle				
1203608-011A	Container-01 of 01	Bottle				
1203608-011B	Container-01 of 01	Bottle				
1203608-012A	Container-01 of 01	Bottle				
1203608-012B	Container-01 of 01	Bottle				
1203608-013A	Container-01 of 01	Bottle				
1203608-013B	Container-01 of 01	Bottle				
1203608-014A	Container-01 of 01	Bottle				
1203608-014B	Container-01 of 01	Bottle				
1203608-015A	Container-01 of 01	Bottle				
1203608-015B	Container-01 of 01	Bottle				
1203608-016A	Container-01 of 01	Bottle				
1203608-016B	Container-01 of 01	Bottle				
1203608-017A	Container-01 of 01	Bottle				
1203608-017B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1203608-018A	Container-01 of 01	Bottle				
1203608-018B	Container-01 of 01	Bottle				
1203608-019A	Container-01 of 01	Bottle				
1203608-019B	Container-01 of 01	Bottle				
1203608-020A	Container-01 of 01	Bottle				
1203608-020B	Container-01 of 01	Bottle				
1203608-021A	Container-01 of 01	Bottle				
1203608-021B	Container-01 of 01	Bottle				
1203608-022A	Container-01 of 01	Bottle				
1203608-022B	Container-01 of 01	Bottle				
1203608-023A	Container-01 of 01	Bottle				
1203608-023B	Container-01 of 01	Bottle				
1203608-024A	Container-01 of 01	Bottle				
1203608-024B	Container-01 of 01	Bottle				
1203608-025A	Container-01 of 01	Bottle				
1203608-025B	Container-01 of 01	Bottle				
1203608-026A	Container-01 of 01	Bottle				
1203608-026B	Container-01 of 01	Bottle				
1203608-027A	Container-01 of 01	Bottle				
1203608-027B	Container-01 of 01	Bottle				
1203608-028A	Container-01 of 01	Bottle				
1203608-028B	Container-01 of 01	Bottle				
1203608-029A	Container-01 of 01	Bottle				
1203608-029B	Container-01 of 01	Bottle				
1203608-030A	Container-01 of 01	Bottle				

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
Cardboard b	n/a	Good	Yes		3/13/2012	See COC's

Adjusted? _____ Checked by _____

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

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH

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

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

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:

Comments:

UPS Nos.:
1Z10335E0341213719,
1Z10335E0341133921,
1Z10335E0340400732,
1Z10335E0341450141

RTI Laboratories - Workorder Sample Summary

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1203608-001	VA1014		3/13/2012 9:31 AM	3/19/2012 10:35 AM	Air
1203608-001	VA1014		3/13/2012 9:31 AM	3/19/2012 10:35 AM	Air
1203608-002	VA1015		3/13/2012 10:08 AM	3/19/2012 10:35 AM	Air
1203608-002	VA1015		3/13/2012 10:08 AM	3/19/2012 10:35 AM	Air
1203608-003	VA1016		3/13/2012 10:08 AM	3/19/2012 10:35 AM	Air
1203608-003	VA1016		3/13/2012 10:08 AM	3/19/2012 10:35 AM	Air
1203608-004	VA1017		3/13/2012 10:51 AM	3/19/2012 10:35 AM	Air
1203608-004	VA1017		3/13/2012 10:51 AM	3/19/2012 10:35 AM	Air
1203608-005	VA1018		3/13/2012 12:37 PM	3/19/2012 10:35 AM	Air
1203608-005	VA1018		3/13/2012 12:37 PM	3/19/2012 10:35 AM	Air
1203608-006	VA1084		3/13/2012 8:38 AM	3/19/2012 10:35 AM	Air
1203608-006	VA1084		3/13/2012 8:38 AM	3/19/2012 10:35 AM	Air
1203608-007	VA1085		3/13/2012 9:08 AM	3/19/2012 10:35 AM	Air
1203608-007	VA1085		3/13/2012 9:08 AM	3/19/2012 10:35 AM	Air
1203608-008	VA1086		3/13/2012 9:08 AM	3/19/2012 10:35 AM	Air
1203608-008	VA1086		3/13/2012 9:08 AM	3/19/2012 10:35 AM	Air
1203608-009	VA1087		3/13/2012 9:50 AM	3/19/2012 10:35 AM	Air
1203608-009	VA1087		3/13/2012 9:50 AM	3/19/2012 10:35 AM	Air
1203608-010	VA1088		3/13/2012 10:28 AM	3/19/2012 10:35 AM	Air
1203608-010	VA1088		3/13/2012 10:28 AM	3/19/2012 10:35 AM	Air
1203608-011	VA1089		3/13/2012 11:20 AM	3/19/2012 10:35 AM	Air
1203608-011	VA1089		3/13/2012 11:20 AM	3/19/2012 10:35 AM	Air
1203608-012	VA1237		3/12/2012 2:05 PM	3/19/2012 10:35 AM	Air
1203608-012	VA1237		3/12/2012 2:05 PM	3/19/2012 10:35 AM	Air
1203608-013	VA1238		3/12/2012 2:34 PM	3/19/2012 10:35 AM	Air
1203608-013	VA1238		3/12/2012 2:34 PM	3/19/2012 10:35 AM	Air
1203608-014	VA1239		3/12/2012 3:26 PM	3/19/2012 10:35 AM	Air
1203608-014	VA1239		3/12/2012 3:26 PM	3/19/2012 10:35 AM	Air
1203608-015	VA1244		3/12/2012 9:21 AM	3/19/2012 10:35 AM	Air
1203608-015	VA1244		3/12/2012 9:21 AM	3/19/2012 10:35 AM	Air
1203608-016	VA1245		3/12/2012 9:48 AM	3/19/2012 10:35 AM	Air
1203608-016	VA1245		3/12/2012 9:48 AM	3/19/2012 10:35 AM	Air
1203608-017	VA1246		3/12/2012 10:27 AM	3/19/2012 10:35 AM	Air
1203608-017	VA1246		3/12/2012 10:27 AM	3/19/2012 10:35 AM	Air
1203608-018	VA1247		3/12/2012 10:57 AM	3/19/2012 10:35 AM	Air
1203608-018	VA1247		3/12/2012 10:57 AM	3/19/2012 10:35 AM	Air
1203608-019	VA1248		3/12/2012 11:30 AM	3/19/2012 10:35 AM	Air
1203608-019	VA1248		3/12/2012 11:30 AM	3/19/2012 10:35 AM	Air
1203608-020	VA1249		3/12/2012 12:09 PM	3/19/2012 10:35 AM	Air
1203608-020	VA1249		3/12/2012 12:09 PM	3/19/2012 10:35 AM	Air
1203608-021	VA1289		3/12/2012 8:51 AM	3/19/2012 10:35 AM	Air
1203608-021	VA1289		3/12/2012 8:51 AM	3/19/2012 10:35 AM	Air
1203608-022	VA1290		3/12/2012 10:34 AM	3/19/2012 10:35 AM	Air
1203608-022	VA1290		3/12/2012 10:34 AM	3/19/2012 10:35 AM	Air
1203608-023	VA1291		3/12/2012 11:09 AM	3/19/2012 10:35 AM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1203608-023	VA1291		3/12/2012 11:09 AM	3/19/2012 10:35 AM	Air
1203608-024	VA1292		3/12/2012 11:46 AM	3/19/2012 10:35 AM	Air
1203608-024	VA1292		3/12/2012 11:46 AM	3/19/2012 10:35 AM	Air
1203608-025	VA1293		3/12/2012 12:21 PM	3/19/2012 10:35 AM	Air
1203608-025	VA1293		3/12/2012 12:21 PM	3/19/2012 10:35 AM	Air
1203608-026	VA1294		3/12/2012 12:56 PM	3/19/2012 10:35 AM	Air
1203608-026	VA1294		3/12/2012 12:56 PM	3/19/2012 10:35 AM	Air
1203608-027	VA1295		3/12/2012 1:36 PM	3/19/2012 10:35 AM	Air
1203608-027	VA1295		3/12/2012 1:36 PM	3/19/2012 10:35 AM	Air
1203608-028	VA1296		3/12/2012 2:43 PM	3/19/2012 10:35 AM	Air
1203608-028	VA1296		3/12/2012 2:43 PM	3/19/2012 10:35 AM	Air
1203608-029	VA1297		3/12/2012 3:22 PM	3/19/2012 10:35 AM	Air
1203608-029	VA1297		3/12/2012 3:22 PM	3/19/2012 10:35 AM	Air
1203608-030	VA8075-TB		3/12/2012 8:00 AM	3/19/2012 10:35 AM	Air

RTI Laboratories - DATES REPORT

WO#: 1203608

Date Reported: 4/6/2012
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
1203608-001A	VA1014	3/13/2012 9:31 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/3/2012 8:16 PM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 11:18 PM
1203608-001B	VA1014	3/13/2012 9:31 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/23/2012 2:05 PM
1203608-002A	VA1015	3/13/2012 10:08 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/5/2012 2:11 PM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 12:01 AM
1203608-002B	VA1015	3/13/2012 10:08 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/23/2012 2:20 PM
1203608-003A	VA1016	3/13/2012 10:08 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/3/2012 8:59 PM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 1:33 PM
1203608-003B	VA1016	3/13/2012 10:08 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/23/2012 2:35 PM
1203608-004A	VA1017	3/13/2012 10:51 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/3/2012 10:23 PM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 12:44 AM
1203608-004B	VA1017	3/13/2012 10:51 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/23/2012 2:51 PM
1203608-005A	VA1018	3/13/2012 12:37 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 1:46 PM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 1:45 PM
1203608-005B	VA1018	3/13/2012 12:37 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/23/2012 3:06 PM
1203608-006A	VA1084	3/13/2012 8:38 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 12:16 PM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 6:17 PM

RTI Laboratories - DATES REPORT

WO#: 1203608

Date Reported: 4/6/2012
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
1203608-006B	VA1084	3/13/2012 8:38 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/23/2012 3:21 PM
1203608-007A	VA1085	3/13/2012 9:08 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 10:30 AM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 7:43 PM
1203608-007B	VA1085	3/13/2012 9:08 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/23/2012 3:36 PM
1203608-008A	VA1086	3/13/2012 9:08 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 11:34 AM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 8:26 PM
1203608-008B	VA1086	3/13/2012 9:08 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 10:57 AM
1203608-009A	VA1087	3/13/2012 9:50 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/3/2012 11:54 PM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 2:19 PM
1203608-009B	VA1087	3/13/2012 9:50 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/26/2012 1:22 PM
1203608-010A	VA1088	3/13/2012 10:28 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 1:02 PM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 3:29 PM
				EPA_TO15-Volatile Organic Compounds			4/4/2012 6:47 PM
1203608-010B	VA1088	3/13/2012 10:28 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/26/2012 1:46 PM
1203608-011A	VA1089	3/13/2012 11:20 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 2:30 PM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 12:58 PM
1203608-011B	VA1089	3/13/2012 11:20 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/26/2012 2:43 PM

RTI Laboratories - DATES REPORT

WO#: 1203608

Date Reported: 4/6/2012
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
1203608-012A	VA1237	3/12/2012 2:05 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 2:09 AM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 9:41 PM
1203608-012B	VA1237	3/12/2012 2:05 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/26/2012 3:24 PM
1203608-013A	VA1238	3/12/2012 2:34 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 2:57 AM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 10:31 PM
1203608-013B	VA1238	3/12/2012 2:34 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/26/2012 3:50 PM
1203608-014A	VA1239	3/12/2012 3:26 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 3:19 PM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 4:50 PM
				EPA_TO15-Volatile Organic Compounds			4/4/2012 4:26 PM
1203608-014B	VA1239	3/12/2012 3:26 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/26/2012 4:08 PM
1203608-015A	VA1244	3/12/2012 9:21 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			3/28/2012 3:59 PM
				EPA_TO15-Volatile Organic Compounds			3/28/2012 8:02 PM
1203608-015B	VA1244	3/12/2012 9:21 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/26/2012 4:29 PM
1203608-016A	VA1245	3/12/2012 9:48 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			3/29/2012 11:56 AM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 4:56 PM
1203608-016B	VA1245	3/12/2012 9:48 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/26/2012 4:47 PM
1203608-017A	VA1246	3/12/2012 10:27 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			3/29/2012 1:23 PM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 5:39 PM

RTI Laboratories - DATES REPORT

WO#: 1203608

Date Reported: 4/6/2012
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
1203608-017B	VA1246	3/12/2012 10:27 AM	Air	ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/26/2012 5:05 PM
1203608-018A	VA1247	3/12/2012 10:57 AM	Air	MA_APH-Air-Phase Petroleum Hydrocarbons			3/29/2012 2:05 PM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 7:12 PM
1203608-018B	VA1247	3/12/2012 10:57 AM	Air	ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/26/2012 5:23 PM
1203608-019A	VA1248	3/12/2012 11:30 AM	Air	MA_APH-Air-Phase Petroleum Hydrocarbons			3/29/2012 1:28 AM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 8:02 PM
1203608-019B	VA1248	3/12/2012 11:30 AM	Air	ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 11:13 AM
1203608-020A	VA1249	3/12/2012 12:09 PM	Air	MA_APH-Air-Phase Petroleum Hydrocarbons			3/27/2012 5:13 PM
				EPA_TO15-Volatile Organic Compounds			3/28/2012 10:09 PM
1203608-020B	VA1249	3/12/2012 12:09 PM	Air	ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 11:29 AM
1203608-021A	VA1289	3/12/2012 8:51 AM	Air	MA_APH-Air-Phase Petroleum Hydrocarbons			3/28/2012 3:10 PM
				EPA_TO15-Volatile Organic Compounds			3/28/2012 7:15 PM
1203608-021B	VA1289	3/12/2012 8:51 AM	Air	ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 11:47 AM
1203608-022A	VA1290	3/12/2012 10:34 AM	Air	MA_APH-Air-Phase Petroleum Hydrocarbons			4/5/2012 12:40 PM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 6:29 PM
1203608-022B	VA1290	3/12/2012 10:34 AM	Air	ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 12:08 PM

RTI Laboratories - DATES REPORT

WO#: 1203608

Date Reported: 4/6/2012
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
1203608-023A	VA1291	3/12/2012 11:09 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			3/27/2012 1:20 PM
				EPA_TO15-Volatile Organic Compounds			3/28/2012 8:44 PM
1203608-023B	VA1291	3/12/2012 11:09 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 12:26 PM
1203608-024A	VA1292	3/12/2012 11:46 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			3/27/2012 4:30 PM
				EPA_TO15-Volatile Organic Compounds			3/28/2012 9:24 PM
1203608-024B	VA1292	3/12/2012 11:46 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 12:41 PM
1203608-025A	VA1293	3/12/2012 12:21 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 3:46 AM
				EPA_TO15-Volatile Organic Compounds			3/29/2012 8:52 PM
1203608-025B	VA1293	3/12/2012 12:21 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 1:05 PM
1203608-026A	VA1294	3/12/2012 12:56 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/5/2012 9:41 AM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 2:54 AM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 12:13 PM
1203608-026B	VA1294	3/12/2012 12:56 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 1:20 PM
1203608-027A	VA1295	3/12/2012 1:36 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/5/2012 11:08 AM
				EPA_TO15-Volatile Organic Compounds			4/4/2012 3:29 PM
1203608-027B	VA1295	3/12/2012 1:36 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 1:37 PM
1203608-028A	VA1296	3/12/2012 2:43 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 5:11 AM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 2:28 PM

RTI Laboratories - DATES REPORT

WO#: 1203608

Date Reported: 4/6/2012
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
1203608-028B	VA1296	3/12/2012 2:43 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 2:22 PM
1203608-029A	VA1297	3/12/2012 3:22 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			4/4/2012 5:53 AM
				EPA_TO15-Volatile Organic Compounds			3/30/2012 4:07 PM
1203608-029B	VA1297	3/12/2012 3:22 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			3/27/2012 2:37 PM
1203608-030A	VA8075-TB	3/12/2012 8:00 AM	Air				
				EPA_TO15-Volatile Organic Compounds			3/28/2012 6:34 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 9:31:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-001	**Matrix:**	Air
Client Sample ID:	VA1014		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	3.7	0.10		%	1	3/23/2012 2:05 PM
Carbon Monoxide	ND	0.10	U	%	1	3/23/2012 2:05 PM
Methane	ND	0.50	U	%	1	3/23/2012 2:05 PM
Nitrogen	80	0.10		%	1	3/23/2012 2:05 PM
Oxygen	15	0.10		%	1	3/23/2012 2:05 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,3-Butadiene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
2-Butanone	ND	800	U	ppbv	800	3/29/2012 11:18 PM
2-Hexanone	ND	800	U	ppbv	800	3/29/2012 11:18 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Acetone	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Benzene	13,000	800		ppbv	800	3/29/2012 11:18 PM
Benzyl chloride	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Bromodichloromethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Bromoform	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Bromomethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Carbon disulfide	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Carbon tetrachloride	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Chlorobenzene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Chlorodibromomethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Chloroethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Chloroform	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Chloromethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	3/29/2012 11:18 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 9:31:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-001	**Matrix:**	Air
Client Sample ID:	VA1014		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	9,100	1,600		ppbv	800	3/29/2012 11:18 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Ethyl acetate	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Ethylbenzene	ND	1,600	U	ppbv	800	3/29/2012 11:18 PM
Heptane	2,600	800		ppbv	800	3/29/2012 11:18 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	3/29/2012 11:18 PM
m,p-Xylene	ND	1,600	U	ppbv	800	3/29/2012 11:18 PM
Methylene chloride	ND	4,000	U	ppbv	800	3/29/2012 11:18 PM
n-Hexane	4,700	1,600		ppbv	800	3/29/2012 11:18 PM
Naphthalene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
o-Xylene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Propylene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Styrene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Tetrachloroethene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Tetrahydrofuran	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Toluene	980	800		ppbv	800	3/29/2012 11:18 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Trichloroethene	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Vinyl acetate	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Vinyl chloride	ND	800	U	ppbv	800	3/29/2012 11:18 PM
Xylenes, Total	ND	2,400	U	ppbv	800	3/29/2012 11:18 PM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	800	3/29/2012 11:18 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,400,000	190,000		µg/m³	1600	4/3/2012 8:16 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	4/3/2012 8:16 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	4/3/2012 8:16 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	1600	4/3/2012 8:16 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 10:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-002	**Matrix:**	Air
Client Sample ID:	VA1015		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	3.7	0.10		%	1	3/23/2012 2:20 PM
Carbon Monoxide	ND	0.10	U	%	1	3/23/2012 2:20 PM
Methane	ND	0.50	U	%	1	3/23/2012 2:20 PM
Nitrogen	79	0.10		%	1	3/23/2012 2:20 PM
Oxygen	15	0.10		%	1	3/23/2012 2:20 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,3-Butadiene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
2-Butanone	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
2-Hexanone	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Acetone	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Benzene	190,000	20,000		ppbv	20000	3/30/2012 12:01 AM
Benzyl chloride	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Bromodichloromethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Bromoform	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Bromomethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Carbon disulfide	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Chlorobenzene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Chloroethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Chloroform	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Chloromethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 10:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-002	**Matrix:**	Air
Client Sample ID:	VA1015		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	750,000	40,000		ppbv	20000	3/30/2012 12:01 AM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Ethyl acetate	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Ethylbenzene	ND	40,000	U	ppbv	20000	3/30/2012 12:01 AM
Heptane	340,000	20,000		ppbv	20000	3/30/2012 12:01 AM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	3/30/2012 12:01 AM
m,p-Xylene	21,000	40,000	J	ppbv	20000	3/30/2012 12:01 AM
Methylene chloride	ND	100,000	U	ppbv	20000	3/30/2012 12:01 AM
n-Hexane	710,000	40,000		ppbv	20000	3/30/2012 12:01 AM
Naphthalene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
o-Xylene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Propylene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Styrene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Tetrachloroethene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Toluene	200,000	20,000		ppbv	20000	3/30/2012 12:01 AM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Trichloroethene	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Vinyl acetate	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Vinyl chloride	ND	20,000	U	ppbv	20000	3/30/2012 12:01 AM
Xylenes, Total	21,000	60,000	J	ppbv	20000	3/30/2012 12:01 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	20000	3/30/2012 12:01 AM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	35,000,000	4,700,000		µg/m³	40000	4/5/2012 2:11 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000	U	µg/m³	40000	4/5/2012 2:11 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600,000	U	µg/m³	40000	4/5/2012 2:11 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	40000	4/5/2012 2:11 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 10:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-003	**Matrix:**	Air
Client Sample ID:	VA1016		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	4.1	0.10		%	1	3/23/2012 2:35 PM
Carbon Monoxide	ND	0.10	U	%	1	3/23/2012 2:35 PM
Methane	ND	0.50	U	%	1	3/23/2012 2:35 PM
Nitrogen	80	0.10		%	1	3/23/2012 2:35 PM
Oxygen	14	0.10		%	1	3/23/2012 2:35 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,1,2,2-Tetrachloroethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,1,2-Trichloroethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,1-Dichloroethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,1-Dichloroethene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,2,4-Trichlorobenzene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,2,4-Trimethylbenzene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,2-Dibromoethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,2-Dichlorobenzene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,2-Dichloroethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,2-Dichloropropane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,3,5-Trimethylbenzene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,3-Butadiene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,3-Dichlorobenzene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
1,4-Dichlorobenzene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
2-Butanone	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
2-Hexanone	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
4-Methyl-2-pentanone	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Acetone	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Benzene	310,000	20,000		ppbv	20000	3/29/2012 1:33 PM
Benzyl chloride	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Bromodichloromethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Bromoform	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Bromomethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Carbon disulfide	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Carbon tetrachloride	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Chlorobenzene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Chlorodibromomethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Chloroethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Chloroform	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Chloromethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
cis-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
cis-1,3-dichloropropene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 10:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-003	**Matrix:**	Air
Client Sample ID:	VA1016		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	900,000	40,000		ppbv	20000	3/29/2012 1:33 PM
Dichlorodifluoromethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Ethyl acetate	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Ethylbenzene	ND	40,000	U	ppbv	20000	3/29/2012 1:33 PM
Heptane	430,000	20,000		ppbv	20000	3/29/2012 1:33 PM
Hexachlorobutadiene	ND	40,000	U	ppbv	20000	3/29/2012 1:33 PM
m,p-Xylene	23,000	40,000	J	ppbv	20000	3/29/2012 1:33 PM
Methylene chloride	ND	100,000	U	ppbv	20000	3/29/2012 1:33 PM
n-Hexane	880,000	40,000		ppbv	20000	3/29/2012 1:33 PM
Naphthalene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
o-Xylene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Propylene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Styrene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
tert-Butyl Methyl Ether	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Tetrachloroethene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Tetrahydrofuran	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Toluene	320,000	20,000		ppbv	20000	3/29/2012 1:33 PM
trans-1,2-Dichloroethene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
trans-1,3-dichloropropene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Trichloroethene	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Trichlorofluoromethane	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Vinyl acetate	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Vinyl chloride	ND	20,000	U	ppbv	20000	3/29/2012 1:33 PM
Xylenes, Total	23,000	60,000	J	ppbv	20000	3/29/2012 1:33 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	20000	3/29/2012 1:33 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	30,000,000	2,300,000		µg/m³	20000	4/3/2012 8:59 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	U	µg/m³	20000	4/3/2012 8:59 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	U	µg/m³	20000	4/3/2012 8:59 PM
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	20000	4/3/2012 8:59 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 10:51:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-004	**Matrix:**	Air
Client Sample ID:	VA1017		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.36	0.10		%	1	3/23/2012 2:51 PM
Carbon Monoxide	ND	0.10	U	%	1	3/23/2012 2:51 PM
Methane	ND	0.50	U	%	1	3/23/2012 2:51 PM
Nitrogen	78	0.10		%	1	3/23/2012 2:51 PM
Oxygen	20	0.10		%	1	3/23/2012 2:51 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,3-Butadiene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
2-Butanone	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
2-Hexanone	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Acetone	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Benzene	22,000	8,000		ppbv	8000	3/30/2012 12:44 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Bromoform	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Bromomethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Chloroethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Chloroform	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Chloromethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 10:51:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-004	**Matrix:**	Air
Client Sample ID:	VA1017		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	170,000	16,000		ppbv	8000	3/30/2012 12:44 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Ethylbenzene	ND	16,000	U	ppbv	8000	3/30/2012 12:44 AM
Heptane	140,000	8,000		ppbv	8000	3/30/2012 12:44 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	3/30/2012 12:44 AM
m,p-Xylene	ND	16,000	U	ppbv	8000	3/30/2012 12:44 AM
Methylene chloride	ND	40,000	U	ppbv	8000	3/30/2012 12:44 AM
n-Hexane	160,000	16,000		ppbv	8000	3/30/2012 12:44 AM
Naphthalene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
o-Xylene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Propylene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Styrene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Toluene	22,000	8,000		ppbv	8000	3/30/2012 12:44 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Trichloroethene	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	3/30/2012 12:44 AM
Xylenes, Total	ND	24,000	U	ppbv	8000	3/30/2012 12:44 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	8000	3/30/2012 12:44 AM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,100,000	940,000		µg/m³	8000	4/3/2012 10:23 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	4/3/2012 10:23 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	4/3/2012 10:23 PM
Surr: 4-Bromofluorobenzene	94.7	70-130		%REC	8000	4/3/2012 10:23 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 12:37:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-005	**Matrix:**	Air
Client Sample ID:	VA1018		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.28	0.10		%	1	3/23/2012 3:06 PM
Carbon Monoxide	ND	0.10	U	%	1	3/23/2012 3:06 PM
Methane	ND	0.50	U	%	1	3/23/2012 3:06 PM
Nitrogen	78	0.10		%	1	3/23/2012 3:06 PM
Oxygen	20	0.10		%	1	3/23/2012 3:06 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,3-Butadiene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
2-Butanone	ND	800	U	ppbv	800	3/30/2012 1:45 PM
2-Hexanone	ND	800	U	ppbv	800	3/30/2012 1:45 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Acetone	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Benzene	16,000	800		ppbv	800	3/30/2012 1:45 PM
Benzyl chloride	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Bromodichloromethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Bromoform	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Bromomethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Carbon disulfide	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Carbon tetrachloride	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Chlorobenzene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Chlorodibromomethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Chloroethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Chloroform	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Chloromethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	3/30/2012 1:45 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 12:37:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-005	**Matrix:**	Air
Client Sample ID:	VA1018		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	29,000	1,600		ppbv	800	3/30/2012 1:45 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Ethyl acetate	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Ethylbenzene	1,700	1,600		ppbv	800	3/30/2012 1:45 PM
Heptane	20,000	800		ppbv	800	3/30/2012 1:45 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	3/30/2012 1:45 PM
m,p-Xylene	5,800	1,600		ppbv	800	3/30/2012 1:45 PM
Methylene chloride	ND	4,000	U	ppbv	800	3/30/2012 1:45 PM
n-Hexane	22,000	1,600		ppbv	800	3/30/2012 1:45 PM
Naphthalene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
o-Xylene	1,800	800		ppbv	800	3/30/2012 1:45 PM
Propylene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Styrene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Tetrachloroethene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Tetrahydrofuran	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Toluene	27,000	800		ppbv	800	3/30/2012 1:45 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Trichloroethene	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Vinyl acetate	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Vinyl chloride	ND	800	U	ppbv	800	3/30/2012 1:45 PM
Xylenes, Total	7,600	2,400		ppbv	800	3/30/2012 1:45 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	800	3/30/2012 1:45 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,000,000	190,000		µg/m³	1600	4/4/2012 1:46 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	4/4/2012 1:46 PM
C9-C12 Aliphatic Hydrocarbons	66,000	300,000	J	µg/m³	1600	4/4/2012 1:46 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1600	4/4/2012 1:46 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 8:38:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-006	**Matrix:**	Air
Client Sample ID:	VA1084		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.41	0.10		%	1	3/23/2012 3:21 PM
Carbon Monoxide	ND	0.10	U	%	1	3/23/2012 3:21 PM
Methane	ND	0.50	U	%	1	3/23/2012 3:21 PM
Nitrogen	78	0.10		%	1	3/23/2012 3:21 PM
Oxygen	20	0.10		%	1	3/23/2012 3:21 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
2-Butanone	ND	40	U	ppbv	40	3/30/2012 6:17 PM
2-Hexanone	ND	40	U	ppbv	40	3/30/2012 6:17 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Acetone	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Benzene	460	40		ppbv	40	3/30/2012 6:17 PM
Benzyl chloride	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Bromoform	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Bromomethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Carbon disulfide	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Chlorobenzene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Chloroethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Chloroform	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Chloromethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 6:17 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 8:38:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-006	**Matrix:**	Air
Client Sample ID:	VA1084		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	590	80		ppbv	40	3/30/2012 6:17 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Ethyl acetate	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Ethylbenzene	52	80	J	ppbv	40	3/30/2012 6:17 PM
Heptane	720	40		ppbv	40	3/30/2012 6:17 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/30/2012 6:17 PM
m,p-Xylene	180	80		ppbv	40	3/30/2012 6:17 PM
Methylene chloride	ND	200	U	ppbv	40	3/30/2012 6:17 PM
n-Hexane	370	80		ppbv	40	3/30/2012 6:17 PM
Naphthalene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
o-Xylene	48	40		ppbv	40	3/30/2012 6:17 PM
Propylene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Styrene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Toluene	1,100	40		ppbv	40	3/30/2012 6:17 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Trichloroethene	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Vinyl acetate	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Vinyl chloride	ND	40	U	ppbv	40	3/30/2012 6:17 PM
Xylenes, Total	230	120		ppbv	40	3/30/2012 6:17 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	40	3/30/2012 6:17 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	35,000	4,700		µg/m³	40	4/4/2012 12:16 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	4/4/2012 12:16 PM
C9-C12 Aliphatic Hydrocarbons	2,900	7,600	J	µg/m³	40	4/4/2012 12:16 PM
Surr: 4-Bromofluorobenzene	99.3	70-130		%REC	40	4/4/2012 12:16 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 9:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-007	**Matrix:**	Air
Client Sample ID:	VA1085		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	2.7	0.10		%	1	3/23/2012 3:36 PM
Carbon Monoxide	ND	0.10	U	%	1	3/23/2012 3:36 PM
Methane	ND	0.50	U	%	1	3/23/2012 3:36 PM
Nitrogen	78	0.10		%	1	3/23/2012 3:36 PM
Oxygen	17	0.10		%	1	3/23/2012 3:36 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
2-Butanone	ND	40	U	ppbv	40	3/30/2012 7:43 PM
2-Hexanone	ND	40	U	ppbv	40	3/30/2012 7:43 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Acetone	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Benzene	630	40		ppbv	40	3/30/2012 7:43 PM
Benzyl chloride	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Bromoform	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Bromomethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Carbon disulfide	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Chlorobenzene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Chloroethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Chloroform	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Chloromethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 7:43 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 9:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-007	**Matrix:**	Air
Client Sample ID:	VA1085		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	940	80		ppbv	40	3/30/2012 7:43 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Ethyl acetate	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Ethylbenzene	56	80	J	ppbv	40	3/30/2012 7:43 PM
Heptane	950	40		ppbv	40	3/30/2012 7:43 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/30/2012 7:43 PM
m,p-Xylene	190	80		ppbv	40	3/30/2012 7:43 PM
Methylene chloride	ND	200	U	ppbv	40	3/30/2012 7:43 PM
n-Hexane	550	80		ppbv	40	3/30/2012 7:43 PM
Naphthalene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
o-Xylene	48	40		ppbv	40	3/30/2012 7:43 PM
Propylene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Styrene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Toluene	1,400	40		ppbv	40	3/30/2012 7:43 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Trichloroethene	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Vinyl acetate	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Vinyl chloride	ND	40	U	ppbv	40	3/30/2012 7:43 PM
Xylenes, Total	240	120		ppbv	40	3/30/2012 7:43 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	40	3/30/2012 7:43 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	65,000	4,700		µg/m³	40	4/4/2012 10:30 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	4/4/2012 10:30 AM
C9-C12 Aliphatic Hydrocarbons	5,000	7,600	J	µg/m³	40	4/4/2012 10:30 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	40	4/4/2012 10:30 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 9:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-008	**Matrix:**	Air
Client Sample ID:	VA1086		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	2.2	0.10		%	1	3/27/2012 10:57 AM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 10:57 AM
Methane	ND	0.50	U	%	1	3/27/2012 10:57 AM
Nitrogen	80	0.10		%	1	3/27/2012 10:57 AM
Oxygen	18	0.10		%	1	3/27/2012 10:57 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
2-Butanone	ND	40	U	ppbv	40	3/30/2012 8:26 PM
2-Hexanone	ND	40	U	ppbv	40	3/30/2012 8:26 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Acetone	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Benzene	510	40		ppbv	40	3/30/2012 8:26 PM
Benzyl chloride	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Bromoform	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Bromomethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Carbon disulfide	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Chlorobenzene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Chloroethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Chloroform	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Chloromethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 8:26 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 9:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-008	**Matrix:**	Air
Client Sample ID:	VA1086		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	900	80		ppbv	40	3/30/2012 8:26 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Ethyl acetate	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Ethylbenzene	56	80	J	ppbv	40	3/30/2012 8:26 PM
Heptane	880	40		ppbv	40	3/30/2012 8:26 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/30/2012 8:26 PM
m,p-Xylene	200	80		ppbv	40	3/30/2012 8:26 PM
Methylene chloride	ND	200	U	ppbv	40	3/30/2012 8:26 PM
n-Hexane	520	80		ppbv	40	3/30/2012 8:26 PM
Naphthalene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
o-Xylene	49	40		ppbv	40	3/30/2012 8:26 PM
Propylene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Styrene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Toluene	1,300	40		ppbv	40	3/30/2012 8:26 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Trichloroethene	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Vinyl acetate	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Vinyl chloride	ND	40	U	ppbv	40	3/30/2012 8:26 PM
Xylenes, Total	250	120		ppbv	40	3/30/2012 8:26 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	40	3/30/2012 8:26 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	48,000	4,700		µg/m³	40	4/4/2012 11:34 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	4/4/2012 11:34 AM
C9-C12 Aliphatic Hydrocarbons	1,500	7,600	J	µg/m³	40	4/4/2012 11:34 AM
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	40	4/4/2012 11:34 AM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 9:50:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-009	**Matrix:**	Air
Client Sample ID:	VA1087		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	1.6	0.10		%	1	3/26/2012 1:22 PM
Carbon Monoxide	ND	0.10	U	%	1	3/26/2012 1:22 PM
Methane	ND	0.50	U	%	1	3/26/2012 1:22 PM
Nitrogen	81	0.10		%	1	3/26/2012 1:22 PM
Oxygen	19	0.10		%	1	3/26/2012 1:22 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,3-Butadiene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
2-Butanone	ND	400	U	ppbv	400	3/29/2012 2:19 PM
2-Hexanone	ND	400	U	ppbv	400	3/29/2012 2:19 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Acetone	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Benzene	3,600	400		ppbv	400	3/29/2012 2:19 PM
Benzyl chloride	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Bromodichloromethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Bromoform	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Bromomethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Carbon disulfide	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Carbon tetrachloride	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Chlorobenzene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Chlorodibromomethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Chloroethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Chloroform	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Chloromethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 2:19 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 9:50:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-009	**Matrix:**	Air
Client Sample ID:	VA1087		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,000	800		ppbv	400	3/29/2012 2:19 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Ethyl acetate	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Ethylbenzene	ND	800	U	ppbv	400	3/29/2012 2:19 PM
Heptane	1,800	400		ppbv	400	3/29/2012 2:19 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	3/29/2012 2:19 PM
m,p-Xylene	550	800	J	ppbv	400	3/29/2012 2:19 PM
Methylene chloride	ND	2,000	U	ppbv	400	3/29/2012 2:19 PM
n-Hexane	2,200	800		ppbv	400	3/29/2012 2:19 PM
Naphthalene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
o-Xylene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Propylene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Styrene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Tetrachloroethene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Tetrahydrofuran	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Toluene	4,400	400		ppbv	400	3/29/2012 2:19 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Trichloroethene	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Vinyl acetate	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Vinyl chloride	ND	400	U	ppbv	400	3/29/2012 2:19 PM
Xylenes, Total	550	1,200	J	ppbv	400	3/29/2012 2:19 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	400	3/29/2012 2:19 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	240,000	47,000		µg/m³	400	4/3/2012 11:54 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	4/3/2012 11:54 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	4/3/2012 11:54 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	400	4/3/2012 11:54 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 10:28:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-010	**Matrix:**	Air
Client Sample ID:	VA1088		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.36	0.10		%	1	3/26/2012 1:46 PM
Carbon Monoxide	ND	0.10	U	%	1	3/26/2012 1:46 PM
Methane	ND	0.50	U	%	1	3/26/2012 1:46 PM
Nitrogen	80	0.10		%	1	3/26/2012 1:46 PM
Oxygen	20	0.10		%	1	3/26/2012 1:46 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,3-Butadiene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
2-Butanone	ND	800	U	ppbv	800	4/4/2012 6:47 PM
2-Hexanone	ND	800	U	ppbv	800	4/4/2012 6:47 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Acetone	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Benzene	34,000	800		ppbv	800	4/4/2012 6:47 PM
Benzyl chloride	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Bromodichloromethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Bromoform	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Bromomethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Carbon disulfide	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Carbon tetrachloride	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Chlorobenzene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Chlorodibromomethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Chloroethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Chloroform	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Chloromethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	4/4/2012 6:47 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 10:28:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-010	**Matrix:**	Air
Client Sample ID:	VA1088		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	9,000	1,600		ppbv	800	4/4/2012 6:47 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Ethyl acetate	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Ethylbenzene	ND	1,600	U	ppbv	800	4/4/2012 6:47 PM
Heptane	2,700	800		ppbv	800	4/4/2012 6:47 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	4/4/2012 6:47 PM
m,p-Xylene	2,100	1,600		ppbv	800	4/4/2012 6:47 PM
Methylene chloride	ND	4,000	U	ppbv	800	4/4/2012 6:47 PM
n-Hexane	8,500	1,600		ppbv	800	4/4/2012 6:47 PM
Naphthalene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
o-Xylene	980	800		ppbv	800	4/4/2012 6:47 PM
Propylene	970	800		ppbv	800	4/4/2012 6:47 PM
Styrene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Tetrachloroethene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Tetrahydrofuran	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Toluene	35,000	800		ppbv	800	4/4/2012 6:47 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Trichloroethene	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Vinyl acetate	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Vinyl chloride	ND	800	U	ppbv	800	4/4/2012 6:47 PM
Xylenes, Total	3,100	2,400		ppbv	800	4/4/2012 6:47 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	800	4/4/2012 6:47 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	680,000	94,000		µg/m³	800	4/4/2012 1:02 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	4/4/2012 1:02 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	4/4/2012 1:02 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%REC	800	4/4/2012 1:02 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 11:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-011	**Matrix:**	Air
Client Sample ID:	VA1089		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.24	0.10		%	1	3/26/2012 2:43 PM
Carbon Monoxide	ND	0.10	U	%	1	3/26/2012 2:43 PM
Methane	ND	0.50	U	%	1	3/26/2012 2:43 PM
Nitrogen	81	0.10		%	1	3/26/2012 2:43 PM
Oxygen	20	0.10		%	1	3/26/2012 2:43 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,3-Butadiene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
2-Butanone	ND	800	U	ppbv	800	3/30/2012 12:58 PM
2-Hexanone	ND	800	U	ppbv	800	3/30/2012 12:58 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Acetone	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Benzene	12,000	800		ppbv	800	3/30/2012 12:58 PM
Benzyl chloride	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Bromodichloromethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Bromoform	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Bromomethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Carbon disulfide	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Carbon tetrachloride	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Chlorobenzene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Chlorodibromomethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Chloroethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Chloroform	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Chloromethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	3/30/2012 12:58 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/13/2012 11:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-011	**Matrix:**	Air
Client Sample ID:	VA1089		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	18,000	1,600		ppbv	800	3/30/2012 12:58 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Ethyl acetate	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Ethylbenzene	ND	1,600	U	ppbv	800	3/30/2012 12:58 PM
Heptane	5,300	800		ppbv	800	3/30/2012 12:58 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	3/30/2012 12:58 PM
m,p-Xylene	1,600	1,600		ppbv	800	3/30/2012 12:58 PM
Methylene chloride	ND	4,000	U	ppbv	800	3/30/2012 12:58 PM
n-Hexane	18,000	1,600		ppbv	800	3/30/2012 12:58 PM
Naphthalene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
o-Xylene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Propylene	1,300	800		ppbv	800	3/30/2012 12:58 PM
Styrene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Tetrachloroethene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Tetrahydrofuran	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Toluene	24,000	800		ppbv	800	3/30/2012 12:58 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Trichloroethene	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Vinyl acetate	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Vinyl chloride	ND	800	U	ppbv	800	3/30/2012 12:58 PM
Xylenes, Total	1,600	2,400	J	ppbv	800	3/30/2012 12:58 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	800	3/30/2012 12:58 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,100,000	190,000		µg/m³	1600	4/4/2012 2:30 PM
C9-C10 Aromatic Hydrocarbons	ND	210,000	U	µg/m³	1600	4/4/2012 2:30 PM
C9-C12 Aliphatic Hydrocarbons	ND	300,000	U	µg/m³	1600	4/4/2012 2:30 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%REC	1600	4/4/2012 2:30 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 2:05:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-012	**Matrix:**	Air
Client Sample ID:	VA1237		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.16	0.10		%	1	3/26/2012 3:24 PM
Carbon Monoxide	ND	0.10	U	%	1	3/26/2012 3:24 PM
Methane	ND	0.50	U	%	1	3/26/2012 3:24 PM
Nitrogen	81	0.10		%	1	3/26/2012 3:24 PM
Oxygen	20	0.10		%	1	3/26/2012 3:24 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,3-Butadiene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
2-Butanone	ND	400	U	ppbv	400	3/29/2012 9:41 PM
2-Hexanone	ND	400	U	ppbv	400	3/29/2012 9:41 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Acetone	1,300	400		ppbv	400	3/29/2012 9:41 PM
Benzene	2,700	400		ppbv	400	3/29/2012 9:41 PM
Benzyl chloride	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Bromodichloromethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Bromoform	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Bromomethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Carbon disulfide	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Carbon tetrachloride	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Chlorobenzene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Chlorodibromomethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Chloroethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Chloroform	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Chloromethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 9:41 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 2:05:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-012	**Matrix:**	Air
Client Sample ID:	VA1237		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,700	800		ppbv	400	3/29/2012 9:41 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Ethyl acetate	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Ethylbenzene	ND	800	U	ppbv	400	3/29/2012 9:41 PM
Heptane	5,200	400		ppbv	400	3/29/2012 9:41 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	3/29/2012 9:41 PM
m,p-Xylene	1,400	800		ppbv	400	3/29/2012 9:41 PM
Methylene chloride	ND	2,000	U	ppbv	400	3/29/2012 9:41 PM
n-Hexane	3,100	800		ppbv	400	3/29/2012 9:41 PM
Naphthalene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
o-Xylene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Propylene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Styrene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Tetrachloroethene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Tetrahydrofuran	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Toluene	9,500	400		ppbv	400	3/29/2012 9:41 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Trichloroethene	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Vinyl acetate	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Vinyl chloride	ND	400	U	ppbv	400	3/29/2012 9:41 PM
Xylenes, Total	1,400	1,200		ppbv	400	3/29/2012 9:41 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	400	3/29/2012 9:41 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	560,000	47,000		µg/m³	400	4/4/2012 2:09 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	4/4/2012 2:09 AM
C9-C12 Aliphatic Hydrocarbons	18,000	76,000	J	µg/m³	400	4/4/2012 2:09 AM
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	400	4/4/2012 2:09 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 2:34:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-013	**Matrix:**	Air
Client Sample ID:	VA1238		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.17	0.10		%	1	3/26/2012 3:50 PM
Carbon Monoxide	ND	0.10	U	%	1	3/26/2012 3:50 PM
Methane	ND	0.50	U	%	1	3/26/2012 3:50 PM
Nitrogen	80	0.10		%	1	3/26/2012 3:50 PM
Oxygen	20	0.10		%	1	3/26/2012 3:50 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,3-Butadiene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
2-Butanone	ND	400	U	ppbv	400	3/29/2012 10:31 PM
2-Hexanone	ND	400	U	ppbv	400	3/29/2012 10:31 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Acetone	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Benzene	2,000	400		ppbv	400	3/29/2012 10:31 PM
Benzyl chloride	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Bromodichloromethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Bromoform	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Bromomethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Carbon disulfide	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Carbon tetrachloride	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Chlorobenzene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Chlorodibromomethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Chloroethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Chloroform	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Chloromethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 10:31 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 2:34:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-013	**Matrix:**	Air
Client Sample ID:	VA1238		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,700	800		ppbv	400	3/29/2012 10:31 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Ethyl acetate	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Ethylbenzene	ND	800	U	ppbv	400	3/29/2012 10:31 PM
Heptane	3,700	400		ppbv	400	3/29/2012 10:31 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	3/29/2012 10:31 PM
m,p-Xylene	1,000	800		ppbv	400	3/29/2012 10:31 PM
Methylene chloride	ND	2,000	U	ppbv	400	3/29/2012 10:31 PM
n-Hexane	3,500	800		ppbv	400	3/29/2012 10:31 PM
Naphthalene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
o-Xylene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Propylene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Styrene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Tetrachloroethene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Tetrahydrofuran	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Toluene	7,000	400		ppbv	400	3/29/2012 10:31 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Trichloroethene	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Vinyl acetate	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Vinyl chloride	ND	400	U	ppbv	400	3/29/2012 10:31 PM
Xylenes, Total	1,000	1,200	J	ppbv	400	3/29/2012 10:31 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	400	3/29/2012 10:31 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	550,000	47,000		µg/m³	400	4/4/2012 2:57 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	4/4/2012 2:57 AM
C9-C12 Aliphatic Hydrocarbons	11,000	76,000	J	µg/m³	400	4/4/2012 2:57 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	400	4/4/2012 2:57 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 3:26:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-014	**Matrix:**	Air
Client Sample ID:	VA1239		

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	3/26/2012 4:08 PM
Carbon Monoxide	ND	0.10	U	%	1	3/26/2012 4:08 PM
Methane	ND	0.50	U	%	1	3/26/2012 4:08 PM
Nitrogen	80	0.10		%	1	3/26/2012 4:08 PM
Oxygen	20	0.10		%	1	3/26/2012 4:08 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
2-Butanone	ND	40	U	ppbv	40	3/30/2012 4:50 PM
2-Hexanone	ND	40	U	ppbv	40	3/30/2012 4:50 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Acetone	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Benzene	810	40		ppbv	40	3/30/2012 4:50 PM
Benzyl chloride	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Bromoform	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Bromomethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Carbon disulfide	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Chlorobenzene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Chloroethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Chloroform	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Chloromethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 4:50 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 3:26:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-014	**Matrix:**	Air
Client Sample ID:	VA1239		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,300	80		ppbv	40	3/30/2012 4:50 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Ethyl acetate	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Ethylbenzene	110	80		ppbv	40	3/30/2012 4:50 PM
Heptane	1,400	40		ppbv	40	3/30/2012 4:50 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/30/2012 4:50 PM
m,p-Xylene	410	80		ppbv	40	3/30/2012 4:50 PM
Methylene chloride	ND	200	U	ppbv	40	3/30/2012 4:50 PM
n-Hexane	770	80		ppbv	40	3/30/2012 4:50 PM
Naphthalene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
o-Xylene	100	40		ppbv	40	3/30/2012 4:50 PM
Propylene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Styrene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Toluene	5,400	400		ppbv	400	4/4/2012 4:26 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Trichloroethene	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Vinyl acetate	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Vinyl chloride	ND	40	U	ppbv	40	3/30/2012 4:50 PM
Xylenes, Total	520	120		ppbv	40	3/30/2012 4:50 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	40	3/30/2012 4:50 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	140,000	23,000		µg/m³	200	4/4/2012 3:19 PM
C9-C10 Aromatic Hydrocarbons	ND	27,000	U	µg/m³	200	4/4/2012 3:19 PM
C9-C12 Aliphatic Hydrocarbons	ND	38,000	U	µg/m³	200	4/4/2012 3:19 PM
Surr: 4-Bromofluorobenzene	99.7	70-130		%REC	200	4/4/2012 3:19 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 9:21:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-015	**Matrix:**	Air
Client Sample ID:	VA1244		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.62	0.10		%	1	3/26/2012 4:29 PM
Carbon Monoxide	ND	0.10	U	%	1	3/26/2012 4:29 PM
Methane	ND	0.50	U	%	1	3/26/2012 4:29 PM
Nitrogen	80	0.10		%	1	3/26/2012 4:29 PM
Oxygen	20	0.10		%	1	3/26/2012 4:29 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,3-Butadiene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
2-Butanone	ND	400	U	ppbv	400	3/28/2012 8:02 PM
2-Hexanone	ND	400	U	ppbv	400	3/28/2012 8:02 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Acetone	1,000	400		ppbv	400	3/28/2012 8:02 PM
Benzene	3,700	400		ppbv	400	3/28/2012 8:02 PM
Benzyl chloride	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Bromodichloromethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Bromoform	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Bromomethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Carbon disulfide	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Carbon tetrachloride	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Chlorobenzene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Chlorodibromomethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Chloroethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Chloroform	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Chloromethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	3/28/2012 8:02 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 9:21:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-015	**Matrix:**	Air
Client Sample ID:	VA1244		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,600	800		ppbv	400	3/28/2012 8:02 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Ethyl acetate	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Ethylbenzene	ND	800	U	ppbv	400	3/28/2012 8:02 PM
Heptane	3,900	400		ppbv	400	3/28/2012 8:02 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	3/28/2012 8:02 PM
m,p-Xylene	700	800	J	ppbv	400	3/28/2012 8:02 PM
Methylene chloride	ND	2,000	U	ppbv	400	3/28/2012 8:02 PM
n-Hexane	5,500	800		ppbv	400	3/28/2012 8:02 PM
Naphthalene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
o-Xylene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Propylene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Styrene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Tetrachloroethene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Tetrahydrofuran	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Toluene	6,200	400		ppbv	400	3/28/2012 8:02 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Trichloroethene	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Vinyl acetate	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Vinyl chloride	ND	400	U	ppbv	400	3/28/2012 8:02 PM
Xylenes, Total	700	1,200	J	ppbv	400	3/28/2012 8:02 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	3/28/2012 8:02 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	33,000	4,700		µg/m³	40	3/28/2012 3:59 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	3/28/2012 3:59 PM
C9-C12 Aliphatic Hydrocarbons	1,600	7,600	J	µg/m³	40	3/28/2012 3:59 PM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	40	3/28/2012 3:59 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 9:48:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-016	**Matrix:**	Air
Client Sample ID:	VA1245		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.070	0.10	J	%	1	3/26/2012 4:47 PM
Carbon Monoxide	ND	0.10	U	%	1	3/26/2012 4:47 PM
Methane	ND	0.50	U	%	1	3/26/2012 4:47 PM
Nitrogen	79	0.10		%	1	3/26/2012 4:47 PM
Oxygen	21	0.10		%	1	3/26/2012 4:47 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
2-Butanone	ND	40	U	ppbv	40	3/29/2012 4:56 PM
2-Hexanone	ND	40	U	ppbv	40	3/29/2012 4:56 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Acetone	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Benzene	400	40		ppbv	40	3/29/2012 4:56 PM
Benzyl chloride	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Bromoform	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Bromomethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Carbon disulfide	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Chlorobenzene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Chloroethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Chloroform	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Chloromethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/29/2012 4:56 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 9:48:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-016	**Matrix:**	Air
Client Sample ID:	VA1245		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	560	80		ppbv	40	3/29/2012 4:56 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Ethyl acetate	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Ethylbenzene	44	80	J	ppbv	40	3/29/2012 4:56 PM
Heptane	680	40		ppbv	40	3/29/2012 4:56 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/29/2012 4:56 PM
m,p-Xylene	150	80		ppbv	40	3/29/2012 4:56 PM
Methylene chloride	ND	200	U	ppbv	40	3/29/2012 4:56 PM
n-Hexane	360	80		ppbv	40	3/29/2012 4:56 PM
Naphthalene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
o-Xylene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Propylene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Styrene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Toluene	1,100	40		ppbv	40	3/29/2012 4:56 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Trichloroethene	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Vinyl acetate	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Vinyl chloride	ND	40	U	ppbv	40	3/29/2012 4:56 PM
Xylenes, Total	150	120		ppbv	40	3/29/2012 4:56 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	40	3/29/2012 4:56 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	34,000	4,700		µg/m³	40	3/29/2012 11:56 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	3/29/2012 11:56 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	3/29/2012 11:56 AM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	40	3/29/2012 11:56 AM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 10:27:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-017	**Matrix:**	Air
Client Sample ID:	VA1246		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.044	0.10	J	%	1	3/26/2012 5:05 PM
Carbon Monoxide	ND	0.10	U	%	1	3/26/2012 5:05 PM
Methane	ND	0.50	U	%	1	3/26/2012 5:05 PM
Nitrogen	79	0.10		%	1	3/26/2012 5:05 PM
Oxygen	21	0.10		%	1	3/26/2012 5:05 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
2-Butanone	ND	40	U	ppbv	40	3/29/2012 5:39 PM
2-Hexanone	ND	40	U	ppbv	40	3/29/2012 5:39 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Acetone	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Benzene	420	40		ppbv	40	3/29/2012 5:39 PM
Benzyl chloride	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Bromoform	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Bromomethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Carbon disulfide	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Chlorobenzene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Chloroethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Chloroform	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Chloromethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/29/2012 5:39 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 10:27:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-017	**Matrix:**	Air
Client Sample ID:	VA1246		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	590	80		ppbv	40	3/29/2012 5:39 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Ethyl acetate	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Ethylbenzene	40	80	J	ppbv	40	3/29/2012 5:39 PM
Heptane	690	40		ppbv	40	3/29/2012 5:39 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/29/2012 5:39 PM
m,p-Xylene	140	80		ppbv	40	3/29/2012 5:39 PM
Methylene chloride	ND	200	U	ppbv	40	3/29/2012 5:39 PM
n-Hexane	380	80		ppbv	40	3/29/2012 5:39 PM
Naphthalene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
o-Xylene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Propylene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Styrene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Toluene	1,000	40		ppbv	40	3/29/2012 5:39 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Trichloroethene	65	40		ppbv	40	3/29/2012 5:39 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Vinyl acetate	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Vinyl chloride	ND	40	U	ppbv	40	3/29/2012 5:39 PM
Xylenes, Total	140	120		ppbv	40	3/29/2012 5:39 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	40	3/29/2012 5:39 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	30,000	4,700		µg/m³	40	3/29/2012 1:23 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	3/29/2012 1:23 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	3/29/2012 1:23 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	40	3/29/2012 1:23 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 10:57:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-018	**Matrix:**	Air
Client Sample ID:	VA1247		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.045	0.10	J	%	1	3/26/2012 5:23 PM
Carbon Monoxide	ND	0.10	U	%	1	3/26/2012 5:23 PM
Methane	ND	0.50	U	%	1	3/26/2012 5:23 PM
Nitrogen	79	0.10		%	1	3/26/2012 5:23 PM
Oxygen	21	0.10		%	1	3/26/2012 5:23 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
2-Butanone	ND	40	U	ppbv	40	3/29/2012 7:12 PM
2-Hexanone	ND	40	U	ppbv	40	3/29/2012 7:12 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Acetone	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Benzene	530	40		ppbv	40	3/29/2012 7:12 PM
Benzyl chloride	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Bromoform	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Bromomethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Carbon disulfide	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Chlorobenzene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Chloroethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Chloroform	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Chloromethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/29/2012 7:12 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 10:57:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-018	**Matrix:**	Air
Client Sample ID:	VA1247		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	810	80		ppbv	40	3/29/2012 7:12 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Ethyl acetate	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Ethylbenzene	57	80	J	ppbv	40	3/29/2012 7:12 PM
Heptane	920	40		ppbv	40	3/29/2012 7:12 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/29/2012 7:12 PM
m,p-Xylene	200	80		ppbv	40	3/29/2012 7:12 PM
Methylene chloride	ND	200	U	ppbv	40	3/29/2012 7:12 PM
n-Hexane	480	80		ppbv	40	3/29/2012 7:12 PM
Naphthalene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
o-Xylene	49	40		ppbv	40	3/29/2012 7:12 PM
Propylene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Styrene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Toluene	1,400	40		ppbv	40	3/29/2012 7:12 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Trichloroethene	54	40		ppbv	40	3/29/2012 7:12 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Vinyl acetate	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Vinyl chloride	ND	40	U	ppbv	40	3/29/2012 7:12 PM
Xylenes, Total	250	120		ppbv	40	3/29/2012 7:12 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	40	3/29/2012 7:12 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	42,000	4,700		µg/m³	40	3/29/2012 2:05 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	3/29/2012 2:05 PM
C9-C12 Aliphatic Hydrocarbons	1,200	7,600	J	µg/m³	40	3/29/2012 2:05 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	40	3/29/2012 2:05 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 11:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-019	**Matrix:**	Air
Client Sample ID:	VA1248		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.52	0.10		%	1	3/27/2012 11:13 AM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 11:13 AM
Methane	ND	0.50	U	%	1	3/27/2012 11:13 AM
Nitrogen	80	0.10		%	1	3/27/2012 11:13 AM
Oxygen	20	0.10		%	1	3/27/2012 11:13 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,3-Butadiene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
2-Butanone	ND	400	U	ppbv	400	3/29/2012 8:02 PM
2-Hexanone	ND	400	U	ppbv	400	3/29/2012 8:02 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Acetone	470	400		ppbv	400	3/29/2012 8:02 PM
Benzene	3,800	400		ppbv	400	3/29/2012 8:02 PM
Benzyl chloride	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Bromodichloromethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Bromoform	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Bromomethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Carbon disulfide	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Carbon tetrachloride	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Chlorobenzene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Chlorodibromomethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Chloroethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Chloroform	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Chloromethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 8:02 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 11:30:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-019	**Matrix:**	Air
Client Sample ID:	VA1248		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,700	800		ppbv	400	3/29/2012 8:02 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Ethyl acetate	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Ethylbenzene	ND	800	U	ppbv	400	3/29/2012 8:02 PM
Heptane	3,700	400		ppbv	400	3/29/2012 8:02 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	3/29/2012 8:02 PM
m,p-Xylene	950	800		ppbv	400	3/29/2012 8:02 PM
Methylene chloride	ND	2,000	U	ppbv	400	3/29/2012 8:02 PM
n-Hexane	6,100	800		ppbv	400	3/29/2012 8:02 PM
Naphthalene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
o-Xylene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Propylene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Styrene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Tetrachloroethene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Tetrahydrofuran	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Toluene	9,900	400		ppbv	400	3/29/2012 8:02 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Trichloroethene	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Vinyl acetate	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Vinyl chloride	ND	400	U	ppbv	400	3/29/2012 8:02 PM
Xylenes, Total	950	1,200	J	ppbv	400	3/29/2012 8:02 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	400	3/29/2012 8:02 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	190,000	23,000		µg/m³	200	3/29/2012 1:28 AM
C9-C10 Aromatic Hydrocarbons	ND	27,000	U	µg/m³	200	3/29/2012 1:28 AM
C9-C12 Aliphatic Hydrocarbons	ND	38,000	U	µg/m³	200	3/29/2012 1:28 AM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	200	3/29/2012 1:28 AM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 12:09:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-020	**Matrix:**	Air
Client Sample ID:	VA1249		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.070	0.10	J	%	1	3/27/2012 11:29 AM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 11:29 AM
Methane	ND	0.50	U	%	1	3/27/2012 11:29 AM
Nitrogen	79	0.10		%	1	3/27/2012 11:29 AM
Oxygen	21	0.10		%	1	3/27/2012 11:29 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,3-Butadiene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
2-Butanone	ND	800	U	ppbv	800	3/28/2012 10:09 PM
2-Hexanone	ND	800	U	ppbv	800	3/28/2012 10:09 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Acetone	1,100	800		ppbv	800	3/28/2012 10:09 PM
Benzene	1,300	800		ppbv	800	3/28/2012 10:09 PM
Benzyl chloride	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Bromodichloromethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Bromoform	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Bromomethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Carbon disulfide	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Carbon tetrachloride	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Chlorobenzene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Chlorodibromomethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Chloroethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Chloroform	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Chloromethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	3/28/2012 10:09 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 12:09:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-020	**Matrix:**	Air
Client Sample ID:	VA1249		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	4,100	1,600		ppbv	800	3/28/2012 10:09 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Ethyl acetate	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Ethylbenzene	ND	1,600	U	ppbv	800	3/28/2012 10:09 PM
Heptane	2,600	800		ppbv	800	3/28/2012 10:09 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	3/28/2012 10:09 PM
m,p-Xylene	850	1,600	J	ppbv	800	3/28/2012 10:09 PM
Methylene chloride	ND	4,000	U	ppbv	800	3/28/2012 10:09 PM
n-Hexane	3,400	1,600		ppbv	800	3/28/2012 10:09 PM
Naphthalene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
o-Xylene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Propylene	900	800		ppbv	800	3/28/2012 10:09 PM
Styrene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Tetrachloroethene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Tetrahydrofuran	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Toluene	5,400	800		ppbv	800	3/28/2012 10:09 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Trichloroethene	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Vinyl acetate	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Vinyl chloride	ND	800	U	ppbv	800	3/28/2012 10:09 PM
Xylenes, Total	850	2,400	J	ppbv	800	3/28/2012 10:09 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	800	3/28/2012 10:09 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,600,000	940,000		µg/m³	8000	3/27/2012 5:13 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	3/27/2012 5:13 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	3/27/2012 5:13 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	8000	3/27/2012 5:13 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 8:51:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-021	**Matrix:**	Air
Client Sample ID:	VA1289		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.087	0.10	J	%	1	3/27/2012 11:47 AM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 11:47 AM
Methane	ND	0.50	U	%	1	3/27/2012 11:47 AM
Nitrogen	79	0.10		%	1	3/27/2012 11:47 AM
Oxygen	21	0.10		%	1	3/27/2012 11:47 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
2-Butanone	ND	40	U	ppbv	40	3/28/2012 7:15 PM
2-Hexanone	ND	40	U	ppbv	40	3/28/2012 7:15 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Acetone	45	40		ppbv	40	3/28/2012 7:15 PM
Benzene	83	40		ppbv	40	3/28/2012 7:15 PM
Benzyl chloride	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Bromoform	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Bromomethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Carbon disulfide	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Chlorobenzene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Chloroethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Chloroform	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Chloromethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/28/2012 7:15 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 8:51:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-021	**Matrix:**	Air
Client Sample ID:	VA1289		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	160	80		ppbv	40	3/28/2012 7:15 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Ethyl acetate	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Ethylbenzene	ND	80	U	ppbv	40	3/28/2012 7:15 PM
Heptane	110	40		ppbv	40	3/28/2012 7:15 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/28/2012 7:15 PM
m,p-Xylene	70	80	J	ppbv	40	3/28/2012 7:15 PM
Methylene chloride	ND	200	U	ppbv	40	3/28/2012 7:15 PM
n-Hexane	ND	80	U	ppbv	40	3/28/2012 7:15 PM
Naphthalene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
o-Xylene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Propylene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Styrene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Toluene	380	40		ppbv	40	3/28/2012 7:15 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Trichloroethene	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Vinyl acetate	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Vinyl chloride	ND	40	U	ppbv	40	3/28/2012 7:15 PM
Xylenes, Total	70	120	J	ppbv	40	3/28/2012 7:15 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	40	3/28/2012 7:15 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,400	940		µg/m³	8	3/28/2012 3:10 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	3/28/2012 3:10 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	3/28/2012 3:10 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	8	3/28/2012 3:10 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 10:34:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-022	**Matrix:**	Air
Client Sample ID:	VA1290		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.051	0.10	J	%	1	3/27/2012 12:08 PM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 12:08 PM
Methane	ND	0.50	U	%	1	3/27/2012 12:08 PM
Nitrogen	79	0.10		%	1	3/27/2012 12:08 PM
Oxygen	21	0.10		%	1	3/27/2012 12:08 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,3-Butadiene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
2-Butanone	ND	400	U	ppbv	400	3/29/2012 6:29 PM
2-Hexanone	ND	400	U	ppbv	400	3/29/2012 6:29 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Acetone	640	400		ppbv	400	3/29/2012 6:29 PM
Benzene	730	400		ppbv	400	3/29/2012 6:29 PM
Benzyl chloride	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Bromodichloromethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Bromoform	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Bromomethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Carbon disulfide	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Carbon tetrachloride	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Chlorobenzene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Chlorodibromomethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Chloroethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Chloroform	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Chloromethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 6:29 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 10:34:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-022	**Matrix:**	Air
Client Sample ID:	VA1290		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,600	800		ppbv	400	3/29/2012 6:29 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Ethyl acetate	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Ethylbenzene	ND	800	U	ppbv	400	3/29/2012 6:29 PM
Heptane	1,700	400		ppbv	400	3/29/2012 6:29 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	3/29/2012 6:29 PM
m,p-Xylene	540	800	J	ppbv	400	3/29/2012 6:29 PM
Methylene chloride	ND	2,000	U	ppbv	400	3/29/2012 6:29 PM
n-Hexane	1,000	800		ppbv	400	3/29/2012 6:29 PM
Naphthalene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
o-Xylene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Propylene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Styrene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Tetrachloroethene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Tetrahydrofuran	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Toluene	2,500	400		ppbv	400	3/29/2012 6:29 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Trichloroethene	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Vinyl acetate	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Vinyl chloride	ND	400	U	ppbv	400	3/29/2012 6:29 PM
Xylenes, Total	540	1,200	J	ppbv	400	3/29/2012 6:29 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	400	3/29/2012 6:29 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	150,000	23,000		µg/m³	200	4/5/2012 12:40 PM
C9-C10 Aromatic Hydrocarbons	ND	27,000	U	µg/m³	200	4/5/2012 12:40 PM
C9-C12 Aliphatic Hydrocarbons	ND	38,000	U	µg/m³	200	4/5/2012 12:40 PM
Surr: 4-Bromofluorobenzene	99.2	70-130		%REC	200	4/5/2012 12:40 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 11:09:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-023	**Matrix:**	Air
Client Sample ID:	VA1291		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.15	0.10		%	1	3/27/2012 12:26 PM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 12:26 PM
Methane	ND	0.50	U	%	1	3/27/2012 12:26 PM
Nitrogen	79	0.10		%	1	3/27/2012 12:26 PM
Oxygen	21	0.10		%	1	3/27/2012 12:26 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
2-Butanone	ND	40	U	ppbv	40	3/28/2012 8:44 PM
2-Hexanone	ND	40	U	ppbv	40	3/28/2012 8:44 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Acetone	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Benzene	300	40		ppbv	40	3/28/2012 8:44 PM
Benzyl chloride	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Bromoform	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Bromomethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Carbon disulfide	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Chlorobenzene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Chloroethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Chloroform	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Chloromethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/28/2012 8:44 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 11:09:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-023	**Matrix:**	Air
Client Sample ID:	VA1291		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,100	80		ppbv	40	3/28/2012 8:44 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Ethyl acetate	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Ethylbenzene	87	80		ppbv	40	3/28/2012 8:44 PM
Heptane	790	40		ppbv	40	3/28/2012 8:44 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/28/2012 8:44 PM
m,p-Xylene	210	80		ppbv	40	3/28/2012 8:44 PM
Methylene chloride	ND	200	U	ppbv	40	3/28/2012 8:44 PM
n-Hexane	390	80		ppbv	40	3/28/2012 8:44 PM
Naphthalene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
o-Xylene	67	40		ppbv	40	3/28/2012 8:44 PM
Propylene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Styrene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Toluene	1,000	40		ppbv	40	3/28/2012 8:44 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Trichloroethene	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Vinyl acetate	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Vinyl chloride	ND	40	U	ppbv	40	3/28/2012 8:44 PM
Xylenes, Total	270	120		ppbv	40	3/28/2012 8:44 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	40	3/28/2012 8:44 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	35,000	4,700		µg/m³	40	3/27/2012 1:20 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	3/27/2012 1:20 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	3/27/2012 1:20 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	40	3/27/2012 1:20 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 11:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-024	**Matrix:**	Air
Client Sample ID:	VA1292		

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	3/27/2012 12:41 PM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 12:41 PM
Methane	ND	0.50	U	%	1	3/27/2012 12:41 PM
Nitrogen	79	0.10		%	1	3/27/2012 12:41 PM
Oxygen	20	0.10		%	1	3/27/2012 12:41 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
2-Butanone	ND	40	U	ppbv	40	3/28/2012 9:24 PM
2-Hexanone	ND	40	U	ppbv	40	3/28/2012 9:24 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Acetone	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Benzene	160	40		ppbv	40	3/28/2012 9:24 PM
Benzyl chloride	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Bromoform	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Bromomethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Carbon disulfide	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Carbon tetrachloride	44	40		ppbv	40	3/28/2012 9:24 PM
Chlorobenzene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Chloroethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Chloroform	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Chloromethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/28/2012 9:24 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 11:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-024	**Matrix:**	Air
Client Sample ID:	VA1292		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	410	80		ppbv	40	3/28/2012 9:24 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Ethyl acetate	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Ethylbenzene	65	80	J	ppbv	40	3/28/2012 9:24 PM
Heptane	300	40		ppbv	40	3/28/2012 9:24 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/28/2012 9:24 PM
m,p-Xylene	160	80		ppbv	40	3/28/2012 9:24 PM
Methylene chloride	ND	200	U	ppbv	40	3/28/2012 9:24 PM
n-Hexane	140	80		ppbv	40	3/28/2012 9:24 PM
Naphthalene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
o-Xylene	51	40		ppbv	40	3/28/2012 9:24 PM
Propylene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Styrene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Toluene	700	40		ppbv	40	3/28/2012 9:24 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Trichloroethene	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Vinyl acetate	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Vinyl chloride	ND	40	U	ppbv	40	3/28/2012 9:24 PM
Xylenes, Total	210	120		ppbv	40	3/28/2012 9:24 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	40	3/28/2012 9:24 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	16,000	4,700		µg/m³	40	3/27/2012 4:30 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	3/27/2012 4:30 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	3/27/2012 4:30 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	40	3/27/2012 4:30 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 12:21:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-025	**Matrix:**	Air
Client Sample ID:	VA1293		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.37	0.10		%	1	3/27/2012 1:05 PM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 1:05 PM
Methane	ND	0.50	U	%	1	3/27/2012 1:05 PM
Nitrogen	80	0.10		%	1	3/27/2012 1:05 PM
Oxygen	21	0.10		%	1	3/27/2012 1:05 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,3-Butadiene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
2-Butanone	ND	400	U	ppbv	400	3/29/2012 8:52 PM
2-Hexanone	ND	400	U	ppbv	400	3/29/2012 8:52 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Acetone	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Benzene	1,200	400		ppbv	400	3/29/2012 8:52 PM
Benzyl chloride	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Bromodichloromethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Bromoform	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Bromomethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Carbon disulfide	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Carbon tetrachloride	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Chlorobenzene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Chlorodibromomethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Chloroethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Chloroform	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Chloromethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 8:52 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 12:21:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-025	**Matrix:**	Air
Client Sample ID:	VA1293		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,300	800		ppbv	400	3/29/2012 8:52 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Ethyl acetate	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Ethylbenzene	ND	800	U	ppbv	400	3/29/2012 8:52 PM
Heptane	950	400		ppbv	400	3/29/2012 8:52 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	3/29/2012 8:52 PM
m,p-Xylene	510	800	J	ppbv	400	3/29/2012 8:52 PM
Methylene chloride	ND	2,000	U	ppbv	400	3/29/2012 8:52 PM
n-Hexane	550	800	J	ppbv	400	3/29/2012 8:52 PM
Naphthalene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
o-Xylene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Propylene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Styrene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Tetrachloroethene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Tetrahydrofuran	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Toluene	2,600	400		ppbv	400	3/29/2012 8:52 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Trichloroethene	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Vinyl acetate	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Vinyl chloride	ND	400	U	ppbv	400	3/29/2012 8:52 PM
Xylenes, Total	510	1,200	J	ppbv	400	3/29/2012 8:52 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	400	3/29/2012 8:52 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	82,000	23,000		µg/m³	200	4/4/2012 3:46 AM
C9-C10 Aromatic Hydrocarbons	8,900	27,000	J	µg/m³	200	4/4/2012 3:46 AM
C9-C12 Aliphatic Hydrocarbons	11,000	38,000	J	µg/m³	200	4/4/2012 3:46 AM
Surr: 4-Bromofluorobenzene	99.2	70-130		%REC	200	4/4/2012 3:46 AM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 12:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-026	**Matrix:**	Air
Client Sample ID:	VA1294		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.38	0.10		%	1	3/27/2012 1:20 PM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 1:20 PM
Methane	ND	0.50	U	%	1	3/27/2012 1:20 PM
Nitrogen	79	0.10		%	1	3/27/2012 1:20 PM
Oxygen	20	0.10		%	1	3/27/2012 1:20 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	21	8.0		ppbv	8	3/30/2012 2:54 AM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,3-Butadiene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
2-Butanone	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
2-Hexanone	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Acetone	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Benzene	210	8.0		ppbv	8	3/30/2012 2:54 AM
Benzyl chloride	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Bromodichloromethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Bromoform	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Bromomethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Carbon disulfide	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Carbon tetrachloride	39	8.0		ppbv	8	3/30/2012 2:54 AM
Chlorobenzene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Chlorodibromomethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Chloroethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Chloroform	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Chloromethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 12:56:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-026	**Matrix:**	Air
Client Sample ID:	VA1294		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	300	16		ppbv	8	3/30/2012 2:54 AM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Ethyl acetate	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Ethylbenzene	43	16		ppbv	8	3/30/2012 2:54 AM
Heptane	190	8.0		ppbv	8	3/30/2012 2:54 AM
Hexachlorobutadiene	ND	16	U	ppbv	8	3/30/2012 2:54 AM
m,p-Xylene	110	16		ppbv	8	3/30/2012 2:54 AM
Methylene chloride	ND	40	U	ppbv	8	3/30/2012 2:54 AM
n-Hexane	100	16		ppbv	8	3/30/2012 2:54 AM
Naphthalene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
o-Xylene	35	8.0		ppbv	8	3/30/2012 2:54 AM
Propylene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Styrene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Tetrachloroethene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Tetrahydrofuran	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Toluene	490	40		ppbv	40	3/30/2012 12:13 PM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Trichloroethene	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Vinyl acetate	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Vinyl chloride	ND	8.0	U	ppbv	8	3/30/2012 2:54 AM
Xylenes, Total	140	24		ppbv	8	3/30/2012 2:54 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	8	3/30/2012 2:54 AM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	22,000	4,700		µg/m³	40	4/5/2012 9:41 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	4/5/2012 9:41 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	4/5/2012 9:41 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	40	4/5/2012 9:41 AM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 1:36:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-027	**Matrix:**	Air
Client Sample ID:	VA1295		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.38	0.10		%	1	3/27/2012 1:37 PM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 1:37 PM
Methane	ND	0.50	U	%	1	3/27/2012 1:37 PM
Nitrogen	79	0.10		%	1	3/27/2012 1:37 PM
Oxygen	20	0.10		%	1	3/27/2012 1:37 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,3-Butadiene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
2-Butanone	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
2-Hexanone	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Acetone	12	8.0		ppbv	8	4/4/2012 3:29 PM
Benzene	41	8.0		ppbv	8	4/4/2012 3:29 PM
Benzyl chloride	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Bromodichloromethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Bromoform	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Bromomethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Carbon disulfide	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Carbon tetrachloride	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Chlorobenzene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Chlorodibromomethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Chloroethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Chloroform	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Chloromethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 1:36:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-027	**Matrix:**	Air
Client Sample ID:	VA1295		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	71	16		ppbv	8	4/4/2012 3:29 PM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Ethyl acetate	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Ethylbenzene	13	16	J	ppbv	8	4/4/2012 3:29 PM
Heptane	52	8.0		ppbv	8	4/4/2012 3:29 PM
Hexachlorobutadiene	ND	16	U	ppbv	8	4/4/2012 3:29 PM
m,p-Xylene	30	16		ppbv	8	4/4/2012 3:29 PM
Methylene chloride	ND	40	U	ppbv	8	4/4/2012 3:29 PM
n-Hexane	17	16		ppbv	8	4/4/2012 3:29 PM
Naphthalene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
o-Xylene	10	8.0		ppbv	8	4/4/2012 3:29 PM
Propylene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Styrene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Tetrachloroethene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Tetrahydrofuran	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Toluene	120	8.0		ppbv	8	4/4/2012 3:29 PM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Trichloroethene	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Vinyl acetate	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Vinyl chloride	ND	8.0	U	ppbv	8	4/4/2012 3:29 PM
Xylenes, Total	40	24		ppbv	8	4/4/2012 3:29 PM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	8	4/4/2012 3:29 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	5,100	1,900		µg/m³	16	4/5/2012 11:08 AM
C9-C10 Aromatic Hydrocarbons	ND	2,100	U	µg/m³	16	4/5/2012 11:08 AM
C9-C12 Aliphatic Hydrocarbons	ND	3,000	U	µg/m³	16	4/5/2012 11:08 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	16	4/5/2012 11:08 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 2:43:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-028	**Matrix:**	Air
Client Sample ID:	VA1296		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.054	0.10	J	%	1	3/27/2012 2:22 PM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 2:22 PM
Methane	ND	0.50	U	%	1	3/27/2012 2:22 PM
Nitrogen	79	0.10		%	1	3/27/2012 2:22 PM
Oxygen	21	0.10		%	1	3/27/2012 2:22 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
2-Butanone	ND	40	U	ppbv	40	3/30/2012 2:28 PM
2-Hexanone	ND	40	U	ppbv	40	3/30/2012 2:28 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Acetone	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Benzene	130	40		ppbv	40	3/30/2012 2:28 PM
Benzyl chloride	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Bromoform	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Bromomethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Carbon disulfide	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Chlorobenzene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Chloroethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Chloroform	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Chloromethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 2:28 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 2:43:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-028	**Matrix:**	Air
Client Sample ID:	VA1296		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	300	80		ppbv	40	3/30/2012 2:28 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Ethyl acetate	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Ethylbenzene	42	80	J	ppbv	40	3/30/2012 2:28 PM
Heptane	180	40		ppbv	40	3/30/2012 2:28 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/30/2012 2:28 PM
m,p-Xylene	100	80		ppbv	40	3/30/2012 2:28 PM
Methylene chloride	ND	200	U	ppbv	40	3/30/2012 2:28 PM
n-Hexane	120	80		ppbv	40	3/30/2012 2:28 PM
Naphthalene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
o-Xylene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Propylene	100	40		ppbv	40	3/30/2012 2:28 PM
Styrene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Toluene	420	40		ppbv	40	3/30/2012 2:28 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Trichloroethene	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Vinyl acetate	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Vinyl chloride	ND	40	U	ppbv	40	3/30/2012 2:28 PM
Xylenes, Total	100	120	J	ppbv	40	3/30/2012 2:28 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	40	3/30/2012 2:28 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	12,000	4,700		µg/m³	40	4/4/2012 5:11 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	4/4/2012 5:11 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	4/4/2012 5:11 AM
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	40	4/4/2012 5:11 AM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 3:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-029	**Matrix:**	Air
Client Sample ID:	VA1297		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: JH5**
Carbon dioxide	0.13	0.10		%	1	3/27/2012 2:37 PM
Carbon Monoxide	ND	0.10	U	%	1	3/27/2012 2:37 PM
Methane	ND	0.50	U	%	1	3/27/2012 2:37 PM
Nitrogen	78	0.10		%	1	3/27/2012 2:37 PM
Oxygen	21	0.10		%	1	3/27/2012 2:37 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RD2**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,3-Butadiene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
2-Butanone	ND	40	U	ppbv	40	3/30/2012 4:07 PM
2-Hexanone	ND	40	U	ppbv	40	3/30/2012 4:07 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Acetone	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Benzene	130	40		ppbv	40	3/30/2012 4:07 PM
Benzyl chloride	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Bromodichloromethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Bromoform	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Bromomethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Carbon disulfide	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Carbon tetrachloride	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Chlorobenzene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Chlorodibromomethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Chloroethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Chloroform	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Chloromethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 4:07 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 3:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1203608-029	**Matrix:**	Air
Client Sample ID:	VA1297		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	380	80		ppbv	40	3/30/2012 4:07 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Ethyl acetate	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Ethylbenzene	53	80	J	ppbv	40	3/30/2012 4:07 PM
Heptane	270	40		ppbv	40	3/30/2012 4:07 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	3/30/2012 4:07 PM
m,p-Xylene	130	80		ppbv	40	3/30/2012 4:07 PM
Methylene chloride	ND	200	U	ppbv	40	3/30/2012 4:07 PM
n-Hexane	130	80		ppbv	40	3/30/2012 4:07 PM
Naphthalene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
o-Xylene	44	40		ppbv	40	3/30/2012 4:07 PM
Propylene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Styrene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Tetrachloroethene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Tetrahydrofuran	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Toluene	510	40		ppbv	40	3/30/2012 4:07 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Trichloroethene	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Vinyl acetate	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Vinyl chloride	ND	40	U	ppbv	40	3/30/2012 4:07 PM
Xylenes, Total	170	120		ppbv	40	3/30/2012 4:07 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	40	3/30/2012 4:07 PM
Mass APH Air	**Method:**					**Analyst: RD2**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	24,000	4,700		µg/m³	40	4/4/2012 5:53 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	4/4/2012 5:53 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	4/4/2012 5:53 AM
Surr: 4-Bromofluorobenzene	99.7	70-130		%REC	40	4/4/2012 5:53 AM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-030	**Matrix:**	Air
Client Sample ID:	VA8075-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	3/28/2012 6:34 PM
1,1,2,2-Tetrachloroethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,1,2-Trichloroethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,1-Dichloroethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,1-Dichloroethene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,2,4-Trichlorobenzene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,2,4-Trimethylbenzene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,2-Dibromoethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,2-Dichlorobenzene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,2-Dichloroethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,2-Dichloropropane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,3,5-Trimethylbenzene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,3-Butadiene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,3-Dichlorobenzene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
1,4-Dichlorobenzene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
2-Butanone	2.6	1.0		ppbv	1	3/28/2012 6:34 PM
2-Hexanone	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
4-Methyl-2-pentanone	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Acetone	11	1.0		ppbv	1	3/28/2012 6:34 PM
Benzene	16	1.0		ppbv	1	3/28/2012 6:34 PM
Benzyl chloride	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Bromodichloromethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Bromoform	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Bromomethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Carbon disulfide	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Carbon tetrachloride	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Chlorobenzene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Chlorodibromomethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Chloroethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Chloroform	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Chloromethane	2.0	1.0		ppbv	1	3/28/2012 6:34 PM
cis-1,2-Dichloroethene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
cis-1,3-dichloropropene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Cyclohexane	20	2.0		ppbv	1	3/28/2012 6:34 PM
Dichlorodifluoromethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Ethyl acetate	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Ethylbenzene	ND	2.0	U	ppbv	1	3/28/2012 6:34 PM
Heptane	8.6	1.0		ppbv	1	3/28/2012 6:34 PM
Hexachlorobutadiene	ND	2.0	U	ppbv	1	3/28/2012 6:34 PM
m,p-Xylene	2.6	2.0		ppbv	1	3/28/2012 6:34 PM
Methylene chloride	3.2	5.0	J	ppbv	1	3/28/2012 6:34 PM

RTI Laboratories - Analytical Report

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	3/12/2012 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1203608-030	**Matrix:**	Air
Client Sample ID:	VA8075-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
n-Hexane	13	2.0		ppbv	1	3/28/2012 6:34 PM
Naphthalene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
o-Xylene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Propylene	1.2	1.0		ppbv	1	3/28/2012 6:34 PM
Styrene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
tert-Butyl Methyl Ether	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Tetrachloroethene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Tetrahydrofuran	11	1.0		ppbv	1	3/28/2012 6:34 PM
Toluene	23	1.0		ppbv	1	3/28/2012 6:34 PM
trans-1,2-Dichloroethene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
trans-1,3-dichloropropene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Trichloroethene	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Trichlorofluoromethane	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Vinyl acetate	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Vinyl chloride	ND	1.0	U	ppbv	1	3/28/2012 6:34 PM
Xylenes, Total	2.6	3.0	J	ppbv	1	3/28/2012 6:34 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	3/28/2012 6:34 PM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47159

Sample ID:	MBLK-032612 TCD	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47159	
Client ID:	PBW	Batch ID:	R47159	TestNo:	ASTM-D2504			Analysis Date:	3/26/2012	SeqNo:	922431	

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

Sample ID:	LCS-032612 TCD	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47159	
Client ID:	LCSW	Batch ID:	R47159	TestNo:	ASTM-D2504			Analysis Date:	3/26/2012	SeqNo:	922433	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10	2.500	0	107	70	130	2.654	0.376	0	
Carbon Monoxide	2.7	0.10	2.500	0	109	70	130	2.722	0.257	0	
Methane	2.1	0.50	2.000	0	107	70	130	2.126	0.376	0	
Nitrogen	2.7	0.10	2.500	0	107	70	130	2.679	0.0373	0	
Oxygen	2.5	0.10	2.500	0	100	70	130	2.497	0.280	0	

Sample ID:	1203608-018BDUP	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47159	
Client ID:	VA1247	Batch ID:	R47159	TestNo:	ASTM-D2504			Analysis Date:	3/26/2012	SeqNo:	922445	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.046	0.10						0.04500	2.20	20	J
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	80	0.10						79.33	0.625	20	
Oxygen	21	0.10						21.22	0.639	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47180

Sample ID:	Blank VOA9 03271	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47180	
Client ID:	PBW	Batch ID:	R47180	TestNo:	MA_APH			Analysis Date:	3/27/2012	SeqNo:	922761	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	91		89.50		101	70	130				

Sample ID:	1203608-023Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47180	
Client ID:	VA1291	Batch ID:	R47180	TestNo:	MA_APH			Analysis Date:	3/27/2012	SeqNo:	922764	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	46,000	4,700						35,160	25.6	30	
C9-C10 Aromatic Hydrocarbons	ND	5,300						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	1,200	7,600						0	200	30	JR
Surr: 4-Bromofluorobenzene	3,900		3,580		108	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47182

Sample ID:	MBLK-032312 TCD	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47182	
Client ID:	PBW	Batch ID:	R47182	TestNo:	ASTM-D2504			Analysis Date:	3/23/2012	SeqNo:	922782	

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

Sample ID:	LCS-032312 TCD	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47182	
Client ID:	LCSW	Batch ID:	R47182	TestNo:	ASTM-D2504			Analysis Date:	3/23/2012	SeqNo:	922784	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10	2.500	0	107	70	130	2.638	1.13	0	
Carbon Monoxide	2.7	0.10	2.500	0	108	70	130	2.674	0.708	0	
Methane	2.1	0.50	2.000	0	105	70	130	2.094	0.381	0	
Nitrogen	2.6	0.10	2.500	0	106	70	130	2.778	4.98	0	
Oxygen	2.5	0.10	2.500	0	98.8	70	130	2.495	1.01	0	

Sample ID:	1203608-007BDUP	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47182	
Client ID:	VA1085	Batch ID:	R47182	TestNo:	ASTM-D2504			Analysis Date:	3/23/2012	SeqNo:	922793	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.8	0.10						2.744	2.13	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	78	0.10						77.97	0.0539	20	
Oxygen	17	0.10						17.27	0.0579	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47215

Sample ID:	Blank VOA9 03281	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47215	
Client ID:	PBW	Batch ID:	R47215	TestNo:	MA_APH			Analysis Date:	3/28/2012	SeqNo:	923250	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons		ND	120									U
C9-C10 Aromatic Hydrocarbons		ND	130									U
C9-C12 Aliphatic Hydrocarbons		ND	190									U
Surr: 4-Bromofluorobenzene		92		89.50		102	70	130				

Sample ID:	1203608-015Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47215	
Client ID:	VA1244	Batch ID:	R47215	TestNo:	MA_APH			Analysis Date:	3/28/2012	SeqNo:	923253	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons		27,000	4,700						33,050	20.1	30	
C9-C10 Aromatic Hydrocarbons		ND	5,300						0	0	30	U
C9-C12 Aliphatic Hydrocarbons		ND	7,600						1,570	200	30	RU
Surr: 4-Bromofluorobenzene		3,900		3,580		108	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47216

Sample ID:	LCS-032712 TCD	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47216	
Client ID:	LCSW	Batch ID:	R47216	TestNo:	ASTM-D2504			Analysis Date:	3/27/2012	SeqNo:	923270	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10	2.500	0	107	70	130	0	0	0	
Carbon Monoxide	2.7	0.10	2.500	0	110	70	130	0	0	0	
Methane	2.1	0.50	2.000	0	106	70	130	0	0	0	
Nitrogen	2.7	0.10	2.500	0	107	70	130	0	0	0	
Oxygen	2.5	0.10	2.500	0	99.4	70	130	0	0	0	

Sample ID:	1203608-027BDUP	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47216	
Client ID:	VA1295	Batch ID:	R47216	TestNo:	ASTM-D2504			Analysis Date:	3/27/2012	SeqNo:	923282	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.38	0.10						0.3820	0	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	79	0.10						79.42	0.507	20	
Oxygen	20	0.10						20.34	0.552	20	

Sample ID:	MBLK-032712 TCD	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	47216	
Client ID:	PBW	Batch ID:	R47216	TestNo:	ASTM-D2504			Analysis Date:	3/27/2012	SeqNo:	924523	

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47222

Sample ID:	MBLK VOA1 032712	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47222
Client ID:	PBW	Batch ID:	R47222	TestNo:	TO-15			Analysis Date:	3/28/2012	SeqNo:	923376

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47222

Sample ID: **MBLK VOA1 032712** Samp Type: **MBLK** Test Code: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **47222**

Client ID: **PBW** Batch ID: **R47222** TestNo: **TO-15** Analysis Date: **3/28/2012** SeqNo: **923376**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	14		12.50		116	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47222

Sample ID:	1203477-047ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47222	
Client ID:	ZZZZZZ	Batch ID:	R47222	TestNo:	TO-15			Analysis Date:	3/28/2012	SeqNo:	923383	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	8.0						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	8.0						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0						0	0	25	U
1,1,2-Trichloroethane	ND	8.0						0	0	25	U
1,1-Dichloroethane	ND	8.0						0	0	25	U
1,1-Dichloroethene	ND	8.0						0	0	25	U
1,2,4-Trichlorobenzene	ND	8.0						0	0	25	U
1,2,4-Trimethylbenzene	ND	8.0						0	0	25	U
1,2-Dibromoethane	ND	8.0						0	0	25	U
1,2-Dichlorobenzene	ND	8.0						0	0	25	U
1,2-Dichloroethane	ND	8.0						0	0	25	U
1,2-Dichloropropane	ND	8.0						0	0	25	U
1,3,5-Trimethylbenzene	ND	8.0						0	0	25	U
1,3-Butadiene	ND	8.0						0	0	25	U
1,3-Dichlorobenzene	ND	8.0						0	0	25	U
1,4-Dichlorobenzene	ND	8.0						0	0	25	U
2-Butanone	ND	8.0						0	0	25	U
2-Hexanone	ND	8.0						0	0	25	U
4-Methyl-2-pentanone	ND	8.0						0	0	25	U
Acetone	ND	8.0						0	0	25	U
Benzene	ND	8.0						0	0	25	U
Benzyl chloride	ND	8.0						0	0	25	U
Bromodichloromethane	ND	8.0						0	0	25	U
Bromoform	ND	8.0						0	0	25	U
Bromomethane	ND	8.0						0	0	25	U
Carbon disulfide	ND	8.0						0	0	25	U
Carbon tetrachloride	ND	8.0						0	0	25	U
Chlorobenzene	ND	8.0						0	0	25	U
Chlorodibromomethane	ND	8.0						0	0	25	U
Chloroethane	ND	8.0						0	0	25	U
Chloroform	ND	8.0						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47222

Sample ID:	1203477-047ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47222	
Client ID:	ZZZZZZ	Batch ID:	R47222	TestNo:	TO-15			Analysis Date:	3/28/2012	SeqNo:	923383	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	8.0						0	0	25	U
cis-1,2-Dichloroethene	ND	8.0						0	0	25	U
cis-1,3-dichloropropene	ND	8.0						0	0	25	U
Cyclohexane	9.3	16						8.800	5.31	25	J
Dichlorodifluoromethane	ND	8.0						0	0	25	U
Ethyl acetate	ND	8.0						0	0	25	U
Ethylbenzene	ND	16						0	0	25	U
Heptane	ND	8.0						0	0	25	U
Hexachlorobutadiene	ND	16						0	0	25	U
m,p-Xylene	ND	16						0	0	25	U
Methylene chloride	ND	40						0	0	25	U
n-Hexane	ND	16						0	0	25	U
Naphthalene	ND	8.0						0	0	25	U
o-Xylene	ND	8.0						0	0	25	U
Propylene	12	8.0						12.00	3.28	25	
Styrene	ND	8.0						0	0	25	U
tert-Butyl Methyl Ether	ND	8.0						0	0	25	U
Tetrachloroethene	ND	8.0						0	0	25	U
Tetrahydrofuran	ND	8.0						0	0	25	U
Toluene	16	8.0						15.36	3.08	25	
trans-1,2-Dichloroethene	ND	8.0						0	0	25	U
trans-1,3-dichloropropene	ND	8.0						0	0	25	U
Trichloroethene	ND	8.0						0	0	25	U
Trichlorofluoromethane	ND	8.0						0	0	25	U
Vinyl acetate	ND	8.0						0	0	25	U
Vinyl chloride	ND	8.0						0	0	25	U
Xylenes, Total	ND	24						0	0	25	U
Surr: 4-Bromofluorobenzene	110		100.0		110	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47276

Sample ID:	Blank VOA9 03291	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47276	
Client ID:	PBW	Batch ID:	R47276	TestNo:	MA_APH			Analysis Date:	3/29/2012	SeqNo:	924093	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons		ND	120									U
C9-C10 Aromatic Hydrocarbons		ND	130									U
C9-C12 Aliphatic Hydrocarbons		ND	190									U
Surr: 4-Bromofluorobenzene		92		89.50		103	70	130				

Sample ID:	1203608-016Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47276	
Client ID:	VA1245	Batch ID:	R47276	TestNo:	MA_APH			Analysis Date:	3/29/2012	SeqNo:	924095	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons		29,000	4,700						34,150	17.4	30	
C9-C10 Aromatic Hydrocarbons		ND	5,300						0	0	30	U
C9-C12 Aliphatic Hydrocarbons		1,600	7,600						0	200	30	JR
Surr: 4-Bromofluorobenzene		4,000		3,580		111	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47284

Sample ID: **MBLK VOA1 032912** Samp Type: **MBLK** Test Code: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **47284**

Client ID: **PBW** Batch ID: **R47284** TestNo: **TO-15** Analysis Date: **3/29/2012** SeqNo: **924227**

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47284

Sample ID:	MBLK VOA1 032912	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47284
Client ID:	PBW	Batch ID:	R47284	TestNo:	TO-15			Analysis Date:	3/29/2012	SeqNo:	924227

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	14		12.50		116	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47284

Sample ID:	1203608-010ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47284	
Client ID:	VA1088	Batch ID:	R47284	TestNo:	TO-15			Analysis Date:	3/29/2012	SeqNo:	924231	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	8,000						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	8,000						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000						0	0	25	U
1,1,2-Trichloroethane	ND	8,000						0	0	25	U
1,1-Dichloroethane	ND	8,000						0	0	25	U
1,1-Dichloroethene	ND	8,000						0	0	25	U
1,2,4-Trichlorobenzene	ND	8,000						0	0	25	U
1,2,4-Trimethylbenzene	ND	8,000						0	0	25	U
1,2-Dibromoethane	ND	8,000						0	0	25	U
1,2-Dichlorobenzene	ND	8,000						0	0	25	U
1,2-Dichloroethane	ND	8,000						0	0	25	U
1,2-Dichloropropane	ND	8,000						0	0	25	U
1,3,5-Trimethylbenzene	ND	8,000						0	0	25	U
1,3-Butadiene	ND	8,000						0	0	25	U
1,3-Dichlorobenzene	ND	8,000						0	0	25	U
1,4-Dichlorobenzene	ND	8,000						0	0	25	U
2-Butanone	ND	8,000						0	0	25	U
2-Hexanone	ND	8,000						0	0	25	U
4-Methyl-2-pentanone	ND	8,000						0	0	25	U
Acetone	ND	8,000						0	0	25	U
Benzene	37,000	8,000						32,960	11.4	25	
Benzyl chloride	ND	8,000						0	0	25	U
Bromodichloromethane	ND	8,000						0	0	25	U
Bromoform	ND	8,000						0	0	25	U
Bromomethane	ND	8,000						0	0	25	U
Carbon disulfide	ND	8,000						0	0	25	U
Carbon tetrachloride	ND	8,000						0	0	25	U
Chlorobenzene	ND	8,000						0	0	25	U
Chlorodibromomethane	ND	8,000						0	0	25	U
Chloroethane	ND	8,000						0	0	25	U
Chloroform	ND	8,000						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47284

Sample ID:	1203608-010ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47284	
Client ID:	VA1088	Batch ID:	R47284	TestNo:	TO-15			Analysis Date:	3/29/2012	SeqNo:	924231	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	8,000						0	0	25	U
cis-1,2-Dichloroethene	ND	8,000						0	0	25	U
cis-1,3-dichloropropene	ND	8,000						0	0	25	U
Cyclohexane	11,000	16,000						9,920	13.5	25	J
Dichlorodifluoromethane	ND	8,000						0	0	25	U
Ethyl acetate	ND	8,000						0	0	25	U
Ethylbenzene	ND	16,000						0	0	25	U
Heptane	ND	8,000						0	0	25	U
Hexachlorobutadiene	ND	16,000						0	0	25	U
m,p-Xylene	ND	16,000						0	0	25	U
Methylene chloride	ND	40,000						0	0	25	U
n-Hexane	10,000	16,000						9,120	12.3	25	J
Naphthalene	ND	8,000						0	0	25	U
o-Xylene	ND	8,000						0	0	25	U
Propylene	ND	8,000						0	0	25	U
Styrene	ND	8,000						0	0	25	U
tert-Butyl Methyl Ether	ND	8,000						0	0	25	U
Tetrachloroethene	ND	8,000						0	0	25	U
Tetrahydrofuran	ND	8,000						0	0	25	U
Toluene	50,000	8,000						48,080	4.55	25	
trans-1,2-Dichloroethene	ND	8,000						0	0	25	U
trans-1,3-dichloropropene	ND	8,000						0	0	25	U
Trichloroethene	ND	8,000						0	0	25	U
Trichlorofluoromethane	ND	8,000						0	0	25	U
Vinyl acetate	ND	8,000						0	0	25	U
Vinyl chloride	ND	8,000						0	0	25	U
Xylenes, Total	ND	24,000						0	0	25	U
Surr: 4-Bromofluorobenzene	120,000		100,000		116	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47313

Sample ID:	MBLK VOA1 033012	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47313
Client ID:	PBW	Batch ID:	R47313	TestNo:	TO-15			Analysis Date:	3/30/2012	SeqNo:	924682

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47313

Sample ID:	MBLK VOA1 033012	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47313
Client ID:	PBW	Batch ID:	R47313	TestNo:	TO-15			Analysis Date:	3/30/2012	SeqNo:	924682

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	15		12.50		116	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47313

Sample ID:	1203608-014ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47313	
Client ID:	VA1239	Batch ID:	R47313	TestNo:	TO-15			Analysis Date:	3/30/2012	SeqNo:	924689	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	40						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	U
1,1,2-Trichloroethane	ND	40						0	0	25	U
1,1-Dichloroethane	ND	40						0	0	25	U
1,1-Dichloroethene	ND	40						0	0	25	U
1,2,4-Trichlorobenzene	ND	40						0	0	25	U
1,2,4-Trimethylbenzene	ND	40						0	0	25	U
1,2-Dibromoethane	ND	40						0	0	25	U
1,2-Dichlorobenzene	ND	40						0	0	25	U
1,2-Dichloroethane	ND	40						0	0	25	U
1,2-Dichloropropane	ND	40						0	0	25	U
1,3,5-Trimethylbenzene	ND	40						0	0	25	U
1,3-Butadiene	ND	40						0	0	25	U
1,3-Dichlorobenzene	ND	40						0	0	25	U
1,4-Dichlorobenzene	ND	40						0	0	25	U
2-Butanone	ND	40						0	0	25	U
2-Hexanone	ND	40						0	0	25	U
4-Methyl-2-pentanone	ND	40						0	0	25	U
Acetone	ND	40						0	0	25	U
Benzene	780	40						808.0	3.07	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#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47313

Sample ID:	1203608-014ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47313	
Client ID:	VA1239	Batch ID:	R47313	TestNo:	TO-15			Analysis Date:	3/30/2012	SeqNo:	924689	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	40						0	0	25	U
cis-1,2-Dichloroethene	ND	40						0	0	25	U
cis-1,3-dichloropropene	ND	40						0	0	25	U
Cyclohexane	1,300	80						1,335	2.49	25	
Dichlorodifluoromethane	ND	40						0	0	25	U
Ethyl acetate	ND	40						0	0	25	U
Ethylbenzene	110	80						114.4	7.62	25	
Heptane	1,300	40						1,363	2.59	25	
Hexachlorobutadiene	ND	80						0	0	25	U
m,p-Xylene	380	80						411.2	7.26	25	
Methylene chloride	ND	200						0	0	25	U
n-Hexane	760	80						765.6	0.892	25	
Naphthalene	ND	40						0	0	25	U
o-Xylene	96	40						104.0	7.58	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	1,900	40						2,038	5.22	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	480	120						515.2	7.32	25	
Surr: 4-Bromofluorobenzene	560		500.0		112	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47377

Sample ID:	MBLK VOA9 040312	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47377	
Client ID:	PBW	Batch ID:	R47377	TestNo:	MA_APH			Analysis Date:	4/3/2012	SeqNo:	926226	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	84		89.50		94.1	70	130				

Sample ID:	1203608-003Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47377	
Client ID:	VA1016	Batch ID:	R47377	TestNo:	MA_APH			Analysis Date:	4/3/2012	SeqNo:	926229	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	28,000,000	2,300,000						29,990,000	6.64	30	
C9-C10 Aromatic Hydrocarbons	ND	2,700,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000						0	0	30	U
Surr: 4-Bromofluorobenzene	1,700,000		1,790,000		95.5	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47420

Sample ID:	MBLK VOA1 040312	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47420
Client ID:	PBW	Batch ID:	R47420	TestNo:	TO-15			Analysis Date:	4/4/2012	SeqNo:	926469

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47420

Sample ID:	MBLK VOA1 040312	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47420	
Client ID:	PBW	Batch ID:	R47420	TestNo:	TO-15			Analysis Date:	4/4/2012	SeqNo:	926469	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									U
cis-1,2-Dichloroethene	ND	1.0									U
cis-1,3-dichloropropene	ND	1.0									U
Cyclohexane	ND	2.0									U
Dichlorodifluoromethane	ND	1.0									U
Ethyl acetate	ND	1.0									U
Ethylbenzene	ND	2.0									U
Heptane	ND	1.0									U
Hexachlorobutadiene	ND	2.0									U
m,p-Xylene	ND	2.0									U
Methylene chloride	ND	5.0									U
n-Hexane	ND	2.0									U
Naphthalene	ND	1.0									U
o-Xylene	ND	1.0									U
Propylene	ND	1.0									U
Styrene	ND	1.0									U
tert-Butyl Methyl Ether	ND	1.0									U
Tetrachloroethene	ND	1.0									U
Tetrahydrofuran	ND	1.0									U
Toluene	ND	1.0									U
trans-1,2-Dichloroethene	ND	1.0									U
trans-1,3-dichloropropene	ND	1.0									U
Trichloroethene	ND	1.0									U
Trichlorofluoromethane	ND	1.0									U
Vinyl acetate	ND	1.0									U
Vinyl chloride	ND	1.0									U
Xylenes, Total	ND	3.0									U
Surr: 4-Bromofluorobenzene	12		12.50		100	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47420

Sample ID:	1203732-008Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47420
Client ID:	ZZZZZZ	Batch ID:	R47420	TestNo:	TO-15			Analysis Date:	4/4/2012	SeqNo:	926473

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	8,000						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	8,000						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000						0	0	25	U
1,1,2-Trichloroethane	ND	8,000						0	0	25	U
1,1-Dichloroethane	ND	8,000						0	0	25	U
1,1-Dichloroethene	ND	8,000						0	0	25	U
1,2,4-Trichlorobenzene	ND	8,000						0	0	25	U
1,2,4-Trimethylbenzene	ND	8,000						0	0	25	U
1,2-Dibromoethane	ND	8,000						0	0	25	U
1,2-Dichlorobenzene	ND	8,000						0	0	25	U
1,2-Dichloroethane	ND	8,000						0	0	25	U
1,2-Dichloropropane	ND	8,000						0	0	25	U
1,3,5-Trimethylbenzene	ND	8,000						0	0	25	U
1,3-Butadiene	ND	8,000						0	0	25	U
1,3-Dichlorobenzene	ND	8,000						0	0	25	U
1,4-Dichlorobenzene	ND	8,000						0	0	25	U
2-Butanone	ND	8,000						0	0	25	U
2-Hexanone	ND	8,000						0	0	25	U
4-Methyl-2-pentanone	ND	8,000						0	0	25	U
Acetone	ND	8,000						0	0	25	U
Benzene	150,000	8,000						168,600	11.1	25	
Benzyl chloride	ND	8,000						0	0	25	U
Bromodichloromethane	ND	8,000						0	0	25	U
Bromoform	ND	8,000						0	0	25	U
Bromomethane	ND	8,000						0	0	25	U
Carbon disulfide	ND	8,000						0	0	25	U
Carbon tetrachloride	ND	8,000						0	0	25	U
Chlorobenzene	ND	8,000						0	0	25	U
Chlorodibromomethane	ND	8,000						0	0	25	U
Chloroethane	ND	8,000						0	0	25	U
Chloroform	ND	8,000						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47420

Sample ID:	1203732-008Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	47420
Client ID:	ZZZZZZ	Batch ID:	R47420	TestNo:	TO-15			Analysis Date:	4/4/2012	SeqNo:	926473

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	8,000						0	0	25	U
cis-1,2-Dichloroethene	ND	8,000						0	0	25	U
cis-1,3-dichloropropene	ND	8,000						0	0	25	U
Cyclohexane	440,000	16,000						457,500	3.76	25	
Dichlorodifluoromethane	ND	8,000						0	0	25	U
Ethyl acetate	ND	8,000						0	0	25	U
Ethylbenzene	ND	16,000						0	0	25	U
Heptane	170,000	8,000						172,300	2.35	25	
Hexachlorobutadiene	ND	16,000						0	0	25	U
m,p-Xylene	13,000	16,000						12,880	1.25	25	J
Methylene chloride	ND	40,000						0	0	25	U
n-Hexane	450,000	16,000						471,000	5.41	25	
Naphthalene	ND	8,000						0	0	25	U
o-Xylene	ND	8,000						0	0	25	U
Propylene	17,000	8,000						18,080	4.06	25	
Styrene	ND	8,000						0	0	25	U
tert-Butyl Methyl Ether	ND	8,000						0	0	25	U
Tetrachloroethene	ND	8,000						0	0	25	U
Tetrahydrofuran	ND	8,000						0	0	25	U
Toluene	130,000	8,000						134,500	6.57	25	
trans-1,2-Dichloroethene	ND	8,000						0	0	25	U
trans-1,3-dichloropropene	ND	8,000						0	0	25	U
Trichloroethene	ND	8,000						0	0	25	U
Trichlorofluoromethane	ND	8,000						0	0	25	U
Vinyl acetate	ND	8,000						0	0	25	U
Vinyl chloride	ND	8,000						0	0	25	U
Xylenes, Total	13,000	24,000						12,880	1.25	25	J
Surr: 4-Bromofluorobenzene	100,000		100,000		100	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1203608

Date Reported: 4/6/2012
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R47436

Sample ID:	MBLK VOA9 040412	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47436	
Client ID:	PBW	Batch ID:	R47436	TestNo:	MA_APH			Analysis Date:	4/4/2012	SeqNo:	926674	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	84		89.50		93.6	70	130				

Sample ID:	1203732-032Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	47436	
Client ID:	ZZZZZZ	Batch ID:	R47436	TestNo:	MA_APH			Analysis Date:	4/5/2012	SeqNo:	926681	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	9,600,000	2,300,000						9,360,000	2.95	30	
C9-C10 Aromatic Hydrocarbons	ND	2,700,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000						0	0	30	U
Surr: 4-Bromofluorobenzene	1,800,000		1,790,000		98.7	70	130		0	30	

RTI Laboratories

Run ID: VOA1_120327B **Run No.:** 47222

Analytical Run Date: 3/27/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 47220 **Column ID:** 0.25mm, 1.4um

Column Length: 30m

Run Comments: ch rev 3/30/12/PR by RD2 29mar12

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB2 VOA1 032712	BFB_TUNE	TUNE	R47222	3/27/2012 11:48:00 PM	Celeste Hoitash		
ICV VOA1 032712	EPA_TO15	ICV	R47222	3/28/2012 7:55:00 AM	Celeste Hoitash		
RLVS1 VOA1 03271	EPA_TO15	RLVS	R47222	3/28/2012 8:55:00 AM	Celeste Hoitash		
MBLK VOA1 032712	EPA_TO15	MBLK	R47222	3/28/2012 9:42:00 AM	Celeste Hoitash		
1203810-001A	EPA_TO15	SAMP	R47222	3/28/2012 11:17:00 AM	Celeste Hoitash		
1203810-002A	EPA_TO15	SAMP	R47222	3/28/2012 12:40:00 PM	Celeste Hoitash		
1203810-003A	EPA_TO15	SAMP	R47222	3/28/2012 2:03:00 PM	Celeste Hoitash		
1203810-004A	EPA_TO15	SAMP	R47222	3/28/2012 2:44:00 PM	Celeste Hoitash		
1203810-005A	EPA_TO15	SAMP	R47222	3/28/2012 4:23:00 PM	Celeste Hoitash		
1203477-047A	EPA_TO15	SAMP	R47222	3/28/2012 5:04:00 PM	Celeste Hoitash		
1203477-047ADUP	EPA_TO15	DUP	R47222	3/28/2012 5:46:00 PM	Celeste Hoitash		
1203608-030A	EPA_TO15	SAMP	R47222	3/28/2012 6:34:00 PM	Celeste Hoitash		
1203608-021A	EPA_TO15	SAMP	R47222	3/28/2012 7:15:00 PM	Celeste Hoitash		
1203608-015A	EPA_TO15	SAMP	R47222	3/28/2012 8:02:00 PM	Celeste Hoitash		
1203608-023A	EPA_TO15	SAMP	R47222	3/28/2012 8:44:00 PM	Celeste Hoitash		
1203608-024A	EPA_TO15	SAMP	R47222	3/28/2012 9:24:00 PM	Celeste Hoitash		
1203608-020A	EPA_TO15	SAMP	R47222	3/28/2012 10:09:00 PM	Celeste Hoitash		
RLVS2 VOA1 03271	EPA_TO15	RLVS	R47222	3/28/2012 10:51:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47222

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
923373	BFB2 VOA1 032712	BFB_TUNE	TUNE	\1\DATA\032712	3/27/2012 11:48:	1	R47222		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.5	0.5		100	0	0	0	0	0	1%	0	2	0%	
174	M		90.3	90.3		100	0	0	0	0	0	90%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		99.2	99.2		100	0	0	0	0	0	99%	93	101	0%	
177	M		7	7		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		46.2	46.2		100	0	0	0	0	0	46%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		7.1	7.1		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
923374	ICV VOA1 032712	EPA_TO15	ICV	\1\DATA\032712	3/28/2012 7:55:0	1	R47222		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	11.09	11.09		9.6	0	0	0.107	1	0	116%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.87	10.87		10	0	0	0.211	1	0	109%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.94	11.94		9.8	0	0	0.108	1	0	122%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.86	10.86		9.8	0	0	0.2	1	0	111%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.28	11.28		9.7	0	0	0.111	1	0	116%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.84	11.84		9.9	0	0	0.097	1	0	120%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.4	9.4		9.1	0	0	0.271	1	0	103%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.57	9.57		9.8	0	0	0.245	1	0	98%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.77	10.77		9.6	0	0	0.186	1	0	112%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.8	10.8		9.7	0	0	0.208	1	0	111%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.98	10.98		9.7	0	0	0.196	1	0	113%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.84	10.84		9.8	0	0	0.224	1	0	111%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.07	10.07		9.7	0	0	0.24	1	0	104%	70	130	0%	
1,3-Butadiene	A	ppbv	9.97	9.97		9.8	0	0	0.152	1	0	102%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.7	10.7		9.7	0	0	0.202	1	0	110%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
923374	ICV VOA1 032712	EPA_TO15	ICV	\1\DATA\032712	3/28/2012 7:55:0	1	R47222		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.52	10.52		9.6	0	0	0.194	1	0	110%	70	130	0%	
1,4-Dioxane	A	ppbv	7.84	7.84		9.6	0	0	0.128	1	0	82%	70	130	0%	
2-Butanone	A	ppbv	9.89	9.89		9.9	0	0	0.287	1	0	100%	70	130	0%	
2-Hexanone	A	ppbv	8.92	8.92		9.8	0	0	0.135	1	0	91%	70	130	0%	
2-Propanol	A	ppbv	10.6	10.6		10.1	0	0	0.329	1	0	105%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.37	10.37		10	0	0	0.157	1	0	104%	70	130	0%	
Acetone	A	ppbv	10.72	10.72		10	0	0	0.43	1	0	107%	70	130	0%	
Benzene	A	ppbv	11.2	11.2		9.6	0	0	0.126	1	0	117%	70	130	0%	
Benzyl chloride	A	ppbv	10.84	10.84		9.7	0	0	0.155	1	0	112%	70	130	0%	
Bromodichloromethane	A	ppbv	11.32	11.32		9.6	0	0	0.156	1	0	118%	70	130	0%	
Bromoform	A	ppbv	11.23	11.23		9.6	0	0	0.197	1	0	117%	70	130	0%	
Bromomethane	A	ppbv	10.55	10.55		9.3	0	0	0.075	1	0	113%	70	130	0%	
Carbon disulfide	A	ppbv	12.37	12.37		9.7	0	0	0.093	1	0	128%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.12	11.12		9.5	0	0	0.114	1	0	117%	70	130	0%	
Chlorobenzene	A	ppbv	10.68	10.68		9.9	0	0	0.275	1	0	108%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.48	11.48		9.2	0	0	0.165	1	0	125%	70	130	0%	
Chloroethane	A	ppbv	10.48	10.48		9.8	0	0	0.063	1	0	107%	70	130	0%	
Chloroform	A	ppbv	10.92	10.92		9.4	0	0	0.126	1	0	116%	70	130	0%	
Chloromethane	A	ppbv	10.16	10.16		9.8	0	0	0.104	1	0	104%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	11.41	11.41		9.8	0	0	0.107	1	0	116%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.73	10.73		9.5	0	0	0.166	1	0	113%	70	130	0%	
Cyclohexane	A	ppbv	11.55	11.55		9.8	0	0	0.684	2	0	118%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.4	10.4		9.2	0	0	0.086	1	0	113%	70	130	0%	
Ethanol	A	ppbv	8.5	8.5		9.2	0	0	1.962	5	0	92%	70	130	0%	
Ethyl acetate	A	ppbv	10.05	10.05		9.8	0	0	0.157	1	0	103%	70	130	0%	
Ethylbenzene	A	ppbv	10.46	10.46		9.8	0	0	0.737	2	0	107%	70	130	0%	
Heptane	A	ppbv	11.46	11.46		9.9	0	0	0.249	1	0	116%	70	130	0%	
Hexachlorobutadiene	A	ppbv	11.06	11.06		9.4	0	0	0.374	2	0	118%	70	130	0%	
m,p-Xylene	A	ppbv	20.6	20.6		19.2	0	0	0.524	2	0	107%	70	130	0%	
Methylene chloride	A	ppbv	11.56	11.56		10	0	0	2.077	5	0	116%	70	130	0%	
n-Hexane	A	ppbv	11.83	11.83		10.1	0	0	0.692	2	0	117%	70	130	0%	
Naphthalene	A	ppbv	10.28	10.28		9.2	0	0	0.247	1	0	112%	70	130	0%	
o-Xylene	A	ppbv	10.62	10.62		10	0	0	0.258	1	0	106%	70	130	0%	
Propylene	A	ppbv	11.48	11.48		10.2	0	0	0.075	1	0	113%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
923374	ICV VOA1 032712	EPA_TO15	ICV	\1\DATA\032712	3/28/2012 7:55:0	1	R47222		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	10.43	10.43		9.8	0	0	0.263	1	0	106%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.62	11.62		9.9	0	0	0.228	1	0	117%	70	130	0%	
Tetrachloroethene	A	ppbv	10.34	10.34		9.6	0	0	0.148	1	0	108%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.13	10.13		10	0	0	0.201	1	0	101%	70	130	0%	
Toluene	A	ppbv	10.86	10.86		9.8	0	0	0.158	1	0	111%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	12.26	12.26		9.8	0	0	0.117	1	0	125%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.81	9.81		9.1	0	0	0.171	1	0	108%	70	130	0%	
Trichloroethene	A	ppbv	11.04	11.04		9.6	0	0	0.119	1	0	115%	70	130	0%	
Trichlorofluoromethane	A	ppbv	11.07	11.07		9.6	0	0	0.148	1	0	115%	70	130	0%	
Vinyl acetate	A	ppbv	10.55	10.55		9.9	0	0	0.266	1	0	107%	70	130	0%	
Vinyl chloride	A	ppbv	8.75	8.75		9.4	0	0	0.072	1	0	93%	70	130	0%	
Xylenes, Total	C	ppbv	31.22	31.22		29.2	0	0	0.782	3	0	107%	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		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	13.32	13.32		12.5	0	0	0	0	0	107%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
923375	RLVS1 VOA1 03271	EPA_TO15	RLVS	\1\DATA\032712	3/28/2012 8:55:0	1	R47222		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	0.98	0.98		0.996	0	0	0.107	1	0	98%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.37	1.37		1	0	0	0.211	1	0	137%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.02	1.02		0.98	0	0	0.108	1	0	104%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.98	0.98		0.98	0	0	0.2	1	0	100%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.93	0.93		0.97	0	0	0.111	1	0	96%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.97	0.97		0.99	0	0	0.097	1	0	98%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.5	1.5		0.91	0	0	0.271	1	0	165%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.4	1.4		0.98	0	0	0.245	1	0	143%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.98	0.98		0.96	0	0	0.186	1	0	102%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.54	1.54		0.97	0	0	0.208	1	0	159%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	0.95	0.95		0.97	0	0	0.196	1	0	98%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.91	0.91		0.98	0	0	0.224	1	0	93%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032712\03271220.D Vial: 2
Acq On : 28 Mar 2012 7:55 am Operator: RACHEL HILL
Sample : ICV VOA1 032712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 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	120	0.00
2	T	Propylene	1.052	1.184	-12.5	128	0.01
3	T	Dichlorodifluoromethane	3.636	4.109	-13.0	125	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.517	2.859	-13.6	124	0.00
5	T	Chloromethane	1.095	1.170	-6.8	117	0.01
6	T	Vinyl chloride	1.242	1.156	6.9	87	0.00
7	T	1,3-Butadiene	0.919	0.934	-1.6	100	0.00
8	T	Bromomethane	1.300	1.475	-13.5	127	0.00
9	T	Chloroethane	0.743	0.846	-13.9	129	0.00
10	T	Trichlorofluoromethane	3.354	3.869	-15.4	122	0.00
11	T	Ethanol	0.425	0.393	7.5	98	0.00
12	T	Freon113	2.225	2.710	-21.8	124	0.00
13	T	1,1-Dichloroethene	1.748	2.090	-19.6	128	0.00
14	T	Acetone	1.784	1.913	-7.2	110	0.00
15	T	Carbon disulfide	2.916	3.720	-27.6	145	0.00
16	T	2-Propanol	1.738	1.824	-4.9	110	0.00
17	T	Methylene chloride	1.262	1.459	-15.6	125	0.00
18	T	tert-Butyl Methyl Ether	2.952	3.464	-17.3	118	0.00
19	T	trans-1,2-Dichloroethene	1.601	2.004	-25.2	132	0.00
20	T	n-Hexane	1.754	2.055	-17.2	123	0.00
21	T	1,1-Dichloroethane	2.060	2.397	-16.4	123	0.00
22	T	Vinyl acetate	2.709	2.888	-6.6	103	0.00
23	T	cis-1,2-Dichloroethene	1.164	1.355	-16.4	124	0.00
24	T	2-Butanone	1.751	1.750	0.1	99	0.00
25	T	Ethyl acetate	2.234	2.290	-2.5	100	0.00
26	T	Tetrahydrofuran	1.036	1.049	-1.3	97	0.00
27	T	Chloroform	2.135	2.378	-11.4	110	0.00
28	T	1,1,1-Trichloroethane	2.186	2.525	-15.5	112	0.00
29	T	Cyclohexane	1.594	1.879	-17.9	115	0.00
30	T	Carbon tetrachloride	2.348	2.749	-17.1	117	0.00
31	T	Benzene	2.949	3.440	-16.6	117	0.00
32	T	1,2-Dichloroethane	1.326	1.501	-13.2	108	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	125	0.00
34	T	Heptane	0.523	0.606	-15.9	112	0.00
35	T	Trichloroethene	0.411	0.473	-15.1	122	0.00
36	T	1,2-Dichloropropane	0.313	0.347	-10.9	112	0.00
37	T	1,4-Dioxane	0.160	0.131	18.1	89	0.00
38	T	Bromodichloromethane	0.599	0.706	-17.9	120	0.00
39	T	cis-1,3-Dichloropropene	0.497	0.561	-12.9	116	0.00
40	T	4-Methyl-2-pentanone	0.215	0.223	-3.7	107	0.00
41	T	Toluene	0.862	0.955	-10.8	112	0.00
42	T	trans-1,3-Dichloropropene	0.456	0.491	-7.7	111	0.00
43	T	1,1,2-Trichloroethane	0.304	0.336	-10.5	116	0.00
44	T	Tetrachloroethene	0.509	0.548	-7.7	115	0.00
45	T	2-Hexanone	0.401	0.365	9.0	94	0.00
46	T	Chlorodibromomethane	0.489	0.573	-17.2	121	0.00
47	T	1,2-Dibromoethane	0.457	0.512	-12.0	117	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	130	0.00
49	T	Chlorobenzene	0.934	1.007	-7.8	115	0.00
50	T	Ethylbenzene	1.465	1.564	-6.8	112	0.00
51	T	m,p-Xylene	1.078	1.156	-7.2	107	0.00
52	T	o-Xylene	1.097	1.166	-6.3	112	0.00
53	T	Styrene	0.821	0.874	-6.5	112	0.00
54	T	Bromoform	0.653	0.764	-17.0	128	0.00
55	S	4-Bromofluorobenzene	0.552	0.588	-6.5	141	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032712\03271220.D Vial: 2
Acq On : 28 Mar 2012 7:55 am Operator: RACHEL HILL
Sample : ICV VOA1 032712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 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	0.737	0.801	-8.7	122	0.00
57	T	4-Ethyltoluene	1.353	1.426	-5.4	118	0.00
58	T	1,3,5-Trimethylbenzene	1.196	1.242	-3.8	117	0.00
59	T	1,2,4-Trimethylbenzene	1.181	1.154	2.3	117	0.00
60	T	1,3-Dichlorobenzene	0.664	0.733	-10.4	130	0.00
61	T	1,4-Dichlorobenzene	0.627	0.686	-9.4	127	0.00
62	T	Benzyl chloride	0.843	0.943	-11.9	123	0.00
63	T	1,2-Dichlorobenzene	0.595	0.663	-11.4	128	0.00
64	T	1,2,4-Trichlorobenzene	0.140	0.145	-3.6	138	0.00
65	T	Hexachlorobutadiene	0.387	0.455	-17.6	152#	0.00
66		Naphthalene	0.197	0.220	-11.7	147	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032712\03271220.D Vial: 2
Acq On : 28 Mar 2012 7:55 am Operator: RACHEL HILL
Sample : ICV VOA1 032712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Mar 29 8:42 2012 Quant Results File: 032712V1.RES

Quant Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration
DataAcq Meth : 032712V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	969318	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	3394359	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.53	117	2112396	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	1242501	13.32	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 106.56%				
Target Compounds							Qvalue
2) Propylene	5.52	41	936116	11.48	ppbv		99
3) Dichlorodifluoromethane	5.59	85	2931348	10.40	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	2106053	10.79	ppbv		89
5) Chloromethane	6.01	50	862264	10.16	ppbv		100
6) Vinyl chloride	6.21	62	842293	8.75	ppbv		98
7) 1,3-Butadiene	6.28	39	709946	9.97	ppbv		91
8) Bromomethane	6.85	94	1063858	10.55	ppbv		99
9) Chloroethane	7.00	64	603642	10.48	ppbv		99
10) Trichlorofluoromethane	7.34	101	2880180	11.07	ppbv		100
11) Ethanol	7.56	45	280391	8.50	ppbv		98
12) Freon113	7.99	101	2059255	11.94	ppbv		98
13) 1,1-Dichloroethene	8.10	61	1604518	11.84	ppbv		95
14) Acetone	8.19	43	1483264	10.72	ppbv		98
15) Carbon disulfide	8.47	76	2797907	12.37	ppbv	#	99
16) 2-Propanol	8.23	45	1428668	10.60	ppbv	#	1
17) Methylene chloride	8.76	49	1131404	11.56	ppbv		98
18) tert-Butyl Methyl Ether	8.96	73	2659315	11.62	ppbv		99
19) trans-1,2-Dichloroethene	9.03	61	1522599	12.26	ppbv		94
20) n-Hexane	9.22	57	1609464	11.83	ppbv		98
21) 1,1-Dichloroethane	9.60	63	1802632	11.28	ppbv		100
22) Vinyl acetate	9.53	43	2217245	10.55	ppbv		100
23) cis-1,2-Dichloroethene	10.28	96	1029848	11.41	ppbv		94
24) 2-Butanone	10.25	43	1343217	9.89	ppbv		98
25) Ethyl acetate	10.20	43	1740399	10.05	ppbv	#	100
26) Tetrahydrofuran	10.58	42	813371	10.13	ppbv		95
27) Chloroform	10.61	83	1807315	10.92	ppbv		98
28) 1,1,1-Trichloroethane	10.85	97	1879788	11.09	ppbv		99
29) Cyclohexane	10.86	56	1427606	11.55	ppbv		98
30) Carbon tetrachloride	11.02	117	2024789	11.12	ppbv		99
31) Benzene	11.30	78	2560654	11.20	ppbv		99
32) 1,2-Dichloroethane	11.37	62	1128728	10.98	ppbv		98
34) Heptane	11.35	43	1628289	11.46	ppbv		96
35) Trichloroethene	12.03	130	1232238	11.04	ppbv		95
36) 1,2-Dichloropropane	12.39	63	922627	10.84	ppbv		98
37) 1,4-Dioxane	12.45	88	340306	7.84	ppbv		98
38) Bromodichloromethane	12.67	83	1840944	11.32	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	1447686	10.73	ppbv		98
40) 4-Methyl-2-pentanone	13.33	58	606131	10.37	ppbv		99
41) Toluene	13.63	91	2541527	10.86	ppbv		99
42) trans-1,3-Dichloropropene	13.93	75	1214383	9.81	ppbv		98
43) 1,1,2-Trichloroethane	14.20	97	895422	10.86	ppbv		98
44) Tetrachloroethene	14.33	166	1428653	10.34	ppbv		99
45) 2-Hexanone	14.40	43	971136	8.92	ppbv		97
46) Chlorodibromomethane	14.75	129	1525095	11.48	ppbv		99
47) 1,2-Dibromoethane	14.99	107	1335867	10.77	ppbv		99
49) Chlorobenzene	15.58	112	1684778	10.68	ppbv		95
50) Ethylbenzene	15.62	91	2590728	10.46	ppbv		98
51) m,p-Xylene	15.78	91	3751988	20.60	ppbv		99
52) o-Xylene	16.37	91	1969877	10.62	ppbv		97

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032712\03271220.D Vial: 2
Acq On : 28 Mar 2012 7:55 am Operator: RACHEL HILL
Sample : ICV VOA1 032712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Mar 29 8:42 2012 Quant Results File: 032712V1.RES

Quant Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration
DataAcq Meth : 032712V1

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	1447538	10.43	ppbv	98
54)	Bromoform	16.77	173	1238755	11.23	ppbv	100
56)	1,1,2,2-Tetrachloroethane	17.35	83	1352837	10.87	ppbv	99
57)	4-Ethyltoluene	17.60	105	2362018	10.33	ppbv	98
58)	1,3,5-Trimethylbenzene	17.68	105	2035313	10.07	ppbv	97
59)	1,2,4-Trimethylbenzene	18.26	105	1910715	9.57	ppbv	98
60)	1,3-Dichlorobenzene	18.82	146	1201384	10.70	ppbv	99
61)	1,4-Dichlorobenzene	18.96	146	1113643	10.52	ppbv	98
62)	Benzyl chloride	19.17	91	1545536	10.84	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	1086085	10.80	ppbv	99
64)	1,2,4-Trichlorobenzene	22.76	180	222277	9.40	ppbv	100
65)	Hexachlorobutadiene	22.96	225	722636	11.06	ppbv	99
66)	Naphthalene	23.45	128	342439	10.28	ppbv	99

(#) = qualifier out of range (m) = manual integration
03271220.D 032712V1.M Thu Mar 29 09:24:47 2012 Page 2

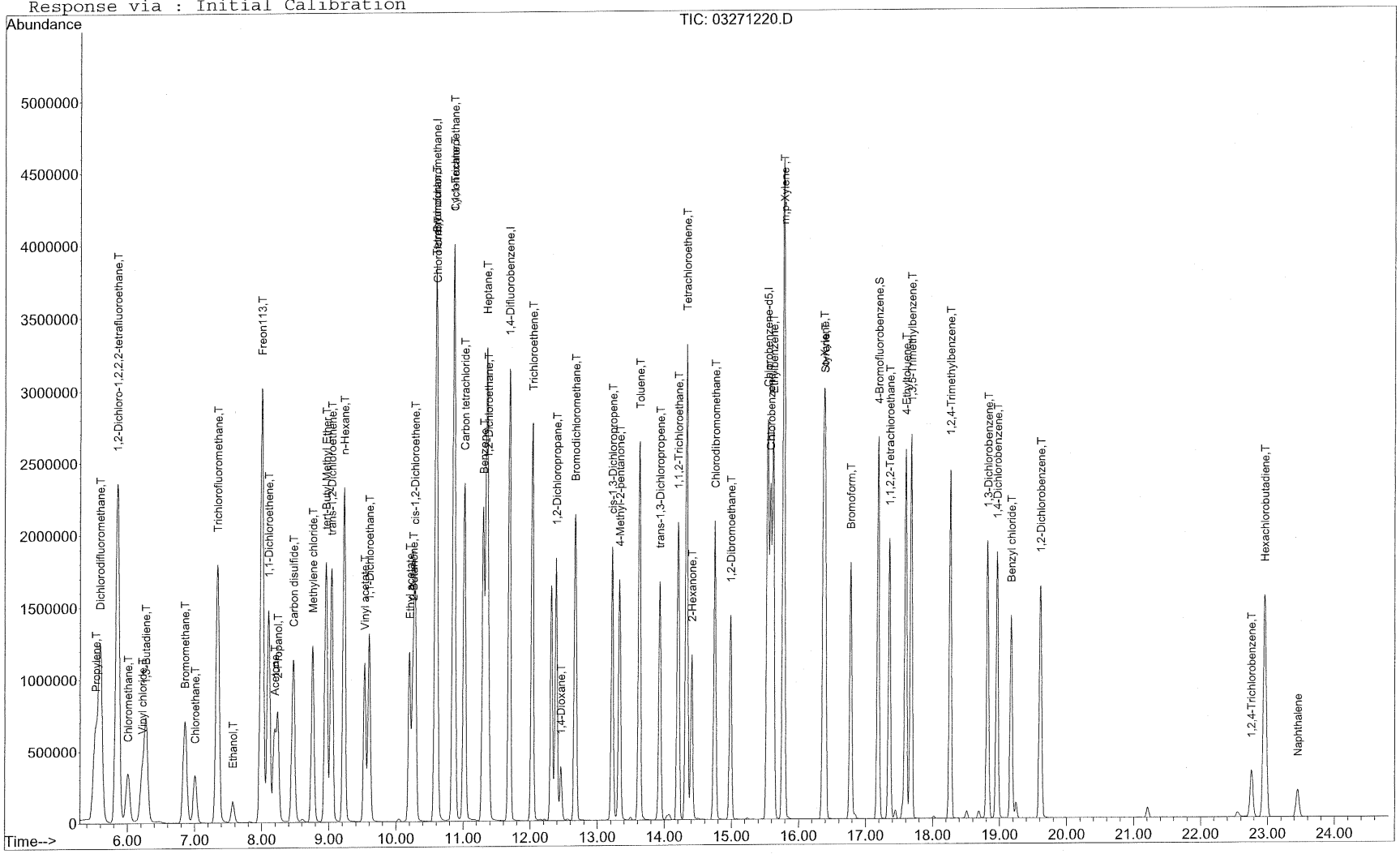
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032712\03271220.D
Acq On : 28 Mar 2012 7:55 am
Sample : ICV VOA1 032712
Misc : ICV EPA TO15
MS Integration Params: CLME.P
Quant Time: Mar 29 8:42 2012

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 032712V1.RES

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_120329A **Run No.:** 47284

Analytical Run Date: 3/29/2012 **InstrumentID:** VOA1

Analyst: Rachel Dear **Column:**

Calibration ID: 47220 **Column ID:** 0.25mm, 1.4um

Column Length: 30m

Run Comments: ch rev 4/2/12/PR - RH3 033012 re-analyzing 1203608-010a at lower dilution - MT

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 032912	BFB_TUNE	TUNE	R47284	3/29/2012 8:32:00 AM	Celeste Hoitash		
CCV VOA1 032912	EPA_TO15	CCV	R47284	3/29/2012 10:40:00 AM	Celeste Hoitash		
RLVS1 VOA1 03291	EPA_TO15	RLVS	R47284	3/29/2012 12:05:00 PM	Celeste Hoitash		
MBLK VOA1 032912	EPA_TO15	MBLK	R47284	3/29/2012 12:53:00 PM	Celeste Hoitash		
1203608-003A	EPA_TO15	SAMP	R47284	3/29/2012 1:33:00 PM	Celeste Hoitash		
1203608-009A	EPA_TO15	SAMP	R47284	3/29/2012 2:19:00 PM	Celeste Hoitash		
1203608-010A	EPA_TO15	SAMP	R47284	3/29/2012 3:29:00 PM	Celeste Hoitash		
1203608-010ADUP	EPA_TO15	DUP	R47284	3/29/2012 4:12:00 PM	Celeste Hoitash		
1203608-016A	EPA_TO15	SAMP	R47284	3/29/2012 4:56:00 PM	Celeste Hoitash		
1203608-017A	EPA_TO15	SAMP	R47284	3/29/2012 5:39:00 PM	Celeste Hoitash		
1203608-022A	EPA_TO15	SAMP	R47284	3/29/2012 6:29:00 PM	Celeste Hoitash		
1203608-018A	EPA_TO15	SAMP	R47284	3/29/2012 7:12:00 PM	Celeste Hoitash		
1203608-019A	EPA_TO15	SAMP	R47284	3/29/2012 8:02:00 PM	Celeste Hoitash		
1203608-025A	EPA_TO15	SAMP	R47284	3/29/2012 8:52:00 PM	Celeste Hoitash		
1203608-012A	EPA_TO15	SAMP	R47284	3/29/2012 9:41:00 PM	Celeste Hoitash		
1203608-013A	EPA_TO15	SAMP	R47284	3/29/2012 10:31:00 PM	Celeste Hoitash		
1203608-001A	EPA_TO15	SAMP	R47284	3/29/2012 11:18:00 PM	Celeste Hoitash		
1203608-002A	EPA_TO15	SAMP	R47284	3/30/2012 12:01:00 AM	Celeste Hoitash		
1203608-004A	EPA_TO15	SAMP	R47284	3/30/2012 12:44:00 AM	Celeste Hoitash		
1203608-026A	EPA_TO15	SAMP	R47284	3/30/2012 2:54:00 AM	Celeste Hoitash		
RLVS2 VOA1 03291	EPA_TO15	RLVS	R47284	3/30/2012 3:38:00 AM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47284

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924224	BFB VOA1 032912	BFB_TUNE	TUNE	\1\DATA\032912	3/29/2012 8:32:0	1	R47284		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		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		98	98		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		18.1	18.1		100	0	0	0	0	0	18%	8	40	0%	
75	M		48.7	48.7		100	0	0	0	0	0	49%	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
924225	CCV VOA1 032912	EPA_TO15	CCV	\1\DATA\032912	3/29/2012 10:40:	1	R47284		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	10.36	10.36		9.6	0	0	0.107	1	0	108%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.55	10.55		10	0	0	0.211	1	0	106%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.02	11.02		9.8	0	0	0.108	1	0	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.09	10.09		9.8	0	0	0.2	1	0	103%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.2	10.2		9.7	0	0	0.111	1	0	105%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.7	10.7		9.9	0	0	0.097	1	0	108%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.43	8.43		9.1	0	0	0.271	1	0	93%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.11	9.11		9.8	0	0	0.245	1	0	93%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.06	10.06		9.6	0	0	0.186	1	0	105%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.43	10.43		9.7	0	0	0.208	1	0	108%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.26	10.26		9.7	0	0	0.196	1	0	106%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.19	10.19		9.8	0	0	0.224	1	0	104%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.52	9.52		9.7	0	0	0.24	1	0	98%	70	130	0%	
1,3-Butadiene	A	ppbv	11.12	11.12		9.8	0	0	0.152	1	0	113%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.15	10.15		9.7	0	0	0.202	1	0	105%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924225	CCV VOA1 032912	EPA_TO15	CCV	\1\DATA\0329123	3/29/2012 10:40:	1	R47284		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.02	10.02		9.6	0	0	0.194	1	0	104%	70	130	0%	
1,4-Dioxane	A	ppbv	6.95	6.95		9.6	0	0	0.128	1	0	72%	70	130	0%	
2-Butanone	A	ppbv	8.85	8.85		9.9	0	0	0.287	1	0	89%	70	130	0%	
2-Hexanone	A	ppbv	8.32	8.32		9.8	0	0	0.135	1	0	85%	70	130	0%	
2-Propanol	A	ppbv	9.4	9.4		10.1	0	0	0.329	1	0	93%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.69	9.69		10	0	0	0.157	1	0	97%	70	130	0%	
Acetone	A	ppbv	9.72	9.72		10	0	0	0.43	1	0	97%	70	130	0%	
Benzene	A	ppbv	9.99	9.99		9.6	0	0	0.126	1	0	104%	70	130	0%	
Benzyl chloride	A	ppbv	10.38	10.38		9.7	0	0	0.155	1	0	107%	70	130	0%	
Bromodichloromethane	A	ppbv	10.57	10.57		9.6	0	0	0.156	1	0	110%	70	130	0%	
Bromoform	A	ppbv	10.36	10.36		9.6	0	0	0.197	1	0	108%	70	130	0%	
Bromomethane	A	ppbv	9.25	9.25		9.3	0	0	0.075	1	0	99%	70	130	0%	
Carbon disulfide	A	ppbv	10.9	10.9		9.7	0	0	0.093	1	0	112%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.1	10.1		9.5	0	0	0.114	1	0	106%	70	130	0%	
Chlorobenzene	A	ppbv	9.88	9.88		9.9	0	0	0.275	1	0	100%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.56	10.56		9.2	0	0	0.165	1	0	115%	70	130	0%	
Chloroethane	A	ppbv	9.2	9.2		9.8	0	0	0.063	1	0	94%	70	130	0%	
Chloroform	A	ppbv	10.27	10.27		9.4	0	0	0.126	1	0	109%	70	130	0%	
Chloromethane	A	ppbv	9.49	9.49		9.8	0	0	0.104	1	0	97%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.13	10.13		9.8	0	0	0.107	1	0	103%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.95	9.95		9.5	0	0	0.166	1	0	105%	70	130	0%	
Cyclohexane	A	ppbv	10.8	10.8		9.8	0	0	0.684	2	0	110%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.42	9.42		9.2	0	0	0.086	1	0	102%	70	130	0%	
Ethanol	A	ppbv	7.18	7.18		9.2	0	0	1.962	5	0	78%	70	130	0%	
Ethyl acetate	A	ppbv	9.37	9.37		9.8	0	0	0.157	1	0	96%	70	130	0%	
Ethylbenzene	A	ppbv	9.81	9.81		9.8	0	0	0.737	2	0	100%	70	130	0%	
Heptane	A	ppbv	11.27	11.27		9.9	0	0	0.249	1	0	114%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.28	10.28		9.4	0	0	0.374	2	0	109%	70	130	0%	
m,p-Xylene	A	ppbv	20.05	20.05		19.2	0	0	0.524	2	0	104%	70	130	0%	
Methylene chloride	A	ppbv	10.44	10.44		10	0	0	2.077	5	0	104%	70	130	0%	
n-Hexane	A	ppbv	10.82	10.82		10.1	0	0	0.692	2	0	107%	70	130	0%	
Naphthalene	A	ppbv	9.41	9.41		9.2	0	0	0.247	1	0	102%	70	130	0%	
o-Xylene	A	ppbv	10.04	10.04		10	0	0	0.258	1	0	100%	70	130	0%	
Propylene	A	ppbv	10.26	10.26		10.2	0	0	0.075	1	0	101%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924225	CCV VOA1 032912	EPA_TO15	CCV	.\1\DATA\0329123	3/29/2012 10:40:	1	R47284		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.8	9.8		9.8	0	0	0.263	1	0	100%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.56	10.56		9.9	0	0	0.228	1	0	107%	70	130	0%	
Tetrachloroethene	A	ppbv	9.74	9.74		9.6	0	0	0.148	1	0	101%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.77	9.77		10	0	0	0.201	1	0	98%	70	130	0%	
Toluene	A	ppbv	10.27	10.27		9.8	0	0	0.158	1	0	105%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.11	11.11		9.8	0	0	0.117	1	0	113%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.09	9.09		9.1	0	0	0.171	1	0	100%	70	130	0%	
Trichloroethene	A	ppbv	10.17	10.17		9.6	0	0	0.119	1	0	106%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.01	10.01		9.6	0	0	0.148	1	0	104%	70	130	0%	
Vinyl acetate	A	ppbv	9.68	9.68		9.9	0	0	0.266	1	0	98%	70	130	0%	
Vinyl chloride	A	ppbv	10.15	10.15		9.4	0	0	0.072	1	0	108%	70	130	0%	
Xylenes, Total	C	ppbv	30.09	30.09		29.2	0	0	0.782	3	0	103%	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		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	13.33	13.33		12.5	0	0	0	0	0	107%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924226	RLVS1 VOA1 03291	EPA_TO15	RLVS	.\1\DATA\0329123	3/29/2012 12:05:	1	R47284		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	1.05	1.05		0.996	0	0	0.107	1	0	105%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.52	1.52		1	0	0	0.211	1	0	152%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.09	1.09		0.98	0	0	0.108	1	0	111%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.03	1.03		0.98	0	0	0.2	1	0	105%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1	1		0.97	0	0	0.111	1	0	103%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.04	1.04		0.99	0	0	0.097	1	0	105%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.72	1.72		0.91	0	0	0.271	1	0	189%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.55	1.55		0.98	0	0	0.245	1	0	158%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	1.05	1.05		0.96	0	0	0.186	1	0	109%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.7	1.7		0.97	0	0	0.208	1	0	175%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.02	1.02		0.97	0	0	0.196	1	0	105%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.99	0.99		0.98	0	0	0.224	1	0	101%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032912\03291203.D Vial: 3
Acq On : 29 Mar 2012 10:40 am Operator: RACHEL HILL
Sample : CCV VOA1 032912 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 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	112	0.00
2	T	Propylene	1.052	1.058	-0.6	106	0.00
3	T	Dichlorodifluoromethane	3.636	3.724	-2.4	105	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.517	2.564	-1.9	104	0.00
5	T	Chloromethane	1.095	1.093	0.2	101	0.00
6	T	Vinyl chloride	1.242	1.340	-7.9	95	0.00
7	T	1,3-Butadiene	0.919	1.043	-13.5	104	0.00
8	T	Bromomethane	1.300	1.293	0.5	104	0.00
9	T	Chloroethane	0.743	0.743	0.0	105	0.00
10	T	Trichlorofluoromethane	3.354	3.499	-4.3	103	0.00
11	T	Ethanol	0.425	0.332	21.9	77	0.00
12	T	Freon113	2.225	2.501	-12.4	107	0.00
13	T	1,1-Dichloroethene	1.748	1.890	-8.1	108	0.00
14	T	Acetone	1.784	1.733	2.9	93	0.00
15	T	Carbon disulfide	2.916	3.277	-12.4	119	0.00
16	T	2-Propanol	1.738	1.618	6.9	91	0.00
17	T	Methylene chloride	1.262	1.317	-4.4	105	0.00
18	T	tert-Butyl Methyl Ether	2.952	3.148	-6.6	100	0.00
19	T	trans-1,2-Dichloroethene	1.601	1.815	-13.4	111	0.00
20	T	n-Hexane	1.754	1.879	-7.1	105	0.00
21	T	1,1-Dichloroethane	2.060	2.165	-5.1	103	0.00
22	T	Vinyl acetate	2.709	2.648	2.3	88	0.00
23	T	cis-1,2-Dichloroethene	1.164	1.203	-3.4	102	0.00
24	T	2-Butanone	1.751	1.566	10.6	83	0.00
25	T	Ethyl acetate	2.234	2.137	4.3	87	0.00
26	T	Tetrahydrofuran	1.036	1.012	2.3	87	0.00
27	T	Chloroform	2.135	2.237	-4.8	97	0.00
28	T	1,1,1-Trichloroethane	2.186	2.359	-7.9	97	0.00
29	T	Cyclohexane	1.594	1.757	-10.2	101	0.00
30	T	Carbon tetrachloride	2.348	2.497	-6.3	99	0.00
31	T	Benzene	2.949	3.070	-4.1	98	0.00
32	T	1,2-Dichloroethane	1.326	1.403	-5.8	94	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
34	T	Heptane	0.523	0.596	-14.0	99	0.00
35	T	Trichloroethene	0.411	0.435	-5.8	101	0.00
36	T	1,2-Dichloropropane	0.313	0.326	-4.2	95	0.00
37	T	1,4-Dioxane	0.160	0.116	27.5	71	0.00
38	T	Bromodichloromethane	0.599	0.659	-10.0	100	0.00
39	T	cis-1,3-Dichloropropene	0.497	0.520	-4.6	96	0.00
40	T	4-Methyl-2-pentanone	0.215	0.209	2.8	90	0.00
41	T	Toluene	0.862	0.903	-4.8	95	0.00
42	T	trans-1,3-Dichloropropene	0.456	0.455	0.2	93	0.00
43	T	1,1,2-Trichloroethane	0.304	0.313	-3.0	96	0.00
44	T	Tetrachloroethene	0.509	0.516	-1.4	98	0.00
45	T	2-Hexanone	0.401	0.340	15.2	79	0.00
46	T	Chlorodibromomethane	0.489	0.527	-7.8	100	0.00
47	T	1,2-Dibromoethane	0.457	0.478	-4.6	98	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	117	0.00
49	T	Chlorobenzene	0.934	0.932	0.2	97	0.00
50	T	Ethylbenzene	1.465	1.467	-0.1	95	0.00
51	T	m,p-Xylene	1.078	1.126	-4.5	94	0.00
52	T	o-Xylene	1.097	1.102	-0.5	96	0.00
53	T	Styrene	0.821	0.821	0.0	96	0.00
54	T	Bromoform	0.653	0.704	-7.8	107	0.00
55	S	4-Bromofluorobenzene	0.552	0.588	-6.5	128	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032912\03291203.D Vial: 3
Acq On : 29 Mar 2012 10:40 am Operator: RACHEL HILL
Sample : CCV VOA1 032912 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 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	0.737	0.777	-5.4	107	0.00
57	T	4-Ethyltoluene	1.353	1.346	0.5	101	0.00
58	T	1,3,5-Trimethylbenzene	1.196	1.174	1.8	100	0.00
59	T	1,2,4-Trimethylbenzene	1.181	1.098	7.0	101	0.00
60	T	1,3-Dichlorobenzene	0.664	0.695	-4.7	112	0.00
61	T	1,4-Dichlorobenzene	0.627	0.654	-4.3	110	0.00
62	T	Benzyl chloride	0.843	0.902	-7.0	106	0.00
63	T	1,2-Dichlorobenzene	0.595	0.640	-7.6	112	0.00
64	T	1,2,4-Trichlorobenzene	0.140	0.130	7.1	112	0.00
65	T	Hexachlorobutadiene	0.387	0.423	-9.3	128	0.00
66		Naphthalene	0.197	0.202	-2.5	122	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032912\03291203.D Vial: 3
Acq On : 29 Mar 2012 10:40 am Operator: RACHEL HILL
Sample : CCV VOA1 032912 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Mar 29 11:04 2012 Quant Results File: 032712V1.RES

Quant Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration
DataAcq Meth : 032712V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	903256	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	3049696	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.53	117	1915281	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.18	95	1127140	13.33	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 106.64%				
Target Compounds							Qvalue
2) Propylene	5.52	41	779742	10.26	ppbv		98
3) Dichlorodifluoromethane	5.59	85	2475963	9.42	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1760059	9.68	ppbv		87
5) Chloromethane	6.01	50	750576	9.49	ppbv		99
6) Vinyl chloride	6.22	62	910411	10.15	ppbv		98
7) 1,3-Butadiene	6.27	39	738251	11.12	ppbv		98
8) Bromomethane	6.85	94	868708	9.25	ppbv	#	99
9) Chloroethane	7.00	64	493748	9.20	ppbv		99
10) Trichlorofluoromethane	7.33	101	2427234	10.01	ppbv		100
11) Ethanol	7.56	45	220671	7.18	ppbv		99
12) Freon113	7.99	101	1771111	11.02	ppbv		96
13) 1,1-Dichloroethene	8.10	61	1351895	10.70	ppbv		93
14) Acetone	8.18	43	1252603	9.72	ppbv	#	93
15) Carbon disulfide	8.46	76	2296915	10.90	ppbv	#	100
16) 2-Propanol	8.23	45	1180966	9.40	ppbv	#	1
17) Methylene chloride	8.75	49	951669	10.44	ppbv		96
18) tert-Butyl Methyl Ether	8.95	73	2251711	10.56	ppbv		100
19) trans-1,2-Dichloroethene	9.03	61	1285049	11.11	ppbv		92
20) n-Hexane	9.22	57	1371380	10.82	ppbv		99
21) 1,1-Dichloroethane	9.59	63	1517804	10.20	ppbv		99
22) Vinyl acetate	9.53	43	1894659	9.68	ppbv		99
23) cis-1,2-Dichloroethene	10.28	96	851950	10.13	ppbv		92
24) 2-Butanone	10.25	43	1120119	8.85	ppbv		98
25) Ethyl acetate	10.19	43	1513075	9.37	ppbv	#	99
26) Tetrahydrofuran	10.58	42	731203	9.77	ppbv		97
27) Chloroform	10.60	83	1584163	10.27	ppbv		98
28) 1,1,1-Trichloroethane	10.85	97	1636473	10.36	ppbv		99
29) Cyclohexane	10.86	56	1244245	10.80	ppbv		97
30) Carbon tetrachloride	11.02	117	1714063	10.10	ppbv		99
31) Benzene	11.29	78	2129419	9.99	ppbv		99
32) 1,2-Dichloroethane	11.37	62	983086	10.26	ppbv		98
34) Heptane	11.35	43	1438482	11.27	ppbv		98
35) Trichloroethene	12.03	130	1019680	10.17	ppbv		95
36) 1,2-Dichloropropane	12.38	63	779741	10.19	ppbv		99
37) 1,4-Dioxane	12.45	88	271040	6.95	ppbv		98
38) Bromodichloromethane	12.67	83	1543737	10.57	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	1206066	9.95	ppbv		98
40) 4-Methyl-2-pentanone	13.33	58	509195	9.69	ppbv		98
41) Toluene	13.63	91	2159814	10.27	ppbv		99
42) trans-1,3-Dichloropropene	13.93	75	1010652	9.09	ppbv		98
43) 1,1,2-Trichloroethane	14.20	97	747209	10.09	ppbv		98
44) Tetrachloroethene	14.33	166	1209399	9.74	ppbv		100
45) 2-Hexanone	14.41	43	813194	8.32	ppbv		96
46) Chlorodibromomethane	14.75	129	1260453	10.56	ppbv		99
47) 1,2-Dibromoethane	14.99	107	1120654	10.06	ppbv		99
49) Chlorobenzene	15.58	112	1413789	9.88	ppbv		95
50) Ethylbenzene	15.62	91	2202641	9.81	ppbv		97
51) m,p-Xylene	15.78	91	3311286	20.05	ppbv		98
52) o-Xylene	16.37	91	1688200	10.04	ppbv		96

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032912\03291203.D Vial: 3
Acq On : 29 Mar 2012 10:40 am Operator: RACHEL HILL
Sample : CCV VOA1 032912 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Mar 29 11:04 2012 Quant Results File: 032712V1.RES

Quant Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration
DataAcq Meth : 032712V1

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	1233220	9.80	ppbv	97
54)	Bromoform	16.77	173	1035936	10.36	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.36	83	1191237	10.55	ppbv	99
57)	4-Ethyltoluene	17.60	105	2021383	9.75	ppbv	98
58)	1,3,5-Trimethylbenzene	17.68	105	1744518	9.52	ppbv	97
59)	1,2,4-Trimethylbenzene	18.26	105	1649029	9.11	ppbv	97
60)	1,3-Dichlorobenzene	18.82	146	1033261	10.15	ppbv	99
61)	1,4-Dichlorobenzene	18.96	146	961618	10.02	ppbv	99
62)	Benzyl chloride	19.17	91	1340876	10.38	ppbv	99
63)	1,2-Dichlorobenzene	19.61	146	951407	10.43	ppbv	99
64)	1,2,4-Trichlorobenzene	22.76	180	180652	8.43	ppbv	100
65)	Hexachlorobutadiene	22.96	225	608757	10.28	ppbv	99
66)	Naphthalene	23.45	128	284204	9.41	ppbv	99

(#) = qualifier out of range (m) = manual integration
03291203.D 032712V1.M Fri Mar 30 10:27:54 2012 Page 2

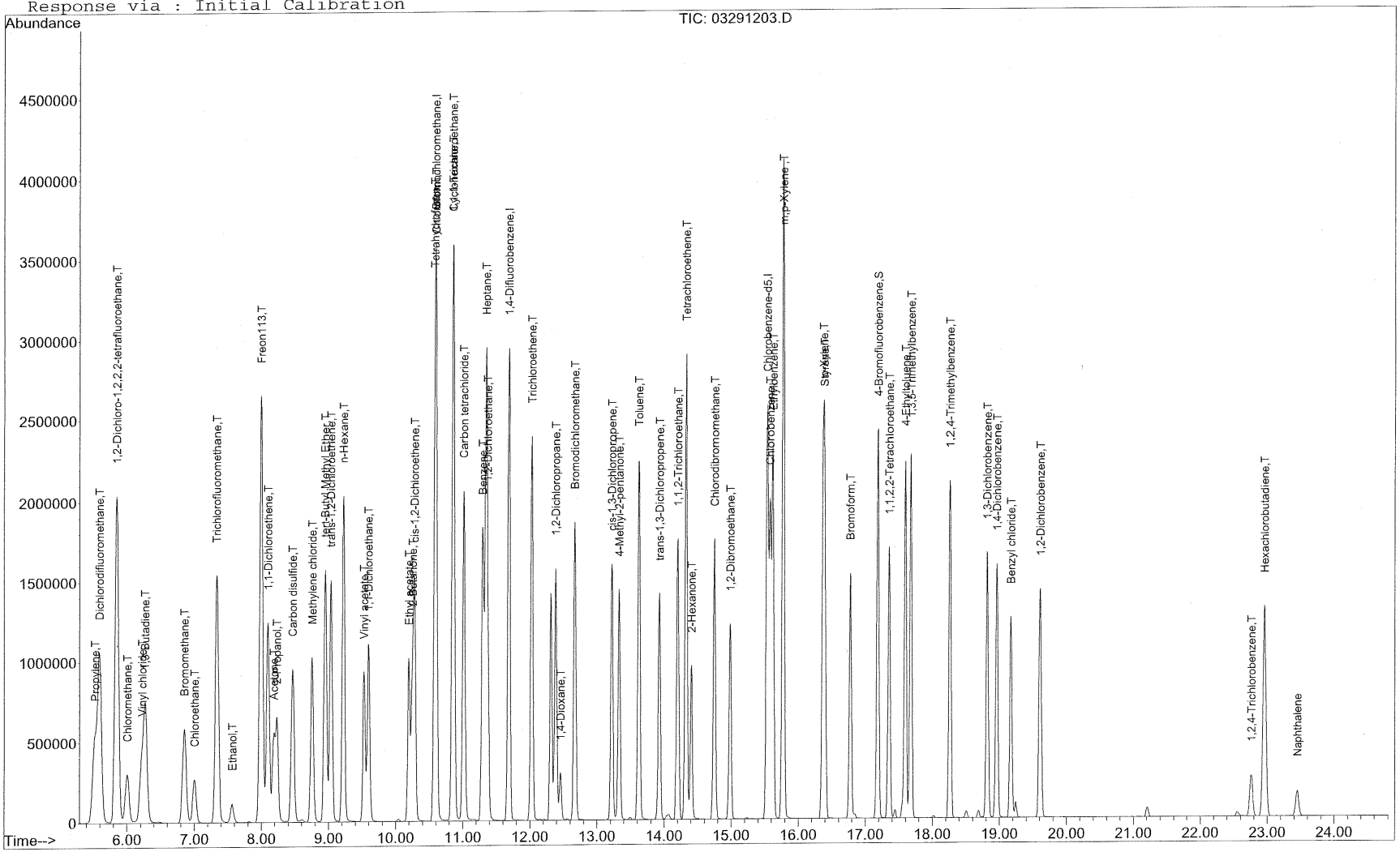
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032912\03291203.D
Acq On : 29 Mar 2012 10:40 am
Sample : CCV VOA1 032912
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Mar 29 11:04 2012

Vial: 3
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 032712V1.RES

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_120330A **Run No.:** 47313

Analytical Run Date: 3/30/2012 **InstrumentID:** VOA1

Analyst: Rachel Dear **Column:**

Calibration ID: 47220 **Column ID:** 0.25mm, 1.4um

Column Length: 30m

Run Comments: PR, RH3 040412 --- 1,4-Dioxane failed in CCV. Not a project analyte

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB2 VOA1 033012	BFB_TUNE	TUNE	R47313	3/30/2012 8:56:00 AM	Jim Wuokila		
CCV VOA1 033012	EPA_TO15	CCV	R47313	3/30/2012 9:40:00 AM	Jim Wuokila		
RLVS1 VOA1 03301	EPA_TO15	RLVS	R47313	3/30/2012 10:24:00 AM	Jim Wuokila		
MBLK VOA1 033012	EPA_TO15	MBLK	R47313	3/30/2012 11:29:00 AM	Jim Wuokila		
1203608-026A	EPA_TO15	SAMP	R47313	3/30/2012 12:13:00 PM	Celeste Hoitash		
1203608-011A	EPA_TO15	SAMP	R47313	3/30/2012 12:58:00 PM	Jim Wuokila		
1203608-005A	EPA_TO15	SAMP	R47313	3/30/2012 1:45:00 PM	Jim Wuokila		
1203608-028A	EPA_TO15	SAMP	R47313	3/30/2012 2:28:00 PM	Jim Wuokila		
1203608-029A	EPA_TO15	SAMP	R47313	3/30/2012 4:07:00 PM	Jim Wuokila		
1203608-014A	EPA_TO15	SAMP	R47313	3/30/2012 4:50:00 PM	Jim Wuokila		
1203608-014ADUP	EPA_TO15	DUP	R47313	3/30/2012 5:33:00 PM	Jim Wuokila		
1203608-006A	EPA_TO15	SAMP	R47313	3/30/2012 6:17:00 PM	Jim Wuokila		
1203608-007A	EPA_TO15	SAMP	R47313	3/30/2012 7:43:00 PM	Jim Wuokila		
1203608-008A	EPA_TO15	SAMP	R47313	3/30/2012 8:26:00 PM	Jim Wuokila		
1203782-032A	EPA_TO15	SAMP	R47313	3/31/2012 12:46:00 AM	Jim Wuokila		
RLVS1 VOA1 03301	EPA_TO15	RLVS	R47313	3/31/2012 2:15:00 AM	Jim Wuokila		

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47313

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924679	BFB2 VOA1 033012	BFB_TUNE	TUNE	\1\DATA\033012	3/30/2012 8:56:0	1	R47313		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		92.3	92.3		100	0	0	0	0	0	92%	50	120	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		98.3	98.3		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	
50	M		17.6	17.6		100	0	0	0	0	0	18%	8	40	0%	
75	M		47.5	47.5		100	0	0	0	0	0	48%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924680	CCV VOA1 033012	EPA_TO15	CCV	\1\DATA\033012	3/30/2012 9:40:0	1	R47313		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	0	111%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.24	10.24		10	0	0	0.211	1	0	102%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.9	11.9		9.8	0	0	0.108	1	0	121%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.41	9.41		9.8	0	0	0.2	1	0	96%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.42	10.42		9.7	0	0	0.111	1	0	107%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.62	11.62		9.9	0	0	0.097	1	0	117%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.19	7.19		9.1	0	0	0.271	1	0	79%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	8.99	8.99		9.8	0	0	0.245	1	0	92%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.33	9.33		9.6	0	0	0.186	1	0	97%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.24	10.24		9.7	0	0	0.208	1	0	106%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.55	9.55		9.7	0	0	0.196	1	0	98%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.05	9.05		9.8	0	0	0.224	1	0	92%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.3	9.3		9.7	0	0	0.24	1	0	96%	70	130	0%	
1,3-Butadiene	A	ppbv	11.95	11.95		9.8	0	0	0.152	1	0	122%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.85	9.85		9.7	0	0	0.202	1	0	102%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924680	CCV VOA1 033012	EPA_TO15	CCV	\1\DATA\033012	3/30/2012 9:40:0	1	R47313		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.54	9.54		9.6	0	0	0.194	1	0	99%	70	130	0%	
1,4-Dioxane	A	ppbv	6.57	6.57		9.6	0	0	0.128	1	0	68%	70	130	0%	S
2-Butanone	A	ppbv	8.09	8.09		9.9	0	0	0.287	1	0	82%	70	130	0%	
2-Hexanone	A	ppbv	7.18	7.18		9.8	0	0	0.135	1	0	73%	70	130	0%	
2-Propanol	A	ppbv	8.97	8.97		10.1	0	0	0.329	1	0	89%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	8.83	8.83		10	0	0	0.157	1	0	88%	70	130	0%	
Acetone	A	ppbv	8.75	8.75		10	0	0	0.43	1	0	88%	70	130	0%	
Benzene	A	ppbv	9.37	9.37		9.6	0	0	0.126	1	0	98%	70	130	0%	
Benzyl chloride	A	ppbv	9.67	9.67		9.7	0	0	0.155	1	0	100%	70	130	0%	
Bromodichloromethane	A	ppbv	10.02	10.02		9.6	0	0	0.156	1	0	104%	70	130	0%	
Bromoform	A	ppbv	9.83	9.83		9.6	0	0	0.197	1	0	102%	70	130	0%	
Bromomethane	A	ppbv	10.08	10.08		9.3	0	0	0.075	1	0	108%	70	130	0%	
Carbon disulfide	A	ppbv	11.99	11.99		9.7	0	0	0.093	1	0	124%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.3	10.3		9.5	0	0	0.114	1	0	108%	70	130	0%	
Chlorobenzene	A	ppbv	9.12	9.12		9.9	0	0	0.275	1	0	92%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.99	9.99		9.2	0	0	0.165	1	0	109%	70	130	0%	
Chloroethane	A	ppbv	9.97	9.97		9.8	0	0	0.063	1	0	102%	70	130	0%	
Chloroform	A	ppbv	10.63	10.63		9.4	0	0	0.126	1	0	113%	70	130	0%	
Chloromethane	A	ppbv	10.44	10.44		9.8	0	0	0.104	1	0	107%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.39	10.39		9.8	0	0	0.107	1	0	106%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.98	8.98		9.5	0	0	0.166	1	0	95%	70	130	0%	
Cyclohexane	A	ppbv	11.5	11.5		9.8	0	0	0.684	2	0	117%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.24	10.24		9.2	0	0	0.086	1	0	111%	70	130	0%	
Ethanol	A	ppbv	6.59	6.59		9.2	0	0	1.962	5	0	72%	70	130	0%	
Ethyl acetate	A	ppbv	8.39	8.39		9.8	0	0	0.157	1	0	86%	70	130	0%	
Ethylbenzene	A	ppbv	9.07	9.07		9.8	0	0	0.737	2	0	93%	70	130	0%	
Heptane	A	ppbv	10.82	10.82		9.9	0	0	0.249	1	0	109%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.87	8.87		9.4	0	0	0.374	2	0	94%	70	130	0%	
m,p-Xylene	A	ppbv	18.63	18.63		19.2	0	0	0.524	2	0	97%	70	130	0%	
Methylene chloride	A	ppbv	10.93	10.93		10	0	0	2.077	5	0	109%	70	130	0%	
n-Hexane	A	ppbv	11.06	11.06		10.1	0	0	0.692	2	0	110%	70	130	0%	
Naphthalene	A	ppbv	8.28	8.28		9.2	0	0	0.247	1	0	90%	70	130	0%	
o-Xylene	A	ppbv	9.29	9.29		10	0	0	0.258	1	0	93%	70	130	0%	
Propylene	A	ppbv	10.91	10.91		10.2	0	0	0.075	1	0	107%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924680	CCV VOA1 033012	EPA_TO15	CCV	\1\DATA\033012	3/30/2012 9:40:0	1	R47313		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.17	9.17		9.8	0	0	0.263	1	0	94%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.19	9.19		9.9	0	0	0.228	1	0	93%	70	130	0%	
Tetrachloroethene	A	ppbv	9.75	9.75		9.6	0	0	0.148	1	0	102%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.09	9.09		10	0	0	0.201	1	0	91%	70	130	0%	
Toluene	A	ppbv	9.37	9.37		9.8	0	0	0.158	1	0	96%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.51	11.51		9.8	0	0	0.117	1	0	117%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.31	8.31		9.1	0	0	0.171	1	0	91%	70	130	0%	
Trichloroethene	A	ppbv	9.78	9.78		9.6	0	0	0.119	1	0	102%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.91	10.91		9.6	0	0	0.148	1	0	114%	70	130	0%	
Vinyl acetate	A	ppbv	8.43	8.43		9.9	0	0	0.266	1	0	85%	70	130	0%	
Vinyl chloride	A	ppbv	11.71	11.71		9.4	0	0	0.072	1	0	125%	70	130	0%	
Xylenes, Total	C	ppbv	27.92	27.92		29.2	0	0	0.782	3	0	96%	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		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	13.44	13.44		12.5	0	0	0	0	0	108%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
926221	RLVS1 VOA1 03301	EPA_TO15	RLVS	\1\DATA\033012	3/30/2012 10:24:	1	R47313		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	1	1		0.996	0	0	0.107	1	0	100%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.43	1.43		1	0	0	0.211	1	0	143%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.04	1.04		0.98	0	0	0.108	1	0	106%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1	1		0.98	0	0	0.2	1	0	102%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.96	0.96		0.97	0	0	0.111	1	0	99%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.98	0.98		0.99	0	0	0.097	1	0	99%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.72	1.72		0.91	0	0	0.271	1	0	189%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.47	1.47		0.98	0	0	0.245	1	0	150%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	1.01	1.01		0.96	0	0	0.186	1	0	105%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.62	1.62		0.97	0	0	0.208	1	0	167%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1	1		0.97	0	0	0.196	1	0	103%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.97	0.97		0.98	0	0	0.224	1	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\033012\03301202.D Vial: 2
Acq On : 30 Mar 2012 9:40 am Operator: RACHEL HILL
Sample : CCV VOA1 033012 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 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	100	0.00
2	T	Propylene	1.052	1.125	-6.9	101	0.01
3	T	Dichlorodifluoromethane	3.636	4.047	-11.3	103	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.517	2.837	-12.7	103	0.00
5	T	Chloromethane	1.095	1.203	-9.9	100	0.00
6	T	Vinyl chloride	1.242	1.547	-24.6	98	0.00
7	T	1,3-Butadiene	0.919	1.120	-21.9	100	0.00
8	T	Bromomethane	1.300	1.409	-8.4	102	0.00
9	T	Chloroethane	0.743	0.805	-8.3	102	0.00
10	T	Trichlorofluoromethane	3.354	3.812	-13.7	100	0.00
11	T	Ethanol	0.425	0.305	28.2	64	0.00
12	T	Freon113	2.225	2.701	-21.4	104	0.00
13	T	1,1-Dichloroethene	1.748	2.051	-17.3	105	0.00
14	T	Acetone	1.784	1.561	12.5	75	0.00
15	T	Carbon disulfide	2.916	3.605	-23.6	118	0.00
16	T	2-Propanol	1.738	1.544	11.2	78	0.00
17	T	Methylene chloride	1.262	1.379	-9.3	99	0.00
18	T	tert-Butyl Methyl Ether	2.952	2.740	7.2	78	0.00
19	T	trans-1,2-Dichloroethene	1.601	1.880	-17.4	103	0.00
20	T	n-Hexane	1.754	1.921	-9.5	96	0.00
21	T	1,1-Dichloroethane	2.060	2.213	-7.4	95	0.00
22	T	Vinyl acetate	2.709	2.307	14.8	69	0.00
23	T	cis-1,2-Dichloroethene	1.164	1.234	-6.0	94	0.00
24	T	2-Butanone	1.751	1.431	18.3	68	0.00
25	T	Ethyl acetate	2.234	1.912	14.4	70	0.00
26	T	Tetrahydrofuran	1.036	0.941	9.2	73	0.00
27	T	Chloroform	2.135	2.317	-8.5	90	0.00
28	T	1,1,1-Trichloroethane	2.186	2.429	-11.1	90	0.00
29	T	Cyclohexane	1.594	1.871	-17.4	96	0.00
30	T	Carbon tetrachloride	2.348	2.546	-8.4	91	0.00
31	T	Benzene	2.949	2.877	2.4	82	0.00
32	T	1,2-Dichloroethane	1.326	1.306	1.5	78	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	106	0.00
34	T	Heptane	0.523	0.572	-9.4	89	0.00
35	T	Trichloroethene	0.411	0.419	-1.9	91	0.00
36	T	1,2-Dichloropropane	0.313	0.290	7.3	79	0.00
37	T	1,4-Dioxane	0.160	0.109	31.9#	63	0.00
38	T	Bromodichloromethane	0.599	0.625	-4.3	90	0.00
39	T	cis-1,3-Dichloropropene	0.497	0.469	5.6	82	0.00
40	T	4-Methyl-2-pentanone	0.215	0.190	11.6	77	0.00
41	T	Toluene	0.862	0.824	4.4	82	0.00
42	T	trans-1,3-Dichloropropene	0.456	0.416	8.8	80	0.00
43	T	1,1,2-Trichloroethane	0.304	0.291	4.3	85	0.00
44	T	Tetrachloroethene	0.509	0.517	-1.6	92	0.00
45	T	2-Hexanone	0.401	0.294	26.7	64	0.00
46	T	Chlorodibromomethane	0.489	0.499	-2.0	89	0.00
47	T	1,2-Dibromoethane	0.457	0.444	2.8	86	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	113	0.00
49	T	Chlorobenzene	0.934	0.860	7.9	86	0.00
50	T	Ethylbenzene	1.465	1.357	7.4	85	0.00
51	T	m,p-Xylene	1.078	1.045	3.1	84	0.00
52	T	o-Xylene	1.097	1.019	7.1	85	0.00
53	T	Styrene	0.821	0.768	6.5	87	0.00
54	T	Bromoform	0.653	0.669	-2.5	98	0.00
55	S	4-Bromofluorobenzene	0.552	0.594	-7.6	124	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\033012\03301202.D Vial: 2
Acq On : 30 Mar 2012 9:40 am Operator: RACHEL HILL
Sample : CCV VOA1 033012 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 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	0.737	0.755	-2.4	100	0.00
57	T	4-Ethyltoluene	1.353	1.304	3.6	95	0.00
58	T	1,3,5-Trimethylbenzene	1.196	1.146	4.2	94	0.00
59	T	1,2,4-Trimethylbenzene	1.181	1.083	8.3	96	0.00
60	T	1,3-Dichlorobenzene	0.664	0.675	-1.7	105	0.00
61	T	1,4-Dichlorobenzene	0.627	0.623	0.6	101	0.00
62	T	Benzyl chloride	0.843	0.841	0.2	96	0.00
63	T	1,2-Dichlorobenzene	0.595	0.628	-5.5	106	0.00
64	T	1,2,4-Trichlorobenzene	0.140	0.111	20.7	93	0.00
65	T	Hexachlorobutadiene	0.387	0.365	5.7	107	0.00
66		Naphthalene	0.197	0.177	10.2	103	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\033012\03301202.D Vial: 2
Acq On : 30 Mar 2012 9:40 am Operator: RACHEL HILL
Sample : CCV VOA1 033012 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Mar 30 11:05 2012 Quant Results File: 032712V1.RES

Quant Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration
DataAcq Meth : 032712V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	810803	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	2874310	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1850279	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	1098531	13.44	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 107.52%				
Target Compounds							Qvalue
2) Propylene	5.53	41	744156	10.91	ppbv		99
3) Dichlorodifluoromethane	5.59	85	2415163	10.24	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1748284	10.71	ppbv		89
5) Chloromethane	6.01	50	741382	10.44	ppbv		99
6) Vinyl chloride	6.22	62	943182	11.71	ppbv		99
7) 1,3-Butadiene	6.28	39	711762	11.95	ppbv		98
8) Bromomethane	6.86	94	850140	10.08	ppbv	#	99
9) Chloroethane	7.01	64	480470	9.97	ppbv		99
10) Trichlorofluoromethane	7.34	101	2373504	10.91	ppbv		100
11) Ethanol	7.57	45	181894	6.59	ppbv		99
12) Freon113	7.99	101	1716991	11.90	ppbv		97
13) 1,1-Dichloroethene	8.10	61	1316799	11.62	ppbv		94
14) Acetone	8.19	43	1012846	8.75	ppbv		97
15) Carbon disulfide	8.46	76	2268450	11.99	ppbv	#	100
16) 2-Propanol	8.23	45	1011231	8.97	ppbv	#	78
17) Methylene chloride	8.76	49	894726	10.93	ppbv		96
18) tert-Butyl Methyl Ether	8.96	73	1759357	9.19	ppbv		100
19) trans-1,2-Dichloroethene	9.03	61	1195172	11.51	ppbv		92
20) n-Hexane	9.22	57	1258368	11.06	ppbv		100
21) 1,1-Dichloroethane	9.60	63	1392220	10.42	ppbv		100
22) Vinyl acetate	9.53	43	1481398	8.43	ppbv		99
23) cis-1,2-Dichloroethene	10.28	96	784375	10.39	ppbv		93
24) 2-Butanone	10.25	43	918749	8.09	ppbv		99
25) Ethyl acetate	10.20	43	1215564	8.39	ppbv	#	98
26) Tetrahydrofuran	10.58	42	610644	9.09	ppbv		97
27) Chloroform	10.60	83	1472858	10.63	ppbv		99
28) 1,1,1-Trichloroethane	10.85	97	1512428	10.66	ppbv		99
29) Cyclohexane	10.86	56	1189210	11.50	ppbv		97
30) Carbon tetrachloride	11.02	117	1568970	10.30	ppbv		99
31) Benzene	11.30	78	1791690	9.37	ppbv		99
32) 1,2-Dichloroethane	11.37	62	821562	9.55	ppbv		98
34) Heptane	11.35	43	1302111	10.82	ppbv		98
35) Trichloroethene	12.03	130	924906	9.78	ppbv		95
36) 1,2-Dichloropropane	12.38	63	652444	9.05	ppbv		99
37) 1,4-Dioxane	12.46	88	241291	6.57	ppbv		98
38) Bromodichloromethane	12.67	83	1379264	10.02	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	1025159	8.98	ppbv		98
40) 4-Methyl-2-pentanone	13.33	58	436996	8.83	ppbv		98
41) Toluene	13.63	91	1856835	9.37	ppbv		99
42) trans-1,3-Dichloropropene	13.93	75	870429	8.31	ppbv		98
43) 1,1,2-Trichloroethane	14.20	97	656737	9.41	ppbv		98
44) Tetrachloroethene	14.33	166	1141038	9.75	ppbv		100
45) 2-Hexanone	14.41	43	661668	7.18	ppbv		97
46) Chlorodibromomethane	14.75	129	1124641	9.99	ppbv		99
47) 1,2-Dibromoethane	14.99	107	979766	9.33	ppbv		98
49) Chlorobenzene	15.58	112	1260143	9.12	ppbv		94
50) Ethylbenzene	15.62	91	1967819	9.07	ppbv		97
51) m,p-Xylene	15.78	91	2971116	18.63	ppbv		97
52) o-Xylene	16.37	91	1508924	9.29	ppbv		96

(#) = qualifier out of range (m) = manual integration
03301202.D 032712V1.M Mon Apr 02 11:42:10 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\033012\03301202.D Vial: 2
Acq On : 30 Mar 2012 9:40 am Operator: RACHEL HILL
Sample : CCV VOA1 033012 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Mar 30 11:05 2012 Quant Results File: 032712V1.RES

Quant Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration
DataAcq Meth : 032712V1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53) Styrene	16.39	104	1113975	9.17	ppbv	97
54) Bromoform	16.78	173	950023	9.83	ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.36	83	1117156	10.24	ppbv	99
57) 4-Ethyltoluene	17.60	105	1892042	9.45	ppbv	97
58) 1,3,5-Trimethylbenzene	17.68	105	1645885	9.30	ppbv	97
59) 1,2,4-Trimethylbenzene	18.26	105	1571616	8.99	ppbv	97
60) 1,3-Dichlorobenzene	18.82	146	968670	9.85	ppbv	99
61) 1,4-Dichlorobenzene	18.96	146	884796	9.54	ppbv	99
62) Benzyl chloride	19.17	91	1207057	9.67	ppbv	99
63) 1,2-Dichlorobenzene	19.60	146	901875	10.24	ppbv	99
64) 1,2,4-Trichlorobenzene	22.76	180	148987	7.19	ppbv	100
65) Hexachlorobutadiene	22.96	225	507453	8.87	ppbv	99
66) Naphthalene	23.45	128	241559	8.28	ppbv	99

(#) = qualifier out of range (m) = manual integration
03301202.D 032712V1.M Mon Apr 02 11:42:10 2012 Page 2

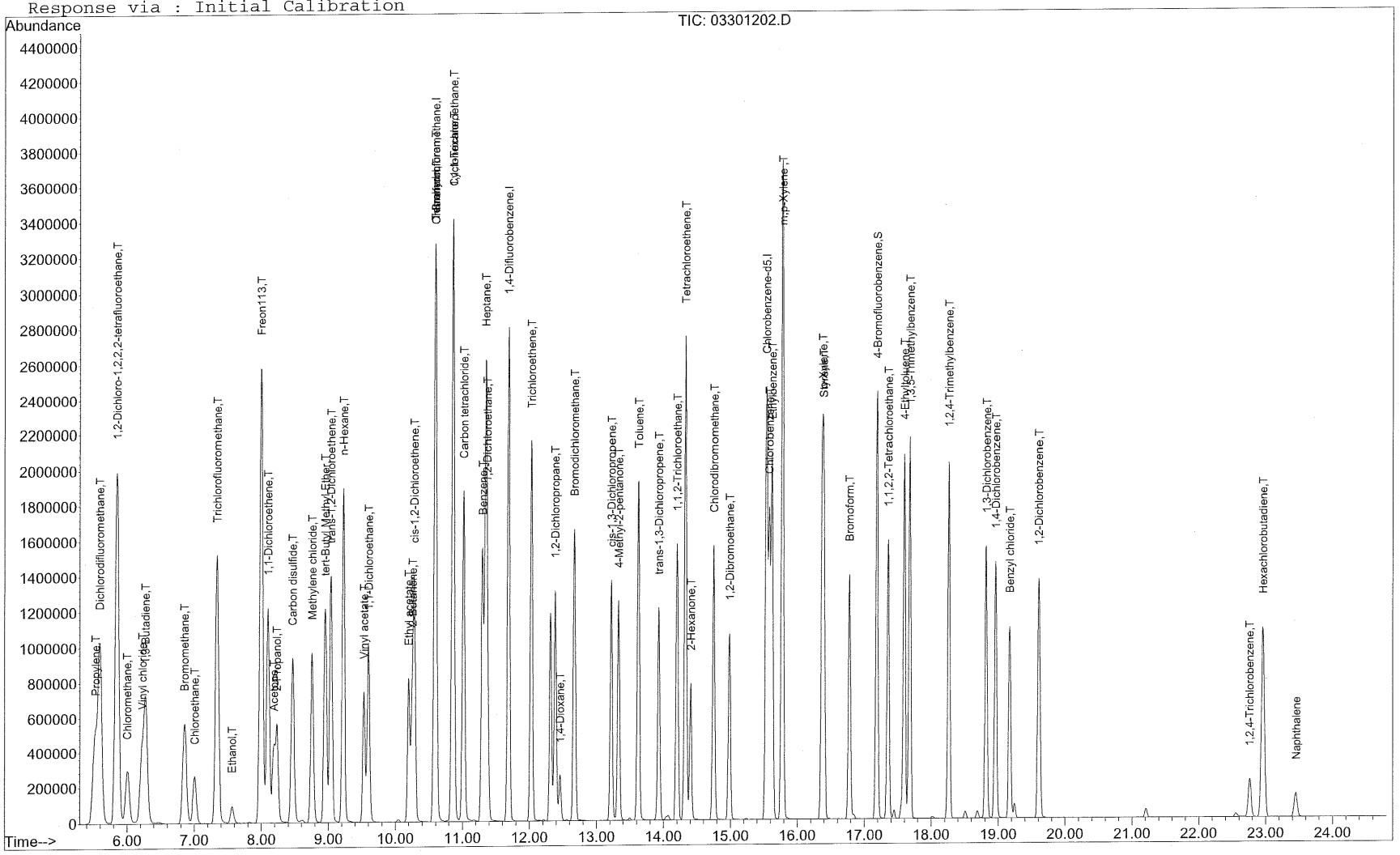
Quantitation Report

Data File : C:\HPCHEM\1\DATA\033012\03301202.D
Acq On : 30 Mar 2012 9:40 am
Sample : CCV VOA1 033012
Misc : CCV EPA TO15
MS Integration Params: CLME.P
Quant Time: Mar 30 11:05 2012

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 032712V1.RES

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_120403B **Run No.:** 47420

Analytical Run Date: 4/3/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 47419 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR by RD2 on 05APR12 - 1,4-Dioxane failed in ICV. Not a project analyte.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB2 VOA1 040312	BFB_TUNE	TUNE	R47420	4/4/2012 4:44:00 AM	Jim Wuokila		
ICV VOA1 040312	EPA_TO15	ICV	R47420	4/4/2012 9:28:00 AM	Jim Wuokila		
RLVS VOA1 040312	EPA_TO15	RLVS	R47420	4/4/2012 10:21:00 AM	Jim Wuokila		
MBLK VOA1 040312	EPA_TO15	MBLK	R47420	4/4/2012 11:56:00 AM	Deborah Griffiths		
1203608-027A	EPA_TO15	SAMP	R47420	4/4/2012 3:29:00 PM	Jim Wuokila		
1203608-014A	EPA_TO15	SAMP	R47420	4/4/2012 4:26:00 PM	Jim Wuokila		
1203732-008A	EPA_TO15	SAMP	R47420	4/4/2012 5:12:00 PM	Jim Wuokila		
1203732-008Adup	EPA_TO15	DUP	R47420	4/4/2012 5:58:00 PM	Deborah Griffiths		
1203608-010A	EPA_TO15	SAMP	R47420	4/4/2012 6:47:00 PM	Jim Wuokila		
1203732-029A	EPA_TO15	SAMP	R47420	4/4/2012 7:39:00 PM	Jim Wuokila		
1203732-033A	EPA_TO15	SAMP	R47420	4/4/2012 8:31:00 PM	Jim Wuokila		
1203732-030A	EPA_TO15	SAMP	R47420	4/4/2012 9:23:00 PM	Jim Wuokila		
1203732-031A	EPA_TO15	SAMP	R47420	4/4/2012 10:14:00 PM	Jim Wuokila		
1203732-034A	EPA_TO15	SAMP	R47420	4/4/2012 11:05:00 PM	Jim Wuokila		
1203732-035A	EPA_TO15	SAMP	R47420	4/4/2012 11:52:00 PM	Jim Wuokila		
1203732-036A	EPA_TO15	SAMP	R47420	4/5/2012 12:39:00 AM	Jim Wuokila		
1203732-038A	EPA_TO15	SAMP	R47420	4/5/2012 2:19:00 AM	Jim Wuokila		
1203732-009A	EPA_TO15	SAMP	R47420	4/5/2012 3:56:00 AM	Jim Wuokila		
1203732-010A	EPA_TO15	SAMP	R47420	4/5/2012 4:39:00 AM	Jim Wuokila		
RLVS2 VOA1 04031	EPA_TO15	RLVS	R47420	4/5/2012 5:23:00 AM	Jim Wuokila		

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47420

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
926466	BFB2 VOA1 040312	BFB_TUNE	TUNE	.1\DATA\040312I	4/4/2012 4:44:00	1	R47420		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		81.8	81.8		100	0	0	0	0	0	82%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		97.9	97.9		100	0	0	0	0	0	98%	93	101	0%	
177	M		7	7		100	0	0	0	0	0	7%	5	9	0%	
50	M		15.3	15.3		100	0	0	0	0	0	15%	8	40	0%	
75	M		45.1	45.1		100	0	0	0	0	0	45%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		7.2	7.2		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
926467	ICV VOA1 040312	EPA_TO15	ICV	.1\DATA\040312I	4/4/2012 9:28:00	1	R47420		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	9.63	9.63		9.6	0	0	0.107	1	0	100%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.46	9.46		10	0	0	0.211	1	0	95%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.68	10.68		9.8	0	0	0.108	1	0	109%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.19	9.19		9.8	0	0	0.2	1	0	94%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.45	9.45		9.7	0	0	0.111	1	0	97%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.88	10.88		9.9	0	0	0.097	1	0	110%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	6.49	6.49		9.1	0	0	0.271	1	0	71%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	8.93	8.93		9.8	0	0	0.245	1	0	91%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.05	9.05		9.6	0	0	0.186	1	0	94%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.55	8.55		9.7	0	0	0.208	1	0	88%	70	130	0%	
1,2-Dichloroethane	A	ppbv	8.52	8.52		9.7	0	0	0.196	1	0	88%	70	130	0%	
1,2-Dichloropropane	A	ppbv	8.7	8.7		9.8	0	0	0.224	1	0	89%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.97	8.97		9.7	0	0	0.24	1	0	92%	70	130	0%	
1,3-Butadiene	A	ppbv	10.91	10.91		9.8	0	0	0.152	1	0	111%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	8.47	8.47		9.7	0	0	0.202	1	0	87%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
926467	ICV VOA1 040312	EPA_TO15	ICV	.1\DATA\040312I	4/4/2012 9:28:00	1	R47420		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	8.21	8.21		9.6	0	0	0.194	1	0	86%	70	130	0%	
1,4-Dioxane	A	ppbv	6.38	6.38		9.6	0	0	0.128	1	0	66%	70	130	0%	S
2-Butanone	A	ppbv	8.13	8.13		9.9	0	0	0.287	1	0	82%	70	130	0%	
2-Hexanone	A	ppbv	7.3	7.3		9.8	0	0	0.135	1	0	74%	70	130	0%	
2-Propanol	A	ppbv	9.7	9.7		10.1	0	0	0.329	1	0	96%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	8.92	8.92		10	0	0	0.157	1	0	89%	70	130	0%	
Acetone	A	ppbv	8.26	8.26		10	0	0	0.43	1	0	83%	70	130	0%	
Benzene	A	ppbv	8.42	8.42		9.6	0	0	0.126	1	0	88%	70	130	0%	
Benzyl chloride	A	ppbv	8.81	8.81		9.7	0	0	0.155	1	0	91%	70	130	0%	
Bromodichloromethane	A	ppbv	10.03	10.03		9.6	0	0	0.156	1	0	104%	70	130	0%	
Bromoform	A	ppbv	9.4	9.4		9.6	0	0	0.197	1	0	98%	70	130	0%	
Bromomethane	A	ppbv	10.65	10.65		9.3	0	0	0.075	1	0	115%	70	130	0%	
Carbon disulfide	A	ppbv	12.41	12.41		9.7	0	0	0.093	1	0	128%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.37	9.37		9.5	0	0	0.114	1	0	99%	70	130	0%	
Chlorobenzene	A	ppbv	9.17	9.17		9.9	0	0	0.275	1	0	93%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.8	9.8		9.2	0	0	0.165	1	0	107%	70	130	0%	
Chloroethane	A	ppbv	10.34	10.34		9.8	0	0	0.063	1	0	106%	70	130	0%	
Chloroform	A	ppbv	9.75	9.75		9.4	0	0	0.126	1	0	104%	70	130	0%	
Chloromethane	A	ppbv	10.43	10.43		9.8	0	0	0.104	1	0	106%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	9.44	9.44		9.8	0	0	0.107	1	0	96%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.71	8.71		9.5	0	0	0.166	1	0	92%	70	130	0%	
Cyclohexane	A	ppbv	10.18	10.18		9.8	0	0	0.684	2	0	104%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.72	10.72		9.2	0	0	0.086	1	0	117%	70	130	0%	
Ethanol	A	ppbv	7.09	7.09		9.2	0	0	1.962	5	0	77%	70	130	0%	
Ethyl acetate	A	ppbv	8.03	8.03		9.8	0	0	0.157	1	0	82%	70	130	0%	
Ethylbenzene	A	ppbv	9.26	9.26		9.8	0	0	0.737	2	0	94%	70	130	0%	
Heptane	A	ppbv	10.58	10.58		9.9	0	0	0.249	1	0	107%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.1	9.1		9.4	0	0	0.374	2	0	97%	70	130	0%	
m,p-Xylene	A	ppbv	17.41	17.41		19.2	0	0	0.524	2	0	91%	70	130	0%	
Methylene chloride	A	ppbv	9.77	9.77		10	0	0	2.077	5	0	98%	70	130	0%	
n-Hexane	A	ppbv	10.02	10.02		10.1	0	0	0.692	2	0	99%	70	130	0%	
Naphthalene	A	ppbv	7.09	7.09		9.2	0	0	0.247	1	0	77%	70	130	0%	
o-Xylene	A	ppbv	9.48	9.48		10	0	0	0.258	1	0	95%	70	130	0%	
Propylene	A	ppbv	12.05	12.05		10.2	0	0	0.075	1	0	118%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
926467	ICV VOA1 040312	EPA_TO15	ICV	.1\DATA\040312I	4/4/2012 9:28:00	1	R47420		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.11	9.11		9.8	0	0	0.263	1	0	93%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	8.55	8.55		9.9	0	0	0.228	1	0	86%	70	130	0%	
Tetrachloroethene	A	ppbv	9.68	9.68		9.6	0	0	0.148	1	0	101%	70	130	0%	
Tetrahydrofuran	A	ppbv	8.64	8.64		10	0	0	0.201	1	0	86%	70	130	0%	
Toluene	A	ppbv	9.07	9.07		9.8	0	0	0.158	1	0	93%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.29	10.29		9.8	0	0	0.117	1	0	105%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.01	8.01		9.1	0	0	0.171	1	0	88%	70	130	0%	
Trichloroethene	A	ppbv	9.57	9.57		9.6	0	0	0.119	1	0	100%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.73	10.73		9.6	0	0	0.148	1	0	112%	70	130	0%	
Vinyl acetate	A	ppbv	7.82	7.82		9.9	0	0	0.266	1	0	79%	70	130	0%	
Vinyl chloride	A	ppbv	10.07	10.07		9.4	0	0	0.072	1	0	107%	70	130	0%	
Xylenes, Total	C	ppbv	26.89	26.89		29.2	0	0	0.782	3	0	92%	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		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.6	12.6		12.5	0	0	0	0	0	101%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
926468	RLVS VOA1 040312	EPA_TO15	RLVS	.1\DATA\040312I	4/4/2012 10:21:0	1	R47420		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	1.09	1.09		0.996	0	0	0.107	1	0	109%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.4	1.4		1	0	0	0.211	1	0	140%	70	130	0%	S
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.12	1.12		0.98	0	0	0.108	1	0	114%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	1.09	1.09		0.98	0	0	0.2	1	0	111%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.04	1.04		0.97	0	0	0.111	1	0	107%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.08	1.08		0.99	0	0	0.097	1	0	109%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.77	1.77		0.91	0	0	0.271	1	0	195%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.45	1.45		0.98	0	0	0.245	1	0	148%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	1.05	1.05		0.96	0	0	0.186	1	0	109%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.55	1.55		0.97	0	0	0.208	1	0	160%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.06	1.06		0.97	0	0	0.196	1	0	109%	70	130	0%	
1,2-Dichloropropane	A	ppbv	1.08	1.08		0.98	0	0	0.224	1	0	110%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040312B\04031211.D Vial: 2
Acq On : 4 Apr 2012 9:28 am Operator: RACHEL HILL
Sample : ICV VOA1 040312 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 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	112	0.00
2	T	Propylene	0.933	1.102	-18.1	124	0.02
3	T	Dichlorodifluoromethane	3.299	3.845	-16.6	121	0.01
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.423	2.810	-16.0	117	0.01
5	T	Chloromethane	0.975	1.070	-9.7	107	0.02
6	T	Vinyl chloride	0.908	0.973	-7.2	105	0.00
7	T	1,3-Butadiene	0.604	0.672	-11.3	105	0.00
8	T	Bromomethane	1.211	1.386	-14.5	117	0.00
9	T	Chloroethane	0.672	0.756	-12.5	114	0.01
10	T	Trichlorofluoromethane	3.078	3.441	-11.8	109	0.01
11	T	Ethanol	0.384	0.296	22.9	73	0.00
12	T	Freon113	2.077	2.263	-9.0	102	0.00
13	T	1,1-Dichloroethene	1.532	1.684	-9.9	108	0.00
14	T	Acetone	1.520	1.256	17.4	78	0.00
15	T	Carbon disulfide	2.662	3.404	-27.9	126	0.01
16	T	2-Propanol	1.547	1.485	4.0	92	0.01
17	T	Methylene chloride	1.125	1.099	2.3	97	0.00
18	T	tert-Butyl Methyl Ether	2.677	2.312	13.6	78	0.00
19	T	trans-1,2-Dichloroethene	1.451	1.523	-5.0	101	0.00
20	T	n-Hexane	1.604	1.591	0.8	95	0.00
21	T	1,1-Dichloroethane	1.915	1.866	2.6	94	0.00
22	T	Vinyl acetate	2.421	1.914	20.9	69	0.00
23	T	cis-1,2-Dichloroethene	1.146	1.104	3.7	91	0.00
24	T	2-Butanone	1.588	1.305	17.8	75	0.00
25	T	Ethyl acetate	2.033	1.665	18.1	75	0.00
26	T	Tetrahydrofuran	0.986	0.853	13.5	75	0.00
27	T	Chloroform	2.018	2.007	0.5	90	0.00
28	T	1,1,1-Trichloroethane	2.172	2.178	-0.3	90	0.00
29	T	Cyclohexane	1.517	1.577	-4.0	92	0.01
30	T	Carbon tetrachloride	2.467	2.433	1.4	91	0.00
31	T	Benzene	3.050	2.675	12.3	79	0.00
32	T	1,2-Dichloroethane	1.236	1.086	12.1	77	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	114	0.00
34	T	Heptane	0.502	0.537	-7.0	92	0.00
35	T	Trichloroethene	0.447	0.445	0.4	93	0.00
36	T	1,2-Dichloropropane	0.332	0.294	11.4	80	0.00
37	T	1,4-Dioxane	0.194	0.129	33.5#	63	0.00
38	T	Bromodichloromethane	0.632	0.661	-4.6	95	0.00
39	T	cis-1,3-Dichloropropene	0.535	0.491	8.2	83	0.00
40	T	4-Methyl-2-pentanone	0.233	0.208	10.7	81	0.00
41	T	Toluene	1.053	0.975	7.4	82	0.00
42	T	trans-1,3-Dichloropropene	0.495	0.436	11.9	80	0.00
43	T	1,1,2-Trichloroethane	0.372	0.349	6.2	85	0.00
44	T	Tetrachloroethene	0.563	0.567	-0.7	94	0.00
45	T	2-Hexanone	0.451	0.336	25.5	66	0.00
46	T	Chlorodibromomethane	0.654	0.655	-0.2	89	0.00
47	T	1,2-Dibromoethane	0.571	0.538	5.8	84	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	117	0.00
49	T	Chlorobenzene	0.918	0.850	7.4	86	0.00
50	T	Ethylbenzene	1.443	1.363	5.5	86	0.00
51	T	m,p-Xylene	1.122	1.018	9.3	86	0.00
52	T	o-Xylene	1.148	1.088	5.2	85	0.00
53	T	Styrene	0.882	0.821	6.9	84	0.00
54	T	Bromoform	0.651	0.637	2.2	90	0.00
55	S	4-Bromofluorobenzene	0.627	0.632	-0.8	118	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040312B\04031211.D Vial: 2
Acq On : 4 Apr 2012 9:28 am Operator: RACHEL HILL
Sample : ICV VOA1 040312 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 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	0.758	0.717	5.4	90	0.00
57	T	4-Ethyltoluene	1.526	1.415	7.3	88	0.00
58	T	1,3,5-Trimethylbenzene	1.302	1.204	7.5	88	0.00
59	T	1,2,4-Trimethylbenzene	1.254	1.143	8.9	88	0.00
60	T	1,3-Dichlorobenzene	0.823	0.719	12.6	86	0.00
61	T	1,4-Dichlorobenzene	0.794	0.679	14.5	84	0.00
62	T	Benzyl chloride	0.930	0.845	9.1	86	0.00
63	T	1,2-Dichlorobenzene	0.742	0.654	11.9	89	0.00
64	T	1,2,4-Trichlorobenzene	0.279	0.199	28.7	76	0.00
65	T	Hexachlorobutadiene	0.347	0.336	3.2	90	0.00
66		Naphthalene	0.539	0.415	23.0	80	0.01

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040312B\04031211.D Vial: 2
Acq On : 4 Apr 2012 9:28 am Operator: RACHEL HILL
Sample : ICV VOA1 040312 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 5 10:04 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 033112V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	735115	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	2519392	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	2238339	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.18	95	1413793	12.60	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 100.80%				
Target Compounds							Qvalue
2) Propylene	5.53	41	661190	12.05	ppbv		99
3) Dichlorodifluoromethane	5.60	85	2080337	10.72	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.86	135	1569934	11.02	ppbv		90
5) Chloromethane	6.01	50	597789	10.43	ppbv		99
6) Vinyl chloride	6.22	62	537848	10.07	ppbv		100
7) 1,3-Butadiene	6.27	39	387357	10.91	ppbv		94
8) Bromomethane	6.86	94	758312	10.65	ppbv		99
9) Chloroethane	7.01	64	408878	10.34	ppbv		99
10) Trichlorofluoromethane	7.34	101	1942420	10.73	ppbv		99
11) Ethanol	7.57	45	159970	7.09	ppbv		99
12) Freon113	8.00	101	1304289	10.68	ppbv		94
13) 1,1-Dichloroethene	8.10	61	980326	10.88	ppbv		98
14) Acetone	8.19	43	738406	8.26	ppbv	#	94
15) Carbon disulfide	8.47	76	1941987	12.41	ppbv	#	100
16) 2-Propanol	8.24	45	881996	9.70	ppbv	#	1
17) Methylene chloride	8.76	49	646221	9.77	ppbv		99
18) tert-Butyl Methyl Ether	8.96	73	1346075	8.55	ppbv		98
19) trans-1,2-Dichloroethene	9.04	61	877696	10.29	ppbv		96
20) n-Hexane	9.22	57	945096	10.02	ppbv		96
21) 1,1-Dichloroethane	9.60	63	1064472	9.45	ppbv		100
22) Vinyl acetate	9.53	43	1114211	7.82	ppbv		99
23) cis-1,2-Dichloroethene	10.28	96	636120	9.44	ppbv		96
24) 2-Butanone	10.25	43	759810	8.13	ppbv		98
25) Ethyl acetate	10.20	43	959525	8.03	ppbv	#	100
26) Tetrahydrofuran	10.58	42	501427	8.64	ppbv		95
27) Chloroform	10.61	83	1156905	9.75	ppbv		98
28) 1,1,1-Trichloroethane	10.86	97	1229696	9.63	ppbv		99
29) Cyclohexane	10.87	56	908614	10.18	ppbv		97
30) Carbon tetrachloride	11.02	117	1359321	9.37	ppbv		99
31) Benzene	11.30	78	1510017	8.42	ppbv		100
32) 1,2-Dichloroethane	11.37	62	619399	8.52	ppbv		99
34) Heptane	11.35	43	1070632	10.58	ppbv		97
35) Trichloroethene	12.03	130	860913	9.57	ppbv		97
36) 1,2-Dichloropropane	12.38	63	581346	8.70	ppbv		100
37) 1,4-Dioxane	12.46	88	248811	6.38	ppbv		98
38) Bromodichloromethane	12.67	83	1278402	10.03	ppbv		98
39) cis-1,3-Dichloropropene	13.22	75	939353	8.71	ppbv		99
40) 4-Methyl-2-pentanone	13.33	58	419213	8.92	ppbv		98
41) Toluene	13.63	91	1925252	9.07	ppbv		99
42) trans-1,3-Dichloropropene	13.93	75	799563	8.01	ppbv		99
43) 1,1,2-Trichloroethane	14.20	97	689812	9.19	ppbv		99
44) Tetrachloroethene	14.33	166	1096976	9.68	ppbv		96
45) 2-Hexanone	14.41	43	663387	7.30	ppbv		95
46) Chlorodibromomethane	14.75	129	1293077	9.80	ppbv		99
47) 1,2-Dibromoethane	14.99	107	1041012	9.05	ppbv		99
49) Chlorobenzene	15.58	112	1507597	9.17	ppbv		97
50) Ethylbenzene	15.62	91	2391793	9.26	ppbv		99
51) m,p-Xylene	15.78	91	3498740	17.41	ppbv		99
52) o-Xylene	16.37	91	1948414	9.48	ppbv		99

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040312B\04031211.D Vial: 2
Acq On : 4 Apr 2012 9:28 am Operator: RACHEL HILL
Sample : ICV VOA1 040312 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Apr 5 10:04 2012 Quant Results File: 040312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration
DataAcq Meth : 033112V1

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	1439944	9.11	ppbv	99
54)	Bromoform	16.78	173	1095257	9.40	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.36	83	1284091	9.46	ppbv	98
57)	4-Ethyltoluene	17.60	105	2483939	9.09	ppbv	100
58)	1,3,5-Trimethylbenzene	17.68	105	2091124	8.97	ppbv	100
59)	1,2,4-Trimethylbenzene	18.26	105	2005247	8.93	ppbv	100
60)	1,3-Dichlorobenzene	18.82	146	1248990	8.47	ppbv	99
61)	1,4-Dichlorobenzene	18.96	146	1167383	8.21	ppbv	99
62)	Benzyl chloride	19.17	91	1466914	8.81	ppbv	99
63)	1,2-Dichlorobenzene	19.61	146	1135503	8.55	ppbv	99
64)	1,2,4-Trichlorobenzene	22.76	180	324019	6.49	ppbv	96
65)	Hexachlorobutadiene	22.96	225	565190	9.10	ppbv	99
66)	Naphthalene	23.45	128	683837	7.09	ppbv	99

(#) = qualifier out of range (m) = manual integration
04031211.D 040312V1.M Thu Apr 05 09:27:07 2012 Page 2

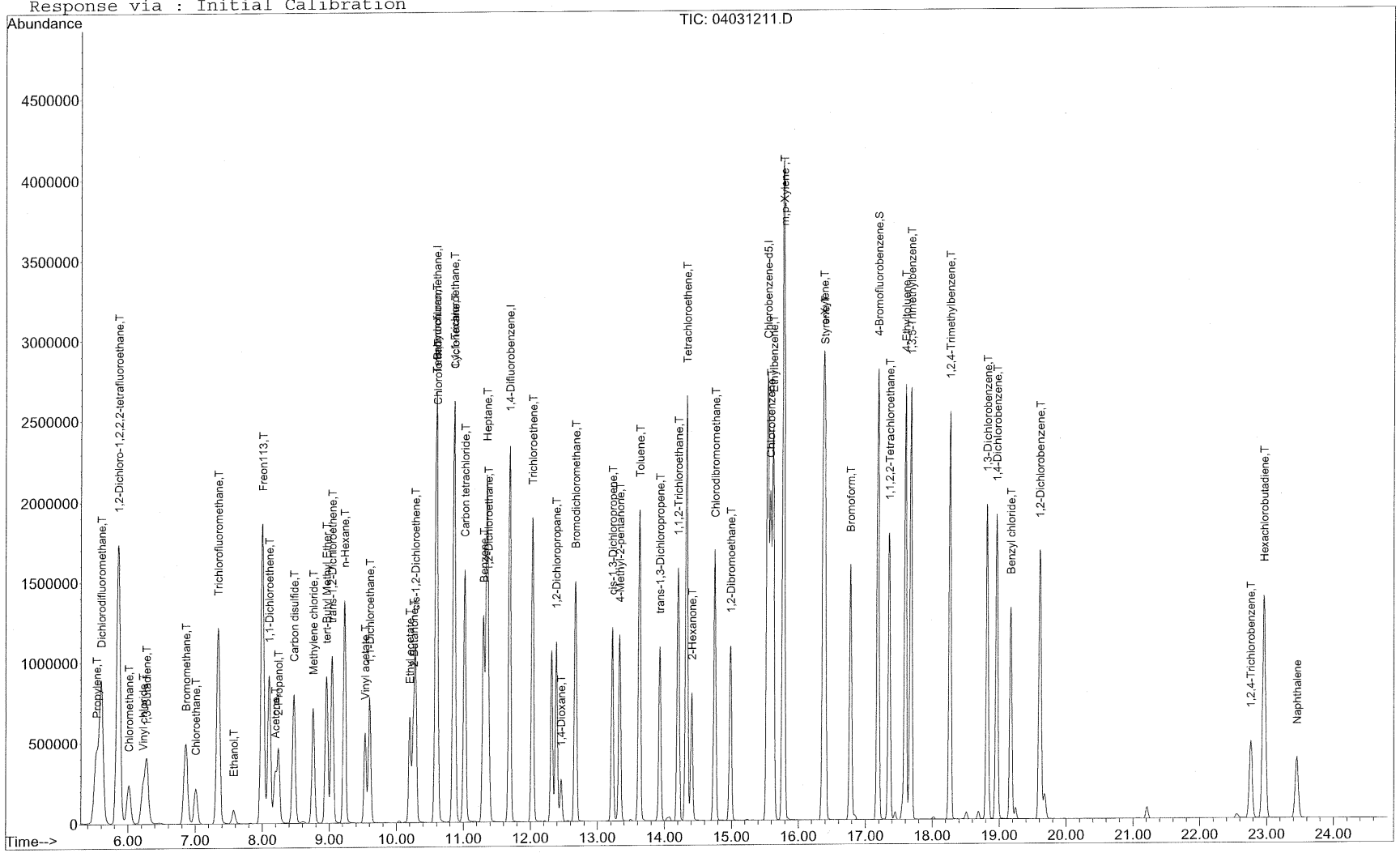
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040312B\04031211.D
Acq On : 4 Apr 2012 9:28 am
Sample : ICV VOA1 040312
Misc : ICV EPA TO15
MS Integration Params: CLME.P
Quant Time: Apr 5 10:04 2012

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Quant Results File: 040312V1.RES

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration

Calibration Files
2 =03271211.D 4 =03271212.D 5 =03271213.D
6 =03271214.D 7 =03271215.D 8 =03271216.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.021	1.112	1.095	1.115	1.028	0.995	1.052	5.11
3)	T	Dichlorodifluoromet	3.518	3.950	3.893	3.949	3.584	3.381	3.636	8.38
4)	T	1,2-Dichloro-1,2,2,	2.399	2.759	2.716	2.752	2.490	2.327	2.517	9.19
5)	T	Chloromethane	1.111	1.205	1.181	1.163	1.042	0.992	1.095	8.57
6)	T	Vinyl chloride	1.216	1.585	1.512	1.365	1.139	0.961	1.242	20.90
7)	T	1,3-Butadiene	1.037	1.122	1.095	1.071	0.894	0.654	0.919	24.78
8)	T	Bromomethane	1.189	1.393	1.377	1.411	1.275	1.234	1.300	7.04
9)	T	Chloroethane	0.678	0.790	0.795	0.807	0.717	0.701	0.743	7.14
10)	T	Trichlorofluorometh	3.335	3.816	3.765	3.747	3.232	2.940	3.354	13.47
11)	T	Ethanol	0.334	0.481	0.478	0.482	0.408	0.388	0.425	13.42
12)	T	Freon113	2.236	2.611	2.532	2.531	2.096	1.876	2.225	16.00
13)	T	1,1-Dichloroethene	1.733	1.958	1.945	1.955	1.665	1.548	1.748	12.21
14)	T	Acetone	1.807	2.078	2.009	2.016	1.624	1.494	1.784	14.60
15)	T	Carbon disulfide	2.679	3.079	3.059	3.070	2.692		2.916	7.22
16)	T	2-Propanol	1.501	1.996	1.944	1.954	1.669	1.581	1.738	12.58
17)	T	Methylene chloride	1.382	1.403	1.379	1.383	1.162	1.087	1.262	12.68
18)	T	tert-Butyl Methyl E	2.957	3.534	3.395	3.381	2.701	2.421	2.952	17.06
19)	T	trans-1,2-Dichloroe	1.536	1.827	1.803	1.831	1.522	1.402	1.601	13.81
20)	T	n-Hexane	1.715	2.009	1.991	1.997	1.671	1.508	1.754	14.45
21)	T	1,1-Dichloroethane	1.963	2.345	2.328	2.329	1.975	1.809	2.060	13.41
22)	T	Vinyl acetate	2.232	3.369	3.231	3.180	2.534	2.277	2.709	19.63
23)	T	cis-1,2-Dichloroeth	1.079	1.316	1.303	1.322	1.117	1.035	1.164	12.54
24)	T	2-Butanone	1.729	2.117	2.067	1.999	1.658	1.459	1.751	18.99
25)	T	Ethyl acetate	2.022	2.752	2.598	2.620	2.080	1.872	2.234	18.67
26)	T	Tetrahydrofuran	1.047	1.302	1.213	1.167	0.944	0.825	1.036	19.81
27)	T	Chloroform	2.218	2.585	2.449	2.375	1.976	1.751	2.135	17.46
28)	T	1,1,1-Trichloroetha	2.180	2.709	2.575	2.467	2.028	1.766	2.186	19.35
29)	T	Cyclohexane	1.704	1.954	1.859	1.789	1.478	1.262	1.594	19.96
30)	T	Carbon tetrachlorid	2.192	2.809	2.732	2.687	2.261	1.979	2.348	17.16
31)	T	Benzene	2.901	3.518	3.383	3.345	2.735	2.476	2.949	16.25
32)	T	1,2-Dichloroethane	1.304	1.672	1.581	1.519	1.213	1.051	1.326	20.85
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.571	0.680	0.632	0.595	0.484	0.393	0.523	25.67
35)	T	Trichloroethene	0.394	0.488	0.474	0.472	0.395	0.351	0.411	16.90
36)	T	1,2-Dichloropropane	0.302	0.389	0.366	0.361	0.292	0.259	0.313	19.27
37)	T	1,4-Dioxane	0.145	0.184	0.182	0.183	0.151	0.140	0.160	14.13
38)	T	Bromodichloromethan	0.544	0.740	0.702	0.697	0.577	0.507	0.599	19.55
39)	T	cis-1,3-Dichloropro	0.450	0.608	0.578	0.577	0.471	0.425	0.497	18.35
40)	T	4-Methyl-2-pentanon	0.189	0.261	0.247	0.247	0.205	0.190	0.215	16.58
41)	T	Toluene	0.883	1.067	0.995	0.987	0.796	0.704	0.862	19.64
42)	T	trans-1,3-Dichlorop	0.384	0.554	0.533	0.533	0.435	0.402	0.456	18.19
43)	T	1,1,2-Trichloroetha	0.286	0.365	0.347	0.347	0.286	0.262	0.304	16.45
44)	T	Tetrachloroethene	0.501	0.597	0.575	0.572	0.482	0.442	0.509	14.98
45)	T	2-Hexanone	0.387	0.486	0.461	0.460	0.371	0.343	0.401	17.46
46)	T	Chlorodibromomethan	0.425	0.596	0.574	0.571	0.472	0.424	0.489	18.61
47)	T	1,2-Dibromoethane	0.437	0.551	0.532	0.527	0.429	0.388	0.457	18.04
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.923	1.132	1.066	1.061	0.876	0.794	0.934	17.48
50)	T	Ethylbenzene	1.595	1.817	1.686	1.651	1.357	1.180	1.465	20.84
51)	T	m,p-Xylene	1.259	1.406	1.283	1.200	0.963	0.795	1.078	26.44
52)	T	o-Xylene	1.198	1.354	1.261	1.236	1.016	0.879	1.097	20.60
53)	T	Styrene	0.796	1.007	0.935	0.940	0.769	0.699	0.821	17.81
54)	T	Bromoform	0.543	0.775	0.746	0.769	0.624	0.590	0.653	16.64
55)	S	4-Bromofluorobenzen	0.571	0.542	0.550	0.567	0.539	0.549	0.552	2.25
56)	T	1,1,2,2-Tetrachloro	0.932	0.853	0.817	0.820	0.650	0.591	0.737	21.61
57)	T	4-Ethyltoluene	1.812	1.559	1.470	1.460	1.187	1.068	1.353	22.98

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration

Calibration Files
2 =03271211.D 4 =03271212.D 5 =03271213.D
6 =03271214.D 7 =03271215.D 8 =03271216.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.682	1.380	1.295	1.274	1.032	0.923	1.196	25.45
59)	T	1,2,4-Trimethylbenz	1.592	1.274	1.190	1.202	0.955	0.872	1.181	21.57
60)	T	1,3-Dichlorobenzene	0.841	0.730	0.722	0.749	0.576	0.554	0.664	19.44
61)	T	1,4-Dichlorobenzene	0.733	0.698	0.685	0.724	0.547	0.536	0.627	17.31
62)	T	Benzyl chloride	0.520	0.996	0.978	1.024	0.786	0.756	0.843	23.08
63)	T	1,2-Dichlorobenzene	0.802	0.670	0.635	0.669	0.500	0.484	0.595	23.02
64)	T	1,2,4-Trichlorobenz	0.158	0.136	0.137	0.156	0.120	0.141	0.140	9.51
65)	T	Hexachlorobutadiene	0.617	0.389	0.366	0.399	0.304	0.329	0.387	28.06
66)		Naphthalene	0.208	0.195	0.198	0.226	0.169	0.201	0.197	9.18

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 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	10.59	1.000	A	2	A	B
2		T	Propylene	41	5.51	0.520	A	2	A	B
3		T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4		T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5		T	Chloromethane	50	6.00	0.566	A	3	A	B
6		T	Vinyl chloride	62	6.21	0.587	A	2	A	B
7		T	1,3-Butadiene	39	6.27	0.592	A	2	A	B
8		T	Bromomethane	94	6.85	0.647	A	3	A	B
9		T	Chloroethane	64	7.00	0.661	A	3	A	B
10		T	Trichlorofluoromethane	101	7.33	0.692	A	3	A	B
11		T	Ethanol	45	7.57	0.715	A	2	A	B
12		T	Freon113	101	7.99	0.755	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	0.777	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	9.04	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	9.60	0.906	A	3	A	B
22		T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23		T	cis-1,2-Dichloroethene	96	10.28	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	0.962	A	3	A	B
26		T	Tetrahydrofuran	42	10.58	0.999	A	2	A	B
27		T	Chloroform	83	10.60	1.001	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29		T	Cyclohexane	56	10.86	1.025	A	2	A	B
30		T	Carbon tetrachloride	117	11.01	1.040	A	3	A	B
31		T	Benzene	78	11.30	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	12.67	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	15.58	1.003	A	3	A	B
50		T	Ethylbenzene	91	15.62	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	16.77	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	1.175	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	19.17	1.234	A	2	A	B
63		T	1,2-Dichlorobenzene	146	19.61	1.262	A	3	A	B
64		T	1,2,4-Trichlorobenzene	180	22.76	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
--------------------------------------------------------------------------
          032712V1.M     Thu Mar 29 09:23:12 2012
```

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032712\03271220.D Vial: 2
Acq On : 28 Mar 2012 7:55 am Operator: RACHEL HILL
Sample : ICV VOA1 032712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 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	120	0.00
2	T	Propylene	1.052	1.184	-12.5	128	0.01
3	T	Dichlorodifluoromethane	3.636	4.109	-13.0	125	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.517	2.859	-13.6	124	0.00
5	T	Chloromethane	1.095	1.170	-6.8	117	0.01
6	T	Vinyl chloride	1.242	1.156	6.9	87	0.00
7	T	1,3-Butadiene	0.919	0.934	-1.6	100	0.00
8	T	Bromomethane	1.300	1.475	-13.5	127	0.00
9	T	Chloroethane	0.743	0.846	-13.9	129	0.00
10	T	Trichlorofluoromethane	3.354	3.869	-15.4	122	0.00
11	T	Ethanol	0.425	0.393	7.5	98	0.00
12	T	Freon113	2.225	2.710	-21.8	124	0.00
13	T	1,1-Dichloroethene	1.748	2.090	-19.6	128	0.00
14	T	Acetone	1.784	1.913	-7.2	110	0.00
15	T	Carbon disulfide	2.916	3.720	-27.6	145	0.00
16	T	2-Propanol	1.738	1.824	-4.9	110	0.00
17	T	Methylene chloride	1.262	1.459	-15.6	125	0.00
18	T	tert-Butyl Methyl Ether	2.952	3.464	-17.3	118	0.00
19	T	trans-1,2-Dichloroethene	1.601	2.004	-25.2	132	0.00
20	T	n-Hexane	1.754	2.055	-17.2	123	0.00
21	T	1,1-Dichloroethane	2.060	2.397	-16.4	123	0.00
22	T	Vinyl acetate	2.709	2.888	-6.6	103	0.00
23	T	cis-1,2-Dichloroethene	1.164	1.355	-16.4	124	0.00
24	T	2-Butanone	1.751	1.750	0.1	99	0.00
25	T	Ethyl acetate	2.234	2.290	-2.5	100	0.00
26	T	Tetrahydrofuran	1.036	1.049	-1.3	97	0.00
27	T	Chloroform	2.135	2.378	-11.4	110	0.00
28	T	1,1,1-Trichloroethane	2.186	2.525	-15.5	112	0.00
29	T	Cyclohexane	1.594	1.879	-17.9	115	0.00
30	T	Carbon tetrachloride	2.348	2.749	-17.1	117	0.00
31	T	Benzene	2.949	3.440	-16.6	117	0.00
32	T	1,2-Dichloroethane	1.326	1.501	-13.2	108	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	125	0.00
34	T	Heptane	0.523	0.606	-15.9	112	0.00
35	T	Trichloroethene	0.411	0.473	-15.1	122	0.00
36	T	1,2-Dichloropropane	0.313	0.347	-10.9	112	0.00
37	T	1,4-Dioxane	0.160	0.131	18.1	89	0.00
38	T	Bromodichloromethane	0.599	0.706	-17.9	120	0.00
39	T	cis-1,3-Dichloropropene	0.497	0.561	-12.9	116	0.00
40	T	4-Methyl-2-pentanone	0.215	0.223	-3.7	107	0.00
41	T	Toluene	0.862	0.955	-10.8	112	0.00
42	T	trans-1,3-Dichloropropene	0.456	0.491	-7.7	111	0.00
43	T	1,1,2-Trichloroethane	0.304	0.336	-10.5	116	0.00
44	T	Tetrachloroethene	0.509	0.548	-7.7	115	0.00
45	T	2-Hexanone	0.401	0.365	9.0	94	0.00
46	T	Chlorodibromomethane	0.489	0.573	-17.2	121	0.00
47	T	1,2-Dibromoethane	0.457	0.512	-12.0	117	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	130	0.00
49	T	Chlorobenzene	0.934	1.007	-7.8	115	0.00
50	T	Ethylbenzene	1.465	1.564	-6.8	112	0.00
51	T	m,p-Xylene	1.078	1.156	-7.2	107	0.00
52	T	o-Xylene	1.097	1.166	-6.3	112	0.00
53	T	Styrene	0.821	0.874	-6.5	112	0.00
54	T	Bromoform	0.653	0.764	-17.0	128	0.00
55	S	4-Bromofluorobenzene	0.552	0.588	-6.5	141	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032712\03271220.D Vial: 2
Acq On : 28 Mar 2012 7:55 am Operator: RACHEL HILL
Sample : ICV VOA1 032712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 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	0.737	0.801	-8.7	122	0.00
57	T	4-Ethyltoluene	1.353	1.426	-5.4	118	0.00
58	T	1,3,5-Trimethylbenzene	1.196	1.242	-3.8	117	0.00
59	T	1,2,4-Trimethylbenzene	1.181	1.154	2.3	117	0.00
60	T	1,3-Dichlorobenzene	0.664	0.733	-10.4	130	0.00
61	T	1,4-Dichlorobenzene	0.627	0.686	-9.4	127	0.00
62	T	Benzyl chloride	0.843	0.943	-11.9	123	0.00
63	T	1,2-Dichlorobenzene	0.595	0.663	-11.4	128	0.00
64	T	1,2,4-Trichlorobenzene	0.140	0.145	-3.6	138	0.00
65	T	Hexachlorobutadiene	0.387	0.455	-17.6	152#	0.00
66		Naphthalene	0.197	0.220	-11.7	147	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032712\03271220.D Vial: 2
Acq On : 28 Mar 2012 7:55 am Operator: RACHEL HILL
Sample : ICV VOA1 032712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Mar 29 8:42 2012 Quant Results File: 032712V1.RES

Quant Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration
DataAcq Meth : 032712V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	969318	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	3394359	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.53	117	2112396	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	1242501	13.32	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 106.56%				
Target Compounds							Qvalue
2) Propylene	5.52	41	936116	11.48	ppbv		99
3) Dichlorodifluoromethane	5.59	85	2931348	10.40	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	2106053	10.79	ppbv		89
5) Chloromethane	6.01	50	862264	10.16	ppbv		100
6) Vinyl chloride	6.21	62	842293	8.75	ppbv		98
7) 1,3-Butadiene	6.28	39	709946	9.97	ppbv		91
8) Bromomethane	6.85	94	1063858	10.55	ppbv		99
9) Chloroethane	7.00	64	603642	10.48	ppbv		99
10) Trichlorofluoromethane	7.34	101	2880180	11.07	ppbv		100
11) Ethanol	7.56	45	280391	8.50	ppbv		98
12) Freon113	7.99	101	2059255	11.94	ppbv		98
13) 1,1-Dichloroethene	8.10	61	1604518	11.84	ppbv		95
14) Acetone	8.19	43	1483264	10.72	ppbv		98
15) Carbon disulfide	8.47	76	2797907	12.37	ppbv	#	99
16) 2-Propanol	8.23	45	1428668	10.60	ppbv	#	1
17) Methylene chloride	8.76	49	1131404	11.56	ppbv		98
18) tert-Butyl Methyl Ether	8.96	73	2659315	11.62	ppbv		99
19) trans-1,2-Dichloroethene	9.03	61	1522599	12.26	ppbv		94
20) n-Hexane	9.22	57	1609464	11.83	ppbv		98
21) 1,1-Dichloroethane	9.60	63	1802632	11.28	ppbv		100
22) Vinyl acetate	9.53	43	2217245	10.55	ppbv		100
23) cis-1,2-Dichloroethene	10.28	96	1029848	11.41	ppbv		94
24) 2-Butanone	10.25	43	1343217	9.89	ppbv		98
25) Ethyl acetate	10.20	43	1740399	10.05	ppbv	#	100
26) Tetrahydrofuran	10.58	42	813371	10.13	ppbv		95
27) Chloroform	10.61	83	1807315	10.92	ppbv		98
28) 1,1,1-Trichloroethane	10.85	97	1879788	11.09	ppbv		99
29) Cyclohexane	10.86	56	1427606	11.55	ppbv		98
30) Carbon tetrachloride	11.02	117	2024789	11.12	ppbv		99
31) Benzene	11.30	78	2560654	11.20	ppbv		99
32) 1,2-Dichloroethane	11.37	62	1128728	10.98	ppbv		98
34) Heptane	11.35	43	1628289	11.46	ppbv		96
35) Trichloroethene	12.03	130	1232238	11.04	ppbv		95
36) 1,2-Dichloropropane	12.39	63	922627	10.84	ppbv		98
37) 1,4-Dioxane	12.45	88	340306	7.84	ppbv		98
38) Bromodichloromethane	12.67	83	1840944	11.32	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	1447686	10.73	ppbv		98
40) 4-Methyl-2-pentanone	13.33	58	606131	10.37	ppbv		99
41) Toluene	13.63	91	2541527	10.86	ppbv		99
42) trans-1,3-Dichloropropene	13.93	75	1214383	9.81	ppbv		98
43) 1,1,2-Trichloroethane	14.20	97	895422	10.86	ppbv		98
44) Tetrachloroethene	14.33	166	1428653	10.34	ppbv		99
45) 2-Hexanone	14.40	43	971136	8.92	ppbv		97
46) Chlorodibromomethane	14.75	129	1525095	11.48	ppbv		99
47) 1,2-Dibromoethane	14.99	107	1335867	10.77	ppbv		99
49) Chlorobenzene	15.58	112	1684778	10.68	ppbv		95
50) Ethylbenzene	15.62	91	2590728	10.46	ppbv		98
51) m,p-Xylene	15.78	91	3751988	20.60	ppbv		99
52) o-Xylene	16.37	91	1969877	10.62	ppbv		97

(#) = qualifier out of range (m) = manual integration
03271220.D 032712V1.M Thu Mar 29 09:24:47 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032712\03271220.D Vial: 2
Acq On : 28 Mar 2012 7:55 am Operator: RACHEL HILL
Sample : ICV VOA1 032712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Mar 29 8:42 2012 Quant Results File: 032712V1.RES

Quant Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration
DataAcq Meth : 032712V1

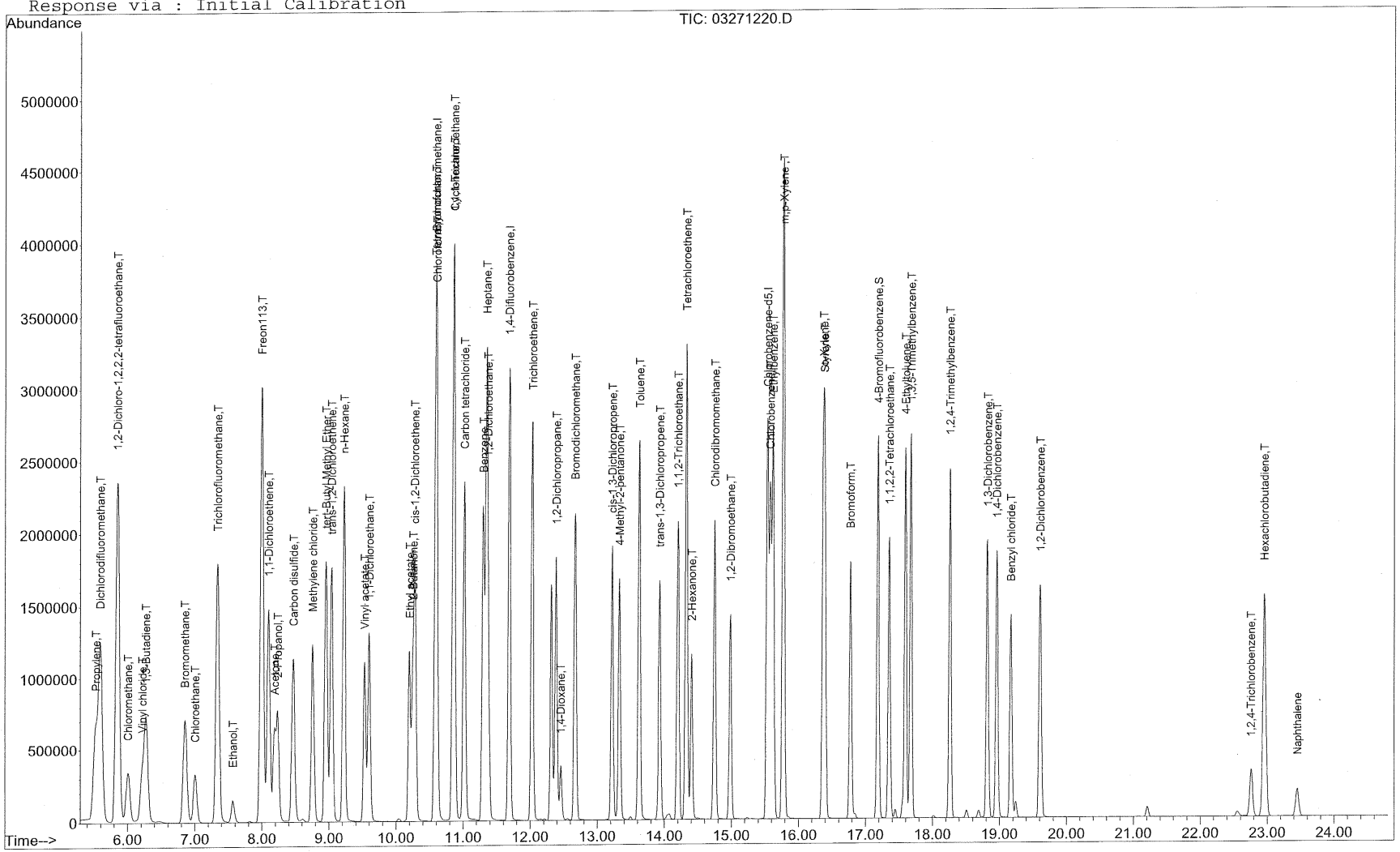
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.39	104	1447538	10.43	ppbv	98
54)	Bromoform	16.77	173	1238755	11.23	ppbv	100
56)	1,1,2,2-Tetrachloroethane	17.35	83	1352837	10.87	ppbv	99
57)	4-Ethyltoluene	17.60	105	2362018	10.33	ppbv	98
58)	1,3,5-Trimethylbenzene	17.68	105	2035313	10.07	ppbv	97
59)	1,2,4-Trimethylbenzene	18.26	105	1910715	9.57	ppbv	98
60)	1,3-Dichlorobenzene	18.82	146	1201384	10.70	ppbv	99
61)	1,4-Dichlorobenzene	18.96	146	1113643	10.52	ppbv	98
62)	Benzyl chloride	19.17	91	1545536	10.84	ppbv	99
63)	1,2-Dichlorobenzene	19.60	146	1086085	10.80	ppbv	99
64)	1,2,4-Trichlorobenzene	22.76	180	222277	9.40	ppbv	100
65)	Hexachlorobutadiene	22.96	225	722636	11.06	ppbv	99
66)	Naphthalene	23.45	128	342439	10.28	ppbv	99

(#) = qualifier out of range (m) = manual integration
03271220.D 032712V1.M Thu Mar 29 09:24:47 2012 Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032712\03271220.D Vial: 2
Acq On : 28 Mar 2012 7:55 am Operator: RACHEL HILL
Sample : ICV VOA1 032712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Mar 29 8:42 2012 Quant Results File: 032712V1.RES

Method : C:\HPCHEM\1\METHODS\032712V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Mar 29 08:41:28 2012
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration

Calibration Files
2 =04031203.D 4 =04031204.D 5 =04031205.D
6 =04031206.D 7 =04031207.D 8 =04031208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	0.908	0.995	0.983	0.926	0.905	0.890	0.933	4.30
3)	T	Dichlorodifluoromet	3.252	3.566	3.556	3.353	3.226	3.106	3.299	6.23
4)	T	1,2-Dichloro-1,2,2,	2.432	2.684	2.636	2.470	2.353	2.228	2.423	8.08
5)	T	Chloromethane	1.034	1.119	1.079	0.982	0.895	0.855	0.975	11.01
6)	T	Vinyl chloride	0.940	1.035	1.009	0.924	0.844	0.799	0.908	10.45
7)	T	1,3-Butadiene	0.676	0.720	0.677	0.610	0.540	0.501	0.604	14.86
8)	T	Bromomethane	1.191	1.328	1.327	1.239	1.146	1.114	1.211	7.42
9)	T	Chloroethane	0.659	0.742	0.738	0.686	0.624	0.610	0.672	7.80
10)	T	Trichlorofluorometh	3.200	3.533	3.499	3.244	2.871	2.683	3.078	12.84
11)	T	Ethanol	0.351	0.455	0.437	0.397	0.337	0.343	0.384	12.33
12)	T	Freon113	2.246	2.480	2.423	2.203	1.857	1.725	2.077	16.70
13)	T	1,1-Dichloroethene	1.582	1.754	1.733	1.606	1.406	1.348	1.532	11.96
14)	T	Acetone	1.754	1.813	1.721	1.574	1.248	1.265	1.520	16.77
15)	T	Carbon disulfide	2.793	3.018	2.970	2.743	2.444	2.340	2.662	10.95
16)	T	2-Propanol	1.486	1.818	1.738	1.598	1.402	1.389	1.547	11.36
17)	T	Methylene chloride	1.305	1.271	1.253	1.156	0.982	0.966	1.125	14.09
18)	T	tert-Butyl Methyl E	3.000	3.312	3.137	2.842	2.175	2.189	2.677	19.24
19)	T	trans-1,2-Dichloroe	1.513	1.689	1.648	1.536	1.302	1.273	1.451	13.42
20)	T	n-Hexane	1.720	1.878	1.856	1.694	1.437	1.382	1.604	15.21
21)	T	1,1-Dichloroethane	1.953	2.220	2.205	2.011	1.724	1.697	1.915	13.04
22)	T	Vinyl acetate	2.085	3.111	2.964	2.668	2.057	2.078	2.421	19.83
23)	T	cis-1,2-Dichloroeth	1.182	1.354	1.314	1.203	1.027	0.996	1.146	13.85
24)	T	2-Butanone	1.711	1.940	1.851	1.809	1.384	1.286	1.588	19.80
25)	T	Ethyl acetate	2.064	2.489	2.373	2.188	1.784	1.696	2.033	16.57
26)	T	Tetrahydrofuran	1.110	1.276	1.184	1.038	0.835	0.769	0.986	22.56
27)	T	Chloroform	2.254	2.492	2.354	2.114	1.773	1.635	2.018	18.91
28)	T	1,1,1-Trichloroetha	2.317	2.718	2.585	2.314	1.921	1.760	2.172	19.60
29)	T	Cyclohexane	1.761	1.930	1.817	1.625	1.326	1.161	1.517	23.48
30)	T	Carbon tetrachlorid	2.497	2.996	2.907	2.650	2.229	2.087	2.467	16.79
31)	T	Benzene	3.397	3.773	3.577	3.236	2.567	2.504	3.050	19.23
32)	T	1,2-Dichloroethane	1.287	1.587	1.494	1.337	1.057	0.997	1.236	21.17
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.585	0.665	0.621	0.544	0.445	0.369	0.502	27.74
35)	T	Trichloroethene	0.471	0.546	0.532	0.473	0.404	0.370	0.447	18.21
36)	T	1,2-Dichloropropane	0.362	0.419	0.399	0.355	0.284	0.266	0.332	21.26
37)	T	1,4-Dioxane	0.208	0.234	0.228	0.203	0.166	0.161	0.194	16.87
38)	T	Bromodichloromethan	0.644	0.795	0.768	0.685	0.578	0.514	0.632	20.61
39)	T	cis-1,3-Dichloropro	0.529	0.676	0.648	0.580	0.477	0.446	0.535	19.70
40)	T	4-Methyl-2-pentanon	0.234	0.291	0.277	0.250	0.207	0.197	0.233	18.03
41)	T	Toluene	1.208	1.348	1.263	1.120	0.907	0.819	1.053	23.22
42)	T	trans-1,3-Dichlorop	0.461	0.623	0.601	0.536	0.449	0.425	0.495	18.84
43)	T	1,1,2-Trichloroetha	0.399	0.468	0.442	0.396	0.331	0.304	0.372	19.80
44)	T	Tetrachloroethene	0.621	0.688	0.662	0.593	0.507	0.461	0.563	18.94
45)	T	2-Hexanone	0.459	0.581	0.545	0.480	0.392	0.372	0.451	20.74
46)	T	Chlorodibromomethan	0.651	0.838	0.797	0.709	0.591	0.531	0.654	20.95
47)	T	1,2-Dibromoethane	0.601	0.726	0.692	0.613	0.508	0.457	0.571	21.22
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	1.030	1.160	1.096	0.971	0.817	0.729	0.918	21.74
50)	T	Ethylbenzene	1.799	1.857	1.725	1.513	1.249	1.076	1.443	26.37
51)	T	m,p-Xylene	1.449	1.383	1.252	1.064	0.865	0.720	1.122	25.89
52)	T	o-Xylene	1.467	1.487	1.367	1.191	0.979	0.844	1.148	27.22
53)	T	Styrene	0.946	1.146	1.063	0.937	0.789	0.703	0.882	22.40
54)	T	Bromoform	0.642	0.826	0.784	0.694	0.595	0.541	0.651	19.64
55)	S	4-Bromofluorobenzen	0.627	0.625	0.625	0.628	0.626	0.628	0.627	0.19
56)	T	1,1,2,2-Tetrachloro	1.013	0.927	0.872	0.772	0.658	0.580	0.758	25.46
57)	T	4-Ethyltoluene	2.107	1.881	1.757	1.548	1.298	1.144	1.526	27.37

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 2012
Response via : Initial Calibration

Calibration Files
2 =04031203.D 4 =04031204.D 5 =04031205.D
6 =04031206.D 7 =04031207.D 8 =04031208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.859	1.590	1.496	1.308	1.098	0.962	1.302	28.74
59)	T	1,2,4-Trimethylbenz	1.766	1.520	1.426	1.261	1.071	0.944	1.254	27.34
60)	T	1,3-Dichlorobenzene	1.092	0.975	0.926	0.822	0.714	0.657	0.823	22.42
61)	T	1,4-Dichlorobenzene	1.043	0.939	0.892	0.797	0.692	0.635	0.794	21.99
62)	T	Benzyl chloride	0.712	1.146	1.096	0.977	0.857	0.792	0.930	18.52
63)	T	1,2-Dichlorobenzene	1.089	0.854	0.814	0.721	0.630	0.577	0.742	26.52
64)	T	1,2,4-Trichlorobenz	0.405	0.307	0.295	0.259	0.232	0.232	0.279	23.08
65)	T	Hexachlorobutadiene		0.436	0.415	0.359	0.310	0.298	0.347	19.71
66)		Naphthalene	0.795	0.605	0.587	0.502	0.449	0.434	0.539	25.34

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\040312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Apr 04 16:36:31 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	10.59	1.000	A	2	A	B
2		T	Propylene	41	5.51	0.520	A	2	A	B
3		T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4		T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5		T	Chloromethane	50	6.00	0.566	A	3	A	B
6		T	Vinyl chloride	62	6.21	0.587	A	2	A	B
7		T	1,3-Butadiene	39	6.27	0.592	A	2	A	B
8		T	Bromomethane	94	6.85	0.647	A	3	A	B
9		T	Chloroethane	64	7.00	0.661	A	3	A	B
10		T	Trichlorofluoromethane	101	7.33	0.692	A	3	A	B
11		T	Ethanol	45	7.57	0.715	A	2	A	B
12		T	Freon113	101	7.99	0.755	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	0.777	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	9.04	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	9.60	0.906	A	3	A	B
22		T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23		T	cis-1,2-Dichloroethene	96	10.28	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	0.962	A	3	A	B
26		T	Tetrahydrofuran	42	10.58	0.999	A	2	A	B
27		T	Chloroform	83	10.60	1.001	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29		T	Cyclohexane	56	10.86	1.025	A	2	A	B
30		T	Carbon tetrachloride	117	11.01	1.040	A	3	A	B
31		T	Benzene	78	11.30	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	12.67	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	15.58	1.003	A	3	A	B
50		T	Ethylbenzene	91	15.62	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	16.77	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	1.175	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	19.17	1.234	A	2	A	B
63		T	1,2-Dichlorobenzene	146	19.61	1.262	A	3	A	B
64		T	1,2,4-Trichlorobenzene	180	22.76	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
--------------------------------------------------------------------------------
          040312V1.M     Thu Apr 05 09:25:37 2012
```

RTI Laboratories

Run ID: VOA9_120327A **Run No.:** 47180

Analytical Run Date: 3/27/2012 **InstrumentID:** VOA9

Analyst: Rachel Dear **Column:**

Calibration ID: 46778 **Column ID:**

Column Length:

Run Comments: PR - RH3 032912 033012rsl

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 032712	BFB_TUNE	TUNE	R47180	3/27/2012 8:56:00 AM	Robert Lynch		
CCV VOA9 032712	MA_APH	CCV	R47180	3/27/2012 9:39:00 AM	Robert Lynch		
RLVS VOA9 032712	MA_APH	RLVS	R47180	3/27/2012 10:22:00 AM	Robert Lynch		
Blank VOA9 03271	MA_APH	MBLK	R47180	3/27/2012 11:11:00 AM	Robert Lynch		
120347-047A	MA_APH	SAMP	R47180	3/27/2012 12:38:00 PM	Robert Lynch		
1203608-023A	MA_APH	SAMP	R47180	3/27/2012 1:20:00 PM	Robert Lynch		
1203608-023Adup	MA_APH	DUP	R47180	3/27/2012 2:03:00 PM	Robert Lynch		
1203608-024A	MA_APH	SAMP	R47180	3/27/2012 4:30:00 PM	Robert Lynch		
1203608-020A	MA_APH	SAMP	R47180	3/27/2012 5:13:00 PM	Robert Lynch		
RLVS2 VOA9 03271	MA_APH	RLVS	R47180	3/28/2012 9:31:00 AM	Robert Lynch		Nitrogen tank ran out over night. Ran RLVS as soon as one was available and this is why RLVS was ran outside 24 hour time clock.

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47180

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
922758	BFB VOA9 032712	BFB_TUNE	TUNE	\1\DATA\032712	3/27/2012 8:56:0	1	R47180		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		59.2	59.2		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	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		27.4	27.4		100	0	0	0	0	0	27%	8	40	0%	
75	M		52.2	52.2		100	0	0	0	0	0	52%	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
922759	CCV VOA9 032712	MA_APH	CCV	\1\DATA\032712	3/27/2012 9:39:0	1	R47180		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	211.85	211.85		234	0	0	0	0	0	91%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	236.36	236.36		266	0	0	0	0	0	89%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	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	345.27	345.27		378	0	0	0	0	0	91%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	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	102.23	102.23		89.5	0	0	0	0	0	114%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032712\03271202.D Vial: 2
Acq On : 27 Mar 2012 9:39 am Operator: RACHEL HILL
Sample : CCV VOA9 032712 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 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	27.874	4.5	89	-0.02
2	L1	C5-C8 Aliphatic HC {2}	36.400	32.865	9.7	84	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	37.738	9.7	84	-0.03
4	L1	C5-C8 Aliphatic HC {4}	35.400	30.814	13.0	83	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	38.168	9.6	86	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	43.903	10.4	85	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	211.853	9.5	85	0.19
8	L1	C9-C12 Aliphatic HC	54.600	50.497	7.5	87	-0.02
9	L1	C9-C12 Aliphatic HC {2}	54.600	50.489	7.5	85	-0.02
10	L1	C9-C12 Aliphatic HC {3}	61.200	56.737	7.3	88	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	56.147	7.7	88	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	63.438	9.4	88	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	65.778	14.6	82	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	345.270	8.7	87	-0.02
15	L1	C9-C10 Aromatic HC	51.700	44.896	13.2	84	-0.01
16	L1	C9-C10 Aromatic HC {2}	51.200	45.429	11.3	87	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	46.353	11.2	87	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	52.825	10.0	89	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	46.944	10.8	87	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	52.374	10.8	88	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	236.365	11.1	87	-0.01
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	68	-0.01
41	S	4-Bromofluorobenzene	89.500	102.226	-14.2	78	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03271202.D 030812V9.M Thu Mar 29 13:15:26 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032712\03271202.D Vial: 2
Acq On : 27 Mar 2012 9:39 am Operator: RACHEL HILL
Sample : CCV VOA9 032712 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 27 12:19 2012 Quant Results File: 030812V9.RES

Quant Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 2012
Response via : Initial Calibration
DataAcq Meth : 030812V9

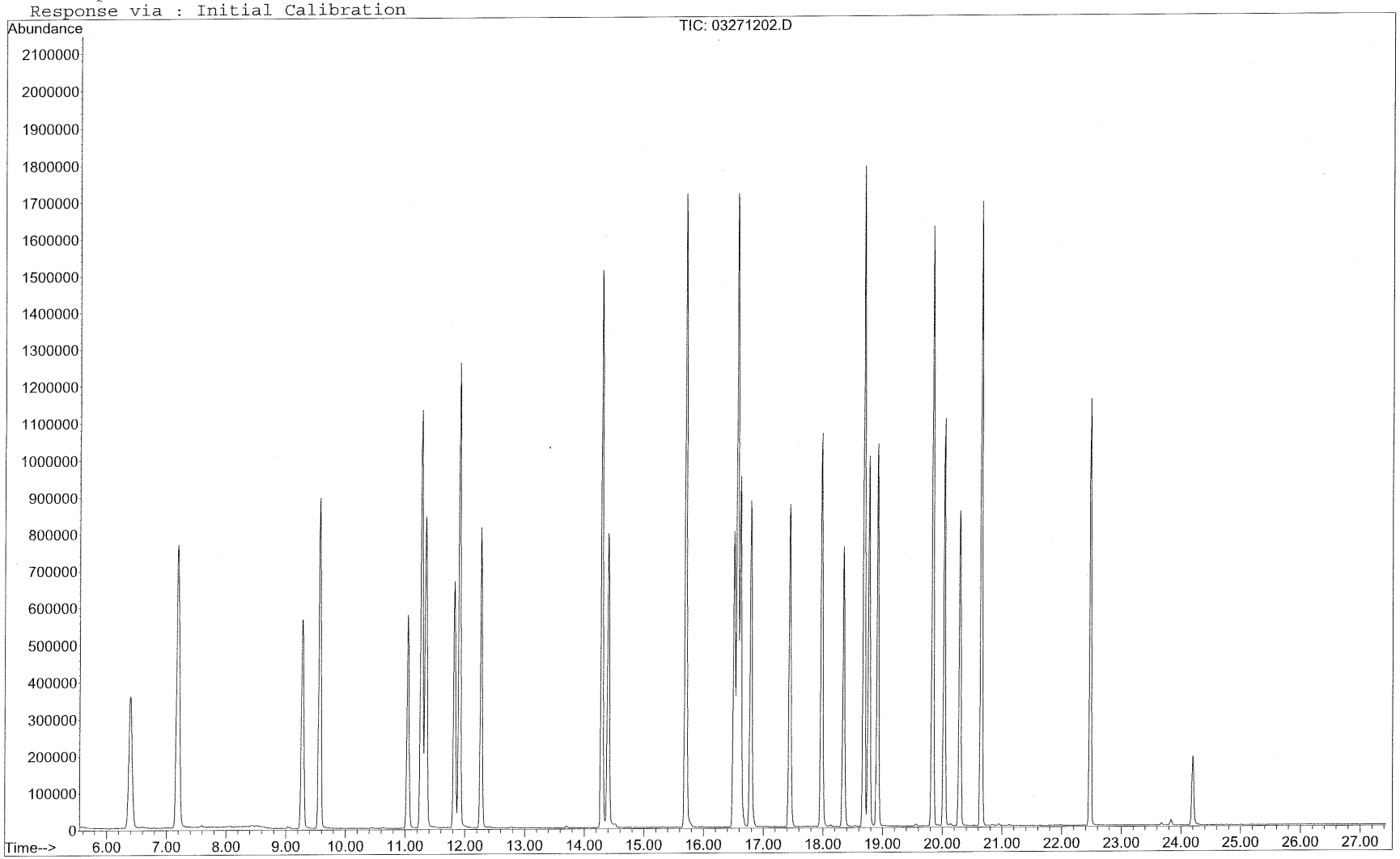
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	518488	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	363984	102.23	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 114.22%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2624002	27.87	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2209002	32.87	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2848888	37.74	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2081683	30.81	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2760608	38.17	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3153639	43.90	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	15677822m	211.85	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3814423	50.50	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3690733	50.49	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3628313	56.74	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	3475921	56.15	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	3359948	63.44	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2294257	65.78	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	20263595m	345.27	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	226414	44.90	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	240999	45.43	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	353465	46.35	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	81920	52.83	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	269894	46.94	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	196887	52.37	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1369579m	236.36	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032712\03271202.D Vial: 2
Acq On : 27 Mar 2012 9:39 am Operator: RACHEL HILL
Sample : CCV VOA9 032712 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 27 12:19 2012 Quant Results File: 030812V9.RES

Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_120328A **Run No.:** 47215

Analytical Run Date: 3/28/2012 **InstrumentID:** VOA9

Analyst: Rachel Dear **Column:**

Calibration ID: 46778 **Column ID:**

Column Length:

Run Comments: PR- RH3 032912 033012rsl

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 032812	BFB_TUNE	TUNE	R47215	3/28/2012 10:25:00 AM	Robert Lynch		
CCV VOA9 032812	MA_APH	CCV	R47215	3/28/2012 11:08:00 AM	Robert Lynch		
RLVS VOA9 032812	MA_APH	RLVS	R47215	3/28/2012 11:51:00 AM	Robert Lynch		
Blank VOA9 03281	MA_APH	MBLK	R47215	3/28/2012 1:43:00 PM	Robert Lynch		
1203608-021A	MA_APH	SAMP	R47215	3/28/2012 3:10:00 PM	Robert Lynch		
1203608-015A	MA_APH	SAMP	R47215	3/28/2012 3:59:00 PM	Robert Lynch		
1203608-015Adup	MA_APH	DUP	R47215	3/28/2012 4:41:00 PM	Robert Lynch		
1203608-019A	MA_APH	SAMP	R47215	3/29/2012 1:28:00 AM	Robert Lynch		
RLVS2 VOA9 03281	MA_APH	RLVS	R47215	3/29/2012 2:59:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47215

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
923247	BFB VOA9 032812	BFB_TUNE	TUNE	\1\DATA\032812	3/28/2012 10:25:	1	R47215		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		58.1	58.1		100	0	0	0	0	0	58%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		97.5	97.5		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		26.9	26.9		100	0	0	0	0	0	27%	8	40	0%	
75	M		52	52		100	0	0	0	0	0	52%	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
923248	CCV VOA9 032812	MA_APH	CCV	\1\DATA\032812	3/28/2012 11:08:	1	R47215		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	180.97	180.97		234	0	0	0	0	0	77%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	197.99	197.99		266	0	0	0	0	0	74%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	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	287.87	287.87		378	0	0	0	0	0	76%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	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	101.14	101.14		89.5	0	0	0	0	0	113%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032812\03281202.D Vial: 2
Acq On : 28 Mar 2012 11:08 am Operator: RACHEL HILL
Sample : CCV VOA9 032812 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 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	22.937	21.4	73	-0.01
2	L1	C5-C8 Aliphatic HC {2}	36.400	28.119	22.7	72	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	31.738	24.1	70	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	27.364	22.7	74	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	33.156	21.4	74	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	37.596	23.3	73	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	180.971	22.7	73	0.20
8	L1	C9-C12 Aliphatic HC	54.600	42.420	22.3	73	-0.01
9	L1	C9-C12 Aliphatic HC {2}	54.600	41.635	23.7	70	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	47.780	21.9	74	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	46.784	23.1	73	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	52.838	24.5	73	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	54.383	29.4	68	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	287.872	23.8	72	-0.01
15	L1	C9-C10 Aromatic HC	51.700	37.671	27.1	71	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	38.154	25.5	73	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	39.125	25.0	73	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	44.060	24.9	74	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	38.933	26.0	72	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	43.710	25.5	74	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	197.987	25.6	73	-0.01
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	81	0.00
41	S	4-Bromofluorobenzene	89.500	101.136	-13.0	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03281202.D 030812V9.M Thu Mar 29 08:42:32 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032812\03281202.D Vial: 2
Acq On : 28 Mar 2012 11:08 am Operator: RACHEL HILL
Sample : CCV VOA9 032812 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 28 15:37 2012 Quant Results File: 030812V9.RES

Quant Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 2012
Response via : Initial Calibration
DataAcq Meth : 030812V9

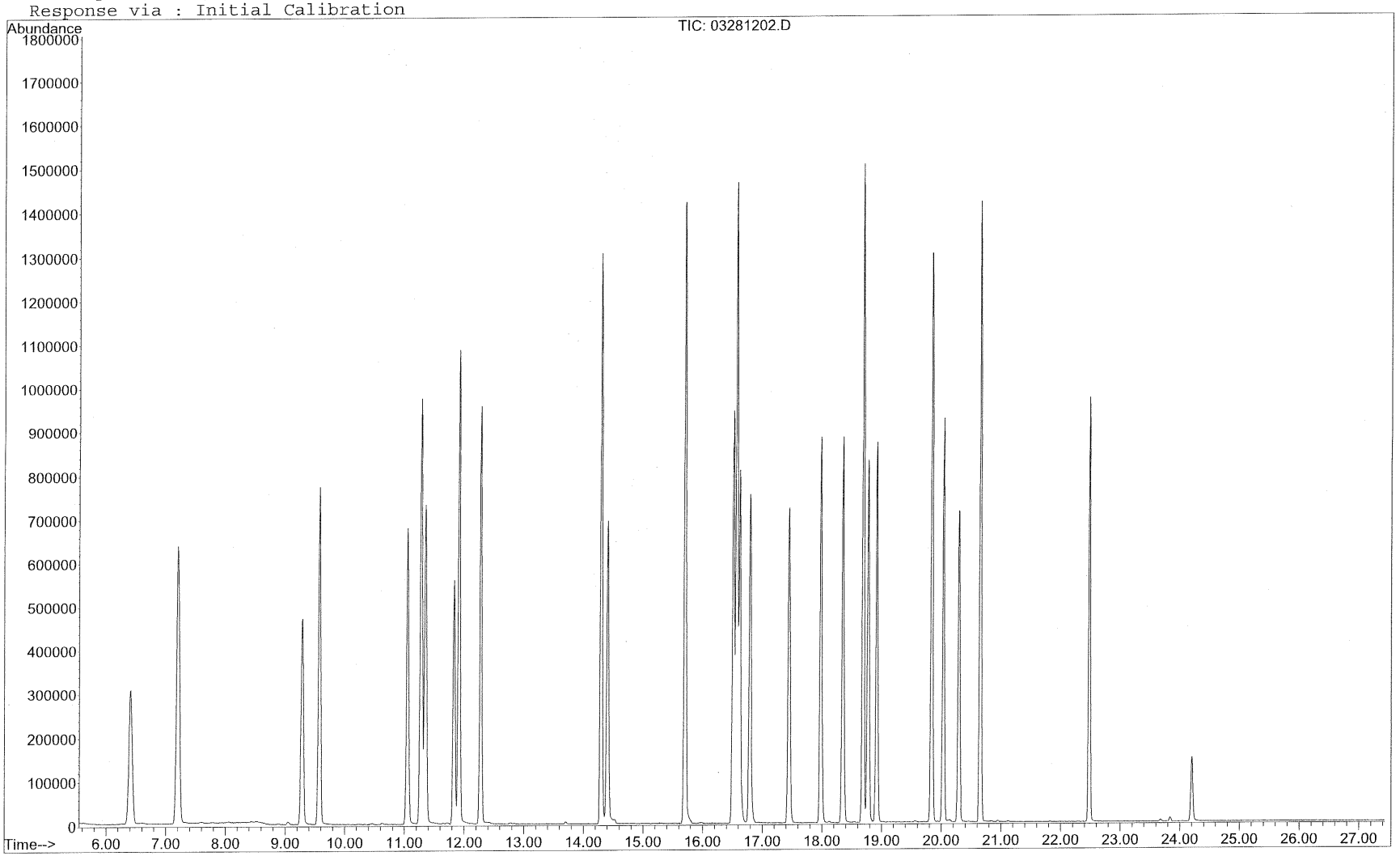
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	616117	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.35	95	427910	101.14	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 113.01%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.20	TIC	2159224	22.94	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	1890010	28.12	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2395932	31.74	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	1848574	27.36	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2398118	33.16	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	2700606	37.60	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.20	TIC	13392464m	180.97	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3204299	42.42	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	3043491	41.64	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3055549	47.78	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.84	TIC	2896299	46.78	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	2798524	52.84	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	1896797	54.38	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	16894959m	287.87	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	189977	37.67	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	202404	38.15	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	298346	39.12	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	68327	44.06	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.30	120	223836	38.93	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	164317	43.71	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1147207m	197.99	ug/m3	

(#) = qualifier out of range (m) = manual integration
03281202.D 030812V9.M Thu Mar 29 08:42:55 2012 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032812\03281202.D Vial: 2
Acq On : 28 Mar 2012 11:08 am Operator: RACHEL HILL
Sample : CCV VOA9 032812 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 28 15:37 2012 Quant Results File: 030812V9.RES

Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_120329A **Run No.:** 47276

Analytical Run Date: 3/29/2012 **InstrumentID:** VOA9

Analyst: Rachel Dear **Column:**

Calibration ID: 46778 **Column ID:**

Column Length:

Run Comments: PR - RH3 033012

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 032912	BFB_TUNE	TUNE	R47276	3/29/2012 8:59:00 AM	Charles O`Bryan		
CCV VOA9 032912	MA_APH	CCV	R47276	3/29/2012 9:42:00 AM	Charles O`Bryan		
RLVS VOA9 032912	MA_APH	RLVS	R47276	3/29/2012 10:25:00 AM	Charles O`Bryan		
Blank VOA9 03291	MA_APH	MBLK	R47276	3/29/2012 11:14:00 AM	Charles O`Bryan		
1203608-016A	MA_APH	SAMP	R47276	3/29/2012 11:56:00 AM	Charles O`Bryan		
1203608-016Adup	MA_APH	DUP	R47276	3/29/2012 12:40:00 PM	Charles O`Bryan		
1203608-017A	MA_APH	SAMP	R47276	3/29/2012 1:23:00 PM	Charles O`Bryan		
1203608-018A	MA_APH	SAMP	R47276	3/29/2012 2:05:00 PM	Charles O`Bryan		
RLVS2 VOA9 03291	MA_APH	RLVS	R47276	3/30/2012 8:52:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

09-Apr-12

RunNo 47276

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924090	BFB VOA9 032912	BFB_TUNE	TUNE	\1\DATA\032912\	3/29/2012 8:59:0	1	R47276		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		59.1	59.1		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.4	7.4		100	0	0	0	0	0	7%	4	9	0%	
176	M		95.3	95.3		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		25.9	25.9		100	0	0	0	0	0	26%	8	40	0%	
75	M		51.3	51.3		100	0	0	0	0	0	51%	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
924091	CCV VOA9 032912	MA_APH	CCV	\1\DATA\032912\	3/29/2012 9:42:0	1	R47276		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	179	179		234	0	0	0	0	0	76%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	196.8	196.8		266	0	0	0	0	0	74%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	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	283.8	283.8		378	0	0	0	0	0	75%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	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	103.13	103.13		89.5	0	0	0	0	0	115%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\032912\03291202.D Vial: 2
Acq On : 29 Mar 2012 9:42 am Operator: RACHEL HILL
Sample : CCV VOA9 032912 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 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	23.632	19.1	75	-0.02
2	L1	C5-C8 Aliphatic HC {2}	36.400	27.271	25.1	70	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	31.685	24.2	70	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	26.497	25.1	72	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	32.317	23.4	72	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	37.167	24.1	72	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	179.003	23.5	72	0.19
8	L1	C9-C12 Aliphatic HC	54.600	42.116	22.9	73	-0.01
9	L1	C9-C12 Aliphatic HC {2}	54.600	40.752	25.4	69	-0.01
10	L1	C9-C12 Aliphatic HC {3}	61.200	47.466	22.4	73	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	46.757	23.1	73	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	51.192	26.9	71	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	53.156	31.0#	66	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	283.796	24.9	71	-0.01
15	L1	C9-C10 Aromatic HC	51.700	37.523	27.4	70	-0.01
16	L1	C9-C10 Aromatic HC {2}	51.200	37.881	26.0	73	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	39.180	24.9	73	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	42.993	26.8	73	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	38.654	26.5	72	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	43.221	26.4	73	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	196.803	26.0	72	-0.01
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	72	-0.01
41	S	4-Bromofluorobenzene	89.500	103.129	-15.2	84	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03291202.D 030812V9.M Fri Mar 30 10:44:40 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032912\03291202.D Vial: 2
Acq On : 29 Mar 2012 9:42 am Operator: RACHEL HILL
Sample : CCV VOA9 032912 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 29 10:56 2012 Quant Results File: 030812V9.RES

Quant Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 2012
Response via : Initial Calibration
DataAcq Meth : 030812V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	552378	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	391201	103.13	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 115.23%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2224701	23.63	ug/m3	100
2) C5-C8 Aliphatic HC (2)	9.57	TIC	1832962	27.27	ug/m3	100
3) C5-C8 Aliphatic HC (3)	11.28	TIC	2391970	31.69	ug/m3	100
4) C5-C8 Aliphatic HC (4)	11.35	TIC	1790003	26.50	ug/m3	100
5) C5-C8 Aliphatic HC (5)	11.91	TIC	2337418	32.32	ug/m3	100
6) C5-C8 Aliphatic HC (6)	14.29	TIC	2669738	37.17	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	13246792m	179.00	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3181336	42.12	ug/m3	100
9) C9-C12 Aliphatic HC (2)	16.57	TIC	2978937	40.75	ug/m3	100
10) C9-C12 Aliphatic HC (3)	18.68	TIC	3035436	47.47	ug/m3	100
11) C9-C12 Aliphatic HC (4)	19.83	TIC	2894639	46.76	ug/m3	100
12) C9-C12 Aliphatic HC (5)	20.65	TIC	2711368	51.19	ug/m3	100
13) C9-C12 Aliphatic HC (6)	22.48	TIC	1854014	53.16	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	16655730m	283.80	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	189234	37.52	ug/m3	100
16) C9-C10 Aromatic HC (2)	18.77	120	200956	37.88	ug/m3	100
17) C9-C10 Aromatic HC (3)	18.91	120	298768	39.18	ug/m3	100
18) C9-C10 Aromatic HC (4)	20.03	120	66672	42.99	ug/m3	100
19) C9-C10 Aromatic HC (5)	20.29	120	222233	38.65	ug/m3	100
20) C9-C10 Aromatic HC (6)	20.03	134	162480	43.22	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1140343m	196.80	ug/m3	

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

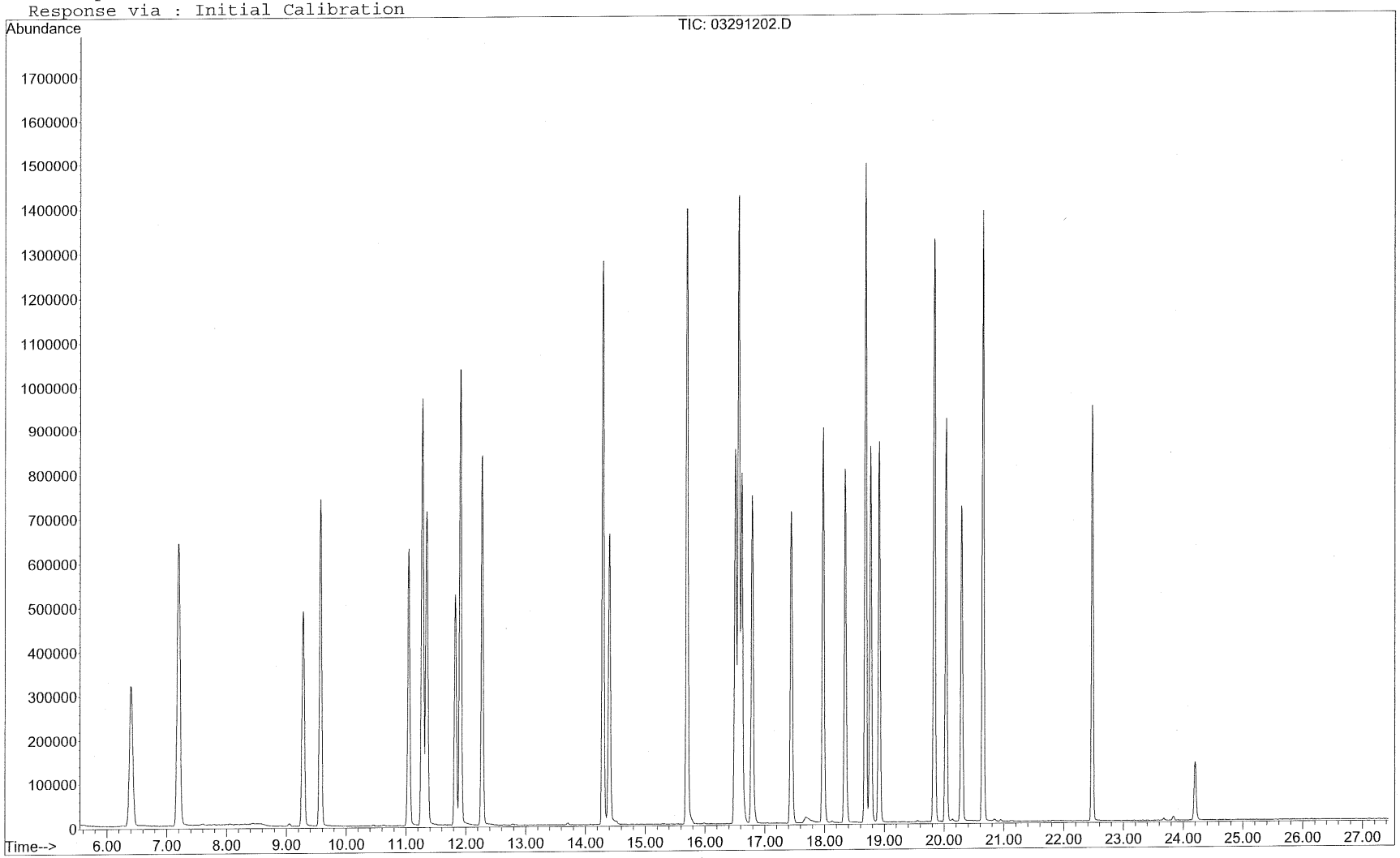
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032912\03291202.D
Acq On : 29 Mar 2012 9:42 am
Sample : CCV VOA9 032912
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Mar 29 10:56 2012

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 030812V9.RES

Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_120403B **Run No.:** 47377

Analytical Run Date: 4/3/2012 **InstrumentID:** VOA9

Analyst: Rachel Dear **Column:**

Calibration ID: 47376 **Column ID:**

Column Length:

Run Comments: PR, RH3 040412 rsl040512

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB2 VOA9 040312	BFB_TUNE	TUNE	R47377	4/3/2012 5:18:00 PM	Robert Lynch		
ICV VOA9 040312	MA_APH	ICV	R47377	4/3/2012 6:01:00 PM	Robert Lynch		
RLVS VOA9 040312	MA_APH	RLVS	R47377	4/3/2012 6:44:00 PM	Robert Lynch		
MBLK VOA9 040312	MA_APH	MBLK	R47377	4/3/2012 7:33:00 PM	Robert Lynch		
1203608-001A	MA_APH	SAMP	R47377	4/3/2012 8:16:00 PM	Robert Lynch		
1203608-003A	MA_APH	SAMP	R47377	4/3/2012 8:59:00 PM	Robert Lynch		
1203608-003Adup	MA_APH	DUP	R47377	4/3/2012 9:41:00 PM	Robert Lynch		
1203608-004A	MA_APH	SAMP	R47377	4/3/2012 10:23:00 PM	Robert Lynch		
1203608-009A	MA_APH	SAMP	R47377	4/3/2012 11:54:00 PM	Robert Lynch		
1203608-012A	MA_APH	SAMP	R47377	4/4/2012 2:09:00 AM	Robert Lynch		
1203608-013A	MA_APH	SAMP	R47377	4/4/2012 2:57:00 AM	Robert Lynch		
1203608-025A	MA_APH	SAMP	R47377	4/4/2012 3:46:00 AM	Robert Lynch		
1203608-028A	MA_APH	SAMP	R47377	4/4/2012 5:11:00 AM	Robert Lynch		
1203608-029A	MA_APH	SAMP	R47377	4/4/2012 5:53:00 AM	Robert Lynch		
1203608-007A	MA_APH	SAMP	R47377	4/4/2012 10:30:00 AM	Robert Lynch		
1203608-008A	MA_APH	SAMP	R47377	4/4/2012 11:34:00 AM	Robert Lynch		
1203608-006A	MA_APH	SAMP	R47377	4/4/2012 12:16:00 PM	Robert Lynch		
1203608-010A	MA_APH	SAMP	R47377	4/4/2012 1:02:00 PM	Robert Lynch		
1203608-005A	MA_APH	SAMP	R47377	4/4/2012 1:46:00 PM	Robert Lynch		
1203608-011A	MA_APH	SAMP	R47377	4/4/2012 2:30:00 PM	Robert Lynch		
1203608-014A	MA_APH	SAMP	R47377	4/4/2012 3:19:00 PM	Robert Lynch		
RLVS2 VOA9 04031	MA_APH	RLVS	R47377	4/4/2012 4:01:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47377

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
926223	BFB2 VOA9 040312	BFB_TUNE	TUNE	\1\DATA\040312	4/3/2012 5:18:00	1	R47377		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		58.2	58.2		100	0	0	0	0	0	58%	50	120	0%	
175	M		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		96.7	96.7		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		27	27		100	0	0	0	0	0	27%	8	40	0%	
75	M		52.2	52.2		100	0	0	0	0	0	52%	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
926224	ICV VOA9 040312	MA_APH	ICV	\1\DATA\040312	4/3/2012 6:01:00	1	R47377		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	254.12	254.12		234	0	0	0	0	0	109%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	284.99	284.99		266	0	0	0	0	0	107%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	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	403.36	403.36		378	0	0	0	0	0	107%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	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	88.79	88.79		89.5	0	0	0	0	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040312\04031211.D Vial: 12
Acq On : 3 Apr 2012 6:01 pm Operator: RACHEL HILL
Sample : ICV VOA9 040312 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	32.390	-10.9	109	-0.01
2	L1	C5-C8 Aliphatic HC {2}	36.400	39.562	-8.7	110	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	45.062	-7.8	109	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	38.574	-9.0	110	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	45.310	-7.4	110	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	53.082	-8.3	110	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	254.119	-8.6	110	0.20
8	L1	C9-C12 Aliphatic HC	54.600	59.063	-8.2	111	-0.01
9	L1	C9-C12 Aliphatic HC {2}	54.600	59.110	-8.3	110	0.00
10	L1	C9-C12 Aliphatic HC {3}	61.200	65.920	-7.7	111	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	64.901	-6.7	111	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	73.833	-5.5	112	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	78.452	-1.9	114	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	403.357	-6.7	111	-0.01
15	L1	C9-C10 Aromatic HC	51.700	54.501	-5.4	112	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	54.809	-7.0	115	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	55.385	-6.1	112	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	63.835	-8.7	117	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	56.801	-8.0	115	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	63.270	-7.8	116	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	284.987	-7.1	114	0.00
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	106	0.00
41	S	4-Bromofluorobenzene	89.500	88.789	0.8	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
04031211.D 040312V9.M Wed Apr 04 15:08:00 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040312\04031211.D Vial: 12
Acq On : 3 Apr 2012 6:01 pm Operator: RACHEL HILL
Sample : ICV VOA9 040312 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 4 9:37 2012 Quant Results File: 040312V9.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration
DataAcq Meth : 040312V9

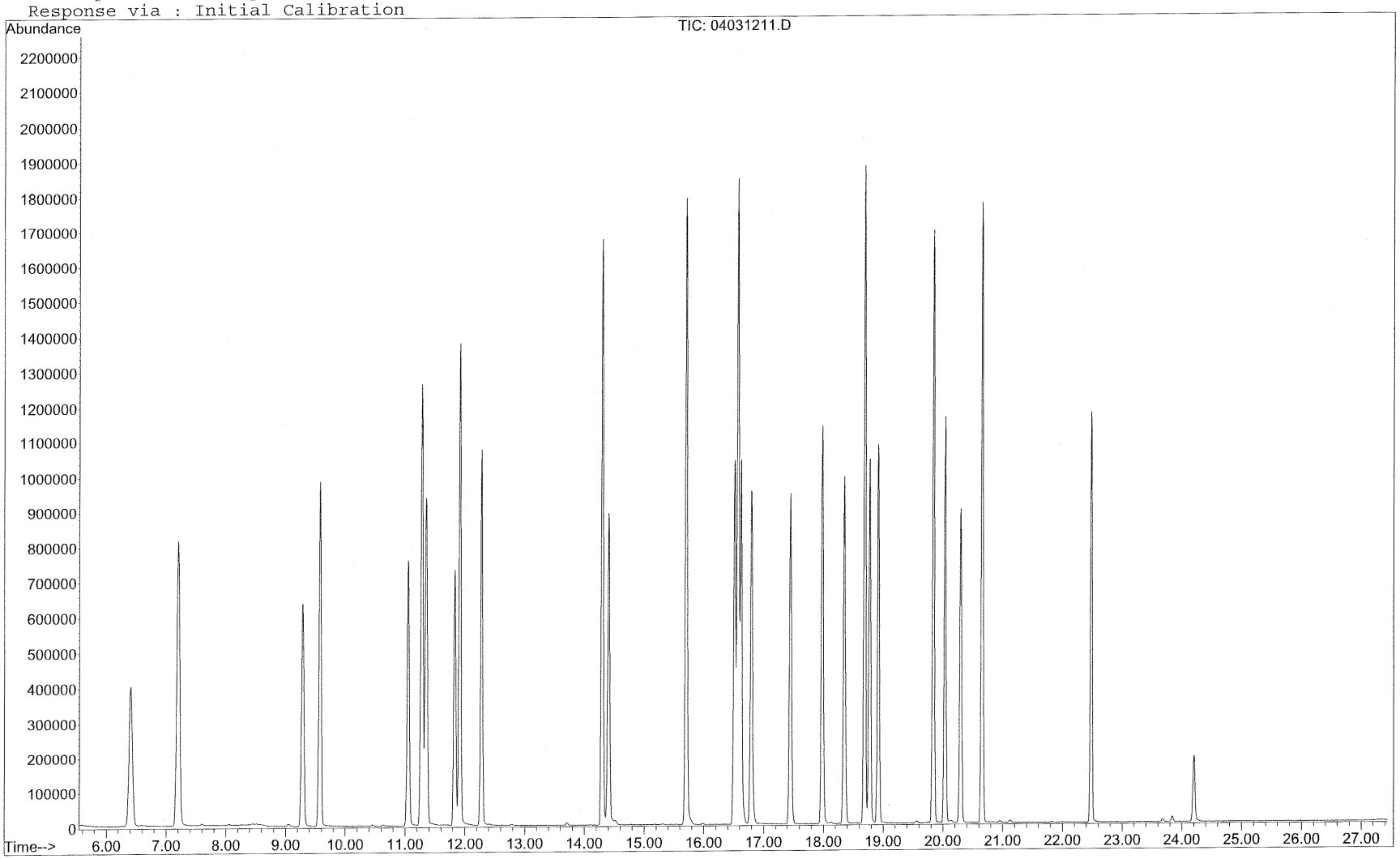
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	702663	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.35	95	491589	88.79	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 99.21%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.20	TIC	2797110	32.39	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.58	TIC	2455133	39.56	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	3117893	45.06	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2398692	38.57	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3046517	45.31	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	3514812	53.08	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.20	TIC	17330157m	254.12	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	4088908	59.06	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	4065405	59.11	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3887394	65.92	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.84	TIC	3686899	64.90	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	3556711	73.83	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2350794	78.45	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	21636111m	403.36	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	244567	54.50	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	257823	54.81	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	376045	55.38	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	87587	63.84	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.30	120	282610	56.80	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	208983	63.27	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1457615m	284.99	ug/m3	

(#) = qualifier out of range (m) = manual integration
04031211.D 040312V9.M Wed Apr 04 15:12:52 2012 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\040312\04031211.D Vial: 12
Acq On : 3 Apr 2012 6:01 pm Operator: RACHEL HILL
Sample : ICV VOA9 040312 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 4 9:37 2012 Quant Results File: 040312V9.RES

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_120404A **Run No.:** 47436

Analytical Run Date: 4/4/2012 **InstrumentID:** VOA9

Analyst: Rachel Dear **Column:**

Calibration ID: 47376 **Column ID:** 0.25mm, 1.4umFT

Column Length: 60m

Run Comments: PR - rh3, 040512 rsl040512

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA9 040412	BFB_TUNE	TUNE	R47436	4/4/2012 5:41:00 PM	Robert Lynch		
CCV VOA9 040412	MA_APH	CCV	R47436	4/4/2012 6:24:00 PM	Robert Lynch		
RLVS VOA9 040412	MA_APH	RLVS	R47436	4/4/2012 7:07:00 PM	Robert Lynch		
MBLK VOA9 040412	MA_APH	MBLK	R47436	4/4/2012 7:56:00 PM	Robert Lynch		
1203732-029A	MA_APH	SAMP	R47436	4/4/2012 8:45:00 PM	Robert Lynch		
1203732-033A	MA_APH	SAMP	R47436	4/4/2012 9:34:00 PM	Robert Lynch		
1203732-030A	MA_APH	SAMP	R47436	4/4/2012 10:23:00 PM	Robert Lynch		
1203732-031A	MA_APH	SAMP	R47436	4/4/2012 11:11:00 PM	Robert Lynch		
1203732-034A	MA_APH	SAMP	R47436	4/5/2012	Robert Lynch		
1203732-032A	MA_APH	SAMP	R47436	4/5/2012 12:43:00 AM	Robert Lynch		
1203732-032Adup	MA_APH	DUP	R47436	4/5/2012 1:25:00 AM	Robert Lynch		
1203732-035A	MA_APH	SAMP	R47436	4/5/2012 2:07:00 AM	Robert Lynch		
1203732-036A	MA_APH	SAMP	R47436	4/5/2012 2:50:00 AM	Robert Lynch		
1203732-008A	MA_APH	SAMP	R47436	4/5/2012 4:21:00 AM	Robert Lynch		
1203732-015A	MA_APH	SAMP	R47436	4/5/2012 5:10:00 AM	Robert Lynch		
1203732-010A	MA_APH	SAMP	R47436	4/5/2012 6:36:00 AM	Robert Lynch		
1203608-026A	MA_APH	SAMP	R47436	4/5/2012 9:41:00 AM	Robert Lynch		
1203732-009A	MA_APH	SAMP	R47436	4/5/2012 10:25:00 AM	Robert Lynch		
1203608-027A	MA_APH	SAMP	R47436	4/5/2012 11:08:00 AM	Robert Lynch		
1203608-022A	MA_APH	SAMP	R47436	4/5/2012 12:40:00 PM	Robert Lynch		
1203732-037A	MA_APH	SAMP	R47436	4/5/2012 1:29:00 PM	Robert Lynch		
1203608-002A	MA_APH	SAMP	R47436	4/5/2012 2:11:00 PM	Robert Lynch		
RLVS2 VOA9 04041	MA_APH	RLVS	R47436	4/5/2012 2:53:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47436

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
926671	BFB VOA9 040412	BFB_TUNE	TUNE	\1\DATA\040412	4/4/2012 5:41:00	1	R47436		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		57.4	57.4		100	0	0	0	0	0	57%	50	120	0%	
175	M		7.4	7.4		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		26.1	26.1		100	0	0	0	0	0	26%	8	40	0%	
75	M		51.6	51.6		100	0	0	0	0	0	52%	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
926672	CCV VOA9 040412	MA_APH	CCV	\1\DATA\040412	4/4/2012 6:24:00	1	R47436		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	232.82	232.82		234	0	0	0	0	0	99%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	269.74	269.74		266	0	0	0	0	0	101%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	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	377.03	377.03		378	0	0	0	0	0	100%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	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	90.57	90.57		89.5	0	0	0	0	0	101%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040412\04041202.D Vial: 2
Acq On : 4 Apr 2012 6:24 pm Operator: RACHEL HILL
Sample : CCV VOA9 040412 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Multiple Level Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	29.531	-1.1	100	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	36.205	0.5	100	-0.02
3	L1	C5-C8 Aliphatic HC {3}	41.800	41.266	1.3	100	-0.02
4	L1	C5-C8 Aliphatic HC {4}	35.400	35.344	0.2	101	-0.02
5	L1	C5-C8 Aliphatic HC {5}	42.200	41.626	1.4	101	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	48.757	0.5	101	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	232.815	0.5	101	0.21
8	L1	C9-C12 Aliphatic HC	54.600	54.841	-0.4	103	-0.01
9	L1	C9-C12 Aliphatic HC {2}	54.600	55.006	-0.7	102	-0.01
10	L1	C9-C12 Aliphatic HC {3}	61.200	62.071	-1.4	105	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	61.137	-0.6	104	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	67.853	3.1	103	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	74.830	2.8	108	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	377.033	0.3	104	-0.01
15	L1	C9-C10 Aromatic HC	51.700	52.008	-0.6	107	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	51.568	-0.7	108	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	53.088	-1.7	108	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	58.806	-0.2	108	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	53.557	-1.8	109	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	59.364	-1.1	108	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	269.743	-1.4	108	0.00
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	0.00
41	S	4-Bromofluorobenzene	89.500	90.573	-1.2	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
04041202.D 040312V9.M Thu Apr 05 14:40:21 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040412\04041202.D Vial: 2
Acq On : 4 Apr 2012 6:24 pm Operator: RACHEL HILL
Sample : CCV VOA9 040412 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 5 8:43 2012 Quant Results File: 040312V9.RES

Quant Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration
DataAcq Meth : 040312V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	677549	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.35	95	483543	90.57	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 101.20%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.21	TIC	2550258	29.53	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2246782	36.20	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2855221	41.27	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2197842	35.34	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2798800	41.63	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3228414	48.76	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.21	TIC	15877317m	232.82	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3796600	54.84	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	3783160	55.01	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.69	TIC	3660410	62.07	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.84	TIC	3473070	61.14	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	3268607	67.85	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2242269	74.83	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	20224116m	377.03	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	233379	52.01	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	242579	51.57	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.92	120	360451	53.09	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	80687	58.81	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.30	120	266471	53.56	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	196082	59.36	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1379649m	269.74	ug/m3	

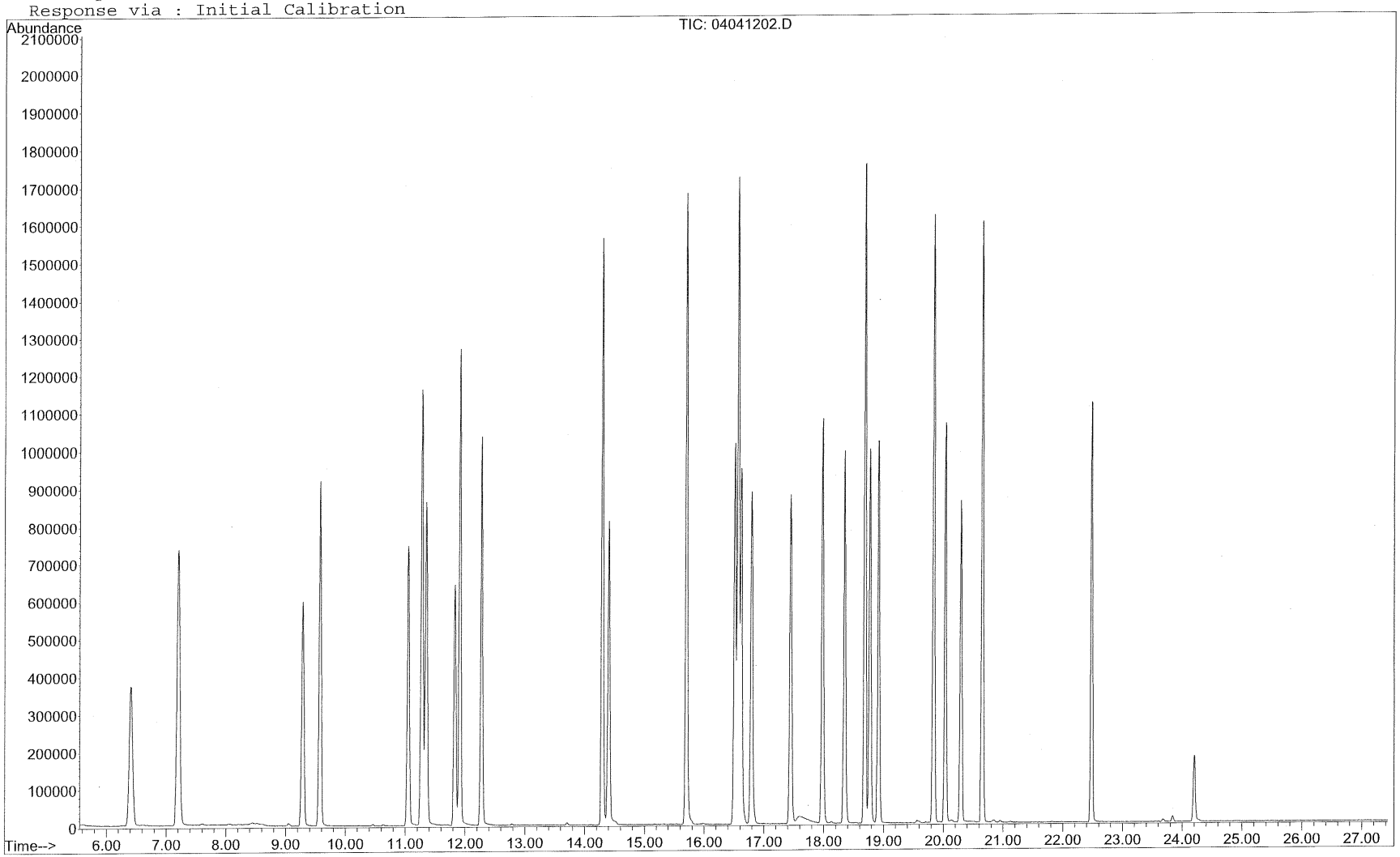
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\040412\04041202.D
Acq On : 4 Apr 2012 6:24 pm
Sample : CCV VOA9 040412
Misc : CCV MA APH
MS Integration Params: rteint.p
Quant Time: Apr 5 8:43 2012

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 040312V9.RES

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 2012
Response via : Initial Calibration

Calibration Files
1 =03081203.D 2 =03081204.D 3 =03081205.D
4 =03081206.D 5 =03081207.D 6 =03081208.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	1.034	1.015	0.980	0.933	0.895	0.873	0.941	E5	7.39
2)	L1	C5-C8 Aliphatic HC	7.072	7.219	6.805	6.517	6.454	6.370	6.721	E4	4.81
3)	L1	C5-C8 Aliphatic HC	8.054	8.142	7.520	7.349	7.201	7.114	7.549	E4	5.31
4)	L1	C5-C8 Aliphatic HC	6.946	7.063	6.930	6.451	6.639	6.505	6.756	E4	3.47
5)	L1	C5-C8 Aliphatic HC	7.402	7.646	7.316	7.136	7.042	7.017	7.233	E4	3.22
6)	L1	C5-C8 Aliphatic HC	7.351	7.585	7.395	7.036	7.106	7.020	7.183	E4	3.79
7)	L1	C5-C8 Aliphatic HC	7.755	7.879	7.535	7.236	7.176	7.066	7.400	E4	4.35
8)	L1	C9-C12 Aliphatic HC	7.850	8.036	7.754	7.459	7.474	7.298	7.554	E4	4.66
9)	L1	C9-C12 Aliphatic HC	7.600	7.908	7.557	7.196	7.181	6.925	7.310	E4	5.41
10)	L1	C9-C12 Aliphatic HC	6.599	6.754	6.693	6.266	6.392	6.273	6.395	E4	5.19
11)	L1	C9-C12 Aliphatic HC	6.388	6.491	6.409	6.049	6.120	6.093	6.191	E4	4.04
12)	L1	C9-C12 Aliphatic HC	5.318	5.440	5.389	5.203	5.264	5.372	5.296	E4	2.29
13)	L1	C9-C12 Aliphatic HC	3.497	3.648	3.442	3.309	3.416	3.544	3.488	E4	3.17
14)	L1	C9-C12 Aliphatic HC	6.024	6.191	6.027	5.742	5.805	5.765	5.869	E4	3.81
15)	L1	C9-C10 Aromatic HC	4.970	5.198	5.085	4.863	4.960	5.077	5.043	E3	2.33
16)	L1	C9-C10 Aromatic HC	5.271	5.400	5.340	5.008	5.233	5.406	5.305	E3	2.93
17)	L1	C9-C10 Aromatic HC	7.745	7.808	7.662	7.278	7.511	7.721	7.626	E3	2.35
18)	L1	C9-C10 Aromatic HC	1.497	1.563	1.579	1.482	1.549	1.591	1.551	E3	2.90
19)	L1	C9-C10 Aromatic HC	5.766	5.885	5.815	5.435	5.619	5.820	5.749	E3	2.91
20)	L1	C9-C10 Aromatic HC	3.666	3.800	3.800	3.570	3.725	3.860	3.759	E3	3.02
21)	L1	C9-C10 Aromatic HC	5.780	5.929	5.840	5.504	5.690	5.890	5.794	E3	2.66
22)		C5-C8 Aliphatic	7.755	7.879	7.535	7.236	7.176	7.066	7.400	E4	4.35
23)	L1	non C5-C8	7.530	7.200	7.047	6.876	6.722	6.696	6.947	E4	4.86
24)	L1	non C5-C8 {2}	5.107	5.114	4.661	4.493	4.439	4.213	4.646	E4	7.39
25)	L1	non C5-C8 {3}	3.419	3.275	3.341	3.333	3.204	3.243	3.306	E4	2.16
26)	L1	non C5-C8 {4}	5.689	5.886	5.408	5.126	5.168	5.059	5.398	E4	5.69
27)	L1	non C5-C8 {5}	4.966	4.814	4.941	5.005	4.731	4.888	4.914	E4	2.28
28)	L1	non C5-C8 {6}	5.465	5.600	5.334	5.034	5.134	5.141	5.343	E4	4.73
29)	L1	non C5-C8 - TOTAL	4.714	4.925	4.856	4.802	4.803	4.869	4.887	E4	3.46
30)		C9-C12 Aliphatic	6.024	6.191	6.027	5.742	5.805	5.765	5.869	E4	3.81
31)	L1	non C9-C12	4.650	4.333	4.482	4.426	4.405	4.598	4.503	E4	2.73
32)	L1	non C9-C12 {2}	5.334	5.525	5.347	5.146	5.238	4.718	5.196	E4	4.98
33)	L1	non C9-C12 {3}	5.405	5.504	5.358	5.055	5.151	5.197	5.283	E4	2.96
34)	L1	non C9-C12 {4}	5.225	5.364	5.204	4.893	5.011	5.008	5.121	E4	3.12
35)	L1	non C9-C12 {5}	2.496	2.459	2.540	2.507	2.497	2.575	2.529	E4	2.25
36)	L1	non C9-C12 - TOTAL	3.534	3.604	3.597	3.482	3.552	3.521	3.564	E4	1.68
37)	L1	C9-C10 Aromatic	5.780	5.929	5.840	5.504	5.690	5.890	5.794	E3	2.66
38)	L1	C9-C10 Aromatic {2}	5.780	5.929	5.840	5.504	5.690	5.890	5.794	E3	2.66
39)	L1	C9-C10 Aromatic - T	5.780	5.929	5.840	5.504	5.690	5.890	5.794	E3	2.66
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.086	0.086	0.086	0.085	0.086	0.087	0.086		0.61

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 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

030812V9.M Fri Mar 09 15:28:23 2012

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\030812\03081211.D Vial: 12
Acq On : 8 Mar 2012 6:55 pm Operator: RACHEL HILL
Sample : ICV 030812 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	L1	C5-C8 Aliphatic HC	29.200	29.188	0.0	93	0.00
2	L1	C5-C8 Aliphatic HC {2}	36.400	33.694	7.4	86	-0.01
3	L1	C5-C8 Aliphatic HC {3}	41.800	38.263	8.5	85	-0.01
4	L1	C5-C8 Aliphatic HC {4}	35.400	32.358	8.6	87	-0.01
5	L1	C5-C8 Aliphatic HC {5}	42.200	38.765	8.1	87	-0.02
6	L1	C5-C8 Aliphatic HC {6}	49.000	45.676	6.8	88	-0.02
7	L1	C5-C8 Aliphatic HC - TOTAL	234.000	218.527	6.6	88	0.22
8	L1	C9-C12 Aliphatic HC	54.600	51.372	5.9	88	-0.01
9	L1	C9-C12 Aliphatic HC {2}	54.600	50.162	8.1	85	-0.01
10	L1	C9-C12 Aliphatic HC {3}	61.200	58.924	3.7	91	0.00
11	L1	C9-C12 Aliphatic HC {4}	60.800	58.551	3.7	92	0.00
12	L1	C9-C12 Aliphatic HC {5}	70.000	65.506	6.4	91	0.00
13	L1	C9-C12 Aliphatic HC {6}	77.000	67.397	12.5	84	0.00
14	L1	C9-C12 Aliphatic HC - TOTAL	378.000	353.737	6.4	89	-0.01
15	L1	C9-C10 Aromatic HC	51.700	47.466	8.2	89	0.00
16	L1	C9-C10 Aromatic HC {2}	51.200	47.598	7.0	91	0.00
17	L1	C9-C10 Aromatic HC {3}	52.200	48.614	6.9	91	0.00
18	L1	C9-C10 Aromatic HC {4}	58.700	54.853	6.6	93	0.00
19	L1	C9-C10 Aromatic HC {5}	52.600	49.604	5.7	92	0.00
20	L1	C9-C10 Aromatic HC {6}	58.700	54.706	6.8	92	0.00
21	L1	C9-C10 Aromatic HC - TOTAL	266.000	248.259	6.7	91	-0.01
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	82	-0.01
41	S	4-Bromofluorobenzene	89.500	88.600	1.0	81	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03081211.D 030812V9.M Fri Mar 09 15:28:39 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\030812\03081211.D Vial: 12
Acq On : 8 Mar 2012 6:55 pm Operator: RACHEL HILL
Sample : ICV 030812 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 9 14:36 2012 Quant Results File: 030812V9.RES

Quant Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 2012
Response via : Initial Calibration
DataAcq Meth : 030812V9

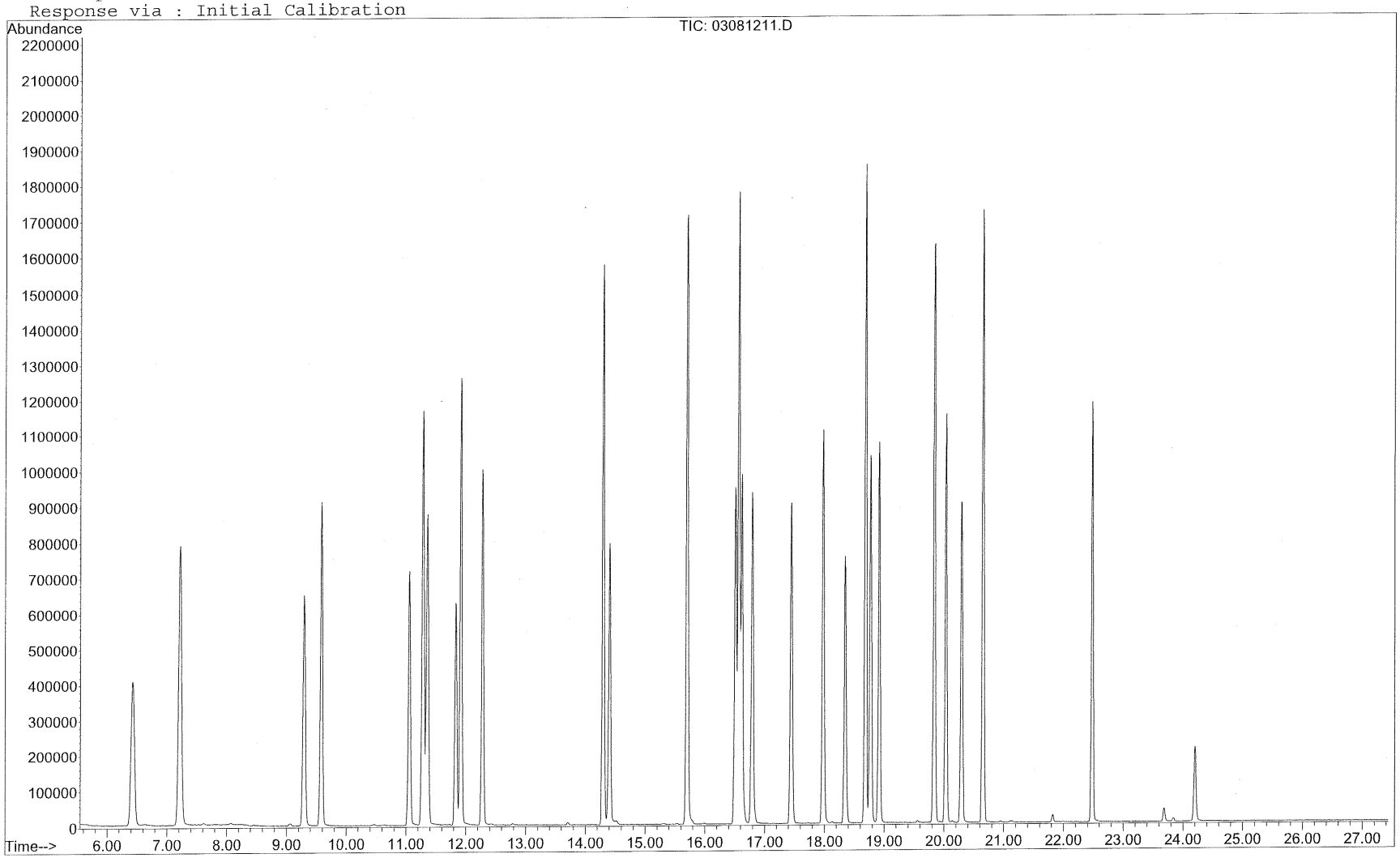
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	626842	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	381394	88.60	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 98.99%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.22	TIC	2747719	29.19	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.58	TIC	2264725	33.69	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2888513	38.26	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2185961	32.36	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2803807	38.76	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3280992	45.68	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.22	TIC	16171717m	218.53	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3880517	51.37	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	3666770	50.16	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3768226	58.92	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.84	TIC	3624781	58.55	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	3469502	65.51	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.48	TIC	2350713	67.40	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	20760509m	353.74	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	239374	47.47	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	252508	47.60	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	370711	48.61	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	85065	54.85	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.30	120	285191	49.60	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	205652	54.71	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1438501m	248.26	ug/m3	

(#) = qualifier out of range (m) = manual integration
03081211.D 030812V9.M Fri Mar 09 15:28:59 2012 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\030812\03081211.D Vial: 12
Acq On : 8 Mar 2012 6:55 pm Operator: RACHEL HILL
Sample : ICV 030812 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 9 14:36 2012 Quant Results File: 030812V9.RES

Method : C:\HPCHEM\1\METHODS\030812V9.M (RTE Integrator)
Title : MASS APH
Last Update : Fri Mar 09 14:29:04 2012
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration

Calibration Files
1 =04031203.D 2 =04031204.D 3 =04031205.D
4 =04031206.D 5 =04031207.D 6 =04031208.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	1.012	0.876	0.860	0.852	0.812	0.828	0.864	E5	8.13
2)	L1	C5-C8 Aliphatic HC	6.532	6.157	6.204	6.162	5.990	6.140	6.206	E4	2.67
3)	L1	C5-C8 Aliphatic HC	7.289	6.817	6.910	6.819	6.637	6.930	6.919	E4	2.95
4)	L1	C5-C8 Aliphatic HC	6.561	6.156	6.201	6.099	6.043	6.186	6.218	E4	2.72
5)	L1	C5-C8 Aliphatic HC	6.952	6.567	6.729	6.688	6.637	6.735	6.724	E4	1.79
6)	L1	C5-C8 Aliphatic HC	6.724	6.497	6.653	6.594	6.602	6.693	6.621	E4	1.15
7)	L1	C5-C8 Aliphatic HC	7.235	6.745	6.812	6.757	6.630	6.773	6.820	E4	2.82
8)	L1	C9-C12 Aliphatic HC	7.047	6.765	6.966	6.959	6.958	6.991	6.923	E4	1.58
9)	L1	C9-C12 Aliphatic HC	7.337	6.781	6.925	6.808	6.822	6.622	6.878	E4	3.23
10)	L1	C9-C12 Aliphatic HC	5.935	5.723	6.075	5.997	5.979	5.901	5.897	E4	2.52
11)	L1	C9-C12 Aliphatic HC	5.698	5.480	5.782	5.762	5.722	5.674	5.681	E4	1.77
12)	L1	C9-C12 Aliphatic HC	4.663	4.544	4.897	4.940	4.834	4.857	4.817	E4	3.29
13)	L1	C9-C12 Aliphatic HC	2.783	2.685	3.002	3.102	3.049	3.059	2.996	E4	6.81
14)	L1	C9-C12 Aliphatic HC	5.385	5.153	5.440	5.433	5.394	5.355	5.364	E4	1.82
15)	L1	C9-C10 Aromatic HC	4.215	4.208	4.462	4.481	4.485	4.649	4.487	E3	5.44
16)	L1	C9-C10 Aromatic HC	4.529	4.390	4.681	4.641	4.684	4.833	4.704	E3	5.28
17)	L1	C9-C10 Aromatic HC	6.661	6.404	6.667	6.762	6.776	6.938	6.790	E3	4.18
18)	L1	C9-C10 Aromatic HC	1.292	1.274	1.358	1.366	1.394	1.425	1.372	E3	5.57
19)	L1	C9-C10 Aromatic HC	4.754	4.653	4.949	4.964	4.945	5.048	4.975	E3	5.51
20)	L1	C9-C10 Aromatic HC	3.082	3.079	3.250	3.283	3.337	3.429	3.303	E3	6.14
21)	L1	C9-C10 Aromatic HC	4.904	4.800	5.058	5.078	5.098	5.259	5.115	E3	5.12
22)		C5-C8 Aliphatic	7.235	6.745	6.812	6.757	6.630	6.773	6.820	E4	2.82
23)	L1	non C5-C8	7.267	6.259	6.328	6.249	6.273	6.388	6.438	E4	5.72
24)	L1	non C5-C8 {2}	4.143	3.945	4.043	4.108	3.841	3.842	3.975	E4	3.12
25)	L1	non C5-C8 {3}	2.923	2.776	2.787	2.922	2.867	3.074	2.898	E4	3.50
26)	L1	non C5-C8 {4}	5.089	4.958	4.976	4.917	4.757	4.853	4.940	E4	2.23
27)	L1	non C5-C8 {5}	4.191	3.872	3.924	4.277	4.047	4.544	4.148	E4	5.51
28)	L1	non C5-C8 {6}	4.668	4.697	4.826	5.011	4.759	5.118	4.915	E4	4.98
29)	L1	non C5-C8 - TOTAL	4.060	4.073	4.205	4.415	4.331	4.646	4.359	E4	6.35
30)		C9-C12 Aliphatic	5.385	5.153	5.440	5.433	5.394	5.355	5.364	E4	1.82
31)	L1	non C9-C12	4.012	3.871	3.926	4.011	4.166	4.399	4.047	E4	4.47
32)	L1	non C9-C12 {2}	4.442	4.350	4.561	4.418	4.589	4.391	4.479	E4	2.30
33)	L1	non C9-C12 {3}	4.648	4.586	4.771	4.754	4.698	4.777	4.753	E4	3.02
34)	L1	non C9-C12 {4}	4.484	4.433	4.590	4.571	4.588	4.632	4.591	E4	2.82
35)	L1	non C9-C12 {5}	2.559	2.459	2.509	2.667	2.638	2.835	2.630	E4	5.04
36)	L1	non C9-C12 - TOTAL	3.179	3.118	3.216	3.247	3.288	3.323	3.256	E4	3.05
37)	L1	C9-C10 Aromatic	4.904	4.800	5.058	5.078	5.098	5.259	5.115	E3	5.12
38)	L1	C9-C10 Aromatic {2}	4.904	4.800	5.058	5.078	5.098	5.259	5.115	E3	5.12
39)	L1	C9-C10 Aromatic - T	4.904	4.800	5.058	5.078	5.098	5.259	5.115	E3	5.12
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.098	0.098	0.099	0.098	0.099	0.098	0.098		0.49

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\040312V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Apr 04 08:32:52 2012
Response via : Initial Calibration
Total Cpnds : 41

PK#		Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1	L1	C5-C8 Aliphatic HC	TIC	7.21	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

040312V9.M Wed Apr 04 09:28:30 2012

RTI Laboratories

Run ID: GC-TCD 1_120323A **Run No.:** 47182

Analytical Run Date: 3/23/2012 **InstrumentID:** GC-TCD 1

Analyst: Mike Budziak **Column:** GC-TCD 1

Calibration ID: 45325 **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

Run Comments: ch rev 3/30/12/PR 032912JDH

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
MBLK-032312 TCD	ASTM-D2504	MBLK	R47182	3/23/2012 12:39:00 PM	Celeste Hoitash		
CCV 032312 TCD-A	ASTM-D2504	CCV	R47182	3/23/2012 12:59:00 PM	Celeste Hoitash		
LCS-032312 TCD	ASTM-D2504	LCS	R47182	3/23/2012 1:16:00 PM	Celeste Hoitash		
CRQL 032312 TCD-A	ASTM-D2504	CRQL	R47182	3/23/2012 1:49:00 PM	Celeste Hoitash		
1203608-001B	ASTM-D2504	SAMP	R47182	3/23/2012 2:05:00 PM	Celeste Hoitash		
1203608-002B	ASTM-D2504	SAMP	R47182	3/23/2012 2:20:00 PM	Celeste Hoitash		
1203608-003B	ASTM-D2504	SAMP	R47182	3/23/2012 2:35:00 PM	Celeste Hoitash		
1203608-004B	ASTM-D2504	SAMP	R47182	3/23/2012 2:51:00 PM	Celeste Hoitash		
1203608-005B	ASTM-D2504	SAMP	R47182	3/23/2012 3:06:00 PM	Celeste Hoitash		
1203608-006B	ASTM-D2504	SAMP	R47182	3/23/2012 3:21:00 PM	Celeste Hoitash		
1203608-007B	ASTM-D2504	SAMP	R47182	3/23/2012 3:36:00 PM	Celeste Hoitash		
1203608-007BDUP	ASTM-D2504	DUP	R47182	3/23/2012 3:51:00 PM	Celeste Hoitash		
CCV 032312 TCD-B	ASTM-D2504	CCV	R47182	3/23/2012 4:07:00 PM	Celeste Hoitash		
CRQL 032312 TCD-B	ASTM-D2504	CRQL	R47182	3/23/2012 4:22:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47182

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
922782	MBLK-032312 TCD	ASTM-D2504	MBLK	...TA\032312\0323	3/23/2012 12:39:	1	R47182		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
922783	CCV 032312 TCD-A	ASTM-D2504	CCV	...TA\032312\0323	3/23/2012 12:59:	1	R47182		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.638	2.638		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Carbon Monoxide	A	%	2.674	2.674		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	%	2.094	2.094		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	%	2.778	2.778		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Oxygen	A	%	2.495	2.495		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
922784	LCS-032312 TCD	ASTM-D2504	LCS	...TA\032312\0323	3/23/2012 1:16:0	1	R47182		0	922783	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.668	2.668		2.5	0	2.638	0.025	0.1	0	107%	70	130	1%	
Carbon Monoxide	A	%	2.693	2.693		2.5	0	2.674	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
922792	1203608-007B (Container-01 of 01)	ASTM-D2504	SAMP	...TA\032312\0323	3/23/2012 3:36:0	1	R47182		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.744	2.744		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	%	77.969	77.969		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	17.266	17.266		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
922793	1203608-007BDUP	ASTM-D2504	DUP	...TA\032312\0323	3/23/2012 3:51:0	1	R47182		0	922792	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.803	2.803		0	0	2.744	0.025	0.1	0	0%	0	0	2%	
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	%	78.011	78.011		0	0	77.969	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	17.276	17.276		0	0	17.266	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
922794	CCV 032312 TCD-B	ASTM-D2504	CCV	...TA\032312\0323	3/23/2012 4:07:0	1	R47182		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.618	2.618		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Carbon Monoxide	A	%	2.678	2.678		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	%	2.086	2.086		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.696	2.696		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%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\032312\03231202.D Vial: 1
Acq On : 23 Mar 2012 12:59 pm Operator:
Sample : CCV 032312 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 : 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	2.495	0.2	0	0.05
2	Nitrogen	2.500	2.778	-11.1	0	0.03
3	Carbon Monoxide	2.500	2.674	-7.0	0	0.00
4	Methane	2.000	2.094	-4.7	0	0.02
5	Carbon dioxide	2.500	2.638	-5.5	0	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032312\03231202.D Vial: 1
Acq On : 23 Mar 2012 12:59 pm Operator:
Sample : CCV 032312 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 23 13:19 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

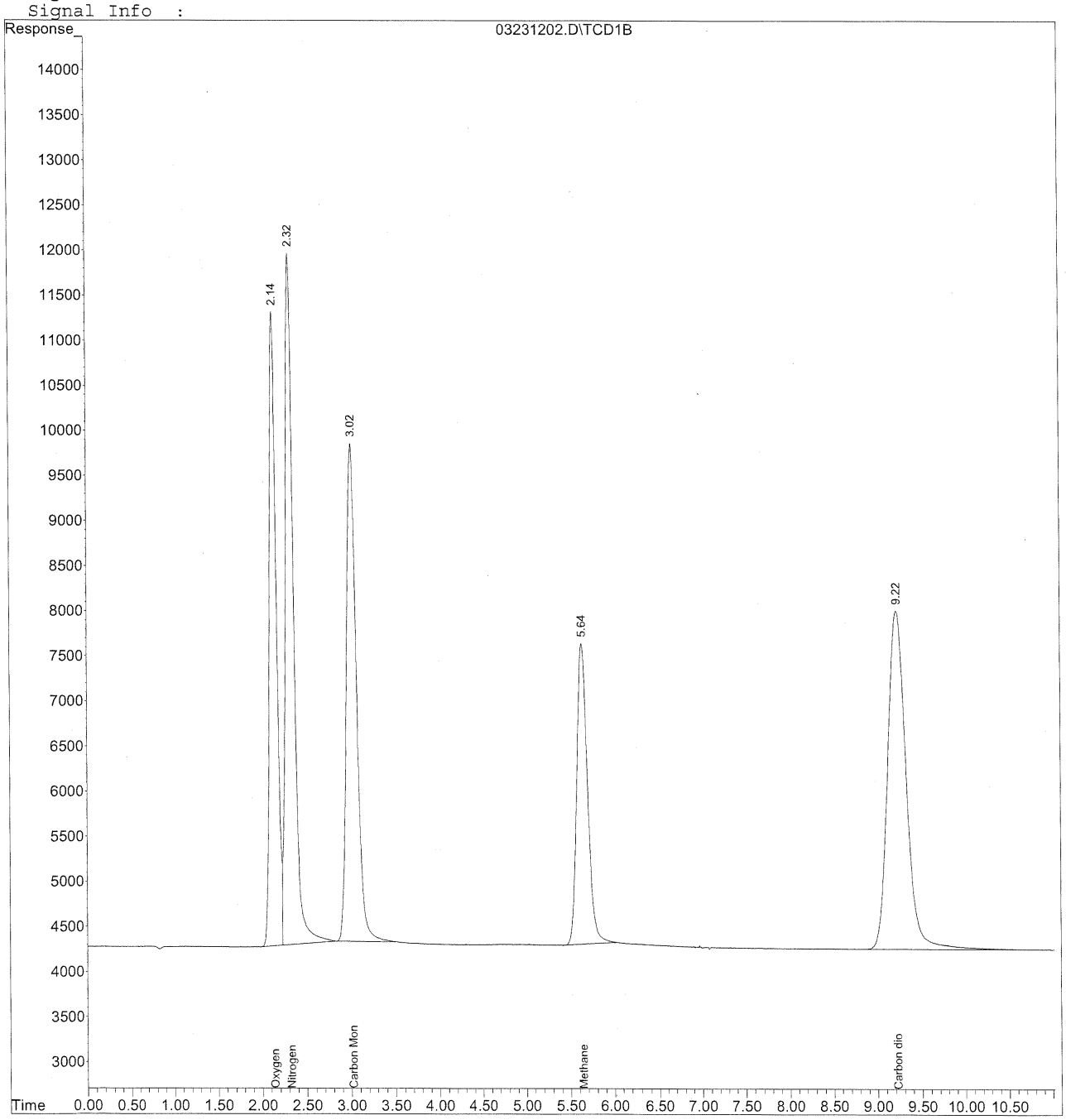
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	386531	2.495 %
2)	Nitrogen	2.33	487603	2.778 %
3)	Carbon Monoxide	3.02	431026	2.674 %
4)	Methane	5.64	282770	2.094 %
5)	Carbon dioxide	9.22	541754	2.638 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032312\03231202.D Vial: 1
Acq On : 23 Mar 2012 12:59 pm Operator:
Sample : CCV 032312 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 23 13:19 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\032312\03231213.D Vial: 1
Acq On : 23 Mar 2012 4:07 pm Operator:
Sample : CCV 032312 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 : 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	2.473	1.1	0	0.04
2	Nitrogen	2.500	2.696	-7.8	0	0.02
3	Carbon Monoxide	2.500	2.678	-7.1	0	0.00
4	Methane	2.000	2.086	-4.3	0	0.01
5	Carbon dioxide	2.500	2.618	-4.7	0	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03231213.D 122211.M Wed Mar 28 11:27:37 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032312\03231213.D Vial: 1
Acq On : 23 Mar 2012 4:07 pm Operator:
Sample : CCV 032312 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 23 16:18 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

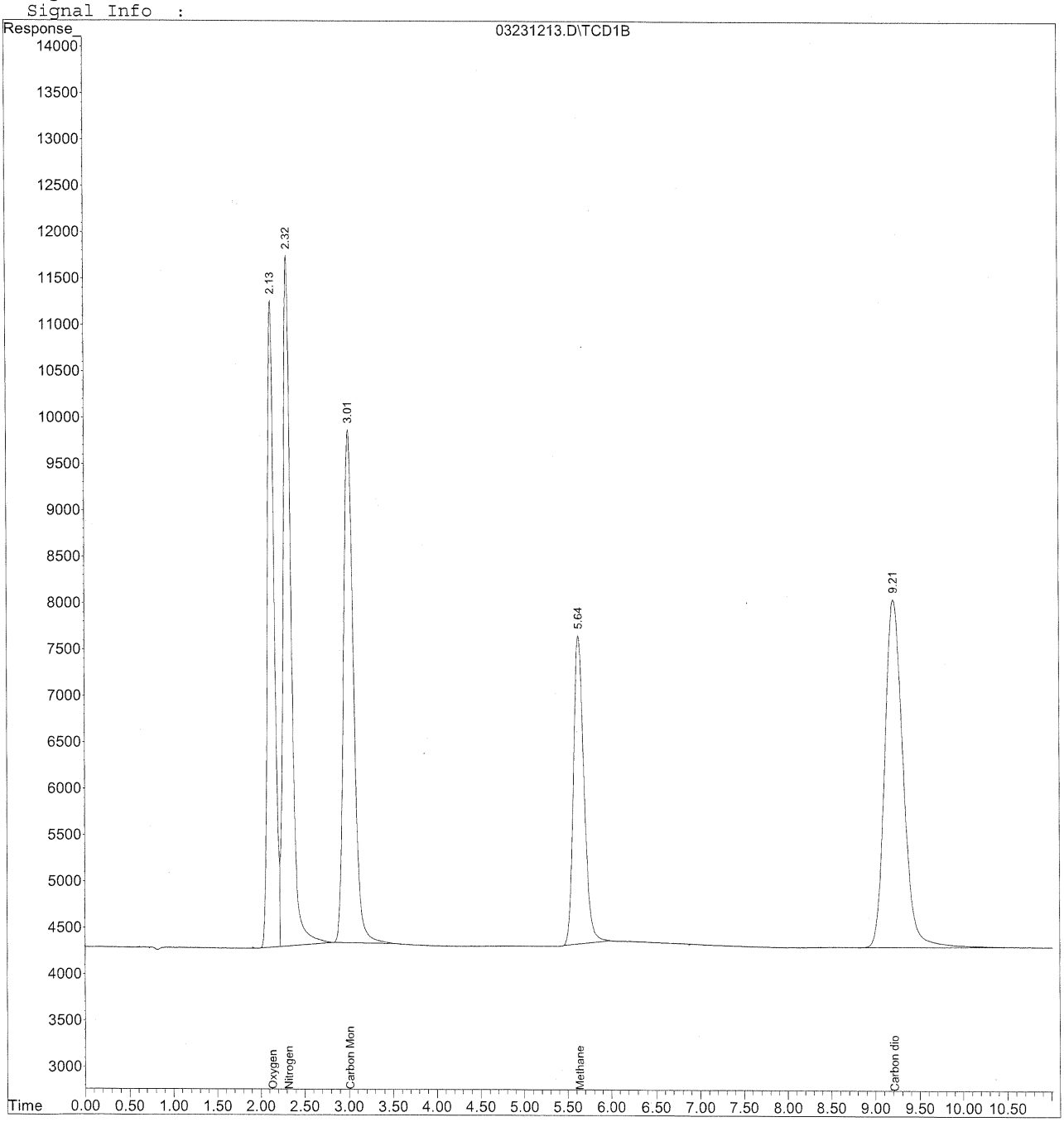
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.13	383179	2.473	%
2)	Nitrogen	2.32	473146	2.696	%
3)	Carbon Monoxide	3.01	431665	2.678	%
4)	Methane	5.64	281779	2.086	%
5)	Carbon dioxide	9.21	537625	2.618	%

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032312\03231213.D Vial: 1
Acq On : 23 Mar 2012 4:07 pm Operator:
Sample : CCV 032312 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 23 16:18 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_120326A **Run No.:** 47159

Analytical Run Date: 3/26/2012 **InstrumentID:** GC-TCD 1

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

Calibration ID: 45325 **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

Run Comments: PR 3-28-12 MSB rswl32812

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
MBLK-032612 TCD	ASTM-D2504	MBLK	R47159	3/26/2012 11:00:00 AM	Robert Lynch		
CCV 032612 TCD-A	ASTM-D2504	CCV	R47159	3/26/2012 11:41:00 AM	Robert Lynch		
LCS-032612 TCD	ASTM-D2504	LCS	R47159	3/26/2012 12:10:00 PM	Robert Lynch		
CRQL 032612 TCD-A	ASTM-D2504	CRQL	R47159	3/26/2012 12:29:00 PM	Robert Lynch		
1203608-009B	ASTM-D2504	SAMP	R47159	3/26/2012 1:22:00 PM	Robert Lynch		
1203608-010B	ASTM-D2504	SAMP	R47159	3/26/2012 1:46:00 PM	Robert Lynch		
1203608-011B	ASTM-D2504	SAMP	R47159	3/26/2012 2:43:00 PM	Robert Lynch		
1203608-012B	ASTM-D2504	SAMP	R47159	3/26/2012 3:24:00 PM	Robert Lynch		
1203608-013B	ASTM-D2504	SAMP	R47159	3/26/2012 3:50:00 PM	Robert Lynch		
1203608-014B	ASTM-D2504	SAMP	R47159	3/26/2012 4:08:00 PM	Robert Lynch		
1203608-015B	ASTM-D2504	SAMP	R47159	3/26/2012 4:29:00 PM	Robert Lynch		
1203608-016B	ASTM-D2504	SAMP	R47159	3/26/2012 4:47:00 PM	Robert Lynch		
1203608-017B	ASTM-D2504	SAMP	R47159	3/26/2012 5:05:00 PM	Robert Lynch		
1203608-018B	ASTM-D2504	SAMP	R47159	3/26/2012 5:23:00 PM	Robert Lynch		
1203608-018BDUP	ASTM-D2504	DUP	R47159	3/26/2012 5:50:00 PM	Robert Lynch		
CCV 032612 TCD-B	ASTM-D2504	CCV	R47159	3/26/2012 6:49:00 PM	Robert Lynch		
CRQL 032612 TCD-B	ASTM-D2504	CRQL	R47159	3/26/2012 7:21:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47159

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
922431	MBLK-032612 TCD	ASTM-D2504	MBLK	‹TA\032612\0326	3/26/2012 11:00:	1	R47159		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
922432	CCV 032612 TCD-A	ASTM-D2504	CCV	‹TA\032612\0326	3/26/2012 11:41:	1	R47159		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.654	2.654		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Carbon Monoxide	A	%	2.722	2.722		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	%	2.126	2.126		2	0	0	0.025	0.5	0	106%	85	115	0%	
Nitrogen	A	%	2.679	2.679		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	%	2.497	2.497		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
922433	LCS-032612 TCD	ASTM-D2504	LCS	‹TA\032612\0326	3/26/2012 12:10:	1	R47159		0	922432	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.664	2.664		2.5	0	2.654	0.025	0.1	0	107%	70	130	0%	
Carbon Monoxide	A	%	2.729	2.729		2.5	0	2.722	0.025	0.1	0	109%	70	130	0%	
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
922446	CCV 032612 TCD-B	ASTM-D2504	CCV	\TA\032612\0326	3/26/2012 6:49:0	1	R47159		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.682	2.682		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Carbon Monoxide	A	%	2.777	2.777		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	%	2.137	2.137		2	0	0	0.025	0.5	0	107%	85	115	0%	
Nitrogen	A	%	2.767	2.767		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Oxygen	A	%	2.538	2.538		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
922447	CRQL 032612 TCD-B	ASTM-D2504	CRQL	\TA\032612\0326	3/26/2012 7:21:0	1	R47159		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.338	0.338		0.3	0	0	0.025	0.1	0	113%	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	%	0.094	0.094		0.09	0	0	0.025	0.5	0	104%	80	120	0%	
Nitrogen	A	%	1.459	1.459		1.39	0	0	0.025	0.1	0	105%	80	120	0%	
Oxygen	A	%	0.081	0.081		0.08	0	0	0.025	0.1	0	101%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\032612\03261202.D Vial: 1
Acq On : 26 Mar 2012 11:41 am Operator:
Sample : CCV 032612 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 : 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	2.497	0.1	0	0.05
2	Nitrogen	2.500	2.679	-7.2	0	0.03
3	Carbon Monoxide	2.500	2.722	-8.9	0	0.00
4	Methane	2.000	2.126	-6.3	0	0.03
5	Carbon dioxide	2.500	2.654	-6.2	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03261202.D 122211.M Tue Mar 27 13:02:51 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032612\03261202.D Vial: 1
Acq On : 26 Mar 2012 11:41 am Operator:
Sample : CCV 032612 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 26 12:26 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

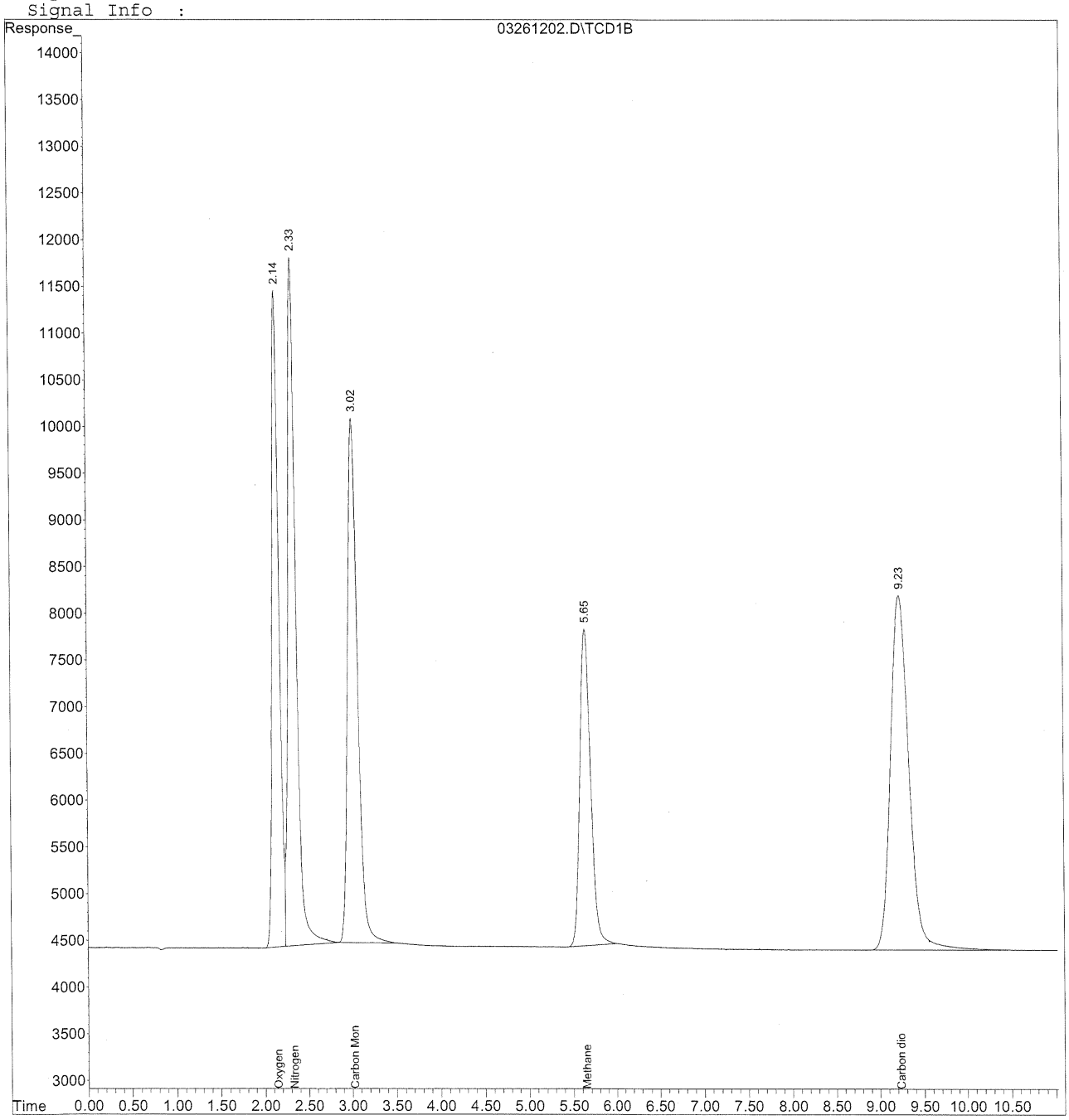
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	386816	2.497 %
2)	Nitrogen	2.33	470168	2.679 %
3)	Carbon Monoxide	3.03	438777	2.722 %
4)	Methane	5.65	287073	2.126 %
5)	Carbon dioxide	9.23	545000	2.654 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032612\03261202.D Vial: 1
Acq On : 26 Mar 2012 11:41 am Operator:
Sample : CCV 032612 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 26 12:26 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\032612\03261216.D Vial: 1
Acq On : 26 Mar 2012 6:49 pm Operator:
Sample : CCV 032612 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 : 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	2.538	-1.5	0	0.05
2	Nitrogen	2.500	2.767	-10.7	0	0.03
3	Carbon Monoxide	2.500	2.777	-11.1	0	0.00
4	Methane	2.000	2.137	-6.9	0	0.03
5	Carbon dioxide	2.500	2.682	-7.3	0	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03261216.D 122211.M Tue Mar 27 13:02:56 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032612\03261216.D Vial: 1
Acq On : 26 Mar 2012 6:49 pm Operator:
Sample : CCV 032612 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 26 19:20 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

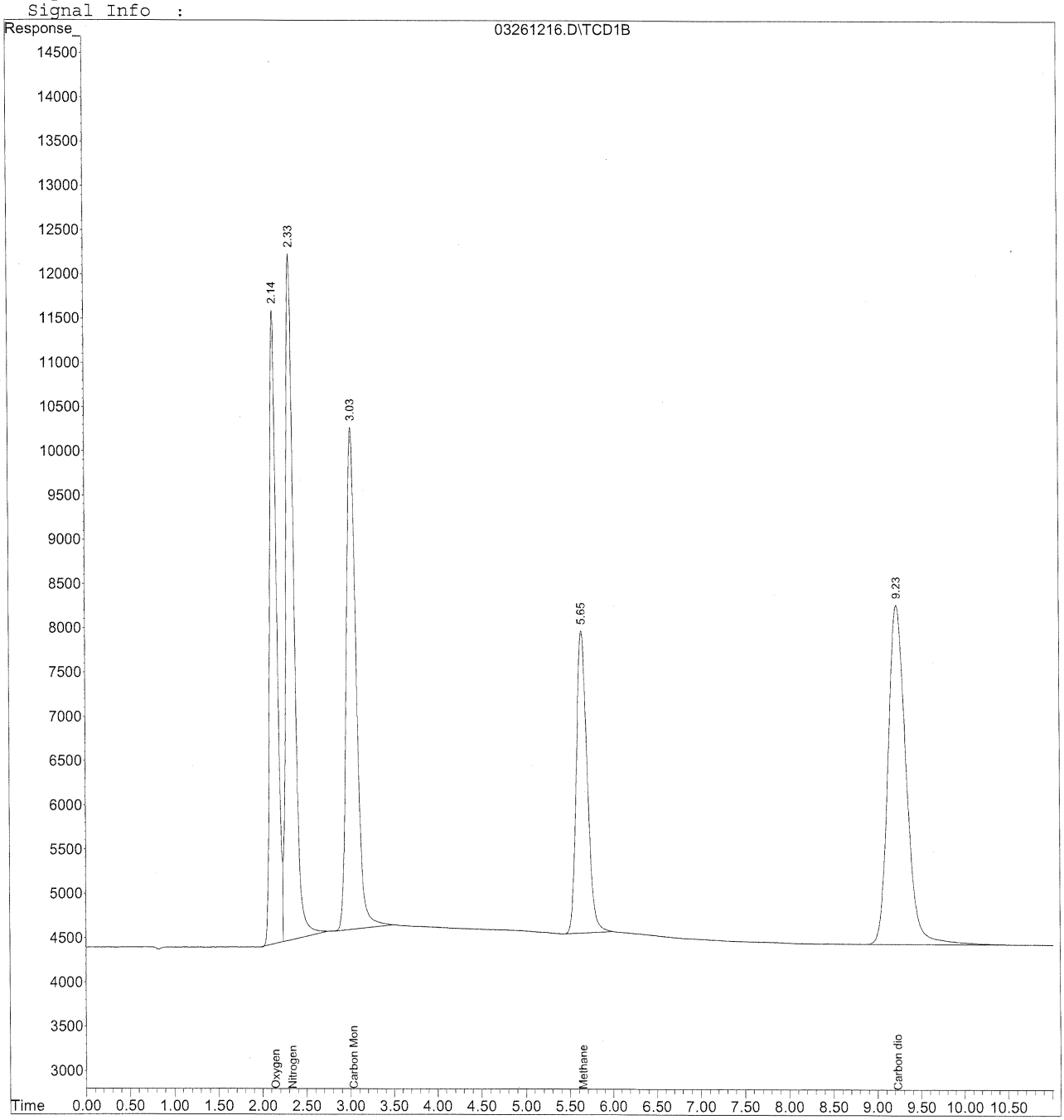
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	393167	2.538 %
2)	Nitrogen	2.33	485617	2.767 %
3)	Carbon Monoxide	3.03	447616	2.777 %
4)	Methane	5.65	288654	2.137 %
5)	Carbon dioxide	9.23	550777	2.682 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032612\03261216.D Vial: 1
Acq On : 26 Mar 2012 6:49 pm Operator:
Sample : CCV 032612 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 26 19:20 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_120327A **Run No.:** 47216

Analytical Run Date: 3/27/2012 **InstrumentID:** GC-TCD 1

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

Calibration ID: 45325 **Column ID:** 100/120mesh x 1mm ID

Column Length: 2m

Run Comments: PR 4-2-12 MSB 040212rsl

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
MBLK-032712 TCD	ASTM-D2504	MBLK	R47216	3/27/2012 9:32:00 AM	Robert Lynch		
CCV 032712 TCD-A	ASTM-D2504	CCV	R47216	3/27/2012 9:48:00 AM	Robert Lynch		
LCS-032712 TCD	ASTM-D2504	LCS	R47216	3/27/2012 10:05:00 AM	Robert Lynch		
CRQL 032712 TCD-A	ASTM-D2504	CRQL	R47216	3/27/2012 10:39:00 AM	Robert Lynch		
1203608-008B	ASTM-D2504	SAMP	R47216	3/27/2012 10:57:00 AM	Robert Lynch		
1203608-019B	ASTM-D2504	SAMP	R47216	3/27/2012 11:13:00 AM	Robert Lynch		
1203608-020B	ASTM-D2504	SAMP	R47216	3/27/2012 11:29:00 AM	Robert Lynch		
1203608-021B	ASTM-D2504	SAMP	R47216	3/27/2012 11:47:00 AM	Robert Lynch		
1203608-022B	ASTM-D2504	SAMP	R47216	3/27/2012 12:08:00 PM	Robert Lynch		
1203608-023B	ASTM-D2504	SAMP	R47216	3/27/2012 12:26:00 PM	Robert Lynch		
1203608-024B	ASTM-D2504	SAMP	R47216	3/27/2012 12:41:00 PM	Robert Lynch		
1203608-025B	ASTM-D2504	SAMP	R47216	3/27/2012 1:05:00 PM	Robert Lynch		
1203608-026B	ASTM-D2504	SAMP	R47216	3/27/2012 1:20:00 PM	Robert Lynch		
1203608-027B	ASTM-D2504	SAMP	R47216	3/27/2012 1:37:00 PM	Robert Lynch		
1203608-027BDUP	ASTM-D2504	DUP	R47216	3/27/2012 1:52:00 PM	Robert Lynch		
CCV 032712 TCD-B	ASTM-D2504	CCV	R47216	3/27/2012 2:07:00 PM	Robert Lynch		
1203608-028B	ASTM-D2504	SAMP	R47216	3/27/2012 2:22:00 PM	Robert Lynch		
1203608-029B	ASTM-D2504	SAMP	R47216	3/27/2012 2:37:00 PM	Robert Lynch		
1203732-001B	ASTM-D2504	SAMP	R47216	3/27/2012 2:52:00 PM	Robert Lynch		
1203732-002B	ASTM-D2504	SAMP	R47216	3/27/2012 3:09:00 PM	Robert Lynch		
1203732-003B	ASTM-D2504	SAMP	R47216	3/27/2012 3:25:00 PM	Robert Lynch		
1203732-004B	ASTM-D2504	SAMP	R47216	3/27/2012 3:40:00 PM	Robert Lynch		
1203732-005B	ASTM-D2504	SAMP	R47216	3/27/2012 3:55:00 PM	Robert Lynch		
1203732-006B	ASTM-D2504	SAMP	R47216	3/27/2012 4:11:00 PM	Robert Lynch		
1203732-007B	ASTM-D2504	SAMP	R47216	3/27/2012 4:26:00 PM	Robert Lynch		
CCV 032712 TCD-C	ASTM-D2504	CCV	R47216	3/27/2012 4:42:00 PM	Robert Lynch		
CRQL 032712 TCD-C	ASTM-D2504	CRQL	R47216	3/27/2012 5:01:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

06-Apr-12

RunNo 47216

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
924523	MBLK-032712 TCD	ASTM-D2504	MBLK	..TA\032712\0327	3/27/2012 9:32:0	1	R47216		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
923269	CCV 032712 TCD-A	ASTM-D2504	CCV	..TA\032712\0327	3/27/2012 9:48:0	1	R47216		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.657	2.657		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Carbon Monoxide	A	%	2.733	2.733		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	%	2.11	2.11		2	0	0	0.025	0.5	0	106%	85	115	0%	
Nitrogen	A	%	2.776	2.776		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Oxygen	A	%	2.509	2.509		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
923270	LCS-032712 TCD	ASTM-D2504	LCS	..TA\032712\0327	3/27/2012 10:05:	1	R47216		0	923269	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.667	2.667		2.5	0	0	0.025	0.1	0	107%	70	130	0%	
Carbon Monoxide	A	%	2.74	2.74		2.5	0	0	0.025	0.1	0	110%	70	130	0%	
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
923283	CCV 032712 TCD-B	ASTM-D2504	CCV	...TA\032712\0327	3/27/2012 2:07:0	1	R47216		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.651	2.651		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Carbon Monoxide	A	%	2.732	2.732		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	%	2.108	2.108		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	%	2.666	2.666		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	%	2.48	2.48		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
923284	1203608-028B (Container-01 of 01)	ASTM-D2504	SAMP	...TA\032712\0327	3/27/2012 2:22:0	1	R47216		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.054	0.054		0	0	0	0.025	0.1	0	0%	0	0	0%	J
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	%	78.512	78.512		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	21.016	21.016		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
923285	1203608-029B (Container-01 of 01)	ASTM-D2504	SAMP	...TA\032712\0327	3/27/2012 2:37:0	1	R47216		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.13	0.13		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	%	78.483	78.483		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
923293	CCV 032712 TCD-C	ASTM-D2504	CCV	\TA\032712\0327	3/27/2012 4:42:0	1	R47216		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.673	2.673		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Carbon Monoxide	A	%	2.723	2.723		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	%	2.099	2.099		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	%	2.651	2.651		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	%	2.469	2.469		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
923294	CRQL 032712 TCD-C	ASTM-D2504	CRQL	\TA\032712\0327	3/27/2012 5:01:0	1	R47216		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.307	0.307		0.3	0	0	0.025	0.1	0	102%	80	120	0%	
Carbon Monoxide	A	%	0.144	0.144		0.14	0	0	0.025	0.1	0	103%	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	%	0.092	0.092		0.09	0	0	0.025	0.5	0	102%	80	120	0%	
Nitrogen	A	%	1.453	1.453		1.39	0	0	0.025	0.1	0	105%	80	120	0%	
Oxygen	A	%	0.088	0.088		0.08	0	0	0.025	0.1	0	110%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\032712\03271202.D Vial: 1
Acq On : 27 Mar 2012 9:48 am Operator:
Sample : CCV 032712 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 : 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	2.509	-0.4	0	0.06
2	Nitrogen	2.500	2.776	-11.0	0	0.04
3	Carbon Monoxide	2.500	2.733	-9.3	0	0.01
4	Methane	2.000	2.110	-5.5	0	0.03
5	Carbon dioxide	2.500	2.657	-6.3	0	0.02

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032712\03271202.D Vial: 1
Acq On : 27 Mar 2012 9:48 am Operator:
Sample : CCV 032712 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 9:27 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

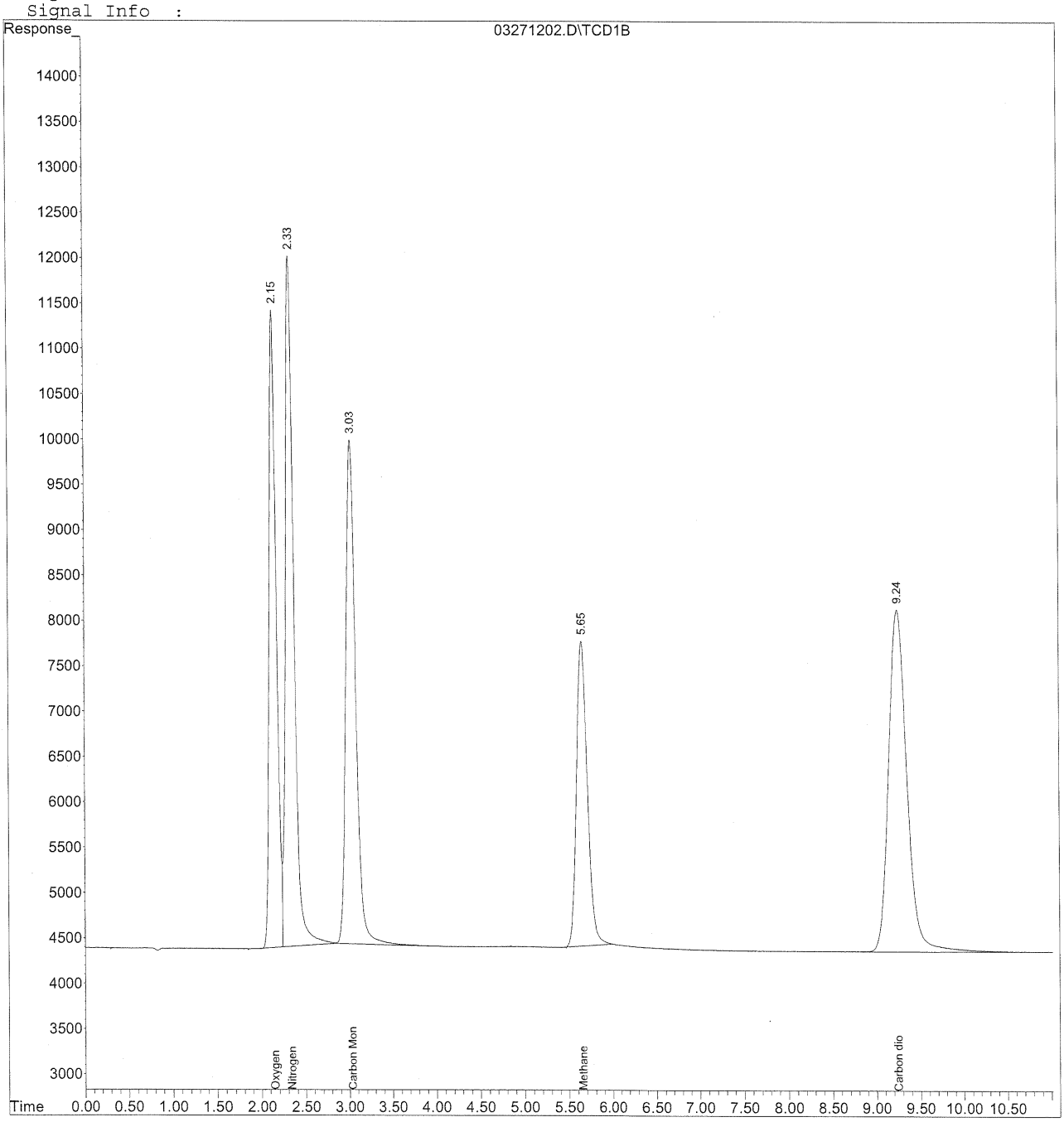
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	388748	2.509 %
2)	Nitrogen	2.34	487230	2.776 %
3)	Carbon Monoxide	3.03	440495	2.733 %
4)	Methane	5.66	284910	2.110 %
5)	Carbon dioxide	9.25	545727	2.657 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032712\03271202.D Vial: 1
Acq On : 27 Mar 2012 9:48 am Operator:
Sample : CCV 032712 TCD-A Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 29 9:27 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\032712\03271216.D Vial: 1
Acq On : 27 Mar 2012 2:07 pm Operator:
Sample : CCV 032712 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 : 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	2.480	0.8	0	0.05
2	Nitrogen	2.500	2.666	-6.6	0	0.03
3	Carbon Monoxide	2.500	2.732	-9.3	0	0.00
4	Methane	2.000	2.108	-5.4	0	0.03
5	Carbon dioxide	2.500	2.651	-6.0	0	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03271216.D 122211.M Thu Mar 29 10:18:48 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032712\03271216.D Vial: 1
Acq On : 27 Mar 2012 2:07 pm Operator:
Sample : CCV 032712 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 9:33 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

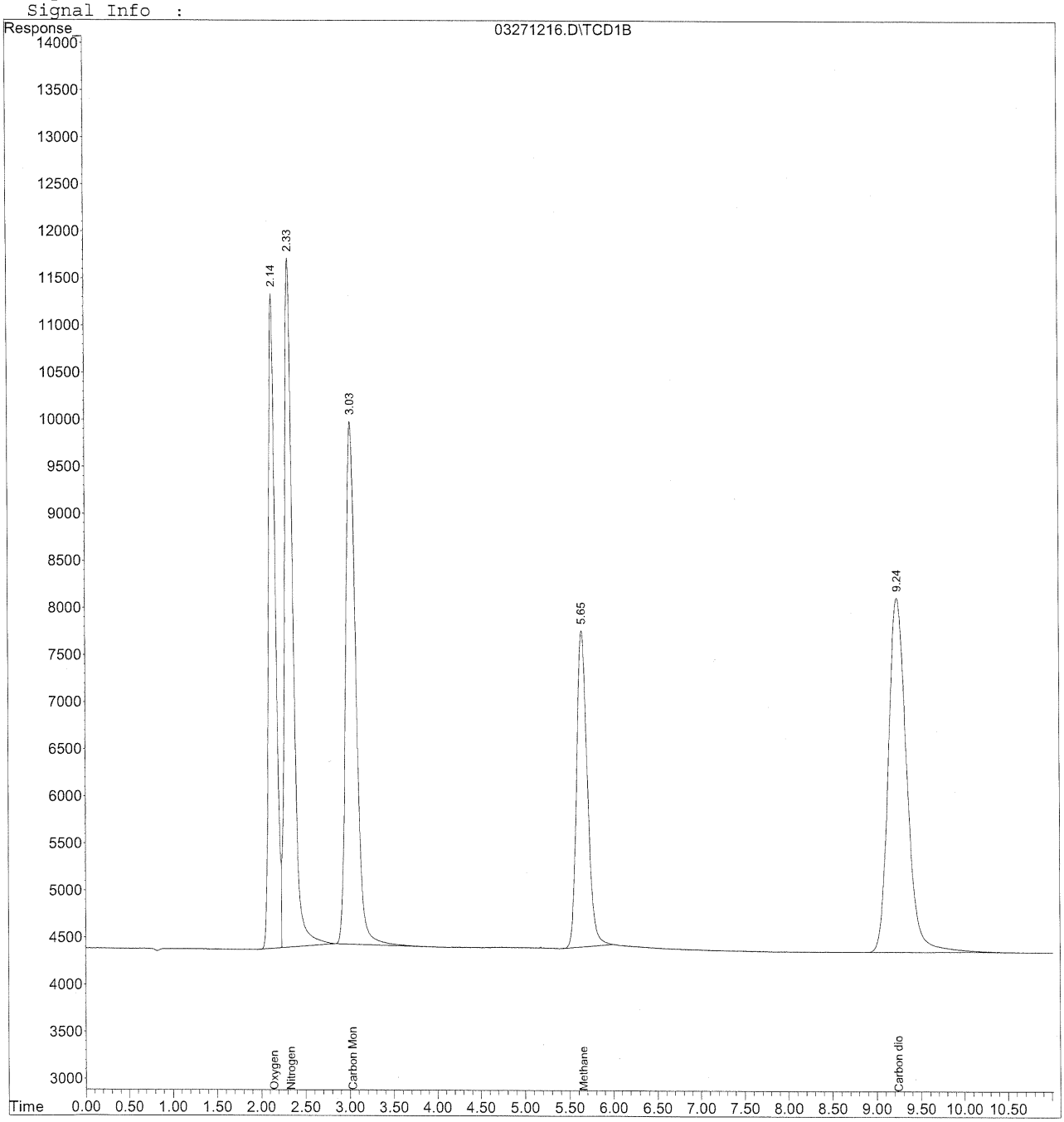
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	384123	2.480 %
2)	Nitrogen	2.33	467982	2.666 %
3)	Carbon Monoxide	3.03	440370	2.732 %
4)	Methane	5.65	284728	2.108 %
5)	Carbon dioxide	9.24	544475	2.651 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032712\03271216.D Vial: 1
Acq On : 27 Mar 2012 2:07 pm Operator:
Sample : CCV 032712 TCD-B Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 29 9:33 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\032712\03271226.D Vial: 1
Acq On : 27 Mar 2012 4:42 pm Operator:
Sample : CCV 032712 TCD-C Inst : GC/TCD
Misc : CCV 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	2.469	1.2	0	0.05
2	Nitrogen	2.500	2.651	-6.0	0	0.03
3	Carbon Monoxide	2.500	2.723	-8.9	0	0.00
4	Methane	2.000	2.099	-5.0	0	0.03
5	Carbon dioxide	2.500	2.673	-6.9	0	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032712\03271226.D Vial: 1
Acq On : 27 Mar 2012 4:42 pm Operator:
Sample : CCV 032712 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 9:39 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

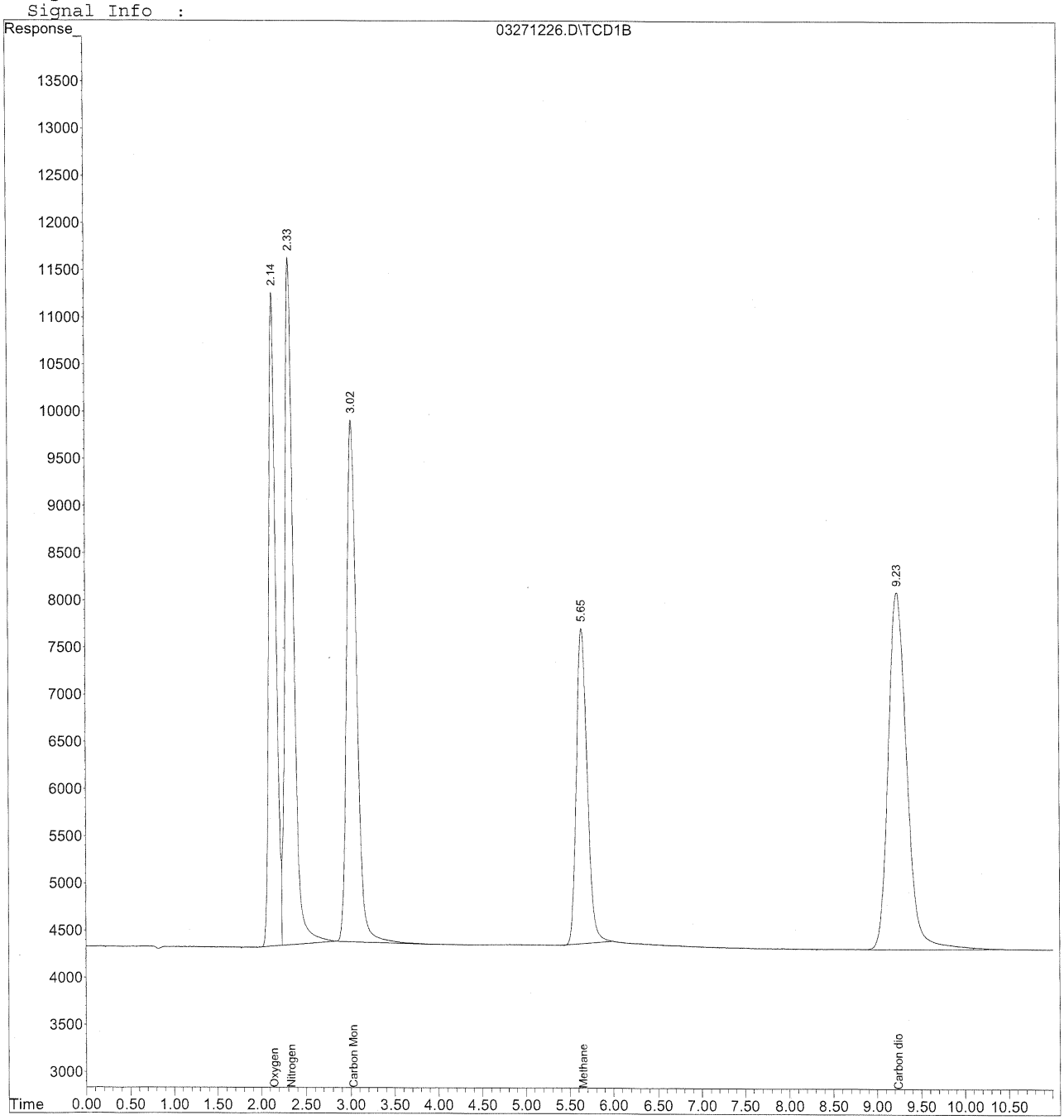
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	382468	2.469 %
2)	Nitrogen	2.33	465283	2.651 %
3)	Carbon Monoxide	3.03	438859	2.723 %
4)	Methane	5.65	283528	2.099 %
5)	Carbon dioxide	9.24	548882	2.673 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\032712\03271226.D Vial: 1
Acq On : 27 Mar 2012 4:42 pm Operator:
Sample : CCV 032712 TCD-C Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Mar 29 9:39 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 23 19:11:07 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

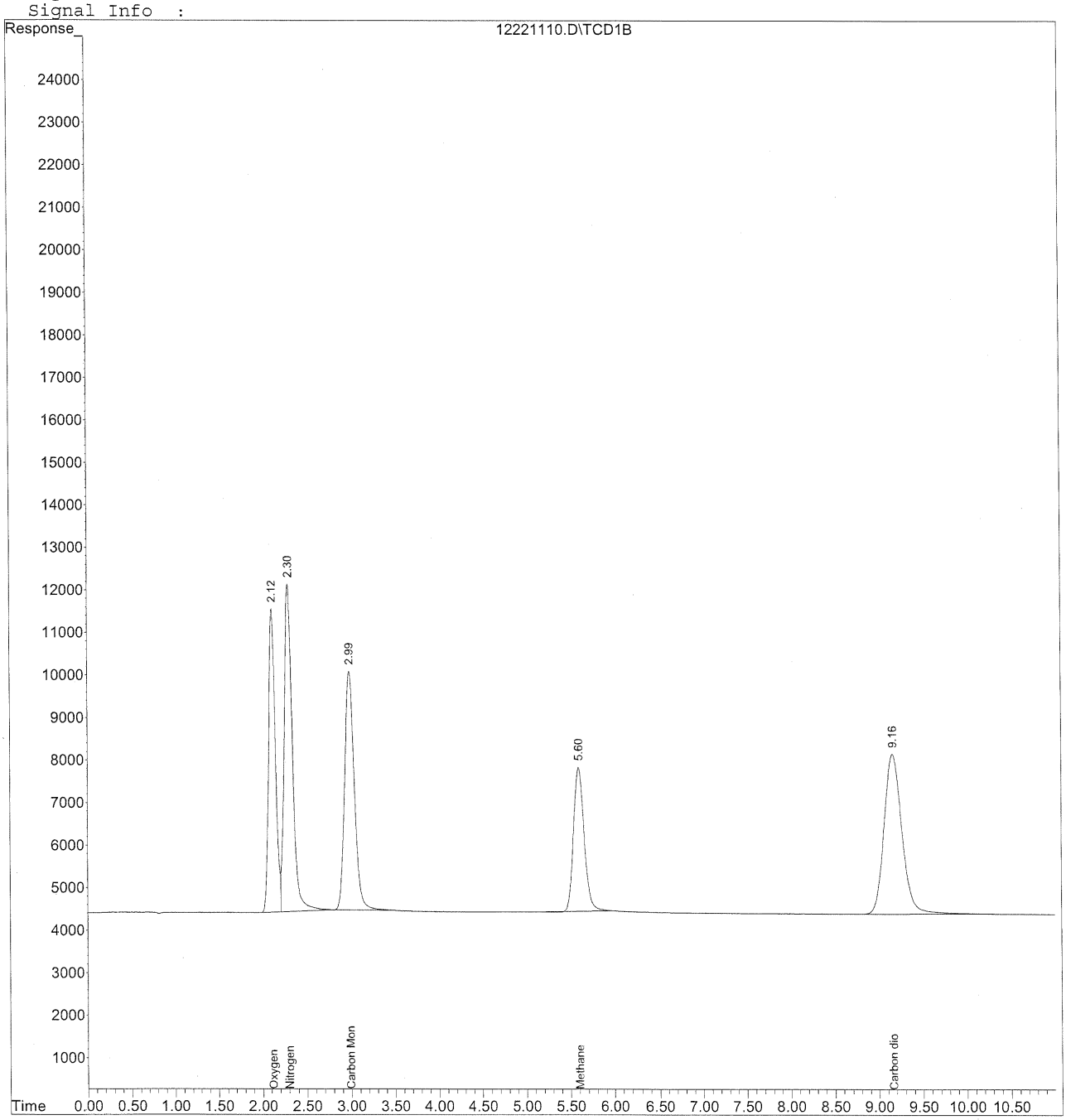
Volume Inj. :
Signal Phase :
Signal Info :

	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 :